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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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OYSTER CREEK NUCLEAR GENERATING STATION CHEMISTRY DEPARTMENT

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Detector Name       : DET01
Report Generated On  : 4/25/09  2:30:59 AM   Co-60 2.58E-7
Spectral Data File Name : C:\PCNT2K\CAMFILES\1LSOLMDA
\2000076.CNF           :                               Cs-137 1.13E-7
:
Sample Title        : 1-L Solid Releas
Sample Description   : soil n of cst 2'
User ID             : nc226
Sample Type         : 20
Sample Geometry     : 1-L Marinelli

Peak Locate Threshold : 3.00
Peak Locate Range (in channels) : 1 - 4096
Peak Area Range (in channels) : 100 - 4096
Identification Energy Tolerance : 1.000 keV

Sample Size         : 1617.00 grams

Sample Taken On     : 4/25/09  2:04:47 AM
Acquisition Started : 4/25/09  2:09:49 AM
Decay Time          : 5.04E+000 Minutes

Live Time          : 1568.0 Seconds
Real Time          : 1568.8 Seconds
Dead Time          : 0.05 %
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Energy Calibration Used Done On : 1/8/09
Efficiency Calibration Used Done On : 1/8/09
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                  B A C K G R O U N D   S U B T R A C T   R E P O R T  
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Detector Name: DET01  
Sample Title: 1-L Solid Releas  
Peak Analysis Performed on: 4/25/09 2:30:59 AM

Peak Subtracted No. (keV) Uncert.	Energy	Original Area	Orig. Uncert.	Area Background	Ambient Uncert.	Backgr. Subtracted Area
M 1	238.51	1.36E+002	12.42			1.36E+002
1.24E+001						
m 2	241.54	4.61E+001	8.26			4.61E+001
8.26E+000						
3	351.69	5.56E+001	12.83			5.56E+001
1.28E+001						
4	582.82	4.45E+001	8.64			4.45E+001
8.64E+000						
5	609.01	4.50E+001	9.08			4.50E+001
9.08E+000						
6	661.32	3.66E+001	9.66			3.66E+001
9.66E+000						
7	1172.81	5.25E+001	8.80			5.25E+001
8.80E+000						
8	1332.64	5.80E+001	8.37			5.80E+001
8.37E+000						
9	1460.69	5.98E+001	8.26			5.98E+001
8.26E+000						

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:            DET01  
Sample Geometry:         1-L Marinelli  
Sample Title:            1-L Solid Releas  
Nuclide Library Used:    C:\GENIE2K\CAMFILES\AnSolMDA.NLB

Activity (uCi/gram)	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (uCi/gram)	Nuclide MDA (uCi/gram)
7.83E-008	CS-134	563.23	8.38	9.37E-007	6.06E-008
4.04E-009		569.32	15.43	4.39E-007	
5.35E-009		604.70	97.60	6.06E-008	-
2.16E-008		795.84	85.40	1.03E-007	
4.91E-008		801.93	8.73	8.09E-007	-
1.19E-006		1365.15	3.04	2.35E-006	-
+ 1.13E-007	CS-137	661.65*	85.12	1.16E-007	1.16E-007

+ = Nuclide identified during the nuclide identification  
\* = Energy line found in the spectrum  
> = MDA value not 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: 1-L Solid Releas  
Nuclide Library Used: C:\GENIE2K\CAMFILES\AnSolMDA.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/gram)	Activity Uncertainty
K-40	0.998	1460.81*	10.67	3.01E-006	4.22E-007
CO-60	0.985	1173.22*	100.00	2.32E-007	3.92E-008
		1332.49*	100.00	2.87E-007	4.19E-008
CS-137	0.982	661.65*	85.12	1.13E-007	2.99E-008
PB-212	0.708	87.20	6.30		
		89.80	1.75		
		238.63*	44.60	2.90E-007	2.72E-008
		300.09	3.41		
BI-214	0.652	609.31*	46.30	2.36E-007	4.79E-008
		934.06	3.21		
		1764.49	15.80		
PB-214	0.418	87.20	3.70		
		89.80	1.03		
		241.98*	7.49	5.93E-007	1.07E-007
		295.21	19.20		
		351.92*	37.20	2.08E-007	4.81E-008

\* = Energy line found in the spectrum.  
@ = Energy line not used for Weighted Mean Activity  
Energy Tolerance : 1.000 keV  
Nuclide confidence index threshold = 0.30  
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 (uCi/gram)	Wt mean Activity Uncertainty
	K-40	0.998	3.01E-006	4.22E-007
	CO-60	0.985	2.58E-007	2.86E-008
	CS-137	0.982	1.13E-007	2.99E-008
X	BI-211	0.578		
	PB-212	0.708	2.90E-007	2.72E-008
	BI-214	0.652	2.36E-007	4.79E-008
	PB-214	0.418	2.72E-007	4.38E-008
Total Activity			4.18E-006	

? = 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: 4/25/09 2:30:59 AM  
Peak Locate From Channel: 100  
Peak Locate To Channel: 4096

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
4	582.82	2.84E-002	19.41

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

Errors quoted at 1.000 sigma