

**SEMI-ANNUAL REPORT OF THE DEPARTMENT OF ENERGY,  
OFFICE OF ENVIRONMENTAL MANAGEMENT,  
QUALITY ASSESSMENT PROGRAM**

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# **A**bstract

This report presents the results from the analysis of the 52nd set of environmental quality assessment samples (QAP-LII) that were received on or before June 3, 2000.

# **A**CKNOWLEDGEMENT

This report represents the efforts of the following EML staff: Karin Decker, Michele DeGennaro, Isabel M. Fisenne, Richard Godwin, Cristina Jaw, John Kada, Ada Kong, Pamela M. Perry, William Rivera, Arnold Boyd, Nancy Chieco, Kevin Clancy, Sylvia Kendall, and Camille Marinetti.

# I NTRODUCTION

This Quality Assessment Program (QAP) is designed to test the quality of the environmental measurements being reported to the Department of Energy by its contractors. Since 1976, real or synthetic environmental samples that have been prepared and thoroughly analyzed at the Environmental Measurements Laboratory (EML) have been distributed at first quarterly and then semi-annually to these contractors. Their results, which are returned to EML within 90 days, are compiled with EML's results and are reported back to the participating contractors 30 days later. A summary of the reported results is available to the participants 4 days after the reporting deadline via the Internet at [www.eml.doe.gov](http://www.eml.doe.gov).

This is the 58th report of this program. Preceding reports in this series are:

HASL-317	(February 1, 1977)	EML-453	(March 1, 1986)
HASL-319	(May 2, 1977)	EML-454	(March 1, 1986)
HASL-323	(August 1, 1977)	EML-477	(October 1, 1986)
HASL-331	(November 1, 1977)	EML-478	(March 1, 1987)
EML-336	(January 1, 1978)	EML-498	(September 1, 1987)
EML-337	(February 1, 1978)	EML-518	(January 2, 1989)
EML-340	(May 1, 1978)	EML-525*	(August 1, 1989)
EML-343	(August 1, 1978)	EML-526	(January 2, 1990)
EML-346	(November 1, 1978)	EML-530	(July 2, 1990)
EML-350	(February 1, 1979)	EML-535	(January 1, 1991)
EML-351	(February 1, 1979)	EML-539	(July 1, 1991)
EML-354	(May 1, 1979)	EML-543	(January 2, 1992)
EML-358	(August 1, 1979)	EML-546	(July 1, 1992)
EML-364	(November 1, 1979)	EML-551	(January 4, 1993)
EML-368	(February 1, 1980)	EML-556	(July 1, 1993)
EML-377	(August 1, 1980)	EML-559	(January 5, 1994)
EML-387	(February 1, 1981)	EML-561	(July 1, 1994)
EML-388	(February 1, 1981)	EML-565	(January 5, 1995)
EML-393	(August 3, 1981)	EML-569	(July 3, 1995)
EML-402	(February 1, 1982)	EML-576	(February 1, 1996, Revised)
EML-414	(April 1, 1983)	EML-581	(July 1, 1996)
EML-417	(September 1, 1983)	EML-587	(January 1997)
EML-426	(March 1, 1984)	EML-591	(July 1997)
PNL-5079	(April 1, 1984)	EML-594	(January 1998)
EML-431	(September 1, 1984)	EML-596	(July 1998)
EML-432	(November 1, 1984)	EML-600	(December 1998)
EML-438	(March 1, 1985)	EML-604	(June 1999)
EML-439	(March 1, 1985)	EML-605	(December 1999)
EML-448	(October 1, 1985)		

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\*Please note this is a corrected report number.

# RESULTS

The results from the analysis of QAP-LII samples (3682 results from 145 laboratories) received on or before June 3, 2000 are listed according to the TABLE OF CONTENTS. The data for the different kinds of samples are given in the following units:

Air Filters	Bq filter <sup>-1</sup>
Soil	Bq kg <sup>-1</sup>
Vegetation	Bq kg <sup>-1</sup>
Water	Bq L <sup>-1</sup>

The values for elemental uranium are reported in  $\mu\text{g filter}^{-1}$ ,  $\text{g}^{-1}$ , or  $\text{mL}^{-1}$ . Some programs require the use of pCi as reporting units, the conversion can be found on page 3.

The 'EML value' listed in the tables to which the contractors' results are compared is the mean of replicate EML determinations for each nuclide. The EML uncertainty is the standard deviation of the mean. All other uncertainties are as reported by the participants.

The control limit concept was established from percentiles of historic data distributions (1982-1992). The evaluation of this historic data and the development of the control limits are presented in DOE report EML-564. The control limits for QAP-LII were developed from percentiles of data distributions for the years 1993-1999.

Participants' analytical performance is evaluated based on the historical analytical capabilities for individual analyte/matrix pairs. The criteria for acceptable performance, "A", has been chosen to be between the 15<sup>th</sup> and 85<sup>th</sup> percentile of the cumulative normalized distribution, which can be viewed as the middle 70% of all historic measurements. The acceptable with warning criteria, "W", is between the 5<sup>th</sup> and 15<sup>th</sup> percentile and between the 85<sup>th</sup> and 95<sup>th</sup> percentile. In other words, the middle 90% of all reported values are acceptable, while the outer 5<sup>th</sup>-15<sup>th</sup> (10%) and 85<sup>th</sup>-95<sup>th</sup> percentiles (10%) are in the warning area. The not acceptable criteria, "N", is established at less than the 5<sup>th</sup> percentile and greater than the 95<sup>th</sup> percentile, that is, the outer 10% of the historical data. These control limits for all 48 i/j pairs are listed in the Table of Control Limits (p. 4).

QAP is an external assessment of environmental radiological analyses. If your laboratory is performing other types of analyses (screening, high-level radiological), this evaluation system may not be appropriate, and you should continue to use an evaluation system appropriate to your data quality objectives.

# QAP 2003/Quality Assessment Program 52 Report

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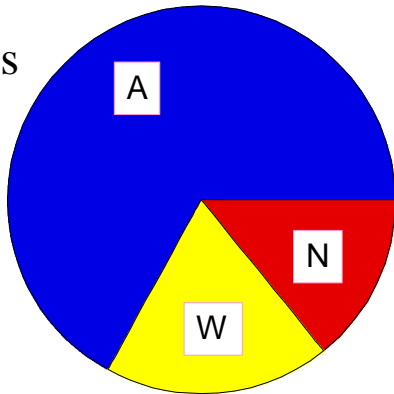
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\*Participating Laboratories are those labs that were sent samples.

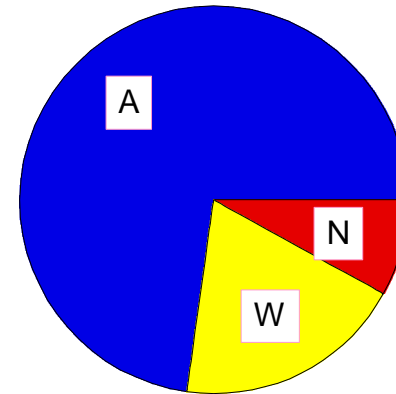
# QAP 52 Summary of Evaluations of 3652 Reported Analyses

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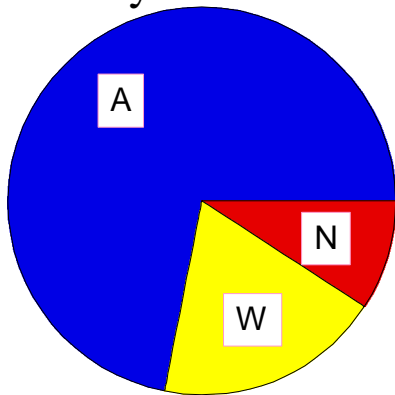
Air Filter:  
986 Analyses



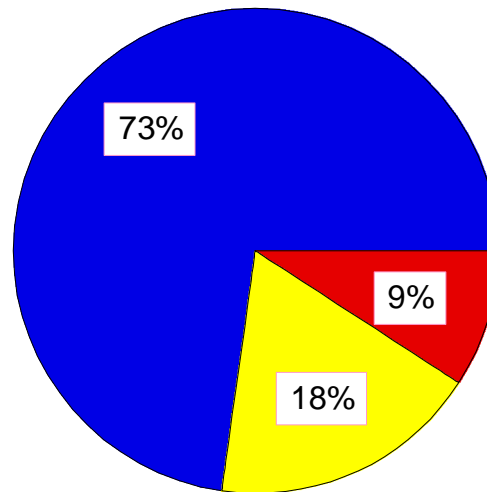
Soil: 1119  
Analyses



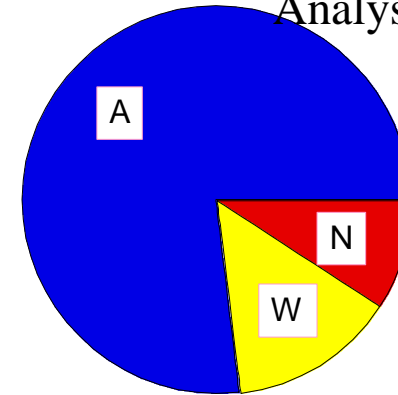
Vegetation:  
527 Analyses



Summary: All  
Analyses



Water: 1050  
Analyses



Acceptable

Warning

Not Acceptable

## QAP 52 Statistical Summary

Nuclide	EML Value	EML Error	Reported Values EML Value			No.* of Reported Values
			Mean	Median	Std. Dev.	
<b>Matrix: AI</b>						
AM241	0.088	0.005	1.067	1.000	0.271	60
Bq U	0.126	0.001	1.229	1.040	0.454	21
CO57	5.310	0.220	1.027	1.018	0.127	124
CO60	5.320	0.260	1.057	1.045	0.094	124
CS137	6.100	0.300	1.087	1.069	0.105	128
GROSS ALPHA	3.020	0.300	0.930	0.908	0.141	87
GROSS BETA	2.420	0.200	1.121	1.116	0.156	85
PU238	0.080	0.001	0.989	0.988	0.093	46
PU239	0.089	0.003	1.003	1.011	0.110	53
RU106	2.010	1.940	1.166	1.244	0.130	16
SR90	0.242	0.005	1.023	1.014	0.211	36
U234	0.062	0.001	1.040	1.048	0.131	33
U238	0.062	0.001	1.081	1.048	0.140	37

<b>Matrix: SO</b>						
AC228	97.600	4.200	1.050	1.027	0.146	93
AM241	3.360	0.510	1.104	1.086	0.318	40
BI212	106.000	7.000	0.818	0.868	0.212	78
BI214	86.700	3.800	1.047	1.050	0.135	89
Bq U	229.000	23.000	1.039	1.065	0.086	23
CS137	339.000	9.300	1.051	1.039	0.103	126
K40	811.000	29.000	1.059	1.070	0.124	118
PB212	97.300	4.600	1.036	1.026	0.133	90
PB214	86.500	6.800	1.098	1.100	0.149	88
PU238	18.600	0.500	0.994	1.006	0.090	30
PU239	7.000	0.340	1.049	1.029	0.134	62
SR90	20.200	0.200	1.094	1.010	0.351	41
TH234	130.000	5.000	1.086	1.015	0.286	49
U234	111.000	11.000	1.039	1.053	0.092	50
U238	114.000	12.000	1.047	1.061	0.106	53

<b>Matrix: VE</b>						
AM241	10.400	1.400	0.953	0.933	0.192	63
CM244	5.000	1.800	1.112	1.100	0.211	33
CO60	52.800	1.000	1.037	1.038	0.113	101

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\*Statistical summary of "A" and "W" reported values

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## QAP 52 Statistical Summary

Nuclide	EML Value	EML Error	Reported Values			No.* of Reported Values
			Mean	Median	Std. Dev.	
CS137	1380.000	20.000	1.061	1.075	0.115	97
K40	521.000	20.000	1.066	1.056	0.127	89
PU238	1.090	0.100	1.161	1.096	0.494	12
PU239	15.500	2.100	0.934	0.923	0.130	44
SR90	1780.000	17.800	0.952	0.966	0.160	39

<b>Matrix:</b>	<b>WA</b>
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AM241	1.950	0.180	1.008	0.990	0.133	82
Bq U	0.995	0.087	1.077	1.075	0.104	30
CO60	48.900	1.800	1.052	1.057	0.056	141
CS137	103.000	4.000	1.042	1.053	0.068	144
FE55	33.100	0.700	0.992	0.997	0.181	18
GROSS ALPHA	1700.000	170.000	0.931	0.941	0.139	72
GROSS BETA	690.000	70.000	1.199	1.253	0.212	74
H3	79.400	2.500	1.053	1.042	0.126	90
NI63	112.000	11.000	1.029	1.063	0.185	16
PU238	0.944	0.040	1.010	1.010	0.080	60
PU239	0.918	0.030	1.041	1.033	0.097	66
SR90	3.390	0.120	0.996	0.982	0.124	59
U234	0.482	0.040	1.031	1.017	0.108	53
U238	0.492	0.040	0.998	1.001	0.094	52

Units for matrices:

Air filter: AI=Bq/filter

Soil: SO=Bq/kg

Vegetation: VE=Bq/kg

Water: WA=Bq/L.

Values for elemental uranium in µg/filter, g or mL.

Conversion from Bq/kg or L to pCi/g or mL:

1 Bq/kg or L = 0.027 pCi/g or mL

Example: Convert 3 Bq/kg to pCi/g

3 Bq/kg x 27 pCi/Bq/1000 g/kg = 0.081 pCi/g

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\*Statistical summary of "A" and "W" reported values

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**QAP 52 Control Limits\* by Matrix**

Nuclide	Lower Limit	Lower Middle Limit	Upper Middle Limit	Upper Limit
<b>Matrix: AI</b>				
AM241	0.73	0.88	1.46	2.58
Bq U	0.80	0.90	1.53	3.35
CO57	0.65	0.72	1.13	1.39
CO60	0.75	0.83	1.10	1.32
CS137	0.73	0.82	1.14	1.37
GROSS ALPHA	0.50	0.81	1.32	1.55
GROSS BETA	0.72	0.89	1.39	1.67
PU238	0.74	0.89	1.15	1.40
PU239	0.76	0.90	1.19	1.44
RU106	0.59	0.76	1.15	1.30
SR90	0.61	0.83	1.33	1.93
U234	0.83	0.90	1.40	1.92
U238	0.84	0.90	1.31	2.61
<b>Matrix: SO</b>				
AC228	0.79	0.87	1.31	1.75
AM241	0.63	0.79	1.48	2.31
BI212	0.42	0.52	1.12	1.22
BI214	0.75	0.83	1.18	1.42
Bq U	0.42	0.61	1.16	1.39
CS137	0.83	0.90	1.21	1.32
K40	0.78	0.90	1.25	1.53
PB212	0.74	0.91	1.21	1.33
PB214	0.65	0.89	1.25	1.45
PU238	0.52	0.74	1.37	2.84
PU239	0.69	0.89	1.24	1.74
SR90	0.60	0.77	1.64	3.66
TH234	0.59	0.82	1.48	1.85
U234	0.47	0.70	1.11	1.30
U238	0.44	0.69	1.10	1.42
<b>Matrix: VE</b>				
AM241	0.68	0.89	1.60	2.70
CM244	0.47	0.81	1.35	1.74
CO60	0.69	0.86	1.24	1.46

\*Control limits are established from historical QAP data and reported as:  
the ratio of Reported Value vs. EML Value

**QAP 52 Control Limits\* by Matrix**

<b>Nuclide</b>	<b>Lower Limit</b>	<b>Lower Middle Limit</b>	<b>Upper Middle Limit</b>	<b>Upper Limit</b>
CS137	0.80	0.90	1.25	1.40
K40	0.79	0.90	1.24	1.42
PU238	0.66	0.81	2.89	7.94
PU239	0.68	0.86	1.23	1.59
SR90	0.50	0.73	1.13	1.33

<b>Matrix: WA</b>
-------------------

AM241	0.75	0.90	1.24	1.49
Bq U	0.67	0.90	1.26	1.42
CO60	0.80	0.90	1.14	1.20
CS137	0.80	0.90	1.18	1.26
FE55	0.44	0.60	1.34	1.53
GROSS ALPHA	0.61	0.83	1.17	1.32
GROSS BETA	0.55	0.71	1.32	1.54
H3	0.71	0.82	1.22	1.79
NI63	0.25	0.50	1.50	1.75
PU238	0.78	0.90	1.11	1.25
PU239	0.80	0.90	1.15	1.39
SR90	0.75	0.89	1.21	1.50
U234	0.80	0.90	1.22	1.40
U238	0.80	0.90	1.17	1.26

The following are recommended performance criteria for analysis of environmental levels of analytes:  
**Acceptable:** Lower Middle Limit  $\leq$  A  $\leq$  Upper Middle Limit

**Acceptable with Warning:** Lower Limit  $\leq$  W < Lower Middle Limit or Upper Middle Limit < W  $\leq$  Upper Limit

**Not Acceptable:** N < Lower Limit or N > Upper Limit

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\*Control limits are established from historical QAP data and reported as:  
the ratio of Reported Value vs. EML Value

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**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: AC</b> Analytical Chemistry Laboratory, Argonne National Lab							
WA	7	0	0	7	100	0	0
AI	6	0	0	6	100	0	0
SO	6	2	0	8	75	25	0
<b>Totals:</b>	<b>19</b>	<b>2</b>	<b>0</b>	<b>21</b>	<b>90%</b>	<b>10%</b>	<b>0%</b>
<b>Lab: AF</b> Air Force Analytical Lab, Brooks AFB							
VE	10	7	1	18	56	39	6
SO	18	22	5	45	40	49	11
WA	24	4	4	32	75	13	13
AI	21	8	5	34	62	24	15
<b>Totals:</b>	<b>73</b>	<b>41</b>	<b>15</b>	<b>129</b>	<b>57%</b>	<b>32%</b>	<b>12%</b>
<b>Lab: AG</b> Paragon Analytics, Inc, Fort Collins, CO							
AI	14	1	0	15	93	7	0
VE	7	1	0	8	88	13	0
SO	14	0	0	14	100	0	0
WA	10	1	0	11	91	9	0
<b>Totals:</b>	<b>45</b>	<b>3</b>	<b>0</b>	<b>48</b>	<b>94%</b>	<b>6%</b>	<b>0%</b>
<b>Lab: AI</b> Nuclear Technology Services, Inc., Roswell, GA							
AI	8	8	8	24	33	33	33
WA	13	1	6	20	65	5	30
VE	11	3	0	14	79	21	0
SO	11	3	10	24	46	13	42
<b>Totals:</b>	<b>43</b>	<b>15</b>	<b>24</b>	<b>82</b>	<b>52%</b>	<b>18%</b>	<b>29%</b>
<b>Lab: AM</b> American Radiation Services, Inc., Baton Rouge							
VE	4	1	2	7	57	14	29
SO	11	3	0	14	79	21	0
WA	6	0	6	12	50	0	50
AI	11	1	2	14	79	7	14
<b>Totals:</b>	<b>32</b>	<b>5</b>	<b>10</b>	<b>47</b>	<b>68%</b>	<b>11%</b>	<b>21%</b>
<b>Lab: AN</b> Argonne National Laboratory							
SO	7	0	0	7	100	0	0
WA	9	0	0	9	100	0	0
AI	9	1	0	10	90	10	0
<b>Totals:</b>	<b>25</b>	<b>1</b>	<b>0</b>	<b>26</b>	<b>96%</b>	<b>4%</b>	<b>0%</b>

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: AR</b> Accu-Labs Research Inc., Golden, CO							
AI	10	2	0	12	83	17	0
WA	8	2	1	11	73	18	9
SO	9	1	0	10	90	10	0
VE	8	0	0	8	100	0	0
<b>Totals:</b>	<b>35</b>	<b>5</b>	<b>1</b>	<b>41</b>	<b>85%</b>	<b>12%</b>	<b>2%</b>
<b>Lab: AS</b> USACHPPM, Aberdeen Proving Ground, MD							
SO	2	6	1	9	22	67	11
AI	6	2	0	8	75	25	0
WA	3	2	2	7	43	29	29
<b>Totals:</b>	<b>11</b>	<b>10</b>	<b>3</b>	<b>24</b>	<b>46%</b>	<b>42%</b>	<b>13%</b>
<b>Lab: AT</b> ATL International inc., Germantown, MD							
VE	3	1	0	4	75	25	0
SO	5	1	0	6	83	17	0
WA	10	1	0	11	91	9	0
AI	7	0	0	7	100	0	0
<b>Totals:</b>	<b>25</b>	<b>3</b>	<b>0</b>	<b>28</b>	<b>89%</b>	<b>11%</b>	<b>0%</b>
<b>Lab: AU</b> ORISE RSAT/ESSAP, Oak Ridge							
VE	3	1	2	6	50	17	33
SO	12	2	0	14	86	14	0
WA	10	1	0	11	91	9	0
AI	8	1	1	10	80	10	10
<b>Totals:</b>	<b>33</b>	<b>5</b>	<b>3</b>	<b>41</b>	<b>80%</b>	<b>12%</b>	<b>7%</b>
<b>Lab: AW</b> Argonne West National Lab							
AI	4	1	1	6	67	17	17
WA	2	1	0	3	67	33	0
<b>Totals:</b>	<b>6</b>	<b>2</b>	<b>1</b>	<b>9</b>	<b>67%</b>	<b>22%</b>	<b>11%</b>
<b>Lab: BA</b> Bettis Atomic Power Lab, West Mifflin, PA							
VE	2	0	0	2	100	0	0
AI	4	0	1	5	80	0	20
SO	2	0	0	2	100	0	0
WA	2	2	1	5	40	40	20
<b>Totals:</b>	<b>10</b>	<b>2</b>	<b>2</b>	<b>14</b>	<b>71%</b>	<b>14%</b>	<b>14%</b>

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: BC</b> BWX Technologies, Inc, Naval Nuclear Fuel Division, Lynchburg, VA							
AI	8	1	1	10	80	10	10
VE	3	1	0	4	75	25	0
SO	4	0	0	4	100	0	0
WA	5	1	1	7	71	14	14
<b>Totals:</b>	<b>20</b>	<b>3</b>	<b>2</b>	<b>25</b>	<b>80%</b>	<b>12%</b>	<b>8%</b>
<b>Lab: BE</b> RUST Geotech, Grand Junction, CO							
AI	11	1	0	12	92	8	0
WA	12	1	0	13	92	8	0
VE	6	1	0	7	86	14	0
SO	6	4	0	10	60	40	0
<b>Totals:</b>	<b>35</b>	<b>7</b>	<b>0</b>	<b>42</b>	<b>83%</b>	<b>17%</b>	<b>0%</b>
<b>Lab: BL</b> Barringer Laboratories Inc., Golden, CO							
WA	14	2	1	17	82	12	6
AI	14	1	1	16	88	6	6
VE	6	0	1	7	86	0	14
SO	14	1	1	16	88	6	6
<b>Totals:</b>	<b>48</b>	<b>4</b>	<b>4</b>	<b>56</b>	<b>86%</b>	<b>7%</b>	<b>7%</b>
<b>Lab: BM</b> Battelle Memorial Institute, Columbus, OH							
AI	6	2	0	8	75	25	0
VE	4	1	0	5	80	20	0
SO	4	1	0	5	80	20	0
WA	6	2	0	8	75	25	0
<b>Totals:</b>	<b>20</b>	<b>6</b>	<b>0</b>	<b>26</b>	<b>77%</b>	<b>23%</b>	<b>0%</b>
<b>Lab: BN</b> Brookhaven National Laboratory, Upton, NY							
VE	3	0	0	3	100	0	0
SO	5	2	0	7	71	29	0
WA	2	0	4	6	33	0	67
AI	3	2	1	6	50	33	17
<b>Totals:</b>	<b>13</b>	<b>4</b>	<b>5</b>	<b>22</b>	<b>59%</b>	<b>18%</b>	<b>23%</b>
<b>Lab: BP</b> Battelle Pacific Northwest National Laboratory							
WA	3	0	2	5	60	0	40
<b>Totals:</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>60%</b>	<b>0%</b>	<b>40%</b>

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: BQ</b> Becquerel Laboratories Inc., Mississauga, Ontario, Canada							
AI	6	0	1	7	86	0	14
VE	1	0	2	3	33	0	67
SO	4	1	2	7	57	14	29
WA	3	1	0	4	75	25	0
<b>Totals:</b>	<b>14</b>	<b>2</b>	<b>5</b>	<b>21</b>	<b>67%</b>	<b>10%</b>	<b>24%</b>
<b>Lab: BU</b> Autoridad Regulatoria, Buenos Aires, Argentina							
VE	4	3	0	7	57	43	0
AI	10	2	0	12	83	17	0
SO	9	0	0	9	100	0	0
WA	13	1	0	14	93	7	0
<b>Totals:</b>	<b>36</b>	<b>6</b>	<b>0</b>	<b>42</b>	<b>86%</b>	<b>14%</b>	<b>0%</b>
<b>Lab: BX</b> B&W Nuclear Envir. Services, Lynchburg, VA							
AI	11	1	1	13	85	8	8
WA	10	3	0	13	77	23	0
VE	5	2	0	7	71	29	0
SO	6	4	2	12	50	33	17
<b>Totals:</b>	<b>32</b>	<b>10</b>	<b>3</b>	<b>45</b>	<b>71%</b>	<b>22%</b>	<b>7%</b>
<b>Lab: CA</b> Atomic Energy Control Board, Ottawa, Canada							
AI	6	0	0	6	100	0	0
SO	0	0	0	0	***	***	***
WA	3	0	1	4	75	0	25
<b>Totals:</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>10</b>	<b>90%</b>	<b>0%</b>	<b>10%</b>
<b>Lab: CB</b> Radiation Protection Bureau, Ontario, Canada							
WA	10	1	0	11	91	9	0
AI	10	5	3	18	56	28	17
<b>Totals:</b>	<b>20</b>	<b>6</b>	<b>3</b>	<b>29</b>	<b>69%</b>	<b>21%</b>	<b>10%</b>
<b>Lab: CD</b> Gentilly-2 Nuclear Power Plant, Quebec, Canada							
WA	4	0	0	4	100	0	0
SO	6	1	0	7	86	14	0
AI	4	0	0	4	100	0	0
VE	3	0	0	3	100	0	0
<b>Totals:</b>	<b>17</b>	<b>1</b>	<b>0</b>	<b>18</b>	<b>94%</b>	<b>6%</b>	<b>0%</b>

## QAP 52 Summary of Matrix Evaluations by Laboratory

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: CF</b> Freshwater Institute Radiochemistry Winnipeg, Manitoba, Canada							
WA	8	4	0	12	67	33	0
VE	6	0	0	6	100	0	0
SO	9	0	0	9	100	0	0
<b>Totals:</b>	<b>23</b>	<b>4</b>	<b>0</b>	<b>27</b>	<b>85%</b>	<b>15%</b>	<b>0%</b>
<b>Lab: CH</b> California State Dept. Health Serv., Sanitation & Radiation Laboratory							
VE	4	2	1	7	57	29	14
SO	12	1	1	14	86	7	7
WA	14	0	0	14	100	0	0
AI	10	1	3	14	71	7	21
<b>Totals:</b>	<b>40</b>	<b>4</b>	<b>5</b>	<b>49</b>	<b>82%</b>	<b>8%</b>	<b>10%</b>
<b>Lab: CL</b> Core Laboratories, Casper, WY							
VE	3	2	6	11	27	18	55
SO	10	9	6	25	40	36	24
WA	16	5	7	28	57	18	25
AI	9	3	14	26	35	12	54
<b>Totals:</b>	<b>38</b>	<b>19</b>	<b>33</b>	<b>90</b>	<b>42%</b>	<b>21%</b>	<b>37%</b>
<b>Lab: CM</b> Metropolitan Water Reclamation District of Greater Chicago							
WA	8	5	0	13	62	38	0
SO	21	0	0	21	100	0	0
<b>Totals:</b>	<b>29</b>	<b>5</b>	<b>0</b>	<b>34</b>	<b>85%</b>	<b>15%</b>	<b>0%</b>
<b>Lab: CN</b> China Institute for Radiation Protection							
SO	5	1	0	6	83	17	0
AI	5	0	0	5	100	0	0
<b>Totals:</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>11</b>	<b>91%</b>	<b>9%</b>	<b>0%</b>
<b>Lab: CO</b> Bedford Institute of Oceanography, Dartmouth, Nova Scotia, Canada							
SO	9	0	0	9	100	0	0
AI	0	12	0	12	0	100	0
<b>Totals:</b>	<b>9</b>	<b>12</b>	<b>0</b>	<b>21</b>	<b>43%</b>	<b>57%</b>	<b>0%</b>
<b>Lab: CR</b> Laboratorio de Fisica Nuclear Aplicada, Costa Rica							
AI	1	1	3	5	20	20	60
VE	3	0	0	3	100	0	0
SO	5	2	0	7	71	29	0

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>9</b>	<b>3</b>	<b>3</b>	<b>15</b>	<b>60%</b>	<b>20%</b>	<b>20%</b>
<b>Lab: CS</b> Rocketdyne Propulsion & Power, Canoga Park, CA							
VE	3	1	0	4	75	25	0
AI	3	1	0	4	75	25	0
SO	7	0	0	7	100	0	0
WA	2	1	0	3	67	33	0
<b>Totals:</b>	<b>15</b>	<b>3</b>	<b>0</b>	<b>18</b>	<b>83%</b>	<b>17%</b>	<b>0%</b>
<b>Lab: CU</b> Universite Laval, Quebec, Canada							
VE	1	2	0	3	33	67	0
WA	2	1	0	3	67	33	0
AI	4	0	0	4	100	0	0
SO	7	0	0	7	100	0	0
<b>Totals:</b>	<b>14</b>	<b>3</b>	<b>0</b>	<b>17</b>	<b>82%</b>	<b>18%</b>	<b>0%</b>
<b>Lab: CW</b> Carlsbad Environmental Monitoring Research Center, NM							
VE	6	0	0	6	100	0	0
SO	8	2	0	10	80	20	0
WA	9	0	0	9	100	0	0
AI	9	0	0	9	100	0	0
<b>Totals:</b>	<b>32</b>	<b>2</b>	<b>0</b>	<b>34</b>	<b>94%</b>	<b>6%</b>	<b>0%</b>
<b>Lab: DC</b> Datachem Laboratories, Salt Lake City							
VE	0	3	0	3	0	100	0
WA	1	2	2	5	20	40	40
SO	4	2	0	6	67	33	0
<b>Totals:</b>	<b>5</b>	<b>7</b>	<b>2</b>	<b>14</b>	<b>36%</b>	<b>50%</b>	<b>14%</b>
<b>Lab: DH</b> Duke Engineering Services Hanford							
SO	7	0	0	7	100	0	0
WA	3	0	1	4	75	0	25
AI	6	1	0	7	86	14	0
<b>Totals:</b>	<b>16</b>	<b>1</b>	<b>1</b>	<b>18</b>	<b>89%</b>	<b>6%</b>	<b>6%</b>
<b>Lab: EC</b> Envirocare of Utah							
SO	13	5	0	18	72	28	0
WA	8	4	0	12	67	33	0
AI	4	0	10	14	29	0	71

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>25</b>	<b>9</b>	<b>10</b>	<b>44</b>	<b>57%</b>	<b>20%</b>	<b>23%</b>
<b>Lab: EG</b> LMITCO/INEL, Scoville							
VE	7	1	0	8	88	13	0
AI	8	2	1	11	73	18	9
SO	4	2	0	6	67	33	0
WA	4	4	0	8	50	50	0
<b>Totals:</b>	<b>23</b>	<b>9</b>	<b>1</b>	<b>33</b>	<b>70%</b>	<b>27%</b>	<b>3%</b>
<b>Lab: EL</b> Energy Laboratories, Inc., Casper, WY							
AI	0	0	4	4	0	0	100
VE	2	1	5	8	25	13	63
SO	0	1	5	6	0	17	83
WA	0	0	6	6	0	0	100
<b>Totals:</b>	<b>2</b>	<b>2</b>	<b>20</b>	<b>24</b>	<b>8%</b>	<b>8%</b>	<b>83%</b>
<b>Lab: EM</b> 3M, Empore Disks, St. Paul, MN							
WA	1	1	0	2	50	50	0
<b>Totals:</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>50%</b>	<b>50%</b>	<b>0%</b>
<b>Lab: EP</b> US EPA, Las Vegas							
AI	6	1	0	7	86	14	0
WA	6	0	0	6	100	0	0
<b>Totals:</b>	<b>12</b>	<b>1</b>	<b>0</b>	<b>13</b>	<b>92%</b>	<b>8%</b>	<b>0%</b>
<b>Lab: FG</b> EGL Environmental, Santa Paula, CA							
SO	11	2	0	13	85	15	0
WA	10	0	2	12	83	0	17
AI	5	2	0	7	71	29	0
<b>Totals:</b>	<b>26</b>	<b>4</b>	<b>2</b>	<b>32</b>	<b>81%</b>	<b>13%</b>	<b>6%</b>
<b>Lab: FL</b> Florida Dept of Health & Rehab. Serv., Orlando							
VE	4	0	0	4	100	0	0
SO	9	0	1	10	90	0	10
WA	6	2	0	8	75	25	0
AI	6	2	0	8	75	25	0
<b>Totals:</b>	<b>25</b>	<b>4</b>	<b>1</b>	<b>30</b>	<b>83%</b>	<b>13%</b>	<b>3%</b>

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: FM</b> Florida Mobile Emergency Radiological Laboratory, Orlando							
WA	3	0	0	3	100	0	0
AI	3	1	2	6	50	17	33
<b>Totals:</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>9</b>	<b>67%</b>	<b>11%</b>	<b>22%</b>
<b>Lab: FN</b> Fermi Lab, Batavia, IL							
WA	5	0	0	5	100	0	0
SO	4	0	0	4	100	0	0
VE	2	1	0	3	67	33	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>17</b>	<b>1</b>	<b>0</b>	<b>18</b>	<b>94%</b>	<b>6%</b>	<b>0%</b>
<b>Lab: FR</b> CEA/DAM - SPR/B3							
WA	3	2	1	6	50	33	17
<b>Totals:</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>6</b>	<b>50%</b>	<b>33%</b>	<b>17%</b>
<b>Lab: FS</b> Florida State University, Tallahassee							
SO	6	0	0	6	100	0	0
<b>Totals:</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: GA</b> Lockheed Martin, Pikton, OH							
VE	4	1	0	5	80	20	0
SO	11	0	0	11	100	0	0
WA	6	1	1	8	75	13	13
AI	7	3	1	11	64	27	9
<b>Totals:</b>	<b>28</b>	<b>5</b>	<b>2</b>	<b>35</b>	<b>80%</b>	<b>14%</b>	<b>6%</b>
<b>Lab: GC</b> Georgia Power Company Environmental Lab							
VE	3	0	0	3	100	0	0
AI	5	1	0	6	83	17	0
SO	7	1	0	8	88	13	0
WA	4	1	0	5	80	20	0
<b>Totals:</b>	<b>19</b>	<b>3</b>	<b>0</b>	<b>22</b>	<b>86%</b>	<b>14%</b>	<b>0%</b>
<b>Lab: GD</b> GTS Duratek, Oak Ridge, TN							
SO	3	3	0	6	50	50	0
WA	4	2	0	6	67	33	0



**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>7</b>	<b>5</b>	<b>0</b>	<b>12</b>	<b>58%</b>	<b>42%</b>	<b>0%</b>
<b>Lab: GE</b> General Engineering Labs, Charleston, SC							
VE	2	4	1	7	29	57	14
AI	9	3	1	13	69	23	8
SO	11	2	0	13	85	15	0
WA	9	3	1	13	69	23	8
<b>Totals:</b>	<b>31</b>	<b>12</b>	<b>3</b>	<b>46</b>	<b>67%</b>	<b>26%</b>	<b>7%</b>
<b>Lab: GP</b> GPU Nuclear, Inc., Harrisburg, PA							
VE	6	1	1	8	75	13	13
SO	8	0	1	9	89	0	11
WA	9	2	2	13	69	15	15
AI	6	5	2	13	46	38	15
<b>Totals:</b>	<b>29</b>	<b>8</b>	<b>6</b>	<b>43</b>	<b>67%</b>	<b>19%</b>	<b>14%</b>
<b>Lab: GS</b> USGS/NWQL, Arvada, CO							
WA	1	1	0	2	50	50	0
<b>Totals:</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>50%</b>	<b>50%</b>	<b>0%</b>
<b>Lab: GT</b> Georgia Institute of Technology							
VE	7	1	0	8	88	13	0
SO	4	2	0	6	67	33	0
WA	7	3	0	10	70	30	0
AI	8	2	1	11	73	18	9
<b>Totals:</b>	<b>26</b>	<b>8</b>	<b>1</b>	<b>35</b>	<b>74%</b>	<b>23%</b>	<b>3%</b>
<b>Lab: HC</b> Lawrence Livermore Laboratory, California							
AI	0	2	0	2	0	100	0
WA	2	1	0	3	67	33	0
<b>Totals:</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>5</b>	<b>40%</b>	<b>60%</b>	<b>0%</b>
<b>Lab: HT</b> Technical University, Budapest, Hungary							
WA	3	0	2	5	60	0	40
SO	3	0	0	3	100	0	0
<b>Totals:</b>	<b>6</b>	<b>0</b>	<b>2</b>	<b>8</b>	<b>75%</b>	<b>0%</b>	<b>25%</b>

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: HU</b> Water Resources Research Centre (VITUKI), Hungary							
VE	6	0	0	6	100	0	0
SO	14	2	0	16	88	13	0
AI	8	0	0	8	100	0	0
<b>Totals:</b>	<b>28</b>	<b>2</b>	<b>0</b>	<b>30</b>	<b>93%</b>	<b>7%</b>	<b>0%</b>
<b>Lab: ID</b> Institute of Radiation Protection and Dosimetry, IRD/ CNEN, Brazil							
VE	4	2	0	6	67	33	0
SO	8	1	0	9	89	11	0
WA	3	0	2	5	60	0	40
AI	1	4	1	6	17	67	17
<b>Totals:</b>	<b>16</b>	<b>7</b>	<b>3</b>	<b>26</b>	<b>62%</b>	<b>27%</b>	<b>12%</b>
<b>Lab: IL</b> ISU Environmental Monitoring Program, Pocatello, ID							
VE	2	1	0	3	67	33	0
SO	3	4	0	7	43	57	0
WA	4	0	0	4	100	0	0
AI	6	0	1	7	86	0	14
<b>Totals:</b>	<b>15</b>	<b>5</b>	<b>1</b>	<b>21</b>	<b>71%</b>	<b>24%</b>	<b>5%</b>
<b>Lab: IN</b> Lockheed Martin Idaho Technical Corp., Analytical Laboratory							
SO	9	4	0	13	69	31	0
WA	20	0	0	20	100	0	0
VE	9	0	0	9	100	0	0
AI	8	0	2	10	80	0	20
<b>Totals:</b>	<b>46</b>	<b>4</b>	<b>2</b>	<b>52</b>	<b>88%</b>	<b>8%</b>	<b>4%</b>
<b>Lab: IS</b> Severn Trent St. Louis							
VE	4	3	0	7	57	43	0
SO	6	3	4	13	46	23	31
WA	7	3	1	11	64	27	9
AI	10	0	2	12	83	0	17
<b>Totals:</b>	<b>27</b>	<b>9</b>	<b>7</b>	<b>43</b>	<b>63%</b>	<b>21%</b>	<b>16%</b>
<b>Lab: IT</b> Severn Trent- Richland Laboratory							
VE	5	2	0	7	71	29	0
SO	8	5	0	13	62	38	0
WA	9	4	0	13	69	31	0
AI	9	2	2	13	69	15	15
<b>Totals:</b>	<b>31</b>	<b>13</b>	<b>2</b>	<b>46</b>	<b>67%</b>	<b>28%</b>	<b>4%</b>

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: JL</b> Jefferson Lab, Newport News, VA							
WA	6	0	0	6	100	0	0
AI	5	7	0	12	42	58	0
<b>Totals:</b>	<b>11</b>	<b>7</b>	<b>0</b>	<b>18</b>	<b>61%</b>	<b>39%</b>	<b>0%</b>
<b>Lab: KA</b> Knolls Atomic Power Lab, Schenectady							
WA	8	0	0	8	100	0	0
AI	2	0	0	2	100	0	0
SO	4	0	0	4	100	0	0
<b>Totals:</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: KO</b> Korea Institute of Nuclear Safety							
VE	8	0	0	8	100	0	0
SO	11	1	0	12	92	8	0
AI	13	0	1	14	93	0	7
<b>Totals:</b>	<b>32</b>	<b>1</b>	<b>1</b>	<b>34</b>	<b>94%</b>	<b>3%</b>	<b>3%</b>
<b>Lab: KR</b> Korea Atomic Energy Research Institute							
AI	2	0	0	2	100	0	0
<b>Totals:</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: LA</b> Los Alamos National Laboratory, NM							
VE	6	0	0	6	100	0	0
SO	18	2	4	24	75	8	17
WA	13	5	0	18	72	28	0
<b>Totals:</b>	<b>37</b>	<b>7</b>	<b>4</b>	<b>48</b>	<b>77%</b>	<b>15%</b>	<b>8%</b>
<b>Lab: LB</b> Lawrence Berkeley Lab UCB							
VE	3	0	0	3	100	0	0
SO	5	1	0	6	83	17	0
WA	4	0	1	5	80	0	20
AI	6	1	0	7	86	14	0
<b>Totals:</b>	<b>18</b>	<b>2</b>	<b>1</b>	<b>21</b>	<b>86%</b>	<b>10%</b>	<b>5%</b>
<b>Lab: LL</b> LLNL Chemistry and Material Science/Environmental							
WA	8	0	0	8	100	0	0
AI	5	4	0	9	56	44	0
SO	5	1	0	6	83	17	0
VE	4	2	0	6	67	33	0

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>22</b>	<b>7</b>	<b>0</b>	<b>29</b>	<b>76%</b>	<b>24%</b>	<b>0%</b>
<b>Lab: LM</b> American Radiation Services of New Mexico, Los Alamos							
SO	5	2	2	9	56	22	22
WA	6	0	0	6	100	0	0
AI	6	1	0	7	86	14	0
VE	3	1	0	4	75	25	0
<b>Totals:</b>	<b>20</b>	<b>4</b>	<b>2</b>	<b>26</b>	<b>77%</b>	<b>15%</b>	<b>8%</b>
<b>Lab: LN</b> Los Alamos National Lab, ES&H							
WA	2	0	0	2	100	0	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: LV</b> UNLV, Dept of Health Physics							
VE	3	1	0	4	75	25	0
SO	9	0	0	9	100	0	0
WA	3	1	2	6	50	17	33
AI	7	0	1	8	88	0	13
<b>Totals:</b>	<b>22</b>	<b>2</b>	<b>3</b>	<b>27</b>	<b>81%</b>	<b>7%</b>	<b>11%</b>
<b>Lab: LW</b> Lawrence Livermore National Lab, Waste							
WA	9	1	0	10	90	10	0
SO	2	1	2	5	40	20	40
<b>Totals:</b>	<b>11</b>	<b>2</b>	<b>2</b>	<b>15</b>	<b>73%</b>	<b>13%</b>	<b>13%</b>
<b>Lab: ME</b> Radiation Control Program, Jamaica Plain, MA							
VE	9	1	2	12	75	8	17
WA	7	1	0	8	88	13	0
AI	15	3	3	21	71	14	14
SO	5	0	7	12	42	0	58
<b>Totals:</b>	<b>36</b>	<b>5</b>	<b>12</b>	<b>53</b>	<b>68%</b>	<b>9%</b>	<b>23%</b>
<b>Lab: MH</b> Maine Health & Environmental Testing Laboratory							
VE	2	2	0	4	50	50	0
SO	8	1	0	9	89	11	0
WA	8	1	0	9	89	11	0
AI	4	2	1	7	57	29	14

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>22</b>	<b>6</b>	<b>1</b>	<b>29</b>	<b>76%</b>	<b>21%</b>	<b>3%</b>
<b>Lab: MJ</b> Mississippi State Department of Health, Jackson							
WA	7	0	0	7	100	0	0
<b>Totals:</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: ML</b> Babcock & Wilcox of Ohio, Mound, Miamisburg, Ohio							
VE	1	0	0	1	100	0	0
AI	4	0	0	4	100	0	0
SO	9	3	0	12	75	25	0
WA	6	2	0	8	75	25	0
<b>Totals:</b>	<b>20</b>	<b>5</b>	<b>0</b>	<b>25</b>	<b>80%</b>	<b>20%</b>	<b>0%</b>
<b>Lab: MS</b> Manufacturing Sciences Corporation, Oak Ridge							
SO	7	0	0	7	100	0	0
WA	3	0	0	3	100	0	0
AI	5	1	0	6	83	17	0
<b>Totals:</b>	<b>15</b>	<b>1</b>	<b>0</b>	<b>16</b>	<b>94%</b>	<b>6%</b>	<b>0%</b>
<b>Lab: NA</b> US EPA NAREL, Montgomery, AL							
WA	5	1	0	6	83	17	0
AI	8	0	0	8	100	0	0
VE	2	3	0	5	40	60	0
SO	10	1	0	11	91	9	0
<b>Totals:</b>	<b>25</b>	<b>5</b>	<b>0</b>	<b>30</b>	<b>83%</b>	<b>17%</b>	<b>0%</b>
<b>Lab: ND</b> Dept. of Environmental Health and Safety, NC State University							
AI	4	0	0	4	100	0	0
<b>Totals:</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: NF</b> Nuclear Fuel Services, Erwin, TN							
WA	3	1	0	4	75	25	0
<b>Totals:</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>75%</b>	<b>25%</b>	<b>0%</b>
<b>Lab: NJ</b> NJ Department of Health and Senior Services							
VE	12	0	0	12	100	0	0
SO	21	5	1	27	78	19	4
WA	18	2	1	21	86	10	5

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary				Evaluation Percentages		
	A	W	N	Total Analyses	%A	%W	%N
AI	15	1	2	18	83	6	11
<b>Totals:</b>	<b>66</b>	<b>8</b>	<b>4</b>	<b>78</b>	<b>85%</b>	<b>10%</b>	<b>5%</b>
<b>Lab: NL</b> Fluor Daniel Fernald, Inc., Ohio							
SO	8	4	0	12	67	33	0
WA	7	1	0	8	88	13	0
AI	8	0	1	9	89	0	11
<b>Totals:</b>	<b>23</b>	<b>5</b>	<b>1</b>	<b>29</b>	<b>79%</b>	<b>17%</b>	<b>3%</b>
<b>Lab: NM</b> Environmental Evaluation Group, Carlsbad, NM							
AI	3	0	1	4	75	0	25
WA	1	0	3	4	25	0	75
SO	10	0	0	10	100	0	0
<b>Totals:</b>	<b>14</b>	<b>0</b>	<b>4</b>	<b>18</b>	<b>78%</b>	<b>0%</b>	<b>22%</b>
<b>Lab: NP</b> IAF Environmental Laboratory, New York Power Authority							
AI	5	0	1	6	83	0	17
WA	4	0	0	4	100	0	0
<b>Totals:</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>10</b>	<b>90%</b>	<b>0%</b>	<b>10%</b>
<b>Lab: NQ</b> New Mexico Department of Health, Albuquerque							
SO	9	2	0	11	82	18	0
WA	9	0	0	9	100	0	0
AI	6	5	1	12	50	42	8
<b>Totals:</b>	<b>24</b>	<b>7</b>	<b>1</b>	<b>32</b>	<b>75%</b>	<b>22%</b>	<b>3%</b>
<b>Lab: NR</b> Naval Reactors Facility Chemistry, Scoville, ID							
WA	2	0	0	2	100	0	0
AI	4	0	1	5	80	0	20
SO	1	0	0	1	100	0	0
VE	2	0	0	2	100	0	0
<b>Totals:</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>10</b>	<b>90%</b>	<b>0%</b>	<b>10%</b>
<b>Lab: NZ</b> National Radiation Laboratory, New Zealand							
SO	2	2	0	4	50	50	0
WA	4	2	0	6	67	33	0
AI	9	1	0	10	90	10	0
VE	4	0	2	6	67	0	33

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>19</b>	<b>5</b>	<b>2</b>	<b>26</b>	<b>73%</b>	<b>19%</b>	<b>8%</b>
<b>Lab: OB</b> OBG Laboratories, East Syracuse, NY							
VE	3	1	0	4	75	25	0
AI	6	3	1	10	60	30	10
SO	4	6	0	10	40	60	0
WA	3	4	2	9	33	44	22
<b>Totals:</b>	<b>16</b>	<b>14</b>	<b>3</b>	<b>33</b>	<b>48%</b>	<b>42%</b>	<b>9%</b>
<b>Lab: OC</b> Radiation Protection Service Laboratory, Ontario, Canada							
VE	3	0	0	3	100	0	0
SO	7	1	0	8	88	13	0
WA	5	1	0	6	83	17	0
AI	6	1	0	7	86	14	0
<b>Totals:</b>	<b>21</b>	<b>3</b>	<b>0</b>	<b>24</b>	<b>88%</b>	<b>13%</b>	<b>0%</b>
<b>Lab: OD</b> ORNL, Radiobioassay Lab							
WA	15	2	0	17	88	12	0
AI	7	1	1	9	78	11	11
<b>Totals:</b>	<b>22</b>	<b>3</b>	<b>1</b>	<b>26</b>	<b>85%</b>	<b>12%</b>	<b>4%</b>
<b>Lab: OH</b> Ohio Dept Of Health Laboratory, Columbus							
VE	0	3	0	3	0	100	0
SO	5	1	0	6	83	17	0
WA	4	0	0	4	100	0	0
AI	2	4	1	7	29	57	14
<b>Totals:</b>	<b>11</b>	<b>8</b>	<b>1</b>	<b>20</b>	<b>55%</b>	<b>40%</b>	<b>5%</b>
<b>Lab: OK</b> Southwest Laboratory of Oklahoma							
SO	2	0	0	2	100	0	0
AI	2	0	0	2	100	0	0
WA	3	0	0	3	100	0	0
<b>Totals:</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: OS</b> Oregon Health Division Radiation Controls Section, Portland							
WA	5	1	0	6	83	17	0
AI	2	6	2	10	20	60	20
<b>Totals:</b>	<b>7</b>	<b>7</b>	<b>2</b>	<b>16</b>	<b>44%</b>	<b>44%</b>	<b>13%</b>

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: OT</b> ORNL Radioactive Material Analysis Lab							
VE	6	1	0	7	86	14	0
SO	10	0	0	10	100	0	0
WA	10	0	0	10	100	0	0
AI	2	4	5	11	18	36	45
<b>Totals:</b>	<b>28</b>	<b>5</b>	<b>5</b>	<b>38</b>	<b>74%</b>	<b>13%</b>	<b>13%</b>
<b>Lab: OU</b> Outreach Laboratory, Broken Arrow, OK							
SO	5	1	1	7	71	14	14
WA	5	1	1	7	71	14	14
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>16</b>	<b>2</b>	<b>2</b>	<b>20</b>	<b>80%</b>	<b>10%</b>	<b>10%</b>
<b>Lab: PA</b> Mason & Hanger-Silas Mason Co., Inc., Battelle Pantex, Amarillo, TX							
AI	7	3	0	10	70	30	0
<b>Totals:</b>	<b>7</b>	<b>3</b>	<b>0</b>	<b>10</b>	<b>70%</b>	<b>30%</b>	<b>0%</b>
<b>Lab: PK</b> Pakistan Institute of Nuclear Science & Technology							
VE	2	0	1	3	67	0	33
SO	3	0	1	4	75	0	25
AI	3	1	0	4	75	25	0
<b>Totals:</b>	<b>8</b>	<b>1</b>	<b>2</b>	<b>11</b>	<b>73%</b>	<b>9%</b>	<b>18%</b>
<b>Lab: PO</b> Institute of Oceanology PAN, Poland							
VE	3	1	0	4	75	25	0
SO	6	0	0	6	100	0	0
AI	4	1	1	6	67	17	17
<b>Totals:</b>	<b>13</b>	<b>2</b>	<b>1</b>	<b>16</b>	<b>81%</b>	<b>13%</b>	<b>6%</b>
<b>Lab: PS</b> PA-DEP Bureau of Radiation Protection, Harrisburg							
VE	0	0	4	4	0	0	100
SO	0	0	4	4	0	0	100
WA	3	1	1	5	60	20	20
AI	1	4	1	6	17	67	17
<b>Totals:</b>	<b>4</b>	<b>5</b>	<b>10</b>	<b>19</b>	<b>21%</b>	<b>26%</b>	<b>53%</b>
<b>Lab: RA</b> V. G. Khlopin Radium Institute, St. Petersburg, Russia							
VE	4	0	0	4	100	0	0
SO	7	1	0	8	88	13	0
AI	4	1	1	6	67	17	17



**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>15</b>	<b>2</b>	<b>1</b>	<b>18</b>	<b>83%</b>	<b>11%</b>	<b>6%</b>
<b>Lab: RC</b> US NRC Region I Laboratory, PA							
SO	1	0	1	2	50	0	50
WA	3	0	0	3	100	0	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>10</b>	<b>0</b>	<b>1</b>	<b>11</b>	<b>91%</b>	<b>0%</b>	<b>9%</b>
<b>Lab: RE</b> Bechtel Nevada, Mercury, NV							
SO	11	2	0	13	85	15	0
WA	9	2	0	11	82	18	0
AI	10	2	0	12	83	17	0
VE	7	1	0	8	88	13	0
<b>Totals:</b>	<b>37</b>	<b>7</b>	<b>0</b>	<b>44</b>	<b>84%</b>	<b>16%</b>	<b>0%</b>
<b>Lab: RI</b> Waste Management Services of Hanford, Inc., 222S Lab							
VE	4	1	1	6	67	17	17
SO	5	0	2	7	71	0	29
WA	7	3	0	10	70	30	0
AI	5	3	0	8	63	38	0
<b>Totals:</b>	<b>21</b>	<b>7</b>	<b>3</b>	<b>31</b>	<b>68%</b>	<b>23%</b>	<b>10%</b>
<b>Lab: RK</b> Rock Island Arsenal, Illinois							
AI	1	1	0	2	50	50	0
<b>Totals:</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>50%</b>	<b>50%</b>	<b>0%</b>
<b>Lab: RM</b> RMI Environmental Services, Ashtabula, Ohio							
SO	11	0	0	11	100	0	0
AI	4	0	1	5	80	0	20
WA	2	0	0	2	100	0	0
<b>Totals:</b>	<b>17</b>	<b>0</b>	<b>1</b>	<b>18</b>	<b>94%</b>	<b>0%</b>	<b>6%</b>
<b>Lab: SA</b> Sandia Labs Radioactive Sample Diag. Prog., NM							
AI	7	1	1	9	78	11	11
SO	2	0	0	2	100	0	0
WA	3	1	0	4	75	25	0
<b>Totals:</b>	<b>12</b>	<b>2</b>	<b>1</b>	<b>15</b>	<b>80%</b>	<b>13%</b>	<b>7%</b>

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: SB</b> SC Dept. of Health and Environment Control Radiological Lab							
AI	2	3	0	5	40	60	0
WA	5	0	0	5	100	0	0
VE	3	0	0	3	100	0	0
SO	2	0	0	2	100	0	0
<b>Totals:</b>	<b>12</b>	<b>3</b>	<b>0</b>	<b>15</b>	<b>80%</b>	<b>20%</b>	<b>0%</b>
<b>Lab: SE</b> Defence Research Establishment of Sweden (FOA)							
VE	5	1	0	6	83	17	0
SO	12	0	0	12	100	0	0
AI	6	1	3	10	60	10	30
<b>Totals:</b>	<b>23</b>	<b>2</b>	<b>3</b>	<b>28</b>	<b>82%</b>	<b>7%</b>	<b>11%</b>
<b>Lab: SI</b> Jozef Stefan Institute, Slovenia							
SO	7	4	0	11	64	36	0
WA	4	0	0	4	100	0	0
AI	5	0	1	6	83	0	17
VE	4	0	0	4	100	0	0
<b>Totals:</b>	<b>20</b>	<b>4</b>	<b>1</b>	<b>25</b>	<b>80%</b>	<b>16%</b>	<b>4%</b>
<b>Lab: SK</b> Savannah River Plant							
VE	4	0	0	4	100	0	0
SO	6	2	0	8	75	25	0
WA	5	1	0	6	83	17	0
<b>Totals:</b>	<b>15</b>	<b>3</b>	<b>0</b>	<b>18</b>	<b>83%</b>	<b>17%</b>	<b>0%</b>
<b>Lab: SL</b> Stanford Linear Accelerator Center							
WA	3	0	0	3	100	0	0
<b>Totals:</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: SN</b> Sanford Cohen Associates, Inc., Montgomery, AL							
VE	4	0	0	4	100	0	0
AI	3	1	0	4	75	25	0
WA	8	2	0	10	80	20	0
SO	10	0	0	10	100	0	0
<b>Totals:</b>	<b>25</b>	<b>3</b>	<b>0</b>	<b>28</b>	<b>89%</b>	<b>11%</b>	<b>0%</b>
<b>Lab: SR</b> Savannah River Environmental Laboratory							
VE	3	2	2	7	43	29	29
SO	9	1	2	12	75	8	17

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary				Evaluation Percentages		
	A	W	N	Total Analyses	%A	%W	%N
WA	10	1	0	11	91	9	0
AI	11	1	0	12	92	8	0
<b>Totals:</b>	<b>33</b>	<b>5</b>	<b>4</b>	<b>42</b>	<b>79%</b>	<b>12%</b>	<b>10%</b>
<b>Lab: ST</b> SC DHEC, Aiken, South Carolina							
WA	1	0	0	1	100	0	0
<b>Totals:</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: SW</b> Southwest Research Institute, San Antonio, TX							
VE	3	1	4	8	38	13	50
SO	8	4	2	14	57	29	14
WA	5	2	4	11	45	18	36
AI	5	2	4	11	45	18	36
<b>Totals:</b>	<b>21</b>	<b>9</b>	<b>14</b>	<b>44</b>	<b>48%</b>	<b>20%</b>	<b>32%</b>
<b>Lab: SY</b> Syrian Arab Republic Atomic Energy Commission							
VE	1	0	4	5	20	0	80
SO	5	1	0	6	83	17	0
WA	2	1	0	3	67	33	0
<b>Totals:</b>	<b>8</b>	<b>2</b>	<b>4</b>	<b>14</b>	<b>57%</b>	<b>14%</b>	<b>29%</b>
<b>Lab: TE</b> Teledyne Isotopes Midwest Lab, Northbrook, IL							
SO	9	1	0	10	90	10	0
WA	6	4	2	12	50	33	17
VE	4	2	0	6	67	33	0
AI	7	3	1	11	64	27	9
<b>Totals:</b>	<b>26</b>	<b>10</b>	<b>3</b>	<b>39</b>	<b>67%</b>	<b>26%</b>	<b>8%</b>
<b>Lab: TI</b> Teledyne Brown Engineering Environmental Services, Westwood, NJ							
AI	4	6	1	11	36	55	9
WA	9	1	1	11	82	9	9
VE	4	2	0	6	67	33	0
SO	3	0	2	5	60	0	40
<b>Totals:</b>	<b>20</b>	<b>9</b>	<b>4</b>	<b>33</b>	<b>61%</b>	<b>27%</b>	<b>12%</b>
<b>Lab: TM</b> Thermo NUTech Albuquerque Lab, NM							
VE	3	3	0	6	50	50	0
SO	6	3	0	9	67	33	0
WA	6	1	0	7	86	14	0
AI	3	6	1	10	30	60	10

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>18</b>	<b>13</b>	<b>1</b>	<b>32</b>	<b>56%</b>	<b>41%</b>	<b>3%</b>
<b>Lab: TN</b> Thermo NUTech, Richmond, CA							
VE	4	3	0	7	57	43	0
SO	6	4	0	10	60	40	0
WA	12	1	0	13	92	8	0
AI	10	2	1	13	77	15	8
<b>Totals:</b>	<b>32</b>	<b>10</b>	<b>1</b>	<b>43</b>	<b>74%</b>	<b>23%</b>	<b>2%</b>
<b>Lab: TO</b> Thermo NUTech Oak Ridge Laboratory							
VE	3	2	2	7	43	29	29
WA	10	3	0	13	77	23	0
SO	5	4	3	12	42	33	25
AI	8	2	3	13	62	15	23
<b>Totals:</b>	<b>26</b>	<b>11</b>	<b>8</b>	<b>45</b>	<b>58%</b>	<b>24%</b>	<b>18%</b>
<b>Lab: TP</b> Taiwan Power Company, Taipei, Taiwan							
SO	6	1	0	7	86	14	0
WA	2	0	0	2	100	0	0
AI	4	0	0	4	100	0	0
VE	3	0	0	3	100	0	0
<b>Totals:</b>	<b>15</b>	<b>1</b>	<b>0</b>	<b>16</b>	<b>94%</b>	<b>6%</b>	<b>0%</b>
<b>Lab: TQ</b> Institute of Nuclear Energy Research, Taiwan							
VE	4	0	0	4	100	0	0
SO	6	2	0	8	75	25	0
WA	4	2	0	6	67	33	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>20</b>	<b>4</b>	<b>0</b>	<b>24</b>	<b>83%</b>	<b>17%</b>	<b>0%</b>
<b>Lab: TT</b> Tracer Technologies International, Inc., Cleveland							
WA	9	0	0	9	100	0	0
<b>Totals:</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: TW</b> Taiwan Radiation Monitoring Center							
WA	5	1	2	8	63	13	25
VE	7	1	0	8	88	13	0
AI	6	0	1	7	86	0	14
SO	8	0	0	8	100	0	0

## QAP 52 Summary of Matrix Evaluations by Laboratory

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>26</b>	<b>2</b>	<b>3</b>	<b>31</b>	<b>84%</b>	<b>6%</b>	<b>10%</b>
<b>Lab: TX</b> Texas Dept. of Health/Laboratories, Austin							
AI	10	1	1	12	83	8	8
WA	11	0	0	11	100	0	0
VE	6	0	0	6	100	0	0
SO	11	3	0	14	79	21	0
<b>Totals:</b>	<b>38</b>	<b>4</b>	<b>1</b>	<b>43</b>	<b>88%</b>	<b>9%</b>	<b>2%</b>
<b>Lab: UC</b> United States Enrichment Corporation, Paducah, KY							
VE	2	0	1	3	67	0	33
SO	1	1	0	2	50	50	0
WA	2	3	0	5	40	60	0
AI	3	1	2	6	50	17	33
<b>Totals:</b>	<b>8</b>	<b>5</b>	<b>3</b>	<b>16</b>	<b>50%</b>	<b>31%</b>	<b>19%</b>
<b>Lab: UP</b> Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge							
WA	8	2	0	10	80	20	0
AI	11	0	1	12	92	0	8
SO	0	0	0	0	***	***	***
<b>Totals:</b>	<b>19</b>	<b>2</b>	<b>1</b>	<b>22</b>	<b>86%</b>	<b>9%</b>	<b>5%</b>
<b>Lab: US</b> Interstate Nuclear Services, Springfield, MO							
WA	2	0	0	2	100	0	0
<b>Totals:</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: UY</b> Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge							
SO	12	1	0	13	92	8	0
WA	9	1	1	11	82	9	9
AI	11	0	0	11	100	0	0
VE	6	1	0	7	86	14	0
<b>Totals:</b>	<b>38</b>	<b>3</b>	<b>1</b>	<b>42</b>	<b>90%</b>	<b>7%</b>	<b>2%</b>
<b>Lab: WA</b> Environmental Radiation Lab, Off. of Public Health Labs, Seattle							
VE	4	3	0	7	57	43	0
SO	11	4	0	15	73	27	0
WA	9	3	1	13	69	23	8
AI	7	5	2	14	50	36	14

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>31</b>	<b>15</b>	<b>3</b>	<b>49</b>	<b>63%</b>	<b>31%</b>	<b>6%</b>
<b>Lab: WC</b> Waste Management Federal Services of Hanford							
SO	6	0	1	7	86	0	14
WA	9	2	0	11	82	18	0
VE	4	2	1	7	57	29	14
AI	11	0	1	12	92	0	8
<b>Totals:</b>	<b>30</b>	<b>4</b>	<b>3</b>	<b>37</b>	<b>81%</b>	<b>11%</b>	<b>8%</b>
<b>Lab: WE</b> Westinghouse Electric Corp., Madison, PA							
VE	6	1	1	8	75	13	13
SO	11	3	0	14	79	21	0
WA	4	0	7	11	36	0	64
AI	7	0	3	10	70	0	30
<b>Totals:</b>	<b>28</b>	<b>4</b>	<b>11</b>	<b>43</b>	<b>65%</b>	<b>9%</b>	<b>26%</b>
<b>Lab: WI</b> WIPP Site, Westinghouse Electric Corp							
WA	2	2	0	4	50	50	0
AI	6	0	3	9	67	0	33
<b>Totals:</b>	<b>8</b>	<b>2</b>	<b>3</b>	<b>13</b>	<b>62%</b>	<b>15%</b>	<b>23%</b>
<b>Lab: WN</b> State Health Radiation Protection Section, Madison, WI							
SO	3	13	5	21	14	62	24
WA	6	1	2	9	67	11	22
AI	8	6	1	15	53	40	7
VE	7	5	0	12	58	42	0
<b>Totals:</b>	<b>24</b>	<b>25</b>	<b>8</b>	<b>57</b>	<b>42%</b>	<b>44%</b>	<b>14%</b>
<b>Lab: WO</b> Wisconsin State Lab of Hygiene							
VE	5	1	0	6	83	17	0
SO	9	3	6	18	50	17	33
WA	11	1	0	12	92	8	0
AI	4	7	1	12	33	58	8
<b>Totals:</b>	<b>29</b>	<b>12</b>	<b>7</b>	<b>48</b>	<b>60%</b>	<b>25%</b>	<b>15%</b>
<b>Lab: WP</b> Washington Public Power Supply System, Richland							
VE	3	0	0	3	100	0	0
SO	2	0	1	3	67	0	33
AI	0	0	1	1	0	0	100
WA	5	0	0	5	100	0	0

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Totals:</b>	<b>10</b>	<b>0</b>	<b>2</b>	<b>12</b>	<b>83%</b>	<b>0%</b>	<b>17%</b>
<b>Lab: WS</b> Weldon Springs Site, St Charles, MO							
AI	1	0	0	1	100	0	0
SO	1	6	0	7	14	86	0
<b>Totals:</b>	<b>2</b>	<b>6</b>	<b>0</b>	<b>8</b>	<b>25%</b>	<b>75%</b>	<b>0%</b>
<b>Lab: WT</b> Waste Stream Technology, Buffalo, NY							
VE	1	0	2	3	33	0	67
SO	1	0	2	3	33	0	67
WA	1	2	2	5	20	40	40
AI	0	4	3	7	0	57	43
<b>Totals:</b>	<b>3</b>	<b>6</b>	<b>9</b>	<b>18</b>	<b>17%</b>	<b>33%</b>	<b>50%</b>
<b>Lab: WV</b> West Valley Nuclear Services							
WA	5	1	0	6	83	17	0
AI	6	1	0	7	86	14	0
<b>Totals:</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>13</b>	<b>85%</b>	<b>15%</b>	<b>0%</b>
<b>Lab: WW</b> West Valley Radiation Protection							
SO	6	2	1	9	67	22	11
AI	5	2	1	8	63	25	13
<b>Totals:</b>	<b>11</b>	<b>4</b>	<b>2</b>	<b>17</b>	<b>65%</b>	<b>24%</b>	<b>12%</b>
<b>Lab: YA</b> Duke Engineering & Sciences Environmental Lab, Westboro, MA							
SO	3	5	0	8	38	63	0
WA	10	0	3	13	77	0	23
VE	6	1	0	7	86	14	0
AI	6	4	0	10	60	40	0
<b>Totals:</b>	<b>25</b>	<b>10</b>	<b>3</b>	<b>38</b>	<b>66%</b>	<b>26%</b>	<b>8%</b>
<b>Lab: YP</b> US Army Proving Ground, Yuma, AZ							
SO	0	0	0	0	***	***	***
WA	0	0	0	0	***	***	***
AI	0	0	0	0	***	***	***
<b>Totals:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>***%</b>	<b>***%</b>	<b>***%</b>

**QAP 52 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
<b>Lab: YU</b> Institute of Occupational and Radiological Health, Serbia							
VE	3	0	0	3	100	0	0
SO	2	0	0	2	100	0	0
AI	1	3	1	5	20	60	20
<b>Totals:</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>10</b>	<b>60%</b>	<b>30%</b>	<b>10%</b>



**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: AI Air Filter**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
AC	6	0	0	6	100	0	0
AF	21	8	5	34	62	24	15
AG	14	1	0	15	93	7	0
AI	8	8	8	24	33	33	33
AM	11	1	2	14	79	7	14
AN	9	1	0	10	90	10	0
AR	10	2	0	12	83	17	0
AS	6	2	0	8	75	25	0
AT	7	0	0	7	100	0	0
AU	8	1	1	10	80	10	10
AW	4	1	1	6	67	17	17
BA	4	0	1	5	80	0	20
BC	8	1	1	10	80	10	10
BE	11	1	0	12	92	8	0
BL	14	1	1	16	88	6	6
BM	6	2	0	8	75	25	0
BN	3	2	1	6	50	33	17
BQ	6	0	1	7	86	0	14
BU	10	2	0	12	83	17	0
BX	11	1	1	13	85	8	8
CA	6	0	0	6	100	0	0
CB	10	5	3	18	56	28	17
CD	4	0	0	4	100	0	0
CH	10	1	3	14	71	7	21
CL	9	3	14	26	35	12	54
CN	5	0	0	5	100	0	0
CO	0	12	0	12	0	100	0
CR	1	1	3	5	20	20	60
CS	3	1	0	4	75	25	0
CU	4	0	0	4	100	0	0
CW	9	0	0	9	100	0	0
DH	6	1	0	7	86	14	0
EC	4	0	10	14	29	0	71
EG	8	2	1	11	73	18	9
EL	0	0	4	4	0	0	100
EP	6	1	0	7	86	14	0
FG	5	2	0	7	71	29	0
FL	6	2	0	8	75	25	0
FM	3	1	2	6	50	17	33
FN	6	0	0	6	100	0	0
GA	7	3	1	11	64	27	9
GC	5	1	0	6	83	17	0
GE	9	3	1	13	69	23	8
GP	6	5	2	13	46	38	15
GT	8	2	1	11	73	18	9
HC	0	2	0	2	0	100	0
HU	8	0	0	8	100	0	0
ID	1	4	1	6	17	67	17
IL	6	0	1	7	86	0	14
IN	8	0	2	10	80	0	20
IS	10	0	2	12	83	0	17
IT	9	2	2	13	69	15	15
JL	5	7	0	12	42	58	0
KA	2	0	0	2	100	0	0

**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: AI Air Filter**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
KO	13	0	1	14	93	0	7
KR	2	0	0	2	100	0	0
LB	6	1	0	7	86	14	0
LL	5	4	0	9	56	44	0
LM	6	1	0	7	86	14	0
LN	6	0	0	6	100	0	0
LV	7	0	1	8	88	0	13
ME	15	3	3	21	71	14	14
MH	4	2	1	7	57	29	14
ML	4	0	0	4	100	0	0
MS	5	1	0	6	83	17	0
NA	8	0	0	8	100	0	0
ND	4	0	0	4	100	0	0
NJ	15	1	2	18	83	6	11
NL	8	0	1	9	89	0	11
NM	3	0	1	4	75	0	25
NP	5	0	1	6	83	0	17
NQ	6	5	1	12	50	42	8
NR	4	0	1	5	80	0	20
NZ	9	1	0	10	90	10	0
OB	6	3	1	10	60	30	10
OC	6	1	0	7	86	14	0
OD	7	1	1	9	78	11	11
OH	2	4	1	7	29	57	14
OK	2	0	0	2	100	0	0
OS	2	6	2	10	20	60	20
OT	2	4	5	11	18	36	45
OU	6	0	0	6	100	0	0
PA	7	3	0	10	70	30	0
PK	3	1	0	4	75	25	0
PO	4	1	1	6	67	17	17
PS	1	4	1	6	17	67	17
RA	4	1	1	6	67	17	17
RC	6	0	0	6	100	0	0
RE	10	2	0	12	83	17	0
RI	5	3	0	8	63	38	0
RK	1	1	0	2	50	50	0
RM	4	0	1	5	80	0	20
SA	7	1	1	9	78	11	11
SB	2	3	0	5	40	60	0
SE	6	1	3	10	60	10	30
SI	5	0	1	6	83	0	17
SN	3	1	0	4	75	25	0
SR	11	1	0	12	92	8	0
SW	5	2	4	11	45	18	36
TE	7	3	1	11	64	27	9
TI	4	6	1	11	36	55	9
TM	3	6	1	10	30	60	10
TN	10	2	1	13	77	15	8
TO	8	2	3	13	62	15	23
TP	4	0	0	4	100	0	0
TQ	6	0	0	6	100	0	0
TW	6	0	1	7	86	0	14
TX	10	1	1	12	83	8	8

**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: AI Air Filter**

<b>Labcode</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>%A</b>	<b>%W</b>	<b>%N</b>
UC	3	1	2	6	50	17	33
UP	11	0	1	12	92	0	8
UY	11	0	0	11	100	0	0
WA	7	5	2	14	50	36	14
WC	11	0	1	12	92	0	8
WE	7	0	3	10	70	0	30
WI	6	0	3	9	67	0	33
WN	8	6	1	15	53	40	7
WO	4	7	1	12	33	58	8
WP	0	0	1	1	0	0	100
WS	1	0	0	1	100	0	0
WT	0	4	3	7	0	57	43
WV	6	1	0	7	86	14	0
WW	5	2	1	8	63	25	13
YA	6	4	0	10	60	40	0
YP	0	0	0	0	***	***	***
YU	1	3	1	5	20	60	20
<hr/>							
<b>Totals</b>							
<b>125 Labs:</b>	<b>763</b>	<b>212</b>	<b>141</b>	<b>1116</b>	<b>68%</b>	<b>19%</b>	<b>13%</b>

**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: SO Soil**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
AC	6	2	0	8	75	25	0
AF	18	22	5	45	40	49	11
AG	14	0	0	14	100	0	0
AI	11	3	10	24	46	13	42
AM	11	3	0	14	79	21	0
AN	7	0	0	7	100	0	0
AR	9	1	0	10	90	10	0
AS	2	6	1	9	22	67	11
AT	5	1	0	6	83	17	0
AU	12	2	0	14	86	14	0
BA	2	0	0	2	100	0	0
BC	4	0	0	4	100	0	0
BE	6	4	0	10	60	40	0
BL	14	1	1	16	88	6	6
BM	4	1	0	5	80	20	0
BN	5	2	0	7	71	29	0
BQ	4	1	2	7	57	14	29
BU	9	0	0	9	100	0	0
BX	6	4	2	12	50	33	17
CA	0	0	0	0	***	***	***
CD	6	1	0	7	86	14	0
CF	9	0	0	9	100	0	0
CH	12	1	1	14	86	7	7
CL	10	9	6	25	40	36	24
CM	21	0	0	21	100	0	0
CN	5	1	0	6	83	17	0
CO	9	0	0	9	100	0	0
CR	5	2	0	7	71	29	0
CS	7	0	0	7	100	0	0
CU	7	0	0	7	100	0	0
CW	8	2	0	10	80	20	0
DC	4	2	0	6	67	33	0
DH	7	0	0	7	100	0	0
EC	13	5	0	18	72	28	0
EG	4	2	0	6	67	33	0
EL	0	1	5	6	0	17	83
FG	11	2	0	13	85	15	0
FL	9	0	1	10	90	0	10
FN	4	0	0	4	100	0	0
FS	6	0	0	6	100	0	0
GA	11	0	0	11	100	0	0
GC	7	1	0	8	88	13	0
GD	3	3	0	6	50	50	0
GE	11	2	0	13	85	15	0
GP	8	0	1	9	89	0	11
GT	4	2	0	6	67	33	0
HT	3	0	0	3	100	0	0
HU	14	2	0	16	88	13	0
ID	8	1	0	9	89	11	0
IL	3	4	0	7	43	57	0
IN	9	4	0	13	69	31	0
IS	6	3	4	13	46	23	31
IT	8	5	0	13	62	38	0
KA	4	0	0	4	100	0	0

**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: SO Soil**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
KO	11	1	0	12	92	8	0
LA	18	2	4	24	75	8	17
LB	5	1	0	6	83	17	0
LL	5	1	0	6	83	17	0
LM	5	2	2	9	56	22	22
LV	9	0	0	9	100	0	0
LW	2	1	2	5	40	20	40
ME	5	0	7	12	42	0	58
MH	8	1	0	9	89	11	0
ML	9	3	0	12	75	25	0
MS	7	0	0	7	100	0	0
NA	10	1	0	11	91	9	0
NJ	21	5	1	27	78	19	4
NL	8	4	0	12	67	33	0
NM	10	0	0	10	100	0	0
NQ	9	2	0	11	82	18	0
NR	1	0	0	1	100	0	0
NZ	2	2	0	4	50	50	0
OB	4	6	0	10	40	60	0
OC	7	1	0	8	88	13	0
OH	5	1	0	6	83	17	0
OK	2	0	0	2	100	0	0
OT	10	0	0	10	100	0	0
OU	5	1	1	7	71	14	14
PK	3	0	1	4	75	0	25
PO	6	0	0	6	100	0	0
PS	0	0	4	4	0	0	100
RA	7	1	0	8	88	13	0
RC	1	0	1	2	50	0	50
RE	11	2	0	13	85	15	0
RI	5	0	2	7	71	0	29
RM	11	0	0	11	100	0	0
SA	2	0	0	2	100	0	0
SB	2	0	0	2	100	0	0
SE	12	0	0	12	100	0	0
SI	7	4	0	11	64	36	0
SK	6	2	0	8	75	25	0
SN	10	0	0	10	100	0	0
SR	9	1	2	12	75	8	17
SW	8	4	2	14	57	29	14
SY	5	1	0	6	83	17	0
TE	9	1	0	10	90	10	0
TI	3	0	2	5	60	0	40
TM	6	3	0	9	67	33	0
TN	6	4	0	10	60	40	0
TO	5	4	3	12	42	33	25
TP	6	1	0	7	86	14	0
TQ	6	2	0	8	75	25	0
TW	8	0	0	8	100	0	0
TX	11	3	0	14	79	21	0
UC	1	1	0	2	50	50	0
UP	0	0	0	0	***	***	***
UY	12	1	0	13	92	8	0
WA	11	4	0	15	73	27	0

**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: SO Soil**

<b>Labcode</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>%A</b>	<b>%W</b>	<b>%N</b>
WC	6	0	1	7	86	0	14
WE	11	3	0	14	79	21	0
WN	3	13	5	21	14	62	24
WO	9	3	6	18	50	17	33
WP	2	0	1	3	67	0	33
WS	1	6	0	7	14	86	0
WT	1	0	2	3	33	0	67
WW	6	2	1	9	67	22	11
YA	3	5	0	8	38	63	0
YP	0	0	0	0	***	***	***
YU	2	0	0	2	100	0	0
<b>Totals</b>							
<b>119 Labs:</b>	<b>816</b>	<b>214</b>	<b>89</b>	<b>1119</b>	<b>73%</b>	<b>19%</b>	<b>8%</b>

**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: VE Vegetation**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
AF	10	7	1	18	56	39	6
AG	7	1	0	8	88	13	0
AI	11	3	0	14	79	21	0
AM	4	1	2	7	57	14	29
AR	8	0	0	8	100	0	0
AT	3	1	0	4	75	25	0
AU	3	1	2	6	50	17	33
BA	2	0	0	2	100	0	0
BC	3	1	0	4	75	25	0
BE	6	1	0	7	86	14	0
BL	6	0	1	7	86	0	14
BM	4	1	0	5	80	20	0
BN	3	0	0	3	100	0	0
BQ	1	0	2	3	33	0	67
BU	4	3	0	7	57	43	0
BX	5	2	0	7	71	29	0
CD	3	0	0	3	100	0	0
CF	6	0	0	6	100	0	0
CH	4	2	1	7	57	29	14
CL	3	2	6	11	27	18	55
CR	3	0	0	3	100	0	0
CS	3	1	0	4	75	25	0
CU	1	2	0	3	33	67	0
CW	6	0	0	6	100	0	0
DC	0	3	0	3	0	100	0
EG	7	1	0	8	88	13	0
EL	2	1	5	8	25	13	63
FL	4	0	0	4	100	0	0
FN	2	1	0	3	67	33	0
GA	4	1	0	5	80	20	0
GC	3	0	0	3	100	0	0
GE	2	4	1	7	29	57	14
GP	6	1	1	8	75	13	13
GT	7	1	0	8	88	13	0
HU	6	0	0	6	100	0	0
ID	4	2	0	6	67	33	0
IL	2	1	0	3	67	33	0
IN	9	0	0	9	100	0	0
IS	4	3	0	7	57	43	0
IT	5	2	0	7	71	29	0
KO	8	0	0	8	100	0	0
LA	6	0	0	6	100	0	0
LB	3	0	0	3	100	0	0
LL	4	2	0	6	67	33	0
LM	3	1	0	4	75	25	0
LV	3	1	0	4	75	25	0
ME	9	1	2	12	75	8	17
MH	2	2	0	4	50	50	0
ML	1	0	0	1	100	0	0
NA	2	3	0	5	40	60	0
NJ	12	0	0	12	100	0	0
NR	2	0	0	2	100	0	0
NZ	4	0	2	6	67	0	33
OB	3	1	0	4	75	25	0

**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: VE Vegetation**

<b>Labcode</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>%A</b>	<b>%W</b>	<b>%N</b>
OC	3	0	0	3	100	0	0
OH	0	3	0	3	0	100	0
OT	6	1	0	7	86	14	0
PK	2	0	1	3	67	0	33
PO	3	1	0	4	75	25	0
PS	0	0	4	4	0	0	100
RA	4	0	0	4	100	0	0
RE	7	1	0	8	88	13	0
RI	4	1	1	6	67	17	17
SB	3	0	0	3	100	0	0
SE	5	1	0	6	83	17	0
SI	4	0	0	4	100	0	0
SK	4	0	0	4	100	0	0
SN	4	0	0	4	100	0	0
SR	3	2	2	7	43	29	29
SW	3	1	4	8	38	13	50
SY	1	0	4	5	20	0	80
TE	4	2	0	6	67	33	0
TI	4	2	0	6	67	33	0
TM	3	3	0	6	50	50	0
TN	4	3	0	7	57	43	0
TO	3	2	2	7	43	29	29
TP	3	0	0	3	100	0	0
TQ	4	0	0	4	100	0	0
TW	7	1	0	8	88	13	0
TX	6	0	0	6	100	0	0
UC	2	0	1	3	67	0	33
UY	6	1	0	7	86	14	0
WA	4	3	0	7	57	43	0
WC	4	2	1	7	57	29	14
WE	6	1	1	8	75	13	13
WN	7	5	0	12	58	42	0
WO	5	1	0	6	83	17	0
WP	3	0	0	3	100	0	0
WT	1	0	2	3	33	0	67
YA	6	1	0	7	86	14	0
YU	3	0	0	3	100	0	0
<b>Totals</b>							
<b>91 Labs:</b>	<b>379</b>	<b>99</b>	<b>49</b>	<b>527</b>	<b>72%</b>	<b>19%</b>	<b>9%</b>



**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: WAWater**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
AC	7	0	0	7	100	0	0
AF	24	4	4	32	75	13	13
AG	10	1	0	11	91	9	0
AI	13	1	6	20	65	5	30
AM	6	0	6	12	50	0	50
AN	9	0	0	9	100	0	0
AR	8	2	1	11	73	18	9
AS	3	2	2	7	43	29	29
AT	10	1	0	11	91	9	0
AU	10	1	0	11	91	9	0
AW	2	1	0	3	67	33	0
BA	2	2	1	5	40	40	20
BC	5	1	1	7	71	14	14
BE	12	1	0	13	92	8	0
BL	14	2	1	17	82	12	6
BM	6	2	0	8	75	25	0
BN	2	0	4	6	33	0	67
BP	3	0	2	5	60	0	40
BQ	3	1	0	4	75	25	0
BU	13	1	0	14	93	7	0
BX	10	3	0	13	77	23	0
CA	3	0	1	4	75	0	25
CB	10	1	0	11	91	9	0
CD	4	0	0	4	100	0	0
CF	8	4	0	12	67	33	0
CH	14	0	0	14	100	0	0
CL	16	5	7	28	57	18	25
CM	8	5	0	13	62	38	0
CS	2	1	0	3	67	33	0
CU	2	1	0	3	67	33	0
CW	9	0	0	9	100	0	0
DC	1	2	2	5	20	40	40
DH	3	0	1	4	75	0	25
EC	8	4	0	12	67	33	0
EG	4	4	0	8	50	50	0
EL	0	0	6	6	0	0	100
EM	1	1	0	2	50	50	0
EP	6	0	0	6	100	0	0
FG	10	0	2	12	83	0	17
FL	6	2	0	8	75	25	0
FM	3	0	0	3	100	0	0
FN	5	0	0	5	100	0	0
FR	3	2	1	6	50	33	17
GA	6	1	1	8	75	13	13
GC	4	1	0	5	80	20	0
GD	4	2	0	6	67	33	0
GE	9	3	1	13	69	23	8
GP	9	2	2	13	69	15	15
GS	1	1	0	2	50	50	0
GT	7	3	0	10	70	30	0
HC	2	1	0	3	67	33	0
HT	3	0	2	5	60	0	40
ID	3	0	2	5	60	0	40
IL	4	0	0	4	100	0	0

**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: WAWater**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		%A	%W	%N
IN	20	0	0	20	100	0	0
IS	7	3	1	11	64	27	9
IT	9	4	0	13	69	31	0
JL	6	0	0	6	100	0	0
KA	8	0	0	8	100	0	0
LA	13	5	0	18	72	28	0
LB	4	0	1	5	80	0	20
LL	8	0	0	8	100	0	0
LM	6	0	0	6	100	0	0
LN	2	0	0	2	100	0	0
LV	3	1	2	6	50	17	33
LW	9	1	0	10	90	10	0
ME	7	1	0	8	88	13	0
MH	8	1	0	9	89	11	0
MJ	7	0	0	7	100	0	0
ML	6	2	0	8	75	25	0
MS	3	0	0	3	100	0	0
NA	5	1	0	6	83	17	0
NF	3	1	0	4	75	25	0
NJ	18	2	1	21	86	10	5
NL	7	1	0	8	88	13	0
NM	1	0	3	4	25	0	75
NP	4	0	0	4	100	0	0
NQ	9	0	0	9	100	0	0
NR	2	0	0	2	100	0	0
NZ	4	2	0	6	67	33	0
OB	3	4	2	9	33	44	22
OC	5	1	0	6	83	17	0
OD	15	2	0	17	88	12	0
OH	4	0	0	4	100	0	0
OK	3	0	0	3	100	0	0
OS	5	1	0	6	83	17	0
OT	10	0	0	10	100	0	0
OU	5	1	1	7	71	14	14
PS	3	1	1	5	60	20	20
RC	3	0	0	3	100	0	0
RE	9	2	0	11	82	18	0
RI	7	3	0	10	70	30	0
RM	2	0	0	2	100	0	0
SA	3	1	0	4	75	25	0
SB	5	0	0	5	100	0	0
SI	4	0	0	4	100	0	0
SK	5	1	0	6	83	17	0
SL	3	0	0	3	100	0	0
SN	8	2	0	10	80	20	0
SR	10	1	0	11	91	9	0
ST	1	0	0	1	100	0	0
SW	5	2	4	11	45	18	36
SY	2	1	0	3	67	33	0
TE	6	4	2	12	50	33	17
TI	9	1	1	11	82	9	9
TM	6	1	0	7	86	14	0
TN	12	1	0	13	92	8	0
TO	10	3	0	13	77	23	0

**QAP 52 Summary of Laboratory Evaluations by Matrix****Matrix: WAWater**

<b>Labcode</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>%A</b>	<b>%W</b>	<b>%N</b>
TP	2	0	0	2	100	0	0
TQ	4	2	0	6	67	33	0
TT	9	0	0	9	100	0	0
TW	5	1	2	8	63	13	25
TX	11	0	0	11	100	0	0
UC	2	3	0	5	40	60	0
UP	8	2	0	10	80	20	0
US	2	0	0	2	100	0	0
UY	9	1	1	11	82	9	9
WA	9	3	1	13	69	23	8
WC	9	2	0	11	82	18	0
WE	4	0	7	11	36	0	64
WI	2	2	0	4	50	50	0
WN	6	1	2	9	67	11	22
WO	11	1	0	12	92	8	0
WP	5	0	0	5	100	0	0
WT	1	2	2	5	20	40	40
WV	5	1	0	6	83	17	0
YA	10	0	3	13	77	0	23
YP	0	0	0	0	***	***	***
<b>Totals</b> <b>128 Labs:</b>	<b>806</b>	<b>151</b>	<b>93</b>	<b>1050</b>	<b>77%</b>	<b>14%</b>	<b>9%</b>

**QAP 52 Summary of Matrix Evaluations by Radionuclide****Matrix:** Air Filter

<b>Radio- Nuclide</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>%A</b>	<b>%W</b>	<b>%N</b>
RU106	6	10	57	73	8	14	78
GROSS BETA	74	11	5	90	82	12	6
CO60	83	41	9	133	62	31	7
CS137	92	36	7	135	68	27	5
SR90	28	8	8	44	64	18	18
PU238	42	4	11	57	74	7	19
PU239	39	14	5	58	67	24	9
AM241	49	11	9	69	71	16	13
U234	28	5	9	42	67	12	21
U238	34	3	6	43	79	7	14
Bq U	15	6	3	24	63	25	13
GROSS ALPHA	71	16	2	89	80	18	2
CO57	101	23	5	129	78	18	4
<b>Totals:</b>	<b>662</b>	<b>188</b>	<b>136</b>	<b>986</b>	<b>67%</b>	<b>19%</b>	<b>14%</b>

**QAP 52 Summary of Matrix Evaluations by Radionuclide****Matrix:** Soil

<b>Radio- Nuclide</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>%A</b>	<b>%W</b>	<b>%N</b>
BI214	69	20	7	96	72	21	7
U238	35	18	1	54	65	33	2
U234	38	12	1	51	75	24	2
AM241	28	12	13	53	53	23	25
PU239	52	10	4	66	79	15	6
PU238	30	0	0	30	100	0	0
SR90	31	10	8	49	63	20	16
AC228	81	12	5	98	83	12	5
K40	98	20	6	124	79	16	5
BI212	68	10	7	85	80	12	8
TH234	33	16	10	59	56	27	17
PB214	65	23	10	98	66	23	10
CS137	103	23	9	135	76	17	7
Bq U	22	1	2	25	88	4	8
PB212	63	27	6	96	66	28	6
<b>Totals:</b>	<b>816</b>	<b>214</b>	<b>89</b>	<b>1119</b>	<b>73%</b>	<b>19%</b>	<b>8%</b>

**QAP 52 Summary of Matrix Evaluations by Radionuclide****Matrix:** Vegetation

<b>Radio- Nuclide</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>%A</b>	<b>%W</b>	<b>%N</b>
CO60	90	11	8	109	83	10	7
CM244	28	5	1	34	82	15	3
AM241	35	28	7	70	50	40	10
PU239	26	18	6	50	52	36	12
PU238	10	2	1	13	77	15	8
SR90	31	8	7	46	67	17	15
CS137	84	13	6	103	82	13	6
K40	75	14	13	102	74	14	13
<b>Totals:</b>	<b>379</b>	<b>99</b>	<b>49</b>	<b>527</b>	<b>72%</b>	<b>19%</b>	<b>9%</b>

**QAP 52 Summary of Matrix Evaluations by Radionuclide****Matrix:** Water

<b>Radio- Nuclide</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>%A</b>	<b>%W</b>	<b>%N</b>
CS137	136	8	7	151	90	5	5
SR90	46	13	13	72	64	18	18
PU238	48	12	10	70	69	17	14
PU239	55	11	6	72	76	15	8
AM241	63	19	9	91	69	21	10
U234	44	9	5	58	76	16	9
U238	43	9	6	58	74	16	10
Bq U	28	2	2	32	88	6	6
GROSS ALPHA	53	19	6	78	68	24	8
GROSS BETA	43	31	6	80	54	39	8
NI63	16	0	1	17	94	0	6
H3	81	9	11	101	80	9	11
FE55	18	0	1	19	95	0	5
CO60	132	9	10	151	87	6	7
<b>Totals:</b>	<b>806</b>	<b>151</b>	<b>93</b>	<b>1050</b>	<b>77%</b>	<b>14%</b>	<b>9%</b>

**QAP 52 EML Results****Environmental Measurements Laboratory, New York, NY**

<b>Matrix</b>	<b>Radionuclide</b>	<b>EML Value</b>	<b>EML Error</b>	
Air Filter	ug U	4.980	0.030	ug/filter
	Gross Alpha	3.020	0.300	Bq/filter
	241Am	0.088	0.005	Bq/filter
	238Pu	0.080	0.001	Bq/filter
	Bq U	0.126	0.001	Bq/filter
	238U	0.062	0.001	Bq/filter
	234U	0.062	0.001	Bq/filter
	137Cs	6.100	0.300	Bq/filter
	106Ru	2.010	1.940	Bq/filter
	90Sr	0.242	0.005	Bq/filter
	57Co	5.310	0.220	Bq/filter
	Gross Beta	2.420	0.200	Bq/filter
	54Mn	27.200	0.800	Bq/filter
	239Pu	0.089	0.003	Bq/filter
	60Co	5.320	0.260	Bq/filter

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**pCi/g or mL = Bq x 0.027**

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**QAP 52 EML Results****Environmental Measurements Laboratory, New York, NY**

<b>Matrix</b>	<b>Radionuclide</b>	<b>EML Value</b>	<b>EML Error</b>	
Soil	90Sr	20.200	0.200	Bq/kg
	241Am	3.360	0.510	Bq/kg
	238Pu	18.600	0.500	Bq/kg
	212Bi	106.000	7.000	Bq/kg
	ug U	9.150	0.910	ug/g
	Bq U	229.000	23.000	Bq/kg
	238U	114.000	12.000	Bq/kg
	137Cs	339.000	9.300	Bq/kg
	40K	811.000	29.000	Bq/kg
	234Th	130.000	5.000	Bq/kg
	239Pu	7.000	0.340	Bq/kg
	228Ac	97.600	4.200	Bq/kg
	212Pb	97.300	4.600	Bq/kg
	214Pb	86.500	6.800	Bq/kg
	214Bi	86.700	3.800	Bq/kg
	234U	111.000	11.000	Bq/kg

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**pCi/g or mL = Bq x 0.027**

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## QAP 52 EML Results

### Environmental Measurements Laboratory, New York, NY

<b>Matrix</b>	<b>Radionuclide</b>	<b>EML Value</b>	<b>EML Error</b>	
Vegetation	90Sr	1780.000	17.800	Bq/kg
	137Cs	1380.000	20.000	Bq/kg
	238Pu	1.090	0.100	Bq/kg
	239Pu	15.500	2.100	Bq/kg
	241Am	10.400	1.400	Bq/kg
	244Cm	5.000	1.800	Bq/kg
	60Co	52.800	1.000	Bq/kg
	40K	521.000	20.000	Bq/kg

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pCi/g or mL = Bq x 0.027

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**QAP 52 EML Results****Environmental Measurements Laboratory, New York, NY**

<b>Matrix</b>	<b>Radionuclide</b>	<b>EML Value</b>	<b>EML Error</b>	
Water	90Sr	3.390	0.120	Bq/L
	63Ni	112.000	11.000	Bq/L
	241Am	1.950	0.180	Bq/L
	239Pu	0.918	0.030	Bq/L
	238Pu	0.944	0.040	Bq/L
	ug U	0.040	0.003	ug/mL
	Bq U	0.995	0.087	Bq/L
	238U	0.492	0.040	Bq/L
	137Cs	103.000	4.000	Bq/L
	60Co	48.900	1.800	Bq/L
	55Fe	33.100	0.700	Bq/L
	3H	79.400	2.500	Bq/L
	Gross Beta	690.000	70.000	Bq/L
	Gross Alpha	1700.000	170.000	Bq/L
	234U	0.482	0.040	Bq/L

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**pCi/g or mL = Bq x 0.027**

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**QAP 52 Results by Laboratory****Lab:** AC Analytical Chemistry Laboratory, Argonne National Lab

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	4.750	0.130	5.310	0.220	0.895	A	
1	CO60	5.130	0.110	5.320	0.260	0.964	A	
1	CS137	5.850	0.120	6.100	0.300	0.959	A	
1	MN54	26.400	0.200	27.200	0.800	0.971	A	
1	PU238	0.079	0.006	0.080	0.001	0.990	A	
1	PU239	0.091	0.007	0.089	0.003	1.027	A	

**Matrix:** SO Soil Bq / kg

1	BI212	128.000	12.000	106.000	7.000	1.208	W	
1	BI214	94.300	6.700	86.700	3.800	1.088	A	
1	CS137	382.000	35.000	339.000	9.300	1.127	A	
1	K40	929.000	24.000	811.000	29.000	1.145	A	
1	PB212	125.000	3.000	97.300	4.600	1.285	W	
1	PB214	101.000	4.000	86.500	6.800	1.168	A	
1	PU238	19.100	1.400	18.600	0.500	1.027	A	
1	PU239	6.770	0.550	7.000	0.340	0.967	A	

**Matrix:** WA Water Bq / L

1	AM241	2.090	0.160	1.950	0.180	1.072	A	
1	CO60	53.500	0.700	48.900	1.800	1.094	A	
1	CS137	108.000	1.000	103.000	4.000	1.049	A	
1	PU238	0.987	0.072	0.944	0.040	1.046	A	
1	PU239	0.890	0.065	0.918	0.030	0.969	A	
1	U234	0.436	0.027	0.482	0.040	0.905	A	
1	U238	0.479	0.029	0.492	0.040	0.974	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** AF Air Force Analytical Lab, Brooks AFB

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
3	AM241	0.130	0.040	0.088	0.005	1.477	W	
2	AM241	0.100	0.030	0.088	0.005	1.136	A	
1	AM241	0.120	0.030	0.088	0.005	1.364	A	
1	Bq U	0.270	0.060	0.126	0.001	2.143	W	
2	Bq U	0.260	0.050	0.126	0.001	2.063	W	
3	Bq U	0.290	0.050	0.126	0.001	2.302	W	
1	CO57	5.410	0.570	5.310	0.220	1.019	A	
3	CO57	5.130	0.550	5.310	0.220	0.966	A	
2	CO57	5.120	0.540	5.310	0.220	0.964	A	
2	CO60	5.860	0.770	5.320	0.260	1.102	W	
3	CO60	5.700	0.760	5.320	0.260	1.071	A	
1	CO60	5.850	0.740	5.320	0.260	1.100	A	
1	CS137	6.850	0.930	6.100	0.300	1.123	A	
3	CS137	6.780	0.890	6.100	0.300	1.111	A	
2	CS137	6.710	0.920	6.100	0.300	1.100	A	
1	GROSS ALPHA	2.970	0.040	3.020	0.300	0.983	A	
1	GROSS BETA	2.280	0.150	2.420	0.200	0.942	A	
3	MN54	27.540	3.290	27.200	0.800	1.013	A	
2	MN54	28.260	3.370	27.200	0.800	1.039	A	
1	MN54	28.380	3.390	27.200	0.800	1.043	A	
2	PU238	0.080	0.030	0.080	0.001	1.000	A	
3	PU238	0.090	0.030	0.080	0.001	1.125	A	
1	PU238	0.090	0.040	0.080	0.001	1.125	A	
2	PU239	0.070	0.030	0.089	0.003	0.787	W	
1	PU239	0.090	0.030	0.089	0.003	1.011	A	
3	PU239	0.070	0.020	0.089	0.003	0.787	W	
1	SR90	3.250	1.220	0.242	0.005	13.430	N	
2	SR90	3.220	1.180	0.242	0.005	13.306	N	
2	U234	0.140	0.030	0.062	0.001	2.258	N	
1	U234	0.140	0.040	0.062	0.001	2.258	N	
3	U234	0.130	0.030	0.062	0.001	2.097	N	
1	U238	0.080	0.060	0.062	0.001	1.290	A	
2	U238	0.080	0.030	0.062	0.001	1.290	A	
3	U238	0.090	0.030	0.062	0.001	1.452	W	

**Matrix:** SO Soil Bq / kg

3	AC228	74.000	11.100	97.600	4.200	0.758	N	
1	AC228	77.700	11.100	97.600	4.200	0.796	W	
2	AC228	81.400	11.100	97.600	4.200	0.834	W	
3	AM241	18.500	9.250	3.360	0.510	5.506	N	
1	AM241	9.990	8.510	3.360	0.510	2.973	N	
2	AM241	10.730	6.660	3.360	0.510	3.193	N	
3	BI212	59.200	11.100	106.000	7.000	0.558	A	
2	BI212	48.100	11.100	106.000	7.000	0.454	W	
1	BI212	59.200	14.800	106.000	7.000	0.558	A	
2	BI214	66.600	7.400	86.700	3.800	0.768	W	

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** AF Air Force Analytical Lab, Brooks AFB

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: SO Soil Bq / kg</b>								
1	BI214	66.600	7.400	86.700	3.800	0.768	W	
3	BI214	62.900	7.400	86.700	3.800	0.725	N	
1	Bq U	257.150	18.770	229.000	23.000	1.123	A	
3	Bq U	213.860	17.930	229.000	23.000	0.934	A	
2	Bq U	236.060	18.680	229.000	23.000	1.031	A	
3	CS137	296.000	29.600	339.000	9.300	0.873	W	
2	CS137	292.300	29.600	339.000	9.300	0.862	W	
1	CS137	288.600	29.600	339.000	9.300	0.851	W	
1	K40	699.300	70.300	811.000	29.000	0.862	W	
2	K40	703.000	70.300	811.000	29.000	0.867	W	
3	K40	699.300	70.300	811.000	29.000	0.862	W	
1	PB212	81.400	7.400	97.300	4.600	0.837	W	
2	PB212	81.400	7.400	97.300	4.600	0.837	W	
3	PB212	81.400	7.400	97.300	4.600	0.837	W	
1	PB214	70.300	7.400	86.500	6.800	0.813	W	
2	PB214	66.600	7.400	86.500	6.800	0.770	W	
3	PB214	70.300	7.400	86.500	6.800	0.813	W	
1	PU238	21.090	3.700	18.600	0.500	1.134	A	
2	PU238	20.720	4.070	18.600	0.500	1.114	A	
3	PU238	18.870	3.700	18.600	0.500	1.015	A	
2	PU239	6.660	2.220	7.000	0.340	0.951	A	
3	PU239	7.030	1.850	7.000	0.340	1.004	A	
1	PU239	8.880	2.220	7.000	0.340	1.269	W	
2	SR90	29.600	14.800	20.200	0.200	1.465	A	
3	SR90	18.500	14.800	20.200	0.200	0.916	A	
1	SR90	37.000	14.800	20.200	0.200	1.832	W	
3	TH234	88.800	25.900	130.000	5.000	0.683	W	
1	TH234	136.900	25.900	130.000	5.000	1.053	A	
2	TH234	92.500	25.900	130.000	5.000	0.712	W	
2	U234	120.990	13.690	111.000	11.000	1.090	A	
3	U234	102.860	12.580	111.000	11.000	0.927	A	
1	U234	117.290	12.580	111.000	11.000	1.057	A	
2	U238	109.520	12.580	114.000	12.000	0.961	A	
3	U238	103.230	12.580	114.000	12.000	0.906	A	
1	U238	129.500	13.690	114.000	12.000	1.136	W	

**Matrix: VE Vegetation Bq / kg**

3	AM241	9.250	1.850	10.400	1.400	0.889	W	
2	AM241	7.770	1.850	10.400	1.400	0.747	W	
1	AM241	7.400	1.850	10.400	1.400	0.712	W	
2	CO60	51.800	7.400	52.800	1.000	0.981	A	
3	CO60	55.500	7.400	52.800	1.000	1.051	A	
1	CO60	48.100	7.400	52.800	1.000	0.911	A	
2	CS137	1350.500	144.300	1380.000	20.000	0.979	A	
1	CS137	1365.300	144.300	1380.000	20.000	0.989	A	
3	CS137	1365.300	144.300	1380.000	20.000	0.989	A	

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** AF Air Force Analytical Lab, Brooks AFB

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: VE Vegetation Bq / kg</b>								
3	K40	525.400	59.200	521.000	20.000	1.008	A	
1	K40	529.100	59.200	521.000	20.000	1.016	A	
2	K40	529.100	59.200	521.000	20.000	1.016	A	
3	PU239	12.580	1.480	15.500	2.100	0.812	W	
2	PU239	11.840	1.480	15.500	2.100	0.764	W	
1	PU239	9.250	1.110	15.500	2.100	0.597	N	
1	SR90	1317.200	33.300	1780.000	17.800	0.740	A	
3	SR90	1291.300	33.300	1780.000	17.800	0.725	W	
2	SR90	1198.800	33.300	1780.000	17.800	0.673	W	

**Matrix: WA Water Bq / L**

2	AM241	1.850	0.250	1.950	0.180	0.949	A	
1	AM241	1.840	0.270	1.950	0.180	0.944	A	
3	AM241	1.910	0.240	1.950	0.180	0.979	A	
2	Bq U	1.260	0.110	0.995	0.087	1.266	W	
1	Bq U	1.150	0.100	0.995	0.087	1.156	A	
3	Bq U	1.170	0.100	0.995	0.087	1.176	A	
1	CO60	51.800	3.700	48.900	1.800	1.059	A	
2	CO60	55.500	7.400	48.900	1.800	1.135	A	
3	CO60	51.800	3.700	48.900	1.800	1.059	A	
3	CS137	111.000	11.100	103.000	4.000	1.078	A	
1	CS137	111.000	11.100	103.000	4.000	1.078	A	
2	CS137	114.700	11.100	103.000	4.000	1.114	A	
1	GROSS ALPHA	1460.270	65.700	1700.000	170.000	0.859	A	
1	GROSS BETA	644.190	38.260	690.000	70.000	0.934	A	
3	H3	381.100	3.700	79.400	2.500	4.800	N	
1	H3	432.900	3.700	79.400	2.500	5.452	N	
2	H3	377.400	3.700	79.400	2.500	4.753	N	
2	PU238	0.880	0.150	0.944	0.040	0.932	A	
1	PU238	0.920	0.160	0.944	0.040	0.975	A	
3	PU238	0.810	0.140	0.944	0.040	0.858	W	
3	PU239	0.910	0.160	0.918	0.030	0.991	A	
2	PU239	1.000	0.170	0.918	0.030	1.089	A	
1	PU239	0.940	0.160	0.918	0.030	1.024	A	
1	SR90	4.010	0.730	3.390	0.120	1.183	A	
2	SR90	3.560	0.700	3.390	0.120	1.050	A	
3	SR90	4.410	0.710	3.390	0.120	1.301	W	
1	U234	0.600	0.130	0.482	0.040	1.245	W	
3	U234	0.490	0.110	0.482	0.040	1.017	A	
2	U234	0.700	0.150	0.482	0.040	1.452	N	
1	U238	0.460	0.110	0.492	0.040	0.935	A	
3	U238	0.550	0.110	0.492	0.040	1.118	A	
2	U238	0.510	0.120	0.492	0.040	1.037	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** AG Paragon Analytics, Inc, Fort Collins, CO

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.099	0.019	0.088	0.005	1.125	A	A
1	Bq U	0.147	0.022	0.126	0.001	1.167	A	A
2	CO57	5.430	0.970	5.310	0.220	1.023	A	A
1	CO57	5.570	0.930	5.310	0.220	1.049	A	A
1	CO60	5.660	0.960	5.320	0.260	1.064	A	A
2	CO60	6.200	1.200	5.320	0.260	1.165	W	A
2	CS137	6.400	1.100	6.100	0.300	1.049	A	A
1	CS137	6.700	1.100	6.100	0.300	1.098	A	A
1	MN54	29.900	5.000	27.200	0.800	1.099	A	A
2	MN54	27.700	4.700	27.200	0.800	1.018	A	A
1	PU238	0.075	0.015	0.080	0.001	0.938	A	A
1	PU239	0.090	0.017	0.089	0.003	1.011	A	A
1	SR90	0.235	0.050	0.242	0.005	0.971	A	A
1	U234	0.068	0.015	0.062	0.001	1.097	A	A
1	U238	0.074	0.016	0.062	0.001	1.194	A	A

**Matrix: SO Soil Bq / kg**

1	AC228	113.000	23.000	97.600	4.200	1.158	A	A
1	AM241	3.810	0.800	3.360	0.510	1.134	A	W
1	BI212	92.000	55.000	106.000	7.000	0.868	A	W
1	BI214	91.000	19.000	86.700	3.800	1.050	A	W
1	Bq U	246.000	22.000	229.000	23.000	1.074	A	A
1	CS137	408.000	68.000	339.000	9.300	1.204	A	N
1	K40	887.000	158.000	811.000	29.000	1.094	A	W
1	PB212	117.000	20.000	97.300	4.600	1.202	A	N
1	PB214	106.000	21.000	86.500	6.800	1.225	A	W
1	PU238	18.700	2.800	18.600	0.500	1.005	A	
1	PU239	7.200	1.300	7.000	0.340	1.029	A	A
1	SR90	22.600	4.700	20.200	0.200	1.119	A	A
1	U234	116.000	15.000	111.000	11.000	1.045	A	A
1	U238	121.000	16.000	114.000	12.000	1.061	A	A
1	UG/G U	9.900	1.300	9.150	0.910	1.082		

**Matrix: VE Vegetation Bq / kg**

1	AM241	9.700	1.400	10.400	1.400	0.933	A	A
1	CM244	6.060	0.970	5.000	1.800	1.212	A	A
1	CO60	57.000	10.000	52.800	1.000	1.080	A	A
1	CS137	1515.000	251.000	1380.000	20.000	1.098	A	A
1	K40	619.000	108.000	521.000	20.000	1.188	A	A
1	PU238	1.010	0.290	1.090	0.100	0.927	A	
1	PU239	12.900	1.800	15.500	2.100	0.832	W	A
1	SR90	1637.000	295.000	1780.000	17.800	0.920	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** AG Paragon Analytics, Inc, Fort Collins, CO

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	AM241	1.930	0.260	1.950	0.180	0.990	A	A
1	Bq U	1.110	0.130	0.995	0.087	1.116	A	A
1	CO60	49.200	8.300	48.900	1.800	1.006	A	A
1	CS137	105.000	17.000	103.000	4.000	1.019	A	A
1	H3	91.000	14.000	79.400	2.500	1.146	A	A
1	NI63	153.000	38.000	112.000	11.000	1.366	A	A
1	PU238	0.950	0.140	0.944	0.040	1.006	A	A
1	PU239	0.880	0.130	0.918	0.030	0.959	A	A
1	SR90	2.900	0.520	3.390	0.120	0.855	W	A
1	U234	0.560	0.093	0.482	0.040	1.162	A	W
1	U238	0.519	0.088	0.492	0.040	1.055	A	A
1	UG/G U	0.040	0.005	0.040	0.003	1.010		

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** AI Nuclear Technology Services, Inc., Roswell, GA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.050	0.008	0.088	0.005	0.568	N	A
2	AM241	0.060	0.013	0.088	0.005	0.682	N	A
2	Bq U	0.110	0.020	0.126	0.001	0.873	W	
1	Bq U	0.120	0.020	0.126	0.001	0.952	A	
1	CO57	7.340	0.060	5.310	0.220	1.382	W	A
2	CO57	7.260	0.070	5.310	0.220	1.367	W	A
1	CO60	7.250	0.120	5.320	0.260	1.363	N	N
2	CO60	7.320	0.110	5.320	0.260	1.376	N	N
1	CS137	8.320	0.200	6.100	0.300	1.364	W	N
2	CS137	8.300	0.200	6.100	0.300	1.361	W	N
1	GROSS ALPHA	2.390	0.050	3.020	0.300	0.791	W	A
2	GROSS ALPHA	2.650	0.080	3.020	0.300	0.877	A	A
2	GROSS BETA	3.030	0.050	2.420	0.200	1.252	A	A
1	GROSS BETA	3.040	0.065	2.420	0.200	1.256	A	A
2	MN54	37.200	0.310	27.200	0.800	1.368	W	N
1	MN54	36.900	0.300	27.200	0.800	1.357	W	N
2	PU238	0.080	0.004	0.080	0.001	1.000	A	N
1	PU238	0.084	0.004	0.080	0.001	1.050	A	N
2	PU239	0.090	0.004	0.089	0.003	1.011	A	N
1	PU239	0.087	0.004	0.089	0.003	0.978	A	N
1	RU106	3.640	1.050	2.010	1.940	1.811	N	W
2	RU106	3.620	1.050	2.010	1.940	1.801	N	W
2	SR90	1.000	0.050	0.242	0.005	4.132	N	W
1	SR90	1.200	0.050	0.242	0.005	4.959	N	W

**Matrix: SO Soil Bq / kg**

1	AC228	110.000	6.000	97.600	4.200	1.127	A	A
2	AC228	115.000	8.000	97.600	4.200	1.178	A	A
2	AM241	27.600	2.100	3.360	0.510	8.214	N	
1	AM241	20.000	1.700	3.360	0.510	5.952	N	
1	BI212	90.500	4.800	106.000	7.000	0.854	A	
2	BI212	88.000	5.000	106.000	7.000	0.830	A	
1	BI214	134.000	4.000	86.700	3.800	1.546	N	A
2	BI214	138.000	4.000	86.700	3.800	1.592	N	A
1	Bq U	217.000	5.400	229.000	23.000	0.948	A	A
2	Bq U	211.000	6.000	229.000	23.000	0.921	A	A
2	CS137	422.000	6.000	339.000	9.300	1.245	W	W
1	CS137	401.000	5.000	339.000	9.300	1.183	A	W
2	K40	1070.000	41.000	811.000	29.000	1.319	W	A
1	K40	1030.000	36.000	811.000	29.000	1.270	W	A
1	PB212	93.400	3.500	97.300	4.600	0.960	A	W
2	PB212	94.100	5.100	97.300	4.600	0.967	A	W
1	PB214	140.000	4.000	86.500	6.800	1.618	N	A
2	PB214	142.000	4.000	86.500	6.800	1.642	N	A
2	PU239	7.830	0.800	7.000	0.340	1.119	A	N
1	PU239	8.140	0.780	7.000	0.340	1.163	A	N

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** AI Nuclear Technology Services, Inc., Roswell, GA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: SO Soil Bq / kg</b>								
1	SR90	97.000	6.000	20.200	0.200	4.802	N	N
2	SR90	140.000	7.000	20.200	0.200	6.931	N	N
1	TH234	368.000	22.000	130.000	5.000	2.831	N	
2	TH234	350.000	20.000	130.000	5.000	2.692	N	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	10.200	0.060	10.400	1.400	0.981	A	W
2	AM241	10.000	1.000	10.400	1.400	0.962	A	W
1	CM244	7.950	1.230	5.000	1.800	1.590	W	N
2	CM244	8.000	1.100	5.000	1.800	1.600	W	N
2	CO60	62.800	3.270	52.800	1.000	1.189	A	W
2	CO60	62.200	3.300	52.800	1.000	1.178	A	W
1	CS137	1680.000	12.000	1380.000	20.000	1.217	A	N
2	CS137	1250.000	15.000	1380.000	20.000	0.906	A	N
1	K40	630.000	52.000	521.000	20.000	1.209	A	A
2	K40	636.000	52.000	521.000	20.000	1.221	A	A
2	PU239	22.400	1.200	15.500	2.100	1.445	W	A
1	PU239	17.000	1.000	15.500	2.100	1.097	A	A
1	SR90	1550.000	254.000	1780.000	17.800	0.871	A	N
2	SR90	1500.000	249.000	1780.000	17.800	0.843	A	N
<b>Matrix: WA Water Bq / L</b>								
2	AM241	1.930	0.060	1.950	0.180	0.990	A	N
1	AM241	2.020	0.060	1.950	0.180	1.036	A	N
1	Bq U	1.200	0.060	0.995	0.087	1.206	A	
2	Bq U	1.100	0.060	0.995	0.087	1.106	A	
2	CO60	63.100	1.010	48.900	1.800	1.290	N	N
1	CO60	53.300	0.860	48.900	1.800	1.090	A	N
1	CS137	101.000	1.300	103.000	4.000	0.981	A	N
2	CS137	111.000	1.300	103.000	4.000	1.078	A	N
2	GROSS ALPHA	960.000	30.000	1700.000	170.000	0.565	N	A
1	GROSS ALPHA	1140.000	30.000	1700.000	170.000	0.671	W	A
1	GROSS BETA	763.000	25.000	690.000	70.000	1.106	A	A
2	GROSS BETA	763.000	23.000	690.000	70.000	1.106	A	A
2	H3	246.000	11.000	79.400	2.500	3.098	N	N
1	H3	243.000	10.000	79.400	2.500	3.060	N	N
1	PU238	0.980	0.034	0.944	0.040	1.038	A	N
2	PU238	0.920	0.034	0.944	0.040	0.975	A	N
1	PU239	0.920	0.034	0.918	0.030	1.002	A	N
2	PU239	0.950	0.034	0.918	0.030	1.035	A	N
2	SR90	6.860	0.300	3.390	0.120	2.024	N	N
1	SR90	8.620	0.310	3.390	0.120	2.543	N	N

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** AM American Radiation Services, Inc., Baton Rouge

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.084	0.030	0.088	0.005	0.952	A	W
1	Bq U	0.115	0.018	0.126	0.001	0.914	A	N
1	CO57	4.890	0.053	5.310	0.220	0.921	A	A
1	CO60	5.040	0.120	5.320	0.260	0.947	A	A
1	CS137	6.140	0.120	6.100	0.300	1.007	A	A
1	GROSS ALPHA	2.630	0.010	3.020	0.300	0.871	A	A
1	GROSS BETA	2.700	0.010	2.420	0.200	1.116	A	A
1	MN54	26.560	0.210	27.200	0.800	0.976	A	A
1	PU238	0.081	0.007	0.080	0.001	1.015	A	N
1	PU239	0.091	0.007	0.089	0.003	1.018	A	N
1	RU106	1.880	0.590	2.010	1.940	0.935	A	N
1	SR90	0.182	0.008	0.242	0.005	0.750	W	N
1	U234	0.051	0.005	0.062	0.001	0.829	N	A
1	U238	0.051	0.005	0.062	0.001	0.818	N	N

**Matrix: SO Soil Bq / kg**

1	AC228	90.557	2.405	97.600	4.200	0.928	A	A
1	AM241	2.404	0.590	3.360	0.510	0.715	W	A
1	BI212	97.860	6.640	106.000	7.000	0.923	A	A
1	BI214	83.752	2.740	86.700	3.800	0.966	A	A
1	Bq U	243.800	26.370	229.000	23.000	1.065	A	W
1	CS137	351.860	3.826	339.000	9.300	1.038	A	A
1	K40	872.280	28.820	811.000	29.000	1.076	A	A
1	PB212	115.940	6.480	97.300	4.600	1.192	A	A
1	PB214	99.497	1.943	86.500	6.800	1.150	A	W
1	PU239	10.220	1.800	7.000	0.340	1.460	W	A
1	SR90	13.730	7.800	20.200	0.200	0.680	W	N
1	TH234	137.700	10.912	130.000	5.000	1.059	A	A
1	U234	118.360	7.190	111.000	11.000	1.066	A	W
1	U238	121.420	6.400	114.000	12.000	1.065	A	W

**Matrix: VE Vegetation Bq / kg**

1	AM241	8.840	2.190	10.400	1.400	0.850	W	A
1	CM244	6.511	3.690	5.000	1.800	1.302	A	A
1	CO60	53.200	2.370	52.800	1.000	1.008	A	A
1	CS137	1243.260	7.590	1380.000	20.000	0.901	A	A
1	K40	525.480	26.360	521.000	20.000	1.009	A	A
1	PU239	4.660	1.500	15.500	2.100	0.301	N	W
1	SR90	324.100	9.800	1780.000	17.800	0.182	N	N

**Matrix: WA Water Bq / L**

1	AM241	2.010	0.390	1.950	0.180	1.031	A	A
1	Bq U	0.296	0.105	0.995	0.087	0.298	N	N

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** AM American Radiation Services, Inc., Baton Rouge

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	CO60	52.320	0.780	48.900	1.800	1.070	A	A
1	CS137	112.350	0.760	103.000	4.000	1.091	A	A
1	GROSS ALPHA	1575.310	17.900	1700.000	170.000	0.927	A	A
1	GROSS BETA	874.865	9.970	690.000	70.000	1.268	A	N
1	H3	86.830	8.090	79.400	2.500	1.094	A	W
1	PU238	0.217	0.011	0.944	0.040	0.230	N	N
1	PU239	0.214	0.012	0.918	0.030	0.233	N	N
1	SR90	0.766	0.020	3.390	0.120	0.226	N	N
1	U234	0.117	0.007	0.482	0.040	0.242	N	N
1	U238	0.108	0.007	0.492	0.040	0.221	N	N

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

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If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** AN Argonne National Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.080	0.010	0.088	0.005	0.909	A	A
1	CO57	5.440	0.180	5.310	0.220	1.024	A	A
1	CO60	6.600	1.240	5.320	0.260	1.241	W	W
1	CS137	6.530	0.510	6.100	0.300	1.070	A	A
1	MN54	28.500	1.300	27.200	0.800	1.048	A	A
1	PU238	0.080	0.010	0.080	0.001	1.000	A	A
1	PU239	0.090	0.010	0.089	0.003	1.011	A	A
1	SR90	0.230	0.020	0.242	0.005	0.950	A	A
1	U234	0.060	0.010	0.062	0.001	0.968	A	A
1	U238	0.070	0.010	0.062	0.001	1.129	A	A

**Matrix:** SO Soil Bq / kg

1	AM241	3.400	0.340	3.360	0.510	1.012	A	A
1	CS137	396.000	8.000	339.000	9.300	1.168	A	W
1	K40	904.000	35.000	811.000	29.000	1.115	A	A
1	PU239	7.570	0.680	7.000	0.340	1.081	A	A
1	SR90	18.900	0.200	20.200	0.200	0.936	A	A
1	U234	111.000	4.000	111.000	11.000	1.000	A	A
1	U238	115.000	3.000	114.000	12.000	1.009	A	A

**Matrix:** WA Water Bq / L

1	AM241	2.000	0.080	1.950	0.180	1.026	A	A
1	CO60	49.700	2.000	48.900	1.800	1.016	A	A
1	CS137	108.000	4.000	103.000	4.000	1.049	A	A
1	H3	84.900	6.000	79.400	2.500	1.069	A	A
1	PU238	0.950	0.030	0.944	0.040	1.006	A	A
1	PU239	0.920	0.040	0.918	0.030	1.002	A	A
1	SR90	3.400	0.130	3.390	0.120	1.003	A	A
1	U234	0.510	0.020	0.482	0.040	1.058	A	A
1	U238	0.520	0.020	0.492	0.040	1.057	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** AR Accu-Labs Research Inc., Golden, CO

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.079	0.014	0.088	0.005	0.894	A	N
1	CO57	5.050	0.141	5.310	0.220	0.951	A	A
1	CO60	5.370	0.213	5.320	0.260	1.009	A	A
1	CS137	5.920	0.248	6.100	0.300	0.970	A	A
1	GROSS ALPHA	3.478		3.020	0.300	1.152	A	A
1	GROSS BETA	3.034		2.420	0.200	1.254	A	A
1	MN54	25.780	0.586	27.200	0.800	0.948	A	A
1	PU238	0.099	0.014	0.080	0.001	1.236	W	A
1	PU239	0.097	0.014	0.089	0.003	1.087	A	A
1	SR90	0.361	0.113	0.242	0.005	1.491	W	A
1	U234	0.069	0.010	0.062	0.001	1.115	A	
1	U238	0.068	0.009	0.062	0.001	1.089	A	
1	UG/G U	4.690		4.980	0.030	0.942		

**Matrix:** SO Soil Bq / kg

1	AC228	94.600	17.220	97.600	4.200	0.969	A	A
1	BI212	99.230	21.630	106.000	7.000	0.936	A	W
1	CS137	321.180	39.730	339.000	9.300	0.947	A	A
1	K40	737.940	48.620	811.000	29.000	0.910	A	A
1	PB212	95.710	20.210	97.300	4.600	0.984	A	A
1	PU238	18.730	0.797	18.600	0.500	1.007	A	
1	PU239	7.360	0.500	7.000	0.340	1.051	A	N
1	TH234	122.610	18.630	130.000	5.000	0.943	A	
1	U234	125.780	8.620	111.000	11.000	1.133	W	
1	U238	125.130	8.580	114.000	12.000	1.098	A	
1	UG/G U	9.970		9.150	0.910	1.090		A

**Matrix:** VE Vegetation Bq / kg

1	AM241	12.220	0.860	10.400	1.400	1.175	A	A
1	CM244	5.540	0.578	5.000	1.800	1.108	A	
1	CO60	45.910	7.090	52.800	1.000	0.870	A	A
1	CS137	1404.400	105.300	1380.000	20.000	1.018	A	A
1	K40	558.270	64.200	521.000	20.000	1.072	A	N
1	PU238	1.290	0.320	1.090	0.100	1.183	A	
1	PU239	15.100	1.090	15.500	2.100	0.974	A	W
1	SR90	1990.000	257.960	1780.000	17.800	1.118	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.878	0.119	1.950	0.180	0.963	A	A
1	CO60	49.311	1.600	48.900	1.800	1.008	A	N
1	CS137	105.150	2.630	103.000	4.000	1.021	A	N
1	GROSS ALPHA	1702.000		1700.000	170.000	1.001	A	A
1	GROSS BETA	962.000		690.000	70.000	1.394	W	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** AR Accu-Labs Research Inc., Golden, CO

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	H3	77.770	11.550	79.400	2.500	0.979	A	N
1	PU238	0.987	0.083	0.944	0.040	1.045	A	A
1	PU239	0.906	0.080	0.918	0.030	0.987	A	N
1	SR90	3.860	0.972	3.390	0.120	1.139	A	A
1	U234	0.603	0.069	0.482	0.040	1.251	W	
1	U238	0.652	0.074	0.492	0.040	1.325	N	
1	UG/G U	0.051		0.040	0.003	1.269		A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** AS USACHPPM, Aberdeen Proving Ground, MD

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.210	0.120	0.088	0.005	2.386	W	A
1	CO57	5.340	0.130	5.310	0.220	1.006	A	A
1	CO60	5.330	0.120	5.320	0.260	1.002	A	A
1	CS137	6.200	0.090	6.100	0.300	1.016	A	A
1	GROSS ALPHA	3.190	0.077	3.020	0.300	1.056	A	A
1	GROSS BETA	3.130	0.071	2.420	0.200	1.293	A	A
1	MN54	28.850	0.180	27.200	0.800	1.061	A	A
1	RU106	2.450	0.730	2.010	1.940	1.219	W	N
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	71.780	3.560	97.600	4.200	0.735	N	A
1	AM241	3.413	2.070	3.360	0.510	1.016	A	N
1	BI212	54.830	8.770	106.000	7.000	0.517	W	A
1	BI214	65.680	3.480	86.700	3.800	0.758	W	A
1	CS137	282.420	3.860	339.000	9.300	0.833	W	A
1	K40	682.280	17.550	811.000	29.000	0.841	W	W
1	PB212	83.510	3.180	97.300	4.600	0.858	W	W
1	PB214	70.560	5.120	86.500	6.800	0.816	W	A
1	TH234	125.980	26.770	130.000	5.000	0.969	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	2.799	0.820	1.950	0.180	1.435	W	A
1	CO60	0.054	0.001	48.900	1.800	0.001	N	A
1	CS137	0.110	0.001	103.000	4.000	0.001	N	A
1	GROSS ALPHA	1539.050	41.320	1700.000	170.000	0.905	A	W
1	GROSS BETA	615.530	31.490	690.000	70.000	0.892	A	A
1	H3	64.210	9.102	79.400	2.500	0.809	W	A
1	SR90	3.152	0.116	3.390	0.120	0.930	A	W

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** AT ATL International inc., Germantown, MD

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.113	0.059	0.088	0.005	1.280	A	A
1	CO57	4.919	0.395	5.310	0.220	0.926	A	A
1	CO60	5.135	0.401	5.320	0.260	0.965	A	A
1	CS137	5.722	0.576	6.100	0.300	0.938	A	A
1	GROSS ALPHA	2.481	0.113	3.020	0.300	0.822	A	A
1	GROSS BETA	2.797	0.091	2.420	0.200	1.156	A	A
1	MN54	25.550	3.070	27.200	0.800	0.939	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	94.320	22.490	97.600	4.200	0.966	A	A
1	AM241	2.280	0.885	3.360	0.510	0.679	W	A
1	BI214	84.830	6.080	86.700	3.800	0.978	A	A
1	CS137	333.600	33.100	339.000	9.300	0.984	A	A
1	K40	790.700	77.900	811.000	29.000	0.975	A	A
1	PB214	93.330	15.800	86.500	6.800	1.079	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	8.789	1.903	10.400	1.400	0.845	W	W
1	CO60	50.065	3.565	52.800	1.000	0.948	A	A
1	CS137	1346.500	133.000	1380.000	20.000	0.976	A	A
1	K40	512.450	52.600	521.000	20.000	0.984	A	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.925	0.392	1.950	0.180	0.987	A	W
1	Bq U	0.999	0.110	0.995	0.087	1.004	A	A
1	CO60	50.095	3.290	48.900	1.800	1.024	A	A
1	CS137	105.450	12.450	103.000	4.000	1.024	A	A
1	GROSS ALPHA	1241.250	90.075	1700.000	170.000	0.730	W	W
1	GROSS BETA	842.750	61.588	690.000	70.000	1.221	A	A
1	H3	75.813	5.416	79.400	2.500	0.955	A	A
1	PU238	0.921	0.144	0.944	0.040	0.976	A	A
1	PU239	0.910	0.143	0.918	0.030	0.991	A	A
1	U234	0.478	0.076	0.482	0.040	0.991	A	A
1	U238	0.499	0.079	0.492	0.040	1.015	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** AU ORISE RSAT/ESSAP, Oak Ridge

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.083	0.008	0.088	0.005	0.944	A	A
1	CO57	5.170	0.110	5.310	0.220	0.974	A	A
1	CO60	5.490	0.170	5.320	0.260	1.032	A	A
1	CS137	6.230	0.250	6.100	0.300	1.021	A	A
1	GROSS ALPHA	3.440	0.150	3.020	0.300	1.139	A	A
1	GROSS BETA	3.040	0.240	2.420	0.200	1.256	A	A
1	MN54	29.200	0.840	27.200	0.800	1.074	A	A
1	RU106	2.800	1.000	2.010	1.940	1.393	N	
1	U234	0.056	0.006	0.062	0.001	0.895	W	W
1	U238	0.058	0.006	0.062	0.001	0.937	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	107.000	12.000	97.600	4.200	1.096	A	A
1	AM241	3.700	1.100	3.360	0.510	1.101	A	N
1	BI212	103.000	21.000	106.000	7.000	0.972	A	A
1	BI214	106.000	18.000	86.700	3.800	1.223	W	W
1	CS137	375.000	14.000	339.000	9.300	1.106	A	A
1	K40	844.000	44.000	811.000	29.000	1.041	A	A
1	PB212	110.600	8.700	97.300	4.600	1.137	A	A
1	PB214	108.900	9.800	86.500	6.800	1.259	W	A
1	PU238	19.000	2.800	18.600	0.500	1.022	A	
1	PU239	7.300	1.600	7.000	0.340	1.043	A	W
1	SR90	20.400	3.800	20.200	0.200	1.010	A	A
1	TH234	116.000	19.000	130.000	5.000	0.892	A	A
1	U234	121.000	11.000	111.000	11.000	1.090	A	A
1	U238	123.000	11.000	114.000	12.000	1.079	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	5.760	0.570	10.400	1.400	0.554	N	A
1	CO60	58.000	2.700	52.800	1.000	1.098	A	A
1	CS137	1488.000	49.000	1380.000	20.000	1.078	A	A
1	K40	537.000	29.000	521.000	20.000	1.031	A	A
1	PU239	8.390	0.870	15.500	2.100	0.541	N	A
1	SR90	1049.000	34.000	1780.000	17.800	0.589	W	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.950	0.210	1.950	0.180	1.000	A	A
1	CO60	55.100	1.500	48.900	1.800	1.127	A	A
1	CS137	113.100	4.400	103.000	4.000	1.098	A	A
1	GROSS ALPHA	1248.000	388.000	1700.000	170.000	0.734	W	A
1	GROSS BETA	854.000	271.000	690.000	70.000	1.238	A	A
1	H3	80.000	12.000	79.400	2.500	1.008	A	A
1	PU238	0.970	0.130	0.944	0.040	1.028	A	W

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** AU ORISE RSAT/ESSAP, Oak Ridge

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	PU239	1.010	0.140	0.918	0.030	1.100	A	A
1	SR90	3.240	0.310	3.390	0.120	0.956	A	A
1	U234	0.440	0.081	0.482	0.040	0.913	A	A
1	U238	0.456	0.082	0.492	0.040	0.927	A	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** AW Argonne West National Lab

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.110	0.080	0.088	0.005	1.250	A	
1	CO57	5.800	0.500	5.310	0.220	1.092	A	
1	CO60	5.900	0.500	5.320	0.260	1.109	W	
1	CS137	6.700	0.600	6.100	0.300	1.098	A	
1	MN54	29.000	3.000	27.200	0.800	1.066	A	
1	RU106	3.600	0.800	2.010	1.940	1.791	N	

**Matrix:** WA Water Bq / L

1	AM241	2.700	2.500	1.950	0.180	1.385	W	
1	CO60	51.000	4.000	48.900	1.800	1.043	A	
1	CS137	107.000	9.000	103.000	4.000	1.039	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** BA Bettis Atomic Power Lab, West Mifflin, PA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	5.464	0.227	5.310	0.220	1.029	A	A
1	CO60	5.538	0.070	5.320	0.260	1.041	A	A
1	CS137	6.603	0.137	6.100	0.300	1.082	A	A
1	MN54	30.580	1.290	27.200	0.800	1.124	A	A
1	RU106	2.650	0.347	2.010	1.940	1.318	N	A
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	354.100	17.710	339.000	9.300	1.045	A	A
1	SR90	18.890	3.259	20.200	0.200	0.935	A	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	49.160	0.790	52.800	1.000	0.931	A	A
1	CS137	1266.000	22.000	1380.000	20.000	0.917	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	54.030	1.000	48.900	1.800	1.105	A	A
1	CS137	120.900	2.328	103.000	4.000	1.174	A	A
1	PU238	0.845	0.046	0.944	0.040	0.895	W	W
1	PU239	0.817	0.163	0.918	0.030	0.890	W	A
1	SR90	2.537	0.611	3.390	0.120	0.748	N	

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**QAP 52 Results by Laboratory****Lab:** BC BWX Technologies, Inc, Naval Nuclear Fuel Division, Lynchburg, VA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	4.610	0.190	5.310	0.220	0.868	A	A
1	CO60	5.720	0.150	5.320	0.260	1.075	A	A
1	CS137	6.130	0.200	6.100	0.300	1.005	A	A
1	GROSS ALPHA	2.930	0.050	3.020	0.300	0.970	A	A
1	GROSS BETA	3.320	0.050	2.420	0.200	1.372	A	A
1	MN54	28.000	0.600	27.200	0.800	1.029	A	A
1	RU106	2.320	0.540	2.010	1.940	1.154	W	
1	SR90	0.141	0.015	0.242	0.005	0.583	N	N
1	U234	0.070	0.006	0.062	0.001	1.129	A	A
1	U238	0.065	0.006	0.062	0.001	1.048	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	CS137	396.000	21.000	339.000	9.300	1.168	A	N
1	K40	914.000	63.000	811.000	29.000	1.127	A	N
1	U234	112.000	4.000	111.000	11.000	1.009	A	W
1	U238	114.000	4.000	114.000	12.000	1.000	A	W
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	68.400	4.600	52.800	1.000	1.295	W	W
1	CS137	1698.000	90.000	1380.000	20.000	1.230	A	W
1	K40	625.000	44.000	521.000	20.000	1.200	A	A
1	SR90	1320.000	20.000	1780.000	17.800	0.742	A	A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	53.300	1.760	48.900	1.800	1.090	A	A
1	CS137	105.000	2.000	103.000	4.000	1.019	A	A
1	GROSS ALPHA	1850.000	30.000	1700.000	170.000	1.088	A	W
1	GROSS BETA	925.000	16.000	690.000	70.000	1.341	W	A
1	SR90	3.620	0.150	3.390	0.120	1.068	A	W
1	U234	0.562	0.025	0.482	0.040	1.166	A	W
1	U238	0.635	0.027	0.492	0.040	1.291	N	N

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** BE RUST Geotech, Grand Junction, CO

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.081	0.010	0.088	0.005	0.920	A	W
1	CO57	5.000	1.000	5.310	0.220	0.942	A	A
1	CO60	6.000	1.000	5.320	0.260	1.128	W	A
1	CS137	6.000	1.000	6.100	0.300	0.984	A	A
1	GROSS ALPHA	2.567	0.248	3.020	0.300	0.850	A	A
1	GROSS BETA	2.607	0.264	2.420	0.200	1.077	A	W
1	MN54	27.000	9.000	27.200	0.800	0.993	A	W
1	PU238	0.077	0.012	0.080	0.001	0.963	A	A
1	PU239	0.089	0.014	0.089	0.003	1.000	A	A
1	SR90	0.208	0.027	0.242	0.005	0.860	A	A
1	U234	0.061	0.010	0.062	0.001	0.984	A	A
1	U238	0.061	0.010	0.062	0.001	0.984	A	A
1	UG/G U	5.124		4.980	0.030	1.029		A

**Matrix: SO Soil Bq / kg**

1	AC228	136.000	11.000	97.600	4.200	1.393	W	
1	AM241	2.790	0.620	3.360	0.510	0.830	A	A
1	CS137	443.000	24.000	339.000	9.300	1.307	W	W
1	K40	1221.000	68.000	811.000	29.000	1.506	W	W
1	PU238	18.200	1.900	18.600	0.500	0.978	A	
1	PU239	6.970	0.940	7.000	0.340	0.996	A	A
1	SR90	18.900	3.500	20.200	0.200	0.936	A	A
1	TH234	103.000	34.000	130.000	5.000	0.792	W	
1	U234	122.060	10.160	111.000	11.000	1.100	A	A
1	U238	124.400	10.290	114.000	12.000	1.091	A	A
1	UG/G U	10.080		9.150	0.910	1.102		A

**Matrix: VE Vegetation Bq / kg**

1	AM241	9.750	0.990	10.400	1.400	0.938	A	A
1	CM244	5.840	0.690	5.000	1.800	1.168	A	W
1	CO60	61.000	5.000	52.800	1.000	1.155	A	W
1	CS137	1505.000	160.000	1380.000	20.000	1.091	A	A
1	K40	722.000	84.000	521.000	20.000	1.386	W	A
1	PU239	14.250	1.520	15.500	2.100	0.919	A	A
1	SR90	1851.000	97.000	1780.000	17.800	1.040	A	A

**Matrix: WA Water Bq / L**

1	AM241	1.950	0.180	1.950	0.180	1.000	A	A
1	CO60	52.530	1.890	48.900	1.800	1.074	A	N
1	CS137	104.600	5.400	103.000	4.000	1.016	A	A
1	FE55	33.010	1.010	33.100	0.700	0.997	A	A
1	GROSS ALPHA	1778.000	86.000	1700.000	170.000	1.046	A	A
1	GROSS BETA	764.000	48.000	690.000	70.000	1.107	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** BE RUST Geotech, Grand Junction, CO

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	H3	105.200	9.000	79.400	2.500	1.325	W	A
1	NI63	117.950	3.080	112.000	11.000	1.053	A	A
1	PU238	0.930	0.110	0.944	0.040	0.985	A	A
1	PU239	0.920	0.110	0.918	0.030	1.002	A	A
1	SR90	3.250	0.250	3.390	0.120	0.959	A	A
1	U234	0.460	0.080	0.482	0.040	0.954	A	A
1	U238	0.460	0.080	0.492	0.040	0.935	A	A
1	UG/G U	0.040		0.040	0.003	1.000		A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** BL Barringer Laboratories Inc., Golden, CO

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.106	0.014	0.088	0.005	1.205	A	
1	Bq U	0.146	0.003	0.126	0.001	1.159	A	N
2	Bq U	0.154		0.126	0.001	1.222	A	N
1	CO57	5.324	0.572	5.310	0.220	1.003	A	W
1	CO60	5.354	0.569	5.320	0.260	1.006	A	W
1	CS137	6.618	0.700	6.100	0.300	1.085	A	W
1	GROSS ALPHA	2.920	0.070	3.020	0.300	0.967	A	A
1	GROSS BETA	2.250	0.070	2.420	0.200	0.930	A	A
1	MN54	30.300	3.180	27.200	0.800	1.114	A	W
1	PU239	0.086	0.008	0.089	0.003	0.966	A	A
1	RU106	2.881	0.408	2.010	1.940	1.433	N	N
1	SR90	0.198	0.221	0.242	0.005	0.818	W	A
1	U234	0.073	0.002	0.062	0.001	1.177	A	N
2	U234	0.077		0.062	0.001	1.242	A	N
2	U238	0.077		0.062	0.001	1.242	A	N
1	U238	0.073	0.002	0.062	0.001	1.177	A	N
1	UG/G U	5.820	0.100	4.980	0.030	1.169		N
2	UG/G U	6.200		4.980	0.030	1.245		N

**Matrix:** SO Soil Bq / kg

1	AC228	102.930	13.040	97.600	4.200	1.055	A	A
1	AM241	14.700	1.100	3.360	0.510	4.375	N	
1	BI212	103.730	13.800	106.000	7.000	0.979	A	A
1	BI214	85.780	10.300	86.700	3.800	0.989	A	A
1	Bq U	229.000	4.000	229.000	23.000	1.000	A	W
2	Bq U	201.000		229.000	23.000	0.878	A	W
1	CS137	383.630	42.780	339.000	9.300	1.132	A	A
1	PB212	112.600	13.890	97.300	4.600	1.157	A	A
1	PB214	94.110	11.150	86.500	6.800	1.088	A	A
1	PU239	9.520	0.570	7.000	0.340	1.360	W	W
1	SR90	20.800	7.000	20.200	0.200	1.030	A	N
1	TH234	154.030	23.130	130.000	5.000	1.185	A	A
2	U234	100.000		111.000	11.000	0.901	A	N
1	U234	114.000	2.000	111.000	11.000	1.027	A	N
2	U238	100.000		114.000	12.000	0.877	A	W
1	U238	114.000	2.000	114.000	12.000	1.000	A	W
1	UG/G U	9.100	0.200	9.150	0.910	0.995		A
2	UG/G U	8.000		9.150	0.910	0.874		A

**Matrix:** VE Vegetation Bq / kg

1	AM241	10.100	0.400	10.400	1.400	0.971	A	
1	CM244	5.000	0.220	5.000	1.800	1.000	A	
1	CO60	48.230	5.330	52.800	1.000	0.913	A	A
1	CS137	1347.000	148.900	1380.000	20.000	0.976	A	A
1	K40	473.500	53.600	521.000	20.000	0.909	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** BL Barringer Laboratories Inc., Golden, CO

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: VE Vegetation Bq / kg</b>								
1	PU239	32.600	1.200	15.500	2.100	2.103	N	A
1	SR90	1555.000	27.000	1780.000	17.800	0.874	A	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	2.510	0.110	1.950	0.180	1.287	W	
2	Bq U	1.048		0.995	0.087	1.053	A	A
1	Bq U	0.986	0.019	0.995	0.087	0.991	A	A
1	CO60	49.810	3.750	48.900	1.800	1.019	A	A
1	CS137	102.900	8.170	103.000	4.000	0.999	A	A
1	FE55	34.000	5.000	33.100	0.700	1.027	A	A
1	GROSS ALPHA	1824.000	36.000	1700.000	170.000	1.073	A	W
1	GROSS BETA	619.000	25.000	690.000	70.000	0.897	A	A
1	H3	84.000	5.000	79.400	2.500	1.058	A	A
1	NI63	102.000	7.000	112.000	11.000	0.911	A	A
1	PU238	1.380	0.100	0.944	0.040	1.462	N	W
1	PU239	1.160	0.090	0.918	0.030	1.264	W	A
1	SR90	3.350	0.380	3.390	0.120	0.988	A	N
2	U234	0.524		0.482	0.040	1.087	A	A
1	U234	0.493	0.009	0.482	0.040	1.023	A	A
1	U238	0.493	0.009	0.492	0.040	1.002	A	W
2	U238	0.524		0.492	0.040	1.065	A	W
1	UG/G U	0.039	0.001	0.040	0.003	0.985		N
2	UG/G U	0.042		0.040	0.003	1.045		N

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** BM Battelle Memorial Institute, Columbus, OH

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.092	0.013	0.088	0.005	1.050	A	A
1	CO60	6.070	0.220	5.320	0.260	1.141	W	A
1	CS137	6.940	0.260	6.100	0.300	1.138	W	A
1	PU238	0.083	0.008	0.080	0.001	1.039	A	A
1	PU239	0.095	0.009	0.089	0.003	1.064	A	A
1	SR90	0.250	0.034	0.242	0.005	1.033	A	A
1	U234	0.060	0.008	0.062	0.001	0.974	A	A
1	U238	0.060	0.008	0.062	0.001	0.971	A	A

**Matrix:** SO Soil Bq / kg

1	CS137	360.000	3.700	339.000	9.300	1.062	A	A
1	PU239	7.390	0.770	7.000	0.340	1.056	A	W
1	SR90	13.840	2.290	20.200	0.200	0.685	W	A
1	U234	119.400	15.900	111.000	11.000	1.076	A	A
1	U238	119.600	15.900	114.000	12.000	1.049	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	9.080	1.340	10.400	1.400	0.873	W	A
1	CO60	56.700	2.100	52.800	1.000	1.074	A	A
1	CS137	1524.000	8.000	1380.000	20.000	1.104	A	A
1	PU239	15.020	1.360	15.500	2.100	0.969	A	A
1	SR90	1705.000	32.000	1780.000	17.800	0.958	A	W

**Matrix:** WA Water Bq / L

1	AM241	2.050	0.260	1.950	0.180	1.051	A	A
1	CO60	48.600	3.600	48.900	1.800	0.994	A	A
1	CS137	105.000	4.000	103.000	4.000	1.019	A	A
1	PU238	1.070	0.110	0.944	0.040	1.133	W	A
1	PU239	1.090	0.110	0.918	0.030	1.187	W	A
1	SR90	3.340	0.250	3.390	0.120	0.985	A	A
1	U234	0.521	0.082	0.482	0.040	1.081	A	A
1	U238	0.533	0.083	0.492	0.040	1.083	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** BN Brookhaven National Laboratory, Upton, NY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.340	0.370	5.310	0.220	1.006	A	A
1	CO60	4.120	0.270	5.320	0.260	0.774	W	N
1	CS137	6.340	0.600	6.100	0.300	1.039	A	A
1	GROSS ALPHA	1.640	0.030	3.020	0.300	0.543	W	A
1	GROSS BETA	1.340	0.030	2.420	0.200	0.554	N	A
1	MN54	27.500	2.300	27.200	0.800	1.011	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	79.920	3.190	97.600	4.200	0.819	W	N
1	BI212	58.090	4.940	106.000	7.000	0.548	A	W
1	BI214	83.870	3.190	86.700	3.800	0.967	A	A
1	CS137	333.820	27.950	339.000	9.300	0.985	A	W
1	K40	703.000	55.700	811.000	29.000	0.867	W	W
1	PB212	95.950	5.970	97.300	4.600	0.986	A	W
1	PB214	88.550	6.920	86.500	6.800	1.024	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	47.360	3.190	52.800	1.000	0.897	A	A
1	CS137	1452.870	136.710	1380.000	20.000	1.053	A	A
1	K40	482.230	42.940	521.000	20.000	0.926	A	W
<b>Matrix: WA Water Bq / L</b>								
1	CO60	52.170	2.010	48.900	1.800	1.067	A	A
1	CS137	110.010	5.950	103.000	4.000	1.068	A	A
1	GROSS ALPHA	15.240	0.410	1700.000	170.000	0.009	N	A
1	GROSS BETA	7.840	0.260	690.000	70.000	0.011	N	A
1	H3	55.480	9.880	79.400	2.500	0.699	N	A
1	SR90	2.500	0.070	3.390	0.120	0.737	N	N

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** BP Battelle Pacific Northwest National Laboratory

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	CO60	49.710	6.953	48.900	1.800	1.017	A	A
1	CS137	107.700	7.735	103.000	4.000	1.046	A	A
1	GROSS ALPHA	1640.000	76.700	1700.000	170.000	0.965	A	
1	GROSS BETA	1120.000	67.600	690.000	70.000	1.623	N	
1	H3	306.000	26.000	79.400	2.500	3.854	N	
2	UG/G U	0.040	0.004	0.040	0.003	1.005		A
3	UG/G U	0.041	0.004	0.040	0.003	1.015		A
1	UG/G U	0.038	0.004	0.040	0.003	0.953		A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** BQ Becquerel Laboratories Inc., Mississauga, Ontario, Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	4.290	0.030	5.310	0.220	0.808	A	A
1	CO60	4.800	0.100	5.320	0.260	0.902	A	A
1	CS137	6.800	0.100	6.100	0.300	1.115	A	W
1	GROSS ALPHA	3.250	0.070	3.020	0.300	1.076	A	A
1	GROSS BETA	2.650	0.040	2.420	0.200	1.095	A	A
1	MN54	24.600	0.200	27.200	0.800	0.904	A	A
1	RU106	2.900	0.600	2.010	1.940	1.443	N	W
1	UG/G U	5.200	0.500	4.980	0.030	1.044		A

**Matrix:** SO Soil Bq / kg

1	AC228	130.000	20.000	97.600	4.200	1.332	W	W
1	BI214	203.000	13.000	86.700	3.800	2.341	N	N
1	CS137	360.000	10.000	339.000	9.300	1.062	A	A
1	K40	870.000	140.000	811.000	29.000	1.073	A	A
1	PB212	103.000	6.000	97.300	4.600	1.059	A	A
1	PB214	180.000	15.000	86.500	6.800	2.081	N	N
1	TH234	170.000	48.000	130.000	5.000	1.308	A	A
1	UG/G U	8.200	0.400	9.150	0.910	0.896		A

**Matrix:** VE Vegetation Bq / kg

1	CO60	140.000	30.000	52.800	1.000	2.652	N	N
1	CS137	1510.000	17.000	1380.000	20.000	1.094	A	A
1	K40	302.000	69.000	521.000	20.000	0.580	N	A

**Matrix:** WA Water Bq / L

1	CO60	52.000	1.000	48.900	1.800	1.063	A	A
1	CS137	95.000	1.000	103.000	4.000	0.922	A	A
1	GROSS ALPHA	1800.000	40.000	1700.000	170.000	1.059	A	W
1	GROSS BETA	980.000	23.000	690.000	70.000	1.420	W	A
1	UG/G U	0.043	0.002	0.040	0.003	1.075		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** BU Autoridad Regulatoria, Buenos Aires, Argentina

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.066	0.008	0.088	0.005	0.750	W	A
1	Bq U	0.121	0.006	0.126	0.001	0.960	A	A
1	CO57	5.400	0.300	5.310	0.220	1.017	A	A
1	CO60	5.400	0.300	5.320	0.260	1.015	A	A
1	CS137	6.200	0.300	6.100	0.300	1.016	A	A
1	GROSS ALPHA	2.300	0.100	3.020	0.300	0.762	W	A
1	GROSS BETA	2.200	0.100	2.420	0.200	0.909	A	A
1	MN54	27.000	2.000	27.200	0.800	0.993	A	A
1	PU238	0.073	0.004	0.080	0.001	0.913	A	N
1	PU239	0.083	0.004	0.089	0.003	0.933	A	N
1	U234	0.056	0.003	0.062	0.001	0.903	A	A
1	U238	0.056	0.003	0.062	0.001	0.903	A	A

**Matrix: SO Soil Bq / kg**

1	AC228	97.000	9.000	97.600	4.200	0.994	A	A
1	AM241	4.150	0.320	3.360	0.510	1.235	A	W
1	BI212	110.000	12.000	106.000	7.000	1.038	A	A
1	BI214	84.000	8.000	86.700	3.800	0.969	A	A
1	CS137	340.000	20.000	339.000	9.300	1.003	A	A
1	K40	790.000	50.000	811.000	29.000	0.974	A	A
1	PB212	96.000	9.000	97.300	4.600	0.987	A	A
1	PB214	87.000	8.000	86.500	6.800	1.006	A	A
1	PU239	8.370	0.700	7.000	0.340	1.196	A	A

**Matrix: VE Vegetation Bq / kg**

1	AM241	8.920	0.500	10.400	1.400	0.858	W	A
1	CO60	49.000	4.000	52.800	1.000	0.928	A	A
1	CS137	1200.000	100.000	1380.000	20.000	0.870	W	W
1	K40	470.000	50.000	521.000	20.000	0.902	A	W
1	PU238	0.881	0.110	1.090	0.100	0.808	W	
1	PU239	14.400	1.700	15.500	2.100	0.929	A	A
1	SR90	1813.000	90.000	1780.000	17.800	1.019	A	A

**Matrix: WA Water Bq / L**

1	AM241	1.870	0.100	1.950	0.180	0.959	A	A
1	Bq U	0.990	0.060	0.995	0.087	0.995	A	A
1	CO60	50.000	5.000	48.900	1.800	1.022	A	A
1	CS137	107.000	10.000	103.000	4.000	1.039	A	A
1	FE55	33.000	1.650	33.100	0.700	0.997	A	A
1	H3	85.700	2.200	79.400	2.500	1.079	A	A
3	H3	85.300	2.000	79.400	2.500	1.074	A	A
2	H3	85.600	2.400	79.400	2.500	1.078	A	A
1	NI63	118.000	8.480	112.000	11.000	1.054	A	

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** BU Autoridad Regulatoria, Buenos Aires, Argentina

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	PU238	0.930	0.049	0.944	0.040	0.985	A	A
1	PU239	0.960	0.040	0.918	0.030	1.046	A	A
1	SR90	2.880	0.120	3.390	0.120	0.850	W	
1	U234	0.490	0.025	0.482	0.040	1.017	A	A
1	U238	0.480	0.025	0.492	0.040	0.976	A	A
1	UG/G U	0.040	0.004	0.040	0.003	1.000		N

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** BX B&W Nuclear Envir. Services, Lynchburg, VA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.084	0.012	0.088	0.005	0.955	A	W
1	CO57	5.440	0.120	5.310	0.220	1.024	A	A
1	CO60	5.510	0.210	5.320	0.260	1.036	A	A
1	CS137	6.180	0.160	6.100	0.300	1.013	A	A
1	GROSS ALPHA	3.030	0.050	3.020	0.300	1.003	A	A
1	GROSS BETA	3.460	0.050	2.420	0.200	1.430	W	A
1	MN54	28.100	1.100	27.200	0.800	1.033	A	A
1	PU238	0.086	0.007	0.080	0.001	1.075	A	W
1	PU239	0.087	0.007	0.089	0.003	0.978	A	A
1	RU106	2.090	0.900	2.010	1.940	1.040	A	A
1	SR90	0.142	0.016	0.242	0.005	0.587	N	N
1	U234	0.069	0.007	0.062	0.001	1.113	A	A
1	U238	0.074	0.007	0.062	0.001	1.194	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	107.000	10.000	97.600	4.200	1.096	A	W
1	AM241	1.000	0.480	3.360	0.510	0.298	N	N
1	BI212	41.400	332.000	106.000	7.000	0.391	N	A
1	BI214	91.800	6.400	86.700	3.800	1.059	A	A
1	CS137	411.000	22.000	339.000	9.300	1.212	W	N
1	K40	881.000	58.000	811.000	29.000	1.086	A	N
1	PB212	121.000	6.000	97.300	4.600	1.244	W	W
1	PB214	110.000	7.000	86.500	6.800	1.272	W	A
1	PU239	7.030	0.740	7.000	0.340	1.004	A	W
1	TH234	210.000	60.000	130.000	5.000	1.615	W	A
1	U234	100.000	4.000	111.000	11.000	0.901	A	W
1	U238	101.000	4.000	114.000	12.000	0.886	A	W

**Matrix:** VE Vegetation Bq / kg

1	AM241	7.770	1.110	10.400	1.400	0.747	W	A
1	CM244	5.180	0.740	5.000	1.800	1.036	A	N
1	CO60	67.300	4.600	52.800	1.000	1.275	W	W
1	CS137	1710.000	90.000	1380.000	20.000	1.239	A	W
1	K40	622.000	44.000	521.000	20.000	1.194	A	W
1	PU239	15.200	0.700	15.500	2.100	0.981	A	W
1	SR90	1530.000	20.000	1780.000	17.800	0.860	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.930	0.090	1.950	0.180	0.990	A	W
1	CO60	52.500	1.700	48.900	1.800	1.074	A	A
1	CS137	107.000	2.000	103.000	4.000	1.039	A	A
1	FE55	38.500	3.200	33.100	0.700	1.163	A	A
1	GROSS ALPHA	1790.000	30.000	1700.000	170.000	1.053	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** BX B&W Nuclear Envir. Services, Lynchburg, VA

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS BETA	921.000	16.000	690.000	70.000	1.335	W	A
1	H3	77.000	6.700	79.400	2.500	0.970	A	W
1	NI63	128.000	10.000	112.000	11.000	1.143	A	A
1	PU238	0.913	0.029	0.944	0.040	0.967	A	A
1	PU239	0.960	0.030	0.918	0.030	1.046	A	A
1	SR90	3.480	0.160	3.390	0.120	1.027	A	A
1	U234	0.600	0.023	0.482	0.040	1.245	W	W
1	U238	0.615	0.023	0.492	0.040	1.250	W	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** CA Atomic Energy Control Board, Ottawa, Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.700	0.300	5.310	0.220	1.073	A	A
1	CO60	5.700	0.600	5.320	0.260	1.071	A	A
1	CS137	6.900	0.500	6.100	0.300	1.131	A	A
1	GROSS ALPHA	2.580	0.040	3.020	0.300	0.854	A	A
1	GROSS BETA	2.800	0.100	2.420	0.200	1.157	A	A
1	MN54	30.100	1.700	27.200	0.800	1.107	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	UG/G U	11.600	1.200	9.150	0.910	1.268		A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	66.000	9.000	48.900	1.800	1.350	N	A
1	CS137	93.100	9.000	103.000	4.000	0.904	A	A
1	GROSS BETA	510.000	50.000	690.000	70.000	0.739	A	A
1	H3	65.800	0.100	79.400	2.500	0.829	A	A
1	UG/G U	0.043	0.020	0.040	0.003	1.075		N

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** CB Radiation Protection Bureau, Ontario, Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.083	0.030	0.088	0.005	0.943	A	A
3	AM241	0.078	0.047	0.088	0.005	0.886	A	A
2	AM241	0.088	0.016	0.088	0.005	1.000	A	A
2	CO57	5.700	0.150	5.310	0.220	1.073	A	W
3	CO57	5.390	0.150	5.310	0.220	1.015	A	W
1	CO57	6.120	0.170	5.310	0.220	1.153	W	W
1	CO60	6.010	0.140	5.320	0.260	1.130	W	W
2	CO60	5.780	0.150	5.320	0.260	1.086	A	W
3	CO60	5.550	0.150	5.320	0.260	1.043	A	W
1	CS137	7.180	0.220	6.100	0.300	1.177	W	W
3	CS137	6.560	0.220	6.100	0.300	1.075	A	W
2	CS137	6.960	0.220	6.100	0.300	1.141	W	W
3	MN54	30.050	0.840	27.200	0.800	1.105	A	W
2	MN54	31.590	0.880	27.200	0.800	1.161	A	W
1	MN54	32.730	0.880	27.200	0.800	1.203	W	W
3	RU106	2.890	0.660	2.010	1.940	1.438	N	W
1	RU106	3.170	0.560	2.010	1.940	1.577	N	W
2	RU106	2.880	0.740	2.010	1.940	1.433	N	W

**Matrix:** WA Water Bq / L

2	AM241	1.930	0.190	1.950	0.180	0.990	A	A
1	AM241	1.470	1.030	1.950	0.180	0.754	W	A
3	AM241	2.080	0.310	1.950	0.180	1.067	A	A
1	CO60	50.850	2.020	48.900	1.800	1.040	A	A
3	CO60	50.390	1.980	48.900	1.800	1.030	A	A
2	CO60	53.340	2.100	48.900	1.800	1.091	A	A
1	CS137	109.100	6.700	103.000	4.000	1.059	A	A
2	CS137	104.600	6.200	103.000	4.000	1.016	A	A
3	CS137	110.000	6.600	103.000	4.000	1.068	A	A
2	SR90	3.250	0.270	3.390	0.120	0.959	A	A
1	SR90	3.250	0.270	3.390	0.120	0.959	A	A
3	UG/G U	0.039	0.003	0.040	0.003	0.975		
2	UG/G U	0.039	0.003	0.040	0.003	0.968		
1	UG/G U	0.039	0.003	0.040	0.003	0.968		

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** CD Gentilly-2 Nuclear Power Plant, Quebec Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	5.600	0.300	5.310	0.220	1.055	A	A
1	CO60	5.700	0.300	5.320	0.260	1.071	A	A
1	CS137	6.800	0.400	6.100	0.300	1.115	A	A
1	MN54	30.500	1.500	27.200	0.800	1.121	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	100.000	20.000	97.600	4.200	1.025	A	A
1	BI212	80.000	20.000	106.000	7.000	0.755	A	A
1	BI214	95.000	15.000	86.700	3.800	1.096	A	A
1	CS137	385.000	40.000	339.000	9.300	1.136	A	A
1	K40	890.000	50.000	811.000	29.000	1.097	A	A
1	PB212	120.000	20.000	97.300	4.600	1.233	W	A
1	PB214	95.000	15.000	86.500	6.800	1.098	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	56.000	5.000	52.800	1.000	1.061	A	A
1	CS137	1560.000	100.000	1380.000	20.000	1.130	A	A
1	K40	600.000	30.000	521.000	20.000	1.152	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	49.000	5.000	48.900	1.800	1.002	A	A
1	CS137	100.000	10.000	103.000	4.000	0.971	A	A
1	GROSS BETA	700.000	70.000	690.000	70.000	1.014	A	W
1	H3	75.000	10.000	79.400	2.500	0.945	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** CF Freshwater Institute Radiochemistry Winnipeg, Manitoba, Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: SO Soil Bq / kg</b>								
3	CS137	344.800	3.500	339.000	9.300	1.017	A	A
1	CS137	346.800	3.100	339.000	9.300	1.023	A	A
2	CS137	345.800	2.400	339.000	9.300	1.020	A	A
3	U234	107.900	7.500	111.000	11.000	0.972	A	A
2	U234	104.600	8.100	111.000	11.000	0.942	A	A
1	U234	113.700	8.500	111.000	11.000	1.024	A	A
2	U238	105.900	8.200	114.000	12.000	0.929	A	A
1	U238	112.900	8.400	114.000	12.000	0.990	A	A
3	U238	110.000	7.700	114.000	12.000	0.965	A	A

**Matrix: VE Vegetation Bq / kg**

2	CO60	50.100	2.500	52.800	1.000	0.949	A	W
3	CO60	51.800	2.600	52.800	1.000	0.981	A	W
1	CO60	53.100	1.600	52.800	1.000	1.006	A	W
3	CS137	1368.000	6.000	1380.000	20.000	0.991	A	A
1	CS137	1375.000	6.000	1380.000	20.000	0.996	A	A
2	CS137	1321.000	4.000	1380.000	20.000	0.957	A	A

**Matrix: WA Water Bq / L**

1	CO60	50.000	0.500	48.900	1.800	1.022	A	A
2	CO60	51.400	0.500	48.900	1.800	1.051	A	A
3	CO60	52.300	0.500	48.900	1.800	1.070	A	A
1	CS137	106.400	0.700	103.000	4.000	1.033	A	A
3	CS137	108.300	0.800	103.000	4.000	1.051	A	A
2	CS137	108.900	0.700	103.000	4.000	1.057	A	A
2	U234	0.443	0.035	0.482	0.040	0.919	A	N
3	U234	0.442	0.039	0.482	0.040	0.917	A	N
1	U234	0.413	0.034	0.482	0.040	0.857	W	N
3	U238	0.424	0.038	0.492	0.040	0.862	W	W
2	U238	0.403	0.033	0.492	0.040	0.819	W	W
1	U238	0.397	0.033	0.492	0.040	0.807	W	W

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** CH California State Dept. Health Serv., Sanitation & Radiation Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.086	0.009	0.088	0.005	0.977	A	A
1	Bq U	0.132	0.014	0.126	0.001	1.048	A	A
1	CO57	5.630	0.070	5.310	0.220	1.060	A	W
1	CO60	5.860	0.130	5.320	0.260	1.102	W	W
1	CS137	6.630	0.130	6.100	0.300	1.087	A	W
1	GROSS ALPHA	1.490	0.030	3.020	0.300	0.493	N	A
1	GROSS BETA	1.370	0.020	2.420	0.200	0.566	N	A
1	MN54	29.300	0.220	27.200	0.800	1.077	A	W
1	PU238	0.074	0.007	0.080	0.001	0.925	A	A
1	PU239	0.094	0.008	0.089	0.003	1.056	A	A
1	RU106	3.430	0.770	2.010	1.940	1.706	N	W
1	SR90	0.229	0.029	0.242	0.005	0.946	A	A
1	U234	0.065	0.006	0.062	0.001	1.048	A	A
1	U238	0.064	0.006	0.062	0.001	1.032	A	A

**Matrix: SO Soil Bq / kg**

1	AC228	109.000	3.800	97.600	4.200	1.117	A	A
1	AM241	3.200	0.580	3.360	0.510	0.952	A	W
1	BI212	132.000	10.700	106.000	7.000	1.245	N	W
1	BI214	90.400	2.300	86.700	3.800	1.043	A	A
1	Bq U	244.000	9.900	229.000	23.000	1.066	A	A
1	CS137	415.000	2.500	339.000	9.300	1.224	W	A
1	K40	964.000	18.000	811.000	29.000	1.189	A	A
1	PB212	116.000	1.500	97.300	4.600	1.192	A	A
1	PB214	101.000	2.400	86.500	6.800	1.168	A	A
1	PU239	6.970	0.550	7.000	0.340	0.996	A	A
1	SR90	22.800	1.600	20.200	0.200	1.129	A	A
1	TH234	177.000	45.000	130.000	5.000	1.362	A	A
1	U234	116.000	4.600	111.000	11.000	1.045	A	A
1	U238	120.000	4.700	114.000	12.000	1.053	A	A
1	UG/G U	9.200	0.920	9.150	0.910	1.005		A

**Matrix: VE Vegetation Bq / kg**

1	AM241	8.960	0.340	10.400	1.400	0.862	W	A
1	CM244	5.190	0.410	5.000	1.800	1.038	A	A
1	CO60	59.800	1.200	52.800	1.000	1.133	A	A
1	CS137	1575.000	0.400	1380.000	20.000	1.141	A	A
1	K40	618.000	14.000	521.000	20.000	1.186	A	A
1	PU239	13.300	0.460	15.500	2.100	0.858	W	A
1	SR90	444.000	14.000	1780.000	17.800	0.249	N	A

**Matrix: WA Water Bq / L**

1	AM241	1.890	0.170	1.950	0.180	0.969	A	A
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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** CH California State Dept. Health Serv., Sanitation & Radiation Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	Bq U	0.960	0.060	0.995	0.087	0.965	A	A
1	CO60	53.100	0.740	48.900	1.800	1.086	A	A
1	CS137	112.000	0.870	103.000	4.000	1.087	A	A
1	FE55	24.300	1.300	33.100	0.700	0.734	A	
1	GROSS ALPHA	1748.000	27.000	1700.000	170.000	1.028	A	W
1	GROSS BETA	698.000	13.000	690.000	70.000	1.012	A	A
1	H3	78.000	3.800	79.400	2.500	0.982	A	A
1	NI63	130.000	1.600	112.000	11.000	1.161	A	
1	PU238	0.950	0.060	0.944	0.040	1.006	A	W
1	PU239	0.950	0.050	0.918	0.030	1.035	A	A
1	SR90	3.290	0.160	3.390	0.120	0.971	A	W
1	U234	0.480	0.030	0.482	0.040	0.996	A	A
1	U238	0.460	0.050	0.492	0.040	0.935	A	A
1	UG/G U	0.040	0.004	0.040	0.003	1.000		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** CL Core Laboratories, Casper, WY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.080	0.040	0.088	0.005	0.909	A	N
2	AM241	0.100	0.050	0.088	0.005	1.136	A	N
3	Bq U	0.100	0.010	0.126	0.001	0.794	N	A
2	Bq U	0.170	0.010	0.126	0.001	1.349	A	A
1	Bq U	0.100	0.010	0.126	0.001	0.794	N	A
1	CO57	11.000	0.600	5.310	0.220	2.072	N	A
1	CO60	12.000	0.500	5.320	0.260	2.256	N	A
1	CS137	13.000	0.700	6.100	0.300	2.131	N	A
1	GROSS ALPHA	3.370	0.030	3.020	0.300	1.116	A	
1	GROSS BETA	3.770	0.030	2.420	0.200	1.558	W	
1	MN54	57.000	2.900	27.200	0.800	2.096	N	A
3	PU238	0.050	0.040	0.080	0.001	0.625	N	N
2	PU238	0.040	0.040	0.080	0.001	0.500	N	N
1	PU238	0.050	0.040	0.080	0.001	0.625	N	N
2	PU239	0.100	0.040	0.089	0.003	1.124	A	N
3	PU239	0.090	0.040	0.089	0.003	1.011	A	N
1	PU239	0.060	0.030	0.089	0.003	0.674	N	N
1	RU106	19.800	1.100	2.010	1.940	9.851	N	N
2	SR90	0.275	0.112	0.242	0.005	1.136	A	N
1	SR90	0.275	0.110	0.242	0.005	1.136	A	N
3	U234	0.060	0.030	0.062	0.001	0.968	A	W
1	U234	0.050	0.030	0.062	0.001	0.806	N	W
2	U234	0.090	0.040	0.062	0.001	1.452	W	W
1	U238	0.090	0.040	0.062	0.001	1.452	W	W
9	U238	0.040	0.020	0.062	0.001	0.645	N	W
2	U238	0.050	0.030	0.062	0.001	0.806	N	W

**Matrix: SO Soil Bq / kg**

1	AC228	119.000	5.700	97.600	4.200	1.219	A	A
1	AM241	4.670	2.180	3.360	0.510	1.390	A	W
2	AM241	4.400	2.040	3.360	0.510	1.310	A	W
1	BI212	131.000	6.300	106.000	7.000	1.236	N	N
1	BI214	109.000	3.900	86.700	3.800	1.257	W	W
1	Bq U	248.000	12.400	229.000	23.000	1.083	A	A
2	Bq U	265.000	13.800	229.000	23.000	1.157	A	A
3	Bq U	259.000	12.900	229.000	23.000	1.131	A	A
1	CS137	400.000	14.800	339.000	9.300	1.180	A	W
1	K40	1250.000	34.400	811.000	29.000	1.541	N	N
1	PB212	145.000	4.200	97.300	4.600	1.490	N	A
1	PB214	114.000	5.600	86.500	6.800	1.318	W	W
2	PU239	7.170	2.070	7.000	0.340	1.024	A	W
1	PU239	6.190	1.850	7.000	0.340	0.884	W	W
3	PU239	7.140	2.020	7.000	0.340	1.020	A	W
3	SR90	0.190	0.060	20.200	0.200	0.009	N	A
2	SR90	0.190	0.060	20.200	0.200	0.009	N	A
1	SR90	0.220	0.060	20.200	0.200	0.011	N	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** CL Core Laboratories, Casper, WY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: SO Soil Bq / kg</b>								
1	TH234	200.000	9.700	130.000	5.000	1.538	W	A
1	U234	119.000	29.000	111.000	11.000	1.072	A	A
2	U234	124.000	29.900	111.000	11.000	1.117	W	A
3	U234	125.000	30.400	111.000	11.000	1.126	W	A
3	U238	130.000	31.500	114.000	12.000	1.140	W	A
1	U238	126.000	30.500	114.000	12.000	1.105	W	A
2	U238	135.000	32.400	114.000	12.000	1.184	W	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	0.010	0.001	10.400	1.400	0.001	N	W
2	AM241	0.010	0.001	10.400	1.400	0.001	N	W
1	CO60	61.000	2.100	52.800	1.000	1.155	A	A
1	CS137	1580.000	79.000	1380.000	20.000	1.145	A	A
1	K40	1280.000	44.800	521.000	20.000	2.457	N	N
2	PU239	13.270	3.500	15.500	2.100	0.856	W	A
1	PU239	12.470	3.480	15.500	2.100	0.805	W	A
3	PU239	14.100	3.700	15.500	2.100	0.910	A	A
3	SR90	1.210	0.080	1780.000	17.800	0.001	N	W
2	SR90	1.180	0.080	1780.000	17.800	0.001	N	W
1	SR90	1.100	0.080	1780.000	17.800	0.001	N	W
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.880	0.430	1.950	0.180	0.964	A	A
2	AM241	1.870	0.410	1.950	0.180	0.959	A	A
1	Bq U	1.120	0.060	0.995	0.087	1.126	A	A
3	Bq U	0.900	0.040	0.995	0.087	0.905	A	A
2	Bq U	0.900	0.030	0.995	0.087	0.905	A	A
1	CO60	49.200	1.500	48.900	1.800	1.006	A	A
1	CS137	102.000	3.000	103.000	4.000	0.990	A	A
1	FE55	22.800	7.600	33.100	0.700	0.689	A	A
1	GROSS ALPHA	1220.000	170.000	1700.000	170.000	0.718	W	N
1	GROSS BETA	1015.000	45.900	690.000	70.000	1.471	W	N
1	H3	88.300	11.600	79.400	2.500	1.112	A	A
3	H3	69.700	11.200	79.400	2.500	0.878	A	A
2	H3	65.090	11.030	79.400	2.500	0.820	A	A
3	PU238	0.840	0.220	0.944	0.040	0.890	W	A
1	PU238	0.690	0.170	0.944	0.040	0.731	N	A
2	PU238	0.680	0.170	0.944	0.040	0.720	N	A
3	PU239	0.880	0.220	0.918	0.030	0.959	A	A
2	PU239	0.640	0.160	0.918	0.030	0.697	N	A
1	PU239	0.660	0.160	0.918	0.030	0.719	N	A
3	SR90	2.200	0.630	3.390	0.120	0.649	N	A
2	SR90	1.930	0.630	3.390	0.120	0.569	N	A
1	SR90	2.200	0.630	3.390	0.120	0.649	N	A
3	U234	0.430	0.130	0.482	0.040	0.892	W	W

**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** CL Core Laboratories, Casper, WY

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
2	U234	0.410	0.130	0.482	0.040	0.851	W	W
1	U234	0.580	0.170	0.482	0.040	1.203	A	W
3	U238	0.460	0.140	0.492	0.040	0.935	A	W
1	U238	0.540	0.170	0.492	0.040	1.098	A	W
2	U238	0.490	0.150	0.492	0.040	0.996	A	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** CM Metropolitan Water Reclamation District of Greater Chicago

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: SO Soil Bq / kg</b>								
3	AC228	99.200	1.700	97.600	4.200	1.016	A	
1	AC228	99.200	1.700	97.600	4.200	1.016	A	
2	AC228	99.000	1.700	97.600	4.200	1.014	A	
1	BI212	63.600	2.000	106.000	7.000	0.600	A	A
3	BI212	63.600	1.800	106.000	7.000	0.600	A	A
2	BI212	67.000	1.900	106.000	7.000	0.632	A	A
3	BI214	90.000	2.400	86.700	3.800	1.038	A	A
2	BI214	92.700	2.300	86.700	3.800	1.069	A	A
1	BI214	94.300	2.000	86.700	3.800	1.088	A	A
3	CS137	352.000	7.000	339.000	9.300	1.038	A	A
1	CS137	359.000	7.400	339.000	9.300	1.059	A	A
2	CS137	350.000	7.000	339.000	9.300	1.032	A	A
3	K40	854.000	27.500	811.000	29.000	1.053	A	A
2	K40	876.000	28.100	811.000	29.000	1.080	A	A
1	K40	881.000	28.500	811.000	29.000	1.086	A	A
2	PB212	96.300	3.200	97.300	4.600	0.990	A	A
3	PB212	100.100	3.200	97.300	4.600	1.029	A	A
1	PB212	97.800	2.900	97.300	4.600	1.005	A	A
3	PB214	104.600	2.400	86.500	6.800	1.209	A	A
1	PB214	104.400	2.300	86.500	6.800	1.207	A	A
2	PB214	100.300	2.300	86.500	6.800	1.160	A	A

**Matrix: WA Water Bq / L**

1	CO60	49.000	1.100	48.900	1.800	1.002	A	W
2	CO60	47.100	0.700	48.900	1.800	0.963	A	W
2	CS137	99.500	2.000	103.000	4.000	0.966	A	A
1	CS137	102.500	2.000	103.000	4.000	0.995	A	A
3	GROSS ALPHA	1201.000	30.000	1700.000	170.000	0.706	W	N
2	GROSS ALPHA	1236.000	30.500	1700.000	170.000	0.727	W	N
1	GROSS ALPHA	1232.000	30.900	1700.000	170.000	0.725	W	N
1	GROSS BETA	931.000	16.600	690.000	70.000	1.349	W	A
2	GROSS BETA	978.000	17.000	690.000	70.000	1.417	W	A
3	GROSS BETA	875.000	15.900	690.000	70.000	1.268	A	A
3	H3	78.100	2.100	79.400	2.500	0.984	A	A
1	H3	73.800	2.100	79.400	2.500	0.929	A	A
2	H3	75.300	2.100	79.400	2.500	0.948	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** CN China Institute for Radiation Protection

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.110	0.010	0.088	0.005	1.250	A	N
1	CO57	5.320	0.350	5.310	0.220	1.002	A	A
1	CO60	5.220	0.330	5.320	0.260	0.981	A	A
1	CS137	6.160	0.380	6.100	0.300	1.010	A	A
1	MN54	29.320	1.580	27.200	0.800	1.078	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	92.770	5.920	97.600	4.200	0.951	A	A
1	BI214	97.090	7.030	86.700	3.800	1.120	A	A
1	CS137	365.900	20.100	339.000	9.300	1.079	A	A
1	K40	769.900	48.500	811.000	29.000	0.949	A	A
1	PB212	83.560	5.340	97.300	4.600	0.859	W	W
1	PB214	96.110	6.250	86.500	6.800	1.111	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** CO Bedford Institute of Oceanography, Dartmouth. Nova Scotia, Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	6.900	0.100	5.310	0.220	1.299	W	
2	CO57	6.900	0.100	5.310	0.220	1.299	W	
3	CO57	7.000	0.100	5.310	0.220	1.318	W	
1	CO60	6.800	0.200	5.320	0.260	1.278	W	
2	CO60	6.800	0.200	5.320	0.260	1.278	W	
3	CO60	6.700	0.200	5.320	0.260	1.259	W	
1	CS137	7.700	0.200	6.100	0.300	1.262	W	
2	CS137	7.800	0.200	6.100	0.300	1.279	W	
3	CS137	7.900	0.200	6.100	0.300	1.295	W	
3	MN54	36.000	1.000	27.200	0.800	1.324	W	
2	MN54	36.000	1.000	27.200	0.800	1.324	W	
1	MN54	36.000	1.000	27.200	0.800	1.324	W	

**Matrix:** SO Soil Bq / kg

2	CS137	350.000	14.000	339.000	9.300	1.032	A	
1	CS137	352.000	13.000	339.000	9.300	1.038	A	
3	CS137	344.000	14.000	339.000	9.300	1.015	A	
3	PU238	17.000	1.000	18.600	0.500	0.914	A	
1	PU238	17.000	1.000	18.600	0.500	0.914	A	
2	PU238	18.000	1.000	18.600	0.500	0.968	A	
1	PU239	7.100	0.700	7.000	0.340	1.014	A	
2	PU239	6.300	0.600	7.000	0.340	0.900	A	
3	PU239	6.600	0.700	7.000	0.340	0.943	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** CR Laboratorio de Fisica Nuclear Aplicada, Costa Rica

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	3.500	0.300	5.310	0.220	0.659	W	N
1	CO60	3.800	0.200	5.320	0.260	0.714	N	N
1	CS137	4.400	0.400	6.100	0.300	0.721	N	N
1	MN54	19.000	1.500	27.200	0.800	0.699	N	N
1	RU106	2.000	0.300	2.010	1.940	0.995	A	W
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	111.100	4.300	97.600	4.200	1.138	A	A
1	BI212	83.300	9.900	106.000	7.000	0.786	A	A
1	BI214	109.000	5.100	86.700	3.800	1.257	W	W
1	CS137	381.000	27.900	339.000	9.300	1.124	A	W
1	K40	999.000	100.000	811.000	29.000	1.232	A	A
1	PB212	87.600	10.800	97.300	4.600	0.900	W	W
1	PB214	85.100	7.100	86.500	6.800	0.984	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	55.700	2.100	52.800	1.000	1.055	A	A
1	CS137	1376.800	102.800	1380.000	20.000	0.998	A	A
1	K40	493.700	70.200	521.000	20.000	0.948	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi}/\text{g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** CS Rocketdyne Propulsion & Power, Canoga Park, CA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	5.310	0.240	5.320	0.260	0.998	A	A
1	CS137	5.990	0.290	6.100	0.300	0.982	A	A
1	MN54	26.900	1.210	27.200	0.800	0.989	A	W
1	RU106	2.560	0.890	2.010	1.940	1.274	W	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	93.500	14.890	97.600	4.200	0.958	A	
1	BI212	60.330	9.960	106.000	7.000	0.569	A	
1	BI214	87.980	14.010	86.700	3.800	1.015	A	
1	CS137	363.500	58.240	339.000	9.300	1.072	A	A
1	K40	871.400	140.800	811.000	29.000	1.074	A	A
1	PB212	89.370	14.280	97.300	4.600	0.918	A	
1	PB214	90.810	14.450	86.500	6.800	1.050	A	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	8.420	2.810	10.400	1.400	0.810	W	
1	CO60	55.380	17.460	52.800	1.000	1.049	A	A
1	CS137	1515.000	477.600	1380.000	20.000	1.098	A	A
1	K40	564.400	178.800	521.000	20.000	1.083	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.590	0.190	1.950	0.180	0.815	W	
1	CO60	51.200	3.800	48.900	1.800	1.047	A	A
1	CS137	110.900	8.390	103.000	4.000	1.077	A	A

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**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** CU Universite Laval, Quebec, Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.200	0.100	5.310	0.220	0.979	A	
1	CO60	5.100	0.200	5.320	0.260	0.959	A	
1	CS137	6.400	0.200	6.100	0.300	1.049	A	
1	MN54	28.100	0.300	27.200	0.800	1.033	A	
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	89.000	10.000	97.600	4.200	0.912	A	
1	BI212	108.000	10.000	106.000	7.000	1.019	A	
1	BI214	86.000	8.000	86.700	3.800	0.992	A	
1	CS137	382.000	31.000	339.000	9.300	1.127	A	
1	K40	855.000	30.000	811.000	29.000	1.054	A	
1	PB212	98.000	12.000	97.300	4.600	1.007	A	
1	PB214	86.000	12.000	86.500	6.800	0.994	A	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	66.000	6.000	52.800	1.000	1.250	W	
1	CS137	1760.000	130.000	1380.000	20.000	1.275	W	
1	K40	595.000	45.000	521.000	20.000	1.142	A	
<b>Matrix: WA Water Bq / L</b>								
1	CO60	55.000	1.000	48.900	1.800	1.125	A	
1	CS137	115.000	3.000	103.000	4.000	1.117	A	
1	H3	104.000	5.000	79.400	2.500	1.310	W	

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**QAP 52 Results by Laboratory****Lab:** CW Carlsbad Environmental Monitoring Research Center, NM

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.086	0.003	0.088	0.005	0.977	A	A
1	CO57	5.300	0.100	5.310	0.220	0.998	A	A
1	CO60	5.460	0.070	5.320	0.260	1.026	A	A
1	CS137	6.500	0.100	6.100	0.300	1.066	A	A
1	MN54	28.700	0.300	27.200	0.800	1.055	A	A
1	PU238	0.090	0.003	0.080	0.001	1.125	A	A
1	PU239	0.097	0.003	0.089	0.003	1.090	A	A
1	U234	0.065	0.002	0.062	0.001	1.048	A	A
1	U238	0.065	0.002	0.062	0.001	1.048	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	100.000	2.000	97.600	4.200	1.025	A	
1	BI212	112.000	6.000	106.000	7.000	1.057	A	
1	BI214	93.000	2.000	86.700	3.800	1.073	A	
1	CS137	340.000	4.000	339.000	9.300	1.003	A	
1	K40	796.000	16.000	811.000	29.000	0.982	A	
1	PB212	99.000	2.000	97.300	4.600	1.017	A	
1	PB214	93.000	2.000	86.500	6.800	1.075	A	
1	PU239	8.600	0.400	7.000	0.340	1.229	A	W
1	U234	132.000	4.000	111.000	11.000	1.189	W	A
1	U238	135.000	4.000	114.000	12.000	1.184	W	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	9.700	0.200	10.400	1.400	0.933	A	A
1	CM244	5.500	0.100	5.000	1.800	1.100	A	A
1	CO60	58.300	0.800	52.800	1.000	1.104	A	A
1	CS137	1521.000	13.000	1380.000	20.000	1.102	A	A
1	K40	541.000	11.000	521.000	20.000	1.038	A	A
1	PU239	15.000	0.300	15.500	2.100	0.968	A	A

**Matrix:** WA Water Bq / L

1	AM241	2.020	0.030	1.950	0.180	1.036	A	A
1	CO60	52.000	0.600	48.900	1.800	1.063	A	A
1	CS137	106.000	1.000	103.000	4.000	1.029	A	A
1	GROSS ALPHA	1730.000	33.000	1700.000	170.000	1.018	A	
1	GROSS BETA	670.000	15.000	690.000	70.000	0.971	A	
1	PU238	1.040	0.020	0.944	0.040	1.102	A	A
1	PU239	1.040	0.020	0.918	0.030	1.133	A	A
1	U234	0.520	0.010	0.482	0.040	1.079	A	A
1	U238	0.500	0.010	0.492	0.040	1.016	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** DC Datachem Laboratories, Salt Lake City

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	<u>Reported EML</u>	Evaluation	QAP 51 Evaluation
<b>Matrix: SO Soil Bq / kg</b>								
1	BI212	101.000	37.200	106.000	7.000	0.953	A	
1	BI214	84.900	14.700	86.700	3.800	0.979	A	
1	CS137	296.000	114.000	339.000	9.300	0.873	W	
1	K40	749.000	200.000	811.000	29.000	0.924	A	
1	PB212	75.700	20.000	97.300	4.600	0.778	W	
1	PB214	85.500	10.200	86.500	6.800	0.988	A	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	44.500	13.300	52.800	1.000	0.843	W	
1	CS137	1120.000	432.000	1380.000	20.000	0.812	W	
1	K40	439.000	118.000	521.000	20.000	0.843	W	
<b>Matrix: WA Water Bq / L</b>								
1	CO60	81.300	24.600	48.900	1.800	1.663	N	
1	CS137	168.000	64.800	103.000	4.000	1.631	N	
1	GROSS ALPHA	2100.000	320.000	1700.000	170.000	1.235	W	A
1	GROSS BETA	1000.000	150.000	690.000	70.000	1.449	W	A
1	H3	87.300	7.500	79.400	2.500	1.099	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** DH Duke Engineering Services Hanford

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	4.890	0.150	5.310	0.220	0.921	A	A
1	CO60	5.230	0.100	5.320	0.260	0.983	A	W
1	CS137	5.920	0.110	6.100	0.300	0.970	A	W
1	GROSS ALPHA	2.940	0.030	3.020	0.300	0.974	A	A
1	GROSS BETA	2.390	0.020	2.420	0.200	0.988	A	A
1	MN54	26.090	0.970	27.200	0.800	0.959	A	W
1	RU106	2.560	0.430	2.010	1.940	1.274	W	A

**Matrix:** SO Soil Bq / kg

1	AC228	91.400	5.530	97.600	4.200	0.936	A	
1	BI212	55.790	6.800	106.000	7.000	0.526	A	
1	BI214	95.250	5.250	86.700	3.800	1.099	A	
1	CS137	328.600	4.400	339.000	9.300	0.969	A	A
1	K40	778.600	42.900	811.000	29.000	0.960	A	A
1	PB212	88.620	2.580	97.300	4.600	0.911	A	
1	PB214	93.460	7.140	86.500	6.800	1.080	A	

**Matrix:** WA Water Bq / L

1	CO60	50.600	0.750	48.900	1.800	1.035	A	A
1	CS137	107.100	1.100	103.000	4.000	1.040	A	A
1	GROSS ALPHA	1427.000	84.000	1700.000	170.000	0.839	A	A
1	H3	149.500	11.200	79.400	2.500	1.883	N	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** EC Envirocare of Utah

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
2	AM241	0.400	0.100	0.088	0.005	4.545	N	N
1	AM241	0.400	0.100	0.088	0.005	4.545	N	N
2	CO57	18.100	0.600	5.310	0.220	3.409	N	A
1	CO57	17.700	0.700	5.310	0.220	3.333	N	A
2	CO60	9.300	0.400	5.320	0.260	1.748	N	W
1	CO60	9.500	0.300	5.320	0.260	1.786	N	W
1	CS137	13.200	0.500	6.100	0.300	2.164	N	A
2	CS137	12.700	0.500	6.100	0.300	2.082	N	A
2	GROSS ALPHA	2.480	0.200	3.020	0.300	0.821	A	
1	GROSS ALPHA	2.570	0.300	3.020	0.300	0.851	A	
1	GROSS BETA	2.500	0.300	2.420	0.200	1.033	A	
2	GROSS BETA	2.550	0.300	2.420	0.200	1.054	A	
1	MN54	56.300	2.100	27.200	0.800	2.070	N	W
2	MN54	54.200	2.200	27.200	0.800	1.993	N	W

**Matrix:** SO Soil Bq / kg

1	AC228	103.700	2.700	97.600	4.200	1.063	A	A
2	AC228	98.200	2.000	97.600	4.200	1.006	A	A
1	AM241	5.100	0.900	3.360	0.510	1.518	W	
2	AM241	3.600	0.700	3.360	0.510	1.071	A	
1	BI212	112.200	10.600	106.000	7.000	1.058	A	W
2	BI212	113.600	8.300	106.000	7.000	1.072	A	W
2	BI214	108.800	3.400	86.700	3.800	1.255	W	A
1	BI214	91.500	3.400	86.700	3.800	1.055	A	A
1	CS137	373.800	14.200	339.000	9.300	1.103	A	W
2	CS137	371.900	14.000	339.000	9.300	1.097	A	W
1	K40	966.800	50.200	811.000	29.000	1.192	A	A
2	K40	936.900	46.300	811.000	29.000	1.155	A	A
1	PB212	126.800	7.000	97.300	4.600	1.303	W	N
2	PB212	122.400	5.400	97.300	4.600	1.258	W	N
1	PB214	99.900	3.000	86.500	6.800	1.155	A	A
2	PB214	118.700	3.100	86.500	6.800	1.372	W	A
2	TH234	159.900	7.800	130.000	5.000	1.230	A	A
1	TH234	160.400	7.700	130.000	5.000	1.234	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.900	0.400	1.950	0.180	0.974	A	N
4	AM241	2.000	0.200	1.950	0.180	1.026	A	N
3	AM241	2.100	0.300	1.950	0.180	1.077	A	N
2	AM241	1.900	0.300	1.950	0.180	0.974	A	N
1	CO60	51.600	1.600	48.900	1.800	1.055	A	N
3	CO60	52.700	1.700	48.900	1.800	1.078	A	N
4	CO60	53.200	1.200	48.900	1.800	1.088	A	N
2	CO60	52.800	1.700	48.900	1.800	1.080	A	N
4	CS137	85.500	2.300	103.000	4.000	0.830	W	W

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** EC Envirocare of Utah

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
3	CS137	88.600	3.400	103.000	4.000	0.860	W	W
2	CS137	87.700	3.400	103.000	4.000	0.851	W	W
1	CS137	87.500	2.900	103.000	4.000	0.850	W	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** EG LMITCO/INEL, Scoville

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.079	0.007	0.088	0.005	0.898	A	W
1	CO57	5.800	0.600	5.310	0.220	1.092	A	A
1	CO60	6.100	0.100	5.320	0.260	1.147	W	A
1	CS137	7.000	0.100	6.100	0.300	1.148	W	A
1	MN54	32.000	0.300	27.200	0.800	1.176	A	A
1	PU238	0.072	0.007	0.080	0.001	0.900	A	A
1	PU239	0.085	0.008	0.089	0.003	0.955	A	A
1	RU106	3.100	0.400	2.010	1.940	1.542	N	A
1	SR90	0.216	0.012	0.242	0.005	0.893	A	A
1	U234	0.066	0.009	0.062	0.001	1.065	A	A
1	U238	0.057	0.009	0.062	0.001	0.919	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AM241	3.300	0.300	3.360	0.510	0.982	A	A
1	CS137	340.000	30.000	339.000	9.300	1.003	A	A
1	K40	770.000	60.000	811.000	29.000	0.949	A	A
1	PU238	17.200	1.000	18.600	0.500	0.925	A	A
1	PU239	6.100	0.400	7.000	0.340	0.871	W	W
1	SR90	13.800	1.500	20.200	0.200	0.683	W	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	9.700	0.500	10.400	1.400	0.933	A	A
1	CM244	6.300	0.300	5.000	1.800	1.260	A	A
1	CO60	52.000	5.000	52.800	1.000	0.985	A	W
1	CS137	1376.000	108.000	1380.000	20.000	0.997	A	A
1	K40	440.000	90.000	521.000	20.000	0.845	W	A
1	PU238	0.950	0.080	1.090	0.100	0.872	A	N
1	PU239	13.500	0.700	15.500	2.100	0.871	A	A
1	SR90	1870.000	80.000	1780.000	17.800	1.051	A	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.670	0.130	1.950	0.180	0.856	W	A
1	CO60	49.000	4.000	48.900	1.800	1.002	A	A
1	CS137	106.000	8.000	103.000	4.000	1.029	A	A
1	PU238	0.790	0.060	0.944	0.040	0.837	W	A
1	PU239	0.850	0.060	0.918	0.030	0.926	A	A
1	SR90	2.700	0.300	3.390	0.120	0.796	W	A
1	U234	0.460	0.030	0.482	0.040	0.954	A	W
1	U238	0.410	0.040	0.492	0.040	0.833	W	W

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** EL Energy Laboratories, Inc., Casper, WY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	30.300		5.310	0.220	5.706	N	
1	CO60	16.300		5.320	0.260	3.064	N	
1	CS137	20.200		6.100	0.300	3.311	N	
1	MN54	80.100		27.200	0.800	2.945	N	
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	149.000		97.600	4.200	1.527	W	
1	BI214	166.000		86.700	3.800	1.915	N	
1	CS137	524.000		339.000	9.300	1.546	N	
1	K40	1360.000		811.000	29.000	1.677	N	
1	PB212	199.000		97.300	4.600	2.045	N	
1	PB214	187.000		86.500	6.800	2.162	N	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	17.600		10.400	1.400	1.692	W	
2	AM241	15.500		10.400	1.400	1.490	A	
1	CO60	93.800		52.800	1.000	1.777	N	
2	CO60	94.000		52.800	1.000	1.780	N	
1	CS137	1625.000		1380.000	20.000	1.178	A	
2	CS137	1977.000		1380.000	20.000	1.433	N	
2	K40	781.000		521.000	20.000	1.499	N	
1	K40	874.000		521.000	20.000	1.678	N	
<b>Matrix: WA Water Bq / L</b>								
1	AM241	3.800		1.950	0.180	1.949	N	
2	AM241	4.300		1.950	0.180	2.205	N	
2	CO60	71.700		48.900	1.800	1.466	N	
1	CO60	72.500		48.900	1.800	1.483	N	
1	CS137	132.800		103.000	4.000	1.289	N	
2	CS137	159.700		103.000	4.000	1.550	N	

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**QAP 52 Results by Laboratory****Lab:** EM 3M, Empore Disks, St. Paul, MN

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	CS137	116.747		103.000	4.000	1.133	A	W
1	SR90	4.332		3.390	0.120	1.278	W	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** EP US EPA, Las Vegas

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.084	0.016	0.088	0.005	0.958	A	
1	CO57	5.470	0.730	5.310	0.220	1.030	A	A
1	CO60	5.940	0.820	5.320	0.260	1.117	W	W
1	CS137	6.760	1.040	6.100	0.300	1.108	A	A
1	MN54	29.650	3.990	27.200	0.800	1.090	A	A
1	PU238	0.087	0.015	0.080	0.001	1.094	A	
1	PU239	0.096	0.016	0.089	0.003	1.074	A	

**Matrix:** WA Water Bq / L

1	AM241	1.890	0.314	1.950	0.180	0.969	A	
1	CO60	52.930	6.610	48.900	1.800	1.082	A	A
1	CS137	110.200	15.400	103.000	4.000	1.070	A	A
1	H3	83.000	6.290	79.400	2.500	1.045	A	A
1	PU238	1.010	0.157	0.944	0.040	1.070	A	
1	PU239	0.983	0.154	0.918	0.030	1.071	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

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**QAP 52 Results by Laboratory****Lab:** FG FGL Environmental, Santa Paula, CA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.154	0.100	0.088	0.005	1.750	W	A
1	CO57	5.736	1.000	5.310	0.220	1.080	A	N
1	CO60	5.920	1.000	5.320	0.260	1.113	W	W
1	CS137	6.342	1.000	6.100	0.300	1.040	A	W
1	GROSS ALPHA	2.649	0.100	3.020	0.300	0.877	A	A
1	GROSS BETA	2.479	0.100	2.420	0.200	1.024	A	A
1	MN54	29.920	3.000	27.200	0.800	1.100	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	106.300	6.000	97.600	4.200	1.089	A	A
1	BI212	101.200	20.000	106.000	7.000	0.955	A	A
1	BI214	80.200	5.000	86.700	3.800	0.925	A	W
1	Bq U	235.200	11.000	229.000	23.000	1.027	A	A
1	CS137	341.000	2.000	339.000	9.300	1.006	A	A
1	K40	825.000	16.000	811.000	29.000	1.017	A	A
1	PB212	103.600	3.500	97.300	4.600	1.065	A	A
1	PB214	91.100	8.000	86.500	6.800	1.053	A	A
1	PU238	16.020	0.670	18.600	0.500	0.861	A	A
1	PU239	6.440	0.580	7.000	0.340	0.920	A	W
1	TH234	128.000	10.000	130.000	5.000	0.985	A	A
1	U234	126.000	8.000	111.000	11.000	1.135	W	A
1	U238	140.100	8.500	114.000	12.000	1.229	W	W
<b>Matrix: WA Water Bq / L</b>								
1	AM241	0.941	0.070	1.950	0.180	0.483	N	A
1	Bq U	0.986	0.100	0.995	0.087	0.991	A	A
1	CO60	51.270	2.340	48.900	1.800	1.048	A	A
1	CS137	114.600	3.300	103.000	4.000	1.113	A	A
1	GROSS ALPHA	1739.000	67.000	1700.000	170.000	1.023	A	A
1	GROSS BETA	747.000	56.000	690.000	70.000	1.083	A	A
1	H3	92.390	5.900	79.400	2.500	1.164	A	N
1	PU238	1.041	0.080	0.944	0.040	1.103	A	A
1	PU239	0.924	0.070	0.918	0.030	1.007	A	A
1	SR90	2.410	0.100	3.390	0.120	0.711	N	N
1	U234	0.530	0.100	0.482	0.040	1.100	A	W
1	U238	0.482	0.100	0.492	0.040	0.979	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** FL Florida Dept of Health & Rehab. Serv., Orlando

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.080	0.010	0.088	0.005	0.909	A	A
1	CO57	6.060	0.060	5.310	0.220	1.141	W	W
1	CO60	5.740	0.070	5.320	0.260	1.079	A	W
1	CS137	6.800	0.100	6.100	0.300	1.115	A	W
1	GROSS ALPHA	2.240	0.080	3.020	0.300	0.742	W	A
1	GROSS BETA	2.830	0.080	2.420	0.200	1.169	A	A
1	MN54	30.260	0.040	27.200	0.800	1.112	A	W
1	RU106	2.100	0.700	2.010	1.940	1.045	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	89.000	4.000	97.600	4.200	0.912	A	A
1	AM241	1.600	0.700	3.360	0.510	0.476	N	A
1	BI212	89.000	4.000	106.000	7.000	0.840	A	
1	BI214	93.000	2.000	86.700	3.800	1.073	A	A
1	Bq U	256.000	8.000	229.000	23.000	1.118	A	
1	CS137	333.000	5.000	339.000	9.300	0.982	A	A
1	K40	790.000	20.000	811.000	29.000	0.974	A	A
1	PB212	93.000	2.000	97.300	4.600	0.956	A	W
1	PB214	98.000	2.000	86.500	6.800	1.133	A	N
1	TH234	128.000	4.000	130.000	5.000	0.985	A	

**Matrix:** VE Vegetation Bq / kg

1	AM241	10.000	1.000	10.400	1.400	0.962	A	W
1	CO60	53.900	0.700	52.800	1.000	1.021	A	A
1	CS137	1515.000	2.000	1380.000	20.000	1.098	A	A
1	K40	580.000	10.000	521.000	20.000	1.113	A	A

**Matrix:** WA Water Bq / L

1	AM241	2.000	0.500	1.950	0.180	1.026	A	W
1	CO60	51.500	0.300	48.900	1.800	1.053	A	A
1	CS137	109.500	0.900	103.000	4.000	1.063	A	A
1	GROSS ALPHA	1780.000	30.000	1700.000	170.000	1.047	A	A
1	GROSS BETA	980.000	20.000	690.000	70.000	1.420	W	W
1	H3	84.000	3.000	79.400	2.500	1.058	A	A
1	NI63	95.000	1.000	112.000	11.000	0.848	A	
1	SR90	2.780	0.020	3.390	0.120	0.820	W	W

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** FM Florida Mobile Emergency Radiological Laboratory, Orlando

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.290	0.050	0.088	0.005	3.295	N	A
1	CO57	5.700	0.100	5.310	0.220	1.073	A	W
1	CO60	5.700	0.100	5.320	0.260	1.071	A	W
1	CS137	7.200	0.200	6.100	0.300	1.180	W	W
1	MN54	32.000	1.000	27.200	0.800	1.176	A	W
1	RU106	3.000	0.400	2.010	1.940	1.493	N	N

**Matrix:** WA Water Bq / L

1	AM241	1.800	0.300	1.950	0.180	0.923	A	A
1	CO60	50.500	0.700	48.900	1.800	1.033	A	A
1	CS137	109.000	1.000	103.000	4.000	1.058	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** FN Fermi Lab, Batavia, IL

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.480	0.450	5.310	0.220	1.032	A	A
1	CO60	5.530	0.440	5.320	0.260	1.039	A	A
1	CS137	6.240	0.670	6.100	0.300	1.023	A	A
1	GROSS ALPHA	2.800	0.420	3.020	0.300	0.927	A	A
1	GROSS BETA	2.660	0.400	2.420	0.200	1.099	A	A
1	MN54	27.100	2.600	27.200	0.800	0.996	A	A

**Matrix: SO Soil Bq / kg**

1	AC228	85.800	5.600	97.600	4.200	0.879	A	A
1	CS137	328.000	34.000	339.000	9.300	0.968	A	A
1	K40	788.000	82.000	811.000	29.000	0.972	A	A
1	TH234	140.000	17.000	130.000	5.000	1.077	A	A

**Matrix: VE Vegetation Bq / kg**

1	CO60	48.200	3.600	52.800	1.000	0.913	A	A
1	CS137	1260.000	130.000	1380.000	20.000	0.913	A	A
1	K40	439.000	46.000	521.000	20.000	0.843	W	W

**Matrix: WA Water Bq / L**

1	CO60	50.200	3.700	48.900	1.800	1.027	A	A
1	CS137	99.700	10.000	103.000	4.000	0.968	A	A
1	GROSS ALPHA	1614.000	14.000	1700.000	170.000	0.949	A	
1	GROSS BETA	716.000	13.000	690.000	70.000	1.038	A	
1	H3	82.000	8.700	79.400	2.500	1.033	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** FR CEA/DAM - SPR/B3

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	AM241	2.500	1.400	1.950	0.180	1.282	W	
1	CO60	51.800	5.200	48.900	1.800	1.059	A	A
1	CS137	103.000	10.000	103.000	4.000	1.000	A	A
1	GROSS ALPHA	2130.000	150.000	1700.000	170.000	1.253	W	
1	GROSS BETA	1100.000	66.000	690.000	70.000	1.594	N	
1	H3	96.200	9.000	79.400	2.500	1.212	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** FS Florida State University, Tallahassee

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	93.900	5.400	97.600	4.200	0.962	A	A
1	BI214	96.900	4.000	86.700	3.800	1.118	A	W
1	CS137	312.000	5.600	339.000	9.300	0.920	A	A
1	K40	755.000	12.400	811.000	29.000	0.931	A	A
1	PB214	99.900	0.800	86.500	6.800	1.155	A	A
1	TH234	124.900	7.200	130.000	5.000	0.961	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** GA Lockheed Martin, Pikton, OH

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.106	0.013	0.088	0.005	1.205	A	A
1	CO57	5.400	0.220	5.310	0.220	1.017	A	A
1	CO60	5.900	0.340	5.320	0.260	1.109	W	A
1	CS137	6.600	0.390	6.100	0.300	1.082	A	A
1	MN54	28.500	1.350	27.200	0.800	1.048	A	A
1	PU238	0.092	0.013	0.080	0.001	1.145	A	A
1	PU239	0.119	0.016	0.089	0.003	1.337	W	A
1	RU106	4.700	1.700	2.010	1.940	2.338	N	A
1	SR90	0.400	0.200	0.242	0.005	1.653	W	A
1	U234	0.065	0.007	0.062	0.001	1.044	A	W
1	U238	0.065	0.007	0.062	0.001	1.044	A	A
1	UG/G U	5.054	0.572	4.980	0.030	1.015		A

**Matrix: SO Soil Bq / kg**

1	AC228	112.000	18.000	97.600	4.200	1.148	A	
1	AM241	4.420	0.906	3.360	0.510	1.315	A	A
1	BI212	60.800	30.700	106.000	7.000	0.574	A	A
1	BI214	83.000	11.500	86.700	3.800	0.957	A	W
1	CS137	350.000	14.500	339.000	9.300	1.032	A	A
1	K40	751.000	98.500	811.000	29.000	0.926	A	W
1	PB212	104.000	8.400	97.300	4.600	1.069	A	A
1	PB214	89.200	13.100	86.500	6.800	1.031	A	
1	PU239	7.740	1.280	7.000	0.340	1.106	A	A
1	U234	110.000	8.080	111.000	11.000	0.991	A	A
1	U238	111.000	8.080	114.000	12.000	0.974	A	A
1	UG/G U	10.600		9.150	0.910	1.158		A

**Matrix: VE Vegetation Bq / kg**

1	AM241	9.620	1.020	10.400	1.400	0.925	A	A
1	CM244	5.260	0.616	5.000	1.800	1.052	A	W
1	CO60	59.000	14.500	52.800	1.000	1.117	A	W
1	CS137	1448.000	47.700	1380.000	20.000	1.049	A	A
1	K40	424.000	77.300	521.000	20.000	0.814	W	W

**Matrix: WA Water Bq / L**

1	AM241	2.060	0.141	1.950	0.180	1.056	A	A
1	CO60	46.200	4.000	48.900	1.800	0.945	A	A
1	CS137	98.900	5.100	103.000	4.000	0.960	A	A
1	PU238	1.310	0.126	0.944	0.040	1.388	N	A
1	PU239	1.100	0.107	0.918	0.030	1.198	W	A
1	SR90	3.100	0.400	3.390	0.120	0.914	A	W
1	U234	0.517	0.041	0.482	0.040	1.073	A	A
1	U238	0.479	0.038	0.492	0.040	0.974	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** GA Lockheed Martin, Pikton, OH

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
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**Matrix:** WA Water Bq/L

1	UG/G U	0.039	0.004	0.040	0.003	0.965		A
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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** GC Georgia Power Company Environmental Lab

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.260		5.310	0.220	0.991	A	A
1	CO60	5.290		5.320	0.260	0.994	A	A
1	CS137	6.480		6.100	0.300	1.062	A	A
1	GROSS ALPHA	2.300		3.020	0.300	0.762	W	A
1	GROSS BETA	2.250		2.420	0.200	0.930	A	W
1	MN54	27.800		27.200	0.800	1.022	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	93.200		97.600	4.200	0.955	A	A
1	BI212	67.800		106.000	7.000	0.640	A	
1	BI214	84.500		86.700	3.800	0.975	A	
1	CS137	346.200		339.000	9.300	1.021	A	A
1	K40	850.300		811.000	29.000	1.048	A	A
1	PB212	100.500		97.300	4.600	1.033	A	
1	PB214	89.200		86.500	6.800	1.031	A	
1	TH234	210.400		130.000	5.000	1.618	W	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	57.000		52.800	1.000	1.080	A	A
1	CS137	1499.000		1380.000	20.000	1.086	A	A
1	K40	595.000		521.000	20.000	1.142	A	A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	49.500		48.900	1.800	1.012	A	A
1	CS137	106.100		103.000	4.000	1.030	A	A
1	FE55	43.300		33.100	0.700	1.308	A	A
1	H3	103.400		79.400	2.500	1.302	W	A
1	SR90	3.090		3.390	0.120	0.912	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** GD GTS Duratek, Oak Ridge, TN

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix: SO Soil Bq/kg</b>								
3	CS137	283.000	53.000	339.000	9.300	0.835	W	A
2	CS137	302.000	44.000	339.000	9.300	0.891	W	A
1	CS137	294.000	24.000	339.000	9.300	0.867	W	A
2	K40	921.000	235.000	811.000	29.000	1.136	A	A
3	K40	866.000	215.000	811.000	29.000	1.068	A	A
1	K40	884.000	153.000	811.000	29.000	1.090	A	A
<b>Matrix: WA Water Bq/L</b>								
3	CO60	49.200	1.700	48.900	1.800	1.006	A	W
1	CO60	51.800	2.700	48.900	1.800	1.059	A	W
2	CO60	52.500	5.500	48.900	1.800	1.074	A	W
3	CS137	89.900	2.800	103.000	4.000	0.873	W	W
2	CS137	90.600	7.200	103.000	4.000	0.880	W	W
1	CS137	92.900	3.000	103.000	4.000	0.902	A	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** GE General Engineering Labs, Charleston, SC

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.089	0.025	0.088	0.005	1.011	A	W
1	CO57	5.110	0.107	5.310	0.220	0.962	A	A
1	CO60	5.500	0.207	5.320	0.260	1.034	A	A
1	CS137	6.360	0.232	6.100	0.300	1.043	A	A
1	GROSS ALPHA	2.660	0.035	3.020	0.300	0.881	A	A
1	GROSS BETA	2.640	0.029	2.420	0.200	1.091	A	A
1	MN54	27.700	0.383	27.200	0.800	1.018	A	A
1	PU238	0.085	0.022	0.080	0.001	1.063	A	W
1	PU239	0.080	0.021	0.089	0.003	0.899	W	A
1	RU106	3.570	1.210	2.010	1.940	1.776	N	W
1	SR90	0.170	0.066	0.242	0.005	0.702	W	A
1	U234	0.055	0.015	0.062	0.001	0.887	W	A
1	U238	0.062	0.016	0.062	0.001	1.000	A	A
1	UG/G U	4.350	0.049	4.980	0.030	0.873		A

**Matrix: SO Soil Bq / kg**

1	AC228	108.000	16.600	97.600	4.200	1.107	A	A
1	AM241	3.530	0.507	3.360	0.510	1.051	A	A
1	BI212	63.300	17.900	106.000	7.000	0.597	A	A
1	BI214	94.800	14.000	86.700	3.800	1.093	A	W
1	CS137	349.000	38.200	339.000	9.300	1.029	A	A
1	K40	850.000	94.500	811.000	29.000	1.048	A	A
1	PB212	110.000	12.900	97.300	4.600	1.131	A	A
1	PB214	106.000	12.800	86.500	6.800	1.225	A	W
1	PU239	5.000	1.470	7.000	0.340	0.714	W	W
1	SR90	14.300	1.320	20.200	0.200	0.708	W	W
1	TH234	114.000	33.300	130.000	5.000	0.877	A	A
1	U234	110.000	13.100	111.000	11.000	0.991	A	A
1	U238	113.000	13.400	114.000	12.000	0.991	A	A
1	UG/G U	8.160	0.200	9.150	0.910	0.892		A

**Matrix: VE Vegetation Bq / kg**

1	AM241	11.100	1.440	10.400	1.400	1.067	A	A
1	CM244	6.980	0.981	5.000	1.800	1.396	W	A
1	CO60	66.900	7.210	52.800	1.000	1.267	W	A
1	CS137	1736.000	196.000	1380.000	20.000	1.258	W	A
1	K40	662.000	75.300	521.000	20.000	1.271	W	A
1	PU239	15.500	1.880	15.500	2.100	1.000	A	A
1	SR90	89.000	0.619	1780.000	17.800	0.050	N	A

**Matrix: WA Water Bq / L**

1	AM241	2.530	0.305	1.950	0.180	1.297	W	A
1	CO60	51.400	5.320	48.900	1.800	1.051	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** GE General Engineering Labs, Charleston, SC

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	<u>Reported</u> EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	CS137	104.000	10.900	103.000	4.000	1.010	A	A
1	FE55	31.600	1.730	33.100	0.700	0.955	A	A
1	GROSS ALPHA	1752.000	42.700	1700.000	170.000	1.031	A	A
1	GROSS BETA	932.000	24.500	690.000	70.000	1.351	W	A
1	H3	81.100	6.080	79.400	2.500	1.021	A	A
1	NI63	134.000	4.640	112.000	11.000	1.196	A	A
1	PU238	1.340	0.239	0.944	0.040	1.419	N	A
1	PU239	1.260	0.225	0.918	0.030	1.373	W	A
1	SR90	3.130	0.260	3.390	0.120	0.923	A	A
1	U234	0.470	0.057	0.482	0.040	0.975	A	A
1	U238	0.490	0.059	0.492	0.040	0.996	A	A
1	UG/G U	0.044	0.001	0.040	0.003	1.103		A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** GP GPU Nuclear, Inc., Harrisburg, PA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.150	0.020	0.088	0.005	1.705	W	A
1	Bq U	0.110		0.126	0.001	0.873	W	A
1	CO57	5.900	0.600	5.310	0.220	1.111	A	A
1	CO60	6.400	0.600	5.320	0.260	1.203	W	A
1	CS137	7.100	0.700	6.100	0.300	1.164	W	A
1	GROSS ALPHA	2.700	0.300	3.020	0.300	0.894	A	A
1	GROSS BETA	2.800	0.300	2.420	0.200	1.157	A	A
1	MN54	31.000	3.000	27.200	0.800	1.140	A	A
1	PU238	0.079	0.013	0.080	0.001	0.988	A	W
1	PU239	0.100	0.010	0.089	0.003	1.124	A	W
1	RU106	3.300	1.700	2.010	1.940	1.642	N	A
1	U234	0.055	0.009	0.062	0.001	0.887	W	A
1	U238	0.051	0.009	0.062	0.001	0.823	N	A

**Matrix:** SO Soil Bq / kg

1	AM241	13.000	3.000	3.360	0.510	3.869	N	A
1	Bq U	214.000		229.000	23.000	0.934	A	A
1	CS137	393.000	40.000	339.000	9.300	1.159	A	A
1	K40	943.000	97.000	811.000	29.000	1.163	A	A
1	PU238	20.000	2.000	18.600	0.500	1.075	A	
1	PU239	7.700	1.300	7.000	0.340	1.100	A	A
1	SR90	18.000	5.000	20.200	0.200	0.891	A	
1	U234	105.000	10.000	111.000	11.000	0.946	A	A
1	U238	105.000	10.000	114.000	12.000	0.921	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	16.000	2.000	10.400	1.400	1.538	A	A
1	CM244	10.000	1.000	5.000	1.800	2.000	N	A
1	CO60	55.000	6.000	52.800	1.000	1.042	A	A
1	CS137	1400.000	100.000	1380.000	20.000	1.014	A	A
1	K40	550.000	60.000	521.000	20.000	1.056	A	A
1	PU238	1.700	0.200	1.090	0.100	1.560	A	W
1	PU239	16.000	2.000	15.500	2.100	1.032	A	A
1	SR90	2200.000	200.000	1780.000	17.800	1.236	W	A

**Matrix:** WA Water Bq / L

1	AM241	3.800	0.400	1.950	0.180	1.949	N	A
1	Bq U	1.100		0.995	0.087	1.106	A	A
1	CO60	53.000	5.000	48.900	1.800	1.084	A	A
1	CS137	110.000	10.000	103.000	4.000	1.068	A	N
1	FE55	31.000	5.000	33.100	0.700	0.937	A	A
1	GROSS ALPHA	1600.000	100.000	1700.000	170.000	0.941	A	A
1	GROSS BETA	940.000	100.000	690.000	70.000	1.362	W	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** GP GPU Nuclear, Inc., Harrisburg, PA

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	H3	81.000	7.000	79.400	2.500	1.020	A	N
1	PU238	1.200	0.100	0.944	0.040	1.271	N	A
1	PU239	1.200	0.100	0.918	0.030	1.307	W	A
1	SR90	3.100	0.800	3.390	0.120	0.914	A	W
1	U234	0.530	0.060	0.482	0.040	1.100	A	A
1	U238	0.510	0.050	0.492	0.040	1.037	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** GS USGS/NWQL, Arvada, CO

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS ALPHA	1781.000	150.000	1700.000	170.000	1.048	A	W
1	GROSS BETA	1059.000	128.000	690.000	70.000	1.535	W	W
3	UG/G U	0.036	0.002	0.040	0.003	0.895		
2	UG/G U	0.036	0.002	0.040	0.003	0.903		
1	UG/G U	0.036	0.002	0.040	0.003	0.898		

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** GT Georgia Institute of Technology

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.090	0.020	0.088	0.005	1.023	A	W
1	CO57	5.400	0.900	5.310	0.220	1.017	A	A
1	CO60	5.300	0.600	5.320	0.260	0.996	A	A
1	CS137	7.000	1.000	6.100	0.300	1.148	W	W
1	GROSS ALPHA	2.700	0.100	3.020	0.300	0.894	A	A
1	GROSS BETA	2.600	0.100	2.420	0.200	1.074	A	A
1	PU238	0.080	0.030	0.080	0.001	1.000	A	A
1	PU239	0.110	0.030	0.089	0.003	1.236	W	A
1	RU106	3.000	1.500	2.010	1.940	1.493	N	A
1	SR90	0.250	0.060	0.242	0.005	1.033	A	A
1	U238	0.070	0.010	0.062	0.001	1.129	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	CS137	380.000	78.000	339.000	9.300	1.121	A	A
1	K40	890.000	52.000	811.000	29.000	1.097	A	A
1	PU238	20.000	1.000	18.600	0.500	1.075	A	A
1	PU239	8.700	0.400	7.000	0.340	1.243	W	A
1	SR90	20.000	2.000	20.200	0.200	0.990	A	W
1	U238	130.000	37.000	114.000	12.000	1.140	W	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	8.900	1.800	10.400	1.400	0.856	W	A
1	CM244	4.100	0.900	5.000	1.800	0.820	A	A
1	CO60	60.000	6.000	52.800	1.000	1.136	A	A
1	CS137	1600.000	130.000	1380.000	20.000	1.159	A	A
1	K40	590.000	59.000	521.000	20.000	1.132	A	A
1	PU238	1.300	0.300	1.090	0.100	1.193	A	A
1	PU239	17.000	3.000	15.500	2.100	1.097	A	A
1	SR90	1900.000	90.000	1780.000	17.800	1.067	A	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.800	0.300	1.950	0.180	0.923	A	A
1	CO60	51.000	6.000	48.900	1.800	1.043	A	A
1	CS137	110.000	17.000	103.000	4.000	1.068	A	A
1	GROSS ALPHA	1600.000	74.000	1700.000	170.000	0.941	A	A
1	GROSS BETA	940.000	74.000	690.000	70.000	1.362	W	A
1	H3	74.000	7.000	79.400	2.500	0.932	A	A
1	PU238	1.100	0.200	0.944	0.040	1.165	W	A
1	PU239	1.100	0.200	0.918	0.030	1.198	W	A
1	SR90	3.100	0.300	3.390	0.120	0.914	A	W
1	U238	0.540	0.100	0.492	0.040	1.098	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** HC Lawrence Livermore Laboratory, California

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
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**Matrix:** AI Air Filter Bq / filter

1	GROSS ALPHA	2.150	0.220	3.020	0.300	0.712	W	A
1	GROSS BETA	1.840	0.180	2.420	0.200	0.760	W	W

**Matrix:** WA Water Bq / L

1	GROSS ALPHA	1702.000	85.100	1700.000	170.000	1.001	A	A
1	GROSS BETA	936.000	46.800	690.000	70.000	1.357	W	A
1	H3	76.100	7.600	79.400	2.500	0.958	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** HT Technical University, Budapest, Hungary

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	<u>Reported EML</u>	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	Bq U	234.870	20.000	229.000	23.000	1.026	A	A
1	U234	116.500	10.000	111.000	11.000	1.050	A	A
1	U238	113.170	10.000	114.000	12.000	0.993	A	A
1	UG/G U	9.160	0.800	9.150	0.910	1.001		A
<b>Matrix:</b> WA Water Bq/L								
1	Bq U	0.950	0.080	0.995	0.087	0.955	A	N
1	FE55	55.000	5.000	33.100	0.700	1.662	N	N
1	PU239	1.970	0.200	0.918	0.030	2.146	N	
1	U234	0.470	0.050	0.482	0.040	0.975	A	N
1	U238	0.458	0.050	0.492	0.040	0.931	A	N
1	UG/G U	0.037	0.002	0.040	0.003	0.925		N

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**Values for elemental uranium are reported in µg/filter, g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** HU Water Resources Research Centre (VITUKI), Hungary

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
2	CO57	5.070	0.070	5.310	0.220	0.955	A	W
1	CO57	5.260	0.070	5.310	0.220	0.991	A	W
1	CO60	5.380	0.180	5.320	0.260	1.011	A	W
2	CO60	5.170	0.170	5.320	0.260	0.972	A	W
1	CS137	6.090	0.380	6.100	0.300	0.998	A	W
2	CS137	5.660	0.290	6.100	0.300	0.928	A	W
1	MN54	27.600	1.200	27.200	0.800	1.015	A	W
2	MN54	26.400	1.100	27.200	0.800	0.971	A	W

**Matrix: SO Soil Bq / kg**

2	AC228	101.000	1.800	97.600	4.200	1.035	A	A
1	AC228	93.000	1.600	97.600	4.200	0.953	A	A
1	BI212	47.300	3.300	106.000	7.000	0.446	W	
2	BI212	60.000	3.200	106.000	7.000	0.566	A	
1	BI214	78.500	1.900	86.700	3.800	0.905	A	A
2	BI214	77.000	1.700	86.700	3.800	0.888	A	A
1	CS137	358.000	9.500	339.000	9.300	1.056	A	A
2	CS137	361.000	9.500	339.000	9.300	1.065	A	A
1	K40	902.000	62.000	811.000	29.000	1.112	A	A
2	K40	900.000	62.000	811.000	29.000	1.110	A	A
2	PB212	97.200	2.600	97.300	4.600	0.999	A	A
1	PB212	96.100	2.700	97.300	4.600	0.988	A	A
1	PB214	87.700	1.800	86.500	6.800	1.014	A	W
2	PB214	82.600	1.700	86.500	6.800	0.955	A	W
1	TH234	107.000	7.700	130.000	5.000	0.823	A	
2	TH234	98.500	4.500	130.000	5.000	0.758	W	

**Matrix: VE Vegetation Bq / kg**

2	CO60	57.800	1.300	52.800	1.000	1.095	A	W
1	CO60	56.600	1.200	52.800	1.000	1.072	A	W
2	CS137	1483.000	39.000	1380.000	20.000	1.075	A	A
1	CS137	1495.000	39.000	1380.000	20.000	1.083	A	A
2	K40	587.000	40.000	521.000	20.000	1.127	A	A
1	K40	611.000	42.000	521.000	20.000	1.173	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** ID Institute of Radiation Protection and Dosimetry, IRD/ CNEN, Brazil

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	6.520	0.332	5.310	0.220	1.228	W	N
1	CS137	8.070	0.429	6.100	0.300	1.323	W	W
1	MN54	35.887	1.837	27.200	0.800	1.319	W	W
1	PU238	0.078	0.017	0.080	0.001	0.975	A	
1	PU239	0.079	0.020	0.089	0.003	0.888	W	
1	RU106	3.230	0.167	2.010	1.940	1.607	N	W
1	UG/G U	5.049	0.253	4.980	0.030	1.014		A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	114.067	6.204	97.600	4.200	1.169	A	A
1	BI212	61.613	4.100	106.000	7.000	0.581	A	W
1	BI214	90.623	4.994	86.700	3.800	1.045	A	A
1	CS137	374.900	18.749	339.000	9.300	1.106	A	A
1	K40	960.333	48.611	811.000	29.000	1.184	A	W
1	PB212	111.600	6.959	97.300	4.600	1.147	A	A
1	PB214	91.207	7.410	86.500	6.800	1.054	A	A
1	PU239	6.943	0.925	7.000	0.340	0.992	A	
1	TH234	209.467	12.604	130.000	5.000	1.611	W	A
1	UG/G U	10.968	0.628	9.150	0.910	1.199		A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	7.973	1.690	10.400	1.400	0.767	W	
1	CO60	54.557	2.901	52.800	1.000	1.033	A	A
1	CS137	1457.667	73.002	1380.000	20.000	1.056	A	A
1	K40	586.633	36.522	521.000	20.000	1.126	A	W
1	PU239	12.897	1.145	15.500	2.100	0.832	W	
1	SR90	1585.333	114.479	1780.000	17.800	0.891	A	A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	3.219	0.576	48.900	1.800	0.066	N	A
1	CS137	108.533	5.711	103.000	4.000	1.054	A	A
1	PU238	0.957	0.093	0.944	0.040	1.014	A	
1	PU239	0.993	0.112	0.918	0.030	1.082	A	
1	SR90	52.353	2.831	3.390	0.120	15.443	N	W
1	UG/G U	0.042	0.002	0.040	0.003	1.050		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** IL ISU Environmental Monitoring Program, Pocatello, ID

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	5.500	0.100	5.310	0.220	1.036	A	A
1	CO60	5.800	0.100	5.320	0.260	1.090	A	A
1	CS137	6.800	0.100	6.100	0.300	1.115	A	A
1	GROSS ALPHA	2.620	0.030	3.020	0.300	0.868	A	A
1	GROSS BETA	2.470	0.030	2.420	0.200	1.021	A	A
1	MN54	29.700	0.400	27.200	0.800	1.092	A	A
1	RU106	3.700	0.300	2.010	1.940	1.841	N	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	88.200	3.300	97.600	4.200	0.904	A	A
1	BI212	65.000	6.900	106.000	7.000	0.613	A	A
1	BI214	75.700	3.400	86.700	3.800	0.873	A	N
1	CS137	300.900	3.800	339.000	9.300	0.888	W	A
1	K40	724.500	28.500	811.000	29.000	0.893	W	A
1	PB212	75.500	1.700	97.300	4.600	0.776	W	A
1	PB214	75.700	3.400	86.500	6.800	0.875	W	N
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	46.500	4.000	52.800	1.000	0.881	A	W
1	CS137	1171.300	39.500	1380.000	20.000	0.849	W	A
1	K40	484.300	84.300	521.000	20.000	0.930	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	51.700	0.500	48.900	1.800	1.057	A	A
1	CS137	107.100	1.400	103.000	4.000	1.040	A	A
1	GROSS ALPHA	1549.600	15.800	1700.000	170.000	0.912	A	W
1	GROSS BETA	631.800	9.500	690.000	70.000	0.916	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

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**QAP 52 Results by Laboratory****Lab:** IN Lockheed Martin Idaho Technical Corp., Analytical Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.600	0.100	5.310	0.220	1.055	A	A
2	CO57	5.600	0.100	5.310	0.220	1.055	A	A
1	CO60	5.400	0.200	5.320	0.260	1.015	A	A
2	CO60	5.400	0.200	5.320	0.260	1.015	A	A
2	CS137	6.400	0.100	6.100	0.300	1.049	A	A
1	CS137	6.400	0.100	6.100	0.300	1.049	A	A
1	MN54	28.100	0.500	27.200	0.800	1.033	A	A
2	MN54	28.100	0.500	27.200	0.800	1.033	A	A
2	RU106	3.100	0.300	2.010	1.940	1.542	N	A
1	RU106	3.500	0.300	2.010	1.940	1.741	N	A

**Matrix: SO Soil Bq / kg**

1	AC228	110.000	3.000	97.600	4.200	1.127	A	A
1	AM241	4.100	1.900	3.360	0.510	1.220	A	A
1	BI212	124.000	11.000	106.000	7.000	1.170	W	A
1	BI214	102.000	8.000	86.700	3.800	1.176	A	W
1	CS137	396.000	13.000	339.000	9.300	1.168	A	A
1	K40	835.000	50.000	811.000	29.000	1.030	A	A
1	PB212	111.000	7.000	97.300	4.600	1.141	A	A
1	PB214	110.000	5.000	86.500	6.800	1.272	W	A
2	PU238	19.700	0.500	18.600	0.500	1.059	A	
1	PU238	20.100	0.200	18.600	0.500	1.081	A	
1	PU239	6.700	0.200	7.000	0.340	0.957	A	W
1	U234	136.300	19.000	111.000	11.000	1.228	W	
1	U238	145.000	21.000	114.000	12.000	1.272	W	

**Matrix: VE Vegetation Bq / kg**

3	CO60	57.500	3.800	52.800	1.000	1.089	A	A
2	CO60	57.500	3.800	52.800	1.000	1.089	A	A
1	CO60	57.500	3.800	52.800	1.000	1.089	A	A
1	CS137	1537.000	45.000	1380.000	20.000	1.114	A	A
2	CS137	1537.000	45.000	1380.000	20.000	1.114	A	A
3	CS137	1537.000	45.000	1380.000	20.000	1.114	A	A
2	K40	540.000	10.000	521.000	20.000	1.036	A	A
1	K40	540.000	10.000	521.000	20.000	1.036	A	A
3	K40	540.000	10.000	521.000	20.000	1.036	A	A

**Matrix: WA Water Bq / L**

2	AM241	2.200	0.100	1.950	0.180	1.128	A	A
1	AM241	2.170	0.040	1.950	0.180	1.113	A	A
3	AM241	2.200	0.100	1.950	0.180	1.128	A	A
1	Bq U	1.050	0.040	0.995	0.087	1.055	A	
1	CO60	52.500	3.500	48.900	1.800	1.074	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** IN Lockheed Martin Idaho Technical Corp., Analytical Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> WA Water Bq/L								
3	CO60	52.500	3.500	48.900	1.800	1.074	A	A
2	CO60	52.500	3.500	48.900	1.800	1.074	A	A
3	CS137	109.300	9.300	103.000	4.000	1.061	A	A
1	CS137	109.300	9.300	103.000	4.000	1.061	A	A
2	CS137	109.300	9.300	103.000	4.000	1.061	A	A
1	PU238	0.970	0.090	0.944	0.040	1.028	A	W
3	PU238	0.970	0.090	0.944	0.040	1.028	A	W
2	PU238	0.970	0.090	0.944	0.040	1.028	A	W
3	PU239	0.910	0.090	0.918	0.030	0.991	A	A
1	PU239	0.910	0.090	0.918	0.030	0.991	A	A
2	PU239	0.910	0.090	0.918	0.030	0.991	A	A
1	U234	0.510	0.050	0.482	0.040	1.058	A	
2	U234	0.510	0.050	0.482	0.040	1.058	A	
2	U238	0.510	0.040	0.492	0.040	1.037	A	
1	U238	0.510	0.040	0.492	0.040	1.037	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** IS Severn Trent St. Louis

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.078	0.021	0.088	0.005	0.886	A	A
1	CO57	5.460	0.710	5.310	0.220	1.028	A	A
1	CO60	5.190	0.810	5.320	0.260	0.976	A	A
1	CS137	6.750	1.050	6.100	0.300	1.107	A	A
1	GROSS ALPHA	3.020	0.310	3.020	0.300	1.000	A	W
1	GROSS BETA	2.360	0.240	2.420	0.200	0.975	A	A
1	MN54	29.200	3.400	27.200	0.800	1.074	A	A
1	PU238	0.190	0.070	0.080	0.001	2.375	N	A
1	PU239	0.100	0.050	0.089	0.003	1.124	A	A
1	SR90	0.245	0.074	0.242	0.005	1.012	A	W
1	U234	0.130	0.030	0.062	0.001	2.097	N	A
1	U238	0.070	0.020	0.062	0.001	1.129	A	A
1	UG/G U	5.700	0.180	4.980	0.030	1.145		A

**Matrix:** SO Soil Bq / kg

1	AC228	111.000	38.000	97.600	4.200	1.137	A	W
1	AM241	4.220	1.090	3.360	0.510	1.256	A	N
1	BI212	135.000	72.000	106.000	7.000	1.274	N	A
1	BI214	129.000	23.000	86.700	3.800	1.488	N	A
1	CS137	435.000	52.000	339.000	9.300	1.283	W	A
1	K40	984.000	167.000	811.000	29.000	1.213	A	A
1	PB212	130.000	23.000	97.300	4.600	1.336	N	A
1	PB214	136.000	26.000	86.500	6.800	1.572	N	A
1	PU239	8.310	2.100	7.000	0.340	1.187	A	N
1	SR90	17.500	4.900	20.200	0.200	0.866	A	A
1	TH234	205.000	65.000	130.000	5.000	1.577	W	N
1	U234	118.000	20.000	111.000	11.000	1.063	A	A
1	U238	137.000	27.000	114.000	12.000	1.202	W	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	8.280	1.740	10.400	1.400	0.796	W	A
1	CM244	4.310	0.970	5.000	1.800	0.862	A	A
1	CO60	49.700	8.800	52.800	1.000	0.941	A	W
1	CS137	1404.000	154.000	1380.000	20.000	1.017	A	A
1	K40	475.000	92.000	521.000	20.000	0.912	A	A
1	PU239	13.300	2.900	15.500	2.100	0.858	W	A
1	SR90	2105.000	415.000	1780.000	17.800	1.183	W	W

**Matrix:** WA Water Bq / L

1	AM241	1.740	0.360	1.950	0.180	0.892	W	A
1	CO60	54.000	6.100	48.900	1.800	1.104	A	A
1	CS137	115.000	12.000	103.000	4.000	1.117	A	A
1	GROSS ALPHA	1519.000	89.000	1700.000	170.000	0.894	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** IS Severn Trent St. Louis

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS BETA	888.000	89.000	690.000	70.000	1.287	A	W
1	H3	74.400	11.800	79.400	2.500	0.937	A	W
1	PU238	1.140	0.370	0.944	0.040	1.208	W	A
1	PU239	0.790	0.276	0.918	0.030	0.861	W	A
1	SR90	3.120	0.370	3.390	0.120	0.920	A	W
1	U234	0.940	0.191	0.482	0.040	1.950	N	A
1	U238	0.450	0.099	0.492	0.040	0.915	A	A
1	UG/G U	0.041	0.001	0.040	0.003	1.025		A

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**Values for elemental uranium are reported in µg/filter, g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** IT Severn Trent- Richland Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.073	0.008	0.088	0.005	0.830	W	A
1	CO57	4.900	0.490	5.310	0.220	0.923	A	A
1	CO60	5.500	0.360	5.320	0.260	1.034	A	A
1	CS137	6.100	0.400	6.100	0.300	1.000	A	A
1	GROSS ALPHA	0.443	0.067	3.020	0.300	0.147	N	A
1	GROSS BETA	15.400	1.230	2.420	0.200	6.364	N	A
1	MN54	30.400	1.800	27.200	0.800	1.118	A	A
1	PU238	0.072	0.008	0.080	0.001	0.900	A	A
1	PU239	0.079	0.009	0.089	0.003	0.888	W	A
1	RU106	2.000	0.810	2.010	1.940	0.995	A	A
1	SR90	0.242	0.042	0.242	0.005	1.000	A	A
1	U234	0.058	0.007	0.062	0.001	0.935	A	A
1	U238	0.064	0.007	0.062	0.001	1.032	A	A
1	UG/G U	4.870	0.590	4.980	0.030	0.978		A

**Matrix:** SO Soil Bq / kg

1	AC228	116.000	8.000	97.600	4.200	1.189	A	A
1	AM241	4.160	0.410	3.360	0.510	1.238	A	A
1	BI214	107.000	6.300	86.700	3.800	1.234	W	W
1	CS137	413.000	21.000	339.000	9.300	1.218	W	W
1	K40	927.000	52.000	811.000	29.000	1.143	A	A
1	PB212	128.000	6.900	97.300	4.600	1.316	W	W
1	PB214	124.000	7.200	86.500	6.800	1.434	W	A
1	PU238	18.000	1.500	18.600	0.500	0.968	A	
1	PU239	6.620	0.600	7.000	0.340	0.946	A	W
1	SR90	16.700	2.300	20.200	0.200	0.827	A	A
1	TH234	179.000	104.000	130.000	5.000	1.377	A	N
1	U234	112.000	10.900	111.000	11.000	1.009	A	A
1	U238	126.000	12.100	114.000	12.000	1.105	W	A
1	UG/G U	9.700	0.790	9.150	0.910	1.060		A

**Matrix:** VE Vegetation Bq / kg

1	AM241	8.330	0.670	10.400	1.400	0.801	W	A
1	CM244	3.340	0.290	5.000	1.800	0.668	W	A
1	CO60	54.100	3.400	52.800	1.000	1.025	A	A
1	CS137	1502.000	75.000	1380.000	20.000	1.088	A	A
1	K40	549.000	35.000	521.000	20.000	1.054	A	A
1	PU239	14.500	1.200	15.500	2.100	0.935	A	A
1	SR90	1780.000	239.000	1780.000	17.800	1.000	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.700	0.150	1.950	0.180	0.872	W	A
1	CO60	47.300	3.100	48.900	1.800	0.967	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** IT Severn Trent- Richland Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	<u>Reported</u> EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	CS137	96.600	5.900	103.000	4.000	0.938	A	A
1	FE55	37.300	3.200	33.100	0.700	1.127	A	
1	GROSS ALPHA	1150.000	124.000	1700.000	170.000	0.676	W	A
1	GROSS BETA	949.000	65.000	690.000	70.000	1.375	W	A
1	H3	73.700	2.800	79.400	2.500	0.928	A	A
1	NI63	139.000	5.500	112.000	11.000	1.241	A	A
1	PU238	0.890	0.120	0.944	0.040	0.943	A	A
1	PU239	1.000	0.130	0.918	0.030	1.089	A	A
1	SR90	3.380	0.490	3.390	0.120	0.997	A	A
1	U234	0.480	0.048	0.482	0.040	0.996	A	A
1	U238	0.440	0.045	0.492	0.040	0.894	W	A
1	UG/G U	0.039	0.005	0.040	0.003	0.973		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** JL Jefferson Lab, Newport News, VA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
2	CO57	5.900	0.220	5.310	0.220	1.111	A	
1	CO57	6.000	0.220	5.310	0.220	1.130	A	
3	CO57	5.600	0.200	5.310	0.220	1.055	A	
1	CO60	5.900	0.200	5.320	0.260	1.109	W	
2	CO60	6.000	0.300	5.320	0.260	1.128	W	
3	CO60	6.000	0.300	5.320	0.260	1.128	W	
2	CS137	7.100	0.400	6.100	0.300	1.164	W	
3	CS137	7.100	0.400	6.100	0.300	1.164	W	
1	CS137	6.800	0.400	6.100	0.300	1.115	A	
3	MN54	31.600	1.200	27.200	0.800	1.162	A	
2	MN54	32.600	1.200	27.200	0.800	1.199	W	
1	MN54	32.200	1.200	27.200	0.800	1.184	W	

**Matrix:** WA Water Bq / L

2	CO60	52.540	1.670	48.900	1.800	1.074	A	
1	CO60	53.280	1.330	48.900	1.800	1.090	A	
3	CO60	51.060	2.300	48.900	1.800	1.044	A	
2	CS137	110.600	3.850	103.000	4.000	1.074	A	
1	CS137	114.700	4.700	103.000	4.000	1.114	A	
3	CS137	108.800	3.600	103.000	4.000	1.056	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g or mL} = \text{Bq} \times 0.027$** 
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** KA Knolls Atomic Power Lab, Schenectady

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	GROSS ALPHA	3.020	0.160	3.020	0.300	1.000	A	A
1	GROSS BETA	2.510	0.100	2.420	0.200	1.037	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	CS137	355.700	20.800	339.000	9.300	1.049	A	A
1	K40	805.500	201.300	811.000	29.000	0.993	A	A
1	PU239	7.199	0.294	7.000	0.340	1.028	A	A
1	SR90	19.250	2.740	20.200	0.200	0.953	A	A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	50.000	4.300	48.900	1.800	1.022	A	A
1	CS137	104.300	11.200	103.000	4.000	1.013	A	A
1	FE55	32.500	8.670	33.100	0.700	0.982	A	A
1	GROSS ALPHA	1539.400	137.000	1700.000	170.000	0.906	A	A
1	GROSS BETA	846.000	105.500	690.000	70.000	1.226	A	A
1	H3	89.530	16.860	79.400	2.500	1.128	A	A
1	PU239	0.974	0.017	0.918	0.030	1.061	A	A
1	SR90	3.410	0.540	3.390	0.120	1.006	A	A
1	UG/G U	0.038	0.002	0.040	0.003	0.940		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

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**QAP 52 Results by Laboratory****Lab:** KO Korea Institute of Nuclear Safety

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.081	0.005	0.088	0.005	0.920	A	
1	Bq U	0.131	0.008	0.126	0.001	1.040	A	
1	CO57	5.260	0.060	5.310	0.220	0.991	A	
1	CO60	5.590	0.140	5.320	0.260	1.051	A	
1	CS137	6.250	0.130	6.100	0.300	1.025	A	
1	GROSS ALPHA	2.840	0.090	3.020	0.300	0.940	A	
1	GROSS BETA	2.520	0.080	2.420	0.200	1.041	A	
1	MN54	27.900	0.500	27.200	0.800	1.026	A	
1	PU238	0.077	0.003	0.080	0.001	0.963	A	
1	PU239	0.084	0.003	0.089	0.003	0.944	A	
1	RU106	2.820	0.410	2.010	1.940	1.403	N	
1	SR90	0.247	0.013	0.242	0.005	1.021	A	
1	U234	0.061	0.004	0.062	0.001	0.984	A	
1	U238	0.067	0.004	0.062	0.001	1.081	A	
1	UG/G U	5.420	0.310	4.980	0.030	1.088		

**Matrix:** SO Soil Bq / kg

1	AC228	97.000	5.200	97.600	4.200	0.994	A	
1	AM241	2.520	0.120	3.360	0.510	0.750	W	
1	BI212	109.000	8.000	106.000	7.000	1.028	A	
1	BI214	87.700	5.700	86.700	3.800	1.012	A	
1	CS137	359.000	1.000	339.000	9.300	1.059	A	
1	K40	851.000	9.000	811.000	29.000	1.049	A	
1	PB212	105.000	2.000	97.300	4.600	1.079	A	
1	PB214	90.100	1.900	86.500	6.800	1.042	A	
1	PU238	17.400	0.600	18.600	0.500	0.935	A	
1	PU239	6.480	0.270	7.000	0.340	0.926	A	
1	SR90	19.300	0.800	20.200	0.200	0.955	A	
1	TH234	167.000	24.000	130.000	5.000	1.285	A	

**Matrix:** VE Vegetation Bq / kg

1	AM241	9.890	0.460	10.400	1.400	0.951	A	
1	CM244	4.380	0.220	5.000	1.800	0.876	A	
1	CO60	55.300	0.900	52.800	1.000	1.047	A	
1	CS137	1498.000	3.000	1380.000	20.000	1.086	A	
1	K40	565.000	7.000	521.000	20.000	1.084	A	
1	PU238	1.050	0.480	1.090	0.100	0.963	A	
1	PU239	14.700	0.400	15.500	2.100	0.948	A	
1	SR90	1777.000	13.000	1780.000	17.800	0.998	A	

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**QAP 52 Results by Laboratory****Lab:** KR Korea Atomic Energy Research Institute

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
1	GROSS ALPHA	2.960	0.040	3.020	0.300	0.980	A	A
1	GROSS BETA	2.780	0.030	2.420	0.200	1.149	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g or mL}=\text{Bq} \times 0.027$** **Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** LA Los Alamos National Laboratory, NM

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	100.000	12.000	97.600	4.200	1.025	A	W
2	AC228	102.000	12.000	97.600	4.200	1.045	A	W
3	AC228	114.000	14.000	97.600	4.200	1.168	A	W
2	BI212	65.000	15.000	106.000	7.000	0.613	A	A
3	BI212	52.000	12.000	106.000	7.000	0.491	W	A
1	BI212	38.000	14.000	106.000	7.000	0.358	N	A
1	BI214	92.000	11.000	86.700	3.800	1.061	A	W
2	BI214	84.000	10.000	86.700	3.800	0.969	A	W
3	BI214	93.000	11.000	86.700	3.800	1.073	A	W
3	CS137	352.000	37.000	339.000	9.300	1.038	A	W
1	CS137	347.000	37.000	339.000	9.300	1.024	A	W
2	CS137	335.000	36.000	339.000	9.300	0.988	A	W
2	K40	744.000	84.000	811.000	29.000	0.917	A	
3	K40	759.000	86.000	811.000	29.000	0.936	A	
1	K40	713.000	80.000	811.000	29.000	0.879	W	
2	PB212	101.000	11.000	97.300	4.600	1.038	A	W
1	PB212	93.000	10.000	97.300	4.600	0.956	A	W
3	PB212	98.000	11.000	97.300	4.600	1.007	A	W
3	PB214	92.000	11.000	86.500	6.800	1.064	A	A
2	PB214	77.000	9.000	86.500	6.800	0.890	A	A
1	PB214	85.000	10.000	86.500	6.800	0.983	A	A
1	TH234	300.000	36.000	130.000	5.000	2.308	N	W
3	TH234	310.000	37.000	130.000	5.000	2.385	N	W
2	TH234	305.000	37.000	130.000	5.000	2.346	N	W
<b>Matrix: VE Vegetation Bq / kg</b>								
3	CO60	49.000	5.400	52.800	1.000	0.928	A	A
1	CO60	53.800	5.800	52.800	1.000	1.019	A	A
2	CO60	51.000	5.500	52.800	1.000	0.966	A	A
3	K40	481.000	54.000	521.000	20.000	0.923	A	A
1	K40	507.000	57.000	521.000	20.000	0.973	A	A
2	K40	506.000	57.000	521.000	20.000	0.971	A	A
<b>Matrix: WA Water Bq / L</b>								
2	AM241	1.926	0.059	1.950	0.180	0.988	A	A
1	AM241	1.860	0.054	1.950	0.180	0.954	A	A
3	AM241	2.041	0.063	1.950	0.180	1.047	A	A
2	CO60	42.800	4.600	48.900	1.800	0.875	W	A
1	CO60	42.900	4.600	48.900	1.800	0.877	W	A
3	CO60	43.000	4.600	48.900	1.800	0.879	W	A
1	CS137	91.900	9.800	103.000	4.000	0.892	W	W
3	CS137	92.800	9.900	103.000	4.000	0.901	A	W
2	CS137	92.300	9.900	103.000	4.000	0.896	W	W
3	H3	74.000	23.000	79.400	2.500	0.932	A	A
1	H3	69.000	23.000	79.400	2.500	0.869	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** LA Los Alamos National Laboratory, NM

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
2	H3	74.000	23.000	79.400	2.500	0.932	A	A
1	PU238	0.940	0.046	0.944	0.040	0.996	A	A
2	PU238	0.951	0.046	0.944	0.040	1.007	A	A
3	PU238	0.996	0.043	0.944	0.040	1.055	A	A
2	PU239	0.943	0.045	0.918	0.030	1.027	A	A
3	PU239	0.978	0.042	0.918	0.030	1.065	A	A
1	PU239	0.906	0.044	0.918	0.030	0.987	A	A
3	UG/G U	0.041	0.004	0.040	0.003	1.020		
2	UG/G U	0.039	0.004	0.040	0.003	0.985		
1	UG/G U	0.040	0.004	0.040	0.003	0.995		

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

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If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** LB Lawrence Berkeley Lab UCB

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.300	0.400	5.310	0.220	0.998	A	A
1	CO60	5.400	0.800	5.320	0.260	1.015	A	A
1	CS137	6.300	0.800	6.100	0.300	1.033	A	A
1	GROSS ALPHA	2.700	0.300	3.020	0.300	0.894	A	A
1	GROSS BETA	2.800	0.300	2.420	0.200	1.157	A	A
1	MN54	32.000	4.000	27.200	0.800	1.176	A	W
1	RU106	2.600	0.700	2.010	1.940	1.294	W	W
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	86.000	8.000	97.600	4.200	0.881	A	W
1	BI214	74.000	7.000	86.700	3.800	0.854	A	
1	CS137	337.000	50.000	339.000	9.300	0.994	A	A
1	K40	842.000	112.000	811.000	29.000	1.038	A	
1	PB212	76.000	8.000	97.300	4.600	0.781	W	W
1	PB214	79.000	8.000	86.500	6.800	0.913	A	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	49.000	6.000	52.800	1.000	0.928	A	A
1	CS137	1332.000	103.000	1380.000	20.000	0.965	A	A
1	K40	490.000	72.000	521.000	20.000	0.940	A	
<b>Matrix: WA Water Bq / L</b>								
1	CO60	49.000	2.000	48.900	1.800	1.002	A	A
1	CS137	105.000	5.000	103.000	4.000	1.019	A	A
1	GROSS ALPHA	1023.000	87.000	1700.000	170.000	0.602	N	A
1	GROSS BETA	723.000	33.000	690.000	70.000	1.048	A	A
1	H3	92.000	6.000	79.400	2.500	1.159	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** LL LLNL Chemistry and Material Science/Environmental

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.092	0.010	0.088	0.005	1.045	A	A
1	CO57	6.830	0.480	5.310	0.220	1.286	W	A
1	CO60	6.570	0.189	5.320	0.260	1.235	W	A
1	CS137	7.910	0.872	6.100	0.300	1.297	W	W
1	MN54	35.600	8.510	27.200	0.800	1.309	W	A
1	PU238	0.077	0.007	0.080	0.001	0.958	A	A
1	PU239	0.087	0.008	0.089	0.003	0.973	A	A
1	U234	0.058	0.005	0.062	0.001	0.931	A	
1	U238	0.056	0.005	0.062	0.001	0.910	A	
<b>Matrix: SO Soil Bq / kg</b>								
1	AM241	3.010	0.293	3.360	0.510	0.896	A	
1	CS137	299.000	33.700	339.000	9.300	0.882	W	A
1	K40	805.000	104.000	811.000	29.000	0.993	A	A
1	PU239	6.860	0.788	7.000	0.340	0.980	A	A
1	U234	111.000	6.770	111.000	11.000	1.000	A	
1	U238	114.000	6.960	114.000	12.000	1.000	A	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	9.900	0.986	10.400	1.400	0.952	A	A
1	CM244	6.800	0.746	5.000	1.800	1.360	W	W
1	CO60	49.700	4.530	52.800	1.000	0.941	A	A
1	CS137	1270.000	120.000	1380.000	20.000	0.920	A	W
1	K40	542.000	71.600	521.000	20.000	1.040	A	W
1	PU239	12.800	1.260	15.500	2.100	0.826	W	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.910	0.185	1.950	0.180	0.979	A	
1	CO60	53.900	5.070	48.900	1.800	1.102	A	N
1	CS137	112.000	14.400	103.000	4.000	1.087	A	N
1	H3	86.300	4.650	79.400	2.500	1.087	A	A
1	PU238	0.943	0.044	0.944	0.040	0.999	A	A
1	PU239	0.940	0.043	0.918	0.030	1.024	A	A
1	U234	0.460	0.045	0.482	0.040	0.954	A	
1	U238	0.444	0.044	0.492	0.040	0.902	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** LM American Radiation Services of New Mexico, Los Alamos

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.090	0.034	0.088	0.005	1.023	A	
1	CO57	4.753	0.050	5.310	0.220	0.895	A	
1	CO60	5.243	0.097	5.320	0.260	0.986	A	
1	CS137	6.064	0.121	6.100	0.300	0.994	A	
1	GROSS ALPHA	2.319	0.166	3.020	0.300	0.768	W	
1	GROSS BETA	2.627	0.125	2.420	0.200	1.086	A	
1	MN54	26.883	0.202	27.200	0.800	0.988	A	

**Matrix: SO Soil Bq / kg**

1	AC228	113.274	8.509	97.600	4.200	1.161	A	
1	AM241	2.415	2.215	3.360	0.510	0.719	W	
1	BI212	136.241	28.487	106.000	7.000	1.285	N	
1	BI214	92.812	6.659	86.700	3.800	1.070	A	
1	CS137	405.808	5.920	339.000	9.300	1.197	A	
1	K40	964.262	46.616	811.000	29.000	1.189	A	
1	PB212	124.976	2.960	97.300	4.600	1.284	W	
1	PB214	100.629	5.549	86.500	6.800	1.163	A	
1	TH234	257.499	26.267	130.000	5.000	1.981	N	

**Matrix: VE Vegetation Bq / kg**

1	AM241	11.654	2.589	10.400	1.400	1.121	A	
1	CO60	53.740	2.960	52.800	1.000	1.018	A	
1	CS137	1483.574	8.879	1380.000	20.000	1.075	A	
1	K40	653.903	33.296	521.000	20.000	1.255	W	

**Matrix: WA Water Bq / L**

1	AM241	1.811	0.322	1.950	0.180	0.929	A	
1	CO60	49.832	0.643	48.900	1.800	1.019	A	
1	CS137	108.565	0.965	103.000	4.000	1.054	A	
1	GROSS ALPHA	1491.771	63.436	1700.000	170.000	0.878	A	
1	GROSS BETA	873.953	38.177	690.000	70.000	1.267	A	
1	H3	92.638	3.478	79.400	2.500	1.167	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** LN Los Alamos National Lab, ES&H

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	5.000	0.115	5.310	0.220	0.942	A	A
1	CO60	5.530	0.135	5.320	0.260	1.039	A	A
1	CS137	6.150	0.565	6.100	0.300	1.008	A	A
1	GROSS ALPHA	2.740	0.284	3.020	0.300	0.907	A	A
1	GROSS BETA	2.450	0.083	2.420	0.200	1.012	A	A
1	MN54	27.100	2.080	27.200	0.800	0.996	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	49.500	2.000	48.900	1.800	1.012	A	A
1	CS137	102.000	3.000	103.000	4.000	0.990	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** LV UNLV, Dept of Health Physics

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.128	0.028	0.088	0.005	1.455	A	A
1	CO57	4.650	0.210	5.310	0.220	0.876	A	A
1	CO60	5.360	0.120	5.320	0.260	1.008	A	A
1	CS137	6.170	0.230	6.100	0.300	1.011	A	A
1	GROSS ALPHA	2.740	0.260	3.020	0.300	0.907	A	A
1	GROSS BETA	2.360	0.080	2.420	0.200	0.975	A	A
1	MN54	27.700	0.800	27.200	0.800	1.018	A	A
1	RU106	2.760	0.420	2.010	1.940	1.373	N	A

**Matrix:** SO Soil Bq / kg

1	AC228	114.000	5.000	97.600	4.200	1.168	A	A
1	BI212	114.000	8.000	106.000	7.000	1.075	A	A
1	BI214	101.000	3.000	86.700	3.800	1.165	A	W
1	CS137	388.000	13.000	339.000	9.300	1.145	A	A
1	K40	877.000	35.000	811.000	29.000	1.081	A	A
1	PB212	103.000	6.000	97.300	4.600	1.059	A	A
1	PB214	105.000	5.000	86.500	6.800	1.214	A	A
1	PU239	7.840	0.630	7.000	0.340	1.120	A	A
1	TH234	113.000	57.000	130.000	5.000	0.869	A	N

**Matrix:** VE Vegetation Bq / kg

1	AM241	7.430	2.290	10.400	1.400	0.714	W	W
1	CO60	55.100	2.000	52.800	1.000	1.044	A	A
1	CS137	1470.000	50.000	1380.000	20.000	1.065	A	A
1	K40	555.000	35.000	521.000	20.000	1.065	A	A

**Matrix:** WA Water Bq / L

1	AM241	0.939	0.239	1.950	0.180	0.482	N	N
1	CO60	50.000	1.100	48.900	1.800	1.022	A	A
1	CS137	107.000	4.000	103.000	4.000	1.039	A	A
1	GROSS ALPHA	940.000	299.000	1700.000	170.000	0.553	N	W
1	GROSS BETA	572.000	85.000	690.000	70.000	0.829	A	A
1	H3	101.000	6.000	79.400	2.500	1.272	W	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** LW Lawrence Livermore National Lab, Waste

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	CS137	278.000	19.000	339.000	9.300	0.820	N	
1	K40	617.000	124.000	811.000	29.000	0.761	N	
1	PU239	8.400	2.500	7.000	0.340	1.200	A	W
1	U234	117.500	17.000	111.000	11.000	1.059	A	A
1	U238	129.500	23.000	114.000	12.000	1.136	W	A

**Matrix:** WA Water Bq/L

1	AM241	2.050	0.170	1.950	0.180	1.051	A	
1	CO60	51.200	3.300	48.900	1.800	1.047	A	
1	CS137	110.000	4.800	103.000	4.000	1.068	A	
1	GROSS ALPHA	1332.000	69.300	1700.000	170.000	0.784	W	A
1	GROSS BETA	821.400	37.800	690.000	70.000	1.190	A	A
1	H3	81.400	16.000	79.400	2.500	1.025	A	A
1	PU238	0.865	0.090	0.944	0.040	0.916	A	
1	PU239	0.860	0.090	0.918	0.030	0.937	A	
1	U234	0.485	0.072	0.482	0.040	1.006	A	
1	U238	0.527	0.086	0.492	0.040	1.071	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** ME Radiation Control Program, Jamaica Plain, MA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
3	CO57	5.600	0.200	5.310	0.220	1.055	A	A
1	CO57	5.500	0.200	5.310	0.220	1.036	A	A
2	CO57	6.200	0.200	5.310	0.220	1.168	W	A
1	CO60	5.800	0.200	5.320	0.260	1.090	A	W
3	CO60	5.800	0.100	5.320	0.260	1.090	A	W
2	CO60	6.400	0.200	5.320	0.260	1.203	W	W
1	CS137	6.900	0.300	6.100	0.300	1.131	A	A
3	CS137	6.700	0.200	6.100	0.300	1.098	A	A
2	CS137	7.400	0.300	6.100	0.300	1.213	W	A
3	GROSS ALPHA	3.500	0.080	3.020	0.300	1.159	A	W
1	GROSS ALPHA	3.500	0.080	3.020	0.300	1.159	A	W
2	GROSS ALPHA	3.600	0.080	3.020	0.300	1.192	A	W
3	GROSS BETA	2.700	0.050	2.420	0.200	1.116	A	A
2	GROSS BETA	2.700	0.050	2.420	0.200	1.116	A	A
1	GROSS BETA	2.800	0.060	2.420	0.200	1.157	A	A
3	MN54	30.000	0.600	27.200	0.800	1.103	A	A
2	MN54	32.000	0.800	27.200	0.800	1.176	A	A
1	MN54	30.000	0.700	27.200	0.800	1.103	A	A
3	RU106	3.500	0.400	2.010	1.940	1.741	N	A
2	RU106	3.200	0.400	2.010	1.940	1.592	N	A
1	RU106	3.000	0.400	2.010	1.940	1.493	N	A

**Matrix:** SO Soil Bq / kg

2	AC228	266.000	20.000	97.600	4.200	2.725	N	W
1	AC228	179.000	20.000	97.600	4.200	1.834	N	W
1	CS137	340.000	8.000	339.000	9.300	1.003	A	N
2	CS137	348.000	9.000	339.000	9.300	1.027	A	N
2	K40	751.000	37.000	811.000	29.000	0.926	A	W
1	K40	755.000	43.000	811.000	29.000	0.931	A	W
2	PB214	133.000	4.000	86.500	6.800	1.538	N	W
1	PB214	106.000	3.000	86.500	6.800	1.225	A	W
1	PU239	16.000	2.000	7.000	0.340	2.286	N	
2	PU239	17.000	1.000	7.000	0.340	2.429	N	
2	TH234	499.000	26.000	130.000	5.000	3.838	N	
1	TH234	799.000	45.000	130.000	5.000	6.146	N	

**Matrix:** VE Vegetation Bq / kg

1	AM241	9.200	2.600	10.400	1.400	0.885	W	A
2	AM241	13.000	1.600	10.400	1.400	1.250	A	A
3	AM241	10.100	1.000	10.400	1.400	0.971	A	A
3	CO60	52.000	1.500	52.800	1.000	0.985	A	A
2	CO60	51.000	1.800	52.800	1.000	0.966	A	A
1	CO60	51.000	3.000	52.800	1.000	0.966	A	A
2	CS137	1380.000	35.000	1380.000	20.000	1.000	A	A
1	CS137	1339.000	30.000	1380.000	20.000	0.970	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** ME Radiation Control Program, Jamaica Plain, MA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> VE Vegetation Bq / kg								
3	CS137	1339.000	30.000	1380.000	20.000	0.970	A	A
1	K40	492.000	75.000	521.000	20.000	0.944	A	N
3	K40	325.000	27.000	521.000	20.000	0.624	N	N
2	K40	392.000	61.000	521.000	20.000	0.752	N	N
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.900	0.300	1.950	0.180	0.974	A	W
2	AM241	2.000	0.100	1.950	0.180	1.026	A	W
1	CO60	56.000	1.000	48.900	1.800	1.145	W	W
2	CO60	55.000	1.000	48.900	1.800	1.125	A	W
2	CS137	117.000	2.000	103.000	4.000	1.136	A	W
1	CS137	117.000	3.000	103.000	4.000	1.136	A	W
2	H3	86.000	4.500	79.400	2.500	1.083	A	A
1	H3	81.000	4.400	79.400	2.500	1.020	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** MH Maine Health & Environmental Testing Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.080	0.180	5.310	0.220	0.957	A	A
1	CO60	5.550	0.140	5.320	0.260	1.043	A	W
1	CS137	7.440	0.270	6.100	0.300	1.220	W	W
1	GROSS ALPHA	2.980	0.010	3.020	0.300	0.987	A	A
1	GROSS BETA	2.480	0.020	2.420	0.200	1.025	A	A
1	MN54	33.620	1.220	27.200	0.800	1.236	W	W
1	RU106	2.840	0.130	2.010	1.940	1.413	N	W
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	107.100	8.100	97.600	4.200	1.097	A	A
1	AM241	4.910	0.870	3.360	0.510	1.461	A	A
1	BI212	64.000	4.000	106.000	7.000	0.604	A	A
1	BI214	100.900	3.300	86.700	3.800	1.164	A	A
1	CS137	393.600	19.300	339.000	9.300	1.161	A	A
1	K40	964.200	44.300	811.000	29.000	1.189	A	A
1	PB212	108.200	7.500	97.300	4.600	1.112	A	A
1	PB214	112.500	3.600	86.500	6.800	1.301	W	A
1	TH234	169.100	8.800	130.000	5.000	1.301	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	8.970	0.850	10.400	1.400	0.863	W	A
1	CO60	57.400	1.700	52.800	1.000	1.087	A	A
1	CS137	1584.000	77.500	1380.000	20.000	1.148	A	A
1	K40	693.200	31.800	521.000	20.000	1.331	W	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.600	0.240	1.950	0.180	0.821	W	
1	CO60	50.000	1.300	48.900	1.800	1.022	A	A
1	CS137	106.700	4.300	103.000	4.000	1.036	A	A
1	GROSS ALPHA	1574.800	3.400	1700.000	170.000	0.926	A	W
1	GROSS BETA	737.100	6.800	690.000	70.000	1.068	A	W
1	H3	80.190	3.370	79.400	2.500	1.010	A	A
1	SR90	3.260	0.250	3.390	0.120	0.962	A	W
1	U234	0.453	0.034	0.482	0.040	0.940	A	A
1	U238	0.492	0.036	0.492	0.040	1.000	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** MJ Mississippi State Department of Health, Jackson

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	Bq U	1.090	0.200	0.995	0.087	1.095	A	A
1	CO60	54.000	7.400	48.900	1.800	1.104	A	A
1	CS137	114.000	10.000	103.000	4.000	1.107	A	A
1	GROSS ALPHA	1972.000	40.000	1700.000	170.000	1.160	A	W
1	GROSS BETA	724.000	36.000	690.000	70.000	1.049	A	W
1	H3	85.000	5.000	79.400	2.500	1.071	A	A
1	SR90	3.700	0.100	3.390	0.120	1.091	A	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** ML Babcock & Wilcox of Ohio, Mound, Miamisburg, Ohio

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	PU238	0.080	0.009	0.080	0.001	1.000	A	A
1	PU239	0.090	0.010	0.089	0.003	1.011	A	A
1	U234	0.060	0.009	0.062	0.001	0.968	A	A
1	U238	0.060	0.008	0.062	0.001	0.968	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	94.910	9.500	97.600	4.200	0.972	A	
1	AM241	2.750	0.300	3.360	0.510	0.818	A	
1	BI212	86.210	8.600	106.000	7.000	0.813	A	
1	BI214	88.430	8.800	86.700	3.800	1.020	A	
1	CS137	360.010	36.000	339.000	9.300	1.062	A	
1	K40	887.260	88.700	811.000	29.000	1.094	A	
1	PB212	83.440	8.300	97.300	4.600	0.858	W	
1	PB214	91.210	9.100	86.500	6.800	1.054	A	
1	PU239	7.400	1.200	7.000	0.340	1.057	A	W
1	TH234	120.440	12.000	130.000	5.000	0.926	A	
1	U234	127.090	18.820	111.000	11.000	1.145	W	A
1	U238	127.020	18.820	114.000	12.000	1.114	W	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	PU239	14.630	2.310	15.500	2.100	0.944	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.930	0.200	1.950	0.180	0.990	A	
1	CO60	50.880	5.100	48.900	1.800	1.040	A	A
1	CS137	112.850	11.300	103.000	4.000	1.096	A	A
1	H3	73.260	4.420	79.400	2.500	0.923	A	A
1	PU238	1.100	0.170	0.944	0.040	1.165	W	A
1	PU239	1.070	0.170	0.918	0.030	1.166	W	A
1	U234	0.510	0.090	0.482	0.040	1.058	A	A
1	U238	0.500	0.090	0.492	0.040	1.016	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** MS Manufacturing Sciences Corporation, Oak Ridge

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	3.720	0.370	5.310	0.220	0.701	W	
1	CO60	5.040	0.500	5.320	0.260	0.947	A	
1	CS137	5.680	0.570	6.100	0.300	0.931	A	
1	GROSS ALPHA	3.310	0.330	3.020	0.300	1.096	A	
1	GROSS BETA	2.330	0.230	2.420	0.200	0.963	A	
1	MN54	26.200	2.600	27.200	0.800	0.963	A	

**Matrix:** SO Soil Bq / kg

1	AC228	112.000	11.000	97.600	4.200	1.148	A	
1	BI212	102.000	10.000	106.000	7.000	0.962	A	
1	BI214	91.200	9.100	86.700	3.800	1.052	A	
1	CS137	391.000	39.000	339.000	9.300	1.153	A	
1	K40	920.000	92.000	811.000	29.000	1.134	A	
1	PB212	103.000	10.000	97.300	4.600	1.059	A	
1	PB214	96.400	9.600	86.500	6.800	1.114	A	

**Matrix:** WA Water Bq / L

1	AM241	2.000	0.200	1.950	0.180	1.026	A	
1	CO60	51.100	5.100	48.900	1.800	1.045	A	
1	CS137	109.000	11.000	103.000	4.000	1.058	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** NA US EPA NAREL, Montgomery, AL

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	4.772	0.057	5.310	0.220	0.899	A	A
1	CO60	5.190	0.070	5.320	0.260	0.976	A	A
1	CS137	6.400	0.100	6.100	0.300	1.049	A	A
1	MN54	28.050	0.200	27.200	0.800	1.031	A	A
1	PU238	0.078	0.011	0.080	0.001	0.975	A	N
1	PU239	0.083	0.011	0.089	0.003	0.933	A	A
1	U234	0.068	0.016	0.062	0.001	1.097	A	A
1	U238	0.060	0.014	0.062	0.001	0.968	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	100.200	4.300	97.600	4.200	1.027	A	
1	BI212	100.000	10.000	106.000	7.000	0.943	A	
1	BI214	99.600	3.900	86.700	3.800	1.149	A	W
1	CS137	380.000	13.000	339.000	9.300	1.121	A	A
1	K40	881.000	34.000	811.000	29.000	1.086	A	A
1	PB212	108.100	4.000	97.300	4.600	1.111	A	A
1	PB214	107.200	4.000	86.500	6.800	1.239	A	W
1	PU239	7.100	1.100	7.000	0.340	1.014	A	W
1	TH234	103.000	13.000	130.000	5.000	0.792	W	
1	U234	116.000	6.500	111.000	11.000	1.045	A	A
1	U238	116.000	6.000	114.000	12.000	1.018	A	A

**Matrix:** VE Vegetation Bq / kg

1	CO60	65.500	0.900	52.800	1.000	1.241	W	W
1	CS137	1895.000	5.000	1380.000	20.000	1.373	W	W
1	K40	675.000	14.000	521.000	20.000	1.296	W	W
1	PU239	14.700	0.800	15.500	2.100	0.948	A	A
1	SR90	1775.000	21.000	1780.000	17.800	0.997	A	A

**Matrix:** WA Water Bq / L

1	CO60	50.200	0.380	48.900	1.800	1.027	A	A
1	CS137	113.100	0.700	103.000	4.000	1.098	A	A
1	H3	85.900	3.100	79.400	2.500	1.082	A	A
1	PU238	0.960	0.070	0.944	0.040	1.017	A	A
1	PU239	0.890	0.070	0.918	0.030	0.969	A	A
1	SR90	2.700	0.700	3.390	0.120	0.796	W	N

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** ND Dept. of Environmental Health and Safety, NC State University

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
2	GROSS ALPHA	2.743	0.266	3.020	0.300	0.908	A	A
1	GROSS ALPHA	2.709	0.263	3.020	0.300	0.897	A	A
2	GROSS BETA	2.677	0.269	2.420	0.200	1.106	A	A
1	GROSS BETA	2.695	0.271	2.420	0.200	1.114	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** NF Nuclear Fuel Services, Erwin, TN

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	PU238	1.065	0.044	0.944	0.040	1.128	W	A
1	PU239	1.003	0.043	0.918	0.030	1.093	A	A
1	U234	0.574	0.032	0.482	0.040	1.191	A	A
1	U238	0.517	0.030	0.492	0.040	1.051	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** NJ NJ Department of Health and Senior Services

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.110	0.070	0.088	0.005	1.250	A	A
3	AM241	0.080	0.070	0.088	0.005	0.909	A	A
2	AM241	0.090	0.080	0.088	0.005	1.023	A	A
1	CO57	4.880	0.410	5.310	0.220	0.919	A	A
3	CO57	4.810	0.440	5.310	0.220	0.906	A	A
2	CO57	4.770	0.410	5.310	0.220	0.898	A	A
1	CO60	4.810	0.300	5.320	0.260	0.904	A	A
2	CO60	4.850	0.300	5.320	0.260	0.912	A	A
3	CO60	4.770	0.300	5.320	0.260	0.897	A	A
3	CS137	5.330	0.520	6.100	0.300	0.874	A	A
2	CS137	5.290	0.440	6.100	0.300	0.867	A	A
1	CS137	5.330	0.520	6.100	0.300	0.874	A	A
1	MN54	23.800	5.300	27.200	0.800	0.875	A	A
2	MN54	23.500	5.400	27.200	0.800	0.864	A	A
3	MN54	23.600	8.400	27.200	0.800	0.868	A	A
3	RU106	2.580	0.640	2.010	1.940	1.284	W	A
1	RU106	3.270	0.640	2.010	1.940	1.627	N	A
2	RU106	2.950	0.710	2.010	1.940	1.468	N	A

**Matrix:** SO Soil Bq / kg

3	AC228	103.000	4.000	97.600	4.200	1.055	A	A
1	AC228	102.000	3.000	97.600	4.200	1.045	A	A
2	AC228	105.000	6.000	97.600	4.200	1.076	A	A
1	AM241	4.400	1.800	3.360	0.510	1.310	A	N
2	AM241	1.690	0.640	3.360	0.510	0.503	N	N
3	AM241	2.140	0.810	3.360	0.510	0.637	W	N
2	BI212	111.000	13.000	106.000	7.000	1.047	A	A
1	BI212	113.000	27.000	106.000	7.000	1.066	A	A
3	BI212	115.000	26.000	106.000	7.000	1.085	A	A
3	BI214	100.000	4.000	86.700	3.800	1.153	A	W
2	BI214	105.000	6.000	86.700	3.800	1.211	W	W
1	BI214	102.000	4.000	86.700	3.800	1.176	A	W
3	CS137	382.000	22.000	339.000	9.300	1.127	A	A
2	CS137	383.000	18.000	339.000	9.300	1.130	A	A
1	CS137	380.000	18.000	339.000	9.300	1.121	A	A
1	K40	888.000	37.000	811.000	29.000	1.095	A	A
3	K40	909.000	47.000	811.000	29.000	1.121	A	A
2	K40	866.000	36.000	811.000	29.000	1.068	A	A
1	PB212	107.000	4.000	97.300	4.600	1.100	A	A
2	PB212	110.000	4.000	97.300	4.600	1.131	A	A
3	PB212	109.000	4.000	97.300	4.600	1.120	A	A
3	PB214	113.000	7.000	86.500	6.800	1.306	W	W
2	PB214	103.000	4.000	86.500	6.800	1.191	A	W
1	PB214	106.000	4.000	86.500	6.800	1.225	A	W
2	TH234	97.100	13.400	130.000	5.000	0.747	W	W
3	TH234	161.000	11.000	130.000	5.000	1.238	A	W

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** NJ NJ Department of Health and Senior Services

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: SO Soil Bq / kg</b>								
1	TH234	106.000	25.000	130.000	5.000	0.815	W	W
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	11.000	1.400	10.400	1.400	1.058	A	A
2	AM241	9.900	1.300	10.400	1.400	0.952	A	A
3	AM241	9.800	5.300	10.400	1.400	0.942	A	A
3	CO60	56.000	2.100	52.800	1.000	1.061	A	A
1	CO60	55.900	2.100	52.800	1.000	1.059	A	A
2	CO60	56.800	1.300	52.800	1.000	1.076	A	A
3	CS137	1500.000	71.000	1380.000	20.000	1.087	A	A
2	CS137	1500.000	85.000	1380.000	20.000	1.087	A	A
1	CS137	1500.000	75.000	1380.000	20.000	1.087	A	A
3	K40	545.000	32.000	521.000	20.000	1.046	A	A
1	K40	541.000	24.000	521.000	20.000	1.038	A	A
2	K40	537.000	33.000	521.000	20.000	1.031	A	A
<b>Matrix: WA Water Bq / L</b>								
2	AM241	2.020	0.870	1.950	0.180	1.036	A	
1	AM241	1.900	0.520	1.950	0.180	0.974	A	
3	AM241	1.850	0.220	1.950	0.180	0.949	A	
3	Bq U	1.210	0.100	0.995	0.087	1.216	A	
2	Bq U	1.180	0.100	0.995	0.087	1.186	A	
1	Bq U	1.150	0.090	0.995	0.087	1.156	A	
3	CO60	49.400	1.000	48.900	1.800	1.010	A	A
2	CO60	49.600	1.000	48.900	1.800	1.014	A	A
1	CO60	50.600	1.700	48.900	1.800	1.035	A	A
3	CS137	105.000	6.000	103.000	4.000	1.019	A	A
2	CS137	106.000	5.000	103.000	4.000	1.029	A	A
1	CS137	104.000	5.000	103.000	4.000	1.010	A	A
3	GROSS ALPHA	1574.000	75.000	1700.000	170.000	0.926	A	A
2	GROSS ALPHA	1527.000	74.000	1700.000	170.000	0.898	A	A
1	GROSS ALPHA	1510.000	52.000	1700.000	170.000	0.888	A	A
3	GROSS BETA	1069.000	50.000	690.000	70.000	1.549	N	W
2	GROSS BETA	949.000	47.000	690.000	70.000	1.375	W	W
1	GROSS BETA	1045.000	34.000	690.000	70.000	1.514	W	W
3	H3	88.800	6.700	79.400	2.500	1.118	A	W
2	H3	96.600	6.700	79.400	2.500	1.217	A	W
1	H3	90.700	6.700	79.400	2.500	1.142	A	W

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** NL Fluor Daniel Fernald, Inc., Ohio

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.360	0.540	5.310	0.220	1.009	A	A
1	CO60	5.530	0.400	5.320	0.260	1.039	A	A
1	CS137	6.450	0.660	6.100	0.300	1.057	A	A
1	MN54	29.700	2.930	27.200	0.800	1.092	A	A
1	PU238	0.082	0.021	0.080	0.001	1.026	A	A
1	PU239	0.093	0.024	0.089	0.003	1.044	A	A
1	RU106	3.030	1.360	2.010	1.940	1.507	N	W
1	U234	0.071	0.018	0.062	0.001	1.152	A	A
1	U238	0.067	0.017	0.062	0.001	1.085	A	A
1	UG/G U	5.460	1.340	4.980	0.030	1.096		A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	107.000	10.000	97.600	4.200	1.096	A	A
1	BI212	104.000	11.000	106.000	7.000	0.981	A	A
1	BI214	107.000	9.000	86.700	3.800	1.234	W	W
1	CS137	360.000	36.000	339.000	9.300	1.062	A	A
1	K40	889.000	94.000	811.000	29.000	1.096	A	A
1	PB212	104.000	11.000	97.300	4.600	1.069	A	A
1	PB214	109.000	9.000	86.500	6.800	1.260	W	W
1	PU238	19.800	5.600	18.600	0.500	1.065	A	
1	PU239	8.070	2.880	7.000	0.340	1.153	A	
1	TH234	103.000	19.000	130.000	5.000	0.792	W	A
1	U234	133.000	31.000	111.000	11.000	1.198	W	A
1	U238	124.000	29.000	114.000	12.000	1.088	A	A
1	UG/G U	10.000	2.300	9.150	0.910	1.093		A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	50.800	3.600	48.900	1.800	1.039	A	A
1	CS137	110.000	11.000	103.000	4.000	1.068	A	A
1	GROSS ALPHA	1683.000	343.000	1700.000	170.000	0.990	A	
1	GROSS BETA	1039.000	206.000	690.000	70.000	1.506	W	
1	PU238	0.951	0.217	0.944	0.040	1.007	A	A
1	PU239	0.947	0.216	0.918	0.030	1.032	A	A
1	U234	0.484	0.112	0.482	0.040	1.004	A	A
1	U238	0.474	0.109	0.492	0.040	0.963	A	A
1	UG/G U	0.038	0.009	0.040	0.003	0.963		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** NM Environmental Evaluation Group, Carlsbad, NM

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CS137	13.400	0.500	6.100	0.300	2.197	N	A
1	PU238	0.077	0.003	0.080	0.001	0.963	A	A
1	PU239	0.090	0.004	0.089	0.003	1.011	A	A
1	SR90	0.273	0.033	0.242	0.005	1.128	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	342.000	15.000	339.000	9.300	1.009	A	A
3	PU238	17.400	1.000	18.600	0.500	0.935	A	
2	PU238	17.600	1.200	18.600	0.500	0.946	A	
1	PU238	15.200	0.700	18.600	0.500	0.817	A	
1	PU239	7.800	0.470	7.000	0.340	1.114	A	W
2	PU239	7.600	0.680	7.000	0.340	1.086	A	W
3	PU239	6.800	0.550	7.000	0.340	0.971	A	W
1	SR90	24.800	4.500	20.200	0.200	1.228	A	A
3	SR90	26.500	4.100	20.200	0.200	1.312	A	A
2	SR90	25.600	5.900	20.200	0.200	1.267	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CS137	218.000	5.000	103.000	4.000	2.117	N	
1	PU238	0.631	0.019	0.944	0.040	0.668	N	
1	PU239	0.633	0.019	0.918	0.030	0.690	N	
1	SR90	3.570	0.270	3.390	0.120	1.053	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** NP JAF Environmental Laboratory, New York Power Authority

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	4.900	0.040	5.310	0.220	0.923	A	A
1	CO60	4.970	0.070	5.320	0.260	0.934	A	A
1	CS137	5.720	0.090	6.100	0.300	0.938	A	A
1	GROSS BETA	2.730	0.020	2.420	0.200	1.128	A	A
1	MN54	27.290	0.200	27.200	0.800	1.003	A	A
1	RU106	2.810	0.830	2.010	1.940	1.398	N	A

**Matrix:** WA Water Bq / L

1	CO60	54.270	0.700	48.900	1.800	1.110	A	W
1	CS137	108.290	1.120	103.000	4.000	1.051	A	A
1	GROSS BETA	813.700	9.100	690.000	70.000	1.179	A	A
1	H3	95.000	6.000	79.400	2.500	1.196	A	N

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** NQ New Mexico Department of Health, Albuquerque

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.075	0.007	0.088	0.005	0.850	W	W
1	CO57	5.110	0.590	5.310	0.220	0.962	A	
1	CO60	5.410	0.590	5.320	0.260	1.017	A	
1	CS137	6.190	0.700	6.100	0.300	1.015	A	
1	GROSS ALPHA	2.370	0.360	3.020	0.300	0.785	W	A
1	GROSS BETA	2.100	0.320	2.420	0.200	0.868	W	A
1	MN54	28.200	3.300	27.200	0.800	1.037	A	
1	PU238	0.063	0.004	0.080	0.001	0.788	W	A
1	PU239	0.076	0.005	0.089	0.003	0.857	W	A
1	RU106	2.740	0.590	2.010	1.940	1.363	N	
1	U234	0.065	0.004	0.062	0.001	1.052	A	A
1	U238	0.063	0.004	0.062	0.001	1.021	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	91.000	19.000	97.600	4.200	0.932	A	A
1	BI212	101.000	23.000	106.000	7.000	0.953	A	A
1	BI214	70.000	15.000	86.700	3.800	0.807	W	A
1	CS137	319.000	66.000	339.000	9.300	0.941	A	A
1	K40	770.000	160.000	811.000	29.000	0.949	A	A
1	PB212	104.000	22.000	97.300	4.600	1.069	A	A
1	PB214	73.000	15.000	86.500	6.800	0.844	W	A
1	PU239	6.430	0.650	7.000	0.340	0.919	A	A
1	TH234	118.000	25.000	130.000	5.000	0.908	A	A
1	U234	122.600	7.100	111.000	11.000	1.105	A	A
1	U238	124.100	7.200	114.000	12.000	1.089	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.804	0.135	1.950	0.180	0.925	A	A
1	CO60	52.900	5.900	48.900	1.800	1.082	A	A
1	CS137	110.300	12.600	103.000	4.000	1.071	A	A
1	GROSS ALPHA	1600.000	100.000	1700.000	170.000	0.941	A	N
1	GROSS BETA	812.000	110.000	690.000	70.000	1.177	A	N
1	PU238	0.917	0.069	0.944	0.040	0.971	A	W
1	PU239	0.880	0.065	0.918	0.030	0.959	A	W
1	U234	0.493	0.033	0.482	0.040	1.023	A	A
1	U238	0.515	0.035	0.492	0.040	1.047	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** NR Naval Reactors Facility Chemistry, Scoville, ID

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	4.810	0.960	5.310	0.220	0.906	A	A
1	CO60	5.130	1.030	5.320	0.260	0.964	A	A
1	CS137	6.070	1.210	6.100	0.300	0.995	A	A
1	MN54	27.200	5.400	27.200	0.800	1.000	A	A
1	RU106	2.650	0.530	2.010	1.940	1.318	N	A
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	350.000	70.000	339.000	9.300	1.032	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	50.600	10.100	52.800	1.000	0.958	A	A
1	CS137	1337.000	267.000	1380.000	20.000	0.969	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	52.600	10.500	48.900	1.800	1.076	A	A
1	CS137	112.600	23.000	103.000	4.000	1.093	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** NZ National Radiation Laboratory, New Zealand

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	4.600	0.100	5.310	0.220	0.866	A	A
2	CO57	4.700	0.100	5.310	0.220	0.885	A	A
1	CO60	5.600	0.100	5.320	0.260	1.053	A	W
2	CO60	5.700	0.100	5.320	0.260	1.071	A	W
1	CS137	6.400	0.200	6.100	0.300	1.049	A	A
2	CS137	6.400	0.200	6.100	0.300	1.049	A	A
1	MN54	29.800	1.000	27.200	0.800	1.096	A	A
2	MN54	30.100	1.100	27.200	0.800	1.107	A	A
1	SR90	0.170	0.010	0.242	0.005	0.702	W	W
2	SR90	0.230	0.020	0.242	0.005	0.950	A	W
<b>Matrix: SO Soil Bq / kg</b>								
2	CS137	346.000	14.000	339.000	9.300	1.021	A	A
1	CS137	355.000	14.000	339.000	9.300	1.047	A	A
2	K40	704.000	25.000	811.000	29.000	0.868	W	W
1	K40	709.000	26.000	811.000	29.000	0.874	W	W
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	60.000	2.000	52.800	1.000	1.136	A	A
2	CO60	60.000	2.000	52.800	1.000	1.136	A	A
2	CS137	1340.000	50.000	1380.000	20.000	0.971	A	A
1	CS137	1400.000	50.000	1380.000	20.000	1.014	A	A
1	K40	348.000	13.000	521.000	20.000	0.668	N	N
2	K40	332.000	11.000	521.000	20.000	0.637	N	N
<b>Matrix: WA Water Bq / L</b>								
2	CO60	52.000	2.000	48.900	1.800	1.063	A	A
1	CO60	51.000	2.000	48.900	1.800	1.043	A	A
1	CS137	103.000	4.000	103.000	4.000	1.000	A	A
2	CS137	109.000	5.000	103.000	4.000	1.058	A	A
1	SR90	2.600	0.200	3.390	0.120	0.767	W	N
2	SR90	2.600	0.200	3.390	0.120	0.767	W	N

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** OB OBG Laboratories, East Syracuse, NY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	4.430	0.703	5.310	0.220	0.834	A	A
1	CO60	4.810	0.677	5.320	0.260	0.904	A	A
1	CS137	6.280	1.250	6.100	0.300	1.030	A	A
1	GROSS ALPHA	4.220	0.308	3.020	0.300	1.397	W	A
1	GROSS BETA	2.810	0.279	2.420	0.200	1.161	A	A
1	MN54	25.900	4.820	27.200	0.800	0.952	A	A
1	PU238	0.052	0.010	0.080	0.001	0.648	N	A
1	PU239	0.076	0.014	0.089	0.003	0.856	W	A
1	U234	0.052	0.015	0.062	0.001	0.847	W	A
1	U238	0.077	0.017	0.062	0.001	1.235	A	N
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	82.100	11.600	97.600	4.200	0.841	W	A
1	BI212	117.000	41.900	106.000	7.000	1.104	A	A
1	BI214	80.000	17.200	86.700	3.800	0.923	A	A
1	CS137	300.000	55.900	339.000	9.300	0.885	W	A
1	K40	709.000	146.000	811.000	29.000	0.874	W	A
1	PB212	86.900	16.100	97.300	4.600	0.893	W	A
1	PB214	72.700	15.900	86.500	6.800	0.840	W	N
1	TH234	82.800	70.000	130.000	5.000	0.637	W	W
1	U234	107.000	19.200	111.000	11.000	0.964	A	A
1	U238	118.000	20.800	114.000	12.000	1.035	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	48.000	6.970	52.800	1.000	0.909	A	W
1	CS137	1290.000	240.000	1380.000	20.000	0.935	A	W
1	K40	432.000	89.200	521.000	20.000	0.829	W	W
1	PU239	18.800	3.510	15.500	2.100	1.213	A	N
<b>Matrix: WA Water Bq / L</b>								
1	CO60	75.000	10.800	48.900	1.800	1.534	N	W
1	CS137	138.000	26.400	103.000	4.000	1.340	N	N
1	GROSS ALPHA	2090.000	158.000	1700.000	170.000	1.229	W	N
1	GROSS BETA	923.000	93.900	690.000	70.000	1.338	W	W
1	PU238	1.100	0.194	0.944	0.040	1.165	W	A
1	PU239	1.130	0.200	0.918	0.030	1.231	W	A
1	SR90	3.740	1.030	3.390	0.120	1.103	A	A
1	U234	0.488	0.091	0.482	0.040	1.012	A	N
1	U238	0.570	0.102	0.492	0.040	1.159	A	W

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If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** OC Radiation Protection Service Laboratory, Ontario, Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.300	0.200	5.310	0.220	0.998	A	A
1	CO60	5.300	0.400	5.320	0.260	0.996	A	W
1	CS137	6.000	0.600	6.100	0.300	0.984	A	A
1	GROSS ALPHA	2.700	0.200	3.020	0.300	0.894	A	A
1	GROSS BETA	2.600	0.200	2.420	0.200	1.074	A	A
1	MN54	27.500	2.600	27.200	0.800	1.011	A	A
1	RU106	2.600	1.000	2.010	1.940	1.294	W	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	85.000	14.000	97.600	4.200	0.871	A	A
1	BI212	74.000	24.000	106.000	7.000	0.698	A	A
1	BI214	82.000	8.000	86.700	3.800	0.946	A	W
1	CS137	346.000	24.000	339.000	9.300	1.021	A	A
1	K40	733.000	110.000	811.000	29.000	0.904	A	A
1	PB212	88.000	10.000	97.300	4.600	0.904	W	A
1	PB214	94.000	12.000	86.500	6.800	1.087	A	N
1	TH234	122.000	14.000	130.000	5.000	0.938	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	51.200	4.800	52.800	1.000	0.970	A	A
1	CS137	1360.000	120.000	1380.000	20.000	0.986	A	A
1	K40	509.000	60.000	521.000	20.000	0.977	A	A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	49.700	2.200	48.900	1.800	1.016	A	A
1	CS137	106.000	4.000	103.000	4.000	1.029	A	A
1	GROSS ALPHA	1360.000	44.000	1700.000	170.000	0.800	W	W
1	GROSS BETA	733.000	14.000	690.000	70.000	1.062	A	A
1	H3	79.000	5.000	79.400	2.500	0.995	A	A
1	SR90	3.100	0.300	3.390	0.120	0.914	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
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**QAP 52 Results by Laboratory****Lab:** OD ORNL, Radiobioassay Lab

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	5.720	0.190	5.310	0.220	1.077	A	A
1	CO60	5.590	0.090	5.320	0.260	1.051	A	A
1	CS137	6.480	0.200	6.100	0.300	1.062	A	A
1	GROSS ALPHA	2.590	0.170	3.020	0.300	0.858	A	A
2	GROSS ALPHA	2.430	0.160	3.020	0.300	0.805	W	A
2	GROSS BETA	3.080	0.170	2.420	0.200	1.273	A	A
1	GROSS BETA	3.090	0.170	2.420	0.200	1.277	A	A
1	MN54	28.290	1.110	27.200	0.800	1.040	A	A
1	RU106	3.530	0.380	2.010	1.940	1.756	N	A

**Matrix:** WA Water Bq / L

2	AM241	1.987	0.227	1.950	0.180	1.019	A	A
1	AM241	2.055	0.231	1.950	0.180	1.054	A	A
2	CO60	51.690	2.410	48.900	1.800	1.057	A	A
1	CO60	55.390	2.440	48.900	1.800	1.133	A	A
2	CS137	113.060	6.680	103.000	4.000	1.098	A	A
1	CS137	109.220	6.390	103.000	4.000	1.060	A	A
1	H3	77.100	4.600	79.400	2.500	0.971	A	W
2	PU238	0.860	0.100	0.944	0.040	0.911	A	A
1	PU238	0.940	0.110	0.944	0.040	0.996	A	A
2	PU239	0.860	0.100	0.918	0.030	0.937	A	A
1	PU239	0.940	0.110	0.918	0.030	1.024	A	A
2	SR90	3.240	0.290	3.390	0.120	0.956	A	A
1	SR90	3.390	0.450	3.390	0.120	1.000	A	A
1	U234	0.440	0.050	0.482	0.040	0.913	A	A
2	U234	0.430	0.050	0.482	0.040	0.892	W	A
1	U238	0.460	0.050	0.492	0.040	0.935	A	A
2	U238	0.410	0.050	0.492	0.040	0.833	W	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** OH Ohio Dept Of Health Laboratory, Columbus

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	6.080	0.080	5.310	0.220	1.145	W	A
1	CO60	5.960	0.180	5.320	0.260	1.120	W	A
1	CS137	7.660	0.190	6.100	0.300	1.256	W	A
1	GROSS ALPHA	2.650	0.120	3.020	0.300	0.877	A	A
1	GROSS BETA	2.660	0.090	2.420	0.200	1.099	A	A
1	MN54	33.240	0.350	27.200	0.800	1.222	W	A
1	RU106	4.800	1.200	2.010	1.940	2.388	N	A
<b>Matrix: SO Soil Bq / kg</b>								
1	BI212	123.000	26.000	106.000	7.000	1.160	W	A
1	BI214	88.600	4.300	86.700	3.800	1.022	A	A
1	CS137	363.800	5.200	339.000	9.300	1.073	A	N
1	K40	843.000	34.000	811.000	29.000	1.039	A	N
1	PB212	104.300	2.900	97.300	4.600	1.072	A	N
1	PB214	100.700	4.400	86.500	6.800	1.164	A	W
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	44.700	3.000	52.800	1.000	0.847	W	W
1	CS137	1222.000	11.000	1380.000	20.000	0.886	W	A
1	K40	440.000	31.000	521.000	20.000	0.845	W	A
<b>Matrix: WA Water Bq / L</b>								
1	Bq U	1.170	0.190	0.995	0.087	1.176	A	
1	CO60	52.100	1.100	48.900	1.800	1.065	A	A
1	CS137	110.100	1.300	103.000	4.000	1.069	A	A
1	H3	85.000	25.000	79.400	2.500	1.071	A	W

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

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**QAP 52 Results by Laboratory****Lab:** OK Southwest Laboratory of Oklahoma

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	GROSS ALPHA	2.610	0.078	3.020	0.300	0.864	A	
1	GROSS BETA	2.480	0.060	2.420	0.200	1.025	A	
<b>Matrix:</b> SO Soil Bq / kg								
1	U234	102.500	6.300	111.000	11.000	0.923	A	
1	U238	104.800	6.400	114.000	12.000	0.919	A	
<b>Matrix:</b> WA Water Bq / L								
1	GROSS ALPHA	1702.000	70.000	1700.000	170.000	1.001	A	
1	GROSS BETA	740.000	35.000	690.000	70.000	1.072	A	
1	H3	94.350	11.900	79.400	2.500	1.188	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** OS Oregon Health Division Radiation Controls Section, Portland

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
2	CO57	6.600	0.500	5.310	0.220	1.243	W	A
1	CO57	6.600	0.500	5.310	0.220	1.243	W	A
1	CO60	6.000	0.100	5.320	0.260	1.128	W	A
2	CO60	6.000	0.200	5.320	0.260	1.128	W	A
1	CS137	7.000	0.400	6.100	0.300	1.148	W	A
2	CS137	7.000	0.400	6.100	0.300	1.148	W	A
2	MN54	31.900	1.400	27.200	0.800	1.173	A	A
1	MN54	31.800	1.400	27.200	0.800	1.169	A	A
1	RU106	4.400	1.300	2.010	1.940	2.189	N	A
2	RU106	3.100	0.900	2.010	1.940	1.542	N	A

**Matrix:** WA Water Bq / L

1	CO60	55.500	3.700	48.900	1.800	1.135	A	A
2	CO60	56.900	1.110	48.900	1.800	1.164	W	A
3	CO60	55.500	1.100	48.900	1.800	1.135	A	A
1	CS137	119.000	6.000	103.000	4.000	1.155	A	A
2	CS137	118.000	6.000	103.000	4.000	1.146	A	A
3	CS137	119.000	6.000	103.000	4.000	1.155	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** OT ORNL Radioactive Material Analysis Lab

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.035	0.007	0.088	0.005	0.398	N	W
1	Bq U	0.092	0.012	0.126	0.001	0.730	N	A
1	CO57	6.500	0.100	5.310	0.220	1.224	W	A
1	CO60	6.280	0.190	5.320	0.260	1.180	W	A
1	CS137	7.540	0.190	6.100	0.300	1.236	W	A
1	GROSS ALPHA	2.860	0.120	3.020	0.300	0.947	A	A
1	GROSS BETA	2.780	0.090	2.420	0.200	1.149	A	A
1	MN54	34.100	1.000	27.200	0.800	1.254	W	A
1	PU238	0.047	0.008	0.080	0.001	0.587	N	A
1	PU239	0.056	0.008	0.089	0.003	0.629	N	W
1	RU106	3.000	1.100	2.010	1.940	1.493	N	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	86.000	9.000	97.600	4.200	0.881	A	A
1	BI212	95.000	20.000	106.000	7.000	0.896	A	A
1	BI214	81.000	12.000	86.700	3.800	0.934	A	A
1	Bq U	247.000	12.000	229.000	23.000	1.079	A	A
1	CS137	317.000	10.000	339.000	9.300	0.935	A	A
1	K40	776.000	44.000	811.000	29.000	0.957	A	A
1	PB212	95.000	20.000	97.300	4.600	0.976	A	A
1	PB214	81.000	12.000	86.500	6.800	0.936	A	A
1	PU239	7.700	0.700	7.000	0.340	1.100	A	W
1	SR90	18.000	3.000	20.200	0.200	0.891	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	9.300	1.000	10.400	1.400	0.894	A	A
1	CM244	4.700	0.800	5.000	1.800	0.940	A	A
1	CO60	50.000	3.000	52.800	1.000	0.947	A	A
1	CS137	1311.000	100.000	1380.000	20.000	0.950	A	A
1	K40	514.000	34.000	521.000	20.000	0.987	A	W
1	PU239	13.000	1.000	15.500	2.100	0.839	W	A
1	SR90	1967.000	100.000	1780.000	17.800	1.105	A	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.800	0.100	1.950	0.180	0.923	A	A
1	Bq U	1.000	0.100	0.995	0.087	1.005	A	A
1	CO60	51.000	1.000	48.900	1.800	1.043	A	A
1	CS137	111.000	10.000	103.000	4.000	1.078	A	A
1	GROSS ALPHA	1560.000	100.000	1700.000	170.000	0.918	A	A
1	GROSS BETA	880.000	20.000	690.000	70.000	1.275	A	A
1	H3	90.000	8.000	79.400	2.500	1.134	A	W
1	PU238	0.930	0.060	0.944	0.040	0.985	A	A
1	PU239	0.980	0.070	0.918	0.030	1.068	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** OT ORNL Radioactive Material Analysis Lab

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
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**Matrix:** WA Water Bq/L

1	SR90	4.000	0.400	3.390	0.120	1.180	A	W
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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** OU Outreach Laboratory, Broken Arrow, OK

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	4.640	0.460	5.310	0.220	0.874	A	W
1	CO60	5.070	0.330	5.320	0.260	0.953	A	W
1	CS137	5.850	0.490	6.100	0.300	0.959	A	A
1	GROSS ALPHA	2.800	0.280	3.020	0.300	0.927	A	A
1	GROSS BETA	2.800	0.260	2.420	0.200	1.157	A	A
1	MN54	25.900	2.420	27.200	0.800	0.952	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	134.000	45.800	97.600	4.200	1.373	W	A
1	BI214	96.400	14.100	86.700	3.800	1.112	A	A
1	CS137	350.000	24.600	339.000	9.300	1.032	A	A
1	K40	810.000	158.000	811.000	29.000	0.999	A	W
1	PB212	93.900	14.100	97.300	4.600	0.965	A	W
1	PB214	148.000	27.400	86.500	6.800	1.711	N	A
1	TH234	176.000	23.700	130.000	5.000	1.354	A	A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	42.400	2.450	48.900	1.800	0.867	W	
1	CS137	101.000	6.060	103.000	4.000	0.981	A	A
1	GROSS ALPHA	1850.000	303.000	1700.000	170.000	1.088	A	A
1	GROSS BETA	806.000	141.000	690.000	70.000	1.168	A	W
1	H3	489.000	20.500	79.400	2.500	6.159	N	W
1	U234	0.437	0.087	0.482	0.040	0.907	A	W
1	U238	0.488	0.087	0.492	0.040	0.992	A	A
1	UG/G U	0.038	0.001	0.040	0.003	0.950		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** PA Mason & Hanger-Silas Mason Co., Inc., Battelle Pantex, Amarillo, TX

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
3	GROSS ALPHA	2.710	0.160	3.020	0.300	0.897	A	A
4	GROSS ALPHA	2.480	0.210	3.020	0.300	0.821	A	A
5	GROSS ALPHA	2.500	0.170	3.020	0.300	0.828	A	A
2	GROSS ALPHA	3.010	0.240	3.020	0.300	0.997	A	A
1	GROSS ALPHA	2.760	0.200	3.020	0.300	0.914	A	A
1	GROSS BETA	3.590	0.270	2.420	0.200	1.483	W	A
5	GROSS BETA	2.700	0.200	2.420	0.200	1.116	A	A
4	GROSS BETA	2.730	0.200	2.420	0.200	1.128	A	A
3	GROSS BETA	3.420	0.130	2.420	0.200	1.413	W	A
2	GROSS BETA	3.660	0.220	2.420	0.200	1.512	W	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** PK Pakistan Institute of Nuclear Science & Technology

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	4.760	0.490	5.310	0.220	0.896	A	A
1	CO60	6.360	0.530	5.320	0.260	1.195	W	W
1	CS137	6.730	0.610	6.100	0.300	1.103	A	A
1	MN54	28.000	1.790	27.200	0.800	1.029	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	311.800	11.100	339.000	9.300	0.920	A	A
1	K40	837.300	66.400	811.000	29.000	1.032	A	W
1	PB212	90.290	6.060	97.300	4.600	0.928	A	W
1	PB214	52.100	1.900	86.500	6.800	0.602	N	W
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	19.570	2.700	52.800	1.000	0.371	N	
1	CS137	1319.000	48.000	1380.000	20.000	0.956	A	W
1	K40	516.600	85.300	521.000	20.000	0.992	A	N

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** PO Institute of Oceanology PAN, Poland

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.070	0.020	0.088	0.005	0.795	W	A
1	CO57	5.300	0.200	5.310	0.220	0.998	A	
1	CO60	5.300	0.400	5.320	0.260	0.996	A	A
1	CS137	6.100	0.200	6.100	0.300	1.000	A	A
1	MN54	27.000	2.000	27.200	0.800	0.993	A	
1	RU106	3.000	1.000	2.010	1.940	1.493	N	
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	106.000	5.000	97.600	4.200	1.086	A	A
1	BI214	92.000	4.000	86.700	3.800	1.061	A	A
1	CS137	368.000	20.000	339.000	9.300	1.086	A	A
1	K40	839.000	15.000	811.000	29.000	1.035	A	A
1	PB214	99.000	3.000	86.500	6.800	1.145	A	A
1	TH234	156.000	20.000	130.000	5.000	1.200	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	7.400	1.000	10.400	1.400	0.712	W	A
1	CO60	51.000	3.000	52.800	1.000	0.966	A	A
1	CS137	1490.000	60.000	1380.000	20.000	1.080	A	A
1	K40	534.000	21.000	521.000	20.000	1.025	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** PS PA-DEP Bureau of Radiation Protection, Harrisburg

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO60	6.880	1.890	5.320	0.260	1.293	W	
1	CS137	7.550	0.180	6.100	0.300	1.238	W	
1	GROSS ALPHA	4.024	0.110	3.020	0.300	1.332	W	
1	GROSS BETA	3.200	0.066	2.420	0.200	1.322	A	
1	MN54	34.440	0.300	27.200	0.800	1.266	W	
1	RU106	5.030	0.480	2.010	1.940	2.502	N	
<b>Matrix: SO Soil Bq / kg</b>								
1	BI214	200.520	15.690	86.700	3.800	2.313	N	
1	CS137	725.120	6.330	339.000	9.300	2.139	N	
1	K40	1683.310	37.740	811.000	29.000	2.076	N	
1	PB212	194.600	8.620	97.300	4.600	2.000	N	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	29.040	8.840	10.400	1.400	2.792	N	
1	CO60	131.340	4.400	52.800	1.000	2.487	N	
1	CS137	3725.490	17.800	1380.000	20.000	2.700	N	
1	K40	1402.150	43.660	521.000	20.000	2.691	N	
<b>Matrix: WA Water Bq / L</b>								
1	AM241	2.030	1.700	1.950	0.180	1.041	A	
1	CO60	46.980	1.150	48.900	1.800	0.961	A	
1	CS137	94.700	1.290	103.000	4.000	0.919	A	
1	GROSS ALPHA	519.430	11.610	1700.000	170.000	0.306	N	
1	GROSS BETA	383.130	8.120	690.000	70.000	0.555	W	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** RA V. G. Khlopin Radium Institute, St. Petersburg, Russia

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	5.100	0.300	5.310	0.220	0.960	A	W
1	CO60	5.000	0.300	5.320	0.260	0.940	A	W
1	CS137	6.100	0.300	6.100	0.300	1.000	A	W
1	MN54	27.400	1.600	27.200	0.800	1.007	A	W
1	RU106	2.900	0.500	2.010	1.940	1.443	N	W
1	SR90	0.180	0.040	0.242	0.005	0.744	W	A
1	UG/G U	4.810	0.200	4.980	0.030	0.966		A

**Matrix:** SO Soil Bq / kg

1	AC228	97.000	8.000	97.600	4.200	0.994	A	A
1	BI212	100.000	10.000	106.000	7.000	0.943	A	A
1	BI214	81.000	5.000	86.700	3.800	0.934	A	A
1	CS137	364.000	20.000	339.000	9.300	1.074	A	A
1	K40	890.000	100.000	811.000	29.000	1.097	A	W
1	PB212	84.000	14.000	97.300	4.600	0.863	W	W
1	PB214	83.000	4.000	86.500	6.800	0.960	A	W
1	SR90	19.000	4.000	20.200	0.200	0.941	A	A
1	UG/G U	7.900	0.300	9.150	0.910	0.863		A

**Matrix:** VE Vegetation Bq / kg

1	CO60	58.300	3.500	52.800	1.000	1.104	A	W
1	CS137	1460.000	80.000	1380.000	20.000	1.058	A	A
1	K40	640.000	100.000	521.000	20.000	1.228	A	W
1	SR90	1600.000	300.000	1780.000	17.800	0.899	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** RC US NRC Region I Laboratory, PA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	<u>Reported EML</u>	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	5.220	0.410	5.310	0.220	0.983	A	A
1	CO60	5.550	0.480	5.320	0.260	1.043	A	A
1	CS137	6.070	0.520	6.100	0.300	0.995	A	A
1	GROSS ALPHA	3.310	0.330	3.020	0.300	1.096	A	A
1	GROSS BETA	2.740	0.270	2.420	0.200	1.132	A	A
1	MN54	26.900	1.800	27.200	0.800	0.989	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	245.000	19.000	339.000	9.300	0.723	N	A
1	K40	906.000	59.000	811.000	29.000	1.117	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	49.000	3.000	48.900	1.800	1.002	A	A
1	CS137	102.000	6.000	103.000	4.000	0.990	A	A
1	H3	92.000	5.000	79.400	2.500	1.159	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** RE Bechtel Nevada, Mercury, NV

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.088	0.011	0.088	0.005	1.000	A	A
1	CO57	5.780	0.570	5.310	0.220	1.089	A	A
1	CO60	5.900	0.640	5.320	0.260	1.109	W	A
1	CS137	6.730	0.690	6.100	0.300	1.103	A	A
1	GROSS ALPHA	2.460	0.290	3.020	0.300	0.815	A	A
1	GROSS BETA	2.710	0.320	2.420	0.200	1.120	A	A
1	MN54	32.300	2.700	27.200	0.800	1.187	W	A
1	PU238	0.073	0.009	0.080	0.001	0.913	A	W
1	PU239	0.084	0.011	0.089	0.003	0.944	A	A
1	SR90	0.275	0.036	0.242	0.005	1.136	A	A
1	U234	0.066	0.009	0.062	0.001	1.065	A	A
1	U238	0.067	0.009	0.062	0.001	1.081	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	95.000	9.100	97.600	4.200	0.973	A	A
1	AM241	2.510	0.760	3.360	0.510	0.747	W	
1	BI212	97.300	12.800	106.000	7.000	0.918	A	A
1	BI214	75.300	6.800	86.700	3.800	0.869	A	A
1	CS137	323.000	25.000	339.000	9.300	0.953	A	A
1	K40	825.000	70.000	811.000	29.000	1.017	A	A
1	PB212	107.000	9.000	97.300	4.600	1.100	A	A
1	PB214	87.200	7.800	86.500	6.800	1.008	A	A
1	PU238	17.200	2.600	18.600	0.500	0.925	A	
1	PU239	6.730	1.340	7.000	0.340	0.961	A	W
1	SR90	19.800	2.500	20.200	0.200	0.980	A	A
1	U234	122.000	12.000	111.000	11.000	1.099	A	A
1	U238	130.000	13.000	114.000	12.000	1.140	W	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	8.930	0.850	10.400	1.400	0.859	W	A
1	CM244	5.460	0.830	5.000	1.800	1.092	A	A
1	CO60	54.800	6.100	52.800	1.000	1.038	A	A
1	CS137	1447.000	111.000	1380.000	20.000	1.049	A	A
1	K40	611.000	67.000	521.000	20.000	1.173	A	A
1	PU238	1.100	0.190	1.090	0.100	1.009	A	
1	PU239	13.500	1.400	15.500	2.100	0.871	A	A
1	SR90	1523.000	23.000	1780.000	17.800	0.856	A	A

**Matrix:** WA Water Bq / L

1	AM241	2.120	0.210	1.950	0.180	1.087	A	A
1	CO60	51.900	6.100	48.900	1.800	1.061	A	A
1	CS137	108.000	11.000	103.000	4.000	1.049	A	A
1	GROSS ALPHA	1570.000	42.000	1700.000	170.000	0.924	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** RE Bechtel Nevada, Mercury, NV

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS BETA	939.000	27.000	690.000	70.000	1.361	W	A
1	H3	58.300	14.300	79.400	2.500	0.734	W	A
1	PU238	0.886	0.107	0.944	0.040	0.939	A	A
1	PU239	0.862	0.106	0.918	0.030	0.939	A	A
1	SR90	3.270	0.320	3.390	0.120	0.965	A	A
1	U234	0.491	0.072	0.482	0.040	1.019	A	A
1	U238	0.542	0.076	0.492	0.040	1.102	A	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** RI Waste Management Services of Hanford, Inc., 222S Lab

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.091	0.013	0.088	0.005	1.033	A	A
1	CO57	5.210	0.301	5.310	0.220	0.981	A	A
1	CO60	5.900	0.380	5.320	0.260	1.109	W	A
1	CS137	7.100	0.693	6.100	0.300	1.164	W	A
1	MN54	29.300	0.957	27.200	0.800	1.077	A	A
1	PU238	0.071	0.009	0.080	0.001	0.893	A	A
1	PU239	0.072	0.009	0.089	0.003	0.815	W	A
1	SR90	0.209	0.036	0.242	0.005	0.864	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	111.000	14.800	97.600	4.200	1.137	A	
1	BI214	96.100	11.100	86.700	3.800	1.108	A	
1	CS137	379.000	11.000	339.000	9.300	1.118	A	N
1	PB212	111.000	7.150	97.300	4.600	1.141	A	
1	PB214	95.500	10.700	86.500	6.800	1.104	A	
1	PU239	24.400	2.780	7.000	0.340	3.486	N	
1	SR90	117.000	4.110	20.200	0.200	5.792	N	
1	UG/G U	7.270	0.288	9.150	0.910	0.795		A
2	UG/G U	7.450	0.759	9.150	0.910	0.814		A
3	UG/G U	7.190	0.343	9.150	0.910	0.786		A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	7.640	0.542	10.400	1.400	0.735	W	A
1	CM244	5.070	0.390	5.000	1.800	1.014	A	A
1	CO60	63.400	5.050	52.800	1.000	1.201	A	W
1	CS137	1560.000	20.000	1380.000	20.000	1.130	A	A
1	PU239	5.280	0.401	15.500	2.100	0.341	N	A
1	SR90	1920.000	67.200	1780.000	17.800	1.079	A	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.620	0.071	1.950	0.180	0.831	W	A
1	CO60	54.400	1.570	48.900	1.800	1.112	A	A
1	CS137	115.000	2.530	103.000	4.000	1.117	A	A
1	GROSS ALPHA	1390.000	67.000	1700.000	170.000	0.818	W	
1	GROSS BETA	910.000	45.500	690.000	70.000	1.319	A	
1	H3	105.000	9.130	79.400	2.500	1.322	W	N
1	NI63	77.200	5.630	112.000	11.000	0.689	A	
1	PU238	0.881	0.035	0.944	0.040	0.933	A	A
1	PU239	0.831	0.034	0.918	0.030	0.905	A	A
1	SR90	3.550	0.192	3.390	0.120	1.047	A	A
3	UG/G U	0.036	0.003	0.040	0.003	0.901		A
2	UG/G U	0.037	0.005	0.040	0.003	0.915		A
1	UG/G U	0.037	0.004	0.040	0.003	0.913		A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** RK Rock Island Arsenal, Illinois

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
1	GROSS ALPHA	2.160	0.160	3.020	0.300	0.715	W	W
1	GROSS BETA	3.080	0.170	2.420	0.200	1.273	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g or mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** RM RMI Environmental Services, Ashtabula, Ohio

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	4.800	0.700	5.310	0.220	0.904	A	
1	CO60	5.300	0.700	5.320	0.260	0.996	A	
1	CS137	6.000	0.800	6.100	0.300	0.984	A	
1	MN54	26.000	4.000	27.200	0.800	0.956	A	
1	RU106	3.100	1.100	2.010	1.940	1.542	N	
1	UG/G U	6.200	0.200	4.980	0.030	1.245		
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	95.000	12.000	97.600	4.200	0.973	A	
1	BI212	92.000	12.000	106.000	7.000	0.868	A	
1	BI214	82.000	10.000	86.700	3.800	0.946	A	
1	Bq U	233.000	19.000	229.000	23.000	1.017	A	
1	CS137	340.000	41.000	339.000	9.300	1.003	A	
1	K40	850.000	100.000	811.000	29.000	1.048	A	
1	PB212	92.000	12.000	97.300	4.600	0.946	A	
1	PB214	82.000	10.000	86.500	6.800	0.948	A	
1	TH234	125.000	25.000	130.000	5.000	0.962	A	
1	U234	111.000	9.000	111.000	11.000	1.000	A	
1	U238	117.000	8.000	114.000	12.000	1.026	A	
1	UG/G U	9.600	0.400	9.150	0.910	1.049		
<b>Matrix:</b> WA Water Bq / L								
1	CO60	51.000	7.000	48.900	1.800	1.043	A	
1	CS137	106.000	13.000	103.000	4.000	1.029	A	
1	UG/G U	0.040	0.002	0.040	0.003	1.000		

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** SA Sandia Labs Radioactive Sample Diag. Prog., NM

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	5.340	0.630	5.310	0.220	1.006	A	A
1	CO60	5.410	0.290	5.320	0.260	1.017	A	A
1	CS137	6.520	0.910	6.100	0.300	1.069	A	A
1	GROSS ALPHA	3.000	0.260	3.020	0.300	0.993	A	A
2	GROSS ALPHA	2.650	0.180	3.020	0.300	0.877	A	A
1	GROSS BETA	2.520	0.450	2.420	0.200	1.041	A	A
2	GROSS BETA	2.100	0.230	2.420	0.200	0.868	W	A
1	MN54	30.400	3.500	27.200	0.800	1.118	A	A
1	RU106	2.960	0.850	2.010	1.940	1.473	N	A
1	UG/G U	2.890	0.070	4.980	0.030	0.580		A

**Matrix:** SO Soil Bq / kg

1	CS137	328.000	11.000	339.000	9.300	0.968	A	A
1	K40	787.000	28.000	811.000	29.000	0.970	A	A
1	UG/G U	9.100	2.100	9.150	0.910	0.995		A

**Matrix:** WA Water Bq / L

1	CO60	53.400	2.800	48.900	1.800	1.092	A	A
1	CS137	111.500	7.300	103.000	4.000	1.083	A	A
1	GROSS ALPHA	1510.000	91.000	1700.000	170.000	0.888	A	A
1	GROSS BETA	966.000	221.000	690.000	70.000	1.400	W	W
1	UG/G U	0.037	0.005	0.040	0.003	0.925		A

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**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** SB SC Dept. of Health and Environment Control Radiological Lab

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO60	6.203	0.585	5.320	0.260	1.166	W	W
1	CS137	7.304	0.930	6.100	0.300	1.197	W	W
1	GROSS ALPHA	2.918	0.114	3.020	0.300	0.966	A	A
1	GROSS BETA	2.707	0.095	2.420	0.200	1.119	A	A
1	MN54	33.435	4.419	27.200	0.800	1.229	W	W
<b>Matrix: SO Soil Bq / kg</b>								
1	CS137	350.890	37.306	339.000	9.300	1.035	A	W
1	K40	863.210	85.553	811.000	29.000	1.064	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	53.521	4.057	52.800	1.000	1.014	A	A
1	CS137	1428.108	151.450	1380.000	20.000	1.035	A	A
1	K40	555.278	61.587	521.000	20.000	1.066	A	A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	53.458	5.209	48.900	1.800	1.093	A	A
1	CS137	111.955	12.007	103.000	4.000	1.087	A	A
1	GROSS ALPHA	1630.000	44.400	1700.000	170.000	0.959	A	
1	GROSS BETA	735.000	24.300	690.000	70.000	1.065	A	
1	H3	91.900	8.360	79.400	2.500	1.157	A	A

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**QAP 52 Results by Laboratory****Lab:** SE Defence Research Establishment of Sweden (FOA)

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.077	0.003	0.088	0.005	0.877	W	A
1	CO57	4.020	0.040	5.310	0.220	0.757	A	
1	CO60	4.810	0.050	5.320	0.260	0.904	A	A
1	CS137	6.070	0.060	6.100	0.300	0.995	A	A
1	MN54	25.700	0.300	27.200	0.800	0.945	A	W
1	PU238	0.040	0.002	0.080	0.001	0.494	N	W
1	PU239	0.087	0.005	0.089	0.003	0.975	A	W
1	SR90	0.315	0.010	0.242	0.005	1.302	A	A
1	U234	0.032	0.002	0.062	0.001	0.508	N	A
1	U238	0.032	0.002	0.062	0.001	0.508	N	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	88.900	2.200	97.600	4.200	0.911	A	
1	AM241	3.600	0.300	3.360	0.510	1.071	A	
1	BI212	66.000	3.600	106.000	7.000	0.623	A	
1	BI214	89.300	1.500	86.700	3.800	1.030	A	
1	CS137	353.000	3.500	339.000	9.300	1.041	A	
1	K40	828.000	13.000	811.000	29.000	1.021	A	W
1	PB212	92.800	1.300	97.300	4.600	0.954	A	
1	PB214	94.400	1.400	86.500	6.800	1.091	A	
1	PU238	18.600	0.700	18.600	0.500	1.000	A	
1	PU239	8.200	0.400	7.000	0.340	1.171	A	A
1	U234	95.600	2.300	111.000	11.000	0.861	A	A
1	U238	94.800	4.000	114.000	12.000	0.832	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	8.700	0.300	10.400	1.400	0.837	W	A
1	CO60	53.600	1.180	52.800	1.000	1.015	A	A
1	CS137	1480.000	15.000	1380.000	20.000	1.072	A	A
1	K40	634.000	20.500	521.000	20.000	1.217	A	N
1	PU238	1.300	0.100	1.090	0.100	1.193	A	A
1	PU239	14.300	0.700	15.500	2.100	0.923	A	A

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**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

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**QAP 52 Results by Laboratory****Lab:** SI Jozef Stefan Institute, Slovenia

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.099	0.006	0.088	0.005	1.125	A	A
1	CO57	5.500	0.160	5.310	0.220	1.036	A	A
1	CO60	5.640	0.150	5.320	0.260	1.060	A	A
1	CS137	6.480	0.200	6.100	0.300	1.062	A	A
1	MN54	29.000	0.800	27.200	0.800	1.066	A	A
1	RU106	3.300	0.350	2.010	1.940	1.642	N	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	91.000	2.000	97.600	4.200	0.932	A	A
1	AM241	4.400	0.700	3.360	0.510	1.310	A	W
1	BI212	96.000	2.000	106.000	7.000	0.906	A	A
2	BI214	120.000	4.000	86.700	3.800	1.384	W	N
1	BI214	104.000	8.000	86.700	3.800	1.200	W	N
1	CS137	344.000	6.000	339.000	9.300	1.015	A	A
1	K40	791.000	18.000	811.000	29.000	0.975	A	A
1	PB212	102.000	2.000	97.300	4.600	1.048	A	A
1	PB214	98.000	3.000	86.500	6.800	1.133	A	N
2	PB214	117.000	2.000	86.500	6.800	1.353	W	N
1	U238	137.000	21.000	114.000	12.000	1.202	W	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	9.900	0.400	10.400	1.400	0.952	A	A
1	CO60	53.300	1.300	52.800	1.000	1.009	A	A
1	CS137	1409.000	30.000	1380.000	20.000	1.021	A	A
1	K40	507.000	12.000	521.000	20.000	0.973	A	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	2.000	0.200	1.950	0.180	1.026	A	A
1	CO60	49.000	1.100	48.900	1.800	1.002	A	A
1	CS137	104.000	3.000	103.000	4.000	1.010	A	A
1	FE55	34.000	2.000	33.100	0.700	1.027	A	A

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**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

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**QAP 52 Results by Laboratory****Lab:** SK Savannah River Plant

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	107.000	3.000	97.600	4.200	1.096	A	
1	AM241	6.670	0.680	3.360	0.510	1.985	W	
1	BI212	103.000	4.000	106.000	7.000	0.972	A	
1	BI214	96.600	5.200	86.700	3.800	1.114	A	
1	CS137	413.000	15.000	339.000	9.300	1.218	W	
1	K40	907.000	37.000	811.000	29.000	1.118	A	
1	PB212	111.000	6.000	97.300	4.600	1.141	A	
1	PB214	104.000	5.000	86.500	6.800	1.202	A	

**Matrix: VE Vegetation Bq / kg**

1	AM241	9.510	1.090	10.400	1.400	0.914	A	
1	CO60	65.000	3.000	52.800	1.000	1.231	A	
1	CS137	1650.000	50.000	1380.000	20.000	1.196	A	
1	K40	555.000	19.000	521.000	20.000	1.065	A	

**Matrix: WA Water Bq / L**

1	AM241	1.780	0.260	1.950	0.180	0.913	A	
1	CO60	58.000	0.400	48.900	1.800	1.186	W	
1	CS137	118.000	3.000	103.000	4.000	1.146	A	
1	H3	82.500	2.200	79.400	2.500	1.039	A	
1	PU238	0.930	0.070	0.944	0.040	0.985	A	
1	PU239	0.920	0.070	0.918	0.030	1.002	A	

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**QAP 52 Results by Laboratory****Lab:** SL Stanford Linear Accelerator Center

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	CO60	48.000	4.000	48.900	1.800	0.982	A	A
1	CS137	100.000	5.000	103.000	4.000	0.971	A	A
1	H3	80.000	4.000	79.400	2.500	1.008	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** SN Sanford Cohen Associates, Inc., Montgomery, AL

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.071	0.013	0.088	0.005	0.807	W	A
1	Bq U	0.130	0.022	0.126	0.001	1.032	A	A
1	PU238	0.080	0.014	0.080	0.001	1.000	A	A
1	PU239	0.097	0.016	0.089	0.003	1.090	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	109.300	56.900	97.600	4.200	1.120	A	A
1	AM241	4.395	3.229	3.360	0.510	1.308	A	A
1	BI214	80.400	18.600	86.700	3.800	0.927	A	A
1	Bq U	251.300	34.600	229.000	23.000	1.097	A	A
1	CS137	338.300	32.200	339.000	9.300	0.998	A	A
1	K40	956.600	147.000	811.000	29.000	1.180	A	W
1	PB212	94.600	25.500	97.300	4.600	0.972	A	A
1	PB214	83.100	35.600	86.500	6.800	0.961	A	A
1	PU239	6.388	2.885	7.000	0.340	0.913	A	A
1	SR90	20.750	4.160	20.200	0.200	1.027	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	9.795	2.507	10.400	1.400	0.942	A	W
1	CM244	6.667	1.962	5.000	1.800	1.333	A	A
1	CO60	54.300	7.370	52.800	1.000	1.028	A	W
1	K40	562.000	99.600	521.000	20.000	1.079	A	W
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.955	0.305	1.950	0.180	1.003	A	A
1	Bq U	0.975	0.174	0.995	0.087	0.980	A	A
1	CO60	47.100	4.230	48.900	1.800	0.963	A	A
1	CS137	97.130	8.560	103.000	4.000	0.943	A	A
1	GROSS ALPHA	1764.000	88.230	1700.000	170.000	1.038	A	A
1	GROSS BETA	1042.000	107.100	690.000	70.000	1.510	W	A
1	H3	83.100	6.570	79.400	2.500	1.047	A	A
1	PU238	0.872	0.141	0.944	0.040	0.924	A	A
1	PU239	0.854	0.137	0.918	0.030	0.930	A	A
1	SR90	2.922	0.256	3.390	0.120	0.862	W	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

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**QAP 52 Results by Laboratory****Lab:** SR Savannah River Environmental Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.090	0.006	0.088	0.005	1.023	A	A
1	CO57	5.700	0.460	5.310	0.220	1.073	A	A
1	CO60	5.870	0.420	5.320	0.260	1.103	W	W
1	CS137	6.850	0.730	6.100	0.300	1.123	A	A
1	GROSS ALPHA	2.900	0.110	3.020	0.300	0.960	A	A
1	GROSS BETA	2.270	0.080	2.420	0.200	0.938	A	A
1	MN54	29.400	3.000	27.200	0.800	1.081	A	A
1	PU238	0.076	0.005	0.080	0.001	0.950	A	A
1	PU239	0.089	0.006	0.089	0.003	1.000	A	A
1	SR90	0.225	0.056	0.242	0.005	0.930	A	A
1	U234	0.057	0.004	0.062	0.001	0.919	A	W
1	U238	0.058	0.004	0.062	0.001	0.935	A	A

**Matrix: SO Soil Bq / kg**

1	AC228	107.000	5.700	97.600	4.200	1.096	A	A
1	BI212	70.400	11.200	106.000	7.000	0.664	A	A
1	BI214	102.000	6.500	86.700	3.800	1.176	A	A
1	CS137	377.000	39.000	339.000	9.300	1.112	A	A
1	K40	891.000	87.000	811.000	29.000	1.099	A	A
1	PB212	90.300	6.800	97.300	4.600	0.928	A	A
1	PB214	94.300	6.800	86.500	6.800	1.090	A	A
1	PU239	7.190	1.450	7.000	0.340	1.027	A	A
1	SR90	34.000	28.000	20.200	0.200	1.683	W	A
1	TH234	132.000	22.000	130.000	5.000	1.015	A	A
1	U234	161.000	39.000	111.000	11.000	1.450	N	
1	U238	181.000	42.000	114.000	12.000	1.588	N	

**Matrix: VE Vegetation Bq / kg**

1	AM241	9.510	1.180	10.400	1.400	0.914	A	A
1	CM244	5.500	0.750	5.000	1.800	1.100	A	A
1	CO60	41.000	2.800	52.800	1.000	0.777	W	A
1	CS137	1080.000	111.000	1380.000	20.000	0.783	N	A
1	K40	390.000	41.000	521.000	20.000	0.749	N	A
1	PU239	12.960	1.750	15.500	2.100	0.836	W	A
1	SR90	2010.000	23.000	1780.000	17.800	1.129	A	W

**Matrix: WA Water Bq / L**

1	AM241	2.050	0.250	1.950	0.180	1.051	A	A
1	CO60	52.900	3.500	48.900	1.800	1.082	A	A
1	CS137	112.000	12.000	103.000	4.000	1.087	A	A
1	GROSS ALPHA	1207.000	132.000	1700.000	170.000	0.710	W	A
1	GROSS BETA	602.000	76.000	690.000	70.000	0.872	A	A
1	H3	79.600	20.500	79.400	2.500	1.003	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** SR Savannah River Environmental Laboratory

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	PU238	0.958	0.139	0.944	0.040	1.015	A	W
1	PU239	0.967	0.143	0.918	0.030	1.053	A	A
1	SR90	3.970	0.850	3.390	0.120	1.171	A	A
1	U234	0.490	0.079	0.482	0.040	1.017	A	A
1	U238	0.482	0.075	0.492	0.040	0.980	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** ST SC DHEC, Aiken, South Carolina

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported EML</u></b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
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**Matrix:** WA Water Bq/L

1	H3	73.300	5.760	79.400	2.500	0.923	A	A
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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** SW Southwest Research Institute, San Antonio, TX

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.078	0.019	0.088	0.005	0.886	A	
1	CO57	7.000	0.100	5.310	0.220	1.318	W	
1	CO60	7.200	0.200	5.320	0.260	1.353	N	
1	CS137	8.500	0.200	6.100	0.300	1.393	N	
1	GROSS ALPHA	2.460	0.120	3.020	0.300	0.815	A	
1	GROSS BETA	2.280	0.120	2.420	0.200	0.942	A	
1	MN54	38.500	0.500	27.200	0.800	1.415	W	
1	PU238	0.210	0.040	0.080	0.001	2.625	N	
1	PU239	0.100	0.020	0.089	0.003	1.124	A	
1	RU106	4.000	1.600	2.010	1.940	1.990	N	
1	SR90	0.250	0.150	0.242	0.005	1.033	A	
1	UG/G U	5.110		4.980	0.030	1.026		

**Matrix:** SO Soil Bq / kg

1	AC228	125.000	8.000	97.600	4.200	1.281	A	
1	AM241	29.500	17.400	3.360	0.510	8.780	N	
1	BI212	201.000	103.000	106.000	7.000	1.896	N	
1	BI214	103.000	6.000	86.700	3.800	1.188	W	
1	CS137	438.000	9.000	339.000	9.300	1.292	W	
1	K40	939.000	54.000	811.000	29.000	1.158	A	
1	PB212	128.000	5.000	97.300	4.600	1.316	W	
1	PB214	103.000	11.000	86.500	6.800	1.191	A	
1	PU238	20.890	1.910	18.600	0.500	1.123	A	
1	PU239	6.830	0.740	7.000	0.340	0.976	A	
1	SR90	42.200	29.700	20.200	0.200	2.089	W	
1	TH234	127.000	40.000	130.000	5.000	0.977	A	
1	U234	88.700	7.800	111.000	11.000	0.799	A	
1	U238	88.800	7.800	114.000	12.000	0.779	A	
1	UG/G U	10.200		9.150	0.910	1.115		

**Matrix:** VE Vegetation Bq / kg

1	AM241	1.860	0.450	10.400	1.400	0.179	N	
1	CM244	4.380	0.850	5.000	1.800	0.876	A	
1	CO60	94.700	5.400	52.800	1.000	1.794	N	
1	CS137	2432.000	27.000	1380.000	20.000	1.762	N	
1	K40	918.000	69.000	521.000	20.000	1.762	N	
1	PU238	2.790	0.360	1.090	0.100	2.560	A	
1	PU239	13.300	1.400	15.500	2.100	0.858	W	
1	SR90	1580.000	31.000	1780.000	17.800	0.888	A	

**Matrix:** WA Water Bq / L

1	AM241	2.600	0.400	1.950	0.180	1.333	W	
1	CO60	61.500	0.400	48.900	1.800	1.258	N	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** SW Southwest Research Institute, San Antonio, TX

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	CS137	115.700	6.800	103.000	4.000	1.123	A	
1	GROSS ALPHA	1980.000	141.000	1700.000	170.000	1.165	A	
1	GROSS BETA	641.000	44.000	690.000	70.000	0.929	A	
1	H3	79.900	12.500	79.400	2.500	1.006	A	
1	PU238	1.490	0.190	0.944	0.040	1.578	N	
1	PU239	0.870	0.130	0.918	0.030	0.948	A	
1	SR90	2.440	0.260	3.390	0.120	0.720	N	
1	U234	0.590	0.060	0.482	0.040	1.224	W	
1	U238	1.350	0.110	0.492	0.040	2.744	N	
1	UG/G U	0.038		0.040	0.003	0.955		

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** SY Syrian Arab Republic Atomic Energy Commission

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	90.000	10.000	97.600	4.200	0.922	A	
1	AM241	2.600	0.340	3.360	0.510	0.774	W	
1	BI212	86.800	15.600	106.000	7.000	0.819	A	A
1	CS137	320.000	22.000	339.000	9.300	0.944	A	A
1	K40	742.000	60.000	811.000	29.000	0.915	A	A
1	PB212	108.000	12.000	97.300	4.600	1.110	A	A
1	UG/G U	9.040	1.310	9.150	0.910	0.988		A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	4.450	0.080	10.400	1.400	0.428	N	
1	CO60	1279.000	52.000	52.800	1.000	24.223	N	A
1	CS137	53.000	3.500	1380.000	20.000	0.038	N	A
1	K40	535.000	45.000	521.000	20.000	1.027	A	A
1	SR90	554.000	47.000	1780.000	17.800	0.311	N	A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	51.000	3.700	48.900	1.800	1.043	A	A
1	CS137	102.500	7.800	103.000	4.000	0.995	A	A
1	H3	103.000	2.100	79.400	2.500	1.297	W	W
1	UG/G U	0.040	0.002	0.040	0.003	1.000		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** TE Teledyne Isotopes Midwest Lab, Northbrook, IL

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	Bq U	0.120	0.010	0.126	0.001	0.952	A	
1	CO57	5.900	0.100	5.310	0.220	1.111	A	A
1	CO60	5.900	0.100	5.320	0.260	1.109	W	A
1	CS137	7.500	0.100	6.100	0.300	1.230	W	A
1	GROSS ALPHA	3.300	0.100	3.020	0.300	1.093	A	A
1	GROSS BETA	2.700	0.100	2.420	0.200	1.116	A	A
1	MN54	31.800	0.300	27.200	0.800	1.169	A	A
1	PU238	0.060	0.030	0.080	0.001	0.750	W	N
1	PU239	0.090	0.010	0.089	0.003	1.011	A	N
1	RU106	3.500	1.000	2.010	1.940	1.741	N	A
1	SR90	0.310	0.160	0.242	0.005	1.281	A	W
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	98.300	7.100	97.600	4.200	1.007	A	A
1	BI212	98.500	15.100	106.000	7.000	0.929	A	A
1	BI214	88.000	3.800	86.700	3.800	1.015	A	W
1	CS137	324.000	5.000	339.000	9.300	0.956	A	A
1	K40	872.000	34.000	811.000	29.000	1.075	A	A
1	PB212	93.700	2.700	97.300	4.600	0.963	A	A
1	PB214	100.100	3.700	86.500	6.800	1.157	A	W
1	PU238	19.800	3.000	18.600	0.500	1.065	A	
1	PU239	8.100	1.700	7.000	0.340	1.157	A	W
1	SR90	13.600	3.100	20.200	0.200	0.673	W	N
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	9.800	0.900	10.400	1.400	0.942	A	A
1	CO60	46.500	2.100	52.800	1.000	0.881	A	A
1	CS137	1872.000	46.000	1380.000	20.000	1.357	W	A
1	K40	506.400	28.000	521.000	20.000	0.972	A	A
1	PU239	14.300	1.500	15.500	2.100	0.923	A	A
1	SR90	1198.000	85.000	1780.000	17.800	0.673	W	
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.700	0.220	1.950	0.180	0.872	W	W
1	Bq U	0.270	0.010	0.995	0.087	0.271	N	
1	CO60	51.000	1.200	48.900	1.800	1.043	A	A
1	CS137	108.600	1.800	103.000	4.000	1.054	A	A
1	FE55	33.000	1.200	33.100	0.700	0.997	A	A
1	GROSS ALPHA	1217.000	35.000	1700.000	170.000	0.716	W	A
1	GROSS BETA	792.000	25.000	690.000	70.000	1.148	A	W
1	H3	147.000	26.000	79.400	2.500	1.851	N	W
1	NI63	101.000	6.000	112.000	11.000	0.902	A	
1	PU238	0.750	0.170	0.944	0.040	0.794	W	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** TE Teledyne Isotopes Midwest Lab, Northbrook, IL

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	PU239	0.990	0.090	0.918	0.030	1.078	A	A
1	SR90	4.460	0.990	3.390	0.120	1.316	W	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** TI Teledyne Brown Engineering Environmental Services, Westwood, NJ

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.068	0.017	0.088	0.005	0.773	W	N
1	CO57	6.060	0.610	5.310	0.220	1.141	W	A
1	CO60	6.250	0.630	5.320	0.260	1.175	W	W
1	CS137	7.430	0.740	6.100	0.300	1.218	W	W
1	GROSS ALPHA	3.800	0.200	3.020	0.300	1.258	A	N
1	GROSS BETA	2.100	0.100	2.420	0.200	0.868	W	W
1	MN54	33.400	3.300	27.200	0.800	1.228	W	W
1	PU238	0.073	0.019	0.080	0.001	0.913	A	W
1	PU239	0.086	0.020	0.089	0.003	0.966	A	A
1	RU106	2.760	1.640	2.010	1.940	1.373	N	A
1	SR90	0.250	0.090	0.242	0.005	1.033	A	A
1	UG/G U	3.900	0.600	4.980	0.030	0.783		W
<b>Matrix: SO Soil Bq / kg</b>								
1	AM241	3.200	1.600	3.360	0.510	0.952	A	
1	CS137	462.000	46.000	339.000	9.300	1.363	N	A
1	K40	1010.000	1000.000	811.000	29.000	1.245	A	A
1	PU239	4.300	1.200	7.000	0.340	0.614	N	N
1	SR90	18.000	3.000	20.200	0.200	0.891	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	9.100	1.000	10.400	1.400	0.875	W	A
1	CM244	6.200	0.800	5.000	1.800	1.240	A	W
1	CO60	61.900	6.200	52.800	1.000	1.172	A	N
1	CS137	1710.000	170.000	1380.000	20.000	1.239	A	N
1	K40	596.000	60.000	521.000	20.000	1.144	A	N
1	PU239	12.000	1.000	15.500	2.100	0.774	W	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.700	0.200	1.950	0.180	0.872	W	A
1	CO60	47.400	4.700	48.900	1.800	0.969	A	A
1	CS137	106.000	11.000	103.000	4.000	1.029	A	A
1	FE55	44.000	14.000	33.100	0.700	1.329	A	A
1	GROSS ALPHA	1800.000	100.000	1700.000	170.000	1.059	A	W
1	GROSS BETA	640.000	50.000	690.000	70.000	0.928	A	N
1	H3	81.000	6.000	79.400	2.500	1.020	A	A
1	NI63	120.000	10.000	112.000	11.000	1.071	A	A
1	PU238	0.920	0.019	0.944	0.040	0.975	A	N
1	PU239	0.970	0.019	0.918	0.030	1.057	A	N
1	SR90	2.400	0.300	3.390	0.120	0.708	N	A
1	UG/G U	0.042	0.010	0.040	0.003	1.050		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** TM Thermo NUTech Albuquerque Lab, NM

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.080	0.010	0.088	0.005	0.909	A	W
1	CO57	6.440	0.610	5.310	0.220	1.213	W	W
1	CO60	6.260	0.410	5.320	0.260	1.177	W	W
1	CS137	7.430	0.880	6.100	0.300	1.218	W	W
1	GROSS ALPHA	2.960	0.340	3.020	0.300	0.980	A	N
1	GROSS BETA	3.560	0.300	2.420	0.200	1.471	W	N
1	MN54	33.220	2.820	27.200	0.800	1.221	W	N
1	PU238	0.077	0.010	0.080	0.001	0.963	A	A
1	PU239	0.079	0.010	0.089	0.003	0.888	W	N
1	RU106	4.620	1.480	2.010	1.940	2.299	N	A
1	UG/G U	5.010	0.280	4.980	0.030	1.006		A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	93.110	11.320	97.600	4.200	0.954	A	W
1	BI212	57.890	19.940	106.000	7.000	0.546	A	
1	BI214	91.060	10.550	86.700	3.800	1.050	A	N
1	CS137	313.200	29.280	339.000	9.300	0.924	A	W
1	K40	1140.580	151.330	811.000	29.000	1.406	W	A
1	PB212	86.060	10.980	97.300	4.600	0.884	W	N
1	PB214	95.360	10.220	86.500	6.800	1.102	A	N
1	PU239	8.360	1.800	7.000	0.340	1.194	A	N
1	SR90	15.340	16.020	20.200	0.200	0.759	W	
1	UG/G U	11.050	0.130	9.150	0.910	1.208		A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	11.670	1.040	10.400	1.400	1.122	A	A
1	CO60	47.270	6.670	52.800	1.000	0.895	A	A
1	CS137	1119.700	111.100	1380.000	20.000	0.811	W	A
1	K40	430.660	104.300	521.000	20.000	0.827	W	A
1	PU239	16.210	1.720	15.500	2.100	1.046	A	A
1	SR90	2199.700	33.670	1780.000	17.800	1.236	W	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	2.180	0.190	1.950	0.180	1.118	A	A
1	CO60	53.440	2.650	48.900	1.800	1.093	A	A
1	CS137	110.250	9.770	103.000	4.000	1.070	A	A
1	H3	116.280	15.740	79.400	2.500	1.464	W	
1	PU238	0.980	0.140	0.944	0.040	1.038	A	A
1	PU239	0.900	0.130	0.918	0.030	0.980	A	A
1	SR90	3.390	0.490	3.390	0.120	1.000	A	W
1	UG/G U	39.400	0.880	0.040	0.003	985.000		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** TN Thermo NUTech, Richmond, CA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.086	0.006	0.088	0.005	0.975	A	A
1	CO57	4.848	0.068	5.310	0.220	0.913	A	A
1	CO60	5.084	0.206	5.320	0.260	0.956	A	A
1	CS137	5.878	0.211	6.100	0.300	0.964	A	A
1	GROSS ALPHA	2.429	0.122	3.020	0.300	0.804	W	A
1	GROSS BETA	2.285	0.114	2.420	0.200	0.944	A	A
1	MN54	25.910	0.340	27.200	0.800	0.953	A	A
1	PU238	0.077	0.009	0.080	0.001	0.968	A	A
1	PU239	0.094	0.010	0.089	0.003	1.056	A	A
1	RU106	3.091	1.524	2.010	1.940	1.538	N	A
1	SR90	0.264	0.039	0.242	0.005	1.089	A	A
1	U234	0.059	0.005	0.062	0.001	0.959	A	A
1	U238	0.055	0.004	0.062	0.001	0.880	W	A
1	UG/G U	4.975	0.571	4.980	0.030	0.999		W

**Matrix:** SO Soil Bq / kg

1	AC228	87.200	6.840	97.600	4.200	0.893	A	
1	AM241	3.418	0.768	3.360	0.510	1.017	A	W
1	BI214	75.750	3.240	86.700	3.800	0.874	A	A
1	CS137	298.400	3.700	339.000	9.300	0.880	W	A
1	K40	714.200	24.600	811.000	29.000	0.881	W	A
1	PB212	87.940	2.150	97.300	4.600	0.904	W	A
1	PU239	6.084	1.486	7.000	0.340	0.869	W	W
1	SR90	20.060	3.610	20.200	0.200	0.993	A	A
1	U234	120.100	4.800	111.000	11.000	1.082	A	A
1	U238	117.600	4.700	114.000	12.000	1.032	A	A
1	UG/G U	8.490	0.970	9.150	0.910	0.928		A

**Matrix:** VE Vegetation Bq / kg

1	AM241	8.531	0.976	10.400	1.400	0.820	W	A
1	CM244	4.872	0.770	5.000	1.800	0.975	A	A
1	CO60	49.500	3.200	52.800	1.000	0.938	A	W
1	CS137	1225.000	8.000	1380.000	20.000	0.888	W	W
1	K40	515.100	222.800	521.000	20.000	0.989	A	W
1	PU239	13.210	1.760	15.500	2.100	0.852	W	A
1	SR90	1866.150	111.250	1780.000	17.800	1.048	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.933	0.059	1.950	0.180	0.991	A	A
1	CO60	53.180	1.150	48.900	1.800	1.088	A	A
1	CS137	112.800	1.400	103.000	4.000	1.095	A	A
1	FE55	36.640	3.400	33.100	0.700	1.107	A	A
1	GROSS ALPHA	1166.000	34.000	1700.000	170.000	0.686	W	W

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** TN Thermo NUTech, Richmond, CA

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS BETA	727.000	20.000	690.000	70.000	1.054	A	A
1	H3	83.479	8.559	79.400	2.500	1.051	A	A
1	NI63	115.160	2.390	112.000	11.000	1.028	A	A
1	PU238	0.966	0.057	0.944	0.040	1.024	A	A
1	PU239	0.961	0.057	0.918	0.030	1.047	A	A
1	SR90	3.683	0.207	3.390	0.120	1.086	A	A
1	U234	0.471	0.022	0.482	0.040	0.977	A	A
1	U238	0.478	0.022	0.492	0.040	0.971	A	A
1	UG/G U	0.037	0.004	0.040	0.003	0.916		N

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** TO Thermo NUtech Oak Ridge Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.125	0.078	0.088	0.005	1.420	A	
1	CO57	6.170	0.660	5.310	0.220	1.162	W	A
1	CO60	5.040	0.540	5.320	0.260	0.947	A	A
1	CS137	6.440	0.960	6.100	0.300	1.056	A	A
1	GROSS ALPHA	3.050	0.060	3.020	0.300	1.010	A	W
1	GROSS BETA	2.460	0.041	2.420	0.200	1.017	A	A
1	MN54	27.190	3.970	27.200	0.800	1.000	A	A
1	PU238	0.079	0.024	0.080	0.001	0.988	A	N
1	PU239	0.103	0.028	0.089	0.003	1.157	A	N
1	RU106	4.000	2.400	2.010	1.940	1.990	N	A
1	SR90	0.330	0.100	0.242	0.005	1.364	W	N
1	U234	0.051	0.041	0.062	0.001	0.823	N	
1	U238	0.051	0.041	0.062	0.001	0.823	N	
1	UG/G U	5.300	1.680	4.980	0.030	1.064		A

**Matrix: SO Soil Bq / kg**

1	AC228	69.310	16.460	97.600	4.200	0.710	N	
1	BI212	53.440	35.290	106.000	7.000	0.504	W	
1	BI214	64.930	12.210	86.700	3.800	0.749	W	
1	CS137	262.660	28.990	339.000	9.300	0.775	N	A
1	K40	596.530	99.690	811.000	29.000	0.736	N	A
1	PB212	91.080	21.560	97.300	4.600	0.936	A	
1	PB214	66.550	15.220	86.500	6.800	0.769	W	
1	PU239	7.270	1.470	7.000	0.340	1.039	A	A
1	SR90	23.970	4.680	20.200	0.200	1.187	A	N
1	TH234	138.230	65.220	130.000	5.000	1.063	A	
1	U234	125.300	23.790	111.000	11.000	1.129	W	A
1	U238	124.970	23.660	114.000	12.000	1.096	A	A
1	UG/G U	7.640	0.320	9.150	0.910	0.835		A

**Matrix: VE Vegetation Bq / kg**

1	AM241	8.680	1.970	10.400	1.400	0.835	W	A
1	CM244	4.130	2.000	5.000	1.800	0.826	A	
1	CO60	40.150	5.320	52.800	1.000	0.760	W	W
1	CS137	991.860	102.000	1380.000	20.000	0.719	N	A
1	K40	374.460	67.990	521.000	20.000	0.719	N	A
1	PU239	15.430	3.870	15.500	2.100	0.995	A	N
1	SR90	1409.580	28.160	1780.000	17.800	0.792	A	W

**Matrix: WA Water Bq / L**

1	AM241	1.800	0.560	1.950	0.180	0.923	A	N
1	CO60	51.700	3.800	48.900	1.800	1.057	A	A
1	CS137	109.400	11.400	103.000	4.000	1.062	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** TO Thermo NUtech Oak Ridge Laboratory

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	FE55	27.800	10.400	33.100	0.700	0.840	A	A
1	GROSS ALPHA	1565.340	42.170	1700.000	170.000	0.921	A	W
1	GROSS BETA	789.590	26.630	690.000	70.000	1.144	A	W
1	H3	74.700	22.500	79.400	2.500	0.941	A	W
1	NI63	77.900	4.860	112.000	11.000	0.696	A	A
1	PU238	1.050	0.230	0.944	0.040	1.112	W	W
1	PU239	1.020	0.230	0.918	0.030	1.111	A	W
1	SR90	3.300	0.830	3.390	0.120	0.973	A	A
1	U234	0.630	0.130	0.482	0.040	1.307	W	N
1	U238	0.610	0.130	0.492	0.040	1.240	W	W
1	UG/G U	38.580	1.210	0.040	0.003	964.500		A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** TP Taiwan Power Company, Taipei, Taiwan

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.440	0.080	5.310	0.220	1.024	A	A
1	CO60	5.410	0.090	5.320	0.260	1.017	A	A
1	CS137	6.360	0.150	6.100	0.300	1.043	A	A
1	MN54	27.910	0.100	27.200	0.800	1.026	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	95.720	6.220	97.600	4.200	0.981	A	A
1	BI212	103.880	6.520	106.000	7.000	0.980	A	A
1	BI214	82.410	5.880	86.700	3.800	0.951	A	A
1	CS137	331.180	10.850	339.000	9.300	0.977	A	A
1	K40	765.250	24.680	811.000	29.000	0.944	A	A
1	PB212	97.720	1.220	97.300	4.600	1.004	A	A
1	PB214	76.080	0.800	86.500	6.800	0.880	W	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	53.100	1.350	52.800	1.000	1.006	A	A
1	CS137	1417.440	38.780	1380.000	20.000	1.027	A	A
1	K40	566.270	16.550	521.000	20.000	1.087	A	A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	49.170	1.250	48.900	1.800	1.006	A	A
1	CS137	108.150	2.510	103.000	4.000	1.050	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** TQ Institute of Nuclear Energy Research, Taiwan

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	5.610	0.100	5.310	0.220	1.056	A	A
1	CO60	4.900	0.120	5.320	0.260	0.921	A	A
1	CS137	6.930	0.400	6.100	0.300	1.136	A	A
1	GROSS ALPHA	2.780	0.040	3.020	0.300	0.921	A	A
1	GROSS BETA	2.830	0.020	2.420	0.200	1.169	A	A
1	MN54	26.200	0.670	27.200	0.800	0.963	A	A

**Matrix: SO Soil Bq / kg**

1	AC228	106.500	3.500	97.600	4.200	1.091	A	A
1	BI212	123.000	11.000	106.000	7.000	1.160	W	A
1	BI214	83.600	4.700	86.700	3.800	0.964	A	A
1	CS137	366.000	7.100	339.000	9.300	1.080	A	A
1	K40	885.000	11.000	811.000	29.000	1.091	A	A
1	PB212	120.000	2.400	97.300	4.600	1.233	W	W
1	PB214	90.400	7.800	86.500	6.800	1.045	A	W
1	SR90	22.300	1.500	20.200	0.200	1.104	A	

**Matrix: VE Vegetation Bq / kg**

1	CO60	57.400	1.300	52.800	1.000	1.087	A	A
1	CS137	1537.000	86.000	1380.000	20.000	1.114	A	A
1	K40	563.000	12.000	521.000	20.000	1.081	A	A
1	SR90	1676.000	153.000	1780.000	17.800	0.942	A	A

**Matrix: WA Water Bq / L**

1	CO60	49.700	3.600	48.900	1.800	1.016	A	A
1	CS137	114.500	4.100	103.000	4.000	1.112	A	A
1	GROSS ALPHA	1644.000	123.000	1700.000	170.000	0.967	A	W
1	GROSS BETA	923.000	29.000	690.000	70.000	1.338	W	A
1	H3	80.600	4.300	79.400	2.500	1.015	A	A
1	SR90	3.000	0.100	3.390	0.120	0.885	W	W

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**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** TT Tracer Technologies International, Inc., Cleveland

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
2	CO60	54.900	1.800	48.900	1.800	1.123	A	
3	CO60	54.700	1.800	48.900	1.800	1.119	A	
1	CO60	54.800	1.800	48.900	1.800	1.121	A	
1	CS137	116.000	7.900	103.000	4.000	1.126	A	
2	CS137	116.000	7.900	103.000	4.000	1.126	A	
3	CS137	117.000	8.000	103.000	4.000	1.136	A	
1	H3	79.600	5.500	79.400	2.500	1.003	A	
3	H3	81.200	5.400	79.400	2.500	1.023	A	
2	H3	81.900	5.400	79.400	2.500	1.031	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** TW Taiwan Radiation Monitoring Center

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	4.950	0.080	5.310	0.220	0.932	A	A
1	CO60	5.410	0.050	5.320	0.260	1.017	A	A
1	CS137	6.100	0.070	6.100	0.300	1.000	A	A
1	GROSS ALPHA	2.600	0.040	3.020	0.300	0.861	A	
1	GROSS BETA	2.560	0.050	2.420	0.200	1.058	A	
1	MN54	28.100	0.200	27.200	0.800	1.033	A	A
1	SR90	3.800	0.100	0.242	0.005	15.702	N	
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	108.000	5.000	97.600	4.200	1.107	A	A
1	BI212	114.000	13.000	106.000	7.000	1.075	A	A
1	BI214	85.600	2.500	86.700	3.800	0.987	A	W
1	CS137	377.000	4.000	339.000	9.300	1.112	A	A
1	K40	905.000	23.000	811.000	29.000	1.116	A	A
1	PB212	106.000	2.000	97.300	4.600	1.089	A	A
1	PB214	98.900	2.500	86.500	6.800	1.143	A	W
1	SR90	24.900	2.600	20.200	0.200	1.233	A	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	9.050	0.220	10.400	1.400	0.870	W	
1	CM244	5.650	0.160	5.000	1.800	1.130	A	
1	CO60	54.000	1.000	52.800	1.000	1.023	A	A
1	CS137	1410.000	12.000	1380.000	20.000	1.022	A	A
1	K40	535.000	20.000	521.000	20.000	1.027	A	A
1	PU238	1.030	0.050	1.090	0.100	0.945	A	
1	PU239	13.600	0.300	15.500	2.100	0.877	A	
1	SR90	1635.000	13.000	1780.000	17.800	0.919	A	
<b>Matrix: WA Water Bq / L</b>								
1	CO60	51.200	0.800	48.900	1.800	1.047	A	A
1	CS137	110.000	1.000	103.000	4.000	1.068	A	A
1	GROSS ALPHA	1497.000	53.000	1700.000	170.000	0.881	A	
1	GROSS BETA	921.000	42.000	690.000	70.000	1.335	W	
1	H3	79.480	0.410	79.400	2.500	1.001	A	
1	SR90	3.360	0.190	3.390	0.120	0.991	A	A
1	U234	0.313	0.018	0.482	0.040	0.649	N	A
1	U238	0.368	0.018	0.492	0.040	0.748	N	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** TX Texas Dept. of Health/Laboratories, Austin

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.078	0.006	0.088	0.005	0.886	A	W
1	CO57	5.421	0.037	5.310	0.220	1.021	A	A
1	CO60	5.546	0.065	5.320	0.260	1.042	A	A
1	CS137	6.434	0.086	6.100	0.300	1.055	A	A
1	GROSS ALPHA	3.220	0.090	3.020	0.300	1.066	A	A
1	GROSS BETA	2.410	0.090	2.420	0.200	0.996	A	A
1	MN54	30.551	0.169	27.200	0.800	1.123	A	A
1	PU238	0.072	0.004	0.080	0.001	0.900	A	A
1	PU239	0.080	0.004	0.089	0.003	0.899	W	A
1	RU106	2.721	0.268	2.010	1.940	1.354	N	A
1	U234	0.062	0.004	0.062	0.001	1.000	A	A
1	U238	0.062	0.004	0.062	0.001	1.000	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	100.085	1.880	97.600	4.200	1.025	A	A
1	AM241	6.090	0.825	3.360	0.510	1.813	W	
1	BI212	57.683	4.884	106.000	7.000	0.544	A	
1	BI214	81.104	1.595	86.700	3.800	0.935	A	A
1	CS137	358.308	3.143	339.000	9.300	1.057	A	A
1	K40	870.980	14.850	811.000	29.000	1.074	A	A
1	PB212	94.646	1.375	97.300	4.600	0.973	A	A
1	PB214	89.540	1.511	86.500	6.800	1.035	A	A
1	PU238	18.178	0.751	18.600	0.500	0.977	A	
1	PU239	7.197	0.426	7.000	0.340	1.028	A	A
1	SR90	25.974	5.032	20.200	0.200	1.286	A	A
1	TH234	165.871	7.992	130.000	5.000	1.276	A	A
1	U234	125.097	2.923	111.000	11.000	1.127	W	A
1	U238	127.354	2.960	114.000	12.000	1.117	W	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	10.049	0.448	10.400	1.400	0.966	A	A
1	CO60	58.756	1.211	52.800	1.000	1.113	A	A
1	CS137	1521.070	10.600	1380.000	20.000	1.102	A	A
1	K40	606.060	17.470	521.000	20.000	1.163	A	A
1	PU239	14.363	0.474	15.500	2.100	0.927	A	A
1	SR90	1719.200	34.600	1780.000	17.800	0.966	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.832	0.111	1.950	0.180	0.939	A	A
1	CO60	52.947	0.309	48.900	1.800	1.083	A	A
1	CS137	112.036	0.763	103.000	4.000	1.088	A	A
1	GROSS ALPHA	1651.000	49.000	1700.000	170.000	0.971	A	A
1	GROSS BETA	701.000	38.000	690.000	70.000	1.016	A	N

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** TX Texas Dept. of Health/Laboratories, Austin

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	H3	91.945	9.213	79.400	2.500	1.158	A	A
1	PU238	0.924	0.042	0.944	0.040	0.979	A	A
1	PU239	0.939	0.042	0.918	0.030	1.023	A	A
1	SR90	3.497	0.672	3.390	0.120	1.032	A	A
1	U234	0.469	0.023	0.482	0.040	0.973	A	A
1	U238	0.514	0.026	0.492	0.040	1.045	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** UC United States Enrichment Corporation, Paducah, KY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO60	5.260	0.039	5.320	0.260	0.989	A	A
1	CS137	8.260	0.051	6.100	0.300	1.354	W	
1	GROSS ALPHA	2.940	0.100	3.020	0.300	0.974	A	A
1	GROSS BETA	2.660	0.100	2.420	0.200	1.099	A	A
1	PU238	0.058	0.005	0.080	0.001	0.725	N	
1	PU239	0.066	0.005	0.089	0.003	0.745	N	
<b>Matrix: SO Soil Bq / kg</b>								
1	CS137	421.000	2.630	339.000	9.300	1.242	W	A
1	K40	993.000	22.200	811.000	29.000	1.224	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	56.100	0.953	52.800	1.000	1.063	A	N
1	K40	579.000	19.800	521.000	20.000	1.111	A	
1	PU239	9.530	1.890	15.500	2.100	0.615	N	
<b>Matrix: WA Water Bq / L</b>								
1	CO60	51.700	0.446	48.900	1.800	1.057	A	A
1	GROSS ALPHA	1385.620	71.670	1700.000	170.000	0.815	W	A
1	GROSS BETA	1027.870	49.860	690.000	70.000	1.490	W	A
1	PU238	0.992	0.088	0.944	0.040	1.051	A	
1	PU239	0.811	0.073	0.918	0.030	0.883	W	A
1	UG/G U	0.040		0.040	0.003	1.000		

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** UP Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.100	0.016	0.088	0.005	1.132	A	A
1	Bq U	0.121	0.019	0.126	0.001	0.960	A	A
1	CO57	5.440	0.649	5.310	0.220	1.024	A	A
1	CO60	5.780	0.609	5.320	0.260	1.086	A	A
1	CS137	6.790	0.766	6.100	0.300	1.113	A	A
1	GROSS ALPHA	2.760	0.120	3.020	0.300	0.914	A	A
1	GROSS BETA	2.860	0.103	2.420	0.200	1.182	A	A
1	MN54	29.200	3.770	27.200	0.800	1.074	A	A
1	PU238	0.089	0.018	0.080	0.001	1.116	A	A
1	PU239	0.083	0.017	0.089	0.003	0.937	A	A
1	RU106	3.110	1.080	2.010	1.940	1.547	N	A
1	SR90	0.222	0.043	0.242	0.005	0.917	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	UG/G U	10.180	1.000	9.150	0.910	1.113		A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	2.110	0.217	1.950	0.180	1.082	A	A
1	Bq U	1.298	0.124	0.995	0.087	1.305	W	A
1	CO60	54.400	5.630	48.900	1.800	1.112	A	A
1	CS137	115.000	13.300	103.000	4.000	1.117	A	A
1	GROSS ALPHA	1741.000	103.000	1700.000	170.000	1.024	A	A
1	GROSS BETA	993.000	70.900	690.000	70.000	1.439	W	W
1	H3	95.600	17.000	79.400	2.500	1.204	A	A
1	PU238	1.000	0.133	0.944	0.040	1.059	A	A
1	PU239	0.993	0.132	0.918	0.030	1.082	A	A
1	SR90	3.260	0.160	3.390	0.120	0.962	A	W
1	UG/G U	0.040	0.004	0.040	0.003	0.988		A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** US Interstate Nuclear Services, Springfield, MO

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	CO60	55.410	12.530	48.900	1.800	1.133	A	A
1	CS137	113.900	20.210	103.000	4.000	1.106	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** UY Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.080	0.010	0.088	0.005	0.909	A	A
1	Bq U	0.128	0.020	0.126	0.001	1.016	A	A
1	CO57	4.550	0.400	5.310	0.220	0.857	A	A
1	CO60	5.400	1.300	5.320	0.260	1.015	A	A
1	CS137	5.970	1.300	6.100	0.300	0.979	A	A
1	GROSS ALPHA	3.220	0.120	3.020	0.300	1.066	A	A
1	GROSS BETA	3.150	0.100	2.420	0.200	1.302	A	A
1	MN54	26.900	2.100	27.200	0.800	0.989	A	A
1	PU238	0.079	0.009	0.080	0.001	0.988	A	A
1	PU239	0.093	0.009	0.089	0.003	1.045	A	A
1	SR90	0.210	0.020	0.242	0.005	0.868	A	A

**Matrix:** SO Soil Bq / kg

1	AM241	4.200	1.200	3.360	0.510	1.250	A	
1	BI212	82.000	40.000	106.000	7.000	0.774	A	A
1	BI214	102.000	20.000	86.700	3.800	1.176	A	W
1	Bq U	210.000	35.000	229.000	23.000	0.917	A	A
1	CS137	393.000	25.000	339.000	9.300	1.159	A	A
1	K40	869.000	120.000	811.000	29.000	1.072	A	A
1	PB212	93.000	20.000	97.300	4.600	0.956	A	A
1	PB214	104.000	20.000	86.500	6.800	1.202	A	A
1	PU239	7.400	0.900	7.000	0.340	1.057	A	W
1	SR90	29.500	2.500	20.200	0.200	1.460	A	W
1	TH234	105.000	20.000	130.000	5.000	0.808	W	W
1	U234	103.000	12.000	111.000	11.000	0.928	A	A
1	U238	105.000	12.000	114.000	12.000	0.921	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	9.800	1.100	10.400	1.400	0.942	A	W
1	CM244	5.600	0.700	5.000	1.800	1.120	A	W
1	CO60	58.500	7.000	52.800	1.000	1.108	A	A
1	CS137	1510.000	200.000	1380.000	20.000	1.094	A	A
1	K40	512.000	100.000	521.000	20.000	0.983	A	A
1	PU239	13.000	1.600	15.500	2.100	0.839	W	N
1	SR90	1720.000	20.000	1780.000	17.800	0.966	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.550	0.200	1.950	0.180	0.795	W	A
1	Bq U	1.000	0.130	0.995	0.087	1.005	A	A
1	CO60	49.200	3.700	48.900	1.800	1.006	A	A
1	CS137	107.400	14.000	103.000	4.000	1.043	A	A
1	GROSS ALPHA	1650.000	60.000	1700.000	170.000	0.971	A	A
1	GROSS BETA	1150.000	40.000	690.000	70.000	1.667	N	W

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** UY Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	H3	95.000	10.000	79.400	2.500	1.196	A	A
1	PU238	0.990	0.100	0.944	0.040	1.049	A	A
1	PU239	0.970	0.100	0.918	0.030	1.057	A	A
1	SR90	3.050	0.140	3.390	0.120	0.900	A	A
1	U234	0.497	0.060	0.482	0.040	1.031	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** WA Environmental Radiation Lab, Off. of Public Health Labs. Seattle

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.083	0.020	0.088	0.005	0.943	A	W
1	Bq U	0.114	0.032	0.126	0.001	0.905	A	A
1	CO57	5.800	0.900	5.310	0.220	1.092	A	A
1	CO60	5.900	0.600	5.320	0.260	1.109	W	A
1	CS137	7.300	0.900	6.100	0.300	1.197	W	A
1	GROSS ALPHA	3.050	0.090	3.020	0.300	1.010	A	A
1	GROSS BETA	3.000	0.070	2.420	0.200	1.240	A	A
1	MN54	34.000	4.000	27.200	0.800	1.250	W	A
1	PU238	0.067	0.028	0.080	0.001	0.838	W	N
1	PU239	0.076	0.020	0.089	0.003	0.854	W	W
1	RU106	2.700	0.600	2.010	1.940	1.343	N	A
1	SR90	0.310	0.080	0.242	0.005	1.281	A	A
1	U234	0.047	0.022	0.062	0.001	0.758	N	A
1	U238	0.069	0.019	0.062	0.001	1.113	A	A

**Matrix: SO Soil Bq / kg**

1	AC228	101.000	11.000	97.600	4.200	1.035	A	N
1	AM241	2.270	0.750	3.360	0.510	0.676	W	A
1	BI212	103.000	6.000	106.000	7.000	0.972	A	N
1	BI214	77.400	6.300	86.700	3.800	0.893	A	N
1	Bq U	278.000	11.000	229.000	23.000	1.214	W	A
1	CS137	363.000	17.000	339.000	9.300	1.071	A	N
1	K40	952.000	56.000	811.000	29.000	1.174	A	N
1	PB212	99.600	5.600	97.300	4.600	1.024	A	N
1	PB214	85.600	10.400	86.500	6.800	0.990	A	N
1	PU238	14.500	0.900	18.600	0.500	0.780	A	
1	PU239	6.330	0.580	7.000	0.340	0.904	A	W
1	SR90	20.800	3.300	20.200	0.200	1.030	A	A
1	TH234	173.000	21.000	130.000	5.000	1.331	A	N
1	U234	128.000	7.000	111.000	11.000	1.153	W	A
1	U238	137.000	7.000	114.000	12.000	1.202	W	A

**Matrix: VE Vegetation Bq / kg**

1	AM241	8.330	0.610	10.400	1.400	0.801	W	A
1	CM244	5.330	0.470	5.000	1.800	1.066	A	A
1	CO60	50.800	1.900	52.800	1.000	0.962	A	A
1	CS137	1280.000	60.000	1380.000	20.000	0.928	A	A
1	K40	522.000	30.000	521.000	20.000	1.002	A	A
1	PU238	0.780	0.280	1.090	0.100	0.716	W	
1	PU239	13.000	0.700	15.500	2.100	0.839	W	W

**Matrix: WA Water Bq / L**

1	AM241	1.540	0.170	1.950	0.180	0.790	W	A
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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** WA Environmental Radiation Lab, Off. of Public Health Labs. Seattle

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	Bq U	1.040	0.100	0.995	0.087	1.045	A	A
1	CO60	52.200	1.700	48.900	1.800	1.067	A	A
1	CS137	108.000	5.000	103.000	4.000	1.049	A	A
1	GROSS ALPHA	1460.000	100.000	1700.000	170.000	0.859	A	A
1	GROSS BETA	933.000	66.000	690.000	70.000	1.352	W	W
1	H3	75.000	4.000	79.400	2.500	0.945	A	A
1	NI63	239.000	24.000	112.000	11.000	2.134	N	N
1	PU238	1.010	0.090	0.944	0.040	1.070	A	A
1	PU239	1.020	0.090	0.918	0.030	1.111	A	A
1	SR90	3.800	0.400	3.390	0.120	1.121	A	A
1	U234	0.490	0.070	0.482	0.040	1.017	A	A
1	U238	0.440	0.060	0.492	0.040	0.894	W	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** WC Waste Management Federal Services of Hanford

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.096	0.032	0.088	0.005	1.091	A	W
1	CO57	4.930	0.470	5.310	0.220	0.928	A	W
1	CO60	5.420	0.430	5.320	0.260	1.019	A	W
1	CS137	6.140	0.840	6.100	0.300	1.007	A	W
1	GROSS ALPHA	2.770	0.053	3.020	0.300	0.917	A	A
1	GROSS BETA	3.340	0.053	2.420	0.200	1.380	A	A
1	MN54	27.900	3.830	27.200	0.800	1.026	A	W
1	PU238	0.076	0.027	0.080	0.001	0.950	A	A
1	PU239	0.093	0.031	0.089	0.003	1.045	A	A
1	SR90	0.560	0.140	0.242	0.005	2.314	N	N
1	U234	0.067	0.002	0.062	0.001	1.081	A	A
1	U238	0.062	0.002	0.062	0.001	1.000	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AM241	3.900	1.500	3.360	0.510	1.161	A	N
1	CS137	353.000	53.000	339.000	9.300	1.041	A	A
1	K40	929.000	11.000	811.000	29.000	1.145	A	W
1	PU239	8.600	2.900	7.000	0.340	1.229	A	A
1	SR90	193.000	32.000	20.200	0.200	9.554	N	N
1	U234	106.000	33.000	111.000	11.000	0.955	A	A
1	U238	111.000	35.000	114.000	12.000	0.974	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	9.340	3.100	10.400	1.400	0.898	A	W
1	CM244	5.130	1.830	5.000	1.800	1.026	A	A
1	CO60	23.200	3.400	52.800	1.000	0.439	N	A
1	CS137	1600.000	237.000	1380.000	20.000	1.159	A	A
1	K40	734.000	9.000	521.000	20.000	1.409	W	N
1	PU239	13.400	4.400	15.500	2.100	0.865	A	N
1	SR90	2250.000	318.000	1780.000	17.800	1.264	W	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.560	0.480	1.950	0.180	0.800	W	A
1	CO60	50.000	3.900	48.900	1.800	1.022	A	A
1	CS137	107.000	14.000	103.000	4.000	1.039	A	A
1	GROSS ALPHA	1710.000	175.000	1700.000	170.000	1.006	A	A
1	GROSS BETA	926.000	94.000	690.000	70.000	1.342	W	A
1	H3	77.400	16.900	79.400	2.500	0.975	A	A
1	PU238	0.970	0.300	0.944	0.040	1.028	A	A
1	PU239	0.990	0.310	0.918	0.030	1.078	A	A
1	SR90	3.930	0.570	3.390	0.120	1.159	A	W
1	U234	0.460	0.150	0.482	0.040	0.954	A	A
1	U238	0.510	0.160	0.492	0.040	1.037	A	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** WE Westinghouse Electric Corp., Madison, PA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.019	0.007	0.088	0.005	0.211	N	W
1	CO57	4.820	0.140	5.310	0.220	0.908	A	A
1	CO60	5.150	0.078	5.320	0.260	0.968	A	W
1	CS137	6.050	0.590	6.100	0.300	0.992	A	W
1	MN54	27.400	2.100	27.200	0.800	1.007	A	A
1	PU238	0.002	0.014	0.080	0.001	0.027	N	
1	PU239	0.009	0.006	0.089	0.003	0.100	N	
1	SR90	0.215	0.027	0.242	0.005	0.888	A	W
1	U234	0.083	0.022	0.062	0.001	1.334	A	
1	U238	0.065	0.020	0.062	0.001	1.048	A	

**Matrix:** SO Soil Bq / kg

1	AC228	85.400	3.500	97.600	4.200	0.875	A	A
1	AM241	5.710	1.500	3.360	0.510	1.699	W	
1	BI212	107.000	14.000	106.000	7.000	1.009	A	W
1	BI214	83.300	3.400	86.700	3.800	0.961	A	A
1	CS137	351.000	28.000	339.000	9.300	1.035	A	W
1	K40	801.000	31.000	811.000	29.000	0.988	A	A
1	PB212	96.700	8.100	97.300	4.600	0.994	A	A
1	PB214	88.500	4.800	86.500	6.800	1.023	A	A
1	PU238	20.900	3.900	18.600	0.500	1.124	A	
1	PU239	5.470	1.700	7.000	0.340	0.781	W	
1	SR90	44.100	4.200	20.200	0.200	2.183	W	W
1	TH234	122.000	34.000	130.000	5.000	0.938	A	W
1	U234	102.000	6.900	111.000	11.000	0.919	A	
1	U238	106.000	7.100	114.000	12.000	0.930	A	W

**Matrix:** VE Vegetation Bq / kg

1	AM241	14.300	4.100	10.400	1.400	1.375	A	
1	CM244	6.440	2.700	5.000	1.800	1.288	A	
1	CO60	51.700	1.000	52.800	1.000	0.979	A	A
1	CS137	1390.000	120.000	1380.000	20.000	1.007	A	W
1	K40	531.000	21.000	521.000	20.000	1.019	A	A
1	PU238	9.067	3.000	1.090	0.100	8.318	N	
1	PU239	19.300	3.200	15.500	2.100	1.245	W	
1	SR90	1770.000	140.000	1780.000	17.800	0.994	A	A

**Matrix:** WA Water Bq / L

1	AM241	3.940	0.450	1.950	0.180	2.021	N	
1	CO60	51.000	1.240	48.900	1.800	1.043	A	A
1	CS137	108.000	3.700	103.000	4.000	1.049	A	A
1	FE55	22.700	4.800	33.100	0.700	0.686	A	N
1	H3	182.000	14.000	79.400	2.500	2.292	N	A

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** WE Westinghouse Electric Corp., Madison, PA

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	NI63	113.000	8.980	112.000	11.000	1.009	A	A
1	PU238	2.620	0.250	0.944	0.040	2.775	N	
1	PU239	1.840	0.190	0.918	0.030	2.004	N	
1	SR90	5.510	0.480	3.390	0.120	1.625	N	W
1	U234	0.926	0.130	0.482	0.040	1.921	N	
1	U238	0.868	0.120	0.492	0.040	1.764	N	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** WI WIPP Site, Westinghouse Electric Corp.

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	Bq U	0.124	0.015	0.126	0.001	0.984	A	
1	CO57	5.410	0.410	5.310	0.220	1.019	A	
1	CO60	5.170	0.360	5.320	0.260	0.972	A	
1	CS137	6.210	0.400	6.100	0.300	1.018	A	
1	MN54	27.980	1.540	27.200	0.800	1.029	A	
1	PU238	0.054	0.012	0.080	0.001	0.675	N	
1	PU239	0.062	0.014	0.089	0.003	0.697	N	
1	RU106	2.990	1.620	2.010	1.940	1.488	N	
1	SR90	0.220	0.051	0.242	0.005	0.909	A	

**Matrix:** WA Water Bq / L

1	Bq U	1.040	0.120	0.995	0.087	1.045	A	
1	CO60	56.610	1.560	48.900	1.800	1.158	W	
1	CS137	116.400	2.700	103.000	4.000	1.130	A	
1	SR90	2.970	0.260	3.390	0.120	0.876	W	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** WN State Health Radiation Protection Section, Madison, WI

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
3	CO57	5.900	0.200	5.310	0.220	1.111	A	A
1	CO57	5.900	0.200	5.310	0.220	1.111	A	A
2	CO57	5.900	0.200	5.310	0.220	1.111	A	A
2	CO60	5.700	0.200	5.320	0.260	1.071	A	A
1	CO60	6.000	0.100	5.320	0.260	1.128	W	A
3	CO60	5.800	0.200	5.320	0.260	1.090	A	A
3	CS137	7.000	0.300	6.100	0.300	1.148	W	A
2	CS137	7.200	0.300	6.100	0.300	1.180	W	A
1	CS137	6.800	0.400	6.100	0.300	1.115	A	A
3	MN54	31.700	1.000	27.200	0.800	1.165	A	A
2	MN54	32.300	0.900	27.200	0.800	1.187	W	A
1	MN54	31.900	0.900	27.200	0.800	1.173	A	A
1	RU106	3.400	0.400	2.010	1.940	1.692	N	A
2	RU106	2.500	0.400	2.010	1.940	1.244	W	A
3	RU106	2.500	0.400	2.010	1.940	1.244	W	A

**Matrix:** SO Soil Bq / kg

2	AC228	134.000	2.000	97.600	4.200	1.373	W	A
1	AC228	139.000	5.000	97.600	4.200	1.424	W	A
3	AC228	140.000	4.000	97.600	4.200	1.434	W	A
3	BI212	77.000	17.000	106.000	7.000	0.726	A	
2	BI212	73.000	8.000	106.000	7.000	0.689	A	
1	BI212	72.000	6.000	106.000	7.000	0.679	A	
2	BI214	109.000	4.000	86.700	3.800	1.257	W	W
3	BI214	104.000	6.000	86.700	3.800	1.200	W	W
1	BI214	105.000	2.000	86.700	3.800	1.211	W	W
3	CS137	463.000	7.000	339.000	9.300	1.366	N	A
2	CS137	460.000	6.000	339.000	9.300	1.357	N	A
1	CS137	464.000	8.000	339.000	9.300	1.369	N	A
1	K40	1121.000	48.000	811.000	29.000	1.382	W	N
2	K40	1022.000	27.000	811.000	29.000	1.260	W	N
3	K40	1030.000	38.000	811.000	29.000	1.270	W	N
2	PB212	128.000	4.000	97.300	4.600	1.316	W	A
1	PB212	133.000	4.000	97.300	4.600	1.367	N	A
3	PB212	136.000	3.000	97.300	4.600	1.398	N	A
1	PB214	113.000	3.000	86.500	6.800	1.306	W	A
3	PB214	114.000	3.000	86.500	6.800	1.318	W	A
2	PB214	115.000	3.000	86.500	6.800	1.329	W	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	13.500	5.800	10.400	1.400	1.298	A	W
3	AM241	10.400	5.600	10.400	1.400	1.000	A	W
2	AM241	11.000	4.800	10.400	1.400	1.058	A	W
1	CO60	66.600	1.200	52.800	1.000	1.261	W	W
3	CO60	61.700	2.700	52.800	1.000	1.169	A	W

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** WN State Health Radiation Protection Section, Madison, WI

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> VE Vegetation Bq / kg								
2	CO60	68.000	2.800	52.800	1.000	1.288	W	W
3	CS137	1803.000	26.000	1380.000	20.000	1.307	W	W
1	CS137	1776.000	23.000	1380.000	20.000	1.287	W	W
2	CS137	1761.000	26.000	1380.000	20.000	1.276	W	W
1	K40	635.000	28.000	521.000	20.000	1.219	A	N
2	K40	631.000	53.000	521.000	20.000	1.211	A	N
3	K40	615.000	52.000	521.000	20.000	1.180	A	N

**Matrix:** WA Water Bq / L

2	AM241	2.800	1.000	1.950	0.180	1.436	W	
1	AM241	3.100	0.700	1.950	0.180	1.590	N	
3	AM241	3.800	1.400	1.950	0.180	1.949	N	
1	CO60	53.600	0.500	48.900	1.800	1.096	A	A
2	CO60	53.100	0.800	48.900	1.800	1.086	A	A
3	CO60	51.800	0.800	48.900	1.800	1.059	A	A
1	CS137	114.700	1.600	103.000	4.000	1.114	A	A
2	CS137	115.300	1.900	103.000	4.000	1.119	A	A
3	CS137	113.600	1.900	103.000	4.000	1.103	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** WO Wisconsin State Lab of Hygiene

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO57	6.210	0.800	5.310	0.220	1.169	W	A
2	CO57	6.510	0.600	5.310	0.220	1.226	W	A
2	CO60	6.600	0.700	5.320	0.260	1.241	W	W
1	CO60	7.040	1.800	5.320	0.260	1.323	N	W
1	CS137	7.870	1.600	6.100	0.300	1.290	W	W
2	CS137	7.620	0.800	6.100	0.300	1.249	W	W
1	GROSS ALPHA	2.640	0.090	3.020	0.300	0.874	A	W
2	GROSS ALPHA	2.660	0.110	3.020	0.300	0.881	A	W
2	GROSS BETA	2.790	0.070	2.420	0.200	1.153	A	A
1	GROSS BETA	2.740	0.070	2.420	0.200	1.132	A	A
1	MN54	34.900	7.400	27.200	0.800	1.283	W	W
2	MN54	34.800	2.500	27.200	0.800	1.279	W	W

**Matrix: SO Soil Bq / kg**

1	AC228	92.000	16.800	97.600	4.200	0.943	A	
2	AC228	96.600	22.300	97.600	4.200	0.990	A	
2	BI212	98.100	27.900	106.000	7.000	0.925	A	
1	BI212	91.300	31.800	106.000	7.000	0.861	A	
1	BI214	114.100	21.700	86.700	3.800	1.316	W	W
2	BI214	117.600	27.200	86.700	3.800	1.356	W	W
1	Bq U	385.000	76.900	229.000	23.000	1.681	N	N
2	Bq U	352.200	70.500	229.000	23.000	1.538	N	N
1	CS137	381.800	45.400	339.000	9.300	1.126	A	
2	CS137	373.700	63.500	339.000	9.300	1.102	A	
1	K40	909.800	146.900	811.000	29.000	1.122	A	
2	K40	890.600	211.700	811.000	29.000	1.098	A	
1	PB212	113.200	15.000	97.300	4.600	1.163	A	A
2	PB212	119.800	15.000	97.300	4.600	1.231	W	A
2	PB214	164.700	22.200	86.500	6.800	1.904	N	A
1	PB214	143.600	17.600	86.500	6.800	1.660	N	A
1	TH234	252.700	105.700	130.000	5.000	1.944	N	N
2	TH234	297.100	108.000	130.000	5.000	2.285	N	N

**Matrix: VE Vegetation Bq / kg**

2	CO60	45.800	14.500	52.800	1.000	0.867	A	W
1	CO60	50.700	12.700	52.800	1.000	0.960	A	W
2	CS137	1539.200	263.400	1380.000	20.000	1.115	A	A
1	CS137	1497.400	184.900	1380.000	20.000	1.085	A	A
1	K40	603.500	164.900	521.000	20.000	1.158	A	A
2	K40	648.200	199.300	521.000	20.000	1.244	W	A

**Matrix: WA Water Bq / L**

1	CO60	50.360	10.700	48.900	1.800	1.030	A	A
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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.



**QAP 52 Results by Laboratory****Lab:** WO Wisconsin State Lab of Hygiene

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
2	CO60	51.360	10.960	48.900	1.800	1.050	A	A
1	CS137	107.410	18.230	103.000	4.000	1.043	A	A
2	CS137	108.340	18.440	103.000	4.000	1.052	A	A
1	GROSS ALPHA	1651.700	46.400	1700.000	170.000	0.972	A	N
2	GROSS ALPHA	1665.400	53.300	1700.000	170.000	0.980	A	N
1	GROSS BETA	930.000	23.600	690.000	70.000	1.348	W	A
2	GROSS BETA	718.100	48.400	690.000	70.000	1.041	A	A
2	H3	77.700	7.180	79.400	2.500	0.979	A	A
1	H3	74.330	7.140	79.400	2.500	0.936	A	A
2	SR90	3.920	0.770	3.390	0.120	1.156	A	N
1	SR90	3.830	0.800	3.390	0.120	1.130	A	N
1	UG/G U	0.880	0.140	0.040	0.003	22.000		
2	UG/G U	0.930	0.140	0.040	0.003	23.250		

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** WP Washington Public Power Supply System, Richland

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	GROSS BETA	13.000	1.000	2.420	0.200	5.372	N	
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	352.000	35.000	339.000	9.300	1.038	A	A
1	K40	807.000	81.000	811.000	29.000	0.995	A	A
1	SR90	0.700	0.037	20.200	0.200	0.035	N	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	58.300	2.600	52.800	1.000	1.104	A	A
1	CS137	1630.000	9.600	1380.000	20.000	1.181	A	A
1	K40	566.000	24.000	521.000	20.000	1.086	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	47.200	1.400	48.900	1.800	0.965	A	A
1	CS137	102.000	1.700	103.000	4.000	0.990	A	A
1	GROSS ALPHA	1600.000	110.000	1700.000	170.000	0.941	A	
1	GROSS BETA	670.000	37.000	690.000	70.000	0.971	A	
1	H3	85.000	7.400	79.400	2.500	1.071	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** WS Weldon Springs Site, St Charles, MO

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
1	GROSS ALPHA	3.100	0.050	3.020	0.300	1.026	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	79.550	7.030	97.600	4.200	0.815	W	
1	BI212	93.980	14.800	106.000	7.000	0.887	A	
1	CS137	299.300	17.760	339.000	9.300	0.883	W	A
1	K40	715.600	48.100	811.000	29.000	0.882	W	A
1	PB212	84.730	6.660	97.300	4.600	0.871	W	
1	PB214	121.000	9.620	86.500	6.800	1.399	W	
1	U238	126.200	29.230	114.000	12.000	1.107	W	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** WT Waste Stream Technology, Buffalo, NY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	1.000	0.150	0.088	0.005	11.364	N	
1	Bq U	0.240	0.020	0.126	0.001	1.905	W	A
1	CO57	88.340	5.500	5.310	0.220	16.637	N	
1	CO60	6.990	0.500	5.320	0.260	1.314	W	
1	CS137	7.200	0.600	6.100	0.300	1.180	W	
1	GROSS ALPHA	2.310	0.300	3.020	0.300	0.765	W	W
1	GROSS BETA	1.150	0.200	2.420	0.200	0.475	N	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AM241	13.700	1.500	3.360	0.510	4.077	N	
1	Bq U	239.780	25.000	229.000	23.000	1.047	A	A
1	K40	85.000	8.000	811.000	29.000	0.105	N	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	37.880	3.300	10.400	1.400	3.642	N	
1	CO60	62.320	6.300	52.800	1.000	1.180	A	
1	K40	119.700	10.000	521.000	20.000	0.230	N	
<b>Matrix: WA Water Bq / L</b>								
1	AM241	5.130	0.500	1.950	0.180	2.631	N	
1	Bq U	1.000	0.080	0.995	0.087	1.005	A	A
1	CO60	58.350	4.200	48.900	1.800	1.193	W	
1	GROSS ALPHA	1089.300	70.000	1700.000	170.000	0.641	W	N
1	GROSS BETA	335.600	30.000	690.000	70.000	0.486	N	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** WV West Valley Nuclear Services

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	5.310	0.061	5.310	0.220	1.000	A	A
1	CO60	5.570	0.172	5.320	0.260	1.047	A	A
1	CS137	6.520	0.165	6.100	0.300	1.069	A	A
1	GROSS ALPHA	2.580	0.069	3.020	0.300	0.854	A	A
1	GROSS BETA	2.880	0.064	2.420	0.200	1.190	A	A
1	MN54	32.300	0.335	27.200	0.800	1.187	W	A
1	RU106	2.160	0.877	2.010	1.940	1.075	A	A

**Matrix:** WA Water Bq / L

1	CO60	52.400	1.100	48.900	1.800	1.072	A	A
1	CS137	107.800	1.230	103.000	4.000	1.047	A	A
1	GROSS ALPHA	1688.000	94.300	1700.000	170.000	0.993	A	A
1	GROSS BETA	1026.000	53.700	690.000	70.000	1.487	W	W
1	H3	86.000	4.760	79.400	2.500	1.083	A	A
1	SR90	3.330	0.225	3.390	0.120	0.982	A	W

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** WW West Valley Radiation Protection

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.025	0.023	0.088	0.005	0.284	N	A
1	CO57	5.300	0.200	5.310	0.220	0.998	A	A
1	CO60	5.400	0.200	5.320	0.260	1.015	A	A
1	CS137	6.300	0.400	6.100	0.300	1.033	A	A
1	GROSS ALPHA	2.270	0.100	3.020	0.300	0.752	W	A
1	GROSS BETA	2.490	0.080	2.420	0.200	1.029	A	A
1	MN54	29.500	2.400	27.200	0.800	1.085	A	A
1	RU106	2.600	0.400	2.010	1.940	1.294	W	A

**Matrix:** SO Soil Bq / kg

1	AC228	88.300	2.900	97.600	4.200	0.905	A	
1	AM241	9.600	1.900	3.360	0.510	2.857	N	
1	BI212	46.900	6.600	106.000	7.000	0.442	W	
1	BI214	83.700	2.900	86.700	3.800	0.965	A	
1	CS137	334.500	22.900	339.000	9.300	0.987	A	
1	K40	865.400	57.100	811.000	29.000	1.067	A	
1	PB212	99.900	4.500	97.300	4.600	1.027	A	
1	PB214	89.000	3.500	86.500	6.800	1.029	A	
1	TH234	238.000	15.400	130.000	5.000	1.831	W	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** YA Duke Engineering & Sciences Environmental Lab, Westboro, MA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.097	0.006	0.088	0.005	1.102	A	W
1	CO57	5.369	0.107	5.310	0.220	1.011	A	A
1	CO60	5.964	0.240	5.320	0.260	1.121	W	A
1	CS137	5.631	0.270	6.100	0.300	0.923	A	A
1	GROSS ALPHA	2.088	0.021	3.020	0.300	0.691	W	A
1	GROSS BETA	2.088	0.027	2.420	0.200	0.863	W	A
1	MN54	27.639	0.407	27.200	0.800	1.016	A	A
1	PU238	0.089	0.005	0.080	0.001	1.113	A	A
1	PU239	0.110	0.006	0.089	0.003	1.236	W	A
1	SR90	0.246	0.025	0.242	0.005	1.017	A	
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	118.437	2.220	97.600	4.200	1.213	A	A
1	AM241	2.681	0.153	3.360	0.510	0.798	A	A
1	CS137	445.480	2.849	339.000	9.300	1.314	W	W
1	K40	1044.140	16.650	811.000	29.000	1.287	W	W
1	PU239	8.905	0.306	7.000	0.340	1.272	W	A
1	SR90	22.201	0.922	20.200	0.200	1.099	A	
1	U234	128.365	4.216	111.000	11.000	1.156	W	
1	U238	129.784	4.258	114.000	12.000	1.138	W	
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	9.102	0.249	10.400	1.400	0.875	W	A
1	CM244	6.094	0.198	5.000	1.800	1.219	A	A
1	CO60	60.199	1.110	52.800	1.000	1.140	A	A
1	CS137	1686.460	6.290	1380.000	20.000	1.222	A	W
1	K40	618.270	17.020	521.000	20.000	1.187	A	A
1	PU239	15.170	0.370	15.500	2.100	0.979	A	A
1	SR90	1767.367	32.090	1780.000	17.800	0.993	A	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	1.799	0.028	1.950	0.180	0.923	A	A
1	CO60	67.858	0.925	48.900	1.800	1.388	N	A
1	CS137	155.585	1.628	103.000	4.000	1.511	N	A
1	FE55	31.610	1.631	33.100	0.700	0.955	A	A
1	GROSS ALPHA	812.397	11.749	1700.000	170.000	0.478	N	A
1	GROSS BETA	629.000	11.465	690.000	70.000	0.912	A	A
1	H3	87.320	2.563	79.400	2.500	1.100	A	A
1	NI63	123.333	5.675	112.000	11.000	1.101	A	A
1	PU238	0.976	0.021	0.944	0.040	1.034	A	W
1	PU239	0.959	0.021	0.918	0.030	1.045	A	A
1	SR90	3.303	0.175	3.390	0.120	0.974	A	W
1	U234	0.528	0.024	0.482	0.040	1.095	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

**QAP 52 Results by Laboratory****Lab:** YA Duke Engineering & Sciences Environmental Lab, Westboro, MA

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b><u>Reported</u> EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	U238	0.519	0.024	0.492	0.040	1.055	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** YP US Army Proving Ground, Yuma, AZ

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 51 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
1	UG/G U	4.640	0.059	4.980	0.030	0.932		A
<b>Matrix:</b> SO Soil Bq / kg								
1	UG/G U	5.210	0.225	9.150	0.910	0.569		A
<b>Matrix:</b> WA Water Bq / L								
1	UG/G U	0.041	0.001	0.040	0.003	1.013		A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Laboratory****Lab:** YU Institute of Occupational and Radiological Health, Serbia

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 51 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO57	6.400	0.200	5.310	0.220	1.205	W	
1	CO60	6.250	0.200	5.320	0.260	1.175	W	
1	CS137	7.700	0.100	6.100	0.300	1.262	W	
1	MN54	30.800	0.900	27.200	0.800	1.132	A	
1	RU106	3.600	0.300	2.010	1.940	1.791	N	
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	342.000	9.000	339.000	9.300	1.009	A	
1	K40	757.000	20.000	811.000	29.000	0.933	A	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	48.200	1.500	52.800	1.000	0.913	A	
1	CS137	1280.000	30.000	1380.000	20.000	0.928	A	
1	K40	562.000	20.000	521.000	20.000	1.079	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** AM241

**EML Value:** 0.0880  
**EML Error:** 0.0050

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	0.1000	0.0300	1.14		A
AF	3	0.1300	0.0400	1.48		W
AF	1	0.1200	0.0300	1.36		A
AG	1	0.0990	0.0190	1.13	A	A
AI	2	0.0600	0.0130	0.68	A	N
AI	1	0.0500	0.0080	0.57	A	N
AM	1	0.0838	0.0302	0.95	W	A
AN	1	0.0800	0.0100	0.91	A	A
AR	1	0.0787	0.0142	0.89	N	A
AS	1	0.2100	0.1200	2.39	A	W
AT	1	0.1126	0.0590	1.28	A	A
AU	1	0.0831	0.0079	0.94	A	A
AW	1	0.1100	0.0800	1.25		A
BE	1	0.0810	0.0100	0.92	W	A
BL	1	0.1060	0.0140	1.21		A
BM	1	0.0924	0.0126	1.05	A	A
BU	1	0.0660	0.0076	0.75	A	W
BX	1	0.0840	0.0120	0.95	W	A
CB	1	0.0830	0.0300	0.94	A	A
CB	2	0.0880	0.0160	1.00	A	A
CB	3	0.0780	0.0470	0.89	A	A
CH	1	0.0860	0.0090	0.98	A	A
CL	2	0.1000	0.0500	1.14	N	A
CL	1	0.0800	0.0400	0.91	N	A
CN	1	0.1100	0.0100	1.25	N	A
CW	1	0.0860	0.0030	0.98	A	A
EC	2	0.4000	0.1000	4.55	N	N
EC	1	0.4000	0.1000	4.55	N	N
EG	1	0.0790	0.0070	0.90	W	A
EP	1	0.0843	0.0162	0.96		A
FG	1	0.1540	0.1000	1.75	A	W
FL	1	0.0800	0.0100	0.91	A	A
FM	1	0.2900	0.0500	3.30	A	N
GA	1	0.1060	0.0130	1.21	A	A
GE	1	0.0890	0.0250	1.01	W	A
GP	1	0.1500	0.0200	1.71	A	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** AM241

**EML Value:** 0.0880  
**EML Error:** 0.0050

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
GT	1	0.0900	0.0200	1.02	W	A
IS	1	0.0780	0.0210	0.89	A	A
IT	1	0.0730	0.0079	0.83	A	W
KO	1	0.0810	0.0050	0.92		A
LL	1	0.0920	0.0098	1.04	A	A
LM	1	0.0900	0.0340	1.02		A
LV	1	0.1280	0.0280	1.46	A	A
NJ	1	0.1100	0.0700	1.25	A	A
NJ	3	0.0800	0.0700	0.91	A	A
NJ	2	0.0900	0.0800	1.02	A	A
NQ	1	0.0748	0.0074	0.85	W	W
OT	1	0.0350	0.0070	0.40	W	N
PO	1	0.0700	0.0200	0.80	A	W
RE	1	0.0880	0.0110	1.00	A	A
RI	1	0.0909	0.0126	1.03	A	A
SE	1	0.0772	0.0033	0.88	A	W
SI	1	0.0990	0.0060	1.13	A	A
SN	1	0.0710	0.0130	0.81	A	W
SR	1	0.0900	0.0060	1.02	A	A
SW	1	0.0780	0.0190	0.89		A
TI	1	0.0680	0.0170	0.77	N	W
TM	1	0.0800	0.0100	0.91	W	A
TN	1	0.0858	0.0060	0.98	A	A
TO	1	0.1250	0.0780	1.42		A
TX	1	0.0780	0.0060	0.89	W	A
UP	1	0.0996	0.0164	1.13	A	A
UY	1	0.0800	0.0100	0.91	A	A
WA	1	0.0830	0.0200	0.94	W	A
WC	1	0.0960	0.0320	1.09	W	A
WE	1	0.0186	0.0066	0.21	W	N
WT	1	1.0000	0.1500	11.36		N
WW	1	0.0250	0.0230	0.28	A	N
YA	1	0.0970	0.0060	1.10	W	A

**Total Number Reported:** 69

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** Bq U

**EML Value:** 0.1260  
**EML Error:** 0.0010

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	0.2600	0.0500	2.06		W
AF	1	0.2700	0.0600	2.14		W
AF	3	0.2900	0.0500	2.30		W
AG	1	0.1470	0.0220	1.17	A	A
AI	2	0.1100	0.0200	0.87		W
AI	1	0.1200	0.0200	0.95		A
AM	1	0.1152	0.0179	0.91	N	A
BL	1	0.1460	0.0030	1.16	N	A
BL	2	0.1540		1.22	N	A
BU	1	0.1210	0.0060	0.96	A	A
CH	1	0.1320	0.0140	1.05	A	A
CL	3	0.1000	0.0100	0.79	A	N
CL	1	0.1000	0.0100	0.79	A	N
CL	2	0.1700	0.0100	1.35	A	A
GP	1	0.1100		0.87	A	W
KO	1	0.1310	0.0080	1.04		A
OT	1	0.0920	0.0120	0.73	A	N
SN	1	0.1300	0.0220	1.03	A	A
TE	1	0.1200	0.0100	0.95		A
UP	1	0.1210	0.0186	0.96	A	A
UY	1	0.1280	0.0200	1.02	A	A
WA	1	0.1140	0.0320	0.90	A	A
WI	1	0.1240	0.0150	0.98		A
WT	1	0.2400	0.0200	1.90	A	W

**Total Number Reported:** 24

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO57

**EML Value:** 5.3100  
**EML Error:** 0.2200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	4.7500	0.1300	0.89		A
AF	3	5.1300	0.5500	0.97		A
AF	1	5.4100	0.5700	1.02		A
AF	2	5.1200	0.5400	0.96		A
AG	1	5.5700	0.9300	1.05	A	A
AG	2	5.4300	0.9700	1.02	A	A
AI	2	7.2600	0.0700	1.37	A	W
AI	1	7.3400	0.0600	1.38	A	W
AM	1	4.8900	0.0530	0.92	A	A
AN	1	5.4400	0.1800	1.02	A	A
AR	1	5.0500	0.1410	0.95	A	A
AS	1	5.3400	0.1300	1.01	A	A
AT	1	4.9190	0.3950	0.93	A	A
AU	1	5.1700	0.1100	0.97	A	A
AW	1	5.8000	0.5000	1.09		A
BA	1	5.4640	0.2270	1.03	A	A
BC	1	4.6100	0.1900	0.87	A	A
BE	1	5.0000	1.0000	0.94	A	A
BL	1	5.3240	0.5720	1.00	W	A
BN	1	5.3400	0.3700	1.01	A	A
BQ	1	4.2900	0.0300	0.81	A	A
BU	1	5.4000	0.3000	1.02	A	A
BX	1	5.4400	0.1200	1.02	A	A
CA	1	5.7000	0.3000	1.07	A	A
CB	3	5.3900	0.1500	1.01	W	A
CB	1	6.1200	0.1700	1.15	W	W
CB	2	5.7000	0.1500	1.07	W	A
CD	1	5.6000	0.3000	1.05	A	A
CH	1	5.6300	0.0700	1.06	W	A
CL	1	11.0000	0.6000	2.07	A	N
CN	1	5.3200	0.3500	1.00	A	A
CO	2	6.9000	0.1000	1.30		W
CO	1	6.9000	0.1000	1.30		W
CO	3	7.0000	0.1000	1.32		W
CR	1	3.5000	0.3000	0.66	N	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO57

**EML Value:** 5.3100  
**EML Error:** 0.2200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
CU	1	5.2000	0.1000	0.98		A
CW	1	5.3000	0.1000	1.00	A	A
DH	1	4.8900	0.1500	0.92	A	A
EC	1	17.7000	0.7000	3.33	A	N
EC	2	18.1000	0.6000	3.41	A	N
EG	1	5.8000	0.6000	1.09	A	A
EL	1	30.3000		5.71		N
EP	1	5.4700	0.7300	1.03	A	A
FG	1	5.7360	1.0000	1.08	N	A
FL	1	6.0600	0.0600	1.14	W	W
FM	1	5.7000	0.1000	1.07	W	A
FN	1	5.4800	0.4500	1.03	A	A
GA	1	5.4000	0.2200	1.02	A	A
GC	1	5.2600		0.99	A	A
GE	1	5.1100	0.1070	0.96	A	A
GP	1	5.9000	0.6000	1.11	A	A
GT	1	5.4000	0.9000	1.02	A	A
HU	1	5.2600	0.0700	0.99	W	A
HU	2	5.0700	0.0700	0.95	W	A
ID	1	6.5200	0.3320	1.23	N	W
IL	1	5.5000	0.1000	1.04	A	A
IN	2	5.6000	0.1000	1.05	A	A
IN	1	5.6000	0.1000	1.05	A	A
IS	1	5.4600	0.7100	1.03	A	A
IT	1	4.9000	0.4900	0.92	A	A
JL	3	5.6000	0.2000	1.05		A
JL	1	6.0000	0.2200	1.13		A
JL	2	5.9000	0.2200	1.11		A
KO	1	5.2600	0.0600	0.99		A
LB	1	5.3000	0.4000	1.00	A	A
LL	1	6.8300	0.4800	1.29	A	W
LM	1	4.7530	0.0500	0.89		A
LN	1	5.0000	0.1150	0.94	A	A
LV	1	4.6500	0.2100	0.88	A	A
ME	1	5.5000	0.2000	1.04	A	A
ME	2	6.2000	0.2000	1.17	A	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO57

**EML Value:** 5.3100  
**EML Error:** 0.2200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
ME	3	5.6000	0.2000	1.05	A	A
MH	1	5.0800	0.1800	0.96	A	A
MS	1	3.7200	0.3700	0.70		W
NA	1	4.7720	0.0570	0.90	A	A
NJ	1	4.8800	0.4100	0.92	A	A
NJ	2	4.7700	0.4100	0.90	A	A
NJ	3	4.8100	0.4400	0.91	A	A
NL	1	5.3600	0.5400	1.01	A	A
NP	1	4.9000	0.0400	0.92	A	A
NQ	1	5.1100	0.5900	0.96		A
NR	1	4.8100	0.9600	0.91	A	A
NZ	2	4.7000	0.1000	0.88	A	A
NZ	1	4.6000	0.1000	0.87	A	A
OB	1	4.4300	0.7030	0.83	A	A
OC	1	5.3000	0.2000	1.00	A	A
OD	1	5.7200	0.1900	1.08	A	A
OH	1	6.0800	0.0800	1.14	A	W
OS	2	6.6000	0.5000	1.24	A	W
OS	1	6.6000	0.5000	1.24	A	W
OT	1	6.5000	0.1000	1.22	A	W
OU	1	4.6400	0.4600	0.87	W	A
PK	1	4.7600	0.4900	0.90	A	A
PO	1	5.3000	0.2000	1.00		A
RA	1	5.1000	0.3000	0.96	W	A
RC	1	5.2200	0.4100	0.98	A	A
RE	1	5.7800	0.5700	1.09	A	A
RI	1	5.2100	0.3010	0.98	A	A
RM	1	4.8000	0.7000	0.90		A
SA	1	5.3400	0.6300	1.01	A	A
SE	1	4.0200	0.0400	0.76		A
SI	1	5.5000	0.1600	1.04	A	A
SR	1	5.7000	0.4600	1.07	A	A
SW	1	7.0000	0.1000	1.32		W
TE	1	5.9000	0.1000	1.11	A	A
TI	1	6.0600	0.6100	1.14	A	W
TM	1	6.4400	0.6100	1.21	W	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO57

**EML Value:** 5.3100  
**EML Error:** 0.2200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
TN	1	4.8480	0.0680	0.91	A	A
TO	1	6.1700	0.6600	1.16	A	W
TP	1	5.4400	0.0800	1.02	A	A
TQ	1	5.6100	0.1000	1.06	A	A
TW	1	4.9500	0.0800	0.93	A	A
TX	1	5.4210	0.0370	1.02	A	A
UP	1	5.4400	0.6490	1.02	A	A
UY	1	4.5500	0.4000	0.86	A	A
WA	1	5.8000	0.9000	1.09	A	A
WC	1	4.9300	0.4700	0.93	W	A
WE	1	4.8200	0.1400	0.91	A	A
WI	1	5.4100	0.4100	1.02		A
WN	2	5.9000	0.2000	1.11	A	A
WN	3	5.9000	0.2000	1.11	A	A
WN	1	5.9000	0.2000	1.11	A	A
WO	2	6.5100	0.6000	1.23	A	W
WO	1	6.2100	0.8000	1.17	A	W
WT	1	88.3400	5.5000	16.64		N
WV	1	5.3100	0.0609	1.00	A	A
WW	1	5.3000	0.2000	1.00	A	A
YA	1	5.3690	0.1070	1.01	A	A
YU	1	6.4000	0.2000	1.21		W

**Total Number Reported:** 129

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO60

**EML Value:** 5.3200  
**EML Error:** 0.2600

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	5.1300	0.1100	0.96		A
AF	3	5.7000	0.7600	1.07		A
AF	2	5.8600	0.7700	1.10		W
AF	1	5.8500	0.7400	1.10		A
AG	1	5.6600	0.9600	1.06	A	A
AG	2	6.2000	1.2000	1.16	A	W
AI	1	7.2500	0.1200	1.36	N	N
AI	2	7.3200	0.1100	1.38	N	N
AM	1	5.0400	0.1200	0.95	A	A
AN	1	6.6000	1.2400	1.24	W	W
AR	1	5.3700	0.2130	1.01	A	A
AS	1	5.3300	0.1200	1.00	A	A
AT	1	5.1350	0.4010	0.96	A	A
AU	1	5.4900	0.1700	1.03	A	A
AW	1	5.9000	0.5000	1.11		W
BA	1	5.5380	0.0700	1.04	A	A
BC	1	5.7200	0.1500	1.08	A	A
BE	1	6.0000	1.0000	1.13	A	W
BL	1	5.3540	0.5690	1.01	W	A
BM	1	6.0700	0.2200	1.14	A	W
BN	1	4.1200	0.2700	0.77	N	W
BQ	1	4.8000	0.1000	0.90	A	A
BU	1	5.4000	0.3000	1.01	A	A
BX	1	5.5100	0.2100	1.04	A	A
CA	1	5.7000	0.6000	1.07	A	A
CB	3	5.5500	0.1500	1.04	W	A
CB	2	5.7800	0.1500	1.09	W	A
CB	1	6.0100	0.1400	1.13	W	W
CD	1	5.7000	0.3000	1.07	A	A
CH	1	5.8600	0.1300	1.10	W	W
CL	1	12.0000	0.5000	2.26	A	N
CN	1	5.2200	0.3300	0.98	A	A
CO	3	6.7000	0.2000	1.26		W
CO	2	6.8000	0.2000	1.28		W
CO	1	6.8000	0.2000	1.28		W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO60

**EML Value:** 5.3200  
**EML Error:** 0.2600

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
CR	1	3.8000	0.2000	0.71	N	N
CS	1	5.3100	0.2400	1.00	A	A
CU	1	5.1000	0.2000	0.96		A
CW	1	5.4600	0.0700	1.03	A	A
DH	1	5.2300	0.1000	0.98	W	A
EC	2	9.3000	0.4000	1.75	W	N
EC	1	9.5000	0.3000	1.79	W	N
EG	1	6.1000	0.1000	1.15	A	W
EL	1	16.3000		3.06		N
EP	1	5.9400	0.8200	1.12	W	W
FG	1	5.9200	1.0000	1.11	W	W
FL	1	5.7400	0.0700	1.08	W	A
FM	1	5.7000	0.1000	1.07	W	A
FN	1	5.5300	0.4400	1.04	A	A
GA	1	5.9000	0.3400	1.11	A	W
GC	1	5.2900		0.99	A	A
GE	1	5.5000	0.2070	1.03	A	A
GP	1	6.4000	0.6000	1.20	A	W
GT	1	5.3000	0.6000	1.00	A	A
HU	1	5.3800	0.1800	1.01	W	A
HU	2	5.1700	0.1700	0.97	W	A
IL	1	5.8000	0.1000	1.09	A	A
IN	2	5.4000	0.2000	1.01	A	A
IN	1	5.4000	0.2000	1.01	A	A
IS	1	5.1900	0.8100	0.98	A	A
IT	1	5.5000	0.3600	1.03	A	A
JL	1	5.9000	0.2000	1.11		W
JL	2	6.0000	0.3000	1.13		W
JL	3	6.0000	0.3000	1.13		W
KO	1	5.5900	0.1400	1.05		A
LB	1	5.4000	0.8000	1.01	A	A
LL	1	6.5700	0.1890	1.24	A	W
LM	1	5.2430	0.0970	0.99		A
LN	1	5.5300	0.1350	1.04	A	A
LV	1	5.3600	0.1200	1.01	A	A
ME	3	5.8000	0.1000	1.09	W	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO60

**EML Value:** 5.3200  
**EML Error:** 0.2600

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
ME	2	6.4000	0.2000	1.20	W	W
ME	1	5.8000	0.2000	1.09	W	A
MH	1	5.5500	0.1400	1.04	W	A
MS	1	5.0400	0.5000	0.95		A
NA	1	5.1900	0.0700	0.98	A	A
NJ	3	4.7700	0.3000	0.90	A	A
NJ	2	4.8500	0.3000	0.91	A	A
NJ	1	4.8100	0.3000	0.90	A	A
NL	1	5.5300	0.4000	1.04	A	A
NP	1	4.9700	0.0700	0.93	A	A
NQ	1	5.4100	0.5900	1.02		A
NR	1	5.1300	1.0300	0.96	A	A
NZ	1	5.6000	0.1000	1.05	W	A
NZ	2	5.7000	0.1000	1.07	W	A
OB	1	4.8100	0.6770	0.90	A	A
OC	1	5.3000	0.4000	1.00	W	A
OD	1	5.5900	0.0900	1.05	A	A
OH	1	5.9600	0.1800	1.12	A	W
OS	1	6.0000	0.1000	1.13	A	W
OS	2	6.0000	0.2000	1.13	A	W
OT	1	6.2800	0.1900	1.18	A	W
OU	1	5.0700	0.3300	0.95	W	A
PK	1	6.3600	0.5300	1.20	W	W
PO	1	5.3000	0.4000	1.00	A	A
PS	1	6.8800	1.8900	1.29		W
RA	1	5.0000	0.3000	0.94	W	A
RC	1	5.5500	0.4800	1.04	A	A
RE	1	5.9000	0.6400	1.11	A	W
RI	1	5.9000	0.3800	1.11	A	W
RM	1	5.3000	0.7000	1.00		A
SA	1	5.4100	0.2900	1.02	A	A
SB	1	6.2034	0.5847	1.17	W	W
SE	1	4.8100	0.0500	0.90	A	A
SI	1	5.6400	0.1500	1.06	A	A
SR	1	5.8700	0.4200	1.10	W	W
SW	1	7.2000	0.2000	1.35		N

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO60

**EML Value:** 5.3200  
**EML Error:** 0.2600

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
TE	1	5.9000	0.1000	1.11	A	W
TI	1	6.2500	0.6300	1.17	W	W
TM	1	6.2600	0.4100	1.18	W	W
TN	1	5.0840	0.2060	0.96	A	A
TO	1	5.0400	0.5400	0.95	A	A
TP	1	5.4100	0.0900	1.02	A	A
TQ	1	4.9000	0.1200	0.92	A	A
TW	1	5.4100	0.0500	1.02	A	A
TX	1	5.5460	0.0650	1.04	A	A
UC	1	5.2600	0.0390	0.99	A	A
UP	1	5.7800	0.6090	1.09	A	A
UY	1	5.4000	1.3000	1.01	A	A
WA	1	5.9000	0.6000	1.11	A	W
WC	1	5.4200	0.4300	1.02	W	A
WE	1	5.1500	0.0780	0.97	W	A
WI	1	5.1700	0.3600	0.97		A
WN	2	5.7000	0.2000	1.07	A	A
WN	1	6.0000	0.1000	1.13	A	W
WN	3	5.8000	0.2000	1.09	A	A
WO	2	6.6000	0.7000	1.24	W	W
WO	1	7.0400	1.8000	1.32	W	N
WT	1	6.9900	0.5000	1.31		W
WV	1	5.5700	0.1720	1.05	A	A
WW	1	5.4000	0.2000	1.01	A	A
YA	1	5.9640	0.2400	1.12	A	W
YU	1	6.2500	0.2000	1.17		W

**Total Number Reported:** 133

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS137

**EML Value:** 6.1000  
**EML Error:** 0.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	5.8500	0.1200	0.96		A
AF	2	6.7100	0.9200	1.10		A
AF	1	6.8500	0.9300	1.12		A
AF	3	6.7800	0.8900	1.11		A
AG	1	6.7000	1.1000	1.10	A	A
AG	2	6.4000	1.1000	1.05	A	A
AI	1	8.3200	0.2000	1.36	N	W
AI	2	8.3000	0.2000	1.36	N	W
AM	1	6.1400	0.1200	1.01	A	A
AN	1	6.5300	0.5100	1.07	A	A
AR	1	5.9200	0.2480	0.97	A	A
AS	1	6.2000	0.0900	1.02	A	A
AT	1	5.7220	0.5760	0.94	A	A
AU	1	6.2300	0.2500	1.02	A	A
AW	1	6.7000	0.6000	1.10		A
BA	1	6.6030	0.1370	1.08	A	A
BC	1	6.1300	0.2000	1.00	A	A
BE	1	6.0000	1.0000	0.98	A	A
BL	1	6.6180	0.7000	1.09	W	A
BM	1	6.9400	0.2600	1.14	A	W
BN	1	6.3400	0.6000	1.04	A	A
BQ	1	6.8000	0.1000	1.12	W	A
BU	1	6.2000	0.3000	1.02	A	A
BX	1	6.1800	0.1600	1.01	A	A
CA	1	6.9000	0.5000	1.13	A	A
CB	2	6.9600	0.2200	1.14	W	W
CB	1	7.1800	0.2200	1.18	W	W
CB	3	6.5600	0.2200	1.08	W	A
CD	1	6.8000	0.4000	1.12	A	A
CH	1	6.6300	0.1300	1.09	W	A
CL	1	13.0000	0.7000	2.13	A	N
CN	1	6.1600	0.3800	1.01	A	A
CO	3	7.9000	0.2000	1.29		W
CO	2	7.8000	0.2000	1.28		W
CO	1	7.7000	0.2000	1.26		W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS137

**EML Value:** 6.1000  
**EML Error:** 0.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
CR	1	4.4000	0.4000	0.72	N	N
CS	1	5.9900	0.2900	0.98	A	A
CU	1	6.4000	0.2000	1.05		A
CW	1	6.5000	0.1000	1.07	A	A
DH	1	5.9200	0.1100	0.97	W	A
EC	2	12.7000	0.5000	2.08	A	N
EC	1	13.2000	0.5000	2.16	A	N
EG	1	7.0000	0.1000	1.15	A	W
EL	1	20.2000		3.31		N
EP	1	6.7600	1.0400	1.11	A	A
FG	1	6.3420	1.0000	1.04	W	A
FL	1	6.8000	0.1000	1.12	W	A
FM	1	7.2000	0.2000	1.18	W	W
FN	1	6.2400	0.6700	1.02	A	A
GA	1	6.6000	0.3900	1.08	A	A
GC	1	6.4800		1.06	A	A
GE	1	6.3600	0.2320	1.04	A	A
GP	1	7.1000	0.7000	1.16	A	W
GT	1	7.0000	1.0000	1.15	W	W
HU	2	5.6600	0.2900	0.93	W	A
HU	1	6.0900	0.3800	1.00	W	A
ID	1	8.0700	0.4290	1.32	W	W
IL	1	6.8000	0.1000	1.12	A	A
IN	1	6.4000	0.1000	1.05	A	A
IN	2	6.4000	0.1000	1.05	A	A
IS	1	6.7500	1.0500	1.11	A	A
IT	1	6.1000	0.4000	1.00	A	A
JL	3	7.1000	0.4000	1.16		W
JL	2	7.1000	0.4000	1.16		W
JL	1	6.8000	0.4000	1.12		A
KO	1	6.2500	0.1300	1.02		A
LB	1	6.3000	0.8000	1.03	A	A
LL	1	7.9100	0.8720	1.30	W	W
LM	1	6.0640	0.1210	0.99		A
LN	1	6.1500	0.5650	1.01	A	A
LV	1	6.1700	0.2300	1.01	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS137

**EML Value:** 6.1000  
**EML Error:** 0.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
ME	1	6.9000	0.3000	1.13	A	A
ME	3	6.7000	0.2000	1.10	A	A
ME	2	7.4000	0.3000	1.21	A	W
MH	1	7.4400	0.2700	1.22	W	W
MS	1	5.6800	0.5700	0.93		A
NA	1	6.4000	0.1000	1.05	A	A
NJ	3	5.3300	0.5200	0.87	A	A
NJ	2	5.2900	0.4400	0.87	A	A
NJ	1	5.3300	0.5200	0.87	A	A
NL	1	6.4500	0.6600	1.06	A	A
NM	1	13.4000	0.5000	2.20	A	N
NP	1	5.7200	0.0900	0.94	A	A
NQ	1	6.1900	0.7000	1.01		A
NR	1	6.0700	1.2100	1.00	A	A
NZ	2	6.4000	0.2000	1.05	A	A
NZ	1	6.4000	0.2000	1.05	A	A
OB	1	6.2800	1.2500	1.03	A	A
OC	1	6.0000	0.6000	0.98	A	A
OD	1	6.4800	0.2000	1.06	A	A
OH	1	7.6600	0.1900	1.26	A	W
OS	1	7.0000	0.4000	1.15	A	W
OS	2	7.0000	0.4000	1.15	A	W
OT	1	7.5400	0.1900	1.24	A	W
OU	1	5.8500	0.4900	0.96	A	A
PK	1	6.7300	0.6100	1.10	A	A
PO	1	6.1000	0.2000	1.00	A	A
PS	1	7.5500	0.1800	1.24		W
RA	1	6.1000	0.3000	1.00	W	A
RC	1	6.0700	0.5200	1.00	A	A
RE	1	6.7300	0.6900	1.10	A	A
RI	1	7.1000	0.6930	1.16	A	W
RM	1	6.0000	0.8000	0.98		A
SA	1	6.5200	0.9100	1.07	A	A
SB	1	7.3038	0.9297	1.20	W	W
SE	1	6.0700	0.0600	1.00	A	A
SI	1	6.4800	0.2000	1.06	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS137

**EML Value:** 6.1000  
**EML Error:** 0.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
SR	1	6.8500	0.7300	1.12	A	A
SW	1	8.5000	0.2000	1.39		N
TE	1	7.5000	0.1000	1.23	A	W
TI	1	7.4300	0.7400	1.22	W	W
TM	1	7.4300	0.8800	1.22	W	W
TN	1	5.8780	0.2110	0.96	A	A
TO	1	6.4400	0.9600	1.06	A	A
TP	1	6.3600	0.1500	1.04	A	A
TQ	1	6.9300	0.4000	1.14	A	A
TW	1	6.1000	0.0700	1.00	A	A
TX	1	6.4340	0.0860	1.05	A	A
UC	1	8.2600	0.0510	1.35		W
UP	1	6.7900	0.7660	1.11	A	A
UY	1	5.9700	1.3000	0.98	A	A
WA	1	7.3000	0.9000	1.20	A	W
WC	1	6.1400	0.8400	1.01	W	A
WE	1	6.0500	0.5900	0.99	W	A
WI	1	6.2100	0.4000	1.02		A
WN	1	6.8000	0.4000	1.12	A	A
WN	2	7.2000	0.3000	1.18	A	W
WN	3	7.0000	0.3000	1.15	A	W
WO	2	7.6200	0.8000	1.25	W	W
WO	1	7.8700	1.6000	1.29	W	W
WT	1	7.2000	0.6000	1.18		W
WV	1	6.5200	0.1650	1.07	A	A
WW	1	6.3000	0.4000	1.03	A	A
YA	1	5.6310	0.2700	0.92	A	A
YU	1	7.7000	0.1000	1.26		W

**Total Number Reported:** 135

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS ALPHA

**EML Value:** 3.0200  
**EML Error:** 0.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	1	2.9700	0.0400	0.98		A
AI	1	2.3900	0.0500	0.79	A	W
AI	2	2.6500	0.0800	0.88	A	A
AM	1	2.6300	0.0100	0.87	A	A
AR	1	3.4780		1.15	A	A
AS	1	3.1900	0.0770	1.06	A	A
AT	1	2.4810	0.1130	0.82	A	A
AU	1	3.4400	0.1500	1.14	A	A
BC	1	2.9300	0.0500	0.97	A	A
BE	1	2.5670	0.2480	0.85	A	A
BL	1	2.9200	0.0700	0.97	A	A
BN	1	1.6400	0.0300	0.54	A	W
BQ	1	3.2500	0.0700	1.08	A	A
BU	1	2.3000	0.1000	0.76	A	W
BX	1	3.0300	0.0500	1.00	A	A
CA	1	2.5800	0.0400	0.85	A	A
CH	1	1.4900	0.0300	0.49	A	N
CL	1	3.3700	0.0300	1.12		A
DH	1	2.9400	0.0300	0.97	A	A
EC	2	2.4800	0.2000	0.82		A
EC	1	2.5700	0.3000	0.85		A
FG	1	2.6490	0.1000	0.88	A	A
FL	1	2.2400	0.0800	0.74	A	W
FN	1	2.8000	0.4200	0.93	A	A
GC	1	2.3000		0.76	A	W
GE	1	2.6600	0.0350	0.88	A	A
GP	1	2.7000	0.3000	0.89	A	A
GT	1	2.7000	0.1000	0.89	A	A
HC	1	2.1500	0.2200	0.71	A	W
IL	1	2.6200	0.0300	0.87	A	A
IS	1	3.0200	0.3100	1.00	W	A
IT	1	0.4430	0.0670	0.15	A	N
KA	1	3.0200	0.1600	1.00	A	A
KO	1	2.8400	0.0900	0.94		A
KR	1	2.9600	0.0400	0.98	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS ALPHA

**EML Value:** 3.0200  
**EML Error:** 0.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
LB	1	2.7000	0.3000	0.89	A	A
LM	1	2.3190	0.1660	0.77		W
LN	1	2.7400	0.2840	0.91	A	A
LV	1	2.7400	0.2600	0.91	A	A
ME	3	3.5000	0.0800	1.16	W	A
ME	1	3.5000	0.0800	1.16	W	A
ME	2	3.6000	0.0800	1.19	W	A
MH	1	2.9800	0.0100	0.99	A	A
MS	1	3.3100	0.3300	1.10		A
ND	2	2.7430	0.2660	0.91	A	A
ND	1	2.7090	0.2630	0.90	A	A
NQ	1	2.3700	0.3600	0.79	A	W
OB	1	4.2200	0.3080	1.40	A	W
OC	1	2.7000	0.2000	0.89	A	A
OD	1	2.5900	0.1700	0.86	A	A
OD	2	2.4300	0.1600	0.81	A	W
OH	1	2.6500	0.1200	0.88	A	A
OK	1	2.6100	0.0780	0.86		A
OT	1	2.8600	0.1200	0.95	A	A
OU	1	2.8000	0.2800	0.93	A	A
PA	1	2.7600	0.2000	0.91	A	A
PA	3	2.7100	0.1600	0.90	A	A
PA	5	2.5000	0.1700	0.83	A	A
PA	4	2.4800	0.2100	0.82	A	A
PA	2	3.0100	0.2400	1.00	A	A
PS	1	4.0240	0.1100	1.33		W
RC	1	3.3100	0.3300	1.10	A	A
RE	1	2.4600	0.2900	0.81	A	A
RK	1	2.1600	0.1600	0.71	W	W
SA	2	2.6500	0.1800	0.88	A	A
SA	1	3.0000	0.2600	0.99	A	A
SB	1	2.9180	0.1140	0.97	A	A
SR	1	2.9000	0.1100	0.96	A	A
SW	1	2.4600	0.1200	0.81		A
TE	1	3.3000	0.1000	1.09	A	A
TI	1	3.8000	0.2000	1.26	N	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS ALPHA

**EML Value:** 3.0200  
**EML Error:** 0.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
TM	1	2.9600	0.3400	0.98	N	A
TN	1	2.4290	0.1220	0.80	A	W
TO	1	3.0500	0.0600	1.01	W	A
TQ	1	2.7800	0.0400	0.92	A	A
TW	1	2.6000	0.0400	0.86		A
TX	1	3.2200	0.0900	1.07	A	A
UC	1	2.9400	0.1000	0.97	A	A
UP	1	2.7600	0.1200	0.91	A	A
UY	1	3.2200	0.1200	1.07	A	A
WA	1	3.0500	0.0900	1.01	A	A
WC	1	2.7700	0.0530	0.92	A	A
WO	1	2.6400	0.0900	0.87	W	A
WO	2	2.6600	0.1100	0.88	W	A
WS	1	3.1000	0.0500	1.03	A	A
WT	1	2.3100	0.3000	0.76	W	W
WV	1	2.5800	0.0694	0.85	A	A
WW	1	2.2700	0.1000	0.75	A	W
YA	1	2.0880	0.0210	0.69	A	W

**Total Number Reported:** 89

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS BETA

**EML Value:** 2.4200  
**EML Error:** 0.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	1	2.2800	0.1500	0.94		A
AI	1	3.0400	0.0650	1.26	A	A
AI	2	3.0300	0.0500	1.25	A	A
AM	1	2.7000	0.0100	1.12	A	A
AR	1	3.0340		1.25	A	A
AS	1	3.1300	0.0710	1.29	A	A
AT	1	2.7970	0.0910	1.16	A	A
AU	1	3.0400	0.2400	1.26	A	A
BC	1	3.3200	0.0500	1.37	A	A
BE	1	2.6070	0.2640	1.08	W	A
BL	1	2.2500	0.0700	0.93	A	A
BN	1	1.3400	0.0300	0.55	A	N
BQ	1	2.6500	0.0400	1.10	A	A
BU	1	2.2000	0.1000	0.91	A	A
BX	1	3.4600	0.0500	1.43	A	W
CA	1	2.8000	0.1000	1.16	A	A
CH	1	1.3700	0.0200	0.57	A	N
CL	1	3.7700	0.0300	1.56		W
DH	1	2.3900	0.0200	0.99	A	A
EC	2	2.5500	0.3000	1.05		A
EC	1	2.5000	0.3000	1.03		A
FG	1	2.4790	0.1000	1.02	A	A
FL	1	2.8300	0.0800	1.17	A	A
FN	1	2.6600	0.4000	1.10	A	A
GC	1	2.2500		0.93	W	A
GE	1	2.6400	0.0290	1.09	A	A
GP	1	2.8000	0.3000	1.16	A	A
GT	1	2.6000	0.1000	1.07	A	A
HC	1	1.8400	0.1800	0.76	W	W
IL	1	2.4700	0.0300	1.02	A	A
IS	1	2.3600	0.2400	0.98	A	A
IT	1	15.4000	1.2300	6.36	A	N
KA	1	2.5100	0.1000	1.04	A	A
KO	1	2.5200	0.0800	1.04		A
KR	1	2.7800	0.0300	1.15	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS BETA

**EML Value:** 2.4200  
**EML Error:** 0.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
LB	1	2.8000	0.3000	1.16	A	A
LM	1	2.6270	0.1250	1.09		A
LN	1	2.4500	0.0826	1.01	A	A
LV	1	2.3600	0.0800	0.98	A	A
ME	3	2.7000	0.0500	1.12	A	A
ME	1	2.8000	0.0600	1.16	A	A
ME	2	2.7000	0.0500	1.12	A	A
MH	1	2.4800	0.0200	1.02	A	A
MS	1	2.3300	0.2300	0.96		A
ND	1	2.6950	0.2710	1.11	A	A
ND	2	2.6770	0.2690	1.11	A	A
NP	1	2.7300	0.0200	1.13	A	A
NQ	1	2.1000	0.3200	0.87	A	W
OB	1	2.8100	0.2790	1.16	A	A
OC	1	2.6000	0.2000	1.07	A	A
OD	2	3.0800	0.1700	1.27	A	A
OD	1	3.0900	0.1700	1.28	A	A
OH	1	2.6600	0.0900	1.10	A	A
OK	1	2.4800	0.0600	1.02		A
OT	1	2.7800	0.0900	1.15	A	A
OU	1	2.8000	0.2600	1.16	A	A
PA	5	2.7000	0.2000	1.12	A	A
PA	1	3.5900	0.2700	1.48	A	W
PA	2	3.6600	0.2200	1.51	A	W
PA	3	3.4200	0.1300	1.41	A	W
PA	4	2.7300	0.2000	1.13	A	A
PS	1	3.2000	0.0660	1.32		A
RC	1	2.7400	0.2700	1.13	A	A
RE	1	2.7100	0.3200	1.12	A	A
RK	1	3.0800	0.1700	1.27	A	A
SA	2	2.1000	0.2300	0.87	A	W
SA	1	2.5200	0.4500	1.04	A	A
SB	1	2.7070	0.0950	1.12	A	A
SR	1	2.2700	0.0800	0.94	A	A
SW	1	2.2800	0.1200	0.94		A
TE	1	2.7000	0.1000	1.12	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS BETA

**EML Value:** 2.4200  
**EML Error:** 0.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
TI	1	2.1000	0.1000	0.87	W	W
TM	1	3.5600	0.3000	1.47	N	W
TN	1	2.2850	0.1140	0.94	A	A
TO	1	2.4600	0.0410	1.02	A	A
TQ	1	2.8300	0.0200	1.17	A	A
TW	1	2.5600	0.0500	1.06		A
TX	1	2.4100	0.0900	1.00	A	A
UC	1	2.6600	0.1000	1.10	A	A
UP	1	2.8600	0.1030	1.18	A	A
UY	1	3.1500	0.1000	1.30	A	A
WA	1	3.0000	0.0700	1.24	A	A
WC	1	3.3400	0.0530	1.38	A	A
WO	1	2.7400	0.0700	1.13	A	A
WO	2	2.7900	0.0700	1.15	A	A
WP	1	13.0000	1.0000	5.37		N
WT	1	1.1500	0.2000	0.47	A	N
WV	1	2.8800	0.0640	1.19	A	A
WW	1	2.4900	0.0800	1.03	A	A
YA	1	2.0880	0.0270	0.86	A	W

**Total Number Reported:** 90

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** MN54

**EML Value:** 27.2000  
**EML Error:** 0.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	26.4000	0.2000	0.97		A
AF	1	28.3800	3.3900	1.04		A
AF	3	27.5400	3.2900	1.01		A
AF	2	28.2600	3.3700	1.04		A
AG	1	29.9000	5.0000	1.10	A	A
AG	2	27.7000	4.7000	1.02	A	A
AI	1	36.9000	0.3000	1.36	N	W
AI	2	37.2000	0.3100	1.37	N	W
AM	1	26.5600	0.2100	0.98	A	A
AN	1	28.5000	1.3000	1.05	A	A
AR	1	25.7800	0.5860	0.95	A	A
AS	1	28.8500	0.1800	1.06	A	A
AT	1	25.5500	3.0700	0.94	A	A
AU	1	29.2000	0.8400	1.07	A	A
AW	1	29.0000	3.0000	1.07		A
BA	1	30.5800	1.2900	1.12	A	A
BC	1	28.0000	0.6000	1.03	A	A
BE	1	27.0000	9.0000	0.99	W	A
BL	1	30.3000	3.1800	1.11	W	A
BN	1	27.5000	2.3000	1.01	A	A
BQ	1	24.6000	0.2000	0.90	A	A
BU	1	27.0000	2.0000	0.99	A	A
BX	1	28.1000	1.1000	1.03	A	A
CA	1	30.1000	1.7000	1.11	A	A
CB	1	32.7300	0.8800	1.20	W	W
CB	2	31.5900	0.8800	1.16	W	A
CB	3	30.0500	0.8400	1.11	W	A
CD	1	30.5000	1.5000	1.12	A	A
CH	1	29.3000	0.2200	1.08	W	A
CL	1	57.0000	2.9000	2.10	A	N
CN	1	29.3200	1.5800	1.08	A	A
CO	3	36.0000	1.0000	1.32		W
CO	2	36.0000	1.0000	1.32		W
CO	1	36.0000	1.0000	1.32		W
CR	1	19.0000	1.5000	0.70	N	N

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** MN54

**EML Value:** 27.2000  
**EML Error:** 0.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
CS	1	26.9000	1.2100	0.99	W	A
CU	1	28.1000	0.3000	1.03		A
CW	1	28.7000	0.3000	1.05	A	A
DH	1	26.0900	0.9700	0.96	W	A
EC	1	56.3000	2.1000	2.07	W	N
EC	2	54.2000	2.2000	1.99	W	N
EG	1	32.0000	0.3000	1.18	A	A
EL	1	80.1000		2.94		N
EP	1	29.6500	3.9900	1.09	A	A
FG	1	29.9200	3.0000	1.10	A	A
FL	1	30.2600	0.0400	1.11	W	A
FM	1	32.0000	1.0000	1.18	W	A
FN	1	27.1000	2.6000	1.00	A	A
GA	1	28.5000	1.3500	1.05	A	A
GC	1	27.8000		1.02	A	A
GE	1	27.7000	0.3830	1.02	A	A
GP	1	31.0000	3.0000	1.14	A	A
HU	2	26.4000	1.1000	0.97	W	A
HU	1	27.6000	1.2000	1.01	W	A
ID	1	35.8870	1.8370	1.32	W	W
IL	1	29.7000	0.4000	1.09	A	A
IN	2	28.1000	0.5000	1.03	A	A
IN	1	28.1000	0.5000	1.03	A	A
IS	1	29.2000	3.4000	1.07	A	A
IT	1	30.4000	1.8000	1.12	A	A
JL	3	31.6000	1.2000	1.16		A
JL	1	32.2000	1.2000	1.18		W
JL	2	32.6000	1.2000	1.20		W
KO	1	27.9000	0.5000	1.03		A
LB	1	32.0000	4.0000	1.18	W	A
LL	1	35.6000	8.5100	1.31	A	W
LM	1	26.8830	0.2020	0.99		A
LN	1	27.1000	2.0800	1.00	A	A
LV	1	27.7000	0.8000	1.02	A	A
ME	2	32.0000	0.8000	1.18	A	A
ME	1	30.0000	0.7000	1.10	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** MN54

**EML Value:** 27.2000  
**EML Error:** 0.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
ME	3	30.0000	0.6000	1.10	A	A
MH	1	33.6200	1.2200	1.24	W	W
MS	1	26.2000	2.6000	0.96		A
NA	1	28.0500	0.2000	1.03	A	A
NJ	2	23.5000	5.4000	0.86	A	A
NJ	1	23.8000	5.3000	0.88	A	A
NJ	3	23.6000	8.4000	0.87	A	A
NL	1	29.7000	2.9300	1.09	A	A
NP	1	27.2900	0.2000	1.00	A	A
NQ	1	28.2000	3.3000	1.04		A
NR	1	27.2000	5.4000	1.00	A	A
NZ	2	30.1000	1.1000	1.11	A	A
NZ	1	29.8000	1.0000	1.10	A	A
OB	1	25.9000	4.8200	0.95	A	A
OC	1	27.5000	2.6000	1.01	A	A
OD	1	28.2900	1.1100	1.04	A	A
OH	1	33.2400	0.3500	1.22	A	W
OS	1	31.8000	1.4000	1.17	A	A
OS	2	31.9000	1.4000	1.17	A	A
OT	1	34.1000	1.0000	1.25	A	W
OU	1	25.9000	2.4200	0.95	A	A
PK	1	28.0000	1.7900	1.03	A	A
PO	1	27.0000	2.0000	0.99		A
PS	1	34.4400	0.3000	1.27		W
RA	1	27.4000	1.6000	1.01	W	A
RC	1	26.9000	1.8000	0.99	A	A
RE	1	32.3000	2.7000	1.19	A	W
RI	1	29.3000	0.9570	1.08	A	A
RM	1	26.0000	4.0000	0.96		A
SA	1	30.4000	3.5000	1.12	A	A
SB	1	33.4347	4.4191	1.23	W	W
SE	1	25.7000	0.3000	0.94	W	A
SI	1	29.0000	0.8000	1.07	A	A
SR	1	29.4000	3.0000	1.08	A	A
SW	1	38.5000	0.5000	1.41		W
TE	1	31.8000	0.3000	1.17	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** MN54

**EML Value:** 27.2000  
**EML Error:** 0.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
TI	1	33.4000	3.3000	1.23	W	W
TM	1	33.2200	2.8200	1.22	N	W
TN	1	25.9100	0.3400	0.95	A	A
TO	1	27.1900	3.9700	1.00	A	A
TP	1	27.9100	0.1000	1.03	A	A
TQ	1	26.2000	0.6700	0.96	A	A
TW	1	28.1000	0.2000	1.03	A	A
TX	1	30.5510	0.1690	1.12	A	A
UP	1	29.2000	3.7700	1.07	A	A
UY	1	26.9000	2.1000	0.99	A	A
WA	1	34.0000	4.0000	1.25	A	W
WC	1	27.9000	3.8300	1.03	W	A
WE	1	27.4000	2.1000	1.01	A	A
WI	1	27.9800	1.5400	1.03		A
WN	1	31.9000	0.9000	1.17	A	A
WN	2	32.3000	0.9000	1.19	A	W
WN	3	31.7000	1.0000	1.16	A	A
WO	2	34.8000	2.5000	1.28	W	W
WO	1	34.9000	7.4000	1.28	W	W
WV	1	32.3000	0.3350	1.19	A	W
WW	1	29.5000	2.4000	1.09	A	A
YA	1	27.6390	0.4070	1.02	A	A
YU	1	30.8000	0.9000	1.13		A

**Total Number Reported:** 130

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** PU238

**EML Value:** 0.0800  
**EML Error:** 0.0010

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	0.0792	0.0056	0.99		A
AF	3	0.0900	0.0300	1.13		A
AF	2	0.0800	0.0300	1.00		A
AF	1	0.0900	0.0400	1.13		A
AG	1	0.0750	0.0150	0.94	A	A
AI	1	0.0840	0.0040	1.05	N	A
AI	2	0.0800	0.0040	1.00	N	A
AM	1	0.0812	0.0070	1.01	N	A
AN	1	0.0800	0.0100	1.00	A	A
AR	1	0.0989	0.0140	1.24	A	W
BE	1	0.0770	0.0120	0.96	A	A
BM	1	0.0831	0.0078	1.04	A	A
BU	1	0.0730	0.0043	0.91	N	A
BX	1	0.0860	0.0070	1.08	W	A
CH	1	0.0740	0.0070	0.93	A	A
CL	2	0.0400	0.0400	0.50	N	N
CL	1	0.0500	0.0400	0.63	N	N
CL	3	0.0500	0.0400	0.63	N	N
CW	1	0.0900	0.0030	1.13	A	A
EG	1	0.0720	0.0070	0.90	A	A
EP	1	0.0875	0.0151	1.09		A
GA	1	0.0916	0.0133	1.14	A	A
GE	1	0.0850	0.0220	1.06	W	A
GP	1	0.0790	0.0130	0.99	W	A
GT	1	0.0800	0.0300	1.00	A	A
ID	1	0.0780	0.0170	0.98		A
IS	1	0.1900	0.0700	2.38	A	N
IT	1	0.0720	0.0079	0.90	A	A
KO	1	0.0770	0.0030	0.96		A
LL	1	0.0766	0.0068	0.96	A	A
ML	1	0.0800	0.0090	1.00	A	A
NA	1	0.0780	0.0110	0.98	N	A
NL	1	0.0821	0.0213	1.03	A	A
NM	1	0.0770	0.0030	0.96	A	A
NQ	1	0.0630	0.0044	0.79	A	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** PU238

**EML Value:** 0.0800  
**EML Error:** 0.0010

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
OB	1	0.0518	0.0097	0.65	A	N
OT	1	0.0470	0.0080	0.59	A	N
RE	1	0.0730	0.0090	0.91	W	A
RI	1	0.0714	0.0091	0.89	A	A
SE	1	0.0395	0.0022	0.49	W	N
SN	1	0.0800	0.0140	1.00	A	A
SR	1	0.0760	0.0050	0.95	A	A
SW	1	0.2100	0.0400	2.63		N
TE	1	0.0600	0.0300	0.75	N	W
TI	1	0.0730	0.0190	0.91	W	A
TM	1	0.0770	0.0100	0.96	A	A
TN	1	0.0774	0.0092	0.97	A	A
TO	1	0.0790	0.0240	0.99	N	A
TX	1	0.0720	0.0040	0.90	A	A
UC	1	0.0580	0.0050	0.73		N
UP	1	0.0893	0.0180	1.12	A	A
UY	1	0.0790	0.0090	0.99	A	A
WA	1	0.0670	0.0280	0.84	N	W
WC	1	0.0760	0.0270	0.95	A	A
WE	1	0.0022	0.0140	0.03		N
WI	1	0.0540	0.0120	0.68		N
YA	1	0.0890	0.0050	1.11	A	A

**Total Number Reported:** 57

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** PU239

**EML Value:** 0.0890  
**EML Error:** 0.0030

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	0.0914	0.0065	1.03		A
AF	3	0.0700	0.0200	0.79		W
AF	1	0.0900	0.0300	1.01		A
AF	2	0.0700	0.0300	0.79		W
AG	1	0.0900	0.0170	1.01	A	A
AI	2	0.0900	0.0040	1.01	N	A
AI	1	0.0870	0.0040	0.98	N	A
AM	1	0.0906	0.0071	1.02	N	A
AN	1	0.0900	0.0100	1.01	A	A
AR	1	0.0967	0.0137	1.09	A	A
BE	1	0.0890	0.0140	1.00	A	A
BL	1	0.0860	0.0080	0.97	A	A
BM	1	0.0947	0.0088	1.06	A	A
BU	1	0.0830	0.0037	0.93	N	A
BX	1	0.0870	0.0070	0.98	A	A
CH	1	0.0940	0.0080	1.06	A	A
CL	3	0.0900	0.0400	1.01	N	A
CL	1	0.0600	0.0300	0.67	N	N
CL	2	0.1000	0.0400	1.12	N	A
CW	1	0.0970	0.0030	1.09	A	A
EG	1	0.0850	0.0080	0.95	A	A
EP	1	0.0956	0.0163	1.07		A
GA	1	0.1190	0.0162	1.34	A	W
GE	1	0.0800	0.0210	0.90	A	W
GP	1	0.1000	0.0100	1.12	W	A
GT	1	0.1100	0.0300	1.24	A	W
ID	1	0.0790	0.0200	0.89		W
IS	1	0.1000	0.0500	1.12	A	A
IT	1	0.0790	0.0085	0.89	A	W
KO	1	0.0840	0.0030	0.94		A
LL	1	0.0866	0.0075	0.97	A	A
ML	1	0.0900	0.0100	1.01	A	A
NA	1	0.0830	0.0110	0.93	A	A
NL	1	0.0929	0.0236	1.04	A	A
NM	1	0.0900	0.0040	1.01	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** PU239

**EML Value:** 0.0890  
**EML Error:** 0.0030

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
NQ	1	0.0763	0.0052	0.86	A	W
OB	1	0.0762	0.0137	0.86	A	W
OT	1	0.0560	0.0080	0.63	W	N
RE	1	0.0840	0.0110	0.94	A	A
RI	1	0.0725	0.0092	0.81	A	W
SE	1	0.0868	0.0047	0.98	W	A
SN	1	0.0970	0.0160	1.09	A	A
SR	1	0.0890	0.0060	1.00	A	A
SW	1	0.1000	0.0200	1.12		A
TE	1	0.0900	0.0100	1.01	N	A
TI	1	0.0860	0.0200	0.97	A	A
TM	1	0.0790	0.0100	0.89	N	W
TN	1	0.0940	0.0101	1.06	A	A
TO	1	0.1030	0.0280	1.16	N	A
TX	1	0.0800	0.0040	0.90	A	W
UC	1	0.0663	0.0047	0.75		N
UP	1	0.0834	0.0171	0.94	A	A
UY	1	0.0930	0.0090	1.04	A	A
WA	1	0.0760	0.0200	0.85	W	W
WC	1	0.0930	0.0310	1.04	A	A
WE	1	0.0089	0.0063	0.10		N
WI	1	0.0620	0.0140	0.70		N
YA	1	0.1100	0.0060	1.24	A	W

**Total Number Reported:** 58

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** RU106

**EML Value:** 2.0100  
**EML Error:** 1.9400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AI	1	3.6400	1.0500	1.81	W	N
AI	2	3.6200	1.0500	1.80	W	N
AM	1	1.8800	0.5900	0.94		A
AS	1	2.4500	0.7300	1.22	N	W
AU	1	2.8000	1.0000	1.39		N
AW	1	3.6000	0.8000	1.79		N
BA	1	2.6500	0.3473	1.32	A	N
BC	1	2.3200	0.5400	1.15		W
BL	1	2.8810	0.4080	1.43	N	N
BQ	1	2.9000	0.6000	1.44	W	N
BX	1	2.0900	0.9000	1.04	A	A
CB	1	3.1700	0.5600	1.58	W	N
CB	3	2.8900	0.6600	1.44	W	N
CB	2	2.8800	0.7400	1.43	W	N
CH	1	3.4300	0.7700	1.71	W	N
CL	1	19.8000	1.1000	9.85	N	N
CR	1	2.0000	0.3000	1.00	W	A
CS	1	2.5600	0.8900	1.27	A	W
DH	1	2.5600	0.4300	1.27	A	W
EG	1	3.1000	0.4000	1.54	A	N
FL	1	2.1000	0.7000	1.04	A	A
FM	1	3.0000	0.4000	1.49	N	N
GA	1	4.7000	1.7000	2.34	A	N
GE	1	3.5700	1.2100	1.78	W	N
GP	1	3.3000	1.7000	1.64	A	N
GT	1	3.0000	1.5000	1.49	A	N
ID	1	3.2300	0.1670	1.61	W	N
IL	1	3.7000	0.3000	1.84	A	N
IN	2	3.1000	0.3000	1.54	A	N
IN	1	3.5000	0.3000	1.74	A	N
IT	1	2.0000	0.8100	1.00	A	A
KO	1	2.8200	0.4100	1.40		N
LB	1	2.6000	0.7000	1.29	W	W
LV	1	2.7600	0.4200	1.37	A	N
ME	3	3.5000	0.4000	1.74	A	N

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** RU106

**EML Value:** 2.0100  
**EML Error:** 1.9400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
ME	2	3.2000	0.4000	1.59	A	N
ME	1	3.0000	0.4000	1.49	A	N
MH	1	2.8400	0.1300	1.41	W	N
NJ	1	3.2700	0.6400	1.63	A	N
NJ	2	2.9500	0.7100	1.47	A	N
NJ	3	2.5800	0.6400	1.28	A	W
NL	1	3.0300	1.3600	1.51	W	N
NP	1	2.8100	0.8300	1.40	A	N
NQ	1	2.7400	0.5900	1.36		N
NR	1	2.6500	0.5300	1.32	A	N
OC	1	2.6000	1.0000	1.29	A	W
OD	1	3.5300	0.3800	1.76	A	N
OH	1	4.8000	1.2000	2.39	A	N
OS	2	3.1000	0.9000	1.54	A	N
OS	1	4.4000	1.3000	2.19	A	N
OT	1	3.0000	1.1000	1.49	A	N
PO	1	3.0000	1.0000	1.49		N
PS	1	5.0300	0.4800	2.50		N
RA	1	2.9000	0.5000	1.44	W	N
RM	1	3.1000	1.1000	1.54		N
SA	1	2.9600	0.8500	1.47	A	N
SI	1	3.3000	0.3500	1.64	A	N
SW	1	4.0000	1.6000	1.99		N
TE	1	3.5000	1.0000	1.74	A	N
TI	1	2.7600	1.6400	1.37	A	N
TM	1	4.6200	1.4800	2.30	A	N
TN	1	3.0910	1.5240	1.54	A	N
TO	1	4.0000	2.4000	1.99	A	N
TX	1	2.7210	0.2680	1.35	A	N
UP	1	3.1100	1.0800	1.55	A	N
WA	1	2.7000	0.6000	1.34	A	N
WI	1	2.9900	1.6200	1.49		N
WN	2	2.5000	0.4000	1.24	A	W
WN	3	2.5000	0.4000	1.24	A	W
WN	1	3.4000	0.4000	1.69	A	N
WV	1	2.1600	0.8770	1.08	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** RU106

**EML Value:** 2.0100  
**EML Error:** 1.9400

Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
WW	1	2.6000	0.4000	1.29	A	W
YU	1	3.6000	0.3000	1.79		N

**Total Number Reported:** 73

Values for elemental Uranium are reported in  $\mu\text{g}/\text{filter}$ , g or mL.  $\text{pCi}/\text{g}$  or mL =  $\text{Bq} \times 0.027$

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** SR90

**EML Value:** 0.2420  
**EML Error:** 0.0050

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	3.2200	1.1800	13.31		N
AF	1	3.2500	1.2200	13.43		N
AG	1	0.2350	0.0500	0.97	A	A
AI	1	1.2000	0.0500	4.96	W	N
AI	2	1.0000	0.0500	4.13	W	N
AM	1	0.1816	0.0081	0.75	N	W
AN	1	0.2300	0.0200	0.95	A	A
AR	1	0.3609	0.1134	1.49	A	W
BC	1	0.1410	0.0150	0.58	N	N
BE	1	0.2080	0.0270	0.86	A	A
BL	1	0.1980	0.2210	0.82	A	W
BM	1	0.2500	0.0340	1.03	A	A
BX	1	0.1420	0.0160	0.59	N	N
CH	1	0.2290	0.0290	0.95	A	A
CL	1	0.2750	0.1100	1.14	N	A
CL	2	0.2750	0.1120	1.14	N	A
EG	1	0.2160	0.0120	0.89	A	A
GA	1	0.4000	0.2000	1.65	A	W
GE	1	0.1700	0.0660	0.70	A	W
GT	1	0.2500	0.0600	1.03	A	A
IS	1	0.2450	0.0740	1.01	W	A
IT	1	0.2420	0.0420	1.00	A	A
KO	1	0.2470	0.0130	1.02		A
NM	1	0.2730	0.0330	1.13	A	A
NZ	1	0.1700	0.0100	0.70	W	W
NZ	2	0.2300	0.0200	0.95	W	A
RA	1	0.1800	0.0400	0.74	A	W
RE	1	0.2750	0.0360	1.14	A	A
RI	1	0.2090	0.0364	0.86	A	A
SE	1	0.3150	0.0100	1.30	A	A
SR	1	0.2250	0.0560	0.93	A	A
SW	1	0.2500	0.1500	1.03		A
TE	1	0.3100	0.1600	1.28	W	A
TI	1	0.2500	0.0900	1.03	A	A
TN	1	0.2635	0.0386	1.09	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** SR90

**EML Value:** 0.2420  
**EML Error:** 0.0050

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
TO	1	0.3300	0.1000	1.36	N	W
TW	1	3.8000	0.1000	15.70		N
UP	1	0.2220	0.0425	0.92	A	A
UY	1	0.2100	0.0200	0.87	A	A
WA	1	0.3100	0.0800	1.28	A	A
WC	1	0.5600	0.1400	2.31	N	N
WE	1	0.2150	0.0270	0.89	W	A
WI	1	0.2200	0.0510	0.91		A
YA	1	0.2460	0.0250	1.02		A

**Total Number Reported:** 44

Values for elemental Uranium are reported in  $\mu\text{g}/\text{filter}$ , g or mL.  $\text{pCi}/\text{g}$  or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** U234

**EML Value:** 0.0620  
**EML Error:** 0.0010

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	0.1400	0.0300	2.26		N
AF	3	0.1300	0.0300	2.10		N
AF	1	0.1400	0.0400	2.26		N
AG	1	0.0680	0.0150	1.10	A	A
AM	1	0.0514	0.0048	0.83	A	N
AN	1	0.0600	0.0100	0.97	A	A
AR	1	0.0691	0.0098	1.12		A
AU	1	0.0555	0.0063	0.89	W	W
BC	1	0.0700	0.0060	1.13	A	A
BE	1	0.0610	0.0100	0.98	A	A
BL	2	0.0770		1.24	N	A
BL	1	0.0730	0.0020	1.18	N	A
BM	1	0.0604	0.0085	0.97	A	A
BU	1	0.0560	0.0028	0.90	A	A
BX	1	0.0690	0.0070	1.11	A	A
CH	1	0.0650	0.0060	1.05	A	A
CL	2	0.0900	0.0400	1.45	W	W
CL	1	0.0500	0.0300	0.81	W	N
CL	3	0.0600	0.0300	0.97	W	A
CW	1	0.0650	0.0020	1.05	A	A
EG	1	0.0660	0.0090	1.07	A	A
GA	1	0.0647	0.0073	1.04	W	A
GE	1	0.0550	0.0150	0.89	A	W
GP	1	0.0550	0.0090	0.89	A	W
IS	1	0.1300	0.0300	2.10	A	N
IT	1	0.0580	0.0070	0.94	A	A
KO	1	0.0610	0.0040	0.98		A
LL	1	0.0577	0.0047	0.93		A
ML	1	0.0600	0.0090	0.97	A	A
NA	1	0.0680	0.0160	1.10	A	A
NL	1	0.0714	0.0176	1.15	A	A
NQ	1	0.0652	0.0041	1.05	A	A
OB	1	0.0525	0.0154	0.85	A	W
RE	1	0.0660	0.0090	1.07	A	A
SE	1	0.0315	0.0018	0.51	A	N

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** U234

**EML Value:** 0.0620  
**EML Error:** 0.0010

Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
SR	1	0.0570	0.0040	0.92	W	A
TN	1	0.0595	0.0047	0.96	A	A
TO	1	0.0510	0.0410	0.82		N
TX	1	0.0620	0.0040	1.00	A	A
WA	1	0.0470	0.0220	0.76	A	N
WC	1	0.0670	0.0020	1.08	A	A
WE	1	0.0827	0.0220	1.33		A

**Total Number Reported:** 42

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** U238

**EML Value:** 0.0620  
**EML Error:** 0.0010

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	1	0.0800	0.0600	1.29		A
AF	2	0.0800	0.0300	1.29		A
AF	3	0.0900	0.0300	1.45		W
AG	1	0.0740	0.0160	1.19	A	A
AM	1	0.0507	0.0048	0.82	N	N
AN	1	0.0700	0.0100	1.13	A	A
AR	1	0.0675	0.0094	1.09		A
AU	1	0.0581	0.0063	0.94	A	A
BC	1	0.0650	0.0060	1.05	A	A
BE	1	0.0610	0.0100	0.98	A	A
BL	1	0.0730	0.0020	1.18	N	A
BL	2	0.0770		1.24	N	A
BM	1	0.0602	0.0085	0.97	A	A
BU	1	0.0560	0.0029	0.90	A	A
BX	1	0.0740	0.0070	1.19	A	A
CH	1	0.0640	0.0060	1.03	A	A
CL	9	0.0400	0.0200	0.64	W	N
CL	1	0.0900	0.0400	1.45	W	W
CL	2	0.0500	0.0300	0.81	W	N
CW	1	0.0650	0.0020	1.05	A	A
EG	1	0.0570	0.0090	0.92	A	A
GA	1	0.0647	0.0071	1.04	A	A
GE	1	0.0620	0.0160	1.00	A	A
GP	1	0.0510	0.0090	0.82	A	N
GT	1	0.0700	0.0100	1.13	A	A
IS	1	0.0700	0.0200	1.13	A	A
IT	1	0.0640	0.0074	1.03	A	A
KO	1	0.0670	0.0040	1.08		A
LL	1	0.0564	0.0046	0.91		A
ML	1	0.0600	0.0080	0.97	A	A
NA	1	0.0600	0.0140	0.97	A	A
NL	1	0.0673	0.0166	1.09	A	A
NQ	1	0.0633	0.0041	1.02	A	A
OB	1	0.0766	0.0171	1.24	N	A
RE	1	0.0670	0.0090	1.08	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** U238

**EML Value:** 0.0620  
**EML Error:** 0.0010

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 51 Evaluation	Evaluation
SE	1	0.0315	0.0018	0.51	A	N
SR	1	0.0580	0.0040	0.94	A	A
TN	1	0.0546	0.0044	0.88	A	W
TO	1	0.0510	0.0410	0.82		N
TX	1	0.0620	0.0040	1.00	A	A
WA	1	0.0690	0.0190	1.11	A	A
WC	1	0.0620	0.0020	1.00	A	A
WE	1	0.0650	0.0200	1.05		A

**Total Number Reported:** 43

Values for elemental Uranium are reported in  $\mu\text{g}/\text{filter}$ , g or mL.  $\text{pCi}/\text{g}$  or mL =  $\text{Bq} \times 0.027$

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** UG/G U

**EML Value:** 4.9800  
**EML Error:** 0.0300

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AR	1	4.6900		0.94		
BE	1	5.1240		1.03	A	
BL	1	5.8200	0.1000	1.17	N	
BL	2	6.2000		1.25	N	
BQ	1	5.2000	0.5000	1.04	A	
GA	1	5.0540	0.5716	1.01	A	
GE	1	4.3500	0.0490	0.87	A	
ID	1	5.0490	0.2530	1.01	A	
IS	1	5.7000	0.1800	1.14	A	
IT	1	4.8700	0.5900	0.98	A	
KO	1	5.4200	0.3100	1.09		
NL	1	5.4600	1.3400	1.10	A	
RA	1	4.8100	0.2000	0.97	A	
RM	1	6.2000	0.2000	1.25		
SA	1	2.8900	0.0700	0.58	A	
SW	1	5.1100		1.03		
TI	1	3.9000	0.6000	0.78	W	
TM	1	5.0100	0.2800	1.01	A	
TN	1	4.9750	0.5710	1.00	W	
TO	1	5.3000	1.6800	1.06	A	
YP	1	4.6400	0.0585	0.93	A	

**Total Number Reported:** 21

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AC228

**EML Value:** 97.6000  
**EML Error:** 4.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	1	77.7000	11.1000	0.80		W
AF	3	74.0000	11.1000	0.76		N
AF	2	81.4000	11.1000	0.83		W
AG	1	113.0000	23.0000	1.16	A	A
AI	1	110.0000	6.0000	1.13	A	A
AI	2	115.0000	8.0000	1.18	A	A
AM	1	90.5570	2.4050	0.93	A	A
AR	1	94.6000	17.2200	0.97	A	A
AS	1	71.7800	3.5600	0.74	A	N
AT	1	94.3200	22.4900	0.97	A	A
AU	1	107.0000	12.0000	1.10	A	A
BE	1	136.0000	11.0000	1.39		W
BL	1	102.9300	13.0400	1.05	A	A
BN	1	79.9200	3.1900	0.82	N	W
BQ	1	130.0000	20.0000	1.33	W	W
BU	1	97.0000	9.0000	0.99	A	A
BX	1	107.0000	10.0000	1.10	W	A
CD	1	100.0000	20.0000	1.02	A	A
CH	1	109.0000	3.8000	1.12	A	A
CL	1	119.0000	5.7000	1.22	A	A
CM	1	99.2000	1.7000	1.02		A
CM	2	99.0000	1.7000	1.01		A
CM	3	99.2000	1.7000	1.02		A
CN	1	92.7700	5.9200	0.95	A	A
CR	1	111.1000	4.3000	1.14	A	A
CS	1	93.5000	14.8900	0.96		A
CU	1	89.0000	10.0000	0.91		A
CW	1	100.0000	2.0000	1.02		A
DH	1	91.4000	5.5300	0.94		A
EC	2	98.2000	2.0000	1.01	A	A
EC	1	103.7000	2.7000	1.06	A	A
EL	1	149.0000		1.53		W
FG	1	106.3000	6.0000	1.09	A	A
FL	1	89.0000	4.0000	0.91	A	A
FN	1	85.8000	5.6000	0.88	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AC228

**EML Value:** 97.6000  
**EML Error:** 4.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
FS	1	93.9000	5.4000	0.96	A	A
GA	1	112.0000	18.0000	1.15		A
GC	1	93.2000		0.95	A	A
GE	1	108.0000	16.6000	1.11	A	A
HU	2	101.0000	1.8000	1.03	A	A
HU	1	93.0000	1.6000	0.95	A	A
ID	1	114.0670	6.2040	1.17	A	A
IL	1	88.2000	3.3000	0.90	A	A
IN	1	110.0000	3.0000	1.13	A	A
IS	1	111.0000	38.0000	1.14	W	A
IT	1	116.0000	8.0000	1.19	A	A
KO	1	97.0000	5.2000	0.99		A
LA	2	102.0000	12.0000	1.04	W	A
LA	1	100.0000	12.0000	1.02	W	A
LA	3	114.0000	14.0000	1.17	W	A
LB	1	86.0000	8.0000	0.88	W	A
LM	1	113.2740	8.5090	1.16		A
LV	1	114.0000	5.0000	1.17	A	A
ME	1	179.0000	20.0000	1.83	W	N
ME	2	266.0000	20.0000	2.72	W	N
MH	1	107.1000	8.1000	1.10	A	A
ML	1	94.9100	9.5000	0.97		A
MS	1	112.0000	11.0000	1.15		A
NA	1	100.2000	4.3000	1.03		A
NJ	2	105.0000	6.0000	1.08	A	A
NJ	3	103.0000	4.0000	1.05	A	A
NJ	1	102.0000	3.0000	1.04	A	A
NL	1	107.0000	10.0000	1.10	A	A
NQ	1	91.0000	19.0000	0.93	A	A
OB	1	82.1000	11.6000	0.84	A	W
OC	1	85.0000	14.0000	0.87	A	A
OT	1	86.0000	9.0000	0.88	A	A
OU	1	134.0000	45.8000	1.37	A	W
PO	1	106.0000	5.0000	1.09	A	A
RA	1	97.0000	8.0000	0.99	A	A
RE	1	95.0000	9.1000	0.97	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AC228

**EML Value:** 97.6000  
**EML Error:** 4.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
RI	1	111.0000	14.8000	1.14		A
RM	1	95.0000	12.0000	0.97		A
SE	1	88.9000	2.2000	0.91		A
SI	1	91.0000	2.0000	0.93	A	A
SK	1	107.0000	3.0000	1.10		A
SN	1	109.3000	56.9000	1.12	A	A
SR	1	107.0000	5.7000	1.10	A	A
SW	1	125.0000	8.0000	1.28		A
SY	1	90.0000	10.0000	0.92		A
TE	1	98.3000	7.1000	1.01	A	A
TM	1	93.1100	11.3200	0.95	W	A
TN	1	87.2000	6.8400	0.89		A
TO	1	69.3100	16.4600	0.71		N
TP	1	95.7200	6.2200	0.98	A	A
TQ	1	106.5000	3.5000	1.09	A	A
TW	1	108.0000	5.0000	1.11	A	A
TX	1	100.0850	1.8800	1.02	A	A
WA	1	101.0000	11.0000	1.03	N	A
WE	1	85.4000	3.5000	0.88	A	A
WN	2	134.0000	2.0000	1.37	A	W
WN	1	139.0000	5.0000	1.42	A	W
WN	3	140.0000	4.0000	1.43	A	W
WO	2	96.6000	22.3000	0.99		A
WO	1	92.0000	16.8000	0.94		A
WS	1	79.5500	7.0300	0.81		W
WW	1	88.3000	2.9000	0.90		A
YA	1	118.4370	2.2200	1.21	A	A

**Total Number Reported:** 98

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AM241

**EML Value:** 3.3600  
**EML Error:** 0.5100

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	1	9.9900	8.5100	2.97		N
AF	3	18.5000	9.2500	5.51		N
AF	2	10.7300	6.6600	3.19		N
AG	1	3.8100	0.8000	1.13	W	A
AI	1	20.0000	1.7000	5.95		N
AI	2	27.6000	2.1000	8.21		N
AM	1	2.4040	0.5900	0.71	A	W
AN	1	3.4000	0.3400	1.01	A	A
AS	1	3.4130	2.0700	1.02	N	A
AT	1	2.2800	0.8850	0.68	A	W
AU	1	3.7000	1.1000	1.10	N	A
BE	1	2.7900	0.6200	0.83	A	A
BL	1	14.7000	1.1000	4.38		N
BU	1	4.1500	0.3200	1.24	W	A
BX	1	1.0000	0.4800	0.30	N	N
CH	1	3.2000	0.5800	0.95	W	A
CL	1	4.6700	2.1800	1.39	W	A
CL	2	4.4000	2.0400	1.31	W	A
EC	1	5.1000	0.9000	1.52		W
EC	2	3.6000	0.7000	1.07		A
EG	1	3.3000	0.3000	0.98	A	A
FL	1	1.6000	0.7000	0.48	A	N
GA	1	4.4200	0.9060	1.32	A	A
GE	1	3.5300	0.5070	1.05	A	A
GP	1	13.0000	3.0000	3.87	A	N
IN	1	4.1000	1.9000	1.22	A	A
IS	1	4.2200	1.0900	1.26	N	A
IT	1	4.1600	0.4100	1.24	A	A
KO	1	2.5200	0.1200	0.75		W
LL	1	3.0100	0.2930	0.90		A
LM	1	2.4150	2.2150	0.72		W
MH	1	4.9100	0.8700	1.46		A
ML	1	2.7500	0.3000	0.82		A
NJ	1	4.4000	1.8000	1.31	N	A
NJ	2	1.6900	0.6400	0.50	N	N

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AM241

**EML Value:** 3.3600  
**EML Error:** 0.5100

Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
NJ	3	2.1400	0.8100	0.64	N	W
RE	1	2.5100	0.7600	0.75		W
SE	1	3.6000	0.3000	1.07		A
SI	1	4.4000	0.7000	1.31	W	A
SK	1	6.6700	0.6800	1.99		W
SN	1	4.3950	3.2290	1.31		A
SW	1	29.5000	17.4000	8.78		N
SY	1	2.6000	0.3400	0.77		W
TI	1	3.2000	1.6000	0.95		A
TN	1	3.4180	0.7680	1.02	W	A
TX	1	6.0900	0.8250	1.81		W
UY	1	4.2000	1.2000	1.25		A
WA	1	2.2700	0.7500	0.68	A	W
WC	1	3.9000	1.5000	1.16	N	A
WE	1	5.7100	1.5000	1.70		W
WT	1	13.7000	1.5000	4.08		N
WW	1	9.6000	1.9000	2.86		N
YA	1	2.6810	0.1530	0.80	A	A

**Total Number Reported:** 53

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI212

**EML Value:** 106.0000  
**EML Error:** 7.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	128.0000	12.0000	1.21		W
AF	3	59.2000	11.1000	0.56		A
AF	2	48.1000	11.1000	0.45		W
AF	1	59.2000	14.8000	0.56		A
AG	1	92.0000	55.0000	0.87	W	A
AI	2	88.0000	5.0000	0.83		A
AI	1	90.5000	4.8000	0.85		A
AM	1	97.8600	6.6400	0.92	A	A
AR	1	99.2300	21.6300	0.94	W	A
AS	1	54.8300	8.7700	0.52	A	W
AU	1	103.0000	21.0000	0.97	A	A
BL	1	103.7300	13.8000	0.98	A	A
BN	1	58.0900	4.9400	0.55	W	A
BU	1	110.0000	12.0000	1.04	A	A
BX	1	41.4000	332.0000	0.39	A	N
CD	1	80.0000	20.0000	0.75	A	A
CH	1	132.0000	10.7000	1.25	W	N
CL	1	131.0000	6.3000	1.24	N	N
CM	2	67.0000	1.9000	0.63	A	A
CM	3	63.6000	1.8000	0.60	A	A
CM	1	63.6000	2.0000	0.60	A	A
CR	1	83.3000	9.9000	0.79	A	A
CS	1	60.3300	9.9600	0.57		A
CU	1	108.0000	10.0000	1.02		A
CW	1	112.0000	6.0000	1.06		A
DC	1	101.0000	37.2000	0.95		A
DH	1	55.7900	6.8000	0.53		A
EC	2	113.6000	8.3000	1.07	W	A
EC	1	112.2000	10.6000	1.06	W	A
FG	1	101.2000	20.0000	0.95	A	A
FL	1	89.0000	4.0000	0.84		A
GA	1	60.8000	30.7000	0.57	A	A
GC	1	67.8000		0.64		A
GE	1	63.3000	17.9000	0.60	A	A
HU	1	47.3000	3.3000	0.45		W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI212

**EML Value:** 106.0000  
**EML Error:** 7.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
HU	2	60.0000	3.2000	0.57		A
ID	1	61.6130	4.1000	0.58	W	A
IL	1	65.0000	6.9000	0.61	A	A
IN	1	124.0000	11.0000	1.17	A	W
IS	1	135.0000	72.0000	1.27	A	N
KO	1	109.0000	8.0000	1.03		A
LA	2	65.0000	15.0000	0.61	A	A
LA	3	52.0000	12.0000	0.49	A	W
LA	1	38.0000	14.0000	0.36	A	N
LM	1	136.2410	28.4870	1.28		N
LV	1	114.0000	8.0000	1.08	A	A
MH	1	64.0000	4.0000	0.60	A	A
ML	1	86.2100	8.6000	0.81		A
MS	1	102.0000	10.0000	0.96		A
NA	1	100.0000	10.0000	0.94		A
NJ	3	115.0000	26.0000	1.09	A	A
NJ	2	111.0000	13.0000	1.05	A	A
NJ	1	113.0000	27.0000	1.07	A	A
NL	1	104.0000	11.0000	0.98	A	A
NQ	1	101.0000	23.0000	0.95	A	A
OB	1	117.0000	41.9000	1.10	A	A
OC	1	74.0000	24.0000	0.70	A	A
OH	1	123.0000	26.0000	1.16	A	W
OT	1	95.0000	20.0000	0.90	A	A
RA	1	100.0000	10.0000	0.94	A	A
RE	1	97.3000	12.8000	0.92	A	A
RM	1	92.0000	12.0000	0.87		A
SE	1	66.0000	3.6000	0.62		A
SI	1	96.0000	2.0000	0.91	A	A
SK	1	103.0000	4.0000	0.97		A
SR	1	70.4000	11.2000	0.66	A	A
SW	1	201.0000	103.0000	1.90		N
SY	1	86.8000	15.6000	0.82	A	A
TE	1	98.5000	15.1000	0.93	A	A
TM	1	57.8900	19.9400	0.55		A
TO	1	53.4400	35.2900	0.50		W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI212

**EML Value:** 106.0000  
**EML Error:** 7.0000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
TP	1	103.8800	6.5200	0.98	A	A
TQ	1	123.0000	11.0000	1.16	A	W
TW	1	114.0000	13.0000	1.08	A	A
TX	1	57.6830	4.8840	0.54		A
UY	1	82.0000	40.0000	0.77	A	A
WA	1	103.0000	6.0000	0.97	N	A
WE	1	107.0000	14.0000	1.01	W	A
WN	1	72.0000	6.0000	0.68		A
WN	2	73.0000	8.0000	0.69		A
WN	3	77.0000	17.0000	0.73		A
WO	2	98.1000	27.9000	0.93		A
WO	1	91.3000	31.8000	0.86		A
WS	1	93.9800	14.8000	0.89		A
WW	1	46.9000	6.6000	0.44		W

**Total Number Reported:** 85

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI214

**EML Value:** 86.7000  
**EML Error:** 3.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	94.3000	6.7000	1.09		A
AF	1	66.6000	7.4000	0.77		W
AF	3	62.9000	7.4000	0.73		N
AF	2	66.6000	7.4000	0.77		W
AG	1	91.0000	19.0000	1.05	W	A
AI	2	138.0000	4.0000	1.59	A	N
AI	1	134.0000	4.0000	1.55	A	N
AM	1	83.7520	2.7400	0.97	A	A
AS	1	65.6800	3.4800	0.76	A	W
AT	1	84.8300	6.0800	0.98		A
AU	1	106.0000	18.0000	1.22	W	W
BL	1	85.7800	10.3000	0.99	A	A
BN	1	83.8700	3.1900	0.97	A	A
BQ	1	203.0000	13.0000	2.34	N	N
BU	1	84.0000	8.0000	0.97	A	A
BX	1	91.8000	6.4000	1.06	A	A
CD	1	95.0000	15.0000	1.10	A	A
CH	1	90.4000	2.3000	1.04	A	A
CL	1	109.0000	3.9000	1.26	W	W
CM	2	92.7000	2.3000	1.07	A	A
CM	3	90.0000	2.4000	1.04	A	A
CM	1	94.3000	2.0000	1.09	A	A
CN	1	97.0900	7.0300	1.12	A	A
CR	1	109.0000	5.1000	1.26	W	W
CS	1	87.9800	14.0100	1.01		A
CU	1	86.0000	8.0000	0.99		A
CW	1	93.0000	2.0000	1.07		A
DC	1	84.9000	14.7000	0.98		A
DH	1	95.2500	5.2500	1.10		A
EC	2	108.8000	3.4000	1.25	A	W
EC	1	91.5000	3.4000	1.05	A	A
EL	1	166.0000		1.91		N
FG	1	80.2000	5.0000	0.93	W	A
FL	1	93.0000	2.0000	1.07	A	A
FS	1	96.9000	4.0000	1.12	W	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI214

**EML Value:** 86.7000  
**EML Error:** 3.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
GA	1	83.0000	11.5000	0.96	W	A
GC	1	84.5000		0.98		A
GE	1	94.8000	14.0000	1.09	W	A
HU	1	78.5000	1.9000	0.90	A	A
HU	2	77.0000	1.7000	0.89	A	A
ID	1	90.6230	4.9940	1.04	A	A
IL	1	75.7000	3.4000	0.87	N	A
IN	1	102.0000	8.0000	1.18	W	A
IS	1	129.0000	23.0000	1.49	A	N
IT	1	107.0000	6.3000	1.23	W	W
KO	1	87.7000	5.7000	1.01		A
LA	1	92.0000	11.0000	1.06	W	A
LA	3	93.0000	11.0000	1.07	W	A
LA	2	84.0000	10.0000	0.97	W	A
LB	1	74.0000	7.0000	0.85		A
LM	1	92.8120	6.6590	1.07		A
LV	1	101.0000	3.0000	1.16	W	A
MH	1	100.9000	3.3000	1.16	A	A
ML	1	88.4300	8.8000	1.02		A
MS	1	91.2000	9.1000	1.05		A
NA	1	99.6000	3.9000	1.15	W	A
NJ	3	100.0000	4.0000	1.15	W	A
NJ	1	102.0000	4.0000	1.18	W	A
NJ	2	105.0000	6.0000	1.21	W	W
NL	1	107.0000	9.0000	1.23	W	W
NQ	1	70.0000	15.0000	0.81	A	W
OB	1	80.0000	17.2000	0.92	A	A
OC	1	82.0000	8.0000	0.95	W	A
OH	1	88.6000	4.3000	1.02	A	A
OT	1	81.0000	12.0000	0.93	A	A
OU	1	96.4000	14.1000	1.11	A	A
PO	1	92.0000	4.0000	1.06	A	A
PS	1	200.5200	15.6900	2.31		N
RA	1	81.0000	5.0000	0.93	A	A
RE	1	75.3000	6.8000	0.87	A	A
RI	1	96.1000	11.1000	1.11		A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI214

**EML Value:** 86.7000  
**EML Error:** 3.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
RM	1	82.0000	10.0000	0.95		A
SE	1	89.3000	1.5000	1.03		A
SI	2	120.0000	4.0000	1.38	N	W
SI	1	104.0000	8.0000	1.20	N	W
SK	1	96.6000	5.2000	1.11		A
SN	1	80.4000	18.6000	0.93	A	A
SR	1	102.0000	6.5000	1.18	A	A
SW	1	103.0000	6.0000	1.19		W
TE	1	88.0000	3.8000	1.01	W	A
TM	1	91.0600	10.5500	1.05	N	A
TN	1	75.7500	3.2400	0.87	A	A
TO	1	64.9300	12.2100	0.75		W
TP	1	82.4100	5.8800	0.95	A	A
TQ	1	83.6000	4.7000	0.96	A	A
TW	1	85.6000	2.5000	0.99	W	A
TX	1	81.1040	1.5950	0.94	A	A
UY	1	102.0000	20.0000	1.18	W	A
WA	1	77.4000	6.3000	0.89	N	A
WE	1	83.3000	3.4000	0.96	A	A
WN	2	109.0000	4.0000	1.26	W	W
WN	3	104.0000	6.0000	1.20	W	W
WN	1	105.0000	2.0000	1.21	W	W
WO	2	117.6000	27.2000	1.36	W	W
WO	1	114.1000	21.7000	1.32	W	W
WW	1	83.7000	2.9000	0.96		A

**Total Number Reported:** 96

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** Bq U

**EML Value:** 229.0000

**EML Error:** 23.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	3	213.8600	17.9300	0.93		A
AF	2	236.0600	18.6800	1.03		A
AF	1	257.1500	18.7700	1.12		A
AG	1	246.0000	22.0000	1.07	A	A
AI	2	211.0000	6.0000	0.92	A	A
AI	1	217.0000	5.4000	0.95	A	A
AM	1	243.8000	26.3700	1.07	W	A
BL	1	229.0000	4.0000	1.00	W	A
BL	2	201.0000		0.88	W	A
CH	1	244.0000	9.9000	1.07	A	A
CL	2	265.0000	13.8000	1.16	A	A
CL	1	248.0000	12.4000	1.08	A	A
CL	3	259.0000	12.9000	1.13	A	A
FG	1	235.2000	11.0000	1.03	A	A
FL	1	256.0000	8.0000	1.12		A
GP	1	214.0000		0.93	A	A
HT	1	234.8700	20.0000	1.03	A	A
OT	1	247.0000	12.0000	1.08	A	A
RM	1	233.0000	19.0000	1.02		A
SN	1	251.3000	34.6000	1.10	A	A
UY	1	210.0000	35.0000	0.92	A	A
WA	1	278.0000	11.0000	1.21	A	W
WO	1	385.0000	76.9000	1.68	N	N
WO	2	352.2000	70.5000	1.54	N	N
WT	1	239.7800	25.0000	1.05	A	A

**Total Number Reported:** 25

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** CS137

**EML Value:** 339.0000  
**EML Error:** 9.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	382.0000	35.0000	1.13		A
AF	3	296.0000	29.6000	0.87		W
AF	2	292.3000	29.6000	0.86		W
AF	1	288.6000	29.6000	0.85		W
AG	1	408.0000	68.0000	1.20	N	A
AI	2	422.0000	6.0000	1.25	W	W
AI	1	401.0000	5.0000	1.18	W	A
AM	1	351.8600	3.8260	1.04	A	A
AN	1	396.0000	8.0000	1.17	W	A
AR	1	321.1800	39.7300	0.95	A	A
AS	1	282.4200	3.8600	0.83	A	W
AT	1	333.6000	33.1000	0.98	A	A
AU	1	375.0000	14.0000	1.11	A	A
BA	1	354.1000	17.7100	1.04	A	A
BC	1	396.0000	21.0000	1.17	N	A
BE	1	443.0000	24.0000	1.31	W	W
BL	1	383.6300	42.7800	1.13	A	A
BM	1	360.0000	3.7000	1.06	A	A
BN	1	333.8200	27.9500	0.99	W	A
BQ	1	360.0000	10.0000	1.06	A	A
BU	1	340.0000	20.0000	1.00	A	A
BX	1	411.0000	22.0000	1.21	N	W
CD	1	385.0000	40.0000	1.14	A	A
CF	2	345.8000	2.4000	1.02	A	A
CF	3	344.8000	3.5000	1.02	A	A
CF	1	346.8000	3.1000	1.02	A	A
CH	1	415.0000	2.5000	1.22	A	W
CL	1	400.0000	14.8000	1.18	W	A
CM	1	359.0000	7.4000	1.06	A	A
CM	2	350.0000	7.0000	1.03	A	A
CM	3	352.0000	7.0000	1.04	A	A
CN	1	365.9000	20.1000	1.08	A	A
CO	1	352.0000	13.0000	1.04		A
CO	2	350.0000	14.0000	1.03		A
CO	3	344.0000	14.0000	1.01		A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** CS137

**EML Value:** 339.0000  
**EML Error:** 9.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
CR	1	381.0000	27.9000	1.12	W	A
CS	1	363.5000	58.2400	1.07	A	A
CU	1	382.0000	31.0000	1.13		A
CW	1	340.0000	4.0000	1.00		A
DC	1	296.0000	114.0000	0.87		W
DH	1	328.6000	4.4000	0.97	A	A
EC	1	373.8000	14.2000	1.10	W	A
EC	2	371.9000	14.0000	1.10	W	A
EG	1	340.0000	30.0000	1.00	A	A
EL	1	524.0000		1.55		N
FG	1	341.0000	2.0000	1.01	A	A
FL	1	333.0000	5.0000	0.98	A	A
FN	1	328.0000	34.0000	0.97	A	A
FS	1	312.0000	5.6000	0.92	A	A
GA	1	350.0000	14.5000	1.03	A	A
GC	1	346.2000		1.02	A	A
GD	3	283.0000	53.0000	0.83	A	W
GD	2	302.0000	44.0000	0.89	A	W
GD	1	294.0000	24.0000	0.87	A	W
GE	1	349.0000	38.2000	1.03	A	A
GP	1	393.0000	40.0000	1.16	A	A
GT	1	380.0000	78.0000	1.12	A	A
HU	1	358.0000	9.5000	1.06	A	A
HU	2	361.0000	9.5000	1.07	A	A
ID	1	374.9000	18.7490	1.11	A	A
IL	1	300.9000	3.8000	0.89	A	W
IN	1	396.0000	13.0000	1.17	A	A
IS	1	435.0000	52.0000	1.28	A	W
IT	1	413.0000	21.0000	1.22	W	W
KA	1	355.7000	20.8000	1.05	A	A
KO	1	359.0000	1.0000	1.06		A
LA	2	335.0000	36.0000	0.99	W	A
LA	3	352.0000	37.0000	1.04	W	A
LA	1	347.0000	37.0000	1.02	W	A
LB	1	337.0000	50.0000	0.99	A	A
LL	1	299.0000	33.7000	0.88	A	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** CS137

**EML Value:** 339.0000  
**EML Error:** 9.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
LM	1	405.8080	5.9200	1.20		A
LV	1	388.0000	13.0000	1.14	A	A
LW	1	278.0000	19.0000	0.82		N
ME	1	340.0000	8.0000	1.00	N	A
ME	2	348.0000	9.0000	1.03	N	A
MH	1	393.6000	19.3000	1.16	A	A
ML	1	360.0100	36.0000	1.06		A
MS	1	391.0000	39.0000	1.15		A
NA	1	380.0000	13.0000	1.12	A	A
NJ	2	383.0000	18.0000	1.13	A	A
NJ	3	382.0000	22.0000	1.13	A	A
NJ	1	380.0000	18.0000	1.12	A	A
NL	1	360.0000	36.0000	1.06	A	A
NM	1	342.0000	15.0000	1.01	A	A
NQ	1	319.0000	66.0000	0.94	A	A
NR	1	350.0000	70.0000	1.03	A	A
NZ	1	355.0000	14.0000	1.05	A	A
NZ	2	346.0000	14.0000	1.02	A	A
OB	1	300.0000	55.9000	0.88	A	W
OC	1	346.0000	24.0000	1.02	A	A
OH	1	363.8000	5.2000	1.07	N	A
OT	1	317.0000	10.0000	0.94	A	A
OU	1	350.0000	24.6000	1.03	A	A
PK	1	311.8000	11.1000	0.92	A	A
PO	1	368.0000	20.0000	1.09	A	A
PS	1	725.1200	6.3300	2.14		N
RA	1	364.0000	20.0000	1.07	A	A
RC	1	245.0000	19.0000	0.72	A	N
RE	1	323.0000	25.0000	0.95	A	A
RI	1	379.0000	11.0000	1.12	N	A
RM	1	340.0000	41.0000	1.00		A
SA	1	328.0000	11.0000	0.97	A	A
SB	1	350.8900	37.3060	1.03	W	A
SE	1	353.0000	3.5000	1.04	A	A
SI	1	344.0000	6.0000	1.01	A	A
SK	1	413.0000	15.0000	1.22		W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** CS137

**EML Value:** 339.0000  
**EML Error:** 9.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
SN	1	338.3000	32.2000	1.00	A	A
SR	1	377.0000	39.0000	1.11	A	A
SW	1	438.0000	9.0000	1.29		W
SY	1	320.0000	22.0000	0.94	A	A
TE	1	324.0000	5.0000	0.96	A	A
TI	1	462.0000	46.0000	1.36	A	N
TM	1	313.2000	29.2800	0.92	W	A
TN	1	298.4000	3.7000	0.88	A	W
TO	1	262.6600	28.9900	0.77	A	N
TP	1	331.1800	10.8500	0.98	A	A
TQ	1	366.0000	7.1000	1.08	A	A
TW	1	377.0000	4.0000	1.11	A	A
TX	1	358.3080	3.1430	1.06	A	A
UC	1	421.0000	2.6300	1.24	A	W
UY	1	393.0000	25.0000	1.16	A	A
WA	1	363.0000	17.0000	1.07	N	A
WC	1	353.0000	53.0000	1.04	A	A
WE	1	351.0000	28.0000	1.03	W	A
WN	3	463.0000	7.0000	1.37	A	N
WN	1	464.0000	8.0000	1.37	A	N
WN	2	460.0000	6.0000	1.36	A	N
WO	1	381.8000	45.4000	1.13		A
WO	2	373.7000	63.5000	1.10		A
WP	1	352.0000	35.0000	1.04	A	A
WS	1	299.3000	17.7600	0.88	A	W
WW	1	334.5000	22.9000	0.99		A
YA	1	445.4800	2.8490	1.31	W	W
YU	1	342.0000	9.0000	1.01		A

**Total Number Reported:** 135

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** K40

**EML Value:** 811.0000  
**EML Error:** 29.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	929.0000	24.0000	1.14		A
AF	2	703.0000	70.3000	0.87		W
AF	3	699.3000	70.3000	0.86		W
AF	1	699.3000	70.3000	0.86		W
AG	1	887.0000	158.0000	1.09	W	A
AI	1	1030.0000	36.0000	1.27	A	W
AI	2	1070.0000	41.0000	1.32	A	W
AM	1	872.2800	28.8200	1.08	A	A
AN	1	904.0000	35.0000	1.12	A	A
AR	1	737.9400	48.6200	0.91	A	A
AS	1	682.2800	17.5500	0.84	W	W
AT	1	790.7000	77.9000	0.98	A	A
AU	1	844.0000	44.0000	1.04	A	A
BC	1	914.0000	63.0000	1.13	N	A
BE	1	1221.0000	68.0000	1.51	W	W
BN	1	703.0000	55.7000	0.87	W	W
BQ	1	870.0000	140.0000	1.07	A	A
BU	1	790.0000	50.0000	0.97	A	A
BX	1	881.0000	58.0000	1.09	N	A
CD	1	890.0000	50.0000	1.10	A	A
CH	1	964.0000	18.0000	1.19	A	A
CL	1	1250.0000	34.4000	1.54	N	N
CM	2	876.0000	28.1000	1.08	A	A
CM	3	854.0000	27.5000	1.05	A	A
CM	1	881.0000	28.5000	1.09	A	A
CN	1	769.9000	48.5000	0.95	A	A
CR	1	999.0000	100.0000	1.23	A	A
CS	1	871.4000	140.8000	1.07	A	A
CU	1	855.0000	30.0000	1.05		A
CW	1	796.0000	16.0000	0.98		A
DC	1	749.0000	200.0000	0.92		A
DH	1	778.6000	42.9000	0.96	A	A
EC	1	966.8000	50.2000	1.19	A	A
EC	2	936.9000	46.3000	1.15	A	A
EG	1	770.0000	60.0000	0.95	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** K40

**EML Value:** 811.0000  
**EML Error:** 29.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
EL	1	1360.0000		1.68		N
FG	1	825.0000	16.0000	1.02	A	A
FL	1	790.0000	20.0000	0.97	A	A
FN	1	788.0000	82.0000	0.97	A	A
FS	1	755.0000	12.4000	0.93	A	A
GA	1	751.0000	98.5000	0.93	W	A
GC	1	850.3000		1.05	A	A
GD	2	921.0000	235.0000	1.14	A	A
GD	3	866.0000	215.0000	1.07	A	A
GD	1	884.0000	153.0000	1.09	A	A
GE	1	850.0000	94.5000	1.05	A	A
GP	1	943.0000	97.0000	1.16	A	A
GT	1	890.0000	52.0000	1.10	A	A
HU	2	900.0000	62.0000	1.11	A	A
HU	1	902.0000	62.0000	1.11	A	A
ID	1	960.3330	48.6110	1.18	W	A
IL	1	724.5000	28.5000	0.89	A	W
IN	1	835.0000	50.0000	1.03	A	A
IS	1	984.0000	167.0000	1.21	A	A
IT	1	927.0000	52.0000	1.14	A	A
KA	1	805.5000	201.3000	0.99	A	A
KO	1	851.0000	9.0000	1.05		A
LA	2	744.0000	84.0000	0.92		A
LA	1	713.0000	80.0000	0.88		W
LA	3	759.0000	86.0000	0.94		A
LB	1	842.0000	112.0000	1.04		A
LL	1	805.0000	104.0000	0.99	A	A
LM	1	964.2620	46.6160	1.19		A
LV	1	877.0000	35.0000	1.08	A	A
LW	1	617.0000	124.0000	0.76		N
ME	1	755.0000	43.0000	0.93	W	A
ME	2	751.0000	37.0000	0.93	W	A
MH	1	964.2000	44.3000	1.19	A	A
ML	1	887.2600	88.7000	1.09		A
MS	1	920.0000	92.0000	1.13		A
NA	1	881.0000	34.0000	1.09	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** K40

**EML Value:** 811.0000  
**EML Error:** 29.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
NJ	1	888.0000	37.0000	1.10	A	A
NJ	3	909.0000	47.0000	1.12	A	A
NJ	2	866.0000	36.0000	1.07	A	A
NL	1	889.0000	94.0000	1.10	A	A
NQ	1	770.0000	160.0000	0.95	A	A
NZ	2	704.0000	25.0000	0.87	W	W
NZ	1	709.0000	26.0000	0.87	W	W
OB	1	709.0000	146.0000	0.87	A	W
OC	1	733.0000	110.0000	0.90	A	A
OH	1	843.0000	34.0000	1.04	N	A
OT	1	776.0000	44.0000	0.96	A	A
OU	1	810.0000	158.0000	1.00	W	A
PK	1	837.3000	66.4000	1.03	W	A
PO	1	839.0000	15.0000	1.03	A	A
PS	1	1683.3101	37.7400	2.08		N
RA	1	890.0000	100.0000	1.10	W	A
RC	1	906.0000	59.0000	1.12	A	A
RE	1	825.0000	70.0000	1.02	A	A
RM	1	850.0000	100.0000	1.05		A
SA	1	787.0000	28.0000	0.97	A	A
SB	1	863.2100	85.5530	1.06	A	A
SE	1	828.0000	13.0000	1.02	W	A
SI	1	791.0000	18.0000	0.98	A	A
SK	1	907.0000	37.0000	1.12		A
SN	1	956.6000	147.0000	1.18	W	A
SR	1	891.0000	87.0000	1.10	A	A
SW	1	939.0000	54.0000	1.16		A
SY	1	742.0000	60.0000	0.92	A	A
TE	1	872.0000	34.0000	1.08	A	A
TI	1	1010.0000	1000.0000	1.25	A	A
TM	1	1140.5800	151.3300	1.41	A	W
TN	1	714.2000	24.6000	0.88	A	W
TO	1	596.5300	99.6900	0.74	A	N
TP	1	765.2500	24.6800	0.94	A	A
TQ	1	885.0000	11.0000	1.09	A	A
TW	1	905.0000	23.0000	1.12	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** K40

**EML Value:** 811.0000  
**EML Error:** 29.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
TX	1	870.9800	14.8500	1.07	A	A
UC	1	993.0000	22.2000	1.22	A	A
UY	1	869.0000	120.0000	1.07	A	A
WA	1	952.0000	56.0000	1.17	N	A
WC	1	929.0000	11.0000	1.14	W	A
WE	1	801.0000	31.0000	0.99	A	A
WN	1	1121.0000	48.0000	1.38	N	W
WN	2	1022.0000	27.0000	1.26	N	W
WN	3	1030.0000	38.0000	1.27	N	W
WO	1	909.8000	146.9000	1.12		A
WO	2	890.6000	211.7000	1.10		A
WP	1	807.0000	81.0000	1.00	A	A
WS	1	715.6000	48.1000	0.88	A	W
WT	1	85.0000	8.0000	0.10		N
WW	1	865.4000	57.1000	1.07		A
YA	1	1044.1400	16.6500	1.29	W	W
YU	1	757.0000	20.0000	0.93		A

**Total Number Reported:** 124

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB212

**EML Value:** 97.3000  
**EML Error:** 4.6000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	125.0000	3.0000	1.28		W
AF	2	81.4000	7.4000	0.84		W
AF	1	81.4000	7.4000	0.84		W
AF	3	81.4000	7.4000	0.84		W
AG	1	117.0000	20.0000	1.20	N	A
AI	2	94.1000	5.1000	0.97	W	A
AI	1	93.4000	3.5000	0.96	W	A
AM	1	115.9400	6.4800	1.19	A	A
AR	1	95.7100	20.2100	0.98	A	A
AS	1	83.5100	3.1800	0.86	W	W
AU	1	110.6000	8.7000	1.14	A	A
BL	1	112.6000	13.8900	1.16	A	A
BN	1	95.9500	5.9700	0.99	W	A
BQ	1	103.0000	6.0000	1.06	A	A
BU	1	96.0000	9.0000	0.99	A	A
BX	1	121.0000	6.0000	1.24	W	W
CD	1	120.0000	20.0000	1.23	A	W
CH	1	116.0000	1.5000	1.19	A	A
CL	1	145.0000	4.2000	1.49	A	N
CM	3	100.1000	3.2000	1.03	A	A
CM	1	97.8000	2.9000	1.00	A	A
CM	2	96.3000	3.2000	0.99	A	A
CN	1	83.5600	5.3400	0.86	W	W
CR	1	87.6000	10.8000	0.90	W	W
CS	1	89.3700	14.2800	0.92		A
CU	1	98.0000	12.0000	1.01		A
CW	1	99.0000	2.0000	1.02		A
DC	1	75.7000	20.0000	0.78		W
DH	1	88.6200	2.5800	0.91		A
EC	2	122.4000	5.4000	1.26	N	W
EC	1	126.8000	7.0000	1.30	N	W
EL	1	199.0000		2.05		N
FG	1	103.6000	3.5000	1.07	A	A
FL	1	93.0000	2.0000	0.96	W	A
GA	1	104.0000	8.4000	1.07	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB212

**EML Value:** 97.3000  
**EML Error:** 4.6000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
GC	1	100.5000		1.03		A
GE	1	110.0000	12.9000	1.13	A	A
HU	1	96.1000	2.7000	0.99	A	A
HU	2	97.2000	2.6000	1.00	A	A
ID	1	111.6000	6.9590	1.15	A	A
IL	1	75.5000	1.7000	0.78	A	W
IN	1	111.0000	7.0000	1.14	A	A
IS	1	130.0000	23.0000	1.34	A	N
IT	1	128.0000	6.9000	1.32	W	W
KO	1	105.0000	2.0000	1.08		A
LA	1	93.0000	10.0000	0.96	W	A
LA	2	101.0000	11.0000	1.04	W	A
LA	3	98.0000	11.0000	1.01	W	A
LB	1	76.0000	8.0000	0.78	W	W
LM	1	124.9760	2.9600	1.28		W
LV	1	103.0000	6.0000	1.06	A	A
MH	1	108.2000	7.5000	1.11	A	A
ML	1	83.4400	8.3000	0.86		W
MS	1	103.0000	10.0000	1.06		A
NA	1	108.1000	4.0000	1.11	A	A
NJ	3	109.0000	4.0000	1.12	A	A
NJ	1	107.0000	4.0000	1.10	A	A
NJ	2	110.0000	4.0000	1.13	A	A
NL	1	104.0000	11.0000	1.07	A	A
NQ	1	104.0000	22.0000	1.07	A	A
OB	1	86.9000	16.1000	0.89	A	W
OC	1	88.0000	10.0000	0.90	A	W
OH	1	104.3000	2.9000	1.07	N	A
OT	1	95.0000	20.0000	0.98	A	A
OU	1	93.9000	14.1000	0.96	W	A
PK	1	90.2900	6.0600	0.93	W	A
PS	1	194.6000	8.6200	2.00		N
RA	1	84.0000	14.0000	0.86	W	W
RE	1	107.0000	9.0000	1.10	A	A
RI	1	111.0000	7.1500	1.14		A
RM	1	92.0000	12.0000	0.95		A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB212

**EML Value:** 97.3000  
**EML Error:** 4.6000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
SE	1	92.8000	1.3000	0.95		A
SI	1	102.0000	2.0000	1.05	A	A
SK	1	111.0000	6.0000	1.14		A
SN	1	94.6000	25.5000	0.97	A	A
SR	1	90.3000	6.8000	0.93	A	A
SW	1	128.0000	5.0000	1.32		W
SY	1	108.0000	12.0000	1.11	A	A
TE	1	93.7000	2.7000	0.96	A	A
TM	1	86.0600	10.9800	0.88	N	W
TN	1	87.9400	2.1500	0.90	A	W
TO	1	91.0800	21.5600	0.94		A
TP	1	97.7200	1.2200	1.00	A	A
TQ	1	120.0000	2.4000	1.23	W	W
TW	1	106.0000	2.0000	1.09	A	A
TX	1	94.6460	1.3750	0.97	A	A
UY	1	93.0000	20.0000	0.96	A	A
WA	1	99.6000	5.6000	1.02	N	A
WE	1	96.7000	8.1000	0.99	A	A
WN	3	136.0000	3.0000	1.40	A	N
WN	2	128.0000	4.0000	1.32	A	W
WN	1	133.0000	4.0000	1.37	A	N
WO	1	113.2000	15.0000	1.16	A	A
WO	2	119.8000	15.0000	1.23	A	W
WS	1	84.7300	6.6600	0.87		W
WW	1	99.9000	4.5000	1.03		A

**Total Number Reported:** 96

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB214

**EML Value:** 86.5000  
**EML Error:** 6.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	101.0000	4.0000	1.17		A
AF	3	70.3000	7.4000	0.81		W
AF	2	66.6000	7.4000	0.77		W
AF	1	70.3000	7.4000	0.81		W
AG	1	106.0000	21.0000	1.23	W	A
AI	2	142.0000	4.0000	1.64	A	N
AI	1	140.0000	4.0000	1.62	A	N
AM	1	99.4970	1.9430	1.15	W	A
AS	1	70.5600	5.1200	0.82	A	W
AT	1	93.3300	15.8000	1.08		A
AU	1	108.9000	9.8000	1.26	A	W
BL	1	94.1100	11.1500	1.09	A	A
BN	1	88.5500	6.9200	1.02	A	A
BQ	1	180.0000	15.0000	2.08	N	N
BU	1	87.0000	8.0000	1.01	A	A
BX	1	110.0000	7.0000	1.27	A	W
CD	1	95.0000	15.0000	1.10	A	A
CH	1	101.0000	2.4000	1.17	A	A
CL	1	114.0000	5.6000	1.32	W	W
CM	1	104.4000	2.3000	1.21	A	A
CM	3	104.6000	2.4000	1.21	A	A
CM	2	100.3000	2.3000	1.16	A	A
CN	1	96.1100	6.2500	1.11	A	A
CR	1	85.1000	7.1000	0.98	A	A
CS	1	90.8100	14.4500	1.05		A
CU	1	86.0000	12.0000	0.99		A
CW	1	93.0000	2.0000	1.08		A
DC	1	85.5000	10.2000	0.99		A
DH	1	93.4600	7.1400	1.08		A
EC	2	118.7000	3.1000	1.37	A	W
EC	1	99.9000	3.0000	1.15	A	A
EL	1	187.0000		2.16		N
FG	1	91.1000	8.0000	1.05	A	A
FL	1	98.0000	2.0000	1.13	N	A
FS	1	99.9000	0.8000	1.15	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB214

**EML Value:** 86.5000  
**EML Error:** 6.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
GA	1	89.2000	13.1000	1.03		A
GC	1	89.2000		1.03		A
GE	1	106.0000	12.8000	1.23	W	A
HU	2	82.6000	1.7000	0.95	W	A
HU	1	87.7000	1.8000	1.01	W	A
ID	1	91.2070	7.4100	1.05	A	A
IL	1	75.7000	3.4000	0.88	N	W
IN	1	110.0000	5.0000	1.27	A	W
IS	1	136.0000	26.0000	1.57	A	N
IT	1	124.0000	7.2000	1.43	A	W
KO	1	90.1000	1.9000	1.04		A
LA	1	85.0000	10.0000	0.98	A	A
LA	3	92.0000	11.0000	1.06	A	A
LA	2	77.0000	9.0000	0.89	A	A
LB	1	79.0000	8.0000	0.91		A
LM	1	100.6290	5.5490	1.16		A
LV	1	105.0000	5.0000	1.21	A	A
ME	1	106.0000	3.0000	1.23	W	A
ME	2	133.0000	4.0000	1.54	W	N
MH	1	112.5000	3.6000	1.30	A	W
ML	1	91.2100	9.1000	1.05		A
MS	1	96.4000	9.6000	1.11		A
NA	1	107.2000	4.0000	1.24	W	A
NJ	1	106.0000	4.0000	1.23	W	A
NJ	2	103.0000	4.0000	1.19	W	A
NJ	3	113.0000	7.0000	1.31	W	W
NL	1	109.0000	9.0000	1.26	W	W
NQ	1	73.0000	15.0000	0.84	A	W
OB	1	72.7000	15.9000	0.84	N	W
OC	1	94.0000	12.0000	1.09	N	A
OH	1	100.7000	4.4000	1.16	W	A
OT	1	81.0000	12.0000	0.94	A	A
OU	1	148.0000	27.4000	1.71	A	N
PK	1	52.1000	1.9000	0.60	W	N
PO	1	99.0000	3.0000	1.14	A	A
RA	1	83.0000	4.0000	0.96	W	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB214

**EML Value:** 86.5000  
**EML Error:** 6.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
RE	1	87.2000	7.8000	1.01	A	A
RI	1	95.5000	10.7000	1.10		A
RM	1	82.0000	10.0000	0.95		A
SE	1	94.4000	1.4000	1.09		A
SI	2	117.0000	2.0000	1.35	N	W
SI	1	98.0000	3.0000	1.13	N	A
SK	1	104.0000	5.0000	1.20		A
SN	1	83.1000	35.6000	0.96	A	A
SR	1	94.3000	6.8000	1.09	A	A
SW	1	103.0000	11.0000	1.19		A
TE	1	100.1000	3.7000	1.16	W	A
TM	1	95.3600	10.2200	1.10	N	A
TO	1	66.5500	15.2200	0.77		W
TP	1	76.0800	0.8000	0.88	A	W
TQ	1	90.4000	7.8000	1.04	W	A
TW	1	98.9000	2.5000	1.14	W	A
TX	1	89.5400	1.5110	1.03	A	A
UY	1	104.0000	20.0000	1.20	A	A
WA	1	85.6000	10.4000	0.99	N	A
WE	1	88.5000	4.8000	1.02	A	A
WN	3	114.0000	3.0000	1.32	A	W
WN	2	115.0000	3.0000	1.33	A	W
WN	1	113.0000	3.0000	1.31	A	W
WO	2	164.7000	22.2000	1.90	A	N
WO	1	143.6000	17.6000	1.66	A	N
WS	1	121.0000	9.6200	1.40		W
WW	1	89.0000	3.5000	1.03		A

**Total Number Reported:** 98

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PU238

**EML Value:** 18.6000  
**EML Error:** 0.5000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	19.1000	1.4000	1.03		A
AF	3	18.8700	3.7000	1.01		A
AF	2	20.7200	4.0700	1.11		A
AF	1	21.0900	3.7000	1.13		A
AG	1	18.7000	2.8000	1.00		A
AR	1	18.7300	0.7970	1.01		A
AU	1	19.0000	2.8000	1.02		A
BE	1	18.2000	1.9000	0.98		A
CO	3	17.0000	1.0000	0.91		A
CO	2	18.0000	1.0000	0.97		A
CO	1	17.0000	1.0000	0.91		A
EG	1	17.2000	1.0000	0.93	A	A
FG	1	16.0200	0.6700	0.86	A	A
GP	1	20.0000	2.0000	1.08		A
GT	1	20.0000	1.0000	1.08		A
IN	1	20.1000	0.2000	1.08		A
IN	2	19.7000	0.5000	1.06		A
IT	1	18.0000	1.5000	0.97		A
KO	1	17.4000	0.6000	0.94		A
NL	1	19.8000	5.6000	1.07		A
NM	3	17.4000	1.0000	0.94		A
NM	2	17.6000	1.2000	0.95		A
NM	1	15.2000	0.7000	0.82		A
RE	1	17.2000	2.6000	0.93		A
SE	1	18.6000	0.7000	1.00		A
SW	1	20.8900	1.9100	1.12		A
TE	1	19.8000	3.0000	1.07		A
TX	1	18.1780	0.7510	0.98		A
WA	1	14.5000	0.9000	0.78		A
WE	1	20.9000	3.9000	1.12		A

**Total Number Reported:** 30

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PU239

**EML Value:** 7.0000  
**EML Error:** 0.3400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	6.7700	0.5500	0.97		A
AF	3	7.0300	1.8500	1.00		A
AF	1	8.8800	2.2200	1.27		W
AF	2	6.6600	2.2200	0.95		A
AG	1	7.2000	1.3000	1.03	A	A
AI	1	8.1400	0.7800	1.16	N	A
AI	2	7.8300	0.8000	1.12	N	A
AM	1	10.2200	1.8000	1.46	A	W
AN	1	7.5700	0.6800	1.08	A	A
AR	1	7.3600	0.5000	1.05	N	A
AU	1	7.3000	1.6000	1.04	W	A
BE	1	6.9700	0.9400	1.00	A	A
BL	1	9.5200	0.5700	1.36	W	W
BM	1	7.3900	0.7700	1.06	W	A
BU	1	8.3700	0.7000	1.20	A	A
BX	1	7.0300	0.7400	1.00	W	A
CH	1	6.9700	0.5500	1.00	A	A
CL	2	7.1700	2.0700	1.02	W	A
CL	1	6.1900	1.8500	0.88	W	W
CL	3	7.1400	2.0200	1.02	W	A
CO	2	6.3000	0.6000	0.90		A
CO	1	7.1000	0.7000	1.01		A
CO	3	6.6000	0.7000	0.94		A
CW	1	8.6000	0.4000	1.23	W	A
EG	1	6.1000	0.4000	0.87	W	W
FG	1	6.4400	0.5800	0.92	W	A
GA	1	7.7400	1.2800	1.11	A	A
GE	1	5.0000	1.4700	0.71	W	W
GP	1	7.7000	1.3000	1.10	A	A
GT	1	8.7000	0.4000	1.24	A	W
ID	1	6.9430	0.9250	0.99		A
IN	1	6.7000	0.2000	0.96	W	A
IS	1	8.3100	2.1000	1.19	N	A
IT	1	6.6200	0.6000	0.95	W	A
KA	1	7.1990	0.2940	1.03	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PU239

**EML Value:** 7.0000  
**EML Error:** 0.3400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
KO	1	6.4800	0.2700	0.93		A
LL	1	6.8600	0.7880	0.98	A	A
LV	1	7.8400	0.6300	1.12		A
LW	1	8.4000	2.5000	1.20	W	A
ME	1	16.0000	2.0000	2.29		N
ME	2	17.0000	1.0000	2.43		N
ML	1	7.4000	1.2000	1.06	W	A
NA	1	7.1000	1.1000	1.01	W	A
NL	1	8.0700	2.8800	1.15		A
NM	3	6.8000	0.5500	0.97	W	A
NM	2	7.6000	0.6800	1.09	W	A
NM	1	7.8000	0.4700	1.11	W	A
NQ	1	6.4300	0.6500	0.92	A	A
OT	1	7.7000	0.7000	1.10	W	A
RE	1	6.7300	1.3400	0.96	W	A
RI	1	24.4000	2.7800	3.49		N
SE	1	8.2000	0.4000	1.17	A	A
SN	1	6.3880	2.8850	0.91	A	A
SR	1	7.1900	1.4500	1.03	A	A
SW	1	6.8300	0.7400	0.98		A
TE	1	8.1000	1.7000	1.16	W	A
TI	1	4.3000	1.2000	0.61	N	N
TM	1	8.3600	1.8000	1.19	N	A
TN	1	6.0840	1.4860	0.87	W	W
TO	1	7.2700	1.4700	1.04	A	A
TX	1	7.1970	0.4260	1.03	A	A
UY	1	7.4000	0.9000	1.06	W	A
WA	1	6.3300	0.5800	0.90	W	A
WC	1	8.6000	2.9000	1.23	A	A
WE	1	5.4700	1.7000	0.78		W
YA	1	8.9050	0.3060	1.27	A	W

**Total Number Reported:** 66

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** SR90

**EML Value:** 20.2000  
**EML Error:** 0.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	3	18.5000	14.8000	0.92		A
AF	2	29.6000	14.8000	1.47		A
AF	1	37.0000	14.8000	1.83		W
AG	1	22.6000	4.7000	1.12	A	A
AI	2	140.0000	7.0000	6.93	N	N
AI	1	97.0000	6.0000	4.80	N	N
AM	1	13.7300	7.8000	0.68	N	W
AN	1	18.9000	0.2000	0.94	A	A
AU	1	20.4000	3.8000	1.01	A	A
BA	1	18.8900	3.2590	0.94		A
BE	1	18.9000	3.5000	0.94	A	A
BL	1	20.8000	7.0000	1.03	N	A
BM	1	13.8400	2.2900	0.69	A	W
CH	1	22.8000	1.6000	1.13	A	A
CL	2	0.1900	0.0600	0.01	A	N
CL	3	0.1900	0.0600	0.01	A	N
CL	1	0.2200	0.0600	0.01	A	N
EG	1	13.8000	1.5000	0.68	A	W
GE	1	14.3000	1.3200	0.71	W	W
GP	1	18.0000	5.0000	0.89		A
GT	1	20.0000	2.0000	0.99	W	A
IS	1	17.5000	4.9000	0.87	A	A
IT	1	16.7000	2.3000	0.83	A	A
KA	1	19.2500	2.7400	0.95	A	A
KO	1	19.3000	0.8000	0.95		A
NM	3	26.5000	4.1000	1.31	A	A
NM	1	24.8000	4.5000	1.23	A	A
NM	2	25.6000	5.9000	1.27	A	A
OT	1	18.0000	3.0000	0.89	A	A
RA	1	19.0000	4.0000	0.94	A	A
RE	1	19.8000	2.5000	0.98	A	A
RI	1	117.0000	4.1100	5.79		N
SN	1	20.7500	4.1600	1.03		A
SR	1	34.0000	28.0000	1.68	A	W
SW	1	42.2000	29.7000	2.09		W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** SR90

**EML Value:** 20.2000  
**EML Error:** 0.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
TE	1	13.6000	3.1000	0.67	N	W
TI	1	18.0000	3.0000	0.89	A	A
TM	1	15.3400	16.0200	0.76		W
TN	1	20.0600	3.6100	0.99	A	A
TO	1	23.9700	4.6800	1.19	N	A
TQ	1	22.3000	1.5000	1.10		A
TW	1	24.9000	2.6000	1.23		A
TX	1	25.9740	5.0320	1.29	A	A
UY	1	29.5000	2.5000	1.46	W	A
WA	1	20.8000	3.3000	1.03	A	A
WC	1	193.0000	32.0000	9.55	N	N
WE	1	44.1000	4.2000	2.18	W	W
WP	1	0.7000	0.0370	0.04		N
YA	1	22.2010	0.9220	1.10		A

**Total Number Reported:** 49

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** TH234

**EML Value:** 130.0000  
**EML Error:** 5.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	3	88.8000	25.9000	0.68		W
AF	1	136.9000	25.9000	1.05		A
AF	2	92.5000	25.9000	0.71		W
AI	1	368.0000	22.0000	2.83		N
AI	2	350.0000	20.0000	2.69		N
AM	1	137.7000	10.9120	1.06	A	A
AR	1	122.6100	18.6300	0.94		A
AS	1	125.9800	26.7700	0.97	A	A
AU	1	116.0000	19.0000	0.89	A	A
BE	1	103.0000	34.0000	0.79		W
BL	1	154.0300	23.1300	1.18	A	A
BQ	1	170.0000	48.0000	1.31	A	A
BX	1	210.0000	60.0000	1.62	A	W
CH	1	177.0000	45.0000	1.36	A	A
CL	1	200.0000	9.7000	1.54	A	W
EC	2	159.9000	7.8000	1.23	A	A
EC	1	160.4000	7.7000	1.23	A	A
FG	1	128.0000	10.0000	0.99		A
FL	1	128.0000	4.0000	0.99		A
FN	1	140.0000	17.0000	1.08	A	A
FS	1	124.9000	7.2000	0.96	A	A
GC	1	210.4000		1.62		W
GE	1	114.0000	33.3000	0.88	A	A
HU	2	98.5000	4.5000	0.76		W
HU	1	107.0000	7.7000	0.82		A
ID	1	209.4670	12.6040	1.61	A	W
IS	1	205.0000	65.0000	1.58	N	W
IT	1	179.0000	104.0000	1.38	N	A
KO	1	167.0000	24.0000	1.28		A
LA	3	310.0000	37.0000	2.38	W	N
LA	1	300.0000	36.0000	2.31	W	N
LA	2	305.0000	37.0000	2.35	W	N
LM	1	257.4990	26.2670	1.98		N
LV	1	113.0000	57.0000	0.87	N	A
ME	1	799.0000	45.0000	6.15		N

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** TH234

**EML Value:** 130.0000  
**EML Error:** 5.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
ME	2	499.0000	26.0000	3.84		N
MH	1	169.1000	8.8000	1.30	A	A
ML	1	120.4400	12.0000	0.93		A
NA	1	103.0000	13.0000	0.79		W
NJ	3	161.0000	11.0000	1.24	W	A
NJ	2	97.1000	13.4000	0.75	W	W
NJ	1	106.0000	25.0000	0.81	W	W
NL	1	103.0000	19.0000	0.79	A	W
NQ	1	118.0000	25.0000	0.91	A	A
OB	1	82.8000	70.0000	0.64	W	W
OC	1	122.0000	14.0000	0.94	A	A
OU	1	176.0000	23.7000	1.35	A	A
PO	1	156.0000	20.0000	1.20	A	A
RM	1	125.0000	25.0000	0.96		A
SR	1	132.0000	22.0000	1.01	A	A
SW	1	127.0000	40.0000	0.98		A
TO	1	138.2300	65.2200	1.06		A
TX	1	165.8710	7.9920	1.28	A	A
UY	1	105.0000	20.0000	0.81	W	W
WA	1	173.0000	21.0000	1.33	N	A
WE	1	122.0000	34.0000	0.94	W	A
WO	2	297.1000	108.0000	2.29	N	N
WO	1	252.7000	105.7000	1.94	N	N
WW	1	238.0000	15.4000	1.83		W

**Total Number Reported:** 59

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** U234

**EML Value:** 111.0000  
**EML Error:** 11.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	3	102.8600	12.5800	0.93		A
AF	2	120.9900	13.6900	1.09		A
AF	1	117.2900	12.5800	1.06		A
AG	1	116.0000	15.0000	1.04	A	A
AM	1	118.3600	7.1900	1.07	W	A
AN	1	111.0000	4.0000	1.00	A	A
AR	1	125.7800	8.6200	1.13		W
AU	1	121.0000	11.0000	1.09	A	A
BC	1	112.0000	4.0000	1.01	W	A
BE	1	122.0600	10.1600	1.10	A	A
BL	2	100.0000		0.90	N	A
BL	1	114.0000	2.0000	1.03	N	A
BM	1	119.4000	15.9000	1.08	A	A
BX	1	100.0000	4.0000	0.90	W	A
CF	1	113.7000	8.5000	1.02	A	A
CF	3	107.9000	7.5000	0.97	A	A
CF	2	104.6000	8.1000	0.94	A	A
CH	1	116.0000	4.6000	1.04	A	A
CL	3	125.0000	30.4000	1.13	A	W
CL	2	124.0000	29.9000	1.12	A	W
CL	1	119.0000	29.0000	1.07	A	A
CW	1	132.0000	4.0000	1.19	A	W
FG	1	126.0000	8.0000	1.13	A	W
GA	1	110.0000	8.0800	0.99	A	A
GE	1	110.0000	13.1000	0.99	A	A
GP	1	105.0000	10.0000	0.95	A	A
HT	1	116.5000	10.0000	1.05	A	A
IN	1	136.3000	19.0000	1.23		W
IS	1	118.0000	20.0000	1.06	A	A
IT	1	112.0000	10.9000	1.01	A	A
LL	1	111.0000	6.7700	1.00		A
LW	1	117.5000	17.0000	1.06	A	A
ML	1	127.0900	18.8200	1.14	A	W
NA	1	116.0000	6.5000	1.04	A	A
NL	1	133.0000	31.0000	1.20	A	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** U234

**EML Value:** 111.0000  
**EML Error:** 11.0000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
NQ	1	122.6000	7.1000	1.11	A	A
OB	1	107.0000	19.2000	0.96	A	A
OK	1	102.5000	6.3000	0.92		A
RE	1	122.0000	12.0000	1.10	A	A
RM	1	111.0000	9.0000	1.00		A
SE	1	95.6000	2.3000	0.86	A	A
SR	1	161.0000	39.0000	1.45		N
SW	1	88.7000	7.8000	0.80		A
TN	1	120.1000	4.8000	1.08	A	A
TO	1	125.3000	23.7900	1.13	A	W
TX	1	125.0970	2.9230	1.13	A	W
UY	1	103.0000	12.0000	0.93	A	A
WA	1	128.0000	7.0000	1.15	A	W
WC	1	106.0000	33.0000	0.95	A	A
WE	1	102.0000	6.9000	0.92		A
YA	1	128.3650	4.2160	1.16		W

**Total Number Reported:** 51

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** U238

**EML Value:** 114.0000  
**EML Error:** 12.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	109.5200	12.5800	0.96		A
AF	1	129.5000	13.6900	1.14		W
AF	3	103.2300	12.5800	0.91		A
AG	1	121.0000	16.0000	1.06	A	A
AM	1	121.4200	6.4000	1.07	W	A
AN	1	115.0000	3.0000	1.01	A	A
AR	1	125.1300	8.5800	1.10		A
AU	1	123.0000	11.0000	1.08	A	A
BC	1	114.0000	4.0000	1.00	W	A
BE	1	124.4000	10.2900	1.09	A	A
BL	1	114.0000	2.0000	1.00	W	A
BL	2	100.0000		0.88	W	A
BM	1	119.6000	15.9000	1.05	A	A
BX	1	101.0000	4.0000	0.89	W	A
CF	2	105.9000	8.2000	0.93	A	A
CF	3	110.0000	7.7000	0.96	A	A
CF	1	112.9000	8.4000	0.99	A	A
CH	1	120.0000	4.7000	1.05	A	A
CL	3	130.0000	31.5000	1.14	A	W
CL	2	135.0000	32.4000	1.18	A	W
CL	1	126.0000	30.5000	1.11	A	W
CW	1	135.0000	4.0000	1.18	A	W
FG	1	140.1000	8.5000	1.23	W	W
GA	1	111.0000	8.0800	0.97	A	A
GE	1	113.0000	13.4000	0.99	A	A
GP	1	105.0000	10.0000	0.92	A	A
GT	1	130.0000	37.0000	1.14	A	W
HT	1	113.1700	10.0000	0.99	A	A
IN	1	145.0000	21.0000	1.27		W
IS	1	137.0000	27.0000	1.20	A	W
IT	1	126.0000	12.1000	1.11	A	W
LL	1	114.0000	6.9600	1.00		A
LW	1	129.5000	23.0000	1.14	A	W
ML	1	127.0200	18.8200	1.11	A	W
NA	1	116.0000	6.0000	1.02	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** U238

**EML Value:** 114.0000  
**EML Error:** 12.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
NL	1	124.0000	29.0000	1.09	A	A
NQ	1	124.1000	7.2000	1.09	A	A
OB	1	118.0000	20.8000	1.03	A	A
OK	1	104.8000	6.4000	0.92		A
RE	1	130.0000	13.0000	1.14	A	W
RM	1	117.0000	8.0000	1.03		A
SE	1	94.8000	4.0000	0.83	A	A
SI	1	137.0000	21.0000	1.20	A	W
SR	1	181.0000	42.0000	1.59		N
SW	1	88.8000	7.8000	0.78		A
TN	1	117.6000	4.7000	1.03	A	A
TO	1	124.9700	23.6600	1.10	A	A
TX	1	127.3540	2.9600	1.12	A	W
UY	1	105.0000	12.0000	0.92	A	A
WA	1	137.0000	7.0000	1.20	A	W
WC	1	111.0000	35.0000	0.97	A	A
WE	1	106.0000	7.1000	0.93	W	A
WS	1	126.2000	29.2300	1.11	W	W
YA	1	129.7840	4.2580	1.14		W

**Total Number Reported:** 54

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** UG/G U

**EML Value:** 9.1500  
**EML Error:** 0.9100

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AG	1	9.9000	1.3000	1.08		
AR	1	9.9700		1.09	A	
BE	1	10.0800		1.10	A	
BL	1	9.1000	0.2000	1.00	A	
BL	2	8.0000		0.87	A	
BQ	1	8.2000	0.4000	0.90	A	
CA	1	11.6000	1.2000	1.27	A	
CH	1	9.2000	0.9200	1.00	A	
GA	1	10.6000		1.16	A	
GE	1	8.1600	0.2000	0.89	A	
HT	1	9.1600	0.8000	1.00	A	
ID	1	10.9680	0.6280	1.20	A	
IT	1	9.7000	0.7900	1.06	A	
NL	1	10.0000	2.3000	1.09	A	
RA	1	7.9000	0.3000	0.86	A	
RI	2	7.4500	0.7590	0.81	A	
RI	3	7.1900	0.3430	0.79	A	
RI	1	7.2700	0.2880	0.80	A	
RM	1	9.6000	0.4000	1.05		
SA	1	9.1000	2.1000	1.00	A	
SW	1	10.2000		1.12		
SY	1	9.0400	1.3100	0.99	A	
TM	1	11.0500	0.1300	1.21	A	
TN	1	8.4900	0.9700	0.93	A	
TO	1	7.6400	0.3200	0.83	A	
UP	1	10.1800	1.0000	1.11	A	
YP	1	5.2100	0.2250	0.57	A	

**Total Number Reported:** 27

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** AM241

**EML Value:** 10.4000  
**EML Error:** 1.4000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	7.7700	1.8500	0.75		W
AF	1	7.4000	1.8500	0.71		W
AF	3	9.2500	1.8500	0.89		W
AG	1	9.7000	1.4000	0.93	A	A
AI	2	10.0000	1.0000	0.96	W	A
AI	1	10.2000	0.0600	0.98	W	A
AM	1	8.8400	2.1897	0.85	A	W
AR	1	12.2200	0.8600	1.17	A	A
AT	1	8.7890	1.9030	0.85	W	W
AU	1	5.7600	0.5700	0.55	A	N
BE	1	9.7500	0.9900	0.94	A	A
BL	1	10.1000	0.4000	0.97		A
BM	1	9.0800	1.3400	0.87	A	W
BU	1	8.9200	0.5000	0.86	A	W
BX	1	7.7700	1.1100	0.75	A	W
CH	1	8.9600	0.3400	0.86	A	W
CL	2	0.0100	0.0010	0.00	W	N
CL	1	0.0100	0.0010	0.00	W	N
CS	1	8.4200	2.8100	0.81		W
CW	1	9.7000	0.2000	0.93	A	A
EG	1	9.7000	0.5000	0.93	A	A
EL	2	15.5000		1.49		A
EL	1	17.6000		1.69		W
FL	1	10.0000	1.0000	0.96	W	A
GA	1	9.6200	1.0200	0.93	A	A
GE	1	11.1000	1.4400	1.07	A	A
GP	1	16.0000	2.0000	1.54	A	A
GT	1	8.9000	1.8000	0.86	A	W
ID	1	7.9730	1.6900	0.77		W
IS	1	8.2800	1.7400	0.80	A	W
IT	1	8.3300	0.6700	0.80	A	W
KO	1	9.8900	0.4600	0.95		A
LL	1	9.9000	0.9860	0.95	A	A
LM	1	11.6540	2.5890	1.12		A
LV	1	7.4300	2.2900	0.71	W	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** AM241

**EML Value:** 10.4000  
**EML Error:** 1.4000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
ME	3	10.1000	1.0000	0.97	A	A
ME	2	13.0000	1.6000	1.25	A	A
ME	1	9.2000	2.6000	0.88	A	W
MH	1	8.9700	0.8500	0.86	A	W
NJ	1	11.0000	1.4000	1.06	A	A
NJ	3	9.8000	5.3000	0.94	A	A
NJ	2	9.9000	1.3000	0.95	A	A
OT	1	9.3000	1.0000	0.89	A	A
PO	1	7.4000	1.0000	0.71	A	W
PS	1	29.0400	8.8400	2.79		N
RE	1	8.9300	0.8500	0.86	A	W
RI	1	7.6400	0.5420	0.74	A	W
SE	1	8.7000	0.3000	0.84	A	W
SI	1	9.9000	0.4000	0.95	A	A
SK	1	9.5100	1.0900	0.91		A
SN	1	9.7950	2.5070	0.94	W	A
SR	1	9.5100	1.1800	0.91	A	A
SW	1	1.8600	0.4500	0.18		N
SY	1	4.4500	0.0800	0.43		N
TE	1	9.8000	0.9000	0.94	A	A
TI	1	9.1000	1.0000	0.88	A	W
TM	1	11.6700	1.0400	1.12	A	A
TN	1	8.5310	0.9760	0.82	A	W
TO	1	8.6800	1.9700	0.83	A	W
TW	1	9.0500	0.2200	0.87		W
TX	1	10.0490	0.4480	0.97	A	A
UY	1	9.8000	1.1000	0.94	W	A
WA	1	8.3300	0.6100	0.80	A	W
WC	1	9.3400	3.1000	0.90	W	A
WE	1	14.3000	4.1000	1.38		A
WN	1	13.5000	5.8000	1.30	W	A
WN	3	10.4000	5.6000	1.00	W	A
WN	2	11.0000	4.8000	1.06	W	A
WT	1	37.8800	3.3000	3.64		N
YA	1	9.1020	0.2490	0.88	A	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** AM241

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**EML Value:** 10.4000  
**EML Error:** 1.4000

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Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
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**Total Number Reported:** 70

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Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

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**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CM244

**EML Value:** 5.0000  
**EML Error:** 1.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AG	1	6.0600	0.9700	1.21	A	A
AI	2	8.0000	1.1000	1.60	N	W
AI	1	7.9500	1.2300	1.59	N	W
AM	1	6.5110	3.6900	1.30	A	A
AR	1	5.5400	0.5780	1.11		A
BE	1	5.8400	0.6900	1.17	W	A
BL	1	5.0000	0.2200	1.00		A
BX	1	5.1800	0.7400	1.04	N	A
CH	1	5.1900	0.4100	1.04	A	A
CW	1	5.5000	0.1000	1.10	A	A
EG	1	6.3000	0.3000	1.26	A	A
GA	1	5.2600	0.6160	1.05	W	A
GE	1	6.9800	0.9810	1.40	A	W
GP	1	10.0000	1.0000	2.00	A	N
GT	1	4.1000	0.9000	0.82	A	A
IS	1	4.3100	0.9700	0.86	A	A
IT	1	3.3400	0.2900	0.67	A	W
KO	1	4.3800	0.2200	0.88		A
LL	1	6.8000	0.7460	1.36	W	W
OT	1	4.7000	0.8000	0.94	A	A
RE	1	5.4600	0.8300	1.09	A	A
RI	1	5.0700	0.3900	1.01	A	A
SN	1	6.6670	1.9620	1.33	A	A
SR	1	5.5000	0.7500	1.10	A	A
SW	1	4.3800	0.8500	0.88		A
TI	1	6.2000	0.8000	1.24	W	A
TN	1	4.8725	0.7697	0.98	A	A
TO	1	4.1300	2.0000	0.83		A
TW	1	5.6500	0.1600	1.13		A
UY	1	5.6000	0.7000	1.12	W	A
WA	1	5.3300	0.4700	1.07	A	A
WC	1	5.1300	1.8300	1.03		A
WE	1	6.4400	2.7000	1.29		A
YA	1	6.0940	0.1980	1.22	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CM244

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**EML Value:** 5.0000  
**EML Error:** 1.8000

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Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
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**Total Number Reported:** 34

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Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

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**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CO60

**EML Value:** 52.8000  
**EML Error:** 1.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	51.8000	7.4000	0.98		A
AF	1	48.1000	7.4000	0.91		A
AF	3	55.5000	7.4000	1.05		A
AG	1	57.0000	10.0000	1.08	A	A
AI	2	62.8000	3.2700	1.19	W	A
AI	1	62.2000	3.3000	1.18	W	A
AM	1	53.2000	2.3700	1.01	A	A
AR	1	45.9100	7.0900	0.87	A	A
AT	1	50.0650	3.5650	0.95	A	A
AU	1	58.0000	2.7000	1.10	A	A
BA	1	49.1600	0.7900	0.93	A	A
BC	1	68.4000	4.6000	1.29	W	W
BE	1	61.0000	5.0000	1.15	W	A
BL	1	48.2300	5.3300	0.91	A	A
BM	1	56.7000	2.1000	1.07	A	A
BN	1	47.3600	3.1900	0.90	A	A
BQ	1	140.0000	30.0000	2.65	N	N
BU	1	49.0000	4.0000	0.93	A	A
BX	1	67.3000	4.6000	1.27	W	W
CD	1	56.0000	5.0000	1.06	A	A
CF	1	53.1000	1.6000	1.01	W	A
CF	3	51.8000	2.6000	0.98	W	A
CF	2	50.1000	2.5000	0.95	W	A
CH	1	59.8000	1.2000	1.13	A	A
CL	1	61.0000	2.1000	1.15	A	A
CR	1	55.7000	2.1000	1.05	A	A
CS	1	55.3800	17.4600	1.05	A	A
CU	1	66.0000	6.0000	1.25		W
CW	1	58.3000	0.8000	1.10	A	A
DC	1	44.5000	13.3000	0.84		W
EG	1	52.0000	5.0000	0.99	W	A
EL	2	94.0000		1.78		N
EL	1	93.8000		1.78		N
FL	1	53.9000	0.7000	1.02	A	A
FN	1	48.2000	3.6000	0.91	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CO60

**EML Value:** 52.8000  
**EML Error:** 1.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
GA	1	59.0000	14.5000	1.12	W	A
GC	1	57.0000		1.08	A	A
GE	1	66.9000	7.2100	1.27	A	W
GP	1	55.0000	6.0000	1.04	A	A
GT	1	60.0000	6.0000	1.14	A	A
HU	1	56.6000	1.2000	1.07	W	A
HU	2	57.8000	1.3000	1.10	W	A
ID	1	54.5570	2.9010	1.03	A	A
IL	1	46.5000	4.0000	0.88	W	A
IN	1	57.5000	3.8000	1.09	A	A
IN	3	57.5000	3.8000	1.09	A	A
IN	2	57.5000	3.8000	1.09	A	A
IS	1	49.7000	8.8000	0.94	W	A
IT	1	54.1000	3.4000	1.02	A	A
KO	1	55.3000	0.9000	1.05		A
LA	2	51.0000	5.5000	0.97	A	A
LA	1	53.8000	5.8000	1.02	A	A
LA	3	49.0000	5.4000	0.93	A	A
LB	1	49.0000	6.0000	0.93	A	A
LL	1	49.7000	4.5300	0.94	A	A
LM	1	53.7400	2.9600	1.02		A
LV	1	55.1000	2.0000	1.04	A	A
ME	1	51.0000	3.0000	0.97	A	A
ME	2	51.0000	1.8000	0.97	A	A
ME	3	52.0000	1.5000	0.99	A	A
MH	1	57.4000	1.7000	1.09	A	A
NA	1	65.5000	0.9000	1.24	W	W
NJ	1	55.9000	2.1000	1.06	A	A
NJ	3	56.0000	2.1000	1.06	A	A
NJ	2	56.8000	1.3000	1.08	A	A
NR	1	50.6000	10.1000	0.96	A	A
NZ	2	60.0000	2.0000	1.14	A	A
NZ	1	60.0000	2.0000	1.14	A	A
OB	1	48.0000	6.9700	0.91	W	A
OC	1	51.2000	4.8000	0.97	A	A
OH	1	44.7000	3.0000	0.85	W	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CO60

**EML Value:** 52.8000  
**EML Error:** 1.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
OT	1	50.0000	3.0000	0.95	A	A
PK	1	19.5700	2.7000	0.37		N
PO	1	51.0000	3.0000	0.97	A	A
PS	1	131.3400	4.4000	2.49		N
RA	1	58.3000	3.5000	1.10	W	A
RE	1	54.8000	6.1000	1.04	A	A
RI	1	63.4000	5.0500	1.20	W	A
SB	1	53.5210	4.0570	1.01	A	A
SE	1	53.6000	1.1800	1.01	A	A
SI	1	53.3000	1.3000	1.01	A	A
SK	1	65.0000	3.0000	1.23		A
SN	1	54.3000	7.3700	1.03	W	A
SR	1	41.0000	2.8000	0.78	A	W
SW	1	94.7000	5.4000	1.79		N
SY	1	1279.0000	52.0000	24.22	A	N
TE	1	46.5000	2.1000	0.88	A	A
TI	1	61.9000	6.2000	1.17	N	A
TM	1	47.2700	6.6700	0.89	A	A
TN	1	49.5000	3.2000	0.94	W	A
TO	1	40.1500	5.3200	0.76	W	W
TP	1	53.1000	1.3500	1.01	A	A
TQ	1	57.4000	1.3000	1.09	A	A
TW	1	54.0000	1.0000	1.02	A	A
TX	1	58.7560	1.2110	1.11	A	A
UC	1	56.1000	0.9530	1.06	N	A
UY	1	58.5000	7.0000	1.11	A	A
WA	1	50.8000	1.9000	0.96	A	A
WC	1	23.2000	3.4000	0.44	A	N
WE	1	51.7000	1.0000	0.98	A	A
WN	1	66.6000	1.2000	1.26	W	W
WN	3	61.7000	2.7000	1.17	W	A
WN	2	68.0000	2.8000	1.29	W	W
WO	2	45.8000	14.5000	0.87	W	A
WO	1	50.7000	12.7000	0.96	W	A
WP	1	58.3000	2.6000	1.10	A	A
WT	1	62.3200	6.3000	1.18		A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CO60

**EML Value:** 52.8000  
**EML Error:** 1.0000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 51 Evaluation	Evaluation
YA	1	60.1990	1.1100	1.14	A	A
YU	1	48.2000	1.5000	0.91		A

**Total Number Reported:** 109

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CS137

**EML Value:**1380.0000  
**EML Error:** 20.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	3	1365.3000	144.3000	0.99		A
AF	2	1350.5000	144.3000	0.98		A
AF	1	1365.3000	144.3000	0.99		A
AG	1	1515.0000	251.0000	1.10	A	A
AI	2	1250.0000	15.0000	0.91	N	A
AI	1	1680.0000	12.0000	1.22	N	A
AM	1	1243.2600	7.5900	0.90	A	A
AR	1	1404.4000	105.3000	1.02	A	A
AT	1	1346.5000	133.0000	0.98	A	A
AU	1	1488.0000	49.0000	1.08	A	A
BA	1	1266.0000	22.0000	0.92	A	A
BC	1	1698.0000	90.0000	1.23	W	A
BE	1	1505.0000	160.0000	1.09	A	A
BL	1	1347.0000	148.9000	0.98	A	A
BM	1	1524.0000	8.0000	1.10	A	A
BN	1	1452.8700	136.7100	1.05	A	A
BQ	1	1510.0000	17.0000	1.09	A	A
BU	1	1200.0000	100.0000	0.87	W	W
BX	1	1710.0000	90.0000	1.24	W	A
CD	1	1560.0000	100.0000	1.13	A	A
CF	2	1321.0000	4.0000	0.96	A	A
CF	3	1368.0000	6.0000	0.99	A	A
CF	1	1375.0000	6.0000	1.00	A	A
CH	1	1575.0000	0.4000	1.14	A	A
CL	1	1580.0000	79.0000	1.14	A	A
CR	1	1376.8000	102.8000	1.00	A	A
CS	1	1515.0000	477.6000	1.10	A	A
CU	1	1760.0000	130.0000	1.27		W
CW	1	1521.0000	13.0000	1.10	A	A
DC	1	1120.0000	432.0000	0.81		W
EG	1	1376.0000	108.0000	1.00	A	A
EL	2	1977.0000		1.43		N
EL	1	1625.0000		1.18		A
FL	1	1515.0000	2.0000	1.10	A	A
FN	1	1260.0000	130.0000	0.91	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CS137

**EML Value:**1380.0000  
**EML Error:** 20.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
GA	1	1448.0000	47.7000	1.05	A	A
GC	1	1499.0000		1.09	A	A
GE	1	1736.0000	196.0000	1.26	A	W
GP	1	1400.0000	100.0000	1.01	A	A
GT	1	1600.0000	130.0000	1.16	A	A
HU	1	1495.0000	39.0000	1.08	A	A
HU	2	1483.0000	39.0000	1.08	A	A
ID	1	1457.6670	73.0020	1.06	A	A
IL	1	1171.3000	39.5000	0.85	A	W
IN	1	1537.0000	45.0000	1.11	A	A
IN	2	1537.0000	45.0000	1.11	A	A
IN	3	1537.0000	45.0000	1.11	A	A
IS	1	1404.0000	154.0000	1.02	A	A
IT	1	1502.0000	75.0000	1.09	A	A
KO	1	1498.0000	3.0000	1.09		A
LB	1	1332.0000	103.0000	0.96	A	A
LL	1	1270.0000	120.0000	0.92	W	A
LM	1	1483.5740	8.8790	1.08		A
LV	1	1470.0000	50.0000	1.07	A	A
ME	2	1380.0000	35.0000	1.00	A	A
ME	3	1339.0000	30.0000	0.97	A	A
ME	1	1339.0000	30.0000	0.97	A	A
MH	1	1584.0000	77.5000	1.15	A	A
NA	1	1895.0000	5.0000	1.37	W	W
NJ	2	1500.0000	85.0000	1.09	A	A
NJ	3	1500.0000	71.0000	1.09	A	A
NJ	1	1500.0000	75.0000	1.09	A	A
NR	1	1337.0000	267.0000	0.97	A	A
NZ	1	1400.0000	50.0000	1.01	A	A
NZ	2	1340.0000	50.0000	0.97	A	A
OB	1	1290.0000	240.0000	0.94	W	A
OC	1	1360.0000	120.0000	0.99	A	A
OH	1	1222.0000	11.0000	0.89	A	W
OT	1	1311.0000	100.0000	0.95	A	A
PK	1	1319.0000	48.0000	0.96	W	A
PO	1	1490.0000	60.0000	1.08	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CS137

**EML Value:**1380.0000  
**EML Error:** 20.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
PS	1	3725.4900	17.8000	2.70		N
RA	1	1460.0000	80.0000	1.06	A	A
RE	1	1447.0000	111.0000	1.05	A	A
RI	1	1560.0000	20.0000	1.13	A	A
SB	1	1428.1080	151.4500	1.03	A	A
SE	1	1480.0000	15.0000	1.07	A	A
SI	1	1409.0000	30.0000	1.02	A	A
SK	1	1650.0000	50.0000	1.20		A
SR	1	1080.0000	111.0000	0.78	A	N
SW	1	2432.0000	27.0000	1.76		N
SY	1	53.0000	3.5000	0.04	A	N
TE	1	1872.0000	46.0000	1.36	A	W
TI	1	1710.0000	170.0000	1.24	N	A
TM	1	1119.7000	111.1000	0.81	A	W
TN	1	1225.0000	8.0000	0.89	W	W
TO	1	991.8600	102.0000	0.72	A	N
TP	1	1417.4399	38.7800	1.03	A	A
TQ	1	1537.0000	86.0000	1.11	A	A
TW	1	1410.0000	12.0000	1.02	A	A
TX	1	1521.0699	10.6000	1.10	A	A
UY	1	1510.0000	200.0000	1.09	A	A
WA	1	1280.0000	60.0000	0.93	A	A
WC	1	1600.0000	237.0000	1.16	A	A
WE	1	1390.0000	120.0000	1.01	W	A
WN	1	1776.0000	23.0000	1.29	W	W
WN	3	1803.0000	26.0000	1.31	W	W
WN	2	1761.0000	26.0000	1.28	W	W
WO	2	1539.2000	263.4000	1.12	A	A
WO	1	1497.4000	184.9000	1.09	A	A
WP	1	1630.0000	9.6000	1.18	A	A
YA	1	1686.4600	6.2900	1.22	W	A
YU	1	1280.0000	30.0000	0.93		A

**Total Number Reported:** 103

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** K40

**EML Value:** 521.0000  
**EML Error:** 20.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	529.1000	59.2000	1.02		A
AF	3	525.4000	59.2000	1.01		A
AF	1	529.1000	59.2000	1.02		A
AG	1	619.0000	108.0000	1.19	A	A
AI	1	630.0000	52.0000	1.21	A	A
AI	2	636.0000	52.0000	1.22	A	A
AM	1	525.4800	26.3600	1.01	A	A
AR	1	558.2700	64.2000	1.07	N	A
AT	1	512.4500	52.6000	0.98	A	A
AU	1	537.0000	29.0000	1.03	A	A
BC	1	625.0000	44.0000	1.20	A	A
BE	1	722.0000	84.0000	1.39	A	W
BL	1	473.5000	53.6000	0.91	A	A
BN	1	482.2300	42.9400	0.93	W	A
BQ	1	302.0000	69.0000	0.58	A	N
BU	1	470.0000	50.0000	0.90	W	A
BX	1	622.0000	44.0000	1.19	W	A
CD	1	600.0000	30.0000	1.15	A	A
CH	1	618.0000	14.0000	1.19	A	A
CL	1	1280.0000	44.8000	2.46	N	N
CR	1	493.7000	70.2000	0.95	A	A
CS	1	564.4000	178.8000	1.08	A	A
CU	1	595.0000	45.0000	1.14		A
CW	1	541.0000	11.0000	1.04	A	A
DC	1	439.0000	118.0000	0.84		W
EG	1	440.0000	90.0000	0.85	A	W
EL	1	874.0000		1.68		N
EL	2	781.0000		1.50		N
FL	1	580.0000	10.0000	1.11	A	A
FN	1	439.0000	46.0000	0.84	W	W
GA	1	424.0000	77.3000	0.81	W	W
GC	1	595.0000		1.14	A	A
GE	1	662.0000	75.3000	1.27	A	W
GP	1	550.0000	60.0000	1.06	A	A
GT	1	590.0000	59.0000	1.13	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** K40

**EML Value:** 521.0000  
**EML Error:** 20.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
HU	2	587.0000	40.0000	1.13	A	A
HU	1	611.0000	42.0000	1.17	A	A
ID	1	586.6330	36.5220	1.13	W	A
IL	1	484.3000	84.3000	0.93	A	A
IN	1	540.0000	10.0000	1.04	A	A
IN	2	540.0000	10.0000	1.04	A	A
IN	3	540.0000	10.0000	1.04	A	A
IS	1	475.0000	92.0000	0.91	A	A
IT	1	549.0000	35.0000	1.05	A	A
KO	1	565.0000	7.0000	1.08		A
LA	1	507.0000	57.0000	0.97	A	A
LA	3	481.0000	54.0000	0.92	A	A
LA	2	506.0000	57.0000	0.97	A	A
LB	1	490.0000	72.0000	0.94		A
LL	1	542.0000	71.6000	1.04	W	A
LM	1	653.9030	33.2960	1.25		W
LV	1	555.0000	35.0000	1.07	A	A
ME	2	392.0000	61.0000	0.75	N	N
ME	1	492.0000	75.0000	0.94	N	A
ME	3	325.0000	27.0000	0.62	N	N
MH	1	693.2000	31.8000	1.33	A	W
NA	1	675.0000	14.0000	1.30	W	W
NJ	2	537.0000	33.0000	1.03	A	A
NJ	1	541.0000	24.0000	1.04	A	A
NJ	3	545.0000	32.0000	1.05	A	A
NZ	2	332.0000	11.0000	0.64	N	N
NZ	1	348.0000	13.0000	0.67	N	N
OB	1	432.0000	89.2000	0.83	W	W
OC	1	509.0000	60.0000	0.98	A	A
OH	1	440.0000	31.0000	0.85	A	W
OT	1	514.0000	34.0000	0.99	W	A
PK	1	516.6000	85.3000	0.99	N	A
PO	1	534.0000	21.0000	1.02	A	A
PS	1	1402.1500	43.6600	2.69		N
RA	1	640.0000	100.0000	1.23	W	A
RE	1	611.0000	67.0000	1.17	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** K40

**EML Value:** 521.0000  
**EML Error:** 20.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
SB	1	555.2780	61.5870	1.07	A	A
SE	1	634.0000	20.5000	1.22	N	A
SI	1	507.0000	12.0000	0.97	A	A
SK	1	555.0000	19.0000	1.07		A
SN	1	562.0000	99.6000	1.08	W	A
SR	1	390.0000	41.0000	0.75	A	N
SW	1	918.0000	69.0000	1.76		N
SY	1	535.0000	45.0000	1.03	A	A
TE	1	506.4000	28.0000	0.97	A	A
TI	1	596.0000	60.0000	1.14	N	A
TM	1	430.6600	104.3000	0.83	A	W
TN	1	515.1000	222.8000	0.99	W	A
TO	1	374.4600	67.9900	0.72	A	N
TP	1	566.2700	16.5500	1.09	A	A
TQ	1	563.0000	12.0000	1.08	A	A
TW	1	535.0000	20.0000	1.03	A	A
TX	1	606.0600	17.4700	1.16	A	A
UC	1	579.0000	19.8000	1.11		A
UY	1	512.0000	100.0000	0.98	A	A
WA	1	522.0000	30.0000	1.00	A	A
WC	1	734.0000	9.0000	1.41	N	W
WE	1	531.0000	21.0000	1.02	A	A
WN	1	635.0000	28.0000	1.22	N	A
WN	2	631.0000	53.0000	1.21	N	A
WN	3	615.0000	52.0000	1.18	N	A
WO	2	648.2000	199.3000	1.24	A	W
WO	1	603.5000	164.9000	1.16	A	A
WP	1	566.0000	24.0000	1.09	A	A
WT	1	119.7000	10.0000	0.23		N
YA	1	618.2700	17.0200	1.19	A	A
YU	1	562.0000	20.0000	1.08		A

**Total Number Reported:** 102

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** PU238

**EML Value:** 1.0900  
**EML Error:** 0.1000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AG	1	1.0100	0.2900	0.93		A
AR	1	1.2900	0.3200	1.18		A
BU	1	0.8810	0.1100	0.81		W
EG	1	0.9500	0.0800	0.87	N	A
GP	1	1.7000	0.2000	1.56	W	A
GT	1	1.3000	0.3000	1.19		A
KO	1	1.0500	0.4800	0.96		A
RE	1	1.1000	0.1900	1.01		A
SE	1	1.3000	0.1000	1.19	A	A
SW	1	2.7900	0.3600	2.56		A
TW	1	1.0300	0.0500	0.94		A
WA	1	0.7800	0.2800	0.72		W
WE	1	9.0670	3.0000	8.32		N

**Total Number Reported:** 13

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** PU239

**EML Value:** 15.5000  
**EML Error:** 2.1000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	11.8400	1.4800	0.76		W
AF	3	12.5800	1.4800	0.81		W
AF	1	9.2500	1.1100	0.60		N
AG	1	12.9000	1.8000	0.83	A	W
AI	1	17.0000	1.0000	1.10	A	A
AI	2	22.4000	1.2000	1.45	A	W
AM	1	4.6600	1.5000	0.30	W	N
AR	1	15.1000	1.0900	0.97	W	A
AU	1	8.3900	0.8700	0.54	A	N
BE	1	14.2500	1.5200	0.92	A	A
BL	1	32.6000	1.2000	2.10	A	N
BM	1	15.0200	1.3600	0.97	A	A
BU	1	14.4000	1.7000	0.93	A	A
BX	1	15.2000	0.7000	0.98	W	A
CH	1	13.3000	0.4600	0.86	A	W
CL	3	14.1000	3.7000	0.91	A	A
CL	2	13.2700	3.5000	0.86	A	W
CL	1	12.4700	3.4800	0.81	A	W
CW	1	15.0000	0.3000	0.97	A	A
EG	1	13.5000	0.7000	0.87	A	A
GE	1	15.5000	1.8800	1.00	A	A
GP	1	16.0000	2.0000	1.03	A	A
GT	1	17.0000	3.0000	1.10	A	A
ID	1	12.8970	1.1450	0.83		W
IS	1	13.3000	2.9000	0.86	A	W
IT	1	14.5000	1.2000	0.94	A	A
KO	1	14.7000	0.4000	0.95		A
LL	1	12.8000	1.2600	0.83	A	W
ML	1	14.6300	2.3100	0.94	A	A
NA	1	14.7000	0.8000	0.95	A	A
OB	1	18.8000	3.5100	1.21	N	A
OT	1	13.0000	1.0000	0.84	A	W
RE	1	13.5000	1.4000	0.87	A	A
RI	1	5.2800	0.4010	0.34	A	N
SE	1	14.3000	0.7000	0.92	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** PU239

**EML Value:** 15.5000  
**EML Error:** 2.1000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
SR	1	12.9600	1.7500	0.84	A	W
SW	1	13.3000	1.4000	0.86		W
TE	1	14.3000	1.5000	0.92	A	A
TI	1	12.0000	1.0000	0.77	A	W
TM	1	16.2100	1.7200	1.05	A	A
TN	1	13.2100	1.7600	0.85	A	W
TO	1	15.4300	3.8700	1.00	N	A
TW	1	13.6000	0.3000	0.88		A
TX	1	14.3630	0.4740	0.93	A	A
UC	1	9.5300	1.8900	0.62		N
UY	1	13.0000	1.6000	0.84	N	W
WA	1	13.0000	0.7000	0.84	W	W
WC	1	13.4000	4.4000	0.87	N	A
WE	1	19.3000	3.2000	1.25		W
YA	1	15.1700	0.3700	0.98	A	A

**Total Number Reported:** 50

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** SR90

**EML Value:**1780.0000  
**EML Error:** 17.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	1	1317.2000	33.3000	0.74		A
AF	3	1291.3000	33.3000	0.73		W
AF	2	1198.8000	33.3000	0.67		W
AG	1	1637.0000	295.0000	0.92	A	A
AI	2	1500.0000	249.0000	0.84	N	A
AI	1	1550.0000	254.0000	0.87	N	A
AM	1	324.1000	9.8000	0.18	N	N
AR	1	1990.0000	257.9600	1.12	A	A
AU	1	1049.0000	34.0000	0.59	A	W
BC	1	1320.0000	20.0000	0.74	A	A
BE	1	1851.0000	97.0000	1.04	A	A
BL	1	1555.0000	27.0000	0.87	A	A
BM	1	1705.0000	32.0000	0.96	W	A
BU	1	1813.0000	90.0000	1.02	A	A
BX	1	1530.0000	20.0000	0.86	A	A
CH	1	444.0000	14.0000	0.25	A	N
CL	3	1.2100	0.0800	0.00	W	N
CL	2	1.1800	0.0800	0.00	W	N
CL	1	1.1000	0.0800	0.00	W	N
EG	1	1870.0000	80.0000	1.05	A	A
GE	1	89.0000	0.6190	0.05	A	N
GP	1	2200.0000	200.0000	1.24	A	W
GT	1	1900.0000	90.0000	1.07	A	A
ID	1	1585.3330	114.4790	0.89	A	A
IS	1	2105.0000	415.0000	1.18	W	W
IT	1	1780.0000	239.0000	1.00	A	A
KO	1	1777.0000	13.0000	1.00		A
NA	1	1775.0000	21.0000	1.00	A	A
OT	1	1967.0000	100.0000	1.11	A	A
RA	1	1600.0000	300.0000	0.90	A	A
RE	1	1523.0000	23.0000	0.86	A	A
RI	1	1920.0000	67.2000	1.08	A	A
SR	1	2010.0000	23.0000	1.13	W	A
SW	1	1580.0000	31.0000	0.89		A
SY	1	554.0000	47.0000	0.31	A	N

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** SR90

**EML Value:**1780.0000  
**EML Error:** 17.8000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
TE	1	1198.0000	85.0000	0.67		W
TM	1	2199.7000	33.6700	1.24	A	W
TN	1	1866.1500	111.2500	1.05	A	A
TO	1	1409.5800	28.1600	0.79	W	A
TQ	1	1676.0000	153.0000	0.94	A	A
TW	1	1635.0000	13.0000	0.92		A
TX	1	1719.2000	34.6000	0.97	A	A
UY	1	1720.0000	20.0000	0.97	A	A
WC	1	2250.0000	318.0000	1.26	A	W
WE	1	1770.0000	140.0000	0.99	A	A
YA	1	1767.3669	32.0900	0.99	A	A

**Total Number Reported:** 46

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** AM241

**EML Value:** 1.9500  
**EML Error:** 0.1800

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	2.0900	0.1600	1.07		A
AF	3	1.9100	0.2400	0.98		A
AF	1	1.8400	0.2700	0.94		A
AF	2	1.8500	0.2500	0.95		A
AG	1	1.9300	0.2600	0.99	A	A
AI	2	1.9300	0.0600	0.99	N	A
AI	1	2.0200	0.0600	1.04	N	A
AM	1	2.0100	0.3900	1.03	A	A
AN	1	2.0000	0.0800	1.03	A	A
AR	1	1.8780	0.1185	0.96	A	A
AS	1	2.7990	0.8200	1.43	A	W
AT	1	1.9250	0.3920	0.99	W	A
AU	1	1.9500	0.2100	1.00	A	A
AW	1	2.7000	2.5000	1.38		W
BE	1	1.9500	0.1800	1.00	A	A
BL	1	2.5100	0.1100	1.29		W
BM	1	2.0500	0.2600	1.05	A	A
BU	1	1.8700	0.1000	0.96	A	A
BX	1	1.9300	0.0900	0.99	W	A
CB	3	2.0800	0.3100	1.07	A	A
CB	2	1.9300	0.1900	0.99	A	A
CB	1	1.4700	1.0300	0.75	A	W
CH	1	1.8900	0.1700	0.97	A	A
CL	2	1.8700	0.4100	0.96	A	A
CL	1	1.8800	0.4300	0.96	A	A
CS	1	1.5900	0.1900	0.81		W
CW	1	2.0200	0.0300	1.04	A	A
EC	4	2.0000	0.2000	1.03	N	A
EC	1	1.9000	0.4000	0.97	N	A
EC	3	2.1000	0.3000	1.08	N	A
EC	2	1.9000	0.3000	0.97	N	A
EG	1	1.6700	0.1300	0.86	A	W
EL	1	3.8000		1.95		N
EL	2	4.3000		2.20		N
EP	1	1.8900	0.3140	0.97		A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** AM241

**EML Value:** 1.9500  
**EML Error:** 0.1800

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
FG	1	0.9410	0.0700	0.48	A	N
FL	1	2.0000	0.5000	1.03	W	A
FM	1	1.8000	0.3000	0.92	A	A
FR	1	2.5000	1.4000	1.28		W
GA	1	2.0600	0.1410	1.06	A	A
GE	1	2.5300	0.3050	1.30	A	W
GP	1	3.8000	0.4000	1.95	A	N
GT	1	1.8000	0.3000	0.92	A	A
IN	3	2.2000	0.1000	1.13	A	A
IN	2	2.2000	0.1000	1.13	A	A
IN	1	2.1700	0.0400	1.11	A	A
IS	1	1.7400	0.3600	0.89	A	W
IT	1	1.7000	0.1500	0.87	A	W
LA	3	2.0410	0.0630	1.05	A	A
LA	1	1.8600	0.0540	0.95	A	A
LA	2	1.9260	0.0590	0.99	A	A
LL	1	1.9100	0.1850	0.98		A
LM	1	1.8110	0.3220	0.93		A
LV	1	0.9390	0.2390	0.48	N	N
LW	1	2.0500	0.1700	1.05		A
ME	2	2.0000	0.1000	1.03	W	A
ME	1	1.9000	0.3000	0.97	W	A
MH	1	1.6000	0.2400	0.82		W
ML	1	1.9300	0.2000	0.99		A
MS	1	2.0000	0.2000	1.03		A
NJ	2	2.0200	0.8700	1.04		A
NJ	1	1.9000	0.5200	0.97		A
NJ	3	1.8500	0.2200	0.95		A
NQ	1	1.8040	0.1350	0.93	A	A
OD	1	2.0550	0.2310	1.05	A	A
OD	2	1.9870	0.2270	1.02	A	A
OT	1	1.8000	0.1000	0.92	A	A
PS	1	2.0300	1.7000	1.04		A
RE	1	2.1200	0.2100	1.09	A	A
RI	1	1.6200	0.0711	0.83	A	W
SI	1	2.0000	0.2000	1.03	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** AM241

**EML Value:** 1.9500  
**EML Error:** 0.1800

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
SK	1	1.7800	0.2600	0.91		A
SN	1	1.9550	0.3050	1.00	A	A
SR	1	2.0500	0.2500	1.05	A	A
SW	1	2.6000	0.4000	1.33		W
TE	1	1.7000	0.2200	0.87	W	W
TI	1	1.7000	0.2000	0.87	A	W
TM	1	2.1800	0.1900	1.12	A	A
TN	1	1.9330	0.0590	0.99	A	A
TO	1	1.8000	0.5600	0.92	N	A
TX	1	1.8320	0.1110	0.94	A	A
UP	1	2.1100	0.2170	1.08	A	A
UY	1	1.5500	0.2000	0.80	A	W
WA	1	1.5400	0.1700	0.79	A	W
WC	1	1.5600	0.4800	0.80	A	W
WE	1	3.9400	0.4500	2.02		N
WN	1	3.1000	0.7000	1.59		N
WN	2	2.8000	1.0000	1.44		W
WN	3	3.8000	1.4000	1.95		N
WT	1	5.1300	0.5000	2.63		N
YA	1	1.7990	0.0280	0.92	A	A

**Total Number Reported:** 91

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** Bq U

**EML Value:** 0.9950  
**EML Error:** 0.0870

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	1.2600	0.1100	1.27		W
AF	1	1.1500	0.1000	1.16		A
AF	3	1.1700	0.1000	1.18		A
AG	1	1.1100	0.1300	1.12	A	A
AI	1	1.2000	0.0600	1.21		A
AI	2	1.1000	0.0600	1.11		A
AM	1	0.2964	0.1045	0.30	N	N
AT	1	0.9985	0.1095	1.00		A
BL	1	0.9860	0.0190	0.99	A	A
BL	2	1.0480		1.05	A	A
BU	1	0.9900	0.0600	1.00	A	A
CH	1	0.9600	0.0600	0.96	A	A
CL	2	0.9000	0.0300	0.90	A	A
CL	1	1.1200	0.0600	1.13	A	A
CL	3	0.9000	0.0400	0.90	A	A
FG	1	0.9860	0.1000	0.99	A	A
GP	1	1.1000		1.11	A	A
HT	1	0.9500	0.0800	0.95	N	A
IN	1	1.0500	0.0400	1.05		A
MJ	1	1.0900	0.2000	1.10	A	A
NJ	1	1.1500	0.0900	1.16		A
NJ	3	1.2100	0.1000	1.22		A
NJ	2	1.1800	0.1000	1.19		A
OH	1	1.1700	0.1900	1.18		A
OT	1	1.0000	0.1000	1.00	A	A
SN	1	0.9750	0.1740	0.98	A	A
TE	1	0.2700	0.0100	0.27		N
UP	1	1.2980	0.1240	1.30	A	W
UY	1	1.0000	0.1300	1.00	A	A
WA	1	1.0400	0.1000	1.04	A	A
WI	1	1.0400	0.1200	1.04		A
WT	1	1.0000	0.0800	1.00	A	A

**Total Number Reported:** 32

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CO60

**EML Value:** 48.9000  
**EML Error:** 1.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	53.5000	0.7000	1.09		A
AF	3	51.8000	3.7000	1.06		A
AF	2	55.5000	7.4000	1.13		A
AF	1	51.8000	3.7000	1.06		A
AG	1	49.2000	8.3000	1.01	A	A
AI	1	53.3000	0.8600	1.09	N	A
AI	2	63.1000	1.0100	1.29	N	N
AM	1	52.3200	0.7800	1.07	A	A
AN	1	49.7000	2.0000	1.02	A	A
AR	1	49.3110	1.6000	1.01	N	A
AS	1	0.0540	0.0010	0.00	A	N
AT	1	50.0950	3.2900	1.02	A	A
AU	1	55.1000	1.5000	1.13	A	A
AW	1	51.0000	4.0000	1.04		A
BA	1	54.0300	1.0000	1.11	A	A
BC	1	53.3000	1.7600	1.09	A	A
BE	1	52.5300	1.8900	1.07	N	A
BL	1	49.8100	3.7500	1.02	A	A
BM	1	48.6000	3.6000	0.99	A	A
BN	1	52.1700	2.0100	1.07	A	A
BP	1	49.7100	6.9530	1.02	A	A
BQ	1	52.0000	1.0000	1.06	A	A
BU	1	50.0000	5.0000	1.02	A	A
BX	1	52.5000	1.7000	1.07	A	A
CA	1	66.0000	9.0000	1.35	A	N
CB	2	53.3400	2.1000	1.09	A	A
CB	3	50.3900	1.9800	1.03	A	A
CB	1	50.8500	2.0200	1.04	A	A
CD	1	49.0000	5.0000	1.00	A	A
CF	2	51.4000	0.5000	1.05	A	A
CF	1	50.0000	0.5000	1.02	A	A
CF	3	52.3000	0.5000	1.07	A	A
CH	1	53.1000	0.7400	1.09	A	A
CL	1	49.2000	1.5000	1.01	A	A
CM	1	49.0000	1.1000	1.00	W	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CO60

**EML Value:** 48.9000  
**EML Error:** 1.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
CM	2	47.1000	0.7000	0.96	W	A
CS	1	51.2000	3.8000	1.05	A	A
CU	1	55.0000	1.0000	1.13		A
CW	1	52.0000	0.6000	1.06	A	A
DC	1	81.3000	24.6000	1.66		N
DH	1	50.6000	0.7500	1.03	A	A
EC	2	52.8000	1.7000	1.08	N	A
EC	1	51.6000	1.6000	1.05	N	A
EC	3	52.7000	1.7000	1.08	N	A
EC	4	53.2000	1.2000	1.09	N	A
EG	1	49.0000	4.0000	1.00	A	A
EL	1	72.5000		1.48		N
EL	2	71.7000		1.47		N
EP	1	52.9300	6.6100	1.08	A	A
FG	1	51.2700	2.3400	1.05	A	A
FL	1	51.5000	0.3000	1.05	A	A
FM	1	50.5000	0.7000	1.03	A	A
FN	1	50.2000	3.7000	1.03	A	A
FR	1	51.8000	5.2000	1.06	A	A
GA	1	46.2000	4.0000	0.94	A	A
GC	1	49.5000		1.01	A	A
GD	3	49.2000	1.7000	1.01	W	A
GD	2	52.5000	5.5000	1.07	W	A
GD	1	51.8000	2.7000	1.06	W	A
GE	1	51.4000	5.3200	1.05	A	A
GP	1	53.0000	5.0000	1.08	A	A
GT	1	51.0000	6.0000	1.04	A	A
ID	1	3.2190	0.5760	0.07	A	N
IL	1	51.7000	0.5000	1.06	A	A
IN	1	52.5000	3.5000	1.07	A	A
IN	3	52.5000	3.5000	1.07	A	A
IN	2	52.5000	3.5000	1.07	A	A
IS	1	54.0000	6.1000	1.10	A	A
IT	1	47.3000	3.1000	0.97	A	A
JL	1	53.2800	1.3300	1.09		A
JL	2	52.5400	1.6700	1.07		A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CO60

**EML Value:** 48.9000  
**EML Error:** 1.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
JL	3	51.0600	2.3000	1.04		A
KA	1	50.0000	4.3000	1.02	A	A
LA	2	42.8000	4.6000	0.88	A	W
LA	3	43.0000	4.6000	0.88	A	W
LA	1	42.9000	4.6000	0.88	A	W
LB	1	49.0000	2.0000	1.00	A	A
LL	1	53.9000	5.0700	1.10	N	A
LM	1	49.8320	0.6430	1.02		A
LN	1	49.5000	2.0000	1.01	A	A
LV	1	50.0000	1.1000	1.02	A	A
LW	1	51.2000	3.3000	1.05		A
ME	1	56.0000	1.0000	1.14	W	W
ME	2	55.0000	1.0000	1.13	W	A
MH	1	50.0000	1.3000	1.02	A	A
MJ	1	54.0000	7.4000	1.10	A	A
ML	1	50.8800	5.1000	1.04	A	A
MS	1	51.1000	5.1000	1.04		A
NA	1	50.2000	0.3800	1.03	A	A
NJ	1	50.6000	1.7000	1.03	A	A
NJ	2	49.6000	1.0000	1.01	A	A
NJ	3	49.4000	1.0000	1.01	A	A
NL	1	50.8000	3.6000	1.04	A	A
NP	1	54.2700	0.7000	1.11	W	A
NQ	1	52.9000	5.9000	1.08	A	A
NR	1	52.6000	10.5000	1.08	A	A
NZ	2	52.0000	2.0000	1.06	A	A
NZ	1	51.0000	2.0000	1.04	A	A
OB	1	75.0000	10.8000	1.53	W	N
OC	1	49.7000	2.2000	1.02	A	A
OD	2	51.6900	2.4100	1.06	A	A
OD	1	55.3900	2.4400	1.13	A	A
OH	1	52.1000	1.1000	1.07	A	A
OS	2	56.9000	1.1100	1.16	A	W
OS	1	55.5000	3.7000	1.13	A	A
OS	3	55.5000	1.1000	1.13	A	A
OT	1	51.0000	1.0000	1.04	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CO60

**EML Value:** 48.9000  
**EML Error:** 1.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
OU	1	42.4000	2.4500	0.87		W
PS	1	46.9800	1.1500	0.96		A
RC	1	49.0000	3.0000	1.00	A	A
RE	1	51.9000	6.1000	1.06	A	A
RI	1	54.4000	1.5700	1.11	A	A
RM	1	51.0000	7.0000	1.04		A
SA	1	53.4000	2.8000	1.09	A	A
SB	1	53.4576	5.2089	1.09	A	A
SI	1	49.0000	1.1000	1.00	A	A
SK	1	58.0000	0.4000	1.19		W
SL	1	48.0000	4.0000	0.98	A	A
SN	1	47.1000	4.2300	0.96	A	A
SR	1	52.9000	3.5000	1.08	A	A
SW	1	61.5000	0.4000	1.26		N
SY	1	51.0000	3.7000	1.04	A	A
TE	1	51.0000	1.2000	1.04	A	A
TI	1	47.4000	4.7000	0.97	A	A
TM	1	53.4400	2.6500	1.09	A	A
TN	1	53.1800	1.1500	1.09	A	A
TO	1	51.7000	3.8000	1.06	A	A
TP	1	49.1700	1.2500	1.01	A	A
TQ	1	49.7000	3.6000	1.02	A	A
TT	2	54.9000	1.8000	1.12		A
TT	1	54.8000	1.8000	1.12		A
TT	3	54.7000	1.8000	1.12		A
TW	1	51.2000	0.8000	1.05	A	A
TX	1	52.9470	0.3090	1.08	A	A
UC	1	51.7000	0.4460	1.06	A	A
UP	1	54.4000	5.6300	1.11	A	A
US	1	55.4100	12.5300	1.13	A	A
UY	1	49.2000	3.7000	1.01	A	A
WA	1	52.2000	1.7000	1.07	A	A
WC	1	50.0000	3.9000	1.02	A	A
WE	1	51.0000	1.2400	1.04	A	A
WI	1	56.6100	1.5600	1.16		W
WN	1	53.6000	0.5000	1.10	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CO60

**EML Value:** 48.9000  
**EML Error:** 1.8000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
WN	3	51.8000	0.8000	1.06	A	A
WN	2	53.1000	0.8000	1.09	A	A
WO	2	51.3600	10.9600	1.05	A	A
WO	1	50.3600	10.7000	1.03	A	A
WP	1	47.2000	1.4000	0.96	A	A
WT	1	58.3500	4.2000	1.19		W
WV	1	52.4000	1.1000	1.07	A	A
YA	1	67.8580	0.9250	1.39	A	N

**Total Number Reported:** 151

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CS137

**EML Value:** 103.0000  
**EML Error:** 4.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	108.0000	1.0000	1.05		A
AF	2	114.7000	11.1000	1.11		A
AF	1	111.0000	11.1000	1.08		A
AF	3	111.0000	11.1000	1.08		A
AG	1	105.0000	17.0000	1.02	A	A
AI	2	111.0000	1.3000	1.08	N	A
AI	1	101.0000	1.3000	0.98	N	A
AM	1	112.3500	0.7600	1.09	A	A
AN	1	108.0000	4.0000	1.05	A	A
AR	1	105.1500	2.6300	1.02	N	A
AS	1	0.1100	0.0010	0.00	A	N
AT	1	105.4500	12.4500	1.02	A	A
AU	1	113.1000	4.4000	1.10	A	A
AW	1	107.0000	9.0000	1.04		A
BA	1	120.9000	2.3280	1.17	A	A
BC	1	105.0000	2.0000	1.02	A	A
BE	1	104.6000	5.4000	1.02	A	A
BL	1	102.9000	8.1700	1.00	A	A
BM	1	105.0000	4.0000	1.02	A	A
BN	1	110.0100	5.9500	1.07	A	A
BP	1	107.7000	7.7350	1.05	A	A
BQ	1	95.0000	1.0000	0.92	A	A
BU	1	107.0000	10.0000	1.04	A	A
BX	1	107.0000	2.0000	1.04	A	A
CA	1	93.1000	9.0000	0.90	A	A
CB	1	109.1000	6.7000	1.06	A	A
CB	2	104.6000	6.2000	1.02	A	A
CB	3	110.0000	6.6000	1.07	A	A
CD	1	100.0000	10.0000	0.97	A	A
CF	3	108.3000	0.8000	1.05	A	A
CF	2	108.9000	0.7000	1.06	A	A
CF	1	106.4000	0.7000	1.03	A	A
CH	1	112.0000	0.8700	1.09	A	A
CL	1	102.0000	3.0000	0.99	A	A
CM	2	99.5000	2.0000	0.97	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

## QAP 52 Results by Nuclide

**Matrix:** WA Water Bq / L  
**Radionuclide:** CS137

**EML Value:** 103.0000  
**EML Error:** 4.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
CM	1	102.5000	2.0000	1.00	A	A
CS	1	110.9000	8.3900	1.08	A	A
CU	1	115.0000	3.0000	1.12		A
CW	1	106.0000	1.0000	1.03	A	A
DC	1	168.0000	64.8000	1.63		N
DH	1	107.1000	1.1000	1.04	A	A
EC	4	85.5000	2.3000	0.83	W	W
EC	3	88.6000	3.4000	0.86	W	W
EC	2	87.7000	3.4000	0.85	W	W
EC	1	87.5000	2.9000	0.85	W	W
EG	1	106.0000	8.0000	1.03	A	A
EL	2	159.7000		1.55		N
EL	1	132.8000		1.29		N
EM	1	116.7470		1.13	W	A
EP	1	110.2000	15.4000	1.07	A	A
FG	1	114.6000	3.3000	1.11	A	A
FL	1	109.5000	0.9000	1.06	A	A
FM	1	109.0000	1.0000	1.06	A	A
FN	1	99.7000	10.0000	0.97	A	A
FR	1	103.0000	10.0000	1.00	A	A
GA	1	98.9000	5.1000	0.96	A	A
GC	1	106.1000		1.03	A	A
GD	2	90.6000	7.2000	0.88	W	W
GD	3	89.9000	2.8000	0.87	W	W
GD	1	92.9000	3.0000	0.90	W	A
GE	1	104.0000	10.9000	1.01	A	A
GP	1	110.0000	10.0000	1.07	N	A
GT	1	110.0000	17.0000	1.07	A	A
ID	1	108.5330	5.7110	1.05	A	A
IL	1	107.1000	1.4000	1.04	A	A
IN	1	109.3000	9.3000	1.06	A	A
IN	2	109.3000	9.3000	1.06	A	A
IN	3	109.3000	9.3000	1.06	A	A
IS	1	115.0000	12.0000	1.12	A	A
IT	1	96.6000	5.9000	0.94	A	A
JL	3	108.8000	3.6000	1.06		A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CS137

**EML Value:** 103.0000  
**EML Error:** 4.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
JL	2	110.6000	3.8500	1.07		A
JL	1	114.7000	4.7000	1.11		A
KA	1	104.3000	11.2000	1.01	A	A
LA	3	92.8000	9.9000	0.90	W	A
LA	2	92.3000	9.9000	0.90	W	W
LA	1	91.9000	9.8000	0.89	W	W
LB	1	105.0000	5.0000	1.02	A	A
LL	1	112.0000	14.4000	1.09	N	A
LM	1	108.5650	0.9650	1.05		A
LN	1	102.0000	3.0000	0.99	A	A
LV	1	107.0000	4.0000	1.04	A	A
LW	1	110.0000	4.8000	1.07		A
ME	2	117.0000	2.0000	1.14	W	A
ME	1	117.0000	3.0000	1.14	W	A
MH	1	106.7000	4.3000	1.04	A	A
MJ	1	114.0000	10.0000	1.11	A	A
ML	1	112.8500	11.3000	1.10	A	A
MS	1	109.0000	11.0000	1.06		A
NA	1	113.1000	0.7000	1.10	A	A
NJ	1	104.0000	5.0000	1.01	A	A
NJ	2	106.0000	5.0000	1.03	A	A
NJ	3	105.0000	6.0000	1.02	A	A
NL	1	110.0000	11.0000	1.07	A	A
NM	1	218.0000	5.0000	2.12		N
NP	1	108.2900	1.1200	1.05	A	A
NQ	1	110.3000	12.6000	1.07	A	A
NR	1	112.6000	23.0000	1.09	A	A
NZ	1	103.0000	4.0000	1.00	A	A
NZ	2	109.0000	5.0000	1.06	A	A
OB	1	138.0000	26.4000	1.34	N	N
OC	1	106.0000	4.0000	1.03	A	A
OD	1	109.2200	6.3900	1.06	A	A
OD	2	113.0600	6.6800	1.10	A	A
OH	1	110.1000	1.3000	1.07	A	A
OS	3	119.0000	6.0000	1.15	A	A
OS	2	118.0000	6.0000	1.15	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CS137

**EML Value:** 103.0000  
**EML Error:** 4.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
OS	1	119.0000	6.0000	1.15	A	A
OT	1	111.0000	10.0000	1.08	A	A
OU	1	101.0000	6.0600	0.98	A	A
PS	1	94.7000	1.2900	0.92		A
RC	1	102.0000	6.0000	0.99	A	A
RE	1	108.0000	11.0000	1.05	A	A
RI	1	115.0000	2.5300	1.12	A	A
RM	1	106.0000	13.0000	1.03		A
SA	1	111.5000	7.3000	1.08	A	A
SB	1	111.9546	12.0065	1.09	A	A
SI	1	104.0000	3.0000	1.01	A	A
SK	1	118.0000	3.0000	1.15		A
SL	1	100.0000	5.0000	0.97	A	A
SN	1	97.1300	8.5600	0.94	A	A
SR	1	112.0000	12.0000	1.09	A	A
SW	1	115.7000	6.8000	1.12		A
SY	1	102.5000	7.8000	1.00	A	A
TE	1	108.6000	1.8000	1.05	A	A
TI	1	106.0000	11.0000	1.03	A	A
TM	1	110.2500	9.7700	1.07	A	A
TN	1	112.8000	1.4000	1.10	A	A
TO	1	109.4000	11.4000	1.06	A	A
TP	1	108.1500	2.5100	1.05	A	A
TQ	1	114.5000	4.1000	1.11	A	A
TT	3	117.0000	8.0000	1.14		A
TT	2	116.0000	7.9000	1.13		A
TT	1	116.0000	7.9000	1.13		A
TW	1	110.0000	1.0000	1.07	A	A
TX	1	112.0360	0.7630	1.09	A	A
UP	1	115.0000	13.3000	1.12	A	A
US	1	113.9000	20.2100	1.11	A	A
UY	1	107.4000	14.0000	1.04	A	A
WA	1	108.0000	5.0000	1.05	A	A
WC	1	107.0000	14.0000	1.04	A	A
WE	1	108.0000	3.7000	1.05	A	A
WI	1	116.4000	2.7000	1.13		A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CS137

**EML Value:** 103.0000  
**EML Error:** 4.0000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
WN	2	115.3000	1.9000	1.12	A	A
WN	3	113.6000	1.9000	1.10	A	A
WN	1	114.7000	1.6000	1.11	A	A
WO	1	107.4100	18.2300	1.04	A	A
WO	2	108.3400	18.4400	1.05	A	A
WP	1	102.0000	1.7000	0.99	A	A
WV	1	107.8000	1.2300	1.05	A	A
YA	1	155.5850	1.6280	1.51	A	N

**Total Number Reported:** 151

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** FE55

**EML Value:** 33.1000  
**EML Error:** 0.7000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
BE	1	33.0100	1.0100	1.00	A	A
BL	1	34.0000	5.0000	1.03	A	A
BU	1	33.0000	1.6500	1.00	A	A
BX	1	38.5000	3.2000	1.16	A	A
CH	1	24.3000	1.3000	0.73		A
CL	1	22.8000	7.6000	0.69	A	A
GC	1	43.3000		1.31	A	A
GE	1	31.6000	1.7300	0.95	A	A
GP	1	31.0000	5.0000	0.94	A	A
HT	1	55.0000	5.0000	1.66	N	N
IT	1	37.3000	3.2000	1.13		A
KA	1	32.5000	8.6700	0.98	A	A
SI	1	34.0000	2.0000	1.03	A	A
TE	1	33.0000	1.2000	1.00	A	A
TI	1	44.0000	14.0000	1.33	A	A
TN	1	36.6400	3.4000	1.11	A	A
TO	1	27.8000	10.4000	0.84	A	A
WE	1	22.7000	4.8000	0.69	N	A
YA	1	31.6100	1.6310	0.95	A	A

**Total Number Reported:** 19

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** GROSS ALPHA

**EML Value:**1700.0000  
**EML Error:** 170.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	1	1460.2700	65.7000	0.86		A
AI	2	960.0000	30.0000	0.56	A	N
AI	1	1140.0000	30.0000	0.67	A	W
AM	1	1575.3101	17.9000	0.93	A	A
AR	1	1702.0000		1.00	A	A
AS	1	1539.0500	41.3200	0.90	W	A
AT	1	1241.2500	90.0750	0.73	W	W
AU	1	1248.0000	388.0000	0.73	A	W
BC	1	1850.0000	30.0000	1.09	W	A
BE	1	1778.0000	86.0000	1.05	A	A
BL	1	1824.0000	36.0000	1.07	W	A
BN	1	15.2400	0.4100	0.01	A	N
BP	1	1640.0000	76.7000	0.96		A
BQ	1	1800.0000	40.0000	1.06	W	A
BX	1	1790.0000	30.0000	1.05	A	A
CH	1	1748.0000	27.0000	1.03	W	A
CL	1	1220.0000	170.0000	0.72	N	W
CM	1	1232.0000	30.9000	0.73	N	W
CM	3	1201.0000	30.0000	0.71	N	W
CM	2	1236.0000	30.5000	0.73	N	W
CW	1	1730.0000	33.0000	1.02		A
DC	1	2100.0000	320.0000	1.24	A	W
DH	1	1427.0000	84.0000	0.84	A	A
FG	1	1739.0000	67.0000	1.02	A	A
FL	1	1780.0000	30.0000	1.05	A	A
FN	1	1614.0000	14.0000	0.95		A
FR	1	2130.0000	150.0000	1.25		W
GE	1	1752.0000	42.7000	1.03	A	A
GP	1	1600.0000	100.0000	0.94	A	A
GS	1	1781.0000	150.0000	1.05	W	A
GT	1	1600.0000	74.0000	0.94	A	A
HC	1	1702.0000	85.1000	1.00	A	A
IL	1	1549.6000	15.8000	0.91	W	A
IS	1	1519.0000	89.0000	0.89	A	A
IT	1	1150.0000	124.0000	0.68	A	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** GROSS ALPHA

**EML Value:**1700.0000  
**EML Error:** 170.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
KA	1	1539.4000	137.0000	0.91	A	A
LB	1	1023.0000	87.0000	0.60	A	N
LM	1	1491.7710	63.4360	0.88		A
LV	1	940.0000	299.0000	0.55	W	N
LW	1	1332.0000	69.3000	0.78	A	W
MH	1	1574.8000	3.4000	0.93	W	A
MJ	1	1972.0000	40.0000	1.16	W	A
NJ	1	1510.0000	52.0000	0.89	A	A
NJ	2	1527.0000	74.0000	0.90	A	A
NJ	3	1574.0000	75.0000	0.93	A	A
NL	1	1683.0000	343.0000	0.99		A
NQ	1	1600.0000	100.0000	0.94	N	A
OB	1	2090.0000	158.0000	1.23	N	W
OC	1	1360.0000	44.0000	0.80	W	W
OK	1	1702.0000	70.0000	1.00		A
OT	1	1560.0000	100.0000	0.92	A	A
OU	1	1850.0000	303.0000	1.09	A	A
PS	1	519.4300	11.6100	0.31		N
RE	1	1570.0000	42.0000	0.92	A	A
RI	1	1390.0000	67.0000	0.82		W
SA	1	1510.0000	91.0000	0.89	A	A
SB	1	1630.0000	44.4000	0.96		A
SN	1	1764.0000	88.2300	1.04	A	A
SR	1	1207.0000	132.0000	0.71	A	W
SW	1	1980.0000	141.0000	1.16		A
TE	1	1217.0000	35.0000	0.72	A	W
TI	1	1800.0000	100.0000	1.06	W	A
TN	1	1166.0000	34.0000	0.69	W	W
TO	1	1565.3400	42.1700	0.92	W	A
TQ	1	1644.0000	123.0000	0.97	W	A
TW	1	1497.0000	53.0000	0.88		A
TX	1	1651.0000	49.0000	0.97	A	A
UC	1	1385.6200	71.6700	0.81	A	W
UP	1	1741.0000	103.0000	1.02	A	A
UY	1	1650.0000	60.0000	0.97	A	A
WA	1	1460.0000	100.0000	0.86	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** GROSS ALPHA

**EML Value:**1700.0000  
**EML Error:** 170.0000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
WC	1	1710.0000	175.0000	1.01	A	A
WO	2	1665.4000	53.3000	0.98	N	A
WO	1	1651.7000	46.4000	0.97	N	A
WP	1	1600.0000	110.0000	0.94		A
WT	1	1089.3000	70.0000	0.64	N	W
WV	1	1688.0000	94.3000	0.99	A	A
YA	1	812.3970	11.7490	0.48	A	N

**Total Number Reported:** 78

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq/L  
**Radionuclide:** GROSS BETA

**EML Value:** 690.0000  
**EML Error:** 70.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	1	644.1900	38.2600	0.93		A
AI	2	763.0000	23.0000	1.11	A	A
AI	1	763.0000	25.0000	1.11	A	A
AM	1	874.8650	9.9700	1.27	N	A
AR	1	962.0000		1.39	A	W
AS	1	615.5300	31.4900	0.89	A	A
AT	1	842.7500	61.5880	1.22	A	A
AU	1	854.0000	271.0000	1.24	A	A
BC	1	925.0000	16.0000	1.34	A	W
BE	1	764.0000	48.0000	1.11	A	A
BL	1	619.0000	25.0000	0.90	A	A
BN	1	7.8400	0.2600	0.01	A	N
BP	1	1120.0000	67.6000	1.62		N
BQ	1	980.0000	23.0000	1.42	A	W
BX	1	921.0000	16.0000	1.34	A	W
CA	1	510.0000	50.0000	0.74	A	A
CD	1	700.0000	70.0000	1.01	W	A
CH	1	698.0000	13.0000	1.01	A	A
CL	1	1015.0000	45.9000	1.47	N	W
CM	3	875.0000	15.9000	1.27	A	A
CM	2	978.0000	17.0000	1.42	A	W
CM	1	931.0000	16.6000	1.35	A	W
CW	1	670.0000	15.0000	0.97		A
DC	1	1000.0000	150.0000	1.45	A	W
FG	1	747.0000	56.0000	1.08	A	A
FL	1	980.0000	20.0000	1.42	W	W
FN	1	716.0000	13.0000	1.04		A
FR	1	1100.0000	66.0000	1.59		N
GE	1	932.0000	24.5000	1.35	A	W
GP	1	940.0000	100.0000	1.36	A	W
GS	1	1059.0000	128.0000	1.53	W	W
GT	1	940.0000	74.0000	1.36	A	W
HC	1	936.0000	46.8000	1.36	A	W
IL	1	631.8000	9.5000	0.92	A	A
IS	1	888.0000	89.0000	1.29	W	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq/L  
**Radionuclide:** GROSS BETA

**EML Value:** 690.0000  
**EML Error:** 70.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
IT	1	949.0000	65.0000	1.38	A	W
KA	1	846.0000	105.5000	1.23	A	A
LB	1	723.0000	33.0000	1.05	A	A
LM	1	873.9530	38.1770	1.27		A
LV	1	572.0000	85.0000	0.83	A	A
LW	1	821.4000	37.8000	1.19	A	A
MH	1	737.1000	6.8000	1.07	W	A
MJ	1	724.0000	36.0000	1.05	W	A
NJ	1	1045.0000	34.0000	1.51	W	W
NJ	3	1069.0000	50.0000	1.55	W	N
NJ	2	949.0000	47.0000	1.38	W	W
NL	1	1039.0000	206.0000	1.51		W
NP	1	813.7000	9.1000	1.18	A	A
NQ	1	812.0000	110.0000	1.18	N	A
OB	1	923.0000	93.9000	1.34	W	W
OC	1	733.0000	14.0000	1.06	A	A
OK	1	740.0000	35.0000	1.07		A
OT	1	880.0000	20.0000	1.27	A	A
OU	1	806.0000	141.0000	1.17	W	A
PS	1	383.1300	8.1200	0.56		W
RE	1	939.0000	27.0000	1.36	A	W
RI	1	910.0000	45.5000	1.32		A
SA	1	966.0000	221.0000	1.40	W	W
SB	1	735.0000	24.3000	1.07		A
SN	1	1042.0000	107.1000	1.51	A	W
SR	1	602.0000	76.0000	0.87	A	A
SW	1	641.0000	44.0000	0.93		A
TE	1	792.0000	25.0000	1.15	W	A
TI	1	640.0000	50.0000	0.93	N	A
TN	1	727.0000	20.0000	1.05	A	A
TO	1	789.5900	26.6300	1.14	W	A
TQ	1	923.0000	29.0000	1.34	A	W
TW	1	921.0000	42.0000	1.34		W
TX	1	701.0000	38.0000	1.02	N	A
UC	1	1027.8700	49.8600	1.49	A	W
UP	1	993.0000	70.9000	1.44	W	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq/L  
**Radionuclide:** GROSS BETA

**EML Value:** 690.0000  
**EML Error:** 70.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
UY	1	1150.0000	40.0000	1.67	W	N
WA	1	933.0000	66.0000	1.35	W	W
WC	1	926.0000	94.0000	1.34	A	W
WO	1	930.0000	23.6000	1.35	A	W
WO	2	718.1000	48.4000	1.04	A	A
WP	1	670.0000	37.0000	0.97		A
WT	1	335.6000	30.0000	0.49	A	N
WV	1	1026.0000	53.7000	1.49	W	W
YA	1	629.0000	11.4650	0.91	A	A

**Total Number Reported:** 80

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** H3

**EML Value:** 79.4000  
**EML Error:** 2.5000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	377.4000	3.7000	4.75		N
AF	3	381.1000	3.7000	4.80		N
AF	1	432.9000	3.7000	5.45		N
AG	1	91.0000	14.0000	1.15	A	A
AI	1	243.0000	10.0000	3.06	N	N
AI	2	246.0000	11.0000	3.10	N	N
AM	1	86.8300	8.0900	1.09	W	A
AN	1	84.9000	6.0000	1.07	A	A
AR	1	77.7700	11.5500	0.98	N	A
AS	1	64.2100	9.1020	0.81	A	W
AT	1	75.8130	5.4160	0.95	A	A
AU	1	80.0000	12.0000	1.01	A	A
BE	1	105.2000	9.0000	1.33	A	W
BL	1	84.0000	5.0000	1.06	A	A
BN	1	55.4800	9.8800	0.70	A	N
BP	1	306.0000	26.0000	3.85		N
BU	3	85.3000	2.0000	1.07	A	A
BU	1	85.7000	2.2000	1.08	A	A
BU	2	85.6000	2.4000	1.08	A	A
BX	1	77.0000	6.7000	0.97	W	A
CA	1	65.8000	0.1000	0.83	A	A
CD	1	75.0000	10.0000	0.94	A	A
CH	1	78.0000	3.8000	0.98	A	A
CL	2	65.0900	11.0300	0.82	A	A
CL	3	69.7000	11.2000	0.88	A	A
CL	1	88.3000	11.6000	1.11	A	A
CM	3	78.1000	2.1000	0.98	A	A
CM	2	75.3000	2.1000	0.95	A	A
CM	1	73.8000	2.1000	0.93	A	A
CU	1	104.0000	5.0000	1.31		W
DC	1	87.3000	7.5000	1.10		A
DH	1	149.5000	11.2000	1.88		N
EP	1	83.0000	6.2900	1.04	A	A
FG	1	92.3900	5.9000	1.16	N	A
FL	1	84.0000	3.0000	1.06	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** H3

**EML Value:** 79.4000  
**EML Error:** 2.5000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
FN	1	82.0000	8.7000	1.03	A	A
FR	1	96.2000	9.0000	1.21		A
GC	1	103.4000		1.30	A	W
GE	1	81.1000	6.0800	1.02	A	A
GP	1	81.0000	7.0000	1.02	N	A
GT	1	74.0000	7.0000	0.93	A	A
HC	1	76.1000	7.6000	0.96	A	A
IS	1	74.4000	11.8000	0.94	W	A
IT	1	73.7000	2.8000	0.93	A	A
KA	1	89.5300	16.8600	1.13	A	A
LA	3	74.0000	23.0000	0.93	A	A
LA	2	74.0000	23.0000	0.93	A	A
LA	1	69.0000	23.0000	0.87	A	A
LB	1	92.0000	6.0000	1.16	A	A
LL	1	86.3000	4.6500	1.09	A	A
LM	1	92.6380	3.4780	1.17		A
LV	1	101.0000	6.0000	1.27	A	W
LW	1	81.4000	16.0000	1.02	A	A
ME	1	81.0000	4.4000	1.02	A	A
ME	2	86.0000	4.5000	1.08	A	A
MH	1	80.1900	3.3700	1.01	A	A
MJ	1	85.0000	5.0000	1.07	A	A
ML	1	73.2600	4.4200	0.92	A	A
NA	1	85.9000	3.1000	1.08	A	A
NJ	3	88.8000	6.7000	1.12	W	A
NJ	2	96.6000	6.7000	1.22	W	A
NJ	1	90.7000	6.7000	1.14	W	A
NP	1	95.0000	6.0000	1.20	N	A
OC	1	79.0000	5.0000	1.00	A	A
OD	1	77.1000	4.6000	0.97	W	A
OH	1	85.0000	25.0000	1.07	W	A
OK	1	94.3500	11.9000	1.19	A	A
OT	1	90.0000	8.0000	1.13	W	A
OU	1	489.0000	20.5000	6.16	W	N
RC	1	92.0000	5.0000	1.16	A	A
RE	1	58.3000	14.3000	0.73	A	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** H3

**EML Value:** 79.4000  
**EML Error:** 2.5000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
RI	1	105.0000	9.1300	1.32	N	W
SB	1	91.9000	8.3600	1.16	A	A
SK	1	82.5000	2.2000	1.04		A
SL	1	80.0000	4.0000	1.01	A	A
SN	1	83.1000	6.5700	1.05		A
SR	1	79.6000	20.5000	1.00	A	A
ST	1	73.3000	5.7600	0.92	A	A
SW	1	79.9000	12.5000	1.01		A
SY	1	103.0000	2.1000	1.30	W	W
TE	1	147.0000	26.0000	1.85	W	N
TI	1	81.0000	6.0000	1.02	A	A
TM	1	116.2800	15.7400	1.46		W
TN	1	83.4790	8.5590	1.05	A	A
TO	1	74.7000	22.5000	0.94	W	A
TQ	1	80.6000	4.3000	1.01	A	A
TT	3	81.2000	5.4000	1.02		A
TT	1	79.6000	5.5000	1.00		A
TT	2	81.9000	5.4000	1.03		A
TW	1	79.4800	0.4100	1.00		A
TX	1	91.9450	9.2130	1.16	A	A
UP	1	95.6000	17.0000	1.20	A	A
UY	1	95.0000	10.0000	1.20	A	A
WA	1	75.0000	4.0000	0.94	A	A
WC	1	77.4000	16.9000	0.98	A	A
WE	1	182.0000	14.0000	2.29	A	N
WO	1	74.3300	7.1400	0.94	A	A
WO	2	77.7000	7.1800	0.98	A	A
WP	1	85.0000	7.4000	1.07	A	A
WV	1	86.0000	4.7600	1.08	A	A
YA	1	87.3200	2.5630	1.10	A	A

**Total Number Reported: 101**

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** NI63

**EML Value:** 112.0000  
**EML Error:** 11.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AG	1	153.0000	38.0000	1.37	A	A
BE	1	117.9500	3.0800	1.05	A	A
BL	1	102.0000	7.0000	0.91	A	A
BU	1	118.0000	8.4800	1.05		A
BX	1	128.0000	10.0000	1.14	A	A
CH	1	130.0000	1.6000	1.16		A
FL	1	95.0000	1.0000	0.85		A
GE	1	134.0000	4.6400	1.20	A	A
IT	1	139.0000	5.5000	1.24	A	A
RI	1	77.2000	5.6300	0.69		A
TE	1	101.0000	6.0000	0.90		A
TI	1	120.0000	10.0000	1.07	A	A
TN	1	115.1600	2.3900	1.03	A	A
TO	1	77.9000	4.8600	0.70	A	A
WA	1	239.0000	24.0000	2.13	N	N
WE	1	113.0000	8.9800	1.01	A	A
YA	1	123.3330	5.6750	1.10	A	A

**Total Number Reported:** 17

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** PU238

**EML Value:** 0.9440  
**EML Error:** 0.0400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	0.9870	0.0720	1.05		A
AF	1	0.9200	0.1600	0.98		A
AF	3	0.8100	0.1400	0.86		W
AF	2	0.8800	0.1500	0.93		A
AG	1	0.9500	0.1400	1.01	A	A
AI	2	0.9200	0.0340	0.98	N	A
AI	1	0.9800	0.0340	1.04	N	A
AM	1	0.2172	0.0109	0.23	N	N
AN	1	0.9500	0.0300	1.01	A	A
AR	1	0.9865	0.0832	1.04	A	A
AT	1	0.9211	0.1444	0.98		A
AU	1	0.9700	0.1300	1.03	W	A
BA	1	0.8453	0.0463	0.89	W	W
BE	1	0.9300	0.1100	0.99	A	A
BL	1	1.3800	0.1000	1.46	W	N
BM	1	1.0700	0.1100	1.13	A	W
BU	1	0.9300	0.0490	0.99	A	A
BX	1	0.9130	0.0290	0.97	A	A
CH	1	0.9500	0.0600	1.01	W	A
CL	2	0.6800	0.1700	0.72	A	N
CL	1	0.6900	0.1700	0.73	A	N
CL	3	0.8400	0.2200	0.89	A	W
CW	1	1.0400	0.0200	1.10	A	A
EG	1	0.7900	0.0600	0.84	A	W
EP	1	1.0100	0.1570	1.07		A
FG	1	1.0410	0.0800	1.10	A	A
GA	1	1.3100	0.1260	1.39	A	N
GE	1	1.3400	0.2390	1.42	A	N
GP	1	1.2000	0.1000	1.27	A	N
GT	1	1.1000	0.2000	1.16	A	W
ID	1	0.9570	0.0930	1.01		A
IN	1	0.9700	0.0900	1.03	W	A
IN	2	0.9700	0.0900	1.03	W	A
IN	3	0.9700	0.0900	1.03	W	A
IS	1	1.1400	0.3700	1.21	A	W

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** PU238

**EML Value:** 0.9440  
**EML Error:** 0.0400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
IT	1	0.8900	0.1200	0.94	A	A
LA	1	0.9400	0.0460	1.00	A	A
LA	2	0.9510	0.0460	1.01	A	A
LA	3	0.9960	0.0430	1.05	A	A
LL	1	0.9430	0.0436	1.00	A	A
LW	1	0.8650	0.0900	0.92		A
ML	1	1.1000	0.1700	1.16	A	W
NA	1	0.9600	0.0700	1.02	A	A
NF	1	1.0650	0.0440	1.13	A	W
NL	1	0.9510	0.2170	1.01	A	A
NM	1	0.6310	0.0190	0.67		N
NQ	1	0.9170	0.0690	0.97	W	A
OB	1	1.1000	0.1940	1.16	A	W
OD	2	0.8600	0.1000	0.91	A	A
OD	1	0.9400	0.1100	1.00	A	A
OT	1	0.9300	0.0600	0.99	A	A
RE	1	0.8860	0.1070	0.94	A	A
RI	1	0.8810	0.0352	0.93	A	A
SK	1	0.9300	0.0700	0.99		A
SN	1	0.8720	0.1410	0.92	A	A
SR	1	0.9580	0.1390	1.01	W	A
SW	1	1.4900	0.1900	1.58		N
TE	1	0.7500	0.1700	0.79	A	W
TI	1	0.9200	0.0190	0.98	N	A
TM	1	0.9800	0.1400	1.04	A	A
TN	1	0.9665	0.0571	1.02	A	A
TO	1	1.0500	0.2300	1.11	W	W
TX	1	0.9240	0.0420	0.98	A	A
UC	1	0.9920	0.0880	1.05		A
UP	1	1.0000	0.1330	1.06	A	A
UY	1	0.9900	0.1000	1.05	A	A
WA	1	1.0100	0.0900	1.07	A	A
WC	1	0.9700	0.3000	1.03	A	A
WE	1	2.6200	0.2500	2.78		N
YA	1	0.9760	0.0210	1.03	W	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** PU238

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**EML Value:** 0.9440  
**EML Error:** 0.0400

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Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
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**Total Number Reported:** 70

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Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

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**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** PU239

**EML Value:** 0.9180  
**EML Error:** 0.0300

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	0.8900	0.0650	0.97		A
AF	3	0.9100	0.1600	0.99		A
AF	2	1.0000	0.1700	1.09		A
AF	1	0.9400	0.1600	1.02		A
AG	1	0.8800	0.1300	0.96	A	A
AI	2	0.9500	0.0340	1.03	N	A
AI	1	0.9200	0.0340	1.00	N	A
AM	1	0.2138	0.0115	0.23	N	N
AN	1	0.9200	0.0400	1.00	A	A
AR	1	0.9060	0.0800	0.99	N	A
AT	1	0.9098	0.1428	0.99		A
AU	1	1.0100	0.1400	1.10	A	A
BA	1	0.8168	0.1629	0.89	A	W
BE	1	0.9200	0.1100	1.00	A	A
BL	1	1.1600	0.0900	1.26	A	W
BM	1	1.0900	0.1100	1.19	A	W
BU	1	0.9600	0.0400	1.05	A	A
BX	1	0.9600	0.0300	1.05	A	A
CH	1	0.9500	0.0500	1.03	A	A
CL	3	0.8800	0.2200	0.96	A	A
CL	1	0.6600	0.1600	0.72	A	N
CL	2	0.6400	0.1600	0.70	A	N
CW	1	1.0400	0.0200	1.13	A	A
EG	1	0.8500	0.0600	0.93	A	A
EP	1	0.9830	0.1540	1.07		A
FG	1	0.9240	0.0700	1.01	A	A
GA	1	1.1000	0.1070	1.20	A	W
GE	1	1.2600	0.2250	1.37	A	W
GP	1	1.2000	0.1000	1.31	A	W
GT	1	1.1000	0.2000	1.20	A	W
HT	1	1.9700	0.2000	2.15		N
ID	1	0.9930	0.1120	1.08		A
IN	3	0.9100	0.0900	0.99	A	A
IN	2	0.9100	0.0900	0.99	A	A
IN	1	0.9100	0.0900	0.99	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** PU239

**EML Value:** 0.9180  
**EML Error:** 0.0300

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
IS	1	0.7900	0.2760	0.86	A	W
IT	1	1.0000	0.1300	1.09	A	A
KA	1	0.9743	0.0170	1.06	A	A
LA	2	0.9430	0.0450	1.03	A	A
LA	3	0.9780	0.0420	1.07	A	A
LA	1	0.9060	0.0440	0.99	A	A
LL	1	0.9400	0.0434	1.02	A	A
LW	1	0.8600	0.0900	0.94		A
ML	1	1.0700	0.1700	1.17	A	W
NA	1	0.8900	0.0700	0.97	A	A
NF	1	1.0030	0.0430	1.09	A	A
NL	1	0.9470	0.2160	1.03	A	A
NM	1	0.6330	0.0190	0.69		N
NQ	1	0.8800	0.0650	0.96	W	A
OB	1	1.1300	0.2000	1.23	A	W
OD	1	0.9400	0.1100	1.02	A	A
OD	2	0.8600	0.1000	0.94	A	A
OT	1	0.9800	0.0700	1.07	A	A
RE	1	0.8620	0.1060	0.94	A	A
RI	1	0.8310	0.0341	0.90	A	A
SK	1	0.9200	0.0700	1.00		A
SN	1	0.8540	0.1370	0.93	A	A
SR	1	0.9670	0.1430	1.05	A	A
SW	1	0.8700	0.1300	0.95		A
TE	1	0.9900	0.0900	1.08	A	A
TI	1	0.9700	0.0190	1.06	N	A
TM	1	0.9000	0.1300	0.98	A	A
TN	1	0.9615	0.0571	1.05	A	A
TO	1	1.0200	0.2300	1.11	W	A
TX	1	0.9390	0.0420	1.02	A	A
UC	1	0.8110	0.0732	0.88	A	W
UP	1	0.9930	0.1320	1.08	A	A
UY	1	0.9700	0.1000	1.06	A	A
WA	1	1.0200	0.0900	1.11	A	A
WC	1	0.9900	0.3100	1.08	A	A
WE	1	1.8400	0.1900	2.00		N

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** PU239

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**EML Value:** 0.9180  
**EML Error:** 0.0300

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Labcode	Test Number	Reported Value	Reported Error	<u>Reported</u> EML	QAP 51 Evaluation	Evaluation
YA	1	0.9590	0.0210	1.04	A	A

**Total Number Reported:** 72

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Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

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**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** SR90

**EML Value:** 3.3900  
**EML Error:** 0.1200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AF	2	3.5600	0.7000	1.05		A
AF	3	4.4100	0.7100	1.30		W
AF	1	4.0100	0.7300	1.18		A
AG	1	2.9000	0.5200	0.86	A	W
AI	1	8.6200	0.3100	2.54	N	N
AI	2	6.8600	0.3000	2.02	N	N
AM	1	0.7660	0.0201	0.23	N	N
AN	1	3.4000	0.1300	1.00	A	A
AR	1	3.8600	0.9720	1.14	A	A
AS	1	3.1520	0.1160	0.93	W	A
AU	1	3.2400	0.3100	0.96	A	A
BA	1	2.5370	0.6111	0.75		N
BC	1	3.6200	0.1500	1.07	W	A
BE	1	3.2500	0.2500	0.96	A	A
BL	1	3.3500	0.3800	0.99	N	A
BM	1	3.3400	0.2500	0.99	A	A
BN	1	2.5000	0.0700	0.74	N	N
BU	1	2.8800	0.1200	0.85		W
BX	1	3.4800	0.1600	1.03	A	A
CB	2	3.2500	0.2700	0.96	A	A
CB	1	3.2500	0.2700	0.96	A	A
CH	1	3.2900	0.1600	0.97	W	A
CL	2	1.9300	0.6300	0.57	A	N
CL	1	2.2000	0.6300	0.65	A	N
CL	3	2.2000	0.6300	0.65	A	N
EG	1	2.7000	0.3000	0.80	A	W
EM	1	4.3320		1.28	W	W
FG	1	2.4100	0.1000	0.71	N	N
FL	1	2.7800	0.0200	0.82	W	W
GA	1	3.1000	0.4000	0.91	W	A
GC	1	3.0900		0.91	A	A
GE	1	3.1300	0.2600	0.92	A	A
GP	1	3.1000	0.8000	0.91	W	A
GT	1	3.1000	0.3000	0.91	W	A
ID	1	52.3530	2.8310	15.44	W	N

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** SR90

**EML Value:** 3.3900  
**EML Error:** 0.1200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
IS	1	3.1200	0.3700	0.92	W	A
IT	1	3.3800	0.4900	1.00	A	A
KA	1	3.4100	0.5400	1.01	A	A
MH	1	3.2600	0.2500	0.96	W	A
MJ	1	3.7000	0.1000	1.09	W	A
NA	1	2.7000	0.7000	0.80	N	W
NM	1	3.5700	0.2700	1.05		A
NZ	2	2.6000	0.2000	0.77	N	W
NZ	1	2.6000	0.2000	0.77	N	W
OB	1	3.7400	1.0300	1.10		A
OC	1	3.1000	0.3000	0.91	A	A
OD	2	3.2400	0.2900	0.96	A	A
OD	1	3.3900	0.4500	1.00	A	A
OT	1	4.0000	0.4000	1.18	W	A
RE	1	3.2700	0.3200	0.96	A	A
RI	1	3.5500	0.1920	1.05	A	A
SN	1	2.9220	0.2560	0.86		W
SR	1	3.9700	0.8500	1.17	A	A
SW	1	2.4400	0.2600	0.72		N
TE	1	4.4600	0.9900	1.32	W	W
TI	1	2.4000	0.3000	0.71	A	N
TM	1	3.3900	0.4900	1.00	W	A
TN	1	3.6830	0.2070	1.09	A	A
TO	1	3.3000	0.8300	0.97	A	A
TQ	1	3.0000	0.1000	0.88	W	W
TW	1	3.3600	0.1900	0.99	A	A
TX	1	3.4970	0.6720	1.03	A	A
UP	1	3.2600	0.1600	0.96	W	A
UY	1	3.0500	0.1400	0.90	A	A
WA	1	3.8000	0.4000	1.12	A	A
WC	1	3.9300	0.5700	1.16	W	A
WE	1	5.5100	0.4800	1.63	W	N
WI	1	2.9700	0.2600	0.88		W
WO	2	3.9200	0.7700	1.16	N	A
WO	1	3.8300	0.8000	1.13	N	A
WV	1	3.3300	0.2250	0.98	W	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** SR90

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**EML Value:** 3.3900  
**EML Error:** 0.1200

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Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 51 Evaluation	Evaluation
YA	1	3.3030	0.1750	0.97	W	A

**Total Number Reported:** 72

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Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

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**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** U234

**EML Value:** 0.4820  
**EML Error:** 0.0400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	0.4360	0.0270	0.90		A
AF	1	0.6000	0.1300	1.25		W
AF	2	0.7000	0.1500	1.45		N
AF	3	0.4900	0.1100	1.02		A
AG	1	0.5600	0.0930	1.16	W	A
AM	1	0.1168	0.0075	0.24	N	N
AN	1	0.5100	0.0200	1.06	A	A
AR	1	0.6030	0.0690	1.25		W
AT	1	0.4778	0.0756	0.99		A
AU	1	0.4400	0.0810	0.91	A	A
BC	1	0.5620	0.0250	1.17	W	A
BE	1	0.4600	0.0800	0.95	A	A
BL	2	0.5240		1.09	A	A
BL	1	0.4930	0.0090	1.02	A	A
BM	1	0.5210	0.0816	1.08	A	A
BU	1	0.4900	0.0250	1.02	A	A
BX	1	0.6000	0.0230	1.25	W	W
CF	2	0.4430	0.0350	0.92	N	A
CF	1	0.4130	0.0340	0.86	N	W
CF	3	0.4420	0.0390	0.92	N	A
CH	1	0.4800	0.0300	1.00	A	A
CL	1	0.5800	0.1700	1.20	W	A
CL	2	0.4100	0.1300	0.85	W	W
CL	3	0.4300	0.1300	0.89	W	W
CW	1	0.5200	0.0100	1.08	A	A
EG	1	0.4600	0.0300	0.95	W	A
FG	1	0.5304	0.1000	1.10	W	A
GA	1	0.5170	0.0408	1.07	A	A
GE	1	0.4700	0.0570	0.98	A	A
GP	1	0.5300	0.0600	1.10	A	A
HT	1	0.4700	0.0500	0.98	N	A
IN	2	0.5100	0.0500	1.06		A
IN	1	0.5100	0.0500	1.06		A
IS	1	0.9400	0.1910	1.95	A	N
IT	1	0.4800	0.0480	1.00	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** U234

**EML Value:** 0.4820  
**EML Error:** 0.0400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
LL	1	0.4600	0.0449	0.95		A
LW	1	0.4850	0.0720	1.01		A
MH	1	0.4530	0.0340	0.94	A	A
ML	1	0.5100	0.0900	1.06	A	A
NF	1	0.5740	0.0320	1.19	A	A
NL	1	0.4840	0.1120	1.00	A	A
NQ	1	0.4930	0.0330	1.02	A	A
OB	1	0.4880	0.0910	1.01	N	A
OD	2	0.4300	0.0500	0.89	A	W
OD	1	0.4400	0.0500	0.91	A	A
OU	1	0.4370	0.0870	0.91	W	A
RE	1	0.4910	0.0720	1.02	A	A
SR	1	0.4900	0.0790	1.02	A	A
SW	1	0.5900	0.0600	1.22		W
TN	1	0.4710	0.0216	0.98	A	A
TO	1	0.6300	0.1300	1.31	N	W
TW	1	0.3130	0.0180	0.65	A	N
TX	1	0.4690	0.0230	0.97	A	A
UY	1	0.4970	0.0600	1.03	A	A
WA	1	0.4900	0.0700	1.02	A	A
WC	1	0.4600	0.1500	0.95	A	A
WE	1	0.9260	0.1300	1.92		N
YA	1	0.5280	0.0240	1.10	A	A

**Total Number Reported:** 58

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

## QAP 52 Results by Nuclide

**Matrix:** WA Water Bq / L  
**Radionuclide:** U238

**EML Value:** 0.4920  
**EML Error:** 0.0400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AC	1	0.4790	0.0290	0.97		A
AF	1	0.4600	0.1100	0.94		A
AF	3	0.5500	0.1100	1.12		A
AF	2	0.5100	0.1200	1.04		A
AG	1	0.5190	0.0880	1.05	A	A
AM	1	0.1085	0.0070	0.22	N	N
AN	1	0.5200	0.0200	1.06	A	A
AR	1	0.6520	0.0737	1.33		N
AT	1	0.4992	0.0789	1.01		A
AU	1	0.4560	0.0820	0.93	W	A
BC	1	0.6350	0.0270	1.29	N	N
BE	1	0.4600	0.0800	0.94	A	A
BL	2	0.5240		1.07	W	A
BL	1	0.4930	0.0090	1.00	W	A
BM	1	0.5330	0.0830	1.08	A	A
BU	1	0.4800	0.0250	0.98	A	A
BX	1	0.6150	0.0230	1.25	A	W
CF	1	0.3970	0.0330	0.81	W	W
CF	2	0.4030	0.0330	0.82	W	W
CF	3	0.4240	0.0380	0.86	W	W
CH	1	0.4600	0.0500	0.94	A	A
CL	2	0.4900	0.1500	1.00	W	A
CL	1	0.5400	0.1700	1.10	W	A
CL	3	0.4600	0.1400	0.94	W	A
CW	1	0.5000	0.0100	1.02	A	A
EG	1	0.4100	0.0400	0.83	W	W
FG	1	0.4817	0.1000	0.98	A	A
GA	1	0.4790	0.0383	0.97	A	A
GE	1	0.4900	0.0590	1.00	A	A
GP	1	0.5100	0.0500	1.04	A	A
GT	1	0.5400	0.1000	1.10	A	A
HT	1	0.4580	0.0500	0.93	N	A
IN	1	0.5100	0.0400	1.04		A
IN	2	0.5100	0.0400	1.04		A
IS	1	0.4500	0.0990	0.92	A	A

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.



**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** U238

**EML Value:** 0.4920  
**EML Error:** 0.0400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
IT	1	0.4400	0.0450	0.89	A	W
LL	1	0.4440	0.0438	0.90		A
LW	1	0.5270	0.0860	1.07		A
MH	1	0.4920	0.0360	1.00	A	A
ML	1	0.5000	0.0900	1.02	A	A
NF	1	0.5170	0.0300	1.05	A	A
NL	1	0.4740	0.1090	0.96	A	A
NQ	1	0.5150	0.0350	1.05	A	A
OB	1	0.5700	0.1020	1.16	W	A
OD	1	0.4600	0.0500	0.94	A	A
OD	2	0.4100	0.0500	0.83	A	W
OU	1	0.4880	0.0870	0.99	A	A
RE	1	0.5420	0.0760	1.10	W	A
SR	1	0.4820	0.0750	0.98	A	A
SW	1	1.3500	0.1100	2.74		N
TN	1	0.4779	0.0217	0.97	A	A
TO	1	0.6100	0.1300	1.24	W	W
TW	1	0.3680	0.0180	0.75	A	N
TX	1	0.5140	0.0260	1.04	A	A
WA	1	0.4400	0.0600	0.89	A	W
WC	1	0.5100	0.1600	1.04	A	A
WE	1	0.8680	0.1200	1.76		N
YA	1	0.5190	0.0240	1.05	A	A

**Total Number Reported:** 58

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** UG/G U

**EML Value:** 0.0400  
**EML Error:** 0.0030

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
AG	1	0.0404	0.0055	1.01		
AR	1	0.0508		1.27	A	
BE	1	0.0400		1.00	A	
BL	1	0.0394	0.0008	0.99	N	
BL	2	0.0418		1.04	N	
BP	2	0.0402	0.0040	1.00	A	
BP	1	0.0381	0.0038	0.95	A	
BP	3	0.0406	0.0041	1.01	A	
BQ	1	0.0430	0.0020	1.08	A	
BU	1	0.0400	0.0040	1.00	N	
CA	1	0.0430	0.0200	1.08	N	
CB	1	0.0387	0.0030	0.97		
CB	2	0.0387	0.0030	0.97		
CB	3	0.0390	0.0030	0.98		
CH	1	0.0400	0.0040	1.00	A	
GA	1	0.0386	0.0041	0.96	A	
GE	1	0.0441	0.0014	1.10	A	
GS	2	0.0361	0.0020	0.90		
GS	1	0.0359	0.0020	0.90		
GS	3	0.0358	0.0020	0.89		
HT	1	0.0370	0.0020	0.93	N	
ID	1	0.0420	0.0020	1.05	A	
IS	1	0.0410	0.0010	1.02	A	
IT	1	0.0389	0.0046	0.97	A	
KA	1	0.0376	0.0017	0.94	A	
LA	3	0.0408	0.0041	1.02		
LA	2	0.0394	0.0039	0.99		
LA	1	0.0398	0.0040	1.00		
NL	1	0.0385	0.0088	0.96	A	
OU	1	0.0380	0.0010	0.95	A	
RI	3	0.0360	0.0026	0.90	A	
RI	1	0.0365	0.0040	0.91	A	
RI	2	0.0366	0.0048	0.92	A	
RM	1	0.0400	0.0020	1.00		
SA	1	0.0370	0.0050	0.93	A	

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**QAP 52 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** UG/G U

**EML Value:** 0.0400  
**EML Error:** 0.0030

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 51 Evaluation	Evaluation
SW	1	0.0382		0.95		
SY	1	0.0400	0.0020	1.00	A	
TI	1	0.0420	0.0100	1.05	A	
TM	1	39.4000	0.8800	**.**	A	
TN	1	0.0366	0.0042	0.92	N	
TO	1	38.5800	1.2100	**.**	A	
UC	1	0.0400		1.00		
UP	1	0.0395	0.0040	0.99	A	
WO	1	0.8800	0.1400	22.00		
WO	2	0.9300	0.1400	23.25		
YP	1	0.0405	0.0010	1.01	A	

**Total Number Reported:** 46

Values for elemental Uranium are reported in µg/filter, g or mL. pCi/g or mL = Bq x 0.027

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

**Participating Laboratories in EML QAP 52****Laboratories Reporting Data**

<b>Code</b>	<b>Laboratory Name</b>
<b>AC</b>	Analytical Chemistry Laboratory, Argonne National Lab
<b>AF</b>	Air Force Analytical Lab, Brooks AFB
<b>AG</b>	Paragon Analytics, Inc, Fort Collins, CO
<b>AI</b>	Nuclear Technology Services, Inc., Roswell, GA
<b>AM</b>	American Radiation Services, Inc., Baton Rouge
<b>AN</b>	Argonne National Laboratory
<b>AR</b>	Accu-Labs Research Inc., Golden, CO
<b>AS</b>	USACHPPM, Aberdeen Proving Ground, MD
<b>AT</b>	ATL International inc., Germantown, MD
<b>AU</b>	ORISE RSAT/ESSAP, Oak Ridge
<b>AW</b>	Argonne West National Lab
<b>BA</b>	Bettis Atomic Power Lab, West Mifflin, PA
<b>BC</b>	BWX Technologies, Inc, Naval Nuclear Fuel Division, Lynchburg, VA
<b>BE</b>	RUST Geotech, Grand Junction, CO
<b>BL</b>	Barringer Laboratories Inc., Golden, CO
<b>BM</b>	Battelle Memorial Institute, Columbus, OH
<b>BN</b>	Brookhaven National Laboratory, Upton, NY
<b>BP</b>	Battelle Pacific Northwest National Laboratory
<b>BQ</b>	Becquerel Laboratories Inc., Mississauga, Ontario, Canada
<b>BU</b>	Autoridad Regulatoria, Buenos Aires, Argentina
<b>BX</b>	B&W Nuclear Envir. Services, Lynchburg, VA
<b>CA</b>	Atomic Energy Control Board, Ottawa, Canada
<b>CB</b>	Radiation Protection Bureau, Ontario, Canada
<b>CD</b>	Gentilly-2 Nuclear Power Plant, Quebec Canada
<b>CF</b>	Freshwater Institute Radiochemistry Winnipeg, Manitoba, Canada
<b>CH</b>	California State Dept. Health Serv., Sanitation & Radiation Laboratory
<b>CL</b>	Core Laboratories, Casper, WY
<b>CM</b>	Metropolitan Water Reclamation District of Greater Chicago
<b>CN</b>	China Institute for Radiation Protection
<b>CO</b>	Bedford Institute of Oceanography, Dartmouth. Nova Scotia, Canada
<b>CR</b>	Laboratorio de Fisica Nuclear Aplicada, Costa Rica
<b>CS</b>	Rocketdyne Propulsion & Power, Canoga Park, CA
<b>CW</b>	Carlsbad Environmental Monitoring Research Center, NM
<b>DC</b>	Datachem Laboratories, Salt Lake City
<b>DH</b>	Duke Engineering Services Hanford
<b>EC</b>	Envirocare of Utah
<b>EG</b>	LMITCO/INEL, Scoville
<b>EL</b>	Energy Laboratories, Inc., Casper, WY
<b>EM</b>	3M, Empore Disks, St. Paul, MN
<b>EP</b>	US EPA, Las Vegas
<b>FG</b>	FGL Environmental, Santa Paula, CA
<b>FL</b>	Florida Dept of Health & Rehab. Serv., Orlando
<b>FM</b>	Florida Mobile Emergency Radiological Laboratory, Orlando
<b>FN</b>	Fermi Lab, Batavia, IL
<b>FR</b>	CEA/DAM - SPR/B3
<b>FS</b>	Florida State University, Tallahassee
<b>GA</b>	Lockheed Martin, Pikton, OH
<b>GC</b>	Georgia Power Company Environmental Lab
<b>GD</b>	GTS Duratek, Oak Ridge, TN
<b>GE</b>	General Engineering Labs, Charleston, SC
<b>GP</b>	GPU Nuclear, Inc., Harrisburg, PA

## Participating Laboratories in EML QAP 52

### Laboratories Reporting Data

Code	Laboratory Name
<b>GS</b>	USGS/NWQL, Arvada, CO
<b>GT</b>	Georgia Institute of Technology
<b>HC</b>	Lawrence Livermore Laboratory, California
<b>HT</b>	Technical University, Budapest, Hungary
<b>HU</b>	Water Resources Research Centre (VITUKI), Hungary
<b>ID</b>	Institute of Radiation Protection and Dosimetry, IRD/ CNEN, Brazil
<b>IL</b>	ISU Environmental Monitoring Program, Pocatello, ID
<b>IN</b>	Lockheed Martin Idaho Technical Corp., Analytical Laboratory
<b>IS</b>	Severn Trent St. Louis
<b>IT</b>	Severn Trent- Richland Laboratory
<b>JL</b>	Jefferson Lab, Newport News, VA
<b>KA</b>	Knolls Atomic Power Lab, Schenectady
<b>KO</b>	Korea Institute of Nuclear Safety
<b>KR</b>	Korea Atomic Energy Research Institute
<b>LA</b>	Los Alamos National Laboratory, NM
<b>LB</b>	Lawrence Berkeley Lab UCB
<b>LL</b>	LLNL Chemistry and Material Science/Environmental
<b>LM</b>	American Radiation Services of New Mexico, Los Alamos
<b>LN</b>	Los Alamos National Lab, ES&H
<b>LV</b>	UNLV, Dept of Health Physics
<b>LW</b>	Lawrence Livermore National Lab, Waste
<b>ME</b>	Radiation Control Program, Jamaica Plain, MA
<b>MH</b>	Maine Health & Environmental Testing Laboratory
<b>MJ</b>	Mississippi State Department of Health, Jackson
<b>ML</b>	Babcock & Wilcox of Ohio, Mound, Miamisburg, Ohio
<b>MS</b>	Manufacturing Sciences Corporation, Oak Ridge
<b>NA</b>	US EPA NAREL, Montgomery, AL
<b>ND</b>	Dept. of Environmental Health and Safety, NC State University
<b>NF</b>	Nuclear Fuel Services, Erwin, TN
<b>NJ</b>	NJ Department of Health and Senior Services
<b>NL</b>	Fluor Daniel Fernald, Inc., Ohio
<b>NM</b>	Environmental Evaluation Group, Carlsbad, NM
<b>NP</b>	JAF Environmental Laboratory, New York Power Authority
<b>NQ</b>	New Mexico Department of Health, Albuquerque
<b>NR</b>	Naval Reactors Facility Chemistry, Scoville, ID
<b>NZ</b>	National Radiation Laboratory, New Zealand
<b>OB</b>	OBG Laboratories, East Syracuse, NY
<b>OC</b>	Radiation Protection Service Laboratory, Ontario, Canada
<b>OD</b>	ORNL, Radiobioassay Lab
<b>OH</b>	Ohio Dept Of Health Laboratory, Columbus
<b>OK</b>	Southwest Laboratory of Oklahoma
<b>OS</b>	Oregon Health Division Radiation Controls Section, Portland
<b>OT</b>	ORNL Radioactive Material Analysis Lab
<b>OU</b>	Outreach Laboratory, Broken Arrow, OK
<b>PA</b>	Mason & Hanger-Silas Mason Co., Inc., Battelle Pantex, Amarillo, TX
<b>PK</b>	Pakistan Institute of Nuclear Science & Technology
<b>PO</b>	Institute of Oceanology PAN, Poland
<b>PS</b>	PA-DEP Bureau of Radiation Protection, Harrisburg
<b>RA</b>	V. G. Khlopin Radium Institute, St. Petersburg, Russia
<b>RC</b>	US NRC Region I Laboratory, PA
<b>RE</b>	Bechtel Nevada, Mercury, NV

**Participating Laboratories in EML QAP 52****Laboratories Reporting Data**

<b>Code</b>	<b>Laboratory Name</b>
<b>RI</b>	Waste Management Services of Hanford, Inc., 222S Lab
<b>RK</b>	Rock Island Arsenal, Illinois
<b>SA</b>	Sandia Labs Radioactive Sample Diag. Prog., NM
<b>SB</b>	SC Dept. of Health and Environment Control Radiological Lab
<b>SE</b>	Defence Research Establishment of Sweden (FOA)
<b>SI</b>	Jozef Stefan Institute, Slovenia
<b>SK</b>	Savannah River Plant
<b>SL</b>	Stanford Linear Accelerator Center
<b>SN</b>	Sanford Cohen Associates, Inc., Montgomery, AL
<b>SR</b>	Savannah River Environmental Laboratory
<b>ST</b>	SC DHEC, Aiken, South Carolina
<b>SW</b>	Southwest Research Institute, San Antonio, TX
<b>SY</b>	Syrian Arab Republic Atomic Energy Commission
<b>TE</b>	Teledyne Isotopes Midwest Lab, Northbrook, IL
<b>TI</b>	Teledyne Brown Engineering Environmental Services, Westwood, NJ
<b>TM</b>	Thermo NUTech Albuquerque Lab, NM
<b>TN</b>	Thermo NUTech, Richmond, CA
<b>TO</b>	Thermo NUTech Oak Ridge Laboratory
<b>TP</b>	Taiwan Power Company, Taipei, Taiwan
<b>TQ</b>	Institute of Nuclear Energy Research, Taiwan
<b>TT</b>	Tracer Technologies International, Inc., Cleveland
<b>TW</b>	Taiwan Radiation Monitoring Center
<b>TX</b>	Texas Dept. of Health/Laboratories, Austin
<b>UC</b>	United States Enrichment Corporation, Paducah, KY
<b>UP</b>	Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge
<b>US</b>	Interstate Nuclear Services, Springfield, MO
<b>UY</b>	Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge
<b>WA</b>	Environmental Radiation Lab, Off. of Public Health Labs. Seattle
<b>WC</b>	Waste Management Federal Services of Hanford
<b>WE</b>	Westinghouse Electric Corp., Madison, PA
<b>WI</b>	WIPP Site, Westinghouse Electric Corp.
<b>WN</b>	State Health Radiation Protection Section, Madison, WI
<b>WO</b>	Wisconsin State Lab of Hygiene
<b>WP</b>	Washington Public Power Supply System, Richland
<b>WS</b>	Weldon Springs Site, St Charles, MO
<b>WT</b>	Waste Stream Technology, Buffalo, NY
<b>WV</b>	West Valley Nuclear Services
<b>WW</b>	West Valley Radiation Protection
<b>YA</b>	Duke Engineering & Sciences Environmental Lab, Westboro, MA
<b>YP</b>	US Army Proving Ground, Yuma, AZ
<b>YU</b>	Institute of Occupational and Radiological Health, Serbia
<b>CU</b>	Universite Laval, Quebec, Canada
<b>RM</b>	RMI Environmental Services, Ashtabula, Ohio

**Total Reporting Labs: 145**

**Participating Laboratories in EML QAP 52****Laboratories NOT Reporting Data**

<b>Code</b>	<b>Laboratory Name</b>
<b>AL</b>	Ames Laboratory, Ames, IA
<b>AP</b>	Aberdeen Proving Ground, Aberdeen, MD
<b>AY</b>	Analytics, Inc. Atlanta, GA
<b>BR</b>	US Army Research Laboratory, Aberdeen Proving Ground
<b>BS</b>	B&W Nuclear Envir. Services, Leechburg, PA
<b>FE</b>	Fernald WPRAP Field Office, Ohio
<b>FJ</b>	The University of the South Pacific, Fiji Islands
<b>FT</b>	USACECOM-DSRM, Fort Monmouth, NJ
<b>HO</b>	Rontgen Technische Dienst bv, The Netherlands
<b>IA</b>	Bhabha Atomic Research Centre, India
<b>JE</b>	Jacobs Engineering, Oak Ridge, TN
<b>LE</b>	Lyle Environmental Management, Columbus, Ohio
<b>MI</b>	Massachusetts Institute of Technology
<b>NS</b>	State Lab of Public Health, North Carolina
<b>NW</b>	Naval Reasearch Lab, Washington,DC
<b>PR</b>	Princeton Plasma Physics Lab
<b>RG</b>	Thermo Nutech Rocky Flats Plant, Golden
<b>RL</b>	Bechtel Hanford-Radiological Counting Facility
<b>SH</b>	Savannah River Ecology Lab
<b>TK</b>	Kevin Wright, Kingston, TN
<b>TR</b>	University of Istanbul, Turkey
<b>TU</b>	Texas A&M University, Dept of Nuclear Engineering
<b>TY</b>	Scientific Production Association, Russia
<b>UK</b>	Lockheed Martin Energy Systems, Oak Ridge
<b>RF</b>	Rocky Flats Environmental Tech Site, Colorado

**Total Non-Reporting Labs: 25**