****
***** GAMMA SPECTRUM ANALYSIS *****
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OYSTER CREEK NUCLEAR GENERATING STATION CHEMISTRY DEPARTMENT

Detector Name	:	DET02
Report Generated On	:	4/25/09 1:34:31 AM
Spectral Data File Name	:	C:\PCNT2K\CAMFILES\1LSOLMDA\2000074.CNF
	:	
Sample Title	:	1-L Solid Releas
Sample Description	:	N side of pump house soil
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	:	1742.00 grams
Sample Taken On	:	4/24/09 7:00:00 PM
Acquisition Started	:	4/25/09 1:21:23 AM
Decay Time	:	3.81E+002 Minutes
Live Time	:	1087.0 Seconds
Real Time	:	1087.2 Seconds
Dead Time	:	0.02 %

Surface

Cs-137 2.28E-7

Energy Calibration Used Done On	:	3/21/08
Efficiency Calibration Used Done On	:	3/21/08

C-20

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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: DET02
Sample Title: 1-L Solid Releas
Peak Analysis Performed on: 4/25/09 1:34:31 AM

Peak No.	Energy (keV)	Original Area	Orig. Area Uncert.	Ambient Background	Backgr. Uncert.	Subtracted Area	Subtracted Uncert.
1	238.56	8.46E+001	17.76			8.46E+001	1.78E+001
2	351.90	4.24E+001	13.46			4.24E+001	1.35E+001
3	583.36	2.34E+001	6.91			2.34E+001	6.91E+000
4	661.81	8.72E+001	9.60			8.72E+001	9.60E+000
5	1332.90	3.04E+001	5.88			3.04E+001	5.88E+000
6	1461.80	2.37E+001	5.19			2.37E+001	5.19E+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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***** NUCLIDE MDA REPORT *****
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Detector Name: DET02
Sample Geometry: 1-L Marinelli
Sample Title: 1-L Solid Releas
Nuclide Library Used: C:\GENIE2K\CAMFILES\AnSolMDA.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (uCi/gram)	Nuclide MDA (uCi/gram)	Activity (uCi/gram)
	CS-134	563.23	8.38	5.37E-007	2.95E-008	1.27E-007
		569.32	15.43	3.08E-007		1.30E-007
		604.70	97.60	2.95E-008		-5.12E-009
		795.84	85.40	6.55E-008		1.33E-008
		801.93	8.73	4.27E-007		2.02E-008
		1365.15	3.04	1.69E-006		2.81E-007
+	CS-137	661.65*	85.12	3.42E-008	3.42E-008	2.28E-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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***** NUCLIDE IDENTIFICATION REPORT *****
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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	0.855	1460.81*	10.67	1.01E-006	2.22E-007
CS-137	0.996	661.65*	85.12	2.28E-007	2.55E-008
BI-211	0.544	351.10*	12.20	4.30E-007	1.37E-007
		404.80	4.10		
PB-212	0.674	87.20	6.30		
		89.80	1.75		
		238.63*	44.60	1.66E-007	3.50E-008
		300.09	3.41		

* = 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	0.855	1.01E-006	2.22E-007
CS-137	0.996	2.28E-007	2.55E-008
BI-211	0.544	4.30E-007	1.37E-007
PB-212	0.674	1.66E-007	3.50E-008
Total Activity		1.83E-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 1:34:31 AM
Peak Locate From Channel: 100
Peak Locate To Channel: 4096

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
3	583.36	2.15E-002	29.58
5	1332.90	2.80E-002	19.32

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

Errors quoted at 1.000 sigma