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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: 9055

Report Generated On              : 3/13/2008   9:56:37 AM

Sample Title                     : ERL 26392
Sample Description               : leak test schnitzer Steel 3-08
Sample Identification            : ERL26392
Sample Type                      : Wipes
Sample Geometry                  : Wipes

Peak Locate Threshold            :  3.00
Peak Locate Range (in channels)  :     1 -  8192
Peak Area Range (in channels)    :     1 -  8192
Identification Energy Tolerance  :    1.000 keV

Sample Size                      :  1.000E+000 kg

Sample Taken On                  : 3/12/2008   6:00:00 PM
Acquisition Started              : 3/13/2008   6:28:33 AM

Live Time                        :    10000.0 seconds
Real Time                        :    10011.5 seconds

Dead Time                        :   0.12 %


               Energy Calibration Used Done On       : 3/30/2006
               Efficiency Calibration Used Done On   : 3/31/2006
               Efficiency ID                         :
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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: ERL 26392
Nuclide Library Used: C:\GENIE2K\CAMFILES\Stdlib.NLB

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

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/kg)	Activity Uncertainty
CS-137	0.958	661.65*	85.12	9.06851E-004	2.75829E-005
PB-214	0.390	74.81	6.33		
		77.11	10.70		
		87.20	3.70		
		89.80	1.03		
		241.98	7.49		
		295.21*	19.20	7.78408E-006	3.69563E-006
		351.92*	37.20	7.38566E-006	2.29378E-006
		785.91	1.10		
RA-226	0.992	186.21*	3.28	2.93931E-005	1.96960E-005

* = 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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***** 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 (uCi/kg)	Wt mean Activity Uncertainty
CS-137	0.958	9.068506E-004	2.758294E-005
PB-214	0.390	7.496459E-006	1.948901E-006
RA-226	0.992	2.939306E-005	1.969600E-005

? = 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: 3/13/2008 9:56:37 AM
Peak Locate From Channel: 1
Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	4.47	1.6233E-001	5.46
2	63.66	2.3407E-003	152.13
4	238.72	6.6333E-003	43.82
7	609.66	1.3735E-002	14.79
9	1462.48	6.9271E-003	14.86
10	1766.90	1.9160E-003	33.87

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: 9055
Sample Geometry: Wipes
Sample Title: ERL 26392
Nuclide Library Used: C:\GENIE2K\CAMFILES\Stdlib.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (uCi/kg)	Nuclide MDA (uCi/kg)	Activity (uCi/kg)
	K-40	1460.81	10.67	5.8241E-005	5.82E-005	9.1948E-005
	MN-54	834.83	99.97	2.7298E-006	2.73E-006	1.0603E-006
	CO-57	122.06	85.51	2.3687E-006	2.37E-006	1.5000E-006
		136.48	10.60	1.8585E-005		1.4221E-005
	CO-60	1173.22	100.00	3.2683E-006	2.95E-006	4.4776E-007
		1332.49	100.00	2.9453E-006		2.0245E-006
	CS-134	475.35	1.46	3.5999E-004	3.05E-006	2.7351E-004
		563.23	8.38	3.7035E-005		-1.7038E-005
		569.32	15.43	1.9278E-005		-6.4770E-006
		604.70	97.60	3.2890E-006		1.8716E-006
		795.84	85.40	3.0481E-006		3.8793E-007
		801.93	8.73	2.9311E-005		-2.7514E-006
		1038.57	1.00	2.3430E-004		-5.3126E-005
		1167.94	1.80	1.6931E-004		-5.4822E-005
		1365.15	3.04	9.6864E-005		-1.6152E-005
	CS-136	66.91	12.50	2.2491E-005	2.92E-006	-1.1008E-005
		86.29	6.30	3.7842E-005		1.9621E-005
		153.22	7.46	2.8285E-005		1.6649E-005
		163.89	4.61	4.8098E-005		2.5936E-005
		176.55	13.56	1.6297E-005		-1.8007E-006
		273.65	12.66	2.0169E-005		-1.2844E-005
		340.57	48.50	6.6383E-006		3.4602E-006
		818.50	99.70	2.9158E-006		1.5026E-007
		1048.07	79.60	3.7936E-006		-6.8851E-007
		1235.34	19.70	2.0760E-005		3.5022E-006
+	CS-137	661.65*	85.12	4.3510E-006	4.35E-006	9.0685E-004
	CS-138	138.10	1.49	4.7924E+003	1.09E+002	2.2812E+003
		227.76	1.51	5.5231E+003		1.9482E+003
		408.98	4.66	3.3118E+003		-5.5373E+000
		462.79	30.70	6.3890E+002		3.7381E+002
		546.94	10.80	1.1023E+003		-3.7715E+002
		871.80	5.11	2.0777E+003		2.4691E+002
		1009.78	29.80	3.6469E+002		3.7562E+001
		1147.22	1.24	9.2531E+003		-9.0059E+002
		1343.59	1.14	8.1482E+003		-9.0191E+003
		1435.86	76.30	1.0899E+002		-6.4886E+001
@	TL-208	72.80	2.02	1.0000E+020	1.00E+020	1.0000E+020
@		74.97	3.41	1.0000E+020		1.0000E+020
@		84.90	1.51	1.0000E+020		1.0000E+020
@		211.40	0.18	1.0000E+020		1.0000E+020
@		233.36	0.31	1.0000E+020		1.0000E+020
@		252.61	0.69	1.0000E+020		1.0000E+020

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (uCi/kg)	Nuclide MDA (uCi/kg)	Activity (uCi/kg)
@	TL-208	277.36	6.31	1.0000E+020	1.00E+020	1.0000E+020
@		510.77	22.60	1.0000E+020		1.0000E+020
@		583.19	84.50	1.0000E+020		1.0000E+020
@		722.04	0.20	1.0000E+020		1.0000E+020
@		763.13	1.81	1.0000E+020		1.0000E+020
@		860.56	12.42	1.0000E+020		1.0000E+020
@		927.60	0.13	1.0000E+020		1.0000E+020
@		982.70	0.20	1.0000E+020		1.0000E+020
@		1093.90	0.40	1.0000E+020		1.0000E+020
@		2614.53	99.16	1.0000E+020		1.0000E+020
	BI-211	72.87	1.20	2.1906E-004	2.79E-005	-4.9271E-005
		351.10	12.20	2.7931E-005		-3.6759E-006
		404.80	4.10	9.9249E-005		-3.1087E-005
		426.90	1.90	2.3349E-004		2.7209E-004
		831.80	3.30	8.2956E-005		2.6354E-005
	BI-212	39.86	1.10	8.5743E-004	2.13E-005	-1.1445E-003
		727.17	11.80	2.1280E-005		7.8102E-006
		785.42	2.00	1.2811E-004		3.4268E-006
		1620.56	2.75	1.0471E-004		2.9161E-005
	PB-212	74.81	9.60	2.7473E-005	5.58E-006	-2.5328E-005
		77.11	17.50	1.4763E-005		1.0191E-005
		87.20	6.30	3.5854E-005		-1.7132E-005
		89.80	1.75	1.2567E-004		-3.6453E-004
		115.19	0.60	3.3321E-004		1.1501E-004
		238.63	44.60	5.5766E-006		3.2077E-006
		300.09	3.41	7.8717E-005		-3.6323E-005
	BI-214	609.31	46.30	8.9026E-006	8.90E-006	7.8117E-006
		768.36	5.04	5.6900E-005		-8.6860E-006
		806.17	1.23	2.0545E-004		1.9904E-005
		934.06	3.21	9.4557E-005		3.0840E-005
		1120.29	15.10	2.6087E-005		2.9022E-005
		1155.19	1.69	1.7064E-004		-5.6243E-005
		1238.11	5.94	7.1594E-005		8.0751E-005
		1280.96	1.47	2.4029E-004		8.7661E-005
		1377.67	4.11	8.5343E-005		-7.1107E-006
		1385.31	0.78	4.7038E-004		1.5868E-004
		1401.50	1.39	2.1608E-004		5.8930E-005
		1407.98	2.48	1.2396E-004		3.9198E-006
		1509.19	2.19	1.7353E-004		4.3550E-005
		1661.28	1.15	2.5401E-004		9.6797E-005
		1729.60	3.05	1.1030E-004		5.5080E-006
		1764.49	15.80	3.1570E-005		3.4564E-005
		1847.44	2.12	1.7687E-004		1.0301E-004
		2118.54	1.21	2.6587E-004		1.2678E-004
+	PB-214	74.81	6.33	4.1666E-005	7.31E-006	-3.8413E-005
		77.11	10.70	2.4146E-005		1.6668E-005
		87.20	3.70	6.1049E-005		-2.9170E-005
		89.80	1.03	2.1351E-004		-6.1934E-004
		241.98	7.49	3.2640E-005		6.6867E-006
		295.21*	19.20	1.2041E-005		7.7841E-006
		351.92*	37.20	7.3130E-006		7.3857E-006

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (uCi/kg)	Nuclide MDA (uCi/kg)	Activity (uCi/kg)
+	PB-214	785.91	1.10	2.2914E-004	7.31E-006	-4.5913E-005
+	RA-226	186.21*	3.28	6.4862E-005	6.49E-005	2.9393E-005
	AC-228	89.95	2.10	1.0770E-004	1.15E-005	-1.9342E-004
		93.35	3.50	6.6154E-005		2.1428E-005
		129.08	2.80	7.1952E-005		1.7132E-005
		209.28	4.40	4.9373E-005		-3.2480E-005
		270.23	3.60	7.0272E-005		-1.2289E-005
		327.64	3.20	8.9490E-005		-4.9398E-005
		338.32	11.40	2.6875E-005		1.9738E-005
		409.51	2.13	1.9707E-004		3.0423E-005
		463.00	4.40	1.2084E-004		4.5083E-005
		794.70	4.60	5.8338E-005		1.8478E-005
		911.60	27.70	1.1491E-005		3.1525E-006
		964.60	5.20	5.8788E-005		-6.9494E-005
		969.11	16.60	2.0170E-005		9.2847E-006
		1587.90	3.71	8.2674E-005		-7.3963E-005
	TH-231	26.64	18.70	2.4927E-004	2.99E-005	-9.0534E-005
		84.21	8.00	2.9859E-005		-1.3421E-005
		89.95	1.25	1.8095E-004		-3.2495E-004
	PA-234M	1001.03	0.59	4.9078E-004	4.91E-004	-1.4651E-004

+ = 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