Date: _____

9626 Niagara Falls Blvd Onsite Gamma Spec Screening Lab

Gamma Spectroscopy Detector work sheet.

Counted by (Initial,date)	Geometry Description	SMP Analysis Number/Sample ID/Remarks	Sample Collection mmddyy hh:mm	Sample Quantity	Sample Units (GWET,GDRY,L, ft^3, etc)	Count Time (s)	Report Matches Sample Parameters (Initial, date)
CC/101316	450 cc SOIL	N002-A05-S011-0006-1	10-12-16 1623	969.8	gwet	7200	Actual Quantity 920.8
CC/101316	450 cc SOIL	N002-A05-S011-0612-1	10-12-16 1623	619.1	gwet	7200	570.1
CC/101316	450 cc SOIL	N002-A05-S011-1218-1	10-12-16 1623	674.8	gwet	7200	625.8
CC/101316	450 cc SOIL	N002-A05-S011-1824-1	10-12-16 1623	603.3	gwet	7200	554.2
CC/101416	450 cc SOIL	N002-A05-S001-0006-1	10-12-16 1445	687.8	gwet	7200	~~576.3~~ 638.8
CC/101416	450 cc SOIL	Asphalt 0006 #1	10-14-16 1250	760.7	gwet	7200	711.7
CC/101416	450 cc SOIL	Area 7-0006	10-14-16 1400	890.4	gwet	7200	841.3
CC/101416	450 cc SOIL	N002-A05-S005-0006-1	10-12-16 1526	625.3	gwet	7200	576.3 *
CC/101516	450 cc SOIL	Asphalt-0006 #2	10-14-16 1250	930.7	gwet	7200	881.7
CC/101516	450 cc SOIL	Asphalt-06-12	10-14-16 1250	1061.8	gwet	7200	1012.9

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

Filename: C:\GENIE2K\CAMFILES\SMP-ASPHALT-06-12.CNF,C:\GENIE2K\CAMFILES

Report Generated On	: 10/19/2016 4:44:35 PM
Sample Title	: ASPHALT-06-12
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	: 1.013E+003 GWET
Sample Taken On	: 10/14/2016 12:50:00 PM
Acquisition Started	: 10/15/2016 11:51:06 AM
Live Time	: 7200.0 seconds
Real Time	: 7252.9 seconds
Dead Time	: 0.73 %

Energy Calibration Used Done On	: 10/12/2016
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: ASPHALT-06-12
Peak Analysis Performed on: 10/19/2016 4:44:35 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	240-	265	253.98	63.54	0.90	1.05E+003	79.61	2.06E+004
m	2	240-	265	260.96	65.29	0.90	1.15E+002	58.14	1.97E+004
M	3	285-	315	299.77	75.00	1.02	1.67E+004	184.90	2.62E+004
m	4	285-	315	308.86	77.27	1.03	2.66E+004	216.78	2.82E+004
M	5	321-	384	324.84	81.27	1.29	4.12E+002	134.02	2.38E+004
m	6	321-	384	337.64	84.47	1.30	4.79E+003	152.97	3.35E+004
m	7	321-	384	349.27	87.38	1.30	1.47E+004	189.49	3.31E+004
m	8	321-	384	360.14	90.10	1.30	1.20E+004	179.76	3.08E+004
m	9	321-	384	373.17	93.36	1.31	1.49E+004	191.13	3.23E+004
	10	386-	404	398.58	99.72	1.26	2.25E+003	353.91	3.64E+004
M	11	413-	442	421.96	105.57	1.37	4.59E+003	175.79	3.48E+004
m	12	413-	442	435.57	108.97	1.38	1.79E+003	148.79	3.12E+004
	13	457-	470	461.49	115.46	1.04	1.23E+003	278.19	2.76E+004
M	14	512-	533	516.56	129.23	0.98	6.69E+003	166.20	2.31E+004
m	15	512-	533	527.01	131.85	0.98	5.53E+002	122.41	2.49E+004
M	16	560-	589	563.82	141.06	1.02	2.61E+002	118.17	2.01E+004
m	17	560-	589	575.59	144.00	1.02	1.19E+003	138.18	2.58E+004
m	18	560-	589	583.91	146.08	1.02	5.77E+002	123.36	2.56E+004
	19	611-	632	616.25	154.17	1.07	2.69E+003	398.37	4.15E+004
M	20	645-	670	653.25	163.43	0.62	4.44E+002	99.75	1.43E+004
m	21	645-	670	665.20	166.42	0.63	4.01E+002	99.75	1.41E+004
	22	737-	751	743.88	186.10	1.24	8.65E+003	286.86	2.55E+004
	23	787-	802	797.58	199.54	0.59	7.88E+002	278.39	2.55E+004
	24	829-	853	836.85	209.36	1.08	1.26E+004	410.74	3.75E+004
	25	856-	877	863.50	216.03	1.15	1.24E+003	344.09	3.12E+004
M	26	946-	974	954.12	238.70	1.11	1.49E+005	405.62	1.74E+004
m	27	946-	974	964.65	241.34	1.11	1.79E+004	163.36	1.49E+004
	28	1004-	1019	1009.38	252.53	1.16	5.77E+002	211.17	1.46E+004
	29	1031-	1044	1035.21	258.99	0.84	3.59E+002	185.30	1.23E+004
	30	1072-	1091	1080.31	270.27	1.25	1.06E+004	264.48	1.68E+004
	31	1101-	1121	1108.77	277.39	1.09	5.56E+003	262.82	1.74E+004
	32	1146-	1161	1151.77	288.15	1.09	9.05E+002	193.74	1.22E+004
	33	1173-	1189	1180.13	295.24	1.14	1.98E+004	241.81	1.23E+004
	34	1189-	1207	1199.79	300.16	1.14	8.96E+003	236.23	1.39E+004
M	35	1299-	1341	1311.03	327.99	1.17	7.80E+003	125.93	9.63E+003
m	36	1299-	1341	1328.92	332.47	1.17	8.99E+002	78.92	9.39E+003
M	37	1341-	1372	1352.30	338.32	1.18	3.12E+004	197.64	8.79E+003
m	38	1341-	1372	1362.73	340.92	1.18	9.79E+002	76.69	8.43E+003
	39	1398-	1420	1406.70	351.92	1.19	3.48E+004	286.94	1.20E+004
	40	1551-	1560	1554.88	388.99	1.14	1.82E+002	105.58	4.84E+003
	41	1602-	1612	1606.37	401.88	0.97	2.79E+002	112.91	5.22E+003
	42	1628-	1645	1636.48	409.41	1.14	4.33E+003	173.83	7.95E+003

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	43	1756-	1768	1760.88	440.53	0.35	8.59E+001	114.36	4.93E+003
	44	1801-	1824	1809.93	452.80	0.99	6.24E+002	189.78	8.83E+003
	45	1842-	1860	1850.44	462.93	1.29	8.92E+003	178.21	6.72E+003
	46	1941-	1959	1946.92	487.07	0.63	1.94E+002	144.06	6.08E+003
	47	2005-	2020	2013.12	503.63	0.82	3.66E+002	124.26	5.01E+003
	48	2025-	2058	2041.22	510.66	1.38	1.75E+004	271.67	1.07E+004
	49	2127-	2138	2133.79	533.82	0.73	1.86E+002	95.23	3.54E+003
M	50	2177-	2204	2184.39	546.48	1.37	3.98E+002	61.59	4.48E+003
m	51	2177-	2204	2197.19	549.68	1.37	3.32E+002	59.39	4.72E+003
	52	2240-	2258	2247.69	562.32	1.20	1.40E+003	140.94	5.45E+003
	53	2278-	2293	2286.94	572.14	1.37	5.00E+002	119.97	4.62E+003
	54	2323-	2346	2330.65	583.07	1.35	5.27E+004	285.61	6.78E+003
	55	2424-	2445	2435.12	609.21	1.37	2.74E+004	218.12	5.39E+003
	56	2650-	2675	2659.46	665.33	1.28	8.36E+002	162.14	5.97E+003
	57	2803-	2818	2808.98	702.74	0.57	4.23E+002	107.93	3.73E+003
	58	2870-	2881	2875.16	719.29	0.42	1.74E+002	78.64	2.39E+003
	59	2896-	2917	2906.65	727.17	1.46	1.18E+004	166.15	4.21E+003
	60	3009-	3030	3018.52	755.16	1.37	1.54E+003	129.28	4.03E+003
M	61	3037-	3095	3051.05	763.30	1.49	9.09E+002	54.06	3.12E+003
m	62	3037-	3095	3070.73	768.22	1.49	2.49E+003	69.22	3.11E+003
m	63	3037-	3095	3086.39	772.14	1.50	2.12E+003	65.17	2.93E+003
M	64	3114-	3147	3125.60	781.95	1.50	8.58E+002	50.31	2.68E+003
m	65	3114-	3147	3139.86	785.51	1.50	2.21E+003	66.36	2.55E+003
	66	3167-	3187	3177.06	794.82	1.48	6.23E+003	128.36	2.83E+003
	67	3214-	3229	3221.90	806.04	1.32	5.08E+002	81.60	2.05E+003
M	68	3311-	3372	3319.77	830.52	1.54	7.91E+002	47.55	2.29E+003
m	69	3311-	3372	3340.12	835.61	1.55	2.45E+003	64.12	2.32E+003
m	70	3311-	3372	3358.30	840.16	1.55	1.38E+003	53.54	2.12E+003
	71	3424-	3451	3439.41	860.45	1.49	6.72E+003	138.51	2.77E+003
	72	3565-	3579	3570.38	893.22	1.28	4.32E+002	67.93	1.45E+003
	73	3603-	3625	3613.79	904.08	1.25	9.86E+002	97.32	2.19E+003
	74	3625-	3661	3641.92	911.12	1.54	3.81E+004	239.12	3.40E+003
	75	3702-	3711	3706.96	927.39	0.54	1.85E+001	43.05	8.12E+002
	76	3726-	3743	3733.41	934.00	1.47	1.33E+003	76.21	1.37E+003
M	77	3785-	3812	3789.00	947.91	1.60	1.41E+002	30.60	1.03E+003
m	78	3785-	3812	3805.37	952.01	1.60	2.84E+002	37.10	1.25E+003
	79	3822-	3842	3831.37	958.51	1.05	2.72E+002	77.77	1.59E+003
M	80	3842-	3890	3856.08	964.69	1.57	7.16E+003	90.62	1.32E+003
m	81	3842-	3890	3872.95	968.91	1.57	2.26E+004	154.29	1.25E+003
	82	3942-	3957	3950.23	988.25	1.00	1.67E+002	58.94	1.10E+003
	83	3991-	4010	4001.76	1001.14	1.58	5.83E+002	69.38	1.21E+003
	84	4122-	4140	4130.19	1033.27	1.29	2.37E+002	64.19	1.14E+003
	85	4195-	4209	4204.23	1051.79	1.06	3.18E+001	51.70	9.17E+002
	86	4243-	4266	4257.39	1065.09	1.48	4.28E+002	75.95	1.33E+003
	87	4300-	4322	4311.45	1078.61	1.60	7.00E+002	75.60	1.29E+003
	88	4360-	4382	4372.80	1093.96	1.64	5.66E+002	76.04	1.35E+003
	89	4429-	4449	4439.16	1110.56	1.47	5.22E+002	67.70	1.12E+003
	90	4462-	4500	4478.30	1120.36	1.64	6.39E+003	137.83	2.12E+003
	91	4604-	4629	4617.87	1155.27	1.82	8.32E+002	82.45	1.40E+003
	92	4821-	4838	4828.70	1208.02	1.26	1.39E+002	57.28	9.64E+002

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
93	4938-	4962	4949.75	1238.30	1.47	2.09E+003	87.19	1.33E+003
94	4970-	4993	4985.60	1247.27	1.27	2.84E+002	77.98	1.45E+003
95	5108-	5133	5120.98	1281.14	1.49	6.42E+002	75.08	1.17E+003
96	5500-	5521	5508.45	1378.07	1.69	1.49E+003	76.08	1.13E+003
97	5532-	5551	5538.63	1385.62	1.71	3.27E+002	57.29	8.39E+002
M 98	5590-	5642	5603.51	1401.85	1.81	5.07E+002	34.28	9.61E+002
m 99	5590-	5642	5629.50	1408.36	1.81	8.39E+002	39.72	9.16E+002
100	5822-	5856	5839.95	1461.00	2.28	2.27E+003	95.57	1.28E+003
M101	5970-	6013	5980.99	1496.29	1.91	9.52E+002	40.22	7.75E+002
m102	5970-	6013	6004.01	1502.05	1.91	5.05E+002	32.87	7.58E+002
M103	6024-	6060	6034.91	1509.78	1.81	6.47E+002	36.68	8.87E+002
m104	6024-	6060	6049.19	1513.35	1.81	3.59E+002	30.15	8.60E+002
105	6140-	6162	6153.29	1539.39	1.08	2.72E+002	54.65	6.99E+002
M106	6309-	6386	6320.08	1581.12	1.88	6.65E+002	33.81	6.31E+002
m107	6309-	6386	6331.65	1584.01	1.88	2.89E+002	26.86	6.47E+002
m108	6309-	6386	6350.83	1588.81	1.88	3.30E+003	62.54	7.31E+002
m109	6309-	6386	6368.26	1593.17	1.88	1.68E+003	47.75	7.99E+002
M110	6466-	6535	6481.12	1621.41	1.95	1.56E+003	45.23	5.93E+002
m111	6466-	6535	6498.19	1625.68	1.95	3.52E+002	26.81	5.91E+002
m112	6466-	6535	6520.96	1631.37	1.95	1.74E+003	47.30	5.89E+002
113	6538-	6565	6551.73	1639.07	1.77	4.82E+002	60.32	6.98E+002
M114	6634-	6674	6643.39	1662.00	1.70	3.47E+002	28.24	5.34E+002
m115	6634-	6674	6664.40	1667.26	1.70	1.84E+002	23.56	5.51E+002
116	6905-	6931	6917.29	1730.52	1.72	1.14E+003	63.15	6.49E+002
M117	7027-	7073	7033.14	1759.51	2.04	3.32E+001	9.84	3.93E+002
m118	7027-	7073	7056.91	1765.45	2.04	5.29E+003	45.83	5.15E+002
119	7215-	7233	7224.32	1807.34	0.71	1.12E+002	40.35	4.43E+002
120	7379-	7402	7388.91	1848.51	1.93	7.20E+002	54.98	5.73E+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: ASPHALT-06-12
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	2.3529E+000	2.35E+000	1.3652E+001
	Co-60	1173.23	99.85	1.8027E-001	1.80E-001	8.7897E-002
		1332.49	99.98	1.8477E-001		-5.4191E-002
>		2505.71	0.10	0.0000E+000		0.0000E+000
	Cs-137	32.06	5.54	4.1671E+003	2.84E-001	-4.0449E+002
		661.66	84.99	2.8418E-001		4.9949E-002
+	Tl-208	72.80	2.02	3.1873E+001	3.17E-001	-8.4255E-002
		74.97*	3.41	1.0525E+001		1.6498E+002
		84.90*	1.51	1.8831E+001		7.4819E+001
		277.36*	6.31	3.7709E+000		1.7839E+001
		510.77*	22.60	1.5068E+000		2.3597E+001
		583.19*	84.50	3.1739E-001		2.1124E+001
		763.13*	1.81	8.3868E+000		2.0602E+001
		860.56*	12.42	1.8740E+000		2.4111E+001
+	Bi-212	39.86	1.06	2.3388E+003	3.45E+000	-8.0502E+002
		727.33*	6.74	3.4525E+000		6.9508E+001
		785.37*	1.11	1.2625E+001		8.3322E+001
		1620.74*	1.51	7.4189E+000		7.1069E+001
		1806.00	0.09	2.0342E+002		2.9913E+001
+	Pb-212	74.81*	10.40	3.4511E+000	3.76E-001	5.4096E+001
		77.11*	17.50	1.9212E+000		4.6214E+001
		87.30*	7.81	3.3515E+000		4.1092E+001
		115.18*	0.59	3.7371E+001		3.5854E+001
		238.63*	43.30	3.7551E-001		6.4223E+001
		300.09*	3.28	6.5366E+000		5.8053E+001
+	Bi-214	76.86*	0.43	7.8849E+001	5.09E-001	1.8967E+003
		89.81*	0.24	9.7307E+001		1.0085E+003
		386.77	0.30	7.4042E+001		4.5305E+001
		454.77	0.29	7.4808E+001		8.6903E+001
		609.31*	45.49	5.0915E-001		2.1003E+001
		665.45*	1.53	1.8095E+001		2.0312E+001
		703.11*	0.48	3.9981E+001		3.4162E+001
		719.86*	0.39	3.6322E+001		1.7401E+001
		768.36*	4.89	3.1081E+000		2.0935E+001
		786.10*	0.31	4.5164E+001		2.9806E+002
		806.17*	1.26	1.2394E+001		1.7150E+001
		934.06*	3.10	4.7714E+000		2.0239E+001
		964.08*	0.36	3.2038E+001		9.5077E+002
		1051.96*	0.31	3.9202E+001		5.1564E+000
		1120.29*	14.91	1.8773E+000		2.2842E+001

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
+	Bi-214	1133.66	0.25	7.1619E+001	5.09E-001	1.3830E+001
		1155.19*	1.63	1.2050E+001		2.7709E+001
		1207.68*	0.45	3.2762E+001		1.7325E+001
		1238.11*	5.79	3.4285E+000		2.0620E+001
		1280.96*	1.43	1.3528E+001		2.6234E+001
		1377.67*	4.00	4.7163E+000		2.2920E+001
		1385.31*	0.76	2.0790E+001		2.6625E+001
		1401.50*	1.27	1.0101E+001		2.4783E+001
		1407.98*	2.15	5.8441E+000		2.4309E+001
		1509.23*	2.11	6.1508E+000		2.0036E+001
		1538.50*	0.38	4.3181E+001		4.7859E+001
		1543.32	0.20	9.7508E+001		2.5619E+001
		1583.22*	0.69	1.6655E+001		2.8335E+001
		1594.73	0.25	1.3887E+002		1.4044E+001
		1599.31	0.23	1.0684E+002		1.3966E+001
		1661.28*	1.15	9.4136E+000		2.1135E+001
		1683.99	0.22	8.5751E+001		9.5144E+001
		1729.59*	2.92	6.1869E+000		2.8220E+001
		1764.49*	15.40	7.2429E-001		2.5114E+001
		1847.42	2.11	1.0834E+001		2.5687E+001
		1873.16	0.22	8.7626E+001		8.4995E+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	1.9723E+002	6.37E-001	-1.2150E+002
		74.81*	6.44	5.5679E+000		8.7277E+001
		77.11*	10.80	3.1101E+000		7.4813E+001
		87.30*	4.84	5.4030E+000		6.6244E+001
		242.00*	7.43	2.0354E+000		4.5081E+001
		258.87*	0.52	3.1942E+001		1.3327E+001
		274.80	0.47	5.1019E+001		1.6390E+001
		295.22*	19.30	9.9850E-001		2.1548E+001
		351.93*	37.60	6.3666E-001		2.1819E+001
		462.00*	0.22	9.1269E+001		1.1547E+003
		533.66*	0.19	7.5188E+001		3.1770E+001
		785.96*	1.07	1.3085E+001		8.6355E+001
		839.04	0.59	4.5631E+001		2.9194E+002
+	Ra-224	81.07*	0.13	2.0258E+002	3.69E+000	8.1984E+001
		83.78*	0.22	1.3103E+002		5.2063E+002
		240.99*	4.10	3.6920E+000		8.1773E+001
+	Ra-226	81.07*	0.20	1.3458E+002	5.98E+000	5.4465E+001
		83.78*	0.33	8.6608E+001		3.4411E+002
		94.90	0.15	2.0982E+002		1.3622E+003
		186.21*	3.59	5.9818E+000		4.0637E+001
+	Ac-228	99.50*	1.26	2.3147E+001	7.17E-001	3.1949E+001
		129.07*	2.50	6.7928E+000		4.5289E+001
		209.25*	3.97	8.1756E+000		5.6030E+001
		270.24*	3.55	6.3809E+000		5.9789E+001
		328.00*	3.04	4.7932E+000		5.7721E+001
		338.32*	11.40	1.2468E+000		6.2907E+001
		409.46*	2.02	9.7405E+000		5.6118E+001

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
+	Ac-228	463.00*	4.45	4.5370E+000	7.17E-001	5.7402E+001
		755.31*	1.03	2.2747E+001		6.0991E+001
		772.29*	1.52	9.7629E+000		5.7792E+001
		794.94*	4.31	4.6359E+000		6.0968E+001
		835.70*	1.70	8.2190E+000		6.2919E+001
		911.20*	26.20	1.1433E+000		6.7369E+001
		964.79*	4.99	2.3328E+000		6.9230E+001
		968.96*	15.90	7.1662E-001		6.8845E+001
		1588.20*	3.06	3.9998E+000		7.3125E+001
		1630.62*	1.52	7.3821E+000		7.8932E+001
+	Th-228	84.37*	1.26	2.2567E+001	2.26E+001	8.9664E+001
		131.61*	0.13	1.3433E+002		7.1330E+001
		166.41*	0.10	1.2594E+002		6.4401E+001
		215.98*	0.25	1.1210E+002		8.7485E+001
+	Pa-234m	258.23*	0.07	2.2680E+002	1.78E+001	9.4622E+001
		742.81	0.09	2.4766E+002		1.8929E+001
		766.36	0.32	8.6708E+001		-2.7456E+002
		786.27*	0.05	2.6121E+002		1.7239E+003
		1001.03*	0.85	1.7819E+001		3.3777E+001
		1737.77	0.02	8.4378E+002		1.7200E+002
+	Th-234	63.30*	3.75	1.7244E+001	5.29E+000	1.8442E+001
		92.59*	4.33	5.2920E+000		6.6352E+001
		112.81	0.22	1.1812E+002		-6.6462E+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: ASPHALT-06-12
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	0.995	1460.82*	10.55	1.36525E+001	6.83171E-001
Mo-99	0.734	40.58 @	1.02		
		140.51*	89.60	6.23280E-002	2.82991E-002
		181.07	6.01		
		366.42	1.19		
		739.50	12.12		
Ce-139	0.951	165.86*	79.89	8.38560E-002	2.11181E-002
Ce-141	0.931	40.82 @	2.67		
		145.44*	48.29	2.02163E-001	4.37000E-002
Eu-152m	0.990	89.85*	69.90	3.52092E+000	1.28624E-001
Eu-155	0.911	45.30	1.31		
		60.01	1.22		
		86.55*	30.70	1.04477E+001	3.85154E-001
		105.31*	21.10	3.73981E+000	2.06165E-001
Tl-208	0.975	72.80 @	2.02		
		74.97* @	3.41	1.64985E+002	6.00587E+000
		84.90* @	1.51	7.48186E+001	3.48783E+000
		277.36*	6.31	1.78387E+001	1.15014E+000
		510.77* @	22.60	2.35966E+001	8.83317E-001
		583.19*	84.50	2.11238E+001	6.94545E-001
		763.13* @	1.81	2.06018E+001	1.32932E+000
		860.56*	12.42	2.41114E+001	7.77898E-001
TL-208e	0.936	1592.53*	99.16	1.15350E+000	7.77978E-002
Bi-211	0.880	351.03*	13.00	6.31125E+001	2.62364E+000
Bi-212	0.949	39.86 @	1.06		
		727.33*	6.74	6.95077E+001	2.39970E+000
		785.37*	1.11	8.33223E+001	3.31694E+000
		1620.74*	1.51	7.10689E+001	3.10807E+000
		1806.00 @	0.09		
Pb-212	0.998	74.81*	10.40	5.40960E+001	2.51255E+000
		77.11*	17.50	4.62141E+001	2.11630E+000
		87.30*	7.81	4.10917E+001	1.96563E+000
		115.18* @	0.59	3.58536E+001	8.17270E+000
		238.63*	43.30	6.42225E+001	2.89506E+000
		300.09*	3.28	5.80529E+001	2.83536E+000
Bi-214	0.926	76.86* @	0.43	1.89666E+003	8.92030E+001
		89.81* @	0.24	1.00852E+003	5.16357E+001
		386.77 @	0.30		
		454.77 @	0.29		
		609.31*	45.49	2.10029E+001	6.64306E-001
		665.45* @	1.53	2.03117E+001	3.98269E+000

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Bi-214	0.926	703.11* @	0.48	3.41618E+001	8.79381E+000
		719.86* @	0.39	1.74009E+001	7.89008E+000
		768.36*	4.89	2.09354E+001	7.84871E-001
		786.10* @	0.31	2.98064E+002	4.94446E+001
		806.17* @	1.26	1.71502E+001	2.78512E+000
		934.06*	3.10	2.02390E+001	1.25252E+000
		964.08* @	0.36	9.50769E+002	4.03369E+001
		1051.96* @	0.31	5.15637E+000	8.38890E+000
		1120.29*	14.91	2.28419E+001	7.47144E-001
		1133.66 @	0.25		
		1155.19* @	1.63	2.77086E+001	2.83197E+000
		1207.68* @	0.45	1.73254E+001	7.16548E+000
		1238.11*	5.79	2.06197E+001	1.04136E+000
		1280.96* @	1.43	2.62337E+001	3.15602E+000
		1377.67*	4.00	2.29197E+001	1.34171E+000
		1385.31* @	0.76	2.66248E+001	4.75023E+000
		1401.50* @	1.27	2.47831E+001	1.82559E+000
		1407.98* @	2.15	2.43090E+001	1.41441E+000
		1509.23* @	2.11	2.00359E+001	1.29487E+000
		1538.50* @	0.38	4.78585E+001	9.86633E+000
		1543.32 @	0.20		
		1583.22* @	0.69	2.83346E+001	2.78753E+000
		1594.73 @	0.25		
		1599.31 @	0.23		
		1661.28* @	1.15	2.11350E+001	1.89453E+000
		1683.99 @	0.22		
		1729.59* @	2.92	2.82203E+001	1.81952E+000
		1764.49*	15.40	2.51141E+001	9.03448E-001
		1847.42 @	2.11		
		1873.16 @	0.22		
		2118.55 @	1.14		
		2204.21 @	5.08		
Pb-214	0.968	53.28 @	1.20		
		74.81*	6.44	8.72770E+001	4.26540E+000
		77.11*	10.80	7.48128E+001	3.85301E+000
		87.30*	4.84	6.62440E+001	3.40796E+000
		242.00*	7.43	4.50808E+001	2.12772E+000
		258.87* @	0.52	1.33266E+001	6.91285E+000
		274.80 @	0.47		
		295.22*	19.30	2.15482E+001	9.35571E-001
		351.93*	37.60	2.18190E+001	8.80283E-001
		462.00* @	0.22	1.15473E+003	6.64498E+001
		533.66* @	0.19	3.17702E+001	1.63445E+001
		785.96* @	1.07	8.63550E+001	7.27311E+000
		839.04 @	0.59		
Rn-219	0.839	76.86* @	0.56	1.44294E+003	2.37580E+002
		79.29 @	0.93		
		89.80* @	0.42	5.85952E+002	9.98504E+001
		130.60 @	0.13		
		271.23*	10.80	1.96357E+001	1.59218E+000

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Rn-219	0.839	401.81*	6.60	1.09226E+000	4.51481E-001
Rn-220	1.000	549.73*	0.11	9.45024E+001	2.22157E+001
Ra-223	0.582	81.07*	15.30	7.01341E-001	2.29614E-001
		83.78*	25.40	4.44401E+000	2.24880E-001
		94.90	11.50		
		122.32 @	1.21		
		144.24*	3.27	5.97911E+000	7.43381E-001
		154.21*	5.70	7.80403E+000	1.21067E+000
		158.63 @	0.69		
		179.54 @	0.15		
		269.46*	13.90	1.52565E+001	8.63323E-001
		288.18* @	0.16	1.17152E+002	2.57799E+001
		323.87	3.99		
		328.38* @	0.21	8.38847E+002	4.76986E+001
		338.32*	2.84	2.52293E+002	1.16345E+001
		342.87 @	0.22		
		371.68 @	0.49		
		445.03 @	1.29		
Ra-224	0.978	81.07* @	0.13	8.19836E+001	2.70226E+001
		83.78* @	0.22	5.20627E+002	3.09425E+001
		240.99*	4.10	8.17729E+001	3.79797E+000
Ra-226	0.938	81.07* @	0.20	5.44652E+001	1.79362E+001
		83.78* @	0.33	3.44112E+002	2.03918E+001
		94.90 @	0.15		
		186.21*	3.59	4.06374E+001	2.34268E+000
Ac-228	0.995	99.50* @	1.26	3.19494E+001	5.19797E+000
		129.07* @	2.50	4.52885E+001	2.17233E+000
		209.25*	3.97	5.60302E+001	3.61968E+000
		270.24*	3.55	5.97886E+001	3.36493E+000
		328.00*	3.04	5.77208E+001	3.20204E+000
		338.32*	11.40	6.29065E+001	3.29898E+000
		409.46* @	2.02	5.61181E+001	3.47833E+000
		463.00*	4.45	5.74018E+001	3.87698E+000
		755.31* @	1.03	6.09907E+001	5.83908E+000
		772.29* @	1.52	5.77920E+001	3.22579E+000
		794.94*	4.31	6.09682E+001	2.77561E+000
		835.70* @	1.70	6.29192E+001	3.41383E+000
		911.20*	26.20	6.73685E+001	2.62050E+000
		964.79*	4.99	6.92299E+001	2.99194E+000
		968.96*	15.90	6.88447E+001	2.73945E+000
		1588.20*	3.06	7.31247E+001	3.68411E+000
		1630.62* @	1.52	7.89325E+001	4.31694E+000
Th-228	0.998	84.37*	1.26	8.96635E+001	4.41552E+000
		131.61* @	0.13	7.13303E+001	1.59701E+001
		166.41* @	0.10	6.44007E+001	1.62453E+001
		215.98*	0.25	8.74849E+001	2.45358E+001
Pa-234m	0.482	258.23* @	0.07	9.46225E+001	4.90535E+001
		742.81 @	0.09		
		766.36	0.32		
		786.27* @	0.05	1.72388E+003	7.05341E+001

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Pa-234m	0.482	1001.03*	0.85	3.37769E+001	4.13922E+000
		1737.77 @	0.02		
Th-234	0.891	63.30*	3.75	1.84425E+001	1.60922E+000
		92.59*	4.33	6.63519E+001	3.66388E+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 *****
****

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GWET)	Wt mean Activity Uncertainty
	K-40		0.995	1.365246E+001	6.831714E-001
X	Mn-54		0.908		
	Mo-99	@	0.734	6.232799E-002	2.829909E-002
X	Cd-109		0.935		
	Ce-139		0.951	3.249933E-002	2.242332E-002
	Ce-141	@	0.931	2.021629E-001	4.370000E-002
	Eu-152m		0.990	3.440849E+000	1.250518E-001
	Eu-155		0.911	2.848586E+000	1.649701E-001
X	Tm-170		0.992		
	Tl-208	@	0.975	2.168849E+001	4.566782E-001
	TL-208e		0.936	1.153502E+000	7.779778E-002
	Bi-211		0.880	1.245701E+001	3.490197E+000
	Bi-212	@	0.949	6.770739E+001	1.480503E+000
	Pb-212	@	0.998	3.452254E+001	9.873079E-001
	Bi-214	@	0.926	2.197209E+001	3.263984E-001
	Pb-214	@	0.968	1.751243E+001	8.572665E-001
	Rn-219	@	0.839	5.594130E-001	4.070348E-001
	Rn-220		1.000	9.450244E+001	2.221569E+001
	Ra-223	@	0.582	3.410074E-001	2.089158E-001
	Ra-224	@	0.978	4.858359E+001	3.973556E+000
	Ra-226	@	0.938	3.983506E+001	2.238964E+000
	Ac-228	@	0.995	6.429831E+001	6.754602E-001
	Th-228	@	0.998	3.944150E+001	5.789612E+000
X	Th-231		0.991		
	Pa-234m	@	0.482	3.306537E+001	4.121011E+000
	Th-234	@	0.891	2.619003E+001	1.473375E+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: 10/19/2016 4:44:35 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	65.29	1.6021E-002	50.40	Tol.	Ta-182
m 12	108.97	2.4884E-001	8.30		
M 20	163.43	6.1653E-002	22.47	Sum	
23	199.54	1.0943E-001	35.33	Sum	
28	252.53	8.0197E-002	36.57	Sum	
m 36	332.47	1.2488E-001	8.78	Sum	
m 38	340.92	1.3604E-001	7.83	Sum	
40	388.99	2.5264E-002	58.04	Sum	
43	440.53	1.1933E-002	133.11	Sum	
44	452.80	8.6638E-002	30.42	Sum	
46	487.07	2.6895E-002	74.40	D-Esc.	
47	503.63	5.0901E-002	33.90	Sum	
M 50	546.48	5.5296E-002	15.47	Sum	
52	562.32	1.9392E-001	10.09	D-Esc.	
53	572.14	6.9479E-002	23.98	D-Esc.	
M 64	781.95	1.1915E-001	5.86	Sum	
M 68	830.52	1.0985E-001	6.01	Sum	
m 70	840.16	1.9201E-001	3.87	Sum	
72	893.22	5.9942E-002	15.74	Sum	
73	904.08	1.3701E-001	9.87	Sum	
75	927.39	2.5656E-003	233.03	Sum	
M 77	947.91	1.9533E-002	21.76	Sum	
m 78	952.01	3.9379E-002	13.09	Sum	
79	958.51	3.7736E-002	28.62	Sum	
82	988.25	2.3204E-002	35.28	Sum	
84	1033.27	3.2931E-002	27.07	Sum	
86	1065.09	5.9465E-002	17.74	Sum	
87	1078.61	9.7231E-002	10.80	S-Esc.	
88	1093.96	7.8638E-002	13.43	Sum	
89	1110.56	7.2482E-002	12.97	S-Esc.	
94	1247.27	3.9478E-002	27.43	Sum	
M101	1496.29	1.3223E-001	4.22	Sum	
m102	1502.05	7.0122E-002	6.51	Sum	
m104	1513.35	4.9803E-002	8.41	Sum	
M106	1581.12	9.2302E-002	5.09	Sum	
m111	1625.68	4.8920E-002	7.61	Sum	
113	1639.07	6.6907E-002	12.52	Sum	
m115	1667.26	2.5508E-002	12.83	Sum	
M117	1759.51	4.6132E-003	29.63	Sum	
119	1807.34	1.5577E-002	35.97	Sum	
120	1848.51	1.0005E-001	7.63	Sum	

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\SMP-ASPHALT-06-12.CNF

Report Generated On	: 10/15/2016 1:52:01 PM
Sample Title	: ASPHALT-06-12
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	: 1.062E+003 GWET
Sample Taken On	: 10/14/2016 12:50:00 PM
Acquisition Started	: 10/15/2016 11:51:06 AM
Live Time	: 7200.0 seconds
Real Time	: 7252.9 seconds
Dead Time	: 0.73 %

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

REANALYZED ON 10-19-16: INCORRECT QUANTITY ENTERED

****
***** 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: ASPHALT-06-12
Peak Analysis Performed on: 10/15/2016 1:52:01 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	240-	265	253.98	63.54	0.90	1.05E+003	79.61	2.06E+004
m	2	240-	265	260.96	65.29	0.90	1.15E+002	58.14	1.97E+004
M	3	285-	315	299.77	75.00	1.02	1.67E+004	184.90	2.62E+004
m	4	285-	315	308.86	77.27	1.03	2.66E+004	216.78	2.82E+004
M	5	321-	384	324.84	81.27	1.29	4.12E+002	134.02	2.38E+004
m	6	321-	384	337.64	84.47	1.30	4.79E+003	152.97	3.35E+004
m	7	321-	384	349.27	87.38	1.30	1.47E+004	189.49	3.31E+004
m	8	321-	384	360.14	90.10	1.30	1.20E+004	179.76	3.08E+004
m	9	321-	384	373.17	93.36	1.31	1.49E+004	191.13	3.23E+004
	10	386-	404	398.58	99.72	1.26	2.25E+003	353.91	3.64E+004
M	11	413-	442	421.96	105.57	1.37	4.59E+003	175.79	3.48E+004
m	12	413-	442	435.57	108.97	1.38	1.79E+003	148.79	3.12E+004
	13	457-	470	461.49	115.46	1.04	1.23E+003	278.19	2.76E+004
M	14	512-	533	516.56	129.23	0.98	6.69E+003	166.20	2.31E+004
m	15	512-	533	527.01	131.85	0.98	5.53E+002	122.41	2.49E+004
M	16	560-	589	563.82	141.06	1.02	2.61E+002	118.17	2.01E+004
m	17	560-	589	575.59	144.00	1.02	1.19E+003	138.18	2.58E+004
m	18	560-	589	583.91	146.08	1.02	5.77E+002	123.36	2.56E+004
	19	611-	632	616.25	154.17	1.07	2.69E+003	398.37	4.15E+004
M	20	645-	670	653.25	163.43	0.62	4.44E+002	99.75	1.43E+004
m	21	645-	670	665.20	166.42	0.63	4.01E+002	99.75	1.41E+004
	22	737-	751	743.88	186.10	1.24	8.65E+003	286.86	2.55E+004
	23	787-	802	797.58	199.54	0.59	7.88E+002	278.39	2.55E+004
	24	829-	853	836.85	209.36	1.08	1.26E+004	410.74	3.75E+004
	25	856-	877	863.50	216.03	1.15	1.24E+003	344.09	3.12E+004
M	26	946-	974	954.12	238.70	1.11	1.49E+005	405.62	1.74E+004
m	27	946-	974	964.65	241.34	1.11	1.79E+004	163.36	1.49E+004
	28	1004-	1019	1009.38	252.53	1.16	5.77E+002	211.17	1.46E+004
	29	1031-	1044	1035.21	258.99	0.84	3.59E+002	185.30	1.23E+004
	30	1072-	1091	1080.31	270.27	1.25	1.06E+004	264.48	1.68E+004
	31	1101-	1121	1108.77	277.39	1.09	5.56E+003	262.82	1.74E+004
	32	1146-	1161	1151.77	288.15	1.09	9.05E+002	193.74	1.22E+004
	33	1173-	1189	1180.13	295.24	1.14	1.98E+004	241.81	1.23E+004
	34	1189-	1207	1199.79	300.16	1.14	8.96E+003	236.23	1.39E+004
M	35	1299-	1341	1311.03	327.99	1.17	7.80E+003	125.93	9.63E+003
m	36	1299-	1341	1328.92	332.47	1.17	8.99E+002	78.92	9.39E+003
M	37	1341-	1372	1352.30	338.32	1.18	3.12E+004	197.64	8.79E+003
m	38	1341-	1372	1362.73	340.92	1.18	9.79E+002	76.69	8.43E+003
	39	1398-	1420	1406.70	351.92	1.19	3.48E+004	286.94	1.20E+004
	40	1551-	1560	1554.88	388.99	1.14	1.82E+002	105.58	4.84E+003
	41	1602-	1612	1606.37	401.88	0.97	2.79E+002	112.91	5.22E+003
	42	1628-	1645	1636.48	409.41	1.14	4.33E+003	173.83	7.95E+003

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	43	1756	1768	1760.88	440.53	0.35	8.59E+001	114.36	4.93E+003
	44	1801	1824	1809.93	452.80	0.99	6.24E+002	189.78	8.83E+003
	45	1842	1860	1850.44	462.93	1.29	8.92E+003	178.21	6.72E+003
	46	1941	1959	1946.92	487.07	0.63	1.94E+002	144.06	6.08E+003
	47	2005	2020	2013.12	503.63	0.82	3.66E+002	124.26	5.01E+003
	48	2025	2058	2041.22	510.66	1.38	1.75E+004	271.67	1.07E+004
	49	2127	2138	2133.79	533.82	0.73	1.86E+002	95.23	3.54E+003
M	50	2177	2204	2184.39	546.48	1.37	3.98E+002	61.59	4.48E+003
m	51	2177	2204	2197.19	549.68	1.37	3.32E+002	59.39	4.72E+003
	52	2240	2258	2247.69	562.32	1.20	1.40E+003	140.94	5.45E+003
	53	2278	2293	2286.94	572.14	1.37	5.00E+002	119.97	4.62E+003
	54	2323	2346	2330.65	583.07	1.35	5.27E+004	285.61	6.78E+003
	55	2424	2445	2435.12	609.21	1.37	2.74E+004	218.12	5.39E+003
	56	2650	2675	2659.46	665.33	1.28	8.36E+002	162.14	5.97E+003
	57	2803	2818	2808.98	702.74	0.57	4.23E+002	107.93	3.73E+003
	58	2870	2881	2875.16	719.29	0.42	1.74E+002	78.64	2.39E+003
	59	2896	2917	2906.65	727.17	1.46	1.18E+004	166.15	4.21E+003
	60	3009	3030	3018.52	755.16	1.37	1.54E+003	129.28	4.03E+003
M	61	3037	3095	3051.05	763.30	1.49	9.09E+002	54.06	3.12E+003
m	62	3037	3095	3070.73	768.22	1.49	2.49E+003	69.22	3.11E+003
m	63	3037	3095	3086.39	772.14	1.50	2.12E+003	65.17	2.93E+003
M	64	3114	3147	3125.60	781.95	1.50	8.58E+002	50.31	2.68E+003
m	65	3114	3147	3139.86	785.51	1.50	2.21E+003	66.36	2.55E+003
	66	3167	3187	3177.06	794.82	1.48	6.23E+003	128.36	2.83E+003
	67	3214	3229	3221.90	806.04	1.32	5.08E+002	81.60	2.05E+003
M	68	3311	3372	3319.77	830.52	1.54	7.91E+002	47.55	2.29E+003
m	69	3311	3372	3340.12	835.61	1.55	2.45E+003	64.12	2.32E+003
m	70	3311	3372	3358.30	840.16	1.55	1.38E+003	53.54	2.12E+003
	71	3424	3451	3439.41	860.45	1.49	6.72E+003	138.51	2.77E+003
	72	3565	3579	3570.38	893.22	1.28	4.32E+002	67.93	1.45E+003
	73	3603	3625	3613.79	904.08	1.25	9.86E+002	97.32	2.19E+003
	74	3625	3661	3641.92	911.12	1.54	3.81E+004	239.12	3.40E+003
	75	3702	3711	3706.96	927.39	0.54	1.85E+001	43.05	8.12E+002
	76	3726	3743	3733.41	934.00	1.47	1.33E+003	76.21	1.37E+003
M	77	3785	3812	3789.00	947.91	1.60	1.41E+002	30.60	1.03E+003
m	78	3785	3812	3805.37	952.01	1.60	2.84E+002	37.10	1.25E+003
	79	3822	3842	3831.37	958.51	1.05	2.72E+002	77.77	1.59E+003
M	80	3842	3890	3856.08	964.69	1.57	7.16E+003	90.62	1.32E+003
m	81	3842	3890	3872.95	968.91	1.57	2.26E+004	154.29	1.25E+003
	82	3942	3957	3950.23	988.25	1.00	1.67E+002	58.94	1.10E+003
	83	3991	4010	4001.76	1001.14	1.58	5.83E+002	69.38	1.21E+003
	84	4122	4140	4130.19	1033.27	1.29	2.37E+002	64.19	1.14E+003
	85	4195	4209	4204.23	1051.79	1.06	3.18E+001	51.70	9.17E+002
	86	4243	4266	4257.39	1065.09	1.48	4.28E+002	75.95	1.33E+003
	87	4300	4322	4311.45	1078.61	1.60	7.00E+002	75.60	1.29E+003
	88	4360	4382	4372.80	1093.96	1.64	5.66E+002	76.04	1.35E+003
	89	4429	4449	4439.16	1110.56	1.47	5.22E+002	67.70	1.12E+003
	90	4462	4500	4478.30	1120.36	1.64	6.39E+003	137.83	2.12E+003
	91	4604	4629	4617.87	1155.27	1.82	8.32E+002	82.45	1.40E+003
	92	4821	4838	4828.70	1208.02	1.26	1.39E+002	57.28	9.64E+002

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
93	4938-	4962	4949.75	1238.30	1.47	2.09E+003	87.19	1.33E+003
94	4970-	4993	4985.60	1247.27	1.27	2.84E+002	77.98	1.45E+003
95	5108-	5133	5120.98	1281.14	1.49	6.42E+002	75.08	1.17E+003
96	5500-	5521	5508.45	1378.07	1.69	1.49E+003	76.08	1.13E+003
97	5532-	5551	5538.63	1385.62	1.71	3.27E+002	57.29	8.39E+002
M 98	5590-	5642	5603.51	1401.85	1.81	5.07E+002	34.28	9.61E+002
m 99	5590-	5642	5629.50	1408.36	1.81	8.39E+002	39.72	9.16E+002
100	5822-	5856	5839.95	1461.00	2.28	2.27E+003	95.57	1.28E+003
M101	5970-	6013	5980.99	1496.29	1.91	9.52E+002	40.22	7.75E+002
m102	5970-	6013	6004.01	1502.05	1.91	5.05E+002	32.87	7.58E+002
M103	6024-	6060	6034.91	1509.78	1.81	6.47E+002	36.68	8.87E+002
m104	6024-	6060	6049.19	1513.35	1.81	3.59E+002	30.15	8.60E+002
105	6140-	6162	6153.29	1539.39	1.08	2.72E+002	54.65	6.99E+002
M106	6309-	6386	6320.08	1581.12	1.88	6.65E+002	33.81	6.31E+002
m107	6309-	6386	6331.65	1584.01	1.88	2.89E+002	26.86	6.47E+002
m108	6309-	6386	6350.83	1588.81	1.88	3.30E+003	62.54	7.31E+002
m109	6309-	6386	6368.26	1593.17	1.88	1.68E+003	47.75	7.99E+002
M110	6466-	6535	6481.12	1621.41	1.95	1.56E+003	45.23	5.93E+002
m111	6466-	6535	6498.19	1625.68	1.95	3.52E+002	26.81	5.91E+002
m112	6466-	6535	6520.96	1631.37	1.95	1.74E+003	47.30	5.89E+002
113	6538-	6565	6551.73	1639.07	1.77	4.82E+002	60.32	6.98E+002
M114	6634-	6674	6643.39	1662.00	1.70	3.47E+002	28.24	5.34E+002
m115	6634-	6674	6664.40	1667.26	1.70	1.84E+002	23.56	5.51E+002
116	6905-	6931	6917.29	1730.52	1.72	1.14E+003	63.15	6.49E+002
M117	7027-	7073	7033.14	1759.51	2.04	3.32E+001	9.84	3.93E+002
m118	7027-	7073	7056.91	1765.45	2.04	5.29E+003	45.83	5.15E+002
119	7215-	7233	7224.32	1807.34	0.71	1.12E+002	40.35	4.43E+002
120	7379-	7402	7388.91	1848.51	1.93	7.20E+002	54.98	5.73E+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: ASPHALT-06-12
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	2.2445E+000	2.24E+000	1.3024E+001
	Co-60	1173.23	99.85	1.7197E-001	1.72E-001	8.3849E-002
		1332.49	99.98	1.7626E-001		-5.1695E-002
>		2505.71	0.10	0.0000E+000		0.0000E+000
	Cs-137	32.06	5.54	3.9752E+003	2.71E-001	-3.8586E+002
		661.66	84.99	2.7109E-001		4.7649E-002
+	Tl-208	72.80	2.02	3.0405E+001	3.03E-001	-8.0375E-002
		74.97*	3.41	1.0041E+001		1.5739E+002
		84.90*	1.51	1.7964E+001		7.1373E+001
		277.36*	6.31	3.5972E+000		1.7017E+001
		510.77*	22.60	1.4374E+000		2.2510E+001
		583.19*	84.50	3.0277E-001		2.0151E+001
		763.13*	1.81	8.0005E+000		1.9653E+001
		860.56*	12.42	1.7877E+000		2.3001E+001
+	Bi-212	39.86	1.06	2.2311E+003	3.29E+000	-7.6795E+002
		727.33*	6.74	3.2935E+000		6.6307E+001
		785.37*	1.11	1.2044E+001		7.9485E+001
		1620.74*	1.51	7.0772E+000		6.7796E+001
		1806.00	0.09	1.9405E+002		2.8536E+001
+	Pb-212	74.81*	10.40	3.2922E+000	3.58E-001	5.1605E+001
		77.11*	17.50	1.8328E+000		4.4086E+001
		87.30*	7.81	3.1972E+000		3.9199E+001
		115.18*	0.59	3.5650E+001		3.4202E+001
		238.63*	43.30	3.5822E-001		6.1265E+001
		300.09*	3.28	6.2356E+000		5.5379E+001
+	Bi-214	76.86*	0.43	7.5217E+001	4.86E-001	1.8093E+003
		89.81*	0.24	9.2826E+001		9.6208E+002
		386.77	0.30	7.0632E+001		4.3218E+001
		454.77	0.29	7.1363E+001		8.2901E+001
		609.31*	45.49	4.8570E-001		2.0036E+001
		665.45*	1.53	1.7262E+001		1.9376E+001
		703.11*	0.48	3.8140E+001		3.2588E+001
		719.86*	0.39	3.4649E+001		1.6600E+001
		768.36*	4.89	2.9650E+000		1.9971E+001
		786.10*	0.31	4.3084E+001		2.8434E+002
		806.17*	1.26	1.1824E+001		1.6360E+001
		934.06*	3.10	4.5517E+000		1.9307E+001
		964.08*	0.36	3.0562E+001		9.0698E+002
		1051.96*	0.31	3.7397E+001		4.9189E+000
		1120.29*	14.91	1.7908E+000		2.1790E+001

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
+	Bi-214	1133.66	0.25	6.8320E+001	4.86E-001	1.3193E+001
		1155.19*	1.63	1.1495E+001		2.6432E+001
		1207.68*	0.45	3.1253E+001		1.6528E+001
		1238.11*	5.79	3.2706E+000		1.9670E+001
		1280.96*	1.43	1.2905E+001		2.5026E+001
		1377.67*	4.00	4.4991E+000		2.1864E+001
		1385.31*	0.76	1.9832E+001		2.5399E+001
		1401.50*	1.27	9.6358E+000		2.3642E+001
		1407.98*	2.15	5.5750E+000		2.3189E+001
		1509.23*	2.11	5.8675E+000		1.9113E+001
		1538.50*	0.38	4.1193E+001		4.5654E+001
		1543.32	0.20	9.3018E+001		2.4439E+001
		1583.22*	0.69	1.5888E+001		2.7030E+001
		1594.73	0.25	1.3248E+002		1.3397E+001
		1599.31	0.23	1.0192E+002		1.3322E+001
		1661.28*	1.15	8.9800E+000		2.0162E+001
		1683.99	0.22	8.1801E+001		9.0762E+001
		1729.59*	2.92	5.9019E+000		2.6921E+001
		1764.49*	15.40	6.9093E-001		2.3958E+001
		1847.42	2.11	1.0335E+001		2.4504E+001
		1873.16	0.22	8.3591E+001		8.1080E+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	1.8815E+002	6.07E-001	-1.1591E+002
		74.81*	6.44	5.3115E+000		8.3258E+001
		77.11*	10.80	2.9669E+000		7.1367E+001
		87.30*	4.84	5.1541E+000		6.3193E+001
		242.00*	7.43	1.9416E+000		4.3005E+001
		258.87*	0.52	3.0471E+001		1.2713E+001
		274.80	0.47	4.8669E+001		1.5635E+001
		295.22*	19.30	9.5252E-001		2.0556E+001
		351.93*	37.60	6.0734E-001		2.0814E+001
		462.00*	0.22	8.7065E+001		1.1016E+003
		533.66*	0.19	7.1725E+001		3.0307E+001
		785.96*	1.07	1.2482E+001		8.2378E+001
		839.04	0.59	4.3530E+001		2.7850E+002
+	Ra-224	81.07*	0.13	1.9325E+002	3.52E+000	7.8208E+001
		83.78*	0.22	1.2500E+002		4.9665E+002
		240.99*	4.10	3.5220E+000		7.8007E+001
+	Ra-226	81.07*	0.20	1.2838E+002	5.71E+000	5.1957E+001
		83.78*	0.33	8.2619E+001		3.2826E+002
		94.90	0.15	2.0016E+002		1.2995E+003
		186.21*	3.59	5.7063E+000		3.8766E+001
+	Ac-228	99.50*	1.26	2.2081E+001	6.84E-001	3.0478E+001
		129.07*	2.50	6.4800E+000		4.3203E+001
		209.25*	3.97	7.7991E+000		5.3450E+001
		270.24*	3.55	6.0871E+000		5.7035E+001
		328.00*	3.04	4.5724E+000		5.5063E+001
		338.32*	11.40	1.1894E+000		6.0009E+001
		409.46*	2.02	9.2919E+000		5.3534E+001

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
+	Ac-228	463.00*	4.45	4.3280E+000	6.84E-001	5.4758E+001
		755.31*	1.03	2.1699E+001		5.8182E+001
		772.29*	1.52	9.3133E+000		5.5130E+001
		794.94*	4.31	4.4224E+000		5.8160E+001
		835.70*	1.70	7.8405E+000		6.0022E+001
		911.20*	26.20	1.0906E+000		6.4266E+001
		964.79*	4.99	2.2254E+000		6.6042E+001
		968.96*	15.90	6.8362E-001		6.5674E+001
		1588.20*	3.06	3.8156E+000		6.9757E+001
		1630.62*	1.52	7.0422E+000		7.5297E+001
+	Th-228	84.37*	1.26	2.1528E+001	2.15E+001	8.5534E+001
		131.61*	0.13	1.2815E+002		6.8045E+001
		166.41*	0.10	1.2014E+002		6.1435E+001
		215.98*	0.25	1.0694E+002		8.3456E+001
+	Pa-234m	258.23*	0.07	2.1635E+002	1.70E+001	9.0265E+001
		742.81	0.09	2.3625E+002		1.8058E+001
		766.36	0.32	8.2714E+001		-2.6192E+002
		786.27*	0.05	2.4918E+002		1.6445E+003
		1001.03*	0.85	1.6998E+001		3.2221E+001
		1737.77	0.02	8.0492E+002		1.6408E+002

+ = 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: ASPHALT-06-12
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	0.995	1460.82*	10.55	1.30237E+001	6.51709E-001
Mo-99	0.734	40.58 @	1.02		
		140.51*	89.60	5.94575E-002	2.69958E-002
		181.07	6.01		
		366.42	1.19		
		739.50	12.12		
Ce-139	0.951	165.86*	79.89	7.99941E-002	2.01455E-002
Ce-141	0.931	40.82 @	2.67		
		145.44*	48.29	1.92852E-001	4.16874E-002
Eu-152m	0.990	89.85*	69.90	3.35877E+000	1.22700E-001
Eu-155	0.911	45.30	1.31		
		60.01	1.22		
		86.55*	30.70	9.96651E+000	3.67417E-001
		105.31*	21.10	3.56758E+000	1.96670E-001
Tl-208	0.975	72.80 @	2.02		
		74.97* @	3.41	1.57387E+002	5.72927E+000
		84.90* @	1.51	7.13729E+001	3.32720E+000
		277.36*	6.31	1.70171E+001	1.09717E+000
		510.77* @	22.60	2.25099E+001	8.42637E-001
		583.19*	84.50	2.01509E+001	6.62558E-001
		763.13* @	1.81	1.96530E+001	1.26810E+000
		860.56*	12.42	2.30010E+001	7.42073E-001
TL-208e	0.936	1592.53*	99.16	1.10038E+000	7.42149E-002
Bi-211	0.880	351.03*	13.00	6.02059E+001	2.50281E+000
Bi-212	0.949	39.86 @	1.06		
		727.33*	6.74	6.63066E+001	2.28918E+000
		785.37*	1.11	7.94850E+001	3.16419E+000
		1620.74*	1.51	6.77959E+001	2.96493E+000
		1806.00 @	0.09		
Pb-212	0.998	74.81*	10.40	5.16047E+001	2.39684E+000
		77.11*	17.50	4.40858E+001	2.01884E+000
		87.30*	7.81	3.91992E+001	1.87510E+000
		115.18* @	0.59	3.42024E+001	7.79632E+000
		238.63*	43.30	6.12648E+001	2.76173E+000
		300.09*	3.28	5.53794E+001	2.70478E+000
Bi-214	0.926	76.86* @	0.43	1.80931E+003	8.50949E+001
		89.81* @	0.24	9.62076E+002	4.92577E+001
		386.77 @	0.30		
		454.77 @	0.29		
		609.31*	45.49	2.00356E+001	6.33712E-001
		665.45* @	1.53	1.93763E+001	3.79927E+000

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Bi-214	0.926	703.11* @	0.48	3.25885E+001	8.38882E+000
		719.86* @	0.39	1.65996E+001	7.52671E+000
		768.36*	4.89	1.99712E+001	7.48724E-001
		786.10* @	0.31	2.84337E+002	4.71675E+001
		806.17* @	1.26	1.63604E+001	2.65686E+000
		934.06*	3.10	1.93069E+001	1.19484E+000
		964.08* @	0.36	9.06982E+002	3.84792E+001
		1051.96* @	0.31	4.91890E+000	8.00256E+000
		1120.29*	14.91	2.17900E+001	7.12735E-001
		1133.66 @	0.25		
		1155.19* @	1.63	2.64325E+001	2.70154E+000
		1207.68* @	0.45	1.65275E+001	6.83549E+000
		1238.11*	5.79	1.96701E+001	9.93400E-001
		1280.96* @	1.43	2.50255E+001	3.01067E+000
		1377.67*	4.00	2.18642E+001	1.27992E+000
		1385.31* @	0.76	2.53986E+001	4.53146E+000
		1401.50* @	1.27	2.36417E+001	1.74151E+000
		1407.98* @	2.15	2.31895E+001	1.34927E+000
		1509.23* @	2.11	1.91131E+001	1.23524E+000
		1538.50* @	0.38	4.56545E+001	9.41195E+000
		1543.32 @	0.20		
		1583.22* @	0.69	2.70296E+001	2.65915E+000
		1594.73 @	0.25		
		1599.31 @	0.23		
		1661.28* @	1.15	2.01617E+001	1.80728E+000
		1683.99 @	0.22		
		1729.59* @	2.92	2.69207E+001	1.73573E+000
		1764.49*	15.40	2.39575E+001	8.61841E-001
		1847.42 @	2.11		
		1873.16 @	0.22		
		2118.55 @	1.14		
		2204.21 @	5.08		
Pb-214	0.968	53.28 @	1.20		
		74.81*	6.44	8.32575E+001	4.06896E+000
		77.11*	10.80	7.13674E+001	3.67556E+000
		87.30*	4.84	6.31932E+001	3.25101E+000
		242.00*	7.43	4.30046E+001	2.02973E+000
		258.87* @	0.52	1.27129E+001	6.59448E+000
		274.80 @	0.47		
		295.22*	19.30	2.05558E+001	8.92484E-001
		351.93*	37.60	2.08142E+001	8.39742E-001
		462.00* @	0.22	1.10155E+003	6.33895E+001
		533.66* @	0.19	3.03071E+001	1.55917E+001
		785.96* @	1.07	8.23780E+001	6.93815E+000
		839.04 @	0.59		
Rn-219	0.839	76.86* @	0.56	1.37648E+003	2.26639E+002
		79.29 @	0.93		
		89.80* @	0.42	5.58966E+002	9.52519E+001
		130.60 @	0.13		
		271.23*	10.80	1.87314E+001	1.51886E+000

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Rn-219	0.839	401.81*	6.60	1.04196E+000	4.30688E-001
Rn-220	1.000	549.73*	0.11	9.01502E+001	2.11926E+001
Ra-223	0.582	81.07*	15.30	6.69042E-001	2.19039E-001
		83.78*	25.40	4.23935E+000	2.14524E-001
		94.90	11.50		
		122.32 @	1.21		
		144.24*	3.27	5.70375E+000	7.09145E-001
		154.21*	5.70	7.44463E+000	1.15492E+000
		158.63 @	0.69		
		179.54 @	0.15		
		269.46*	13.90	1.45539E+001	8.23564E-001
		288.18* @	0.16	1.11757E+002	2.45926E+001
		323.87	3.99		
		328.38* @	0.21	8.00215E+002	4.55019E+001
		338.32*	2.84	2.40674E+002	1.10987E+001
		342.87 @	0.22		
		371.68 @	0.49		
		445.03 @	1.29		
Ra-224	0.978	81.07* @	0.13	7.82079E+001	2.57781E+001
		83.78* @	0.22	4.96650E+002	2.95174E+001
		240.99*	4.10	7.80070E+001	3.62306E+000
Ra-226	0.938	81.07* @	0.20	5.19568E+001	1.71102E+001
		83.78* @	0.33	3.28264E+002	1.94527E+001
		94.90 @	0.15		
		186.21*	3.59	3.87659E+001	2.23479E+000
Ac-228	0.995	99.50* @	1.26	3.04780E+001	4.95858E+000
		129.07* @	2.50	4.32028E+001	2.07228E+000
		209.25*	3.97	5.34498E+001	3.45298E+000
		270.24*	3.55	5.70351E+001	3.20996E+000
		328.00*	3.04	5.50626E+001	3.05457E+000
		338.32*	11.40	6.00095E+001	3.14704E+000
		409.46* @	2.02	5.35337E+001	3.31814E+000
		463.00*	4.45	5.47582E+001	3.69843E+000
		755.31* @	1.03	5.81818E+001	5.57017E+000
		772.29* @	1.52	5.51305E+001	3.07723E+000
		794.94*	4.31	5.81604E+001	2.64778E+000
		835.70* @	1.70	6.00215E+001	3.25661E+000
		911.20*	26.20	6.42659E+001	2.49982E+000
		964.79*	4.99	6.60416E+001	2.85415E+000
		968.96*	15.90	6.56742E+001	2.61329E+000
		1588.20*	3.06	6.97570E+001	3.51444E+000
		1630.62* @	1.52	7.52974E+001	4.11812E+000
Th-228	0.998	84.37*	1.26	8.55342E+001	4.21217E+000
		131.61* @	0.13	6.80453E+001	1.52346E+001
		166.41* @	0.10	6.14348E+001	1.54972E+001
		215.98*	0.25	8.34559E+001	2.34058E+001
Pa-234m	0.482	258.23* @	0.07	9.02647E+001	4.67944E+001
		742.81 @	0.09		
		766.36	0.32		
		786.27* @	0.05	1.64449E+003	6.72857E+001

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Pa-234m	0.482	1001.03*	0.85	3.22214E+001	3.94859E+000
		1737.77 @	0.02		
Th-234	0.891	63.30*	3.75	1.75932E+001	1.53511E+000
		92.59*	4.33	6.32961E+001	3.49515E+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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***** INTERFERENCE CORRECTED REPORT *****
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	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GWET)	Wt mean Activity Uncertainty
	K-40		0.995	1.302371E+001	6.517087E-001
X	Mn-54		0.908		
	Mo-99	@	0.734	5.945754E-002	2.699580E-002
X	Cd-109		0.935		
	Ce-139		0.951	3.100261E-002	2.139064E-002
	Ce-141	@	0.931	1.928525E-001	4.168744E-002
	Eu-152m		0.990	3.282385E+000	1.192927E-001
	Eu-155		0.911	2.717398E+000	1.573726E-001
X	Tm-170		0.992		
	Tl-208	@	0.975	2.068965E+001	4.356464E-001
	TL-208e		0.936	1.100379E+000	7.421489E-002
	Bi-211		0.880	1.188331E+001	3.329460E+000
	Bi-212	@	0.949	6.458920E+001	1.412320E+000
	Pb-212	@	0.998	3.293264E+001	9.418386E-001
	Bi-214	@	0.926	2.096019E+001	3.113664E-001
	Pb-214	@	0.968	1.670592E+001	8.177860E-001
	Rn-219	@	0.839	5.336498E-001	3.882893E-001
	Rn-220		1.000	9.015024E+001	2.119257E+001
	Ra-223	@	0.582	3.253026E-001	1.992944E-001
	Ra-224	@	0.978	4.634613E+001	3.790558E+000
	Ra-226	@	0.938	3.800050E+001	2.135851E+000
	Ac-228	@	0.995	6.133712E+001	6.443526E-001
	Th-228	@	0.998	3.762507E+001	5.522978E+000
X	Th-231		0.991		
	Pa-234m	@	0.482	3.154258E+001	3.931223E+000
	Th-234	@	0.891	2.498388E+001	1.405520E+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: 10/15/2016 1:52:01 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	65.29	1.6021E-002	50.40	Tol.	Ta-182
m 12	108.97	2.4884E-001	8.30		
M 20	163.43	6.1653E-002	22.47	Sum	
23	199.54	1.0943E-001	35.33	Sum	
28	252.53	8.0197E-002	36.57	Sum	
m 36	332.47	1.2488E-001	8.78	Sum	
m 38	340.92	1.3604E-001	7.83	Sum	
40	388.99	2.5264E-002	58.04	Sum	
43	440.53	1.1933E-002	133.11	Sum	
44	452.80	8.6638E-002	30.42	Sum	
46	487.07	2.6895E-002	74.40	D-Esc.	
47	503.63	5.0901E-002	33.90	Sum	
M 50	546.48	5.5296E-002	15.47	Sum	
52	562.32	1.9392E-001	10.09	D-Esc.	
53	572.14	6.9479E-002	23.98	D-Esc.	
M 64	781.95	1.1915E-001	5.86	Sum	
M 68	830.52	1.0985E-001	6.01	Sum	
m 70	840.16	1.9201E-001	3.87	Sum	
72	893.22	5.9942E-002	15.74	Sum	
73	904.08	1.3701E-001	9.87	Sum	
75	927.39	2.5656E-003	233.03	Sum	
M 77	947.91	1.9533E-002	21.76	Sum	
m 78	952.01	3.9379E-002	13.09	Sum	
79	958.51	3.7736E-002	28.62	Sum	
82	988.25	2.3204E-002	35.28	Sum	
84	1033.27	3.2931E-002	27.07	Sum	
86	1065.09	5.9465E-002	17.74	Sum	
87	1078.61	9.7231E-002	10.80	S-Esc.	
88	1093.96	7.8638E-002	13.43	Sum	
89	1110.56	7.2482E-002	12.97	S-Esc.	
94	1247.27	3.9478E-002	27.43	Sum	
M101	1496.29	1.3223E-001	4.22	Sum	
m102	1502.05	7.0122E-002	6.51	Sum	
m104	1513.35	4.9803E-002	8.41	Sum	
M106	1581.12	9.2302E-002	5.09	Sum	
m111	1625.68	4.8920E-002	7.61	Sum	
113	1639.07	6.6907E-002	12.52	Sum	
m115	1667.26	2.5508E-002	12.83	Sum	
M117	1759.51	4.6132E-003	29.63	Sum	
119	1807.34	1.5577E-002	35.97	Sum	
120	1848.51	1.0005E-001	7.63	Sum	

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

Errors quoted at 1.000 sigma