**********
*****  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\UNC 2017\IMC Samples\IMC-2079\W6H-IMC-207

Report Generated On : 5/1/2017 10:01:09 AM

Sample Title : W6H-IMC-2079-S-P-8
Sample Description :
Sample Identification : 2079-S-P-8
Sample Type :
Sample Geometry : cylinder

Peak Locate Threshold : 3.00
Peak Locate Range (in channels) : 40 - 8192
Peak Area Range (in channels) : 40 - 8192
Identification Energy Tolerance : 1.000 keV

Sample Size : 2.861E+002 grams

Sample Taken On : 3/17/2017 12:00:00 AM
Acquisition Started : 3/31/2017 2:02:31 PM

Live Time : 1800.0 seconds
Real Time : 1800.3 seconds

Dead Time : 0.02 %

Energy Calibration Used Done On : 3/24/2017
Efficiency Calibration Used Done On : 5/1/2017
Efficiency ID : H-IMC-2079-S-P-8

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

Detector Name: 8566
Sample Title: W6H-IMC-2079-S-P-8
Peak Analysis Performed on: 5/1/2017 10:01:05 AM
Peak Analysis From Channel: 40
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 |
|---|---|---|---|---|---|---|---|---|---|
| F | 1 | 179- | 190 | 186.09 | 46.72 | 0.77 | 6.04E+001 | 18.74 | 4.00E+001 |
| M | 2 | 295- | 316 | 299.87 | 75.18 | 0.63 | 5.88E+001 | 20.46 | 6.86E+001 |
| m | 3 | 295- | 316 | 308.91 | 77.44 | 0.64 | 4.83E+001 | 17.52 | 4.57E+001 |
| F | 4 | 365- | 377 | 370.23 | 92.78 | 1.04 | 5.00E+001 | 18.11 | 4.12E+001 |
| F | 5 | 949- | 958 | 953.02 | 238.57 | 0.85 | 5.81E+001 | 19.48 | 4.50E+001 |
| F | 6 | 1400- | 1410 | 1405.09 | 351.65 | 1.05 | 2.91E+001 | 14.44 | 2.42E+001 |
| F | 7 | 5824- | 5851 | 5836.72 | 1460.21 | 3.13 | 1.51E+002 | 22.40 | 9.33E+000 |

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

Errors quoted at 1.960 sigma

**********
***** 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: W6H-IMC-2079-S-P-8
Nuclide Library Used: C:\GENIE2K\CAMFILES\UNC 2017 Full NLB.NL

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

| Nuclide Name | Id Confidence | Energy (keV) | Yield (%) | Activity (pCi/gram) | Activity Uncertainty |
|---|---|---|---|---|---|
| K-40 | 0.941 | 1460.82* | 10.66 | 9.36266E+000 | 1.60009E+000 |
| Pb-210 | 0.995 | 46.54* | 4.25 | 2.45316E+000 | 1.03067E+000 |
| Pb-212 | 0.993 | 74.82* | 10.28 | 4.88728E-001 | 1.96612E-001 |
| | | 77.11* | 17.10 | 2.36197E-001 | 9.79303E-002 |
| | | 86.83 | 2.07 | | |
| | | 87.35 | 3.97 | | |
| | | 89.78 | 1.46 | | |
| | | 115.18 | 0.60 | | |
| | | 238.63* | 43.60 | 1.53882E-001 | 5.70962E-002 |
| | | 300.09 | 3.30 | | |
| PB-214 | 0.658 | 74.82* | 5.80 | 8.66228E-001 | 3.56993E-001 |
| | | 77.11* | 9.70 | 4.16388E-001 | 1.76663E-001 |
| | | 86.83 | 1.70 | | |
| | | 87.35 | 2.24 | | |
| | | 89.78 | 0.82 | | |
| | | 241.99 | 7.25 | | |
| | | 258.76 | 0.53 | | |
| | | 274.80 | 0.35 | | |
| | | 295.22 | 18.42 | | |
| | | 351.93* | 35.60 | 1.39411E-001 | 7.21945E-002 |
| | | 462.02 | 0.21 | | |
| | | 480.43 | 0.34 | | |
| | | 487.14 | 0.43 | | |
| | | 533.66 | 0.18 | | |
| | | 580.14 | 0.37 | | |
| | | 785.96 | 1.06 | | |
| | | 839.07 | 0.58 | | |
| TH-234 | 0.330 | 63.29 | 3.70 | | |
| | | 92.38 | 2.13 | | |
| | | 92.80* | 2.10 | 1.81588E+000 | 8.21148E-001 |
| | | 112.81 | 0.21 | | |
| U-235 | 0.507 | 72.70 | 0.12 | | |
| | | 89.96 | 3.43 | | |
| | | 93.35* | 5.54 | 6.88328E-001 | 2.85551E-001 |
| | | 104.82 | 0.69 | | |
| | | 105.60 | 1.31 | | |
| | | 108.58 | 0.50 | | |
| | | 109.19 | 1.66 | | |
| | | 140.76 | 0.20 | | |
| | | 143.76 | 10.96 | | |
| | | 163.36 | 5.08 | | |
| | | 182.62 | 0.39 | | |

| Nuclide Name | Id Confidence | Energy (keV) | Yield (%) | Activity (pCi/gram) | Activity Uncertainty |
|---|---|---|---|---|---|
| U-235 | 0.507 | 194.94 | 0.63 | | |
| | | 202.12 | 1.08 | | |
| | | 205.32 | 5.02 | | |
| | | 221.39 | 0.12 | | |

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.000 keV
Nuclide confidence index threshold = 0.10
Errors quoted at 1.960 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/gram) | Wt mean Activity Uncertainty |
|---|---|---|---|---|
| | K-40 | 0.941 | 9.362665E+000 | 1.600090E+000 |
| | Pb-210 | 0.995 | 2.453160E+000 | 1.030670E+000 |
| | Pb-212 | 0.993 | 1.678092E-001 | 4.903705E-002 |
| | PB-214 | 0.658 | 1.519902E-001 | 6.719017E-002 |
| ? | TH-234 | 0.330 | 1.815875E+000 | 8.211482E-001 |
| ? | U-235 | 0.507 | 6.883281E-001 | 2.855511E-001 |

? = 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 1.960 sigma

**********  U N I D E N T I F I E D  P E A K S  **********

Peak Locate Performed on: 5/1/2017 10:01:05 AM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192

| Peak No. | Energy (keV) | Peak Size in Counts per Second | Peak CPS % Uncertainty | Peak Type | Tol. Nuclide |
|---|---|---|---|---|---|

All peaks were identified.

**********
***** N U C L I D E M D A R E P O R T *****
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Detector Name: 8566
Sample Geometry: cylinder
Sample Title: W6H-IMC-2079-S-P-8
Nuclide Library Used: C:\GENIE2K\CAMFILES\UNC 2017 Full NLB.NL

| | Nuclide Name | Energy (keV) | Yield (%) | Line MDA (pCi/gram) | Nuclide MDA (pCi/gram) | Activity (pCi/gram) | Dec. Leve (pCi/gram |
|---|---|---|---|---|---|---|---|
| + | K-40 | 1460.82* | 10.66 | 1.163E+000 | 1.16E+000 | 9.363E+000 | 4.977E-00 |
| | CO-60 | 1173.23 | 99.85 | 1.688E-001 | 1.65E-001 | -5.374E-002 | 7.694E-00 |
| | | 1332.49 | 99.98 | 1.650E-001 | | -5.591E-002 | 7.418E-00 |
| | CS-137 | 661.66 | 85.10 | 1.291E-001 | 1.29E-001 | 1.373E-003 | 5.934E-00 |
| + | Pb-210 | 46.54* | 4.25 | 1.574E+000 | 1.57E+000 | 2.453E+000 | 7.319E-00 |
| | BI-212 | 288.20 | 0.34 | 1.806E+001 | 2.11E+000 | 2.226E+000 | 8.471E+00 |
| | | 328.03 | 0.13 | 5.251E+001 | | -4.126E+001 | 2.454E+00 |
| | | 452.98 | 0.36 | 2.504E+001 | | -2.179E+001 | 1.169E+00 |
| | | 727.33 | 6.67 | 2.111E+000 | | 1.341E-001 | 9.829E-00 |
| | | 785.37 | 1.10 | 1.207E+001 | | -2.667E+000 | 5.564E+00 |
| | | 893.41 | 0.38 | 3.318E+001 | | -5.324E+001 | 1.505E+00 |
| | | 952.12 | 0.17 | 9.576E+001 | | -2.269E+001 | 4.424E+00 |
| | | 1078.62 | 0.56 | 3.217E+001 | | 1.620E+001 | 1.486E+00 |
| | | 1512.70 | 0.29 | 5.522E+001 | | 1.200E+001 | 2.443E+00 |
| | | 1620.50 | 1.47 | 1.158E+001 | | 7.907E+000 | 5.123E+00 |
| + | Pb-212 | 74.82* | 10.28 | 3.430E-001 | 9.49E-002 | 4.887E-001 | 1.602E-00 |
| | | 77.11* | 17.10 | 1.669E-001 | | 2.362E-001 | 7.684E-00 |
| | | 86.83 | 2.07 | 2.211E+000 | | 6.798E-001 | 1.054E+00 |
| | | 87.35 | 3.97 | 1.115E+000 | | -7.856E-001 | 5.309E-00 |
| | | 89.78 | 1.46 | 2.708E+000 | | 9.243E-001 | 1.283E+00 |
| | | 115.18 | 0.60 | 5.728E+000 | | 1.047E+000 | 2.694E+00 |
| | | 238.63* | 43.60 | 9.492E-002 | | 1.539E-001 | 4.387E-00 |
| | | 300.09 | 3.30 | 2.098E+000 | | -9.432E-001 | 9.894E-00 |
| | BI-214 | 76.86 | 0.55 | 1.118E+001 | 2.70E-001 | 1.467E+001 | 5.380E+00 |
| | | 79.29 | 0.91 | 5.200E+000 | | 9.065E-002 | 2.477E+00 |
| | | 89.26 | 0.11 | 3.619E+001 | | 2.482E+001 | 1.714E+00 |
| | | 89.81 | 0.21 | 1.883E+001 | | 6.425E+000 | 8.918E+00 |
| | | 273.80 | 0.13 | 4.830E+001 | | 2.248E+001 | 2.276E+00 |
| | | 348.92 | 0.10 | 7.784E+001 | | 6.186E+001 | 3.672E+00 |
| | | 386.78 | 0.29 | 2.663E+001 | | -2.559E+000 | 1.245E+00 |
| | | 388.89 | 0.40 | 1.926E+001 | | -1.558E+000 | 8.990E+00 |
| | | 405.72 | 0.17 | 4.823E+001 | | -7.163E+000 | 2.253E+00 |
| | | 454.79 | 0.29 | 3.233E+001 | | -7.663E+000 | 1.513E+00 |
| | | 469.77 | 0.13 | 5.886E+001 | | -6.663E+001 | 2.706E+00 |
| | | 609.32 | 45.49 | 2.705E-001 | | 1.707E-001 | 1.263E-00 |
| | | 665.45 | 1.53 | 8.058E+000 | | 1.212E+000 | 3.738E+00 |
| | | 703.11 | 0.47 | 2.686E+001 | | -7.920E+000 | 1.244E+00 |
| | | 719.87 | 0.39 | 3.530E+001 | | -1.130E+001 | 1.643E+00 |
| | | 752.85 | 0.13 | 1.093E+002 | | 1.733E+001 | 5.073E+00 |
| | | 768.36 | 4.89 | 3.051E+000 | | 2.046E+000 | 1.422E+00 |
| | | 786.35 | 0.32 | 3.995E+001 | | -4.468E+001 | 1.835E+00 |
| | | 806.18 | 1.26 | 1.179E+001 | | 7.344E-001 | 5.472E+00 |

| | Nuclide Name | Energy (keV) | Yield (%) | Line MDA (pCi/gram) | Nuclide MDA (pCi/gram) | Activity (pCi/gram) | Dec. Leve (pCi/gram |
|---|---|---|---|---|---|---|---|
| | BI-214 | 821.18 | 0.16 | 8.524E+001 | 2.70E-001 | 5.686E+000 | 3.925E+00 |
| | | 826.45 | 0.12 | 1.106E+002 | | -7.551E+001 | 5.066E+00 |
| | | 934.06 | 3.11 | 5.384E+000 | | -1.705E+000 | 2.496E+00 |
| | | 964.08 | 0.37 | 5.479E+001 | | 2.224E+001 | 2.568E+00 |
| | | 1051.96 | 0.31 | 5.235E+001 | | 1.583E+001 | 2.402E+00 |
| | | 1069.96 | 0.27 | 6.864E+001 | | 2.093E+001 | 3.180E+00 |
| | | 1120.29 | 14.92 | 1.335E+000 | | 9.349E-001 | 6.196E-00 |
| | | 1133.66 | 0.25 | 6.879E+001 | | -1.005E+001 | 3.153E+00 |
| | | 1155.21 | 1.63 | 1.013E+001 | | -7.031E-001 | 4.619E+00 |
| | | 1207.68 | 0.45 | 4.089E+001 | | -9.410E+000 | 1.876E+00 |
| | | 1238.11 | 5.83 | 3.498E+000 | | 1.818E+000 | 1.616E+00 |
| | | 1280.98 | 1.43 | 1.211E+001 | | 2.058E+000 | 5.499E+00 |
| | | 1303.75 | 0.11 | 1.799E+002 | | 6.718E+001 | 8.237E+00 |
| | | 1377.67 | 3.99 | 4.015E+000 | | 9.361E-001 | 1.795E+00 |
| | | 1385.31 | 0.79 | 2.029E+001 | | 1.326E+000 | 9.069E+00 |
| | | 1401.52 | 1.33 | 1.430E+001 | | 5.591E+000 | 6.500E+00 |
| | | 1407.99 | 2.39 | 7.758E+000 | | 3.579E+000 | 3.517E+00 |
| | | 1509.21 | 2.13 | 7.827E+000 | | 1.081E+000 | 3.482E+00 |
| | | 1538.53 | 0.40 | 3.702E+001 | | -1.216E+001 | 1.616E+00 |
| | | 1543.34 | 0.30 | 4.602E+001 | | -2.059E+001 | 1.991E+00 |
| | | 1583.20 | 0.70 | 2.144E+001 | | 4.526E+000 | 9.358E+00 |
| | | 1594.75 | 0.27 | 5.539E+001 | | -1.262E+001 | 2.408E+00 |
| | | 1599.37 | 0.32 | 4.442E+001 | | 4.784E+000 | 1.922E+00 |
| | | 1661.27 | 1.05 | 1.232E+001 | | -5.480E+000 | 5.202E+00 |
| | | 1684.01 | 0.21 | 6.824E+001 | | 3.310E+001 | 2.938E+00 |
| | | 1729.59 | 2.88 | 5.024E+000 | | 2.229E+000 | 2.151E+00 |
| | | 1764.49 | 15.30 | 1.060E+000 | | 5.805E-001 | 4.608E-00 |
| | | 1838.36 | 0.35 | 4.049E+001 | | 6.275E+000 | 1.710E+00 |
| | | 1847.43 | 2.03 | 7.598E+000 | | 4.238E-001 | 3.253E+00 |
| | | 1873.16 | 0.21 | 7.541E+001 | | 2.051E+001 | 3.247E+00 |
| | | 1896.05 | 0.15 | 1.096E+002 | | -3.516E+001 | 4.718E+00 |
| > | | 2118.51 | 1.16 | 0.000E+000 | | 0.000E+000 | 0.000E+00 |
| > | | 2204.06 | 4.92 | 0.000E+000 | | 0.000E+000 | 0.000E+00 |
| > | | 2293.38 | 0.31 | 0.000E+000 | | 0.000E+000 | 0.000E+00 |
| > | | 2447.70 | 1.55 | 0.000E+000 | | 0.000E+000 | 0.000E+00 |
| + | PB-214 | 74.82* | 5.80 | 6.079E-001 | 1.25E-001 | 8.662E-001 | 2.840E-00 |
| | | 77.11* | 9.70 | 2.942E-001 | | 4.164E-001 | 1.355E-00 |
| | | 86.83 | 1.70 | 2.692E+000 | | 8.278E-001 | 1.284E+00 |
| | | 87.35 | 2.24 | 1.976E+000 | | -1.392E+000 | 9.409E-00 |
| | | 89.78 | 0.82 | 4.822E+000 | | 1.646E+000 | 2.284E+00 |
| | | 241.99 | 7.25 | 1.043E+000 | | -1.756E-001 | 4.999E-00 |
| | | 258.76 | 0.53 | 1.135E+001 | | -2.351E-002 | 5.359E+00 |
| | | 274.80 | 0.35 | 1.673E+001 | | 2.836E+000 | 7.860E+00 |
| | | 295.22 | 18.42 | 3.696E-001 | | 1.237E-002 | 1.743E-00 |
| | | 351.93* | 35.60 | 1.254E-001 | | 1.394E-001 | 5.623E-00 |
| | | 462.02 | 0.21 | 4.497E+001 | | 3.219E+001 | 2.103E+00 |
| | | 480.43 | 0.34 | 2.807E+001 | | -5.448E+000 | 1.308E+00 |
| | | 487.14 | 0.43 | 2.254E+001 | | -1.270E+001 | 1.052E+00 |
| | | 533.66 | 0.18 | 5.518E+001 | | 2.334E+001 | 2.562E+00 |
| | | 580.14 | 0.37 | 3.317E+001 | | 1.087E+001 | 1.554E+00 |
| | | 785.96 | 1.06 | 1.206E+001 | | -1.348E+001 | 5.537E+00 |

| | Nuclide Name | Energy (keV) | Yield (%) | Line MDA (pCi/gram) | Nuclide MDA (pCi/gram) | Activity (pCi/gram) | Dec. Leve (pCi/gram |
|---|---|---|---|---|---|---|---|
| + | PB-214 | 839.07 | 0.58 | 2.715E+001 | 1.25E-001 | 1.907E+001 | 1.263E+00 |
| | Ra-226 | 81.07 | 0.20 | 1.855E+001 | 1.50E+000 | -5.652E+000 | 8.713E+00 |
| | | 83.79 | 0.32 | 1.373E+001 | | 1.174E+001 | 6.533E+00 |
| | | 186.21 | 3.64 | 1.496E+000 | | 1.602E+000 | 7.134E-00 |
| | AC-228 | 89.96 | 1.90 | 2.911E+017 | 9.23E+016 | 9.934E+016 | 1.379E+01 |
| | | 93.35 | 3.10 | 1.800E+017 | | 1.031E+017 | 8.537E+01 |
| | | 99.51 | 1.26 | 3.738E+017 | | 2.682E+017 | 1.756E+01 |
| | | 104.82 | 0.39 | 1.180E+018 | | -1.429E+017 | 5.539E+01 |
| | | 105.60 | 0.74 | 6.471E+017 | | 3.481E+017 | 3.045E+01 |
| | | 108.58 | 0.28 | 1.633E+018 | | -5.219E+017 | 7.660E+01 |
| | | 129.07 | 2.42 | 2.132E+017 | | -2.163E+017 | 1.006E+01 |
| | | 145.85 | 0.16 | 3.286E+018 | | 4.099E+017 | 1.547E+01 |
| | | 153.98 | 0.72 | 7.435E+017 | | 5.092E+017 | 3.500E+01 |
| | | 191.35 | 0.12 | 5.358E+018 | | 1.809E+018 | 2.532E+01 |
| | | 199.41 | 0.31 | 2.046E+018 | | 8.836E+017 | 9.636E+01 |
| | | 204.03 | 0.11 | 5.801E+018 | | 4.561E+017 | 2.730E+01 |
| | | 209.25 | 3.89 | 1.611E+017 | | -6.382E+016 | 7.553E+01 |
| | | 214.85 | 0.76 | 8.735E+017 | | 5.545E+017 | 4.105E+01 |
| | | 270.24 | 3.46 | 2.558E+017 | | 7.009E+016 | 1.207E+01 |
| | | 278.95 | 0.16 | 5.058E+018 | | 2.823E+017 | 2.370E+01 |
| | | 321.65 | 0.23 | 4.192E+018 | | 1.348E+018 | 1.966E+01 |
| | | 327.44 | 0.12 | 7.945E+018 | | -1.016E+018 | 3.723E+01 |
| | | 328.00 | 2.95 | 3.114E+017 | | -2.447E+017 | 1.455E+01 |
| | | 332.37 | 0.40 | 2.164E+018 | | -1.802E+018 | 1.006E+01 |
| | | 338.32 | 11.27 | 9.232E+016 | | 8.550E+016 | 4.340E+01 |
| | | 340.96 | 0.37 | 2.762E+018 | | 1.222E+018 | 1.296E+01 |
| | | 409.46 | 1.92 | 6.242E+017 | | 4.543E+017 | 2.923E+01 |
| | | 440.44 | 0.12 | 1.021E+019 | | -3.567E+018 | 4.766E+01 |
| | | 463.00 | 4.40 | 2.958E+017 | | 8.944E+016 | 1.381E+01 |
| | | 478.33 | 0.21 | 6.167E+018 | | 3.159E+018 | 2.870E+01 |
| | | 503.82 | 0.18 | 8.383E+018 | | -5.343E+018 | 3.932E+01 |
| | | 508.96 | 0.45 | 4.231E+018 | | 5.534E+018 | 2.010E+01 |
| | | 523.13 | 0.10 | 1.286E+019 | | 6.151E+017 | 5.953E+01 |
| | | 546.47 | 0.20 | 7.008E+018 | | 4.708E+017 | 3.249E+01 |
| | | 562.50 | 0.87 | 1.681E+018 | | 4.928E+017 | 7.799E+01 |
| | | 570.91 | 0.18 | 8.157E+018 | | -5.434E+016 | 3.784E+01 |
| | | 572.14 | 0.15 | 1.016E+019 | | 7.269E+017 | 4.723E+01 |
| | | 583.41 | 0.11 | 1.496E+019 | | 4.280E+018 | 6.987E+01 |
| | | 674.75 | 2.10 | 8.194E+017 | | -1.428E+017 | 3.796E+01 |
| | | 701.75 | 0.17 | 1.033E+019 | | -1.799E+018 | 4.785E+01 |
| | | 707.41 | 0.16 | 1.210E+019 | | -1.574E+017 | 5.625E+01 |
| | | 726.86 | 0.62 | 3.224E+018 | | 1.494E+018 | 1.503E+01 |
| | | 755.32 | 1.00 | 1.865E+018 | | 0.000E+000 | 8.623E+01 |
| | | 772.29 | 1.49 | 1.334E+018 | | -7.290E+017 | 6.191E+01 |
| | | 782.14 | 0.49 | 4.008E+018 | | 2.527E+018 | 1.854E+01 |
| | | 794.95 | 4.25 | 4.684E+017 | | 7.225E+016 | 2.169E+01 |
| | | 830.49 | 0.54 | 3.665E+018 | | -1.079E+018 | 1.691E+01 |
| | | 835.71 | 1.61 | 1.317E+018 | | 2.704E+017 | 6.104E+01 |
| | | 840.38 | 0.91 | 2.380E+018 | | 1.483E+017 | 1.105E+01 |
| | | 904.20 | 0.77 | 3.435E+018 | | 7.316E+017 | 1.610E+01 |
| | | 911.20 | 25.80 | 1.070E+017 | | -1.994E+016 | 5.026E+01 |

| | Nuclide Name | Energy (keV) | Yield (%) | Line MDA (pCi/gram) | Nuclide MDA (pCi/gram) | Activity (pCi/gram) | Dec. Leve (pCi/gram |
|---|---|---|---|---|---|---|---|
| | AC-228 | 947.98 | 0.11 | 2.141E+019 | 9.23E+016 | -9.397E+017 | 9.893E+01 |
| | | 958.61 | 0.28 | 8.628E+018 | | -2.141E+018 | 4.003E+01 |
| | | 964.77 | 4.99 | 5.682E+017 | | 4.768E+017 | 2.666E+01 |
| | | 968.97 | 15.80 | 1.746E+017 | | 1.306E+017 | 8.175E+01 |
| | | 1033.25 | 0.20 | 1.060E+019 | | 4.124E+018 | 4.838E+01 |
| | | 1065.18 | 0.13 | 1.813E+019 | | 3.107E+018 | 8.341E+01 |
| | | 1095.68 | 0.13 | 2.171E+019 | | 1.166E+019 | 1.010E+01 |
| | | 1110.61 | 0.28 | 9.467E+018 | | -8.179E+017 | 4.386E+01 |
| | | 1153.52 | 0.14 | 1.643E+019 | | -5.842E+018 | 7.479E+01 |
| | | 1247.08 | 0.50 | 5.587E+018 | | -1.312E+018 | 2.575E+01 |
| | | 1459.14 | 0.83 | 7.248E+018 | | 1.838E+019 | 3.474E+01 |
| | | 1495.91 | 0.86 | 2.523E+018 | | 1.268E+018 | 1.113E+01 |
| | | 1501.57 | 0.46 | 5.442E+018 | | 1.521E+018 | 2.442E+01 |
| | | 1557.11 | 0.18 | 1.139E+019 | | 6.134E+018 | 4.950E+01 |
| | | 1580.53 | 0.60 | 3.217E+018 | | 2.477E+017 | 1.385E+01 |
| | | 1588.20 | 3.22 | 6.937E+017 | | 6.868E+016 | 3.050E+01 |
| | | 1625.06 | 0.25 | 9.571E+018 | | 6.794E+018 | 4.247E+01 |
| | | 1630.63 | 1.51 | 1.399E+018 | | 4.798E+017 | 6.080E+01 |
| | | 1638.28 | 0.47 | 3.792E+018 | | -2.117E+018 | 1.602E+01 |
| | | 1666.52 | 0.18 | 1.137E+019 | | -2.773E+018 | 4.897E+01 |
| | TH-230 | 67.67 | 0.38 | 1.300E+001 | 1.30E+001 | 7.072E+000 | 6.163E+00 |
| | PA-234 | 742.81 | 0.11 | 1.347E+002 | 1.90E+001 | 1.000E+002 | 6.273E+00 |
| | | 766.42 | 0.32 | 4.558E+001 | | 9.486E+000 | 2.119E+00 |
| | | 1001.03 | 0.84 | 1.904E+001 | | -7.375E+000 | 8.754E+00 |
| + | TH-234 | 63.29 | 3.70 | 1.570E+000 | 1.46E+000 | 6.062E-001 | 7.476E-00 |
| | | 92.38 | 2.13 | 2.013E+000 | | 1.846E+000 | 9.582E-00 |
| | | 92.80* | 2.10 | 1.462E+000 | | 1.816E+000 | 6.820E-00 |
| | | 112.81 | 0.21 | 1.530E+001 | | -1.014E+001 | 7.168E+00 |
| | U-234 | 53.20 | 0.12 | 4.496E+001 | 4.50E+001 | -3.960E+000 | 2.102E+00 |
| | | 120.90 | 0.04 | 9.384E+001 | | -2.614E+001 | 4.400E+00 |
| + | U-235 | 72.70 | 0.12 | 4.345E+001 | 3.50E-001 | 2.564E+000 | 2.073E+00 |
| | | 89.96 | 3.43 | 1.152E+000 | | 3.931E-001 | 5.456E-00 |
| | | 93.35* | 5.54 | 5.543E-001 | | 6.883E-001 | 2.585E-00 |
| | | 104.82 | 0.69 | 4.801E+000 | | -5.811E-001 | 2.253E+00 |
| | | 105.60 | 1.31 | 2.612E+000 | | 1.405E+000 | 1.229E+00 |
| | | 108.58 | 0.50 | 6.533E+000 | | -2.088E+000 | 3.065E+00 |
| | | 109.19 | 1.66 | 1.932E+000 | | -9.361E-001 | 9.052E-00 |
| | | 140.76 | 0.20 | 1.912E+001 | | -7.770E+000 | 9.024E+00 |
| | | 143.76 | 10.96 | 3.504E-001 | | 2.142E-001 | 1.654E-00 |
| | | 163.36 | 5.08 | 8.416E-001 | | 4.720E-001 | 3.980E-00 |
| | | 182.62 | 0.39 | 1.310E+001 | | -5.741E+000 | 6.231E+00 |
| | | 194.94 | 0.63 | 7.511E+000 | | 5.776E-001 | 3.547E+00 |
| | | 202.12 | 1.08 | 4.148E+000 | | -2.810E+000 | 1.949E+00 |
| | | 205.32 | 5.02 | 9.736E-001 | | 7.661E-001 | 4.595E-00 |
| | | 221.39 | 0.12 | 4.008E+001 | | -1.601E+000 | 1.880E+00 |

+ = 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

**********
**** L I N E A C T I V I T Y C O N S I S T E N C Y E V A L U A T O R ***
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==========
Analysis using Key Line Activities
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Filename: C:\GENIE2K\CAMFILES\UNC 2017\IMC Samples\IMC-2079\W6H-IMC-207

Equation used to calculate plot: ln(Ratio) = A + B*ln(Energy)
where: Ratio = Activity/KL Activity

Notes:
'^' Denotes Key Line energy
* All uncertainties quoted at 1.96 sigma

| Nuclide | Energy (keV) | | Activity (pCi/gram) | Activity %Uncert* | Ratio[%Uncert] | A | B [uncert] |
|---|---|---|---|---|---|---|---|
| K-40 | 1460.8 | ^ | 9.36E+000 | 17.090 | | | |
| Pb-210 | 46.5 | ^ | 2.45E+000 | 42.014 | | | |
| Pb-212 | 74.8 | | 4.89E-001 | 40.229 | 3.176[54.728] | 3.87 | -0.708 |
| | 77.1 | | 2.36E-001 | 41.461 | 1.535[55.639] | | [ 0.571] |
| | 238.6 | ^ | 1.54E-001 | 37.104 | 1.000[52.473] | | |
| PB-214 | 74.8 | | 8.66E-001 | 41.212 | 6.213[66.183] | 5.64 | -0.963 |
| | 77.1 | | 4.16E-001 | 42.428 | 2.987[66.946] | | [ 0.568] |
| | 351.9 | ^ | 1.39E-001 | 51.785 | 1.000[73.235] | | |
| TH-234 | 92.8 | | 1.82E+000 | ****** | | | |
| U-235 | 93.3 | | 6.88E-001 | ****** | | | |