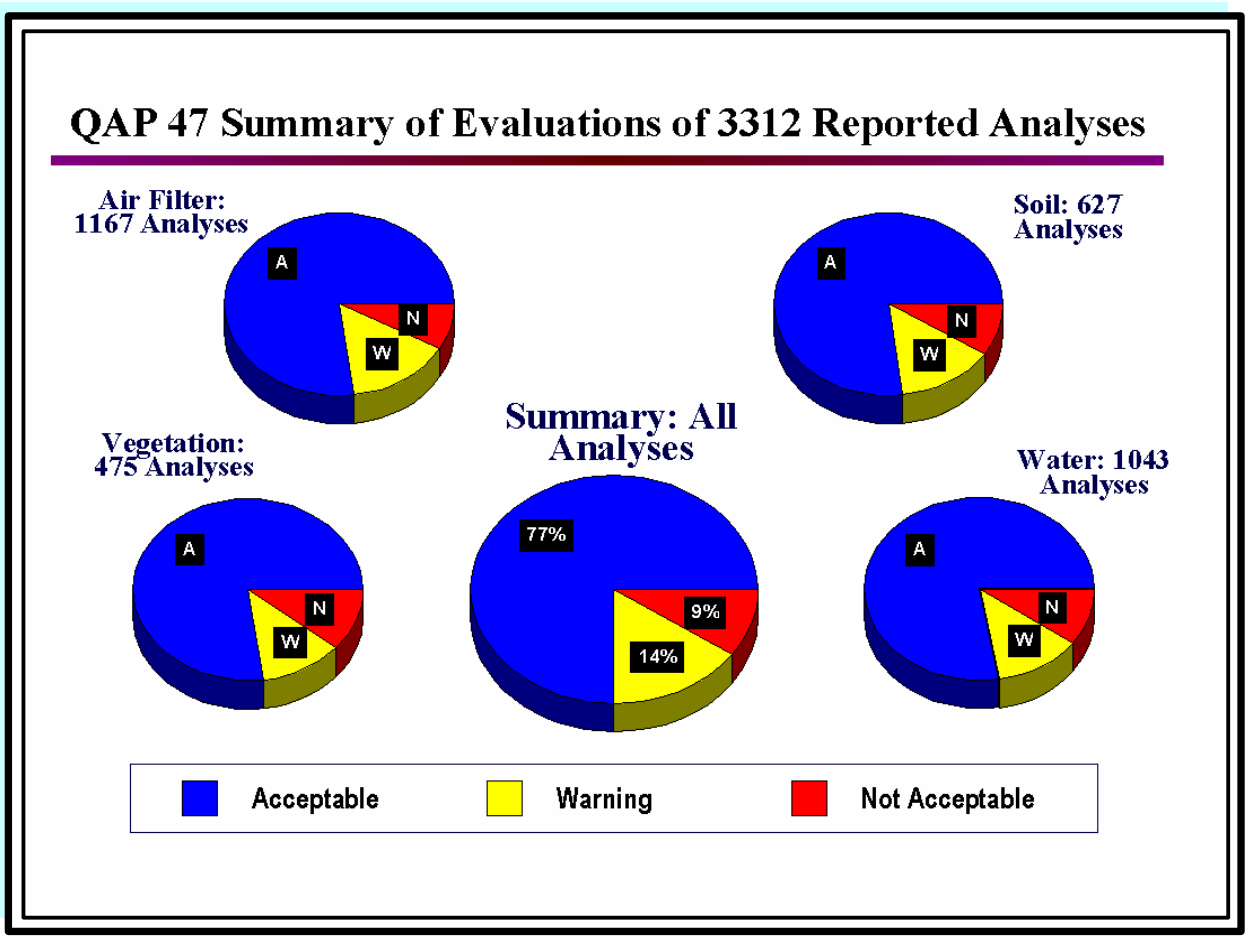
ENVIRONMENTAL MEASUREMENTS LABORATORY

EML-594

Semi-Annual Report of the Department of Energy,
Office of Environmental Management,
Quality Assessment Program



Pamela D. Greenlaw

January 1998

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EML-594

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

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U. S. Department of Energy
New York, NY 10014-4811

January 1, 1998

DISCLAIMER

ACKNOWLEDGEMENT

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ABSTRACT

This report presents the results from the analysis of the 47th set of environmental quality assessment samples (QAP XLVII) that were received on or before December 1, 1997.

INTRODUCTION

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.

This is the 53rd report of this program. Preceding reports in this series are:

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

***Please note this is a corrected report number.**

RESULTS

The results from the analysis of QAP-XLVII samples received on or before December 1, 1997 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^{-1}**
Soil	**Bq kg^{-1}**
Tissue	**Bq kg^{-1}**
Vegetation	**Bq kg^{-1}**
Water	**Bq L^{-1}**

The values for elemental uranium are reported in μg filter^{-1}, g, or mL. Some programs require the use of pCi as reporting units, the conversion can be found on page 2.

The 'EML value' listed in the tables to which the contractors' results are compared is the mean of replicate determinations for each nuclide. The EML uncertainty is the standard error 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-XLVII were developed from percentiles of data distributions for the years 1992-1997.

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 15th and 85th 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 5th and 15th percentile and between the 85th and 95th percentile. In other words, the middle 90% of all reported values are acceptable, while the outer 5th-15th (10%) and 85th-95th percentiles (10%) are in the warning area. The not acceptable criteria, "N", is established at less than the 5th percentile and greater than the 95th 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. 3).

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 objectives.

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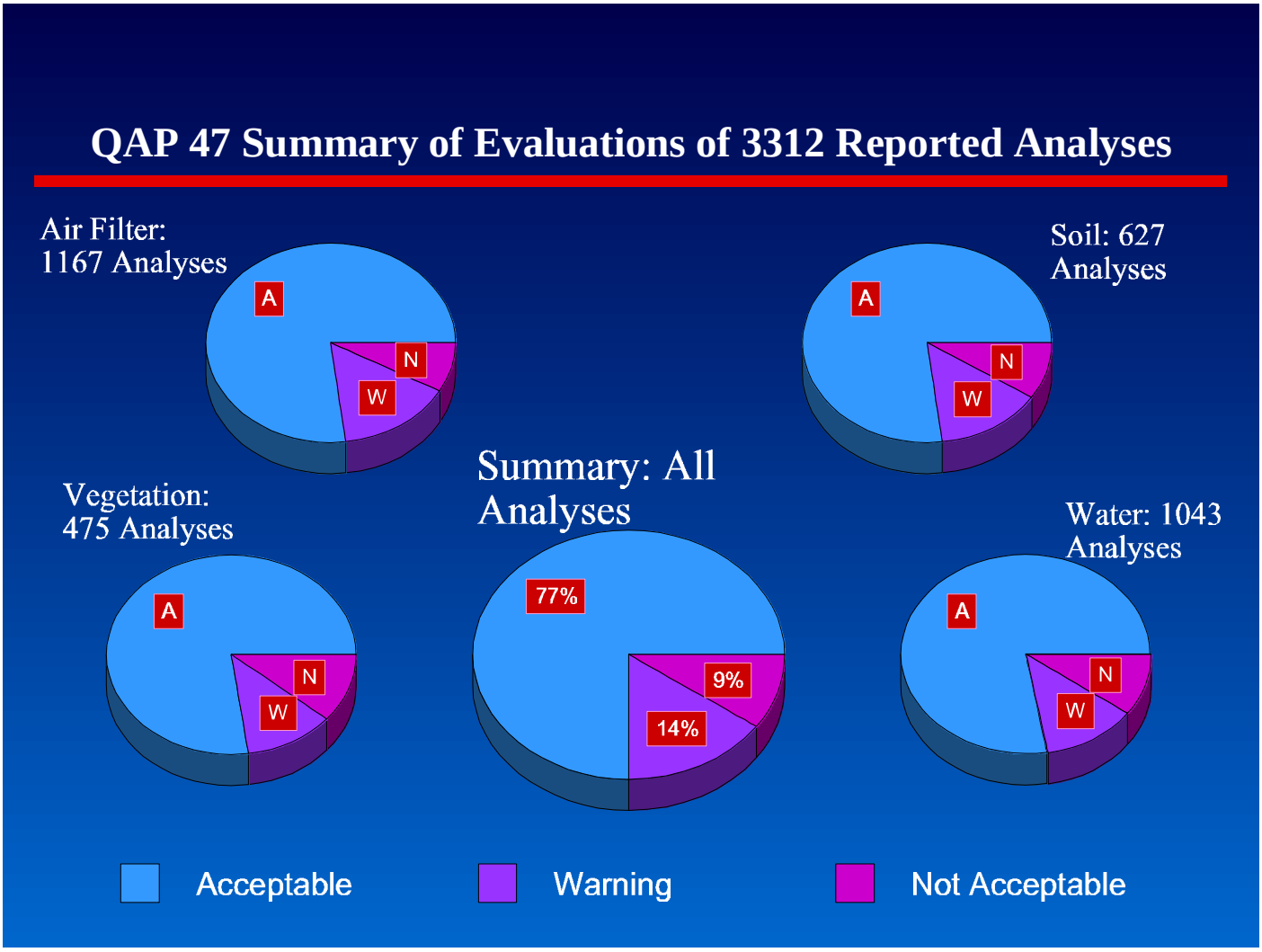
Results Ordered by Matrix/Nuclide

Air

QAP 47 Summary of Evaluations of 3312 Reported Analyses



QAP 47 Statistical Summary

Nuclide	EML Value	EML Error	Reported Values EML Value Mean	Median	Std. Dev.	No. of Reported Values
Matrix: AI						
ug U	4.650	0.210	1.069	1.080	0.151	27
134Cs	28.170	0.730	0.898	0.890	0.089	92
125Sb	16.120	0.790	0.976	0.990	0.160	88
60Co	10.730	1.090	0.919	0.900	0.094	93
57Co	12.640	0.430	0.918	0.900	0.121	91
54Mn	6.720	0.270	0.988	0.980	0.113	92
137Cs	7.310	0.250	0.957	0.955	0.109	98
144Ce	19.120	0.700	0.870	0.860	0.121	81
90Sr	2.760	0.100	1.077	0.960	0.328	39
238Pu	0.210	0.007	1.067	1.060	0.101	49
234U	0.050	0.001	1.218	1.180	0.210	36
GA	1.490	0.090	1.097	1.070	0.206	67
Bq U	0.110	0.004	1.309	1.210	0.393	19
GB	3.000	0.140	1.048	1.035	0.145	72
238U	0.050	0.003	1.193	1.120	0.228	42
239Pu	0.100	0.004	1.095	1.110	0.086	23
241Am	0.210	0.009	1.042	1.015	0.218	52
Matrix: SO						
234U	37.150	0.640	0.930	0.920	0.173	42
90Sr	34.750	1.000	1.067	1.020	0.340	44
137Cs	810.000	40.000	1.039	1.030	0.088	102
238Pu	0.440	0.090	1.151	1.005	0.310	16
239Pu	10.160	0.370	1.090	1.080	0.132	62
241Am	6.040	0.580	1.209	1.100	0.366	67
ug U	2.820	0.200	0.951	0.960	0.102	32
238U	34.900	0.140	0.978	0.965	0.184	50
Bq U	72.900	0.850	0.941	0.940	0.187	19
60Co	1.500	0.400	1.160	1.045	0.303	46
40K	315.000	20.000	1.015	1.005	0.117	92
Matrix: VE						
244Cm	2.750	0.100	0.968	0.945	0.210	26
60Co	32.400	1.600	1.003	1.000	0.134	82
90Sr	1434.000	75.000	0.942	0.940	0.101	38
40K	1130.000	70.000	1.044	1.040	0.130	74
238Pu	0.400	0.150	1.178	1.070	0.416	8
241Am	3.460	0.250	1.267	1.155	0.373	56
137Cs	624.000	31.000	1.054	1.060	0.098	81
239Pu	5.480	0.440	1.090	1.090	0.152	56

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

QAP 47 Statistical Summary

Nuclide	EML Value	EML Error	Reported Values EML Value Mean	Median	Std. Dev.	No. of Reported Values
Matrix: WA						
90Sr	2.940	0.180	1.030	1.030	0.104	53
134Cs	66.000	2.600	1.049	1.040	0.073	93
60Co	23.300	1.200	1.019	1.010	0.057	91
54Mn	37.800	1.900	1.067	1.070	0.075	91
137Cs	34.300	1.700	1.050	1.040	0.082	97
55Fe	115.000	10.000	1.089	1.090	0.217	14
234U	0.230	0.020	1.126	1.120	0.097	39
241Am	0.750	0.020	1.053	1.020	0.166	59
238U	0.240	0.010	1.083	1.070	0.098	44
ug U	0.020	0.001	1.019	1.005	0.080	26
GB	712.000	70.000	1.222	1.220	0.163	66
GA	557.000	60.000	1.015	1.030	0.196	64
Bq U	0.480	0.030	1.082	1.100	0.131	17
239Pu	0.750	0.040	1.027	1.030	0.088	56
238Pu	0.720	0.020	1.029	1.020	0.084	50
3H	115.000	6.000	1.077	1.080	0.125	67

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

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

QAP 47 Control Limits* by Matrix

Nuclide	Lower Limit	Lower Middle Limit	Upper Middle Limit	Upper Limit
Matrix: AI				
ug U	0.52	0.80	1.27	1.86
134Cs	0.73	0.81	1.11	1.22
125Sb	0.58	0.81	1.14	1.36
60Co	0.75	0.82	1.10	1.27
57Co	0.62	0.69	1.10	1.28
54Mn	0.76	0.83	1.11	1.32
137Cs	0.72	0.82	1.11	1.33
144Ce	0.58	0.66	1.10	1.26
90Sr	0.67	0.85	1.56	2.26
238Pu	0.63	0.84	1.14	1.46
234U	0.79	0.89	1.42	2.01
GA	0.45	0.80	1.34	1.57
Bq U	0.80	0.90	1.67	3.35
GB	0.50	0.80	1.48	1.77
238U	0.76	0.88	1.33	2.41
239Pu	0.67	0.88	1.17	1.59
241Am	0.69	0.84	1.33	1.92
Matrix: SO				
234U	0.38	0.63	1.10	1.55
90Sr	0.46	0.72	1.66	2.84
137Cs	0.80	0.90	1.23	1.34
238Pu	0.40	0.73	1.16	1.90
239Pu	0.66	0.87	1.26	1.93
241Am	0.52	0.75	1.52	2.65
ug U	0.34	0.53	1.10	1.27
238U	0.35	0.61	1.10	1.55
Bq U	0.27	0.42	1.10	1.36
60Co	0.80	0.90	1.30	2.00
40K	0.73	0.85	1.27	1.67
Matrix: VE				
244Cm	0.49	0.83	1.41	1.69
60Co	0.62	0.81	1.20	1.42
90Sr	0.48	0.67	1.10	1.29
40K	0.79	0.90	1.24	1.50
238Pu	0.46	0.81	2.10	6.71
241Am	0.68	0.86	1.57	2.78
137Cs	0.80	0.90	1.25	1.45
239Pu	0.65	0.85	1.32	1.95

***Control limits are reported as: the ratio of Reported Value vs. EML Value**

QAP 47 Control Limits* by Matrix

Nuclide	Lower Limit	Lower Middle Limit	Upper Middle Limit	Upper Limit
Matrix: WA				
90Sr	0.71	0.88	1.31	1.65
134Cs	0.89	0.90	1.16	1.25
60Co	0.80	0.90	1.13	1.18
54Mn	0.80	0.90	1.16	1.22
137Cs	0.80	0.90	1.18	1.27
55Fe	0.32	0.80	1.29	1.52
234U	0.75	0.90	1.21	1.44
241Am	0.68	0.88	1.23	1.56
238U	0.77	0.90	1.16	1.34
ug U	0.73	0.89	1.15	1.34
GB	0.50	0.73	1.38	1.63
GA	0.37	0.80	1.20	1.50
Bq U	0.33	0.84	1.23	1.43
239Pu	0.78	0.90	1.18	1.41
238Pu	0.73	0.90	1.12	1.27
3H	0.62	0.79	1.22	1.80

Control limits are established from historical QAP data.

Where historical data are insufficient, limits of ±20% and ±50% are applied.

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

***Control limits are reported as: the ratio of Reported Value vs. EML Value**

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: AA	Environmental Measurements Laboratory						
AI	17	0	0	17	100	0	0
SO	11	0	0	11	100	0	0
VE	8	0	0	8	100	0	0
WA	16	0	0	16	100	0	0
Totals:	**52**	**0**	**0**	**52**	**100%**	**0%**	**0%**
Lab: AC	Analytical Chemistry Laboratory, Argonne National Lab						
SO	2	0	0	2	100	0	0
WA	1	0	1	2	50	0	50
Totals:	**3**	**0**	**1**	**4**	**75%**	**0%**	**25%**
Lab: AF	Air Force Analytical Lab, Brooks AFB						
AI	4	3	5	12	33	25	42
SO	4	1	1	6	67	17	17
VE	0	0	3	3	0	0	100
WA	0	0	8	8	0	0	100
Totals:	**8**	**4**	**17**	**29**	**28%**	**14%**	**59%**
Lab: AG	Paragon Analytics, Inc, Fort Collins, CO						
AI	14	0	0	14	100	0	0
SO	9	0	1	10	90	0	10
VE	5	2	0	7	71	29	0
WA	12	0	1	13	92	0	8
Totals:	**40**	**2**	**2**	**44**	**91%**	**5%**	**5%**
Lab: AI	Nuclear Technology Services, Inc., Roswell, GA						
AI	2	0	0	2	100	0	0
SO	2	2	1	5	40	40	20
VE	3	2	0	5	60	40	0
WA	9	0	2	11	82	0	18
Totals:	**16**	**4**	**3**	**23**	**70%**	**17%**	**13%**
Lab: AM	American Radiation Services, Inc., Baton Rouge						
AI	4	6	3	13	31	46	23

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: AM	American Radiation Services, Inc., Baton Rouge						
SO	6	1	0	7	86	14	0
VE	4	0	0	4	100	0	0
WA	4	3	3	10	40	30	30
Totals:	**18**	**10**	**6**	**34**	**53%**	**29%**	**18%**
Lab: AN	Argonne National Laboratory						
AI	10	2	0	12	83	17	0
SO	6	2	0	8	75	25	0
VE	4	0	3	7	57	0	43
WA	10	1	0	11	91	9	0
Totals:	**30**	**5**	**3**	**38**	**79%**	**13%**	**8%**
Lab: AR	Accu-Labs Research Inc., Golden, CO						
AI	13	2	2	17	76	12	12
SO	7	3	0	10	70	30	0
VE	8	0	0	8	100	0	0
WA	12	2	1	15	80	13	7
Totals:	**40**	**7**	**3**	**50**	**80%**	**14%**	**6%**
Lab: AU	ORISE EESD/ESSAP, Oak Ridge						
AI	13	1	0	14	93	7	0
SO	7	0	1	8	88	0	13
VE	6	0	0	6	100	0	0
WA	9	1	3	13	69	8	23
Totals:	**35**	**2**	**4**	**41**	**85%**	**5%**	**10%**
Lab: AW	Argonne National Laboratory, Idaho Falls						
WA	3	0	1	4	75	0	25
Totals:	**3**	**0**	**1**	**4**	**75%**	**0%**	**25%**
Lab: BA	Bettis Atomic Power Lab, West Mifflin, PA						
AI	5	0	0	5	100	0	0
SO	1	0	0	1	100	0	0
VE	2	0	0	2	100	0	0

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: BA	Bettis Atomic Power Lab, West Mifflin, PA						
WA	6	0	0	6	100	0	0
Totals:	**14**	**0**	**0**	**14**	**100%**	**0%**	**0%**
Lab: BC	Babcock & Wilcox MC #42, Lynchburg, VA						
AI	10	2	0	12	83	17	0
SO	4	2	0	6	67	33	0
VE	4	0	0	4	100	0	0
WA	8	0	1	9	89	0	11
Totals:	**26**	**4**	**1**	**31**	**84%**	**13%**	**3%**
Lab: BE	RUST Geotech, Grand Junction, CO						
AI	14	1	0	15	93	7	0
SO	8	0	0	8	100	0	0
VE	7	0	0	7	100	0	0
WA	10	0	4	14	71	0	29
Totals:	**39**	**1**	**4**	**44**	**89%**	**2%**	**9%**
Lab: BL	Barringer Laboratories Inc., Golden, CO						
AI	18	4	0	22	82	18	0
SO	13	1	0	14	93	7	0
VE	5	2	1	8	63	25	13
WA	23	1	1	25	92	4	4
Totals:	**59**	**8**	**2**	**69**	**86%**	**12%**	**3%**
Lab: BM	Battelle Memorial Institute, Columbus, OH						
AI	8	1	0	9	89	11	0
SO	7	0	0	7	100	0	0
VE	4	1	1	6	67	17	17
WA	8	1	0	9	89	11	0
Totals:	**27**	**3**	**1**	**31**	**87%**	**10%**	**3%**
Lab: BN	Brookhaven National Laboratory, Upton, NY						
AI	10	4	14	28	36	14	50
SO	4	7	1	12	33	58	8

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: BN	Brookhaven National Laboratory, Upton, NY						
VE	2	6	4	12	17	50	33
WA	18	5	1	24	75	21	4
Totals:	**34**	**22**	**20**	**76**	**45%**	**29%**	**26%**
Lab: BP	Battelle Pacific Northwest National Laboratory						
AI	12	2	0	14	86	14	0
SO	5	1	0	6	83	17	0
VE	5	2	0	7	71	29	0
WA	11	1	1	13	85	8	8
Totals:	**33**	**6**	**1**	**40**	**83%**	**15%**	**3%**
Lab: BQ	Becquerel Laboratories Inc., Mississauga, Ontario, Canada						
AI	8	0	0	8	100	0	0
SO	2	0	1	3	67	0	33
VE	2	0	0	2	100	0	0
WA	4	0	1	5	80	0	20
Totals:	**16**	**0**	**2**	**18**	**89%**	**0%**	**11%**
Lab: BR	US Army Research Laboratory, Aberdeen Proving Ground						
SO	3	1	0	4	75	25	0
VE	2	0	1	3	67	0	33
WA	2	3	0	5	40	60	0
Totals:	**7**	**4**	**1**	**12**	**58%**	**33%**	**8%**
Lab: BS	B&W Nuclear Envir. Services, Leechburg, PA						
AI	6	2	0	8	75	25	0
SO	2	0	2	4	50	0	50
VE	0	2	2	4	0	50	50
WA	6	1	0	7	86	14	0
Totals:	**14**	**5**	**4**	**23**	**61%**	**22%**	**17%**
Lab: BU	Autoridad Regulatoria, Buenos Aires, Argentina						
AI	10	0	1	11	91	0	9
SO	4	2	0	6	67	33	0

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: BU	Autoridad Regulatoria, Buenos Aires, Argentina						
VE	6	1	0	7	86	14	0
WA	8	3	1	12	67	25	8
Totals:	**28**	**6**	**2**	**36**	**78%**	**17%**	**6%**
Lab: BX	B&W Nuclear Envir. Services, Lyncyburg, VA						
AI	12	2	0	14	86	14	0
SO	4	3	1	8	50	38	13
VE	5	2	0	7	71	29	0
WA	12	1	1	14	86	7	7
Totals:	**33**	**8**	**2**	**43**	**77%**	**19%**	**5%**
Lab: CA	Atomic Energy Control Board, Ottawa, Canada						
AI	8	1	0	9	89	11	0
SO	0	1	0	1	0	100	0
WA	5	2	1	8	63	25	13
Totals:	**13**	**4**	**1**	**18**	**72%**	**22%**	**6%**
Lab: CH	California State Dept. Health Serv.,Sanitation & Radiation Laboratory						
AI	16	0	0	16	100	0	0
SO	9	1	0	10	90	10	0
VE	7	0	0	7	100	0	0
WA	12	2	1	15	80	13	7
Totals:	**44**	**3**	**1**	**48**	**92%**	**6%**	**2%**
Lab: CL	Core Laboratories, Casper, WY						
AI	8	2	3	13	62	15	23
SO	4	5	0	9	44	56	0
VE	5	1	1	7	71	14	14
WA	6	7	0	13	46	54	0
Totals:	**23**	**15**	**4**	**42**	**55%**	**36%**	**10%**
Lab: CN	China Institute for Radiation Protection						
AI	3	1	3	7	43	14	43
SO	3	0	1	4	75	0	25

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: CN	China Institute for Radiation Protection						
VE	3	1	0	4	75	25	0
Totals:	**9**	**2**	**4**	**15**	**60%**	**13%**	**27%**
Lab: CO	Bedford Institute of Oceanography, Dartmouth. Nova Scotia, Canada						
AI	6	1	0	7	86	14	0
SO	4	0	0	4	100	0	0
VE	4	0	0	4	100	0	0
Totals:	**14**	**1**	**0**	**15**	**93%**	**7%**	**0%**
Lab: CR	Laboratorio de Fisica Nuclear Aplicada, Costa Rica						
AI	0	5	0	5	0	100	0
SO	2	0	0	2	100	0	0
VE	3	0	0	3	100	0	0
Totals:	**5**	**5**	**0**	**10**	**50%**	**50%**	**0%**
Lab: CS	Rockwell International Corp., Canoga Park, CA						
AI	2	7	1	10	20	70	10
SO	4	0	0	4	100	0	0
VE	4	0	0	4	100	0	0
WA	4	1	0	5	80	20	0
Totals:	**14**	**8**	**1**	**23**	**61%**	**35%**	**4%**
Lab: CZ							
WA	2	0	0	2	100	0	0
Totals:	**2**	**0**	**0**	**2**	**100%**	**0%**	**0%**
Lab: DC	Datachem Laboratories, Salt Lake City						
AI	7	2	7	16	44	13	44
SO	4	4	2	10	40	40	20
VE	2	0	5	7	29	0	71
WA	9	5	0	14	64	36	0

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: DC	Datachem Laboratories, Salt Lake City						
Totals:	**22**	**11**	**14**	**47**	**47%**	**23%**	**30%**
Lab: DH	Duke Engineering Services Hanford						
AI	2	0	0	2	100	0	0
SO	2	1	0	3	67	33	0
WA	4	0	0	4	100	0	0
Totals:	**8**	**1**	**0**	**9**	**89%**	**11%**	**0%**
Lab: DP	Duke Power Company, Huntersville, NC						
AI	8	0	0	8	100	0	0
WA	14	2	9	25	56	8	36
Totals:	**22**	**2**	**9**	**33**	**67%**	**6%**	**27%**
Lab: EG	LMITCO/INEL, Scoville						
AI	14	0	0	14	100	0	0
SO	5	2	1	8	63	25	13
VE	6	1	0	7	86	14	0
WA	12	1	0	13	92	8	0
Totals:	**37**	**4**	**1**	**42**	**88%**	**10%**	**2%**
Lab: EI	Eichrom Industries, Inc., Argonne						
AI	2	0	0	2	100	0	0
WA	1	1	1	3	33	33	33
Totals:	**3**	**1**	**1**	**5**	**60%**	**20%**	**20%**
Lab: EP	US EPA, Las Vegas						
AI	4	0	0	4	100	0	0
WA	5	0	0	5	100	0	0
Totals:	**9**	**0**	**0**	**9**	**100%**	**0%**	**0%**

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: ES	Environmental Sci. & Engr., Inc., Gainesville, FL						
AI	12	1	1	14	86	7	7
SO	6	2	0	8	75	25	0
VE	7	0	0	7	100	0	0
WA	10	0	2	12	83	0	17
Totals:	**35**	**3**	**3**	**41**	**85%**	**7%**	**7%**
Lab: FG	FGL Environmental, Santa Paula, CA						
AI	9	0	1	10	90	0	10
SO	2	1	1	4	50	25	25
WA	6	1	0	7	86	14	0
Totals:	**17**	**2**	**2**	**21**	**81%**	**10%**	**10%**
Lab: FJ	University of the South Pacific, Fiji Islands						
AI	2	4	1	7	29	57	14
SO	5	0	0	5	100	0	0
Totals:	**7**	**4**	**1**	**12**	**58%**	**33%**	**8%**
Lab: FL	Florida Dept of Health & Rehab. Serv., Orlando						
AI	10	1	1	12	83	8	8
SO	5	0	0	5	100	0	0
VE	4	0	0	4	100	0	0
WA	4	2	1	7	57	29	14
Totals:	**23**	**3**	**2**	**28**	**82%**	**11%**	**7%**
Lab: FM	Florida Mobile Emergency Radiological Laboratory, Orlando						
AI	6	0	1	7	86	0	14
WA	4	0	0	4	100	0	0
Totals:	**10**	**0**	**1**	**11**	**91%**	**0%**	**9%**
Lab: FN	Fermi Lab, Batavia, IL						
AI	0	3	4	7	0	43	57
SO	4	0	0	4	100	0	0
VE	3	0	0	3	100	0	0
WA	5	0	0	5	100	0	0

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: FN	Fermi Lab, Batavia, IL						
Totals:	**12**	**3**	**4**	**19**	**63%**	**16%**	**21%**
Lab: FR	Service Mixte de Surveillance Radiologique et Biologique (SMSRB), France						
AI	5	3	5	13	38	23	38
SO	7	0	1	8	88	0	13
VE	5	0	0	5	100	0	0
WA	10	2	1	13	77	15	8
Totals:	**27**	**5**	**7**	**39**	**69%**	**13%**	**18%**
Lab: FS	Florida State University, Tallahassee						
SO	6	1	0	7	86	14	0
Totals:	**6**	**1**	**0**	**7**	**86%**	**14%**	**0%**
Lab: GA	Lockheed Martin, Pikton, OH						
AI	11	2	0	13	85	15	0
SO	7	0	0	7	100	0	0
VE	6	0	0	6	100	0	0
WA	6	4	1	11	55	36	9
Totals:	**30**	**6**	**1**	**37**	**81%**	**16%**	**3%**
Lab: GC	Georgia Power Company Environmental Lab						
SO	3	0	0	3	100	0	0
VE	3	0	0	3	100	0	0
WA	7	1	0	8	88	13	0
Totals:	**13**	**1**	**0**	**14**	**93%**	**7%**	**0%**
Lab: GE	Environmental Physics, Inc., Charleston, SC						
AI	13	0	2	15	87	0	13
SO	8	0	0	8	100	0	0
VE	4	2	0	6	67	33	0
WA	13	1	0	14	93	7	0

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: GE	Environmental Physics, Inc., Charleston, SC						
Totals:	**38**	**3**	**2**	**43**	**88%**	**7%**	**5%**
Lab: GP	GPU Nuclear, Inc., Harrisburg, PA						
AI	3	8	5	16	19	50	31
SO	5	3	1	9	56	33	11
VE	0	1	7	8	0	13	88
WA	3	0	12	15	20	0	80
Totals:	**11**	**12**	**25**	**48**	**23%**	**25%**	**52%**
Lab: GS	USGS/NWQL, Arvada, CO						
WA	3	0	0	3	100	0	0
Totals:	**3**	**0**	**0**	**3**	**100%**	**0%**	**0%**
Lab: GT	Georgia Institute of Technology						
AI	9	3	1	13	69	23	8
SO	5	1	1	7	71	14	14
VE	6	0	0	6	100	0	0
WA	7	2	3	12	58	17	25
Totals:	**27**	**6**	**5**	**38**	**71%**	**16%**	**13%**
Lab: HC	Lawrence Livermore Laboratory, California						
AI	2	0	0	2	100	0	0
WA	3	0	0	3	100	0	0
Totals:	**5**	**0**	**0**	**5**	**100%**	**0%**	**0%**
Lab: HU	Water Resources Research Centre (VITUKI), Hungary						
AI	3	1	3	7	43	14	43
SO	1	0	0	1	100	0	0
VE	1	0	2	3	33	0	67
Totals:	**5**	**1**	**5**	**11**	**45%**	**9%**	**45%**

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: ID	DPRA - IRD/CNEN, Rio de Janeiro, Brazil						
AI	11	0	1	12	92	0	8
SO	5	0	1	6	83	0	17
VE	5	0	0	5	100	0	0
WA	7	0	2	9	78	0	22
Totals:	**28**	**0**	**4**	**32**	**88%**	**0%**	**13%**
Lab: IE	IEA, Inc., Morrisville, NC						
AI	11	3	0	14	79	21	0
SO	9	0	0	9	100	0	0
VE	6	1	0	7	86	14	0
WA	14	0	0	14	100	0	0
Totals:	**40**	**4**	**0**	**44**	**91%**	**9%**	**0%**
Lab: IN	Lockheed Martin Idaho Technical Corp., Analytical Laboratory						
AI	6	1	0	7	86	14	0
SO	4	2	0	6	67	33	0
VE	3	0	0	3	100	0	0
WA	9	0	0	9	100	0	0
Totals:	**22**	**3**	**0**	**25**	**88%**	**12%**	**0%**
Lab: IS	Quanterra- St. Louis						
AI	5	6	2	13	38	46	15
SO	6	0	1	7	86	0	14
VE	5	1	0	6	83	17	0
WA	9	2	2	13	69	15	15
Totals:	**25**	**9**	**5**	**39**	**64%**	**23%**	**13%**
Lab: IT	Quanterra- Richland Laboratory						
AI	14	1	1	16	88	6	6
SO	10	0	0	10	100	0	0
VE	6	1	0	7	86	14	0
WA	14	0	0	14	100	0	0
Totals:	**44**	**2**	**1**	**47**	**94%**	**4%**	**2%**

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: JL	Jefferson Lab, Newport News, VA						
AI	6	1	1	8	75	13	13
WA	5	0	1	6	83	0	17
Totals:	**11**	**1**	**2**	**14**	**79%**	**7%**	**14%**
Lab: KA	Knolls Atomic Power Lab, Schenectady						
AI	2	0	0	2	100	0	0
SO	4	1	0	5	80	20	0
WA	10	1	0	11	91	9	0
Totals:	**16**	**2**	**0**	**18**	**89%**	**11%**	**0%**
Lab: KO	Korea Institute of Nuclear Safety						
AI	9	0	0	9	100	0	0
SO	2	1	0	3	67	33	0
VE	3	0	0	3	100	0	0
Totals:	**14**	**1**	**0**	**15**	**93%**	**7%**	**0%**
Lab: LA	Los Alamos National Laboratory, NM						
AI	23	0	0	23	100	0	0
SO	15	0	0	15	100	0	0
VE	9	0	1	10	90	0	10
WA	16	8	4	28	57	29	14
Totals:	**63**	**8**	**5**	**76**	**83%**	**11%**	**7%**
Lab: LH	LAS Laboratory, Las Vegas						
AI	9	3	1	13	69	23	8
SO	6	1	0	7	86	14	0
VE	7	0	0	7	100	0	0
WA	11	2	1	14	79	14	7
Totals:	**33**	**6**	**2**	**41**	**80%**	**15%**	**5%**
Lab: LL	LLNL Chemistry and Material Science/Waste						
AI	11	0	0	11	100	0	0
SO	7	2	0	9	78	22	0
VE	3	0	1	4	75	0	25

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: LL	LLNL Chemistry and Material Science/Waste						
WA	9	1	0	10	90	10	0
Totals:	**30**	**3**	**1**	**34**	**88%**	**9%**	**3%**
Lab: LN	Los Alamos National Lab, ES&H						
AI	6	2	1	9	67	22	11
WA	4	0	1	5	80	0	20
Totals:	**10**	**2**	**2**	**14**	**71%**	**14%**	**14%**
Lab: LV	UNLV, Dept of Health Physics						
AI	4	3	1	8	50	38	13
SO	3	1	1	5	60	20	20
VE	4	0	0	4	100	0	0
WA	4	4	0	8	50	50	0
Totals:	**15**	**8**	**2**	**25**	**60%**	**32%**	**8%**
Lab: LW	LLNL, Environmental Science Lab						
SO	2	0	0	2	100	0	0
VE	3	0	0	3	100	0	0
WA	7	0	0	7	100	0	0
Totals:	**12**	**0**	**0**	**12**	**100%**	**0%**	**0%**
Lab: MA	ORNL Health Sciences Research Div.						
SO	4	1	0	5	80	20	0
VE	3	1	0	4	75	25	0
Totals:	**7**	**2**	**0**	**9**	**78%**	**22%**	**0%**
Lab: ME	Radiation Control Program, Jamaica Plain, MA						
AI	3	6	1	10	30	60	10
SO	3	0	1	4	75	0	25
VE	4	0	0	4	100	0	0
WA	3	1	1	5	60	20	20

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: ME	Radiation Control Program, Jamaica Plain, MA						
Totals:	**13**	**7**	**3**	**23**	**57%**	**30%**	**13%**
Lab: MH	Maine Health & Environmental Testing Laboratory						
AI	6	1	0	7	86	14	0
SO	3	0	0	3	100	0	0
VE	3	0	0	3	100	0	0
WA	9	1	0	10	90	10	0
Totals:	**21**	**2**	**0**	**23**	**91%**	**9%**	**0%**
Lab: ML	EG&G Mound Applied Technologies, Miamisburg, OH						
AI	4	5	0	9	44	56	0
SO	5	0	2	7	71	0	29
VE	5	0	0	5	100	0	0
WA	9	1	0	10	90	10	0
Totals:	**23**	**6**	**2**	**31**	**74%**	**19%**	**6%**
Lab: MS	Manufacturing Sciences Corporation, Oak Ridge						
AI	8	0	0	8	100	0	0
SO	2	0	2	4	50	0	50
WA	4	1	0	5	80	20	0
Totals:	**14**	**1**	**2**	**17**	**82%**	**6%**	**12%**
Lab: NA	US EPA NAREL, Montgomery, AL						
AI	2	1	1	4	50	25	25
SO	6	0	1	7	86	0	14
VE	0	0	5	5	0	0	100
WA	6	2	1	9	67	22	11
Totals:	**14**	**3**	**8**	**25**	**56%**	**12%**	**32%**
Lab: ND	Dept of Environmental Health & Safety, NC State University						
AI	8	1	0	9	89	11	0

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: ND	Dept of Environmental Health & Safety, NC State University						
Totals:	**8**	**1**	**0**	**9**	**89%**	**11%**	**0%**
Lab: NF	Nuclear Fuel Services, Irwin, TN						
AI	1	1	1	3	33	33	33
SO	1	2	0	3	33	67	0
VE	1	0	0	1	100	0	0
WA	4	0	0	4	100	0	0
Totals:	**7**	**3**	**1**	**11**	**64%**	**27%**	**9%**
Lab: NP	JAF Environmental Laboratory, New York Power Authority						
AI	6	2	0	8	75	25	0
SO	1	1	0	2	50	50	0
VE	0	2	0	2	0	100	0
WA	5	1	0	6	83	17	0
Totals:	**12**	**6**	**0**	**18**	**67%**	**33%**	**0%**
Lab: NR	Naval Reactors Facility Chemistry, Scoville, ID						
SO	2	0	0	2	100	0	0
VE	3	0	0	3	100	0	0
Totals:	**5**	**0**	**0**	**5**	**100%**	**0%**	**0%**
Lab: NZ	National Radiation Laboratory, New Zealand						
AI	23	5	0	28	82	18	0
SO	8	2	4	14	57	14	29
VE	5	2	1	8	63	25	13
WA	19	2	0	21	90	10	0
Totals:	**55**	**11**	**5**	**71**	**77%**	**15%**	**7%**
Lab: OB	OBG Laboratories, East Syracuse, NY						
AI	2	0	0	2	100	0	0
WA	2	0	0	2	100	0	0

QAP 47 Summary of Matrix Evaluations by Laboratory

Matrix	Evaluation Summary A	W	N	Total Analyses	Evaluation Percentages %A	%W	%N
Lab: OB OBG Laboratories, East Syracuse, NY							
Totals:	**4**	**0**	**0**	**4**	**100%**	**0%**	**0%**
Lab: OD ORNL, Radiobioassay Lab							
AI	9	0	0	9	100	0	0
WA	11	0	0	11	100	0	0
Totals:	**20**	**0**	**0**	**20**	**100%**	**0%**	**0%**
Lab: OL ORNL Environmental Sciences Div.							
AI	7	0	0	7	100	0	0
SO	2	0	0	2	100	0	0
VE	3	0	0	3	100	0	0
WA	4	0	0	4	100	0	0
Totals:	**16**	**0**	**0**	**16**	**100%**	**0%**	**0%**
Lab: OS Oregon Health Division Radiation Controls Section, Portland							
AI	5	1	1	7	71	14	14
SO	0	2	1	3	0	67	33
Totals:	**5**	**3**	**2**	**10**	**50%**	**30%**	**20%**
Lab: OT ORNL Radioactive Material Analysis Lab							
AI	7	0	0	7	100	0	0
SO	3	0	0	3	100	0	0
VE	2	1	0	3	67	33	0
WA	4	0	0	4	100	0	0
Totals:	**16**	**1**	**0**	**17**	**94%**	**6%**	**0%**
Lab: OU Outreach Laboratory, Broken Arrow, OK							
AI	7	2	0	9	78	22	0
SO	5	0	0	5	100	0	0
VE	1	1	1	3	33	33	33
WA	3	6	1	10	30	60	10

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: OU	Outreach Laboratory, Broken Arrow, OK						
Totals:	**16**	**9**	**2**	**27**	**59%**	**33%**	**7%**
Lab: PO	Institute of Oceanology PAN, Poland						
AI	4	1	0	5	80	20	0
SO	5	0	1	6	83	0	17
VE	4	2	0	6	67	33	0
Totals:	**13**	**3**	**1**	**17**	**76%**	**18%**	**6%**
Lab: PR	Princeton Plasma Physics Lab						
AI	5	12	7	24	21	50	29
SO	0	0	6	6	0	0	100
WA	10	8	4	22	45	36	18
Totals:	**15**	**20**	**17**	**52**	**29%**	**38%**	**33%**
Lab: RA	V. G. Khlopin Radium Institute, St. Petersburg, Russia						
AI	19	0	0	19	100	0	0
SO	5	1	2	8	63	13	25
VE	6	1	2	9	67	11	22
Totals:	**30**	**2**	**4**	**36**	**83%**	**6%**	**11%**
Lab: RC	US NRC Region I Laboratory, PA						
AI	8	1	0	9	89	11	0
SO	3	0	0	3	100	0	0
WA	5	0	0	5	100	0	0
Totals:	**16**	**1**	**0**	**17**	**94%**	**6%**	**0%**
Lab: RD	Radiation Detection Company, CA						
AI	1	0	1	2	50	0	50
Totals:	**1**	**0**	**1**	**2**	**50%**	**0%**	**50%**

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: RE	Bechtel Nevada, Mercury, NV						
AI	14	0	0	14	100	0	0
SO	5	1	2	8	63	13	25
VE	3	2	1	6	50	33	17
WA	13	0	0	13	100	0	0
Totals:	**35**	**3**	**3**	**41**	**85%**	**7%**	**7%**
Lab: RI	Rust Federal Services of Hanford, Inc., 222S Lab						
AI	9	0	2	11	82	0	18
SO	2	1	0	3	67	33	0
VE	5	1	1	7	71	14	14
WA	7	2	0	9	78	22	0
Totals:	**23**	**4**	**3**	**30**	**77%**	**13%**	**10%**
Lab: RL	Thermo Hanford						
AI	7	2	1	10	70	20	10
SO	2	0	0	2	100	0	0
VE	3	0	0	3	100	0	0
WA	2	1	3	6	33	17	50
Totals:	**14**	**3**	**4**	**21**	**67%**	**14%**	**19%**
Lab: SA	Sandia Labs Radioactive Sample Diag. Prog., NM						
AI	10	0	0	10	100	0	0
SO	3	0	0	3	100	0	0
WA	6	1	1	8	75	13	13
Totals:	**19**	**1**	**1**	**21**	**90%**	**5%**	**5%**
Lab: SB	SC Dept. of Health and Environment Control Radiological Lab						
AI	6	3	0	9	67	33	0
SO	1	2	0	3	33	67	0
VE	3	0	0	3	100	0	0
WA	2	0	5	7	29	0	71
Totals:	**12**	**5**	**5**	**22**	**55%**	**23%**	**23%**

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: SK Savannah River Plant							
AI	7	1	0	8	88	13	0
SO	3	1	0	4	75	25	0
VE	6	0	0	6	100	0	0
WA	9	0	2	11	82	0	18
Totals:	**25**	**2**	**2**	**29**	**86%**	**7%**	**7%**
Lab: SL Stanford Linear Accelerator Center							
WA	4	0	0	4	100	0	0
Totals:	**4**	**0**	**0**	**4**	**100%**	**0%**	**0%**
Lab: SN Sanford Cohen Associates, Inc., Montgomery, AL							
AI	4	0	0	4	100	0	0
SO	5	1	1	7	71	14	14
VE	5	0	0	5	100	0	0
WA	10	1	0	11	91	9	0
Totals:	**24**	**2**	**1**	**27**	**89%**	**7%**	**4%**
Lab: SR Savannah River Environmental Laboratory							
AI	12	2	1	15	80	13	7
SO	4	0	0	4	100	0	0
VE	7	0	0	7	100	0	0
WA	13	0	0	13	100	0	0
Totals:	**36**	**2**	**1**	**39**	**92%**	**5%**	**3%**
Lab: SS Savannah River Tech Center							
AI	7	0	0	7	100	0	0
SO	2	0	1	3	67	0	33
VE	3	0	0	3	100	0	0
WA	4	0	0	4	100	0	0
Totals:	**16**	**0**	**1**	**17**	**94%**	**0%**	**6%**
Lab: SW Southwest Research Institute, San Antonio, TX							
AI	8	4	1	13	62	31	8
SO	3	3	1	7	43	43	14

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: SW Southwest Research Institute, San Antonio, TX							
VE	0	4	3	7	0	57	43
WA	8	1	3	12	67	8	25
Totals:	**19**	**12**	**8**	**39**	**49%**	**31%**	**21%**
Lab: TE Teledyne Isotopes Midwest Lab, Northbrook, IL							
AI	12	0	0	12	100	0	0
SO	3	1	1	5	60	20	20
VE	4	0	0	4	100	0	0
WA	10	1	1	12	83	8	8
Totals:	**29**	**2**	**2**	**33**	**88%**	**6%**	**6%**
Lab: TI Teledyne Brown Engineering Environmental Services, Westwood, NJ							
AI	12	1	0	13	92	8	0
SO	6	1	0	7	86	14	0
VE	7	0	0	7	100	0	0
Totals:	**25**	**2**	**0**	**27**	**93%**	**7%**	**0%**
Lab: TM Thermo NUtech Albuquerque Lab, NM							
AI	12	3	0	15	80	20	0
SO	8	0	0	8	100	0	0
VE	6	0	1	7	86	0	14
WA	12	2	0	14	86	14	0
Totals:	**38**	**5**	**1**	**44**	**86%**	**11%**	**2%**
Lab: TN Thermo NUtech, Richmond, CA							
AI	14	0	1	15	93	0	7
SO	8	0	1	9	89	0	11
VE	7	0	0	7	100	0	0
WA	13	1	1	15	87	7	7
Totals:	**42**	**1**	**3**	**46**	**91%**	**2%**	**7%**
Lab: TO Thermo NUtech Oak Ridge Laboratory							
AI	4	4	1	9	44	44	11
SO	7	1	1	9	78	11	11

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: TO Thermo NUtech Oak Ridge Laboratory							
VE	4	3	0	7	57	43	0
WA	10	5	0	15	67	33	0
Totals:	**25**	**13**	**2**	**40**	**63%**	**33%**	**5%**
Lab: TP Taiwan Power Company, Taipei, Taiwan							
AI	10	0	0	10	100	0	0
SO	3	0	0	3	100	0	0
VE	3	1	0	4	75	25	0
WA	5	1	1	7	71	14	14
Totals:	**21**	**2**	**1**	**24**	**88%**	**8%**	**4%**
Lab: TR University of Istanbul, Turkey							
AI	8	1	0	9	89	11	0
SO	2	1	1	4	50	25	25
VE	3	0	2	5	60	0	40
Totals:	**13**	**2**	**3**	**18**	**72%**	**11%**	**17%**
Lab: TW Taiwan Radiation Monitoring Center							
AI	8	0	0	8	100	0	0
SO	5	3	0	8	63	38	0
VE	8	0	0	8	100	0	0
WA	9	3	1	13	69	23	8
Totals:	**30**	**6**	**1**	**37**	**81%**	**16%**	**3%**
Lab: TX Texas Dept. of Health/Laboratories, Austin							
AI	15	0	0	15	100	0	0
SO	8	1	0	9	89	11	0
VE	6	0	0	6	100	0	0
WA	11	3	0	14	79	21	0
Totals:	**40**	**4**	**0**	**44**	**91%**	**9%**	**0%**
Lab: UC Lockheed Martin, Paducah, KY							
AI	3	2	0	5	60	40	0
SO	4	0	0	4	100	0	0

QAP 47 Summary of Matrix Evaluations by Laboratory

Matrix	Evaluation Summary A	W	N	Total Analyses	Evaluation Percentages %A	%W	%N
Lab: UC Lockheed Martin, Paducah, KY							
VE	4	0	0	4	100	0	0
WA	7	0	0	7	100	0	0
Totals:	**18**	**2**	**0**	**20**	**90%**	**10%**	**0%**
Lab: UK Lockheed Martin Energy Systems, Oak Ridge							
AI	8	0	2	10	80	0	20
SO	2	2	0	4	50	50	0
WA	8	1	1	10	80	10	10
Totals:	**18**	**3**	**3**	**24**	**75%**	**13%**	**13%**
Lab: UN Ministry of Agriculture, Fisheries and Food (MAFF), UK							
AI	9	0	0	9	100	0	0
SO	8	0	0	8	100	0	0
VE	6	0	1	7	86	0	14
Totals:	**23**	**0**	**1**	**24**	**96%**	**0%**	**4%**
Lab: UP Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge							
AI	15	1	1	17	88	6	6
SO	8	0	0	8	100	0	0
WA	12	3	0	15	80	20	0
Totals:	**35**	**4**	**1**	**40**	**88%**	**10%**	**3%**
Lab: UY Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge							
AI	13	2	0	15	87	13	0
SO	7	0	1	8	88	0	13
VE	7	1	0	8	88	13	0
WA	12	0	0	12	100	0	0
Totals:	**39**	**3**	**1**	**43**	**91%**	**7%**	**2%**
Lab: WA Environmental Radiation Lab, Off. of Public Health Labs. Seattle							
AI	14	2	0	16	88	13	0
SO	8	2	0	10	80	20	0
VE	6	0	0	6	100	0	0
WA	12	0	2	14	86	0	14

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: WA	Environmental Radiation Lab, Off. of Public Health Labs. Seattle						
Totals:	**40**	**4**	**2**	**46**	**87%**	**9%**	**4%**
Lab: WC	Westinghouse Hanford Co.						
AI	12	1	2	15	80	7	13
SO	5	2	0	7	71	29	0
VE	5	2	0	7	71	29	0
WA	12	1	0	13	92	8	0
Totals:	**34**	**6**	**2**	**42**	**81%**	**14%**	**5%**
Lab: WE	Westinghouse Electric Corp., Madison, PA						
AI	4	4	0	8	50	50	0
SO	4	0	3	7	57	0	43
VE	3	0	0	3	100	0	0
WA	4	0	1	5	80	0	20
Totals:	**15**	**4**	**4**	**23**	**65%**	**17%**	**17%**
Lab: WI	WIPP Site, Westinghouse Electric Corp.						
AI	9	3	0	12	75	25	0
WA	9	0	0	9	100	0	0
Totals:	**18**	**3**	**0**	**21**	**86%**	**14%**	**0%**
Lab: WS	Weldon Springs Site, St Charles, MO						
AI	1	0	0	1	100	0	0
SO	4	0	0	4	100	0	0
Totals:	**5**	**0**	**0**	**5**	**100%**	**0%**	**0%**
Lab: WV	West Valley Nuclear Services Co, Inc, NY						
AI	2	0	0	2	100	0	0
WA	8	0	0	8	100	0	0
Totals:	**10**	**0**	**0**	**10**	**100%**	**0%**	**0%**

QAP 47 Summary of Matrix Evaluations by Laboratory

	Evaluation Summary				Evaluation Percentages		
Matrix	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Lab: YA	Duke Engineering, Westboro, MA						
AI	13	0	1	14	93	0	7
SO	8	0	0	8	100	0	0
VE	5	0	0	5	100	0	0
WA	13	1	0	14	93	7	0
Totals:	**39**	**1**	**1**	**41**	**95%**	**2%**	**2%**
Lab: YP	US Army Proving Ground, Yuma, AZ						
AI	1	0	0	1	100	0	0
SO	0	1	0	1	0	100	0
WA	1	0	0	1	100	0	0
Totals:	**2**	**1**	**0**	**3**	**67%**	**33%**	**0%**
Lab: YU	Institute of Occupational and Radiological Health, Yugoslavia						
AI	3	4	1	8	38	50	13
SO	2	1	1	4	50	25	25
VE	1	2	1	4	25	50	25
WA	0	0	4	4	0	0	100
Totals:	**6**	**7**	**7**	**20**	**30%**	**35%**	**35%**

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: AI Air Filter

	Evaluation Summary				Evaluation Percentages		
Labcode	A	W	N	Total Analyses	%A	%W	%N
AA	17	0	0	17	100	0	0
AF	4	3	5	12	33	25	42
AG	14	0	0	14	100	0	0
AI	2	0	0	2	100	0	0
AM	4	6	3	13	31	46	23
AN	10	2	0	12	83	17	0
AR	13	2	2	17	76	12	12
AU	13	1	0	14	93	7	0
BA	5	0	0	5	100	0	0
BC	10	2	0	12	83	17	0
BE	14	1	0	15	93	7	0
BL	18	4	0	22	82	18	0
BM	8	1	0	9	89	11	0
BN	10	4	14	28	36	14	50
BP	12	2	0	14	86	14	0
BQ	8	0	0	8	100	0	0
BS	6	2	0	8	75	25	0
BU	10	0	1	11	91	0	9
BX	12	2	0	14	86	14	0
CA	8	1	0	9	89	11	0
CH	16	0	0	16	100	0	0
CL	8	2	3	13	62	15	23
CN	3	1	3	7	43	14	43
CO	6	1	0	7	86	14	0
CR	0	5	0	5	0	100	0
CS	2	7	1	10	20	70	10
DC	7	2	7	16	44	13	44
DH	2	0	0	2	100	0	0
DP	8	0	0	8	100	0	0
EG	14	0	0	14	100	0	0
EI	2	0	0	2	100	0	0
EP	4	0	0	4	100	0	0
ES	12	1	1	14	86	7	7
FG	9	0	1	10	90	0	10
FJ	2	4	1	7	29	57	14
FL	10	1	1	12	83	8	8
FM	6	0	1	7	86	0	14
FN	0	3	4	7	0	43	57
FR	5	3	5	13	38	23	38
GA	11	2	0	13	85	15	0
GE	13	0	2	15	87	0	13
GP	3	8	5	16	19	50	31
GT	9	3	1	13	69	23	8
HC	2	0	0	2	100	0	0
HU	3	1	3	7	43	14	43
ID	11	0	1	12	92	0	8
IE	11	3	0	14	79	21	0
IN	6	1	0	7	86	14	0
IS	5	6	2	13	38	46	15
IT	14	1	1	16	88	6	6
JL	6	1	1	8	75	13	13
KA	2	0	0	2	100	0	0
KO	9	0	0	9	100	0	0
LA	23	0	0	23	100	0	0

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: AI Air Filter

	Evaluation Summary				Evaluation Percentages		
Labcode	A	W	N	Total Analyses	%A	%W	%N
LH	9	3	1	13	69	23	8
LL	11	0	0	11	100	0	0
LN	6	2	1	9	67	22	11
LV	4	3	1	8	50	38	13
ME	3	6	1	10	30	60	10
MH	6	1	0	7	86	14	0
ML	4	5	0	9	44	56	0
MS	8	0	0	8	100	0	0
NA	2	1	1	4	50	25	25
ND	8	1	0	9	89	11	0
NF	1	1	1	3	33	33	33
NP	6	2	0	8	75	25	0
NZ	23	5	0	28	82	18	0
OB	2	0	0	2	100	0	0
OD	9	0	0	9	100	0	0
OL	7	0	0	7	100	0	0
OS	5	1	1	7	71	14	14
OT	7	0	0	7	100	0	0
OU	7	2	0	9	78	22	0
PO	4	1	0	5	80	20	0
PR	5	12	7	24	21	50	29
RA	19	0	0	19	100	0	0
RC	8	1	0	9	89	11	0
RD	1	0	1	2	50	0	50
RE	14	0	0	14	100	0	0
RI	9	0	2	11	82	0	18
RL	7	2	1	10	70	20	10
SA	10	0	0	10	100	0	0
SB	6	3	0	9	67	33	0
SK	7	1	0	8	88	13	0
SN	4	0	0	4	100	0	0
SR	12	2	1	15	80	13	7
SS	7	0	0	7	100	0	0
SW	8	4	1	13	62	31	8
TE	12	0	0	12	100	0	0
TI	12	1	0	13	92	8	0
TM	12	3	0	15	80	20	0
TN	14	0	1	15	93	0	7
TO	4	4	1	9	44	44	11
TP	10	0	0	10	100	0	0
TR	8	1	0	9	89	11	0
TW	8	0	0	8	100	0	0
TX	15	0	0	15	100	0	0
UC	3	2	0	5	60	40	0
UK	8	0	2	10	80	0	20
UN	9	0	0	9	100	0	0
UP	15	1	1	17	88	6	6
UY	13	2	0	15	87	13	0
WA	14	2	0	16	88	13	0
WC	12	1	2	15	80	7	13
WE	4	4	0	8	50	50	0
WI	9	3	0	12	75	25	0
WS	1	0	0	1	100	0	0
WV	2	0	0	2	100	0	0

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: AI Air Filter

	Evaluation Summary				Evaluation Percentages		
Labcode	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
YA	13	0	1	14	93	0	7
YP	1	0	0	1	100	0	0
YU	3	4	1	8	38	50	13
Totals							
111 Labs:	**893**	**176**	**98**	**1167**	**77%**	**15%**	**8%**

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: SO Soil

	Evaluation Summary				Evaluation Percentages		
Labcode	A	W	N	Total Analyses	%A	%W	%N
AA	11	0	0	11	100	0	0
AC	2	0	0	2	100	0	0
AF	4	1	1	6	67	17	17
AG	9	0	1	10	90	0	10
AI	2	2	1	5	40	40	20
AM	6	1	0	7	86	14	0
AN	6	2	0	8	75	25	0
AR	7	3	0	10	70	30	0
AU	7	0	1	8	88	0	13
BA	1	0	0	1	100	0	0
BC	4	2	0	6	67	33	0
BE	8	0	0	8	100	0	0
BL	13	1	0	14	93	7	0
BM	7	0	0	7	100	0	0
BN	4	7	1	12	33	58	8
BP	5	1	0	6	83	17	0
BQ	2	0	1	3	67	0	33
BR	3	1	0	4	75	25	0
BS	2	0	2	4	50	0	50
BU	4	2	0	6	67	33	0
BX	4	3	1	8	50	38	13
CA	0	1	0	1	0	100	0
CH	9	1	0	10	90	10	0
CL	4	5	0	9	44	56	0
CN	3	0	1	4	75	0	25
CO	4	0	0	4	100	0	0
CR	2	0	0	2	100	0	0
CS	4	0	0	4	100	0	0
DC	4	4	2	10	40	40	20
DH	2	1	0	3	67	33	0
EG	5	2	1	8	63	25	13
ES	6	2	0	8	75	25	0
FG	2	1	1	4	50	25	25
FJ	5	0	0	5	100	0	0
FL	5	0	0	5	100	0	0
FN	4	0	0	4	100	0	0
FR	7	0	1	8	88	0	13
FS	6	1	0	7	86	14	0
GA	7	0	0	7	100	0	0
GC	3	0	0	3	100	0	0
GE	8	0	0	8	100	0	0
GP	5	3	1	9	56	33	11
GT	5	1	1	7	71	14	14
HU	1	0	0	1	100	0	0
ID	5	0	1	6	83	0	17
IE	9	0	0	9	100	0	0
IN	4	2	0	6	67	33	0
IS	6	0	1	7	86	0	14
IT	10	0	0	10	100	0	0
KA	4	1	0	5	80	20	0
KO	2	1	0	3	67	33	0
LA	15	0	0	15	100	0	0
LH	6	1	0	7	86	14	0
LL	7	2	0	9	78	22	0

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: SO Soil

	Evaluation Summary				Evaluation Percentages		
Labcode	A	W	N	Total Analyses	%A	%W	%N
LV	3	1	1	5	60	20	20
LW	2	0	0	2	100	0	0
MA	4	1	0	5	80	20	0
ME	3	0	1	4	75	0	25
MH	3	0	0	3	100	0	0
ML	5	0	2	7	71	0	29
MS	2	0	2	4	50	0	50
NA	6	0	1	7	86	0	14
NF	1	2	0	3	33	67	0
NP	1	1	0	2	50	50	0
NR	2	0	0	2	100	0	0
NZ	8	2	4	14	57	14	29
OL	2	0	0	2	100	0	0
OS	0	2	1	3	0	67	33
OT	3	0	0	3	100	0	0
OU	5	0	0	5	100	0	0
PO	5	0	1	6	83	0	17
PR	0	0	6	6	0	0	100
RA	5	1	2	8	63	13	25
RC	3	0	0	3	100	0	0
RE	5	1	2	8	63	13	25
RI	2	1	0	3	67	33	0
RL	2	0	0	2	100	0	0
SA	3	0	0	3	100	0	0
SB	1	2	0	3	33	67	0
SK	3	1	0	4	75	25	0
SN	5	1	1	7	71	14	14
SR	4	0	0	4	100	0	0
SS	2	0	1	3	67	0	33
SW	3	3	1	7	43	43	14
TE	3	1	1	5	60	20	20
TI	6	1	0	7	86	14	0
TM	8	0	0	8	100	0	0
TN	8	0	1	9	89	0	11
TO	7	1	1	9	78	11	11
TP	3	0	0	3	100	0	0
TR	2	1	1	4	50	25	25
TW	5	3	0	8	63	38	0
TX	8	1	0	9	89	11	0
UC	4	0	0	4	100	0	0
UK	2	2	0	4	50	50	0
UN	8	0	0	8	100	0	0
UP	8	0	0	8	100	0	0
UY	7	0	1	8	88	0	13
WA	8	2	0	10	80	20	0
WC	5	2	0	7	71	29	0
WE	4	0	3	7	57	0	43
WS	4	0	0	4	100	0	0
YA	8	0	0	8	100	0	0
YP	0	1	0	1	0	100	0
YU	2	1	1	4	50	25	25

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: SO Soil

	Evaluation Summary				Evaluation Percentages		
Labcode	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Totals 105 Labs:	**483**	**90**	**54**	**627**	**77%**	**14%**	**9%**

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: VE Vegetation

	Evaluation Summary				Evaluation Percentages		
Labcode	A	W	N	Total Analyses	%A	%W	%N
AA	8	0	0	8	100	0	0
AF	0	0	3	3	0	0	100
AG	5	2	0	7	71	29	0
AI	3	2	0	5	60	40	0
AM	4	0	0	4	100	0	0
AN	4	0	3	7	57	0	43
AR	8	0	0	8	100	0	0
AU	6	0	0	6	100	0	0
BA	2	0	0	2	100	0	0
BC	4	0	0	4	100	0	0
BE	7	0	0	7	100	0	0
BL	5	2	1	8	63	25	13
BM	4	1	1	6	67	17	17
BN	2	6	4	12	17	50	33
BP	5	2	0	7	71	29	0
BQ	2	0	0	2	100	0	0
BR	2	0	1	3	67	0	33
BS	0	2	2	4	0	50	50
BU	6	1	0	7	86	14	0
BX	5	2	0	7	71	29	0
CH	7	0	0	7	100	0	0
CL	5	1	1	7	71	14	14
CN	3	1	0	4	75	25	0
CO	4	0	0	4	100	0	0
CR	3	0	0	3	100	0	0
CS	4	0	0	4	100	0	0
DC	2	0	5	7	29	0	71
EG	6	1	0	7	86	14	0
ES	7	0	0	7	100	0	0
FL	4	0	0	4	100	0	0
FN	3	0	0	3	100	0	0
FR	5	0	0	5	100	0	0
GA	6	0	0	6	100	0	0
GC	3	0	0	3	100	0	0
GE	4	2	0	6	67	33	0
GP	0	1	7	8	0	13	88
GT	6	0	0	6	100	0	0
HU	1	0	2	3	33	0	67
ID	5	0	0	5	100	0	0
IE	6	1	0	7	86	14	0
IN	3	0	0	3	100	0	0
IS	5	1	0	6	83	17	0
IT	6	1	0	7	86	14	0
KO	3	0	0	3	100	0	0
LA	9	0	1	10	90	0	10
LH	7	0	0	7	100	0	0
LL	3	0	1	4	75	0	25
LV	4	0	0	4	100	0	0
LW	3	0	0	3	100	0	0
MA	3	1	0	4	75	25	0
ME	4	0	0	4	100	0	0
MH	3	0	0	3	100	0	0
ML	5	0	0	5	100	0	0
NA	0	0	5	5	0	0	100

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: VE Vegetation

	Evaluation Summary				Evaluation Percentages		
Labcode	A	W	N	Total Analyses	%A	%W	%N
NF	1	0	0	1	100	0	0
NP	0	2	0	2	0	100	0
NR	3	0	0	3	100	0	0
NZ	5	2	1	8	63	25	13
OL	3	0	0	3	100	0	0
OT	2	1	0	3	67	33	0
OU	1	1	1	3	33	33	33
PO	4	2	0	6	67	33	0
RA	6	1	2	9	67	11	22
RE	3	2	1	6	50	33	17
RI	5	1	1	7	71	14	14
RL	3	0	0	3	100	0	0
SB	3	0	0	3	100	0	0
SK	6	0	0	6	100	0	0
SN	5	0	0	5	100	0	0
SR	7	0	0	7	100	0	0
SS	3	0	0	3	100	0	0
SW	0	4	3	7	0	57	43
TE	4	0	0	4	100	0	0
TI	7	0	0	7	100	0	0
TM	6	0	1	7	86	0	14
TN	7	0	0	7	100	0	0
TO	4	3	0	7	57	43	0
TP	3	1	0	4	75	25	0
TR	3	0	2	5	60	0	40
TW	8	0	0	8	100	0	0
TX	6	0	0	6	100	0	0
UC	4	0	0	4	100	0	0
UN	6	0	1	7	86	0	14
UY	7	1	0	8	88	13	0
WA	6	0	0	6	100	0	0
WC	5	2	0	7	71	29	0
WE	3	0	0	3	100	0	0
YA	5	0	0	5	100	0	0
YU	1	2	1	4	25	50	25
Totals							
89 Labs:	**369**	**55**	**51**	**475**	**78%**	**12%**	**11%**

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: WA Water

	Evaluation Summary				Evaluation Percentages		
Labcode	A	W	N	Total Analyses	%A	%W	%N
AA	16	0	0	16	100	0	0
AC	1	0	1	2	50	0	50
AF	0	0	8	8	0	0	100
AG	12	0	1	13	92	0	8
AI	9	0	2	11	82	0	18
AM	4	3	3	10	40	30	30
AN	10	1	0	11	91	9	0
AR	12	2	1	15	80	13	7
AU	9	1	3	13	69	8	23
AW	3	0	1	4	75	0	25
BA	6	0	0	6	100	0	0
BC	8	0	1	9	89	0	11
BE	10	0	4	14	71	0	29
BL	23	1	1	25	92	4	4
BM	8	1	0	9	89	11	0
BN	18	5	1	24	75	21	4
BP	11	1	1	13	85	8	8
BQ	4	0	1	5	80	0	20
BR	2	3	0	5	40	60	0
BS	6	1	0	7	86	14	0
BU	8	3	1	12	67	25	8
BX	12	1	1	14	86	7	7
CA	5	2	1	8	63	25	13
CH	12	2	1	15	80	13	7
CL	6	7	0	13	46	54	0
CS	4	1	0	5	80	20	0
CZ	2	0	0	2	100	0	0
DC	9	5	0	14	64	36	0
DH	4	0	0	4	100	0	0
DP	14	2	9	25	56	8	36
EG	12	1	0	13	92	8	0
EI	1	1	1	3	33	33	33
EP	5	0	0	5	100	0	0
ES	10	0	2	12	83	0	17
FG	6	1	0	7	86	14	0
FL	4	2	1	7	57	29	14
FM	4	0	0	4	100	0	0
FN	5	0	0	5	100	0	0
FR	10	2	1	13	77	15	8
GA	6	4	1	11	55	36	9
GC	7	1	0	8	88	13	0
GE	13	1	0	14	93	7	0
GP	3	0	12	15	20	0	80
GS	3	0	0	3	100	0	0
GT	7	2	3	12	58	17	25
HC	3	0	0	3	100	0	0
ID	7	0	2	9	78	0	22
IE	14	0	0	14	100	0	0
IN	9	0	0	9	100	0	0
IS	9	2	2	13	69	15	15
IT	14	0	0	14	100	0	0
JL	5	0	1	6	83	0	17
KA	10	1	0	11	91	9	0
LA	16	8	4	28	57	29	14

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: WA Water

	Evaluation Summary				Evaluation Percentages		
Labcode	A	W	N	Total Analyses	%A	%W	%N
LH	11	2	1	14	79	14	7
LL	9	1	0	10	90	10	0
LN	4	0	1	5	80	0	20
LV	4	4	0	8	50	50	0
LW	7	0	0	7	100	0	0
ME	3	1	1	5	60	20	20
MH	9	1	0	10	90	10	0
ML	9	1	0	10	90	10	0
MS	4	1	0	5	80	20	0
NA	6	2	1	9	67	22	11
NF	4	0	0	4	100	0	0
NP	5	1	0	6	83	17	0
NZ	19	2	0	21	90	10	0
OB	2	0	0	2	100	0	0
OD	11	0	0	11	100	0	0
OL	4	0	0	4	100	0	0
OT	4	0	0	4	100	0	0
OU	3	6	1	10	30	60	10
PR	10	8	4	22	45	36	18
RC	5	0	0	5	100	0	0
RE	13	0	0	13	100	0	0
RI	7	2	0	9	78	22	0
RL	2	1	3	6	33	17	50
SA	6	1	1	8	75	13	13
SB	2	0	5	7	29	0	71
SK	9	0	2	11	82	0	18
SL	4	0	0	4	100	0	0
SN	10	1	0	11	91	9	0
SR	13	0	0	13	100	0	0
SS	4	0	0	4	100	0	0
SW	8	1	3	12	67	8	25
TE	10	1	1	12	83	8	8
TM	12	2	0	14	86	14	0
TN	13	1	1	15	87	7	7
TO	10	5	0	15	67	33	0
TP	5	1	1	7	71	14	14
TW	9	3	1	13	69	23	8
TX	11	3	0	14	79	21	0
UC	7	0	0	7	100	0	0
UK	8	1	1	10	80	10	10
UP	12	3	0	15	80	20	0
UY	12	0	0	12	100	0	0
WA	12	0	2	14	86	0	14
WC	12	1	0	13	92	8	0
WE	4	0	1	5	80	0	20
WI	9	0	0	9	100	0	0
WV	8	0	0	8	100	0	0
YA	13	1	0	14	93	7	0
YP	1	0	0	1	100	0	0
YU	0	0	4	4	0	0	100

QAP 47 Summary of Laboratory Evaluations by Matrix

Matrix: WA Water

	Evaluation Summary				Evaluation Percentages		
Labcode	**A**	**W**	**N**	**Total Analyses**	**%A**	**%W**	**%N**
Totals 104 Labs:	**810**	**126**	**107**	**1043**	**78%**	**12%**	**10%**

QAP 47 Summary of Matrix Evaluations by Radionuclide

Matrix: AI Air Filter

Radio-Nuclide	Evaluation Summary A	W	N	Total Analyses	Evaluation Percentages %A	%W	%N
AM241	42	10	14	66	64	15	21
CE144	75	7	9	91	82	8	10
CO 57	82	10	6	98	84	10	6
CO 60	79	17	7	103	77	17	7
CS134	75	18	9	102	74	18	9
CS137	78	20	7	105	74	19	7
GA	54	13	6	73	74	18	8
GB	69	3	3	75	92	4	4
MN 54	74	19	8	101	73	19	8
PU238	43	6	6	55	78	11	11
PU239	20	3	1	24	83	13	4
SB125	60	28	7	95	63	29	7
SR 90	34	6	7	47	72	13	15
U BQ	17	2	0	19	89	11	0
U UG	24	3	3	30	80	10	10
U234	31	5	3	39	79	13	8
U238	36	6	2	44	82	14	5
Totals:	**893**	**176**	**98**	**1167**	**77%**	**15%**	**8%**

QAP 47 Summary of Matrix Evaluations by Radionuclide

Matrix: SO Soil

Radio-Nuclide	Evaluation Summary A	W	N	Total Analyses	Evaluation Percentages %A	%W	%N
AM241	55	12	3	70	79	17	4
CO 60	22	24	23	69	32	35	33
CS137	98	5	5	108	91	5	5
K 40	85	7	7	99	86	7	7
PU238	11	5	5	21	52	24	24
PU239	56	6	3	65	86	9	5
SR 90	39	5	1	45	87	11	2
U BQ	14	5	1	20	70	25	5
U UG	29	3	1	33	88	9	3
U234	37	5	2	44	84	11	5
U238	37	13	3	53	70	25	6
Totals:	**483**	**90**	**54**	**627**	**77%**	**14%**	**9%**

QAP 47 Summary of Matrix Evaluations by Radionuclide

Matrix: VE Vegetation

Radio-Nuclide	Evaluation Summary A	W	N	Total Analyses	Evaluation Percentages %A	%W	%N
AM241	47	10	4	61	77	16	7
CM244	18	8	6	32	56	25	19
CO 60	71	11	7	89	80	12	8
CS137	77	6	10	93	83	6	11
K 40	61	13	13	87	70	15	15
PU238	7	1	1	9	78	11	11
PU239	53	3	3	59	90	5	5
SR 90	35	3	7	45	78	7	16
Totals:	**369**	**55**	**51**	**475**	**78%**	**12%**	**11%**

QAP 47 Summary of Matrix Evaluations by Radionuclide

Matrix: WA Water

Radio-Nuclide	Evaluation Summary A	W	N	Total Analyses	Evaluation Percentages %A	%W	%N
AM241	48	11	3	62	77	18	5
CO 60	87	4	11	102	85	4	11
CS134	87	7	9	103	84	7	9
CS137	88	12	6	106	83	11	6
FE 55	11	3	3	17	65	18	18
GA	44	20	8	72	61	28	11
GB	55	11	6	72	76	15	8
H 3	65	5	9	79	82	6	11
MN 54	77	14	11	102	75	14	11
PU238	42	8	8	58	72	14	14
PU239	52	4	5	61	85	7	8
SR 90	51	2	7	60	85	3	12
U BQ	14	4	2	20	70	20	10
U UG	23	3	9	35	66	9	26
U234	32	8	6	46	70	17	13
U238	34	10	4	48	71	21	8
Totals:	**810**	**126**	**107**	**1043**	**78%**	**12%**	**10%**

QAP 47 Results by Laboratory

Lab: AA Environmental Measurements Laboratory

	Radio-nuclide	Reported Value	Reported Error
Matrix:	**AI**		
	AM241	0.210	0.009
	CE144	19.120	0.700
	CO 57	12.640	0.430
	CO 60	10.730	1.090
	CS134	28.170	0.730
	CS137	7.310	0.250
	GA	1.490	0.090
	GB	3.000	0.140
	MN 54	6.720	0.270
	PU238	0.210	0.007
	PU239	0.100	0.004
	SB125	16.120	0.790
	SR 90	2.760	0.100
	U BQ	0.110	0.004
	U UG	4.650	0.210
	U234	0.050	0.001
	U238	0.050	0.003
Matrix:	**SO**		
	AM241	6.040	0.580
	CO 60	1.500	0.400
	CS137	810.000	40.000
	K 40	315.000	20.000
	PU238	0.440	0.090
	PU239	10.160	0.370
	SR 90	34.750	1.000
	U BQ	72.900	0.850
	U UG	2.820	0.200
	U234	37.150	0.640
	U238	34.900	0.140
Matrix:	**VE**		
	AM241	3.460	0.250
	CM244	2.750	0.100
	CO 60	32.400	1.600
	CS137	624.000	31.000
	K 40	1130.000	70.000
	PU238	0.400	0.150
	PU239	5.480	0.440
	SR 90	1434.000	75.000

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AA Environmental Measurements Laboratory

Radio-nuclide	Reported Value	Reported Error
Matrix: WA		
AM241	0.750	0.020
CO 60	23.300	1.200
CS134	66.000	2.600
CS137	34.300	1.700
FE 55	115.000	10.000
GA	557.000	60.000
GB	712.000	70.000
H 3	115.000	6.000
MN 54	37.800	1.900
PU238	0.720	0.020
PU239	0.750	0.040
SR 90	2.940	0.180
U BQ	0.480	0.030
U UG	0.020	0.001
U234	0.230	0.020
U238	0.240	0.010

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AC Analytical Chemistry Laboratory, Argonne National Lab

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**SO**	**Soil Bq/kg**						
1	SR 90	40.000	3.000	34.750	1.000	1.150	**A**	
1	U UG	2.590	0.040	2.820	0.200	0.910	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	SR 90	3.360	0.130	2.940	0.180	1.140	**A**	
1	U UG	20.800	0.400	0.020	0.001	*.***	**N**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AF Air Force Analytical Lab, Brooks AFB

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	12.700	2.140	19.120	0.700	0.660	**A**	A
1	CO 57	9.710	0.960	12.640	0.430	0.760	**A**	A
1	CO 60	5.290	0.660	10.730	1.090	0.490	**N**	A
1	CS134	11.140	1.280	28.170	0.730	0.390	**N**	A
1	CS137	8.010	0.910	7.310	0.250	1.090	**A**	A
1	GA	1.100	0.040	1.490	0.090	0.730	**W**	A
1	GB	0.290	0.440	3.000	0.140	0.090	**N**	N
1	MN 54	6.700	0.890	6.720	0.270	0.990	**A**	A
1	PU239	0.130	0.070	0.100	0.004	1.200	**W**	A
1	SB125	10.770	1.680	16.120	0.790	0.660	**W**	A
1	SR 90	1.460	0.150	2.760	0.100	0.520	**N**	A
1	U UG	11.200	5.890	4.650	0.210	2.400	**N**	W
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	7.400	1.480	6.040	0.580	1.220	**A**	A
1	CO 60	2.220	1.110	1.500	0.400	1.480	**W**	N
1	CS137	758.500	85.100	810.000	40.000	0.930	**A**	A
1	K 40	325.600	37.000	315.000	20.000	1.030	**A**	A
1	PU239	122.100	40.700	10.160	0.370	*.***	**N**	A
1	U UG	2.270	0.900	2.820	0.200	0.800	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CS137	173.900	38.000	624.000	31.000	0.270	**N**	A
1	K 40	514.000	438.000	1130.000	70.000	0.450	**N**	N
1	SR 90	407.000	33.300	1434.000	75.000	0.280	**N**	W
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	104.000	11.100	23.300	1.200	4.460	**N**	W
1	CS137	77.700	7.400	34.300	1.700	2.260	**N**	A
1	GA	1110.000	30.000	557.000	60.000	1.990	**N**	W
1	GB	303.000	15.000	712.000	70.000	0.420	**N**	N
1	MN 54	24.130	3.360	37.800	1.900	0.630	**N**	A
1	PU239	1.250	0.370	0.750	0.040	1.660	**N**	N
1	SR 90	20.190	0.500	2.940	0.180	6.860	**N**	W
1	U UG	34.450	13.900	0.020	0.001	*.***	**N**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AG Paragon Analytics, Inc, Fort Collins, CO

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.190	0.030	0.210	0.009	0.900	**A**	
1	CE144	16.200	4.600	19.120	0.700	0.840	**A**	A
1	CO 57	10.900	1.500	12.640	0.430	0.860	**A**	A
1	CO 60	9.180	1.000	10.730	1.090	0.850	**A**	A
1	CS134	24.700	4.100	28.170	0.730	0.870	**A**	A
1	CS137	6.670	0.780	7.310	0.250	0.910	**A**	A
1	MN 54	6.310	0.830	6.720	0.270	0.930	**A**	W
1	PU238	0.240	0.040	0.210	0.007	1.110	**A**	W
1	SB125	17.000	2.600	16.120	0.790	1.050	**A**	W
1	SR 90	2.390	0.430	2.760	0.100	0.860	**A**	W
1	U BQ	0.130	0.010	0.110	0.004	1.160	**A**	A
1	U UG	4.850	0.660	4.650	0.210	1.040	**A**	W
1	U234	0.060	0.010	0.050	0.001	1.150	**A**	A
1	U238	0.060	0.010	0.050	0.003	1.070	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	7.590	1.570	6.040	0.580	1.250	**A**	A
1	CO 60	1.150	0.540	1.500	0.400	0.760	**N**	A
1	CS137	876.000	56.000	810.000	40.000	1.080	**A**	A
1	K 40	299.000	31.000	315.000	20.000	0.940	**A**	A
1	PU239	11.900	1.600	10.160	0.370	1.170	**A**	A
1	SR 90	34.100	8.200	34.750	1.000	0.980	**A**	A
1	U BQ	60.300	5.600	72.900	0.850	0.820	**A**	A
1	U UG	2.290	0.320	2.820	0.200	0.810	**A**	A
1	U234	28.800	3.860	37.150	0.640	0.770	**A**	A
1	U238	30.000	4.000	34.900	0.140	0.850	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.710	0.920	3.460	0.250	1.360	**A**	A
1	CM244	2.260	1.500	2.750	0.100	0.820	**W**	A
1	CO 60	34.600	3.400	32.400	1.600	1.060	**A**	A
1	CS137	734.000	48.000	624.000	31.000	1.170	**A**	A
1	K 40	1160.000	140.000	1130.000	70.000	1.020	**A**	A
1	PU239	9.470	1.200	5.480	0.440	1.720	**W**	A
1	SR 90	1230.000	320.000	1434.000	75.000	0.850	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.690	0.090	0.750	0.020	0.930	**A**	A
1	CO 60	22.400	1.500	23.300	1.200	0.960	**A**	A
1	CS134	63.800	9.900	66.000	2.600	0.960	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AG Paragon Analytics, Inc, Fort Collins, CO

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	CS137	35.200	3.100	34.300	1.700	1.020	**A**	A
1	H 3	116.000	27.000	115.000	6.000	1.000	**A**	A
1	MN 54	39.800	3.700	37.800	1.900	1.050	**A**	A
1	PU238	0.740	0.130	0.720	0.020	1.020	**A**	A
1	PU239	0.790	0.130	0.750	0.040	1.050	**A**	W
1	SR 90	2.860	0.740	2.940	0.180	0.970	**A**	A
1	U BQ	0.490	0.060	0.480	0.030	1.030	**A**	A
1	U UG	19.900	2.800	0.020	0.001	*.***	**N**	W
1	U234	0.250	0.070	0.230	0.020	1.080	**A**	A
1	U238	0.230	0.040	0.240	0.010	0.970	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AI Nuclear Technology Services, Inc., Roswell, GA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	GA	1.340	0.030	1.490	0.090	0.900	**A**	A
1	GB	2.680	0.040	3.000	0.140	0.890	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	17.300	2.010	6.040	0.580	2.860	**N**	A
1	CO 60	2.310	1.130	1.500	0.400	1.530	**W**	
1	CS137	770.000	5.900	810.000	40.000	0.950	**A**	N
1	K 40	333.000	31.000	315.000	20.000	1.050	**A**	W
1	PU239	15.550	0.950	10.160	0.370	1.530	**W**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	2.460	0.210	3.460	0.250	0.710	**W**	A
1	CO 60	42.700	3.800	32.400	1.600	1.310	**W**	N
1	CS137	710.000	12.200	624.000	31.000	1.130	**A**	W
1	K 40	1370.000	82.000	1130.000	70.000	1.210	**A**	W
1	PU239	5.040	0.280	5.480	0.440	0.910	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.740	0.030	0.750	0.020	0.990	**A**	A
1	CO 60	22.400	0.800	23.300	1.200	0.960	**A**	A
1	CS134	68.100	1.200	66.000	2.600	1.030	**A**	
1	CS137	34.300	1.200	34.300	1.700	1.000	**A**	A
1	GA	914.300	30.200	557.000	60.000	1.640	**N**	W
1	GB	633.000	28.500	712.000	70.000	0.880	**A**	A
1	H 3	367.000	9.900	115.000	6.000	3.190	**N**	N
1	MN 54	38.500	1.400	37.800	1.900	1.010	**A**	A
1	PU238	0.680	0.020	0.720	0.020	0.950	**A**	W
1	PU239	0.700	0.020	0.750	0.040	0.940	**A**	W
1	U BQ	0.550	0.030	0.480	0.030	1.150	**A**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AM American Radiation Services, Inc., Baton Rouge

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.170	0.040	0.210	0.009	0.790	**W**	N
1	CE144	15.510	0.490	19.120	0.700	0.810	**A**	W
1	CO 57	9.860	0.090	12.640	0.430	0.780	**A**	N
1	CO 60	8.310	0.130	10.730	1.090	0.770	**W**	N
1	CS134	18.280	0.190	28.170	0.730	0.640	**N**	A
1	CS137	5.920	0.170	7.310	0.250	0.800	**W**	N
1	GA	1.730	0.030	1.490	0.090	1.160	**A**	A
1	GB	3.430	0.040	3.000	0.140	1.140	**A**	A
1	MN 54	5.420	0.160	6.720	0.270	0.800	**W**	N
1	SB125	10.160	0.380	16.120	0.790	0.630	**W**	W
1	U BQ	0.320	0.020	0.110	0.004	2.740	**W**	N
1	U234	0.160	0.010	0.050	0.001	2.790	**N**	
1	U238	0.160	0.010	0.050	0.003	2.770	**N**	
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	8.840	2.220	6.040	0.580	1.460	**A**	W
1	CO 60	2.620	1.110	1.500	0.400	1.740	**W**	
1	CS137	902.700	5.550	810.000	40.000	1.110	**A**	A
1	K 40	333.000	21.820	315.000	20.000	1.050	**A**	A
1	U BQ	73.000	2.500	72.900	0.850	1.000	**A**	A
1	U234	36.000	1.250	37.150	0.640	0.960	**A**	A
1	U238	37.000	1.130	34.900	0.140	1.060	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.810	1.840	3.460	0.250	1.390	**A**	W
1	CO 60	35.520	1.480	32.400	1.600	1.090	**A**	A
1	CS137	724.800	4.810	624.000	31.000	1.160	**A**	A
1	K 40	1259.000	25.160	1130.000	70.000	1.110	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.800	0.680	0.750	0.020	1.060	**A**	W
1	CO 60	26.420	0.660	23.300	1.200	1.130	**W**	A
1	CS134	73.230	1.220	66.000	2.600	1.100	**A**	
1	CS137	38.720	1.070	34.300	1.700	1.120	**A**	A
1	GA	393.800	17.680	557.000	60.000	0.700	**W**	N
1	GB	896.000	17.850	712.000	70.000	1.250	**A**	A
1	MN 54	44.340	1.600	37.800	1.900	1.170	**W**	A
1	U BQ	0.960	0.110	0.480	0.030	2.000	**N**	W
1	U234	0.490	0.070	0.230	0.020	2.130	**N**	N
1	U238	0.480	0.060	0.240	0.010	2.000	**N**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AN Argonne National Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.010	0.210	0.009	0.980	**A**	A
1	CE144	20.700	1.600	19.120	0.700	1.080	**A**	A
1	CO 57	14.800	0.400	12.640	0.430	1.170	**W**	W
1	CO 60	11.800	0.500	10.730	1.090	1.090	**A**	W
1	CS134	28.200	1.300	28.170	0.730	1.000	**A**	A
1	CS137	8.100	0.640	7.310	0.250	1.100	**A**	A
1	MN 54	7.390	0.100	6.720	0.270	1.090	**A**	W
1	PU238	0.220	0.010	0.210	0.007	1.040	**A**	A
1	SB125	18.700	1.700	16.120	0.790	1.160	**W**	A
1	SR 90	2.670	0.030	2.760	0.100	0.960	**A**	A
1	U234	0.060	0.005	0.050	0.001	1.200	**A**	A
1	U238	0.060	0.007	0.050	0.003	1.110	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	8.280	0.480	6.040	0.580	1.370	**A**	A
1	CO 60	1.330	0.310	1.500	0.400	0.880	**W**	
1	CS137	919.000	10.000	810.000	40.000	1.130	**A**	W
1	K 40	340.000	7.000	315.000	20.000	1.070	**A**	A
1	PU239	12.220	1.080	10.160	0.370	1.200	**A**	A
1	SR 90	35.720	0.710	34.750	1.000	1.020	**A**	A
1	U234	40.500	5.340	37.150	0.640	1.090	**A**	A
1	U238	41.190	5.610	34.900	0.140	1.180	**W**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.660	0.230	3.460	0.250	1.050	**A**	A
1	CM244	2.420	0.160	2.750	0.100	0.880	**A**	A
1	CO 60	3.350	0.180	32.400	1.600	0.100	**N**	A
1	CS137	63.000	7.000	624.000	31.000	0.100	**N**	A
1	K 40	109.000	2.000	1130.000	70.000	0.090	**N**	A
1	PU239	6.270	0.330	5.480	0.440	1.140	**A**	A
1	SR 90	1361.000	23.000	1434.000	75.000	0.940	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.740	0.020	0.750	0.020	0.980	**A**	A
1	CO 60	23.800	0.300	23.300	1.200	1.020	**A**	W
1	CS134	69.000	1.800	66.000	2.600	1.040	**A**	
1	CS137	35.300	1.100	34.300	1.700	1.020	**A**	A
1	H 3	118.000	1.000	115.000	6.000	1.020	**A**	A
1	MN 54	38.800	1.100	37.800	1.900	1.020	**A**	W
1	PU238	0.740	0.020	0.720	0.020	1.020	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AN Argonne National Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	PU239	0.780	0.030	0.750	0.040	1.040	**A**	A
1	SR 90	3.050	0.040	2.940	0.180	1.030	**A**	A
1	U234	0.280	0.020	0.230	0.020	1.220	**W**	A
1	U238	0.270	0.020	0.240	0.010	1.130	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AR Accu-Labs Research Inc., Golden, CO

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.170	0.010	0.210	0.009	0.830	**W**	A
1	CE144	44.000	1.300	19.120	0.700	2.300	**N**	N
1	CO 57	12.700	0.300	12.640	0.430	1.000	**A**	W
1	CO 60	10.500	0.200	10.730	1.090	0.970	**A**	N
1	CS134	27.300	0.500	28.170	0.730	0.960	**A**	W
1	CS137	7.500	0.190	7.310	0.250	1.020	**A**	W
1	GA	3.970	0.080	1.490	0.090	2.660	**N**	N
1	GB	3.300	0.040	3.000	0.140	1.090	**A**	N
1	MN 54	7.140	0.180	6.720	0.270	1.060	**A**	W
1	PU238	0.210	0.010	0.210	0.007	0.990	**A**	W
1	PU239	0.110	0.010	0.100	0.004	1.030	**A**	A
1	SB125	17.000	0.500	16.120	0.790	1.050	**A**	W
1	SR 90	5.200	0.620	2.760	0.100	1.880	**W**	A
1	U BQ	0.150	0.020	0.110	0.004	1.340	**A**	
1	U UG	4.600	0.500	4.650	0.210	0.980	**A**	A
1	U234	0.070	0.010	0.050	0.001	1.380	**A**	A
1	U238	0.070	0.010	0.050	0.003	1.260	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	5.010	0.720	6.040	0.580	0.820	**A**	A
1	CO 60	1.400	0.440	1.500	0.400	0.930	**A**	N
1	CS137	1000.000	17.000	810.000	40.000	1.230	**W**	A
1	K 40	351.000	18.000	315.000	20.000	1.110	**A**	A
1	PU238	0.570	0.630	0.440	0.090	1.290	**W**	N
1	PU239	8.820	1.810	10.160	0.370	0.860	**W**	A
1	SR 90	34.300	5.300	34.750	1.000	0.980	**A**	A
1	U BQ	65.200	6.000	72.900	0.850	0.890	**A**	
1	U234	33.400	4.300	37.150	0.640	0.890	**A**	A
1	U238	30.100	4.100	34.900	0.140	0.860	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.600	0.230	3.460	0.250	1.040	**A**	
1	CM244	2.430	0.180	2.750	0.100	0.880	**A**	
1	CO 60	32.500	1.300	32.400	1.600	1.000	**A**	A
1	CS137	699.000	12.000	624.000	31.000	1.120	**A**	A
1	K 40	1120.000	32.000	1130.000	70.000	0.990	**A**	A
1	PU238	0.390	0.160	0.400	0.150	0.970	**A**	
1	PU239	5.570	0.550	5.480	0.440	1.010	**A**	A
1	SR 90	1370.000	90.000	1434.000	75.000	0.950	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AR Accu-Labs Research Inc., Golden, CO

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.670	0.050	0.750	0.020	0.890	**A**	W
1	CO 60	26.300	0.900	23.300	1.200	1.120	**A**	N
1	CS134	75.400	1.900	66.000	2.600	1.140	**A**	N
1	CS137	40.200	1.400	34.300	1.700	1.170	**A**	N
1	GA	570.000	53.000	557.000	60.000	1.020	**A**	W
1	GB	839.000	102.000	712.000	70.000	1.170	**A**	W
1	H 3	121.000	68.000	115.000	6.000	1.050	**A**	A
1	MN 54	46.100	1.700	37.800	1.900	1.210	**W**	N
1	PU238	0.770	0.090	0.720	0.020	1.080	**A**	W
1	PU239	0.690	0.080	0.750	0.040	0.920	**A**	A
1	SR 90	2.080	0.520	2.940	0.180	0.700	**N**	A
1	U BQ	0.610	0.060	0.480	0.030	1.270	**W**	
1	U UG	0.010	0.001	0.020	0.001	0.890	**A**	N
1	U234	0.250	0.040	0.230	0.020	1.100	**A**	A
1	U238	0.260	0.040	0.240	0.010	1.100	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AU ORISE EESD/ESSAP, Oak Ridge

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.010	0.210	0.009	0.970	**A**	A
1	CE144	20.900	3.000	19.120	0.700	1.090	**A**	A
1	CO 57	13.430	0.600	12.640	0.430	1.060	**A**	A
1	CO 60	11.210	0.780	10.730	1.090	1.040	**A**	A
1	CS134	27.800	1.900	28.170	0.730	0.980	**A**	A
1	CS137	7.990	0.700	7.310	0.250	1.090	**A**	A
1	GA	1.750	0.040	1.490	0.090	1.170	**A**	A
1	GB	3.210	0.040	3.000	0.140	1.070	**A**	A
1	MN 54	8.030	0.780	6.720	0.270	1.190	**W**	W
1	PU238	0.230	0.010	0.210	0.007	1.090	**A**	A
1	PU239	0.110	0.010	0.100	0.004	1.100	**A**	A
1	SB125	15.500	1.900	16.120	0.790	0.960	**A**	A
1	U234	0.050	0.009	0.050	0.001	1.030	**A**	A
1	U238	0.060	0.009	0.050	0.003	1.110	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.320	0.780	6.040	0.580	1.040	**A**	A
1	CS137	870.000	47.000	810.000	40.000	1.070	**A**	A
1	K 40	361.000	76.000	315.000	20.000	1.140	**A**	A
1	PU238	1.300	0.700	0.440	0.090	2.950	**N**	N
1	PU239	11.700	2.000	10.160	0.370	1.150	**A**	A
1	SR 90	42.500	6.500	34.750	1.000	1.220	**A**	A
1	U234	34.300	4.500	37.150	0.640	0.920	**A**	W
1	U238	34.000	4.500	34.900	0.140	0.970	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.690	0.370	3.460	0.250	1.060	**A**	A
1	CO 60	36.000	7.000	32.400	1.600	1.110	**A**	W
1	CS137	676.000	41.000	624.000	31.000	1.080	**A**	A
1	K 40	1235.000	104.000	1130.000	70.000	1.090	**A**	A
1	PU239	6.770	0.710	5.480	0.440	1.230	**A**	A
1	SR 90	1355.000	18.000	1434.000	75.000	0.940	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	1.360	0.090	0.750	0.020	1.810	**N**	A
1	CO 60	25.800	2.300	23.300	1.200	1.100	**A**	A
1	CS134	72.500	5.400	66.000	2.600	1.090	**A**	
1	CS137	36.400	2.800	34.300	1.700	1.060	**A**	A
1	GA	437.000	18.000	557.000	60.000	0.780	**W**	W
1	GB	896.000	21.000	712.000	70.000	1.250	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AU ORISE EESD/ESSAP, Oak Ridge

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	H 3	108.000	13.000	115.000	6.000	0.930	**A**	
1	MN 54	41.900	3.700	37.800	1.900	1.100	**A**	W
1	PU238	0.220	0.040	0.720	0.020	0.300	**N**	A
1	PU239	0.230	0.040	0.750	0.040	0.300	**N**	A
1	SR 90	2.990	0.340	2.940	0.180	1.010	**A**	A
1	U234	0.260	0.040	0.230	0.020	1.130	**A**	A
1	U238	0.240	0.040	0.240	0.010	1.020	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: AW Argonne National Laboratory, Idaho Falls

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	18.400	2.750	23.300	1.200	0.780	**N**	N
1	CS134	61.500	9.200	66.000	2.600	0.930	**A**	N
1	CS137	33.200	5.000	34.300	1.700	0.960	**A**	N
1	MN 54	41.400	6.200	37.800	1.900	1.090	**A**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BA Bettis Atomic Power Lab, West Mifflin, PA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CO 60	10.550	1.000	10.730	1.090	0.980	**A**	
1	CS134	22.850	1.000	28.170	0.730	0.810	**A**	
1	CS137	7.700	0.680	7.310	0.250	1.050	**A**	
1	MN 54	7.450	0.770	6.720	0.270	1.100	**A**	
1	SB125	17.850	0.910	16.120	0.790	1.100	**A**	
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	848.000	77.000	810.000	40.000	1.040	**A**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	37.500	9.200	32.400	1.600	1.150	**A**	
1	CS137	674.000	61.000	624.000	31.000	1.080	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.000	3.700	23.300	1.200	0.980	**A**	
1	CS134	67.700	5.300	66.000	2.600	1.020	**A**	
1	CS137	38.000	5.400	34.300	1.700	1.100	**A**	
1	MN 54	41.700	6.200	37.800	1.900	1.100	**A**	
1	PU238	0.750	0.180	0.720	0.020	1.040	**A**	
1	PU239	0.840	0.200	0.750	0.040	1.120	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BC Babcock & Wilcox MC #42, Lynchburg, VA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	18.300	0.890	19.120	0.700	0.950	**A**	A
1	CO 57	12.500	0.600	12.640	0.430	0.980	**A**	A
1	CO 60	10.200	0.530	10.730	1.090	0.950	**A**	A
1	CS134	27.300	1.610	28.170	0.730	0.960	**A**	A
1	CS137	7.360	0.490	7.310	0.250	1.000	**A**	A
1	GA	1.490	0.030	1.490	0.090	1.000	**A**	A
1	GB	2.920	0.030	3.000	0.140	0.970	**A**	W
1	MN 54	6.850	0.400	6.720	0.270	1.010	**A**	A
1	SB125	16.500	0.850	16.120	0.790	1.020	**A**	A
1	SR 90	2.660	0.510	2.760	0.100	0.960	**A**	A
1	U234	0.090	0.009	0.050	0.001	1.610	**W**	A
1	U238	0.080	0.010	0.050	0.003	1.450	**W**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	2.380	0.510	1.500	0.400	1.580	**W**	W
1	CS137	962.000	74.000	810.000	40.000	1.180	**A**	A
1	K 40	340.000	20.100	315.000	20.000	1.070	**A**	A
1	SR 90	44.400	12.500	34.750	1.000	1.270	**A**	W
1	U234	53.300	2.210	37.150	0.640	1.430	**W**	W
1	U238	23.300	1.200	34.900	0.140	0.660	**A**	W
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	36.500	2.370	32.400	1.600	1.120	**A**	A
1	CS137	770.000	51.100	624.000	31.000	1.230	**A**	W
1	K 40	1210.000	65.100	1130.000	70.000	1.070	**A**	A
1	SR 90	1540.000	107.000	1434.000	75.000	1.070	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	25.600	1.380	23.300	1.200	1.090	**A**	A
1	CS134	72.500	3.920	66.000	2.600	1.090	**A**	
1	CS137	38.100	2.410	34.300	1.700	1.110	**A**	A
1	GA	511.000	15.500	557.000	60.000	0.910	**A**	W
1	GB	847.000	14.900	712.000	70.000	1.180	**A**	A
1	MN 54	43.700	2.220	37.800	1.900	1.150	**A**	A
1	SR 90	2.970	0.340	2.940	0.180	1.010	**A**	A
1	U234	0.410	0.060	0.230	0.020	1.780	**N**	W
1	U238	0.250	0.050	0.240	0.010	1.050	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BE RUST Geotech, Grand Junction, CO

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.010	0.210	0.009	0.930	**A**	A
1	CE144	16.950	1.770	19.120	0.700	0.880	**A**	N
1	CO 57	12.240	0.900	12.640	0.430	0.960	**A**	A
1	CO 60	9.920	0.770	10.730	1.090	0.920	**A**	A
1	CS134	22.450	1.710	28.170	0.730	0.790	**W**	A
1	CS137	7.220	0.570	7.310	0.250	0.980	**A**	A
1	GA	1.760	0.110	1.490	0.090	1.180	**A**	A
1	GB	2.920	0.120	3.000	0.140	0.970	**A**	A
1	MN 54	7.260	0.550	6.720	0.270	1.080	**A**	A
1	PU238	0.230	0.010	0.210	0.007	1.060	**A**	A
1	SB125	13.220	1.060	16.120	0.790	0.820	**A**	A
1	SR 90	3.000	0.190	2.760	0.100	1.080	**A**	A
1	U UG	5.300	0.000	4.650	0.210	1.130	**A**	A
1	U234	0.060	0.008	0.050	0.001	1.110	**A**	A
1	U238	0.060	0.008	0.050	0.003	1.040	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.300	0.400	6.040	0.580	1.040	**A**	A
1	CS137	835.570	63.340	810.000	40.000	1.030	**A**	A
1	K 40	352.340	30.440	315.000	20.000	1.110	**A**	A
1	PU239	10.700	0.600	10.160	0.370	1.050	**A**	A
1	SR 90	35.700	3.100	34.750	1.000	1.020	**A**	A
1	U UG	2.950	0.000	2.820	0.200	1.040	**A**	A
1	U234	35.900	3.900	37.150	0.640	0.960	**A**	W
1	U238	36.600	4.000	34.900	0.140	1.040	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.900	0.700	3.460	0.250	1.120	**A**	N
1	CM244	2.500	0.400	2.750	0.100	0.900	**A**	N
1	CO 60	30.070	2.900	32.400	1.600	0.920	**A**	
1	CS137	659.350	50.200	624.000	31.000	1.050	**A**	N
1	K 40	1239.800	101.650	1130.000	70.000	1.090	**A**	W
1	PU239	6.000	0.700	5.480	0.440	1.090	**A**	N
1	SR 90	1348.000	78.000	1434.000	75.000	0.940	**A**	N
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.720	0.040	0.750	0.020	0.960	**A**	A
1	CO 60	29.940	1.210	23.300	1.200	1.280	**N**	W
1	CS134	89.030	3.230	66.000	2.600	1.340	**N**	
1	CS137	51.090	2.050	34.300	1.700	1.480	**N**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BE RUST Geotech, Grand Junction, CO

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	GA	643.300	62.000	557.000	60.000	1.150	**A**	W
1	GB	870.000	55.000	712.000	70.000	1.220	**A**	W
1	H 3	116.000	9.000	115.000	6.000	1.000	**A**	A
1	MN 54	58.140	2.110	37.800	1.900	1.530	**N**	N
1	PU238	0.760	0.040	0.720	0.020	1.050	**A**	A
1	PU239	0.770	0.040	0.750	0.040	1.020	**A**	A
1	SR 90	3.030	0.390	2.940	0.180	1.030	**A**	A
1	U UG	0.020	0.000	0.020	0.001	1.000	**A**	A
1	U234	0.240	0.030	0.230	0.020	1.040	**A**	A
1	U238	0.250	0.030	0.240	0.010	1.040	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BL Barringer Laboratories Inc., Golden, CO

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.220	0.040	0.210	0.009	1.040	**A**	A
1		0.280	0.040	0.210	0.009	1.310	**A**	A
1	CE144	18.600	1.400	19.120	0.700	0.970	**A**	A
1	CO 57	13.300	0.900	12.640	0.430	1.050	**A**	A
1	CO 60	10.500	0.500	10.730	1.090	0.970	**A**	A
1	CS134	25.100	1.400	28.170	0.730	0.890	**A**	A
1	CS137	7.320	0.430	7.310	0.250	1.000	**A**	A
1	GA	2.060	0.110	1.490	0.090	1.380	**W**	W
1	GB	2.970	0.120	3.000	0.140	0.990	**A**	A
1	MN 54	7.100	0.370	6.720	0.270	1.050	**A**	A
1	PU238	0.280	0.020	0.210	0.007	1.330	**W**	A
1		0.280	0.020	0.210	0.007	1.310	**W**	A
1	SB125	14.300	1.000	16.120	0.790	0.880	**A**	A
1	SR 90	2.510	1.120	2.760	0.100	0.900	**A**	A
1	U BQ	0.140	0.004	0.110	0.004	1.270	**A**	A
1	U UG	6.020	0.160	4.650	0.210	1.290	**W**	
2		5.800	0.000	4.650	0.210	1.240	**A**	
1	U234	0.070	0.002	0.050	0.001	1.310	**A**	A
1	U238	0.070	0.002	0.050	0.003	1.260	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.230	0.390	1.500	0.400	0.820	**W**	A
1	CS137	820.000	27.000	810.000	40.000	1.010	**A**	A
1	K 40	319.000	16.000	315.000	20.000	1.010	**A**	A
1	PU239	10.200	1.200	10.160	0.370	1.000	**A**	A
2		12.000	0.700	10.160	0.370	1.180	**A**	A
1	SR 90	38.000	6.000	34.750	1.000	1.090	**A**	A
1	U BQ	68.700	0.000	72.900	0.850	0.940	**A**	A
2		73.100	2.100	72.900	0.850	1.000	**A**	A
1	U UG	2.800	0.000	2.820	0.200	0.990	**A**	A
2		2.980	0.090	2.820	0.200	1.050	**A**	A
1	U234	34.800	0.000	37.150	0.640	0.930	**A**	A
2		37.000	1.100	37.150	0.640	0.990	**A**	A
1	U238	33.900	0.000	34.900	0.140	0.970	**A**	A
2		36.100	1.000	34.900	0.140	1.030	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	2.960	0.490	3.460	0.250	0.850	**W**	A
1	CM244	1.110	0.370	2.750	0.100	0.400	**N**	A
1	CO 60	29.300	1.600	32.400	1.600	0.900	**A**	A
1	CS137	546.000	25.000	624.000	31.000	0.870	**W**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BL Barringer Laboratories Inc., Golden, CO

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**VE**	**Vegetation**	**Bq/kg**					
1	K 40	1034.000	51.000	1130.000	70.000	0.910	**A**	A
1	PU239	5.460	0.340	5.480	0.440	0.990	**A**	A
2		5.700	0.350	5.480	0.440	1.040	**A**	A
1	SR 90	1313.000	14.000	1434.000	75.000	0.910	**A**	A
Matrix:	**WA**	**Water**	**Bq/L**					
1	AM241	0.700	0.200	0.750	0.020	0.930	**A**	W
2		0.820	0.210	0.750	0.020	1.100	**A**	W
1	CO 60	22.800	0.900	23.300	1.200	0.970	**A**	A
1	CS134	63.800	2.300	66.000	2.600	0.960	**A**	
1	CS137	32.700	1.200	34.300	1.700	0.950	**A**	A
1	FE 55	134.800	16.900	115.000	10.000	1.170	**A**	W
2		139.500	17.200	115.000	10.000	1.210	**A**	W
1	GA	600.000	19.000	557.000	60.000	1.070	**A**	W
1	GB	807.000	21.000	712.000	70.000	1.130	**A**	N
1	H 3	130.000	11.000	115.000	6.000	1.130	**A**	A
1	MN 54	37.400	1.300	37.800	1.900	0.980	**A**	A
1	PU238	0.890	0.080	0.720	0.020	1.230	**W**	A
2		1.010	0.080	0.720	0.020	1.400	**N**	A
1	PU239	0.720	0.070	0.750	0.040	0.960	**A**	A
2		0.750	0.070	0.750	0.040	1.000	**A**	A
1	SR 90	3.200	0.700	2.940	0.180	1.080	**A**	A
2		3.260	1.330	2.940	0.180	1.100	**A**	A
1	U BQ	0.520	0.010	0.480	0.030	1.100	**A**	A
2		0.530	0.000	0.480	0.030	1.100	**A**	A
1	U UG	0.020		0.020	0.001	1.070	**A**	A
2		0.020	0.000	0.020	0.001	1.100	**A**	A
1	U234	0.260	0.000	0.230	0.020	1.160	**A**	A
2		0.260	0.007	0.230	0.020	1.160	**A**	A
1	U238	0.260	0.000	0.240	0.010	1.090	**A**	A
2		0.260	0.006	0.240	0.010	1.080	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BM Battelle Memorial Institute, Columbus, OH

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.210	0.030	0.210	0.009	0.990	**A**	A
1	CO 57	12.100	0.130	12.640	0.430	0.950	**A**	N
1	CO 60	10.100	0.300	10.730	1.090	0.940	**A**	W
1	CS134	27.500	0.350	28.170	0.730	0.970	**A**	N
1	CS137	7.370	0.260	7.310	0.250	1.000	**A**	W
1	PU238	0.250	0.030	0.210	0.007	1.160	**W**	A
1	SR 90	2.720	0.050	2.760	0.100	0.980	**A**	A
1	U234	0.060	0.010	0.050	0.001	1.150	**A**	A
1	U238	0.060	0.010	0.050	0.003	1.110	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	5.200	1.500	6.040	0.580	0.860	**A**	W
1	CS137	804.000	7.500	810.000	40.000	0.990	**A**	A
1	K 40	326.000	30.000	315.000	20.000	1.030	**A**	A
1	PU239	12.180	1.820	10.160	0.370	1.190	**A**	A
1	SR 90	34.920	3.810	34.750	1.000	1.000	**A**	A
1	U234	31.600	5.680	37.150	0.640	0.850	**A**	A
1	U238	32.430	5.810	34.900	0.140	0.920	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.240	0.760	3.460	0.250	1.220	**A**	A
1	CO 60	37.000	4.280	32.400	1.600	1.140	**A**	A
1	CS137	515.000	7.520	624.000	31.000	0.820	**W**	A
1	K 40	840.000	50.600	1130.000	70.000	0.740	**N**	A
1	PU239	6.900	0.860	5.480	0.440	1.250	**A**	A
1	SR 90	1272.000	10.600	1434.000	75.000	0.880	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.770	0.130	0.750	0.020	1.020	**A**	A
1	CO 60	23.100	2.340	23.300	1.200	0.990	**A**	A
1	CS134	68.500	2.650	66.000	2.600	1.030	**A**	
1	CS137	35.600	2.500	34.300	1.700	1.030	**A**	A
1	PU238	0.850	0.120	0.720	0.020	1.190	**W**	A
1	PU239	0.860	0.110	0.750	0.040	1.140	**A**	W
1	SR 90	3.040	0.240	2.940	0.180	1.030	**A**	A
1	U234	0.250	0.050	0.230	0.020	1.100	**A**	A
1	U238	0.210	0.040	0.240	0.010	0.900	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BN Brookhaven National Laboratory, Upton, NY

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.570	0.080	0.210	0.009	2.670	**N**	N
2		0.750	0.100	0.210	0.009	3.520	**N**	N
3		0.800	0.110	0.210	0.009	3.750	**N**	N
1	CE144	22.700	0.830	19.120	0.700	1.180	**W**	N
2		24.100	0.880	19.120	0.700	1.260	**N**	N
3		24.790	0.900	19.120	0.700	1.290	**N**	N
1	CO 57	16.050	0.470	12.640	0.430	1.260	**W**	N
2		16.500	0.480	12.640	0.430	1.300	**N**	N
3		17.230	0.500	12.640	0.430	1.360	**N**	N
1	CO 60	9.990	0.390	10.730	1.090	0.930	**A**	A
2		10.850	0.420	10.730	1.090	1.010	**A**	A
3		10.860	0.420	10.730	1.090	1.010	**A**	A
1	CS134	24.900	0.510	28.170	0.730	0.880	**A**	A
2		25.860	0.530	28.170	0.730	0.910	**A**	A
3		26.120	0.540	28.170	0.730	0.920	**A**	A
1	CS137	9.320	0.340	7.310	0.250	1.270	**W**	N
2		9.740	0.350	7.310	0.250	1.330	**N**	N
3		10.190	0.370	7.310	0.250	1.390	**N**	N
1	GA	1.390	0.001	1.490	0.090	0.930	**A**	A
1	GB	2.870	0.070	3.000	0.140	0.950	**A**	A
2		2.990	0.070	3.000	0.140	0.990	**A**	A
3		3.030	0.070	3.000	0.140	1.000	**A**	A
1	MN 54	8.700	0.330	6.720	0.270	1.290	**W**	N
2		8.910	0.330	6.720	0.270	1.320	**N**	N
3		9.500	0.360	6.720	0.270	1.410	**N**	N
1	SB125	23.140	0.720	16.120	0.790	1.430	**N**	N
2		23.730	0.740	16.120	0.790	1.470	**N**	N
3		24.940	0.780	16.120	0.790	1.540	**N**	N
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	13.830	0.560	6.040	0.580	2.280	**W**	W
2		13.960	0.570	6.040	0.580	2.310	**W**	W
3		15.130	0.620	6.040	0.580	2.500	**W**	W
1	CO 60	1.200	0.120	1.500	0.400	0.800	**N**	A
2		1.270	0.130	1.500	0.400	0.840	**W**	A
3		1.510	0.150	1.500	0.400	1.000	**A**	A
1	CS137	775.520	15.900	810.000	40.000	0.950	**A**	A
2		815.110	16.710	810.000	40.000	1.000	**A**	A
2		799.940	16.400	810.000	40.000	0.980	**A**	A
1	K 40	261.000	2.400	315.000	20.000	0.820	**W**	A
2		263.030	2.420	315.000	20.000	0.830	**W**	A
3		266.840	2.450	315.000	20.000	0.840	**W**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BN Brookhaven National Laboratory, Upton, NY

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	9.390	0.770	3.460	0.250	2.710	**W**	
2		9.750	0.790	3.460	0.250	2.810	**N**	
3		11.300	0.920	3.460	0.250	3.260	**N**	
1	CO 60	23.610	0.870	32.400	1.600	0.720	**W**	A
2		25.230	0.930	32.400	1.600	0.770	**W**	A
3		25.770	0.950	32.400	1.600	0.790	**W**	A
1	CS137	556.110	17.910	624.000	31.000	0.890	**W**	W
2		595.700	19.180	624.000	31.000	0.950	**A**	W
3		596.070	19.190	624.000	31.000	0.950	**A**	W
1	K 40	859.880	28.120	1130.000	70.000	0.760	**N**	A
2		890.590	29.120	1130.000	70.000	0.780	**N**	A
3		931.290	30.450	1130.000	70.000	0.820	**W**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.570	0.270	23.300	1.200	1.010	**A**	A
2		23.800	0.280	23.300	1.200	1.020	**A**	A
3		24.240	0.280	23.300	1.200	1.040	**A**	A
1	CS134	71.370	1.160	66.000	2.600	1.080	**A**	
2		71.890	1.160	66.000	2.600	1.080	**A**	
3		74.070	1.200	66.000	2.600	1.120	**A**	
1	CS137	41.510	0.200	34.300	1.700	1.210	**W**	N
2		41.630	0.200	34.300	1.700	1.210	**W**	N
3		42.000	0.210	34.300	1.700	1.220	**W**	N
1	GA	492.280	8.320	557.000	60.000	0.880	**A**	W
2		506.560	8.560	557.000	60.000	0.900	**A**	W
3		512.510	8.660	557.000	60.000	0.920	**A**	W
1	GB	812.450	46.800	712.000	70.000	1.140	**A**	A
2		830.590	47.840	712.000	70.000	1.160	**A**	A
3		924.980	53.280	712.000	70.000	1.290	**A**	A
1	H 3	117.220	6.200	115.000	6.000	1.010	**A**	A
2		122.920	6.500	115.000	6.000	1.060	**A**	A
3		133.120	7.040	115.000	6.000	1.150	**A**	A
1	MN 54	45.570	0.480	37.800	1.900	1.200	**W**	N
2		45.770	0.490	37.800	1.900	1.210	**W**	N
3		46.620	0.490	37.800	1.900	1.230	**N**	N
1	SR 90	3.000	0.160	2.940	0.180	1.020	**A**	W
2		3.170	0.160	2.940	0.180	1.070	**A**	W
3		3.410	0.180	2.940	0.180	1.150	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BP Battelle Pacific Northwest National Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.220	0.009	0.210	0.009	1.050	**A**	A
1	CE144	16.200	0.600	19.120	0.700	0.840	**A**	A
1	CO 57	11.500	0.300	12.640	0.430	0.900	**A**	A
1	CO 60	9.340	0.190	10.730	1.090	0.870	**A**	A
1	CS134	27.200	0.500	28.170	0.730	0.960	**A**	W
1	CS137	6.620	0.170	7.310	0.250	0.900	**A**	A
1	GA	1.530	0.060	1.490	0.090	1.020	**A**	A
1	GB	3.060	0.010	3.000	0.140	1.010	**A**	A
1	MN 54	6.220	0.140	6.720	0.270	0.920	**A**	A
1	PU238	0.230	0.007	0.210	0.007	1.060	**A**	A
1	PU239	0.120	0.004	0.100	0.004	1.120	**A**	A
1	SB125	9.990	0.290	16.120	0.790	0.610	**W**	A
1	SR 90	2.480	0.090	2.760	0.100	0.890	**A**	A
1	U238	0.120	0.008	0.050	0.003	2.230	**W**	
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.390	0.270	6.040	0.580	1.050	**A**	A
1	CO 60	1.300	0.300	1.500	0.400	0.860	**W**	W
1	CS137	779.000	31.000	810.000	40.000	0.960	**A**	W
1	K 40	301.000	13.000	315.000	20.000	0.950	**A**	W
1	PU239	11.400	0.290	10.160	0.370	1.120	**A**	N
1	SR 90	29.000	0.400	34.750	1.000	0.830	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.980	0.160	3.460	0.250	1.150	**A**	A
1	CM244	2.260	0.120	2.750	0.100	0.820	**W**	
1	CO 60	28.400	1.000	32.400	1.600	0.870	**A**	W
1	CS137	587.000	10.000	624.000	31.000	0.940	**A**	A
1	K 40	1015.000	36.000	1130.000	70.000	0.890	**W**	W
1	PU239	5.860	0.300	5.480	0.440	1.060	**A**	
1	SR 90	1279.000	91.000	1434.000	75.000	0.890	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.780	0.020	0.750	0.020	1.050	**A**	A
1	CO 60	24.600	2.100	23.300	1.200	1.050	**A**	A
1	CS134	72.800	5.000	66.000	2.600	1.100	**A**	
1	CS137	37.400	1.600	34.300	1.700	1.090	**A**	A
1	FE 55	128.000	7.000	115.000	10.000	1.110	**A**	W
1	GA	612.000	11.000	557.000	60.000	1.090	**A**	W
1	GB	1051.000	32.000	712.000	70.000	1.470	**W**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BP Battelle Pacific Northwest National Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	H 3	125.300	7.200	115.000	6.000	1.080	**A**	A
1	MN 54	41.700	2.500	37.800	1.900	1.100	**A**	W
1	PU238	0.730	0.050	0.720	0.020	1.010	**A**	A
1	PU239	0.790	0.010	0.750	0.040	1.050	**A**	A
1	SR 90	2.720	0.150	2.940	0.180	0.920	**A**	A
1	U238	0.530	0.010	0.240	0.010	2.210	**N**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BQ Becquerel Laboratories Inc., Mississauga, Ontario, Canada

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	14.700	0.300	19.120	0.700	0.760	**A**	W
1	CO 57	10.300	0.100	12.640	0.430	0.810	**A**	W
1	CO 60	9.300	0.100	10.730	1.090	0.860	**A**	A
1	CS134	25.300	0.200	28.170	0.730	0.890	**A**	A
1	CS137	7.400	0.200	7.310	0.250	1.010	**A**	A
1	MN 54	6.200	0.100	6.720	0.270	0.920	**A**	A
1	SB125	15.900	0.200	16.120	0.790	0.980	**A**	N
1	U UG	4.360	0.200	4.650	0.210	0.930	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	821.000	14.000	810.000	40.000	1.010	**A**	A
1	K 40	304.000	15.000	315.000	20.000	0.960	**A**	A
1	U UG	4.360	0.200	2.820	0.200	1.540	**N**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CS137	650.000	17.000	624.000	31.000	1.040	**A**	A
1	K 40	1370.000	70.000	1130.000	70.000	1.210	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.700	0.700	23.300	1.200	1.010	**A**	A
1	CS134	64.600	0.900	66.000	2.600	0.970	**A**	
1	CS137	31.700	0.600	34.300	1.700	0.920	**A**	A
1	MN 54	37.000	0.700	37.800	1.900	0.970	**A**	A
1	U UG	2.980	0.060	0.020	0.001	*.***	**N**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BR US Army Research Laboratory, Aberdeen Proving Ground

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	8.400	2.900	6.040	0.580	1.390	**A**	A
1	CS137	973.100	10.100	810.000	40.000	1.200	**A**	N
1	K 40	395.900	26.600	315.000	20.000	1.250	**A**	A
1	U238	52.200	14.900	34.900	0.140	1.490	**W**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	3.600	3.300	32.400	1.600	0.110	**N**	
1	CS137	654.900	33.500	624.000	31.000	1.040	**A**	
1	K 40	1191.400	408.000	1130.000	70.000	1.050	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.990	0.610	0.750	0.020	1.320	**W**	
1	CO 60	26.500	1.000	23.300	1.200	1.130	**W**	A
1	CS134	75.100	1.950	66.000	2.600	1.130	**A**	
1	CS137	40.300	1.600	34.300	1.700	1.170	**A**	W
1	MN 54	44.800	1.700	37.800	1.900	1.180	**W**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BS B&W Nuclear Envir. Services, Leechburg, PA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CO 57	12.330	0.060	12.640	0.430	0.970	**A**	A
1	CO 60	9.820	0.130	10.730	1.090	0.910	**A**	A
1	CS134	26.850	0.180	28.170	0.730	0.950	**A**	A
1	CS137	6.820	0.090	7.310	0.250	0.930	**A**	A
1	GA	2.030	0.010	1.490	0.090	1.360	**W**	A
1	GB	3.540	0.010	3.000	0.140	1.170	**A**	A
1	MN 54	7.070	0.120	6.720	0.270	1.050	**A**	W
1	SB125	11.190	0.230	16.120	0.790	0.690	**W**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	129.260	1.800	6.040	0.580	*.***	**N**	A
1	CO 60	197.040	2.040	1.500	0.400	*.***	**N**	A
1	CS137	962.960	3.470	810.000	40.000	1.180	**A**	A
1	K 40	320.000	10.400	315.000	20.000	1.010	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	5.630	1.190	3.460	0.250	1.620	**W**	W
1	CO 60	22.650	1.740	32.400	1.600	0.690	**W**	A
1	CS137	461.110	2.950	624.000	31.000	0.730	**N**	W
1	K 40	862.960	19.420	1130.000	70.000	0.760	**N**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	1.120	0.210	0.750	0.020	1.490	**W**	A
1	CO 60	22.960	0.420	23.300	1.200	0.980	**A**	A
1	CS134	70.000	0.590	66.000	2.600	1.060	**A**	A
1	CS137	34.110	0.390	34.300	1.700	0.990	**A**	A
1	GA	606.470	4.970	557.000	60.000	1.080	**A**	W
1	GB	848.160	4.660	712.000	70.000	1.190	**A**	A
1	MN 54	40.370	0.540	37.800	1.900	1.060	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BU Autoridad Regulatoria, Buenos Aires, Argentina

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	19.000	2.000	19.120	0.700	0.990	**A**	
1	CO 57	12.000	2.000	12.640	0.430	0.940	**A**	N
1	CO 60	10.000	1.000	10.730	1.090	0.930	**A**	W
1	CS134	26.000	3.000	28.170	0.730	0.920	**A**	A
1	CS137	7.200	0.800	7.310	0.250	0.980	**A**	W
1	GA	1.310	0.080	1.490	0.090	0.870	**A**	
1	GB	2.600	0.300	3.000	0.140	0.860	**A**	
1	MN 54	6.600	1.000	6.720	0.270	0.980	**A**	W
1	PU238	0.110	0.020	0.210	0.007	0.500	**N**	A
1	SB125	16.000	2.000	16.120	0.790	0.990	**A**	A
1	U BQ	0.150	0.020	0.110	0.004	1.280	**A**	W
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.600	0.700	6.040	0.580	1.090	**A**	
1	CO 60	1.300	0.300	1.500	0.400	0.860	**W**	
1	CS137	730.000	40.000	810.000	40.000	0.900	**A**	A
1	K 40	270.000	30.000	315.000	20.000	0.850	**A**	A
1	PU238	0.600	0.100	0.440	0.090	1.360	**W**	A
1	PU239	11.000	1.000	10.160	0.370	1.080	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.600	0.200	3.460	0.250	1.040	**A**	A
1	CO 60	32.000	3.000	32.400	1.600	0.980	**A**	W
1	CS137	580.000	30.000	624.000	31.000	0.920	**A**	W
1	K 40	1000.000	100.000	1130.000	70.000	0.880	**W**	N
1	PU238	0.350	0.070	0.400	0.150	0.870	**A**	
1	PU239	5.100	0.300	5.480	0.440	0.930	**A**	A
1	SR 90	1300.000	90.000	1434.000	75.000	0.900	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.850	0.050	0.750	0.020	1.130	**A**	
1	CO 60	24.000	2.000	23.300	1.200	1.030	**A**	
1	CS134	75.000	8.000	66.000	2.600	1.130	**A**	
1	CS137	32.000	3.000	34.300	1.700	0.930	**A**	
1	FE 55	63.000	6.000	115.000	10.000	0.540	**W**	
1	GA	600.000	36.000	557.000	60.000	1.070	**A**	
1	GB	1000.000	100.000	712.000	70.000	1.400	**W**	
1	H 3	122.200	5.000	115.000	6.000	1.060	**A**	
1	MN 54	54.000	10.000	37.800	1.900	1.420	**N**	
1	PU239	0.720	0.040	0.750	0.040	0.960	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BU Autoridad Regulatoria, Buenos Aires, Argentina

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	SR 90	3.400	0.300	2.940	0.180	1.150	**A**	
1	U BQ	0.610	0.060	0.480	0.030	1.270	**W**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BX B&W Nuclear Envir. Services, Lyncyburg, VA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.250	0.010	0.210	0.009	1.170	**A**	W
1	CE144	17.400	0.850	19.120	0.700	0.910	**A**	A
1	CO 57	12.300	0.590	12.640	0.430	0.970	**A**	A
1	CO 60	10.400	0.540	10.730	1.090	0.960	**A**	A
1	CS134	27.000	1.590	28.170	0.730	0.950	**A**	A
1	CS137	7.290	0.480	7.310	0.250	0.990	**A**	A
1	GA	1.500	0.030	1.490	0.090	1.000	**A**	A
1	GB	2.960	0.030	3.000	0.140	0.980	**A**	W
1	MN 54	6.480	0.380	6.720	0.270	0.960	**A**	A
1	PU238	0.230	0.010	0.210	0.007	1.100	**A**	A
1	SB125	14.700	0.770	16.120	0.790	0.910	**A**	A
1	SR 90	2.800	0.600	2.760	0.100	1.010	**A**	A
1	U234	0.080	0.020	0.050	0.001	1.480	**W**	A
1	U238	0.090	0.030	0.050	0.003	1.590	**W**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	9.660	0.880	6.040	0.580	1.590	**W**	N
1	CO 60	2.260	0.640	1.500	0.400	1.500	**W**	W
1	CS137	944.000	62.200	810.000	40.000	1.160	**A**	A
1	K 40	334.000	20.200	315.000	20.000	1.060	**A**	A
1	PU239	14.700	5.180	10.160	0.370	1.440	**W**	W
1	SR 90	36.600	9.880	34.750	1.000	1.050	**A**	N
1	U234	57.700	2.540	37.150	0.640	1.550	**N**	W
1	U238	23.500	1.300	34.900	0.140	0.670	**A**	W
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	7.070	0.740	3.460	0.250	2.040	**W**	N
1	CM244	4.440	0.590	2.750	0.100	1.610	**W**	A
1	CO 60	33.900	2.400	32.400	1.600	1.040	**A**	A
1	CS137	777.000	59.900	624.000	31.000	1.240	**A**	W
1	K 40	1290.000	69.600	1130.000	70.000	1.140	**A**	A
1	PU239	4.660	1.140	5.480	0.440	0.850	**A**	A
1	SR 90	1520.000	108.000	1434.000	75.000	1.050	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.850	0.020	0.750	0.020	1.140	**A**	W
1	CO 60	24.900	1.350	23.300	1.200	1.060	**A**	A
1	CS134	72.900	3.920	66.000	2.600	1.100	**A**	
1	CS137	37.700	2.370	34.300	1.700	1.090	**A**	A
1	FE 55	135.000	11.000	115.000	10.000	1.170	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: BX B&W Nuclear Envir. Services, Lyncyburg, VA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	GA	599.000	16.700	557.000	60.000	1.070	**A**	W
1	GB	955.000	15.800	712.000	70.000	1.340	**A**	A
1	H 3	128.000	13.500	115.000	6.000	1.110	**A**	A
1	MN 54	44.000	2.220	37.800	1.900	1.160	**W**	W
1	PU238	0.780	0.040	0.720	0.020	1.080	**A**	A
1	PU239	0.700	0.040	0.750	0.040	0.930	**A**	A
1	SR 90	2.990	0.590	2.940	0.180	1.010	**A**	A
1	U234	0.350	0.060	0.230	0.020	1.530	**N**	W
1	U238	0.250	0.060	0.240	0.010	1.070	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: CA Atomic Energy Control Board, Ottawa, Canada

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	16.100	2.300	19.120	0.700	0.840	**A**	A
1	CO 57	11.500	0.600	12.640	0.430	0.900	**A**	A
1	CO 60	9.100	1.100	10.730	1.090	0.840	**A**	A
1	CS134	27.200	2.200	28.170	0.730	0.960	**A**	W
1	CS137	6.400	0.700	7.310	0.250	0.870	**A**	A
1	GA	0.990	0.020	1.490	0.090	0.660	**W**	A
1	GB	2.900	0.300	3.000	0.140	0.960	**A**	A
1	MN 54	5.800	0.700	6.720	0.270	0.860	**A**	A
1	SB125	15.800	2.500	16.120	0.790	0.980	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	U UG	3.200	0.300	2.820	0.200	1.130	**W**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.500	3.700	23.300	1.200	1.000	**A**	A
1	CS134	66.000	8.300	66.000	2.600	1.000	**A**	A
1	CS137	36.800	4.400	34.300	1.700	1.070	**A**	A
1	GA	328.000	15.000	557.000	60.000	0.580	**W**	N
1	GB	438.000	48.000	712.000	70.000	0.610	**W**	N
1	H 3	129.000	13.000	115.000	6.000	1.120	**A**	
1	MN 54	39.500	5.000	37.800	1.900	1.040	**A**	A
1	U UG	0.020	0.010	0.020	0.001	1.350	**N**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: CH California State Dept. Health Serv.,Sanitation & Radiation Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.230	0.005	0.210	0.009	1.110	**A**	A
1	CE144	17.300	1.900	19.120	0.700	0.900	**A**	A
1	CO 57	12.400	0.510	12.640	0.430	0.980	**A**	A
1	CO 60	10.000	0.920	10.730	1.090	0.930	**A**	A
1	CS134	27.500	1.000	28.170	0.730	0.970	**A**	A
1	CS137	6.760	0.740	7.310	0.250	0.920	**A**	A
1	GA	1.800	0.060	1.490	0.090	1.200	**A**	A
1	GB	3.140	0.110	3.000	0.140	1.040	**A**	W
1	MN 54	6.750	0.740	6.720	0.270	1.000	**A**	A
1	PU238	0.230	0.010	0.210	0.007	1.090	**A**	A
1	SB125	17.600	2.000	16.120	0.790	1.090	**A**	A
1	SR 90	2.530	0.070	2.760	0.100	0.910	**A**	A
1	U BQ	0.140	0.003	0.110	0.004	1.220	**A**	A
1	U UG	5.040	0.090	4.650	0.210	1.080	**A**	A
1	U234	0.070	0.006	0.050	0.001	1.360	**A**	A
1	U238	0.060	0.003	0.050	0.003	1.120	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	5.810	1.700	6.040	0.580	0.960	**A**	A
1	CO 60	1.650	0.100	1.500	0.400	1.090	**A**	A
1	CS137	798.000	30.000	810.000	40.000	0.980	**A**	A
1	K 40	295.000	19.000	315.000	20.000	0.930	**A**	A
1	PU239	11.400	0.670	10.160	0.370	1.120	**A**	A
1	SR 90	24.800	4.600	34.750	1.000	0.710	**W**	A
1	U BQ	57.800	2.900	72.900	0.850	0.790	**A**	A
1	U UG	2.380	0.200	2.820	0.200	0.840	**A**	A
1	U234	28.700	1.700	37.150	0.640	0.770	**A**	A
1	U238	29.000	1.300	34.900	0.140	0.830	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.170	0.280	3.460	0.250	1.200	**A**	A
1	CM244	2.880	0.120	2.750	0.100	1.040	**A**	A
1	CO 60	34.900	0.810	32.400	1.600	1.070	**A**	W
1	CS137	673.000	7.800	624.000	31.000	1.070	**A**	A
1	K 40	1328.000	50.000	1130.000	70.000	1.170	**A**	A
1	PU239	6.330	0.210	5.480	0.440	1.150	**A**	A
1	SR 90	1269.000	23.000	1434.000	75.000	0.880	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.810	0.030	0.750	0.020	1.080	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: CH California State Dept. Health Serv.,Sanitation & Radiation Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.400	0.300	23.300	1.200	1.000	**A**	A
1	CS134	78.400	0.180	66.000	2.600	1.180	**W**	
1	CS137	34.700	0.490	34.300	1.700	1.010	**A**	A
1	GA	493.000	54.000	557.000	60.000	0.880	**A**	W
1	GB	861.000	24.000	712.000	70.000	1.200	**A**	W
1	H 3	134.000	3.900	115.000	6.000	1.160	**A**	A
1	MN 54	40.000	0.360	37.800	1.900	1.050	**A**	A
1	PU238	0.860	0.040	0.720	0.020	1.190	**W**	A
1	PU239	0.790	0.080	0.750	0.040	1.050	**A**	A
1	SR 90	3.040	0.240	2.940	0.180	1.030	**A**	W
1	U BQ	0.510	0.008	0.480	0.030	1.070	**A**	A
1	U UG	21.400	1.030	0.020	0.001	*.***	**N**	A
1	U234	0.250	0.003	0.230	0.020	1.120	**A**	A
1	U238	0.250	0.005	0.240	0.010	1.050	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: CL Core Laboratories, Casper, WY

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.420	0.110	0.210	0.009	1.970	**N**	W
1	CE144	17.700	1.950	19.120	0.700	0.920	**A**	A
1	CO 57	11.600	0.360	12.640	0.430	0.910	**A**	A
1	CO 60	10.200	0.460	10.730	1.090	0.950	**A**	A
1	CS134	36.700	6.580	28.170	0.730	1.300	**N**	A
1	CS137	7.310	5.000	7.310	0.250	1.000	**A**	A
1	MN 54	7.050	0.560	6.720	0.270	1.040	**A**	A
1	PU238	0.320	0.009	0.210	0.007	1.480	**N**	W
1	SB125	18.000	1.340	16.120	0.790	1.110	**A**	A
1	SR 90	5.130	0.780	2.760	0.100	1.850	**W**	A
1	U BQ	0.130	0.010	0.110	0.004	1.110	**A**	A
1	U234	0.050	0.010	0.050	0.001	0.870	**W**	W
1	U238	0.060	0.010	0.050	0.003	1.040	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.040	1.800	6.040	0.580	1.000	**A**	W
1	CO 60	2.590	0.150	1.500	0.400	1.720	**W**	N
1	CS137	837.000	10.000	810.000	40.000	1.030	**A**	A
1	K 40	345.000	31.000	315.000	20.000	1.090	**A**	W
1	PU239	11.300	2.400	10.160	0.370	1.110	**A**	A
1	SR 90	20.900	5.200	34.750	1.000	0.600	**W**	W
1	U BQ	84.300	2.000	72.900	0.850	1.150	**W**	A
1	U234	43.200	12.600	37.150	0.640	1.160	**W**	A
1	U238	45.300	13.100	34.900	0.140	1.290	**W**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.700	1.700	3.460	0.250	1.350	**A**	A
1	CM244	1.800	0.900	2.750	0.100	0.650	**W**	N
1	CO 60	35.300	4.110	32.400	1.600	1.080	**A**	A
1	CS137	751.000	66.000	624.000	31.000	1.200	**A**	W
1	K 40	1130.000	71.000	1130.000	70.000	1.000	**A**	W
1	PU239	6.000	1.800	5.480	0.440	1.090	**A**	A
1	SR 90	670.000	29.000	1434.000	75.000	0.460	**N**	N
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.790	0.180	0.750	0.020	1.050	**A**	A
1	CO 60	26.000	0.590	23.300	1.200	1.110	**A**	W
1	CS134	78.500	1.200	66.000	2.600	1.180	**W**	
1	CS137	41.000	1.000	34.300	1.700	1.190	**W**	W
1	FE 55	120.000	10.000	115.000	10.000	1.040	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: CL Core Laboratories, Casper, WY

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	H 3	107.000	12.000	115.000	6.000	0.930	**A**	N
1	MN 54	45.500	1.200	37.800	1.900	1.200	**W**	A
1	PU238	0.560	0.150	0.720	0.020	0.770	**W**	A
1	PU239	0.680	0.160	0.750	0.040	0.900	**A**	A
1	SR 90	3.700	1.100	2.940	0.180	1.250	**A**	A
1	U BQ	0.390	0.080	0.480	0.030	0.810	**W**	W
1	U234	0.190	0.080	0.230	0.020	0.820	**W**	A
1	U238	0.200	0.080	0.240	0.010	0.830	**W**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: CN China Institute for Radiation Protection

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.820	0.070	0.210	0.009	3.840	**N**	
1	CO 57	19.830	0.690	12.640	0.430	1.560	**N**	W
1	CO 60	10.890	0.410	10.730	1.090	1.010	**A**	W
1	CS134	30.520	1.200	28.170	0.730	1.080	**A**	W
1	CS137	7.140	0.340	7.310	0.250	0.970	**A**	W
1	MN 54	9.770	0.400	6.720	0.270	1.450	**N**	W
1	SB125	19.340	0.930	16.120	0.790	1.190	**W**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	9.000	0.800	6.040	0.580	1.490	**A**	A
1	CO 60	1.180	0.320	1.500	0.400	0.780	**N**	A
1	CS137	868.300	31.000	810.000	40.000	1.070	**A**	A
1	K 40	369.000	16.000	315.000	20.000	1.170	**A**	W
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	7.860	0.710	3.460	0.250	2.270	**W**	W
1	CO 60	31.600	1.600	32.400	1.600	0.970	**A**	A
1	CS137	723.000	27.000	624.000	31.000	1.150	**A**	A
1	K 40	1208.000	64.000	1130.000	70.000	1.060	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: CO Bedford Institute of Oceanography, Dartmouth. Nova Scotia, Canada

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	20.000	4.000	19.120	0.700	1.040	**A**	N
1	CO 57	16.000	1.000	12.640	0.430	1.260	**W**	N
1	CO 60	11.200	0.400	10.730	1.090	1.040	**A**	N
1	CS134	26.000	1.000	28.170	0.730	0.920	**A**	N
1	CS137	7.500	0.200	7.310	0.250	1.020	**A**	W
1	MN 54	7.300	0.200	6.720	0.270	1.080	**A**	N
1	SB125	18.000	1.000	16.120	0.790	1.110	**A**	W
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.000	1.000	6.040	0.580	0.990	**A**	A
1	CS137	866.000	56.000	810.000	40.000	1.060	**A**	A
1	PU238	0.500	0.200	0.440	0.090	1.130	**A**	W
1	PU239	11.000	1.000	10.160	0.370	1.080	**A**	W
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.000	1.000	3.460	0.250	1.150	**A**	A
1	CO 60	34.000	4.000	32.400	1.600	1.040	**A**	A
1	CS137	697.000	17.000	624.000	31.000	1.110	**A**	A
1	PU239	6.000	1.000	5.480	0.440	1.090	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: CR Laboratorio de Fisica Nuclear Aplicada, Costa Rica

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CO 60	13.200	0.600	10.730	1.090	1.230	**W**	N
1	CS134	34.100	1.300	28.170	0.730	1.210	**W**	N
1	CS137	8.800	0.400	7.310	0.250	1.200	**W**	N
1	MN 54	7.700	0.400	6.720	0.270	1.140	**W**	N
1	SB125	21.600	1.000	16.120	0.790	1.330	**W**	N
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	893.100	28.600	810.000	40.000	1.100	**A**	W
1	K 40	302.600	49.000	315.000	20.000	0.960	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	32.300	4.100	32.400	1.600	0.990	**A**	A
1	CS137	710.300	28.600	624.000	31.000	1.130	**A**	A
1	K 40	1193.000	91.000	1130.000	70.000	1.050	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: CS Rockwell International Corp., Canoga Park, CA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.180	0.020	0.210	0.009	0.840	**A**	W
1	CE144	12.160	0.560	19.120	0.700	0.630	**W**	A
1	CO 57	8.320	0.270	12.640	0.430	0.650	**W**	A
1	CO 60	7.890	0.260	10.730	1.090	0.730	**N**	A
1	CS134	21.370	0.470	28.170	0.730	0.750	**W**	A
1	CS137	5.320	0.240	7.310	0.250	0.720	**W**	A
1	GA	1.780	0.080	1.490	0.090	1.190	**A**	A
1	GB	4.510	0.340	3.000	0.140	1.500	**W**	W
1	MN 54	5.150	0.220	6.720	0.270	0.760	**W**	A
1	SB125	13.020	0.320	16.120	0.790	0.800	**W**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	5.590	0.450	6.040	0.580	0.920	**A**	A
1	CO 60	1.810	0.100	1.500	0.400	1.200	**A**	A
1	CS137	796.800	34.420	810.000	40.000	0.980	**A**	A
1	K 40	313.300	14.260	315.000	20.000	0.990	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.060	0.440	3.460	0.250	0.880	**A**	
1	CO 60	30.360	1.040	32.400	1.600	0.930	**A**	A
1	CS137	587.400	25.430	624.000	31.000	0.940	**A**	A
1	K 40	1077.000	48.360	1130.000	70.000	0.950	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	1.080	0.140	0.750	0.020	1.440	**W**	A
1	CO 60	24.080	0.780	23.300	1.200	1.030	**A**	A
1	CS134	66.920	1.320	66.000	2.600	1.010	**A**	A
1	CS137	35.320	1.550	34.300	1.700	1.020	**A**	A
1	MN 54	42.210	1.760	37.800	1.900	1.110	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: CZ

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	H 3	114.000	22.000	115.000	6.000	0.990	**A**	N
1	U UG	0.020	0.001	0.020	0.001	1.010	**A**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: DC Datachem Laboratories, Salt Lake City

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.050	0.010	0.210	0.009	0.240	**N**	A
1	CE144	26.200	9.130	19.120	0.700	1.370	**N**	N
1	CO 57	13.400	2.880	12.640	0.430	1.060	**A**	N
1	CO 60	10.400	2.180	10.730	1.090	0.960	**A**	W
1	CS134	27.900	6.720	28.170	0.730	0.990	**A**	A
1	CS137	7.590	1.590	7.310	0.250	1.030	**A**	W
1	GA	1.480	0.290	1.490	0.090	0.990	**A**	A
1	GB	2.630	0.520	3.000	0.140	0.870	**A**	A
1	MN 54	7.640	2.130	6.720	0.270	1.130	**W**	W
1	PU238	0.040	0.010	0.210	0.007	0.200	**N**	A
1	PU239	0.020	0.007	0.100	0.004	0.210	**N**	A
1	SB125	19.500	6.140	16.120	0.790	1.200	**W**	W
1	SR 90	2.650	0.250	2.760	0.100	0.960	**A**	A
1	U UG	0.430	0.040	4.650	0.210	0.090	**N**	A
1	U234	0.010	0.006	0.050	0.001	0.280	**N**	A
1	U238	0.010	0.005	0.050	0.003	0.260	**N**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	8.470	2.090	6.040	0.580	1.400	**A**	W
1	CO 60	1.100	0.730	1.500	0.400	0.730	**N**	W
1	CS137	1070.000	309.000	810.000	40.000	1.320	**W**	W
1	K 40	329.000	149.000	315.000	20.000	1.040	**A**	A
1	PU238	0.710	0.740	0.440	0.090	1.630	**W**	W
1	PU239	11.300	2.710	10.160	0.370	1.110	**A**	A
1	SR 90	32.900	4.500	34.750	1.000	0.940	**A**	A
1	U UG	3.200	0.480	2.820	0.200	1.130	**W**	A
1	U234	51.800	7.650	37.150	0.640	1.390	**W**	W
1	U238	59.200	8.570	34.900	0.140	1.690	**N**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	38.200	5.880	3.460	0.250	*.***	**N**	A
1	CM244	30.600	4.960	2.750	0.100	*.***	**N**	A
1	CO 60	80.300	21.600	32.400	1.600	2.470	**N**	W
1	CS137	944.000	365.000	624.000	31.000	1.510	**N**	N
1	K 40	1060.000	309.000	1130.000	70.000	0.930	**A**	A
1	PU239	6.010	0.880	5.480	0.440	1.090	**A**	A
1	SR 90	628.000	48.200	1434.000	75.000	0.430	**N**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.730	0.110	0.750	0.020	0.980	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: DC Datachem Laboratories, Salt Lake City

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	22.600	4.710	23.300	1.200	0.960	**A**	A
1	CS134	63.500	15.200	66.000	2.600	0.960	**A**	
1	CS137	35.800	7.800	34.300	1.700	1.040	**A**	A
1	GA	696.000	137.000	557.000	60.000	1.240	**W**	W
1	GB	1079.000	212.000	712.000	70.000	1.510	**W**	A
1	H 3	177.000	12.300	115.000	6.000	1.530	**W**	W
1	MN 54	40.900	12.200	37.800	1.900	1.080	**A**	A
1	PU238	0.640	0.120	0.720	0.020	0.890	**W**	W
1	PU239	0.710	0.130	0.750	0.040	0.950	**A**	A
1	SR 90	2.920	0.420	2.940	0.180	0.990	**A**	A
1	U UG	0.010	0.002	0.020	0.001	0.940	**A**	A
1	U234	0.290	0.060	0.230	0.020	1.290	**W**	A
1	U238	0.250	0.050	0.240	0.010	1.070	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: DH Duke Engineering Services Hanford

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	GA	1.740	0.180	1.490	0.090	1.160	**A**	
1	GB	3.270	0.340	3.000	0.140	1.080	**A**	
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	2.740	0.920	1.500	0.400	1.820	**W**	
1	CS137	851.000	96.900	810.000	40.000	1.050	**A**	A
1	K 40	323.000	47.200	315.000	20.000	1.020	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	24.900	2.360	23.300	1.200	1.060	**A**	A
1	CS134	73.100	6.310	66.000	2.600	1.100	**A**	
1	CS137	37.100	3.210	34.300	1.700	1.080	**A**	W
1	MN 54	42.300	3.510	37.800	1.900	1.110	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: DP Duke Power Company, Huntersville, NC

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	GA	1.740	0.030	1.490	0.090	1.160	**A**	A
2		1.800	0.030	1.490	0.090	1.200	**A**	A
1	GB	3.150	0.030	3.000	0.140	1.050	**A**	N
2		3.200	0.030	3.000	0.140	1.060	**A**	N
3		3.300	0.030	3.000	0.140	1.090	**A**	N
1	SR 90	2.630	0.110	2.760	0.100	0.950	**A**	
2		2.640	0.100	2.760	0.100	0.950	**A**	
3		2.650	0.100	2.760	0.100	0.960	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	25.300	1.550	23.300	1.200	1.080	**A**	A
2		26.300	1.290	23.300	1.200	1.120	**A**	A
3		29.600	1.260	23.300	1.200	1.270	**N**	A
1	CS134	68.800	1.530	66.000	2.600	1.040	**A**	A
2		73.600	1.690	66.000	2.600	1.110	**A**	A
3		75.100	1.930	66.000	2.600	1.130	**A**	A
1	CS137	34.300	1.260	34.300	1.700	1.000	**A**	A
2		37.100	1.660	34.300	1.700	1.080	**A**	A
3		37.700	1.190	34.300	1.700	1.090	**A**	A
1	FE 55	166.100	5.000	115.000	10.000	1.440	**W**	
2		179.800	5.000	115.000	10.000	1.560	**N**	
1	GA	1088.000	31.880	557.000	60.000	1.950	**N**	W
2		1141.000	32.450	557.000	60.000	2.040	**N**	W
3		1203.000	33.300	557.000	60.000	2.150	**N**	W
1	GB	2459.000	37.320	712.000	70.000	3.450	**N**	W
2		2539.000	37.860	712.000	70.000	3.560	**N**	W
3		2577.000	38.230	712.000	70.000	3.610	**N**	W
1	H 3	132.600	3.360	115.000	6.000	1.150	**A**	A
2		134.800	3.510	115.000	6.000	1.170	**A**	A
3		138.800	3.610	115.000	6.000	1.200	**A**	A
1	MN 54	42.000	1.380	37.800	1.900	1.110	**A**	A
2		44.400	1.730	37.800	1.900	1.170	**W**	A
3		47.400	1.380	37.800	1.900	1.250	**N**	A
1	SR 90	2.700	0.700	2.940	0.180	0.910	**A**	A
2		3.200	0.730	2.940	0.180	1.080	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: EG LMITCO/INEL, Scoville

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.220	0.000	0.210	0.009	1.060	**A**	A
1	CE144	16.600	0.400	19.120	0.700	0.860	**A**	A
1	CO 57	11.900	0.100	12.640	0.430	0.940	**A**	A
1	CO 60	9.900	0.100	10.730	1.090	0.920	**A**	A
1	CS134	25.600	0.200	28.170	0.730	0.900	**A**	A
1	CS137	6.800	0.100	7.310	0.250	0.930	**A**	A
1	GA	1.610	0.120	1.490	0.090	1.080	**A**	A
1	GB	3.610	0.210	3.000	0.140	1.200	**A**	W
1	MN 54	6.800	0.100	6.720	0.270	1.010	**A**	A
1	PU238	0.230	0.000	0.210	0.007	1.080	**A**	W
1	SB125	15.000	0.200	16.120	0.790	0.930	**A**	W
1	SR 90	2.660	0.000	2.760	0.100	0.960	**A**	A
1	U234	0.060	0.000	0.050	0.001	1.100	**A**	
1	U238	0.060	0.000	0.050	0.003	1.090	**A**	
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.560	0.000	6.040	0.580	1.080	**A**	A
1	CO 60	2.000	1.400	1.500	0.400	1.330	**W**	
1	CS137	907.000	15.000	810.000	40.000	1.110	**A**	A
1	K 40	337.000	42.000	315.000	20.000	1.060	**A**	A
1	PU239	11.170	0.000	10.160	0.370	1.090	**A**	A
1	SR 90	100.000	0.000	34.750	1.000	2.870	**N**	N
1	U234	39.700	0.000	37.150	0.640	1.060	**A**	
1	U238	40.500	0.000	34.900	0.140	1.160	**W**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.970	0.000	3.460	0.250	1.140	**A**	A
1	CM244	4.010	0.000	2.750	0.100	1.450	**W**	A
1	CO 60	34.000	3.000	32.400	1.600	1.040	**A**	A
1	CS137	637.000	15.000	624.000	31.000	1.020	**A**	A
1	K 40	1094.000	84.000	1130.000	70.000	0.960	**A**	A
1	PU239	6.230	0.000	5.480	0.440	1.130	**A**	A
1	SR 90	1550.000	0.000	1434.000	75.000	1.080	**A**	N
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.750	0.000	0.750	0.020	1.000	**A**	A
1	CO 60	23.300	0.700	23.300	1.200	1.000	**A**	A
1	CS134	68.600	1.000	66.000	2.600	1.030	**A**	A
1	CS137	34.800	1.000	34.300	1.700	1.010	**A**	A
1	GA	563.000	0.000	557.000	60.000	1.010	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: EG LMITCO/INEL, Scoville

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	GB	1030.000	0.000	712.000	70.000	1.440	**W**	A
1	H 3	134.000	0.000	115.000	6.000	1.160	**A**	A
1	MN 54	39.500	1.300	37.800	1.900	1.040	**A**	A
1	PU238	0.780	0.000	0.720	0.020	1.080	**A**	A
1	PU239	0.700	0.000	0.750	0.040	0.930	**A**	A
1	SR 90	3.700	0.000	2.940	0.180	1.250	**A**	A
1	U234	0.240	0.000	0.230	0.020	1.040	**A**	
1	U238	0.250	0.000	0.240	0.010	1.070	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: EI Eichrom Industries, Inc., Argonne

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	GA	1.760	0.180	1.490	0.090	1.180	**A**	W
1	SR 90	2.490	0.150	2.760	0.100	0.900	**A**	N
Matrix:	**WA**	**Water Bq/L**						
1	GA	692.230	71.090	557.000	60.000	1.240	**W**	W
1	H 3	386.930	21.290	115.000	6.000	3.360	**N**	W
1	SR 90	3.470	0.270	2.940	0.180	1.180	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: EP US EPA, Las Vegas

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix: AI Air Filter Bq/filter								
1	CO 57	11.100	1.300	12.640	0.430	0.870	**A**	N
1	CO 60	9.400	1.200	10.730	1.090	0.870	**A**	N
1	CS134	24.000	2.900	28.170	0.730	0.850	**A**	N
1	CS137	6.300	0.900	7.310	0.250	0.860	**A**	W
Matrix: WA Water Bq/L								
1	CO 60	23.800	3.000	23.300	1.200	1.020	**A**	N
1	CS134	67.200	8.000	66.000	2.600	1.010	**A**	
1	CS137	35.000	4.000	34.300	1.700	1.020	**A**	W
1	H 3	126.000	7.000	115.000	6.000	1.090	**A**	A
1	SR 90	3.490	0.730	2.940	0.180	1.180	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: ES Environmental Sci. & Engr., Inc., Gainesville, FL

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.040	0.210	0.009	0.930	**A**	A
1	CE144	19.490	2.160	19.120	0.700	1.010	**A**	A
1	CO 57	13.730	1.510	12.640	0.430	1.080	**A**	A
1	CO 60	10.800	1.190	10.730	1.090	1.000	**A**	A
1	CS134	27.520	3.020	28.170	0.730	0.970	**A**	A
1	CS137	8.040	0.890	7.310	0.250	1.090	**A**	A
1	GA	1.730	0.300	1.490	0.090	1.160	**A**	A
1	GB	3.690	0.640	3.000	0.140	1.230	**A**	A
1	MN 54	7.390	0.820	6.720	0.270	1.090	**A**	A
1	PU238	0.200	0.040	0.210	0.007	0.920	**A**	A
1	SB125	16.750	1.850	16.120	0.790	1.030	**A**	A
1	SR 90	4.630	1.340	2.760	0.100	1.670	**W**	A
1	U BQ	0.140	0.040	0.110	0.004	1.200	**A**	
1	U UG	9.510	1.900	4.650	0.210	2.040	**N**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.180	1.100	6.040	0.580	1.020	**A**	W
1	CO 60	2.360	1.450	1.500	0.400	1.570	**W**	A
1	CS137	871.970	96.570	810.000	40.000	1.070	**A**	A
1	K 40	343.110	57.030	315.000	20.000	1.080	**A**	A
1	PU239	13.250	2.600	10.160	0.370	1.300	**W**	A
1	SR 90	32.190	10.910	34.750	1.000	0.920	**A**	A
1	U BQ	58.670	10.700	72.900	0.850	0.800	**A**	
1	U UG	2.950	0.590	2.820	0.200	1.040	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.880	0.730	3.460	0.250	1.120	**A**	A
1	CM244	2.420	0.510	2.750	0.100	0.880	**A**	W
1	CO 60	35.690	5.810	32.400	1.600	1.100	**A**	A
1	CS137	683.270	76.910	624.000	31.000	1.090	**A**	A
1	K 40	1166.730	160.930	1130.000	70.000	1.030	**A**	A
1	PU239	6.150	1.150	5.480	0.440	1.120	**A**	A
1	SR 90	1205.580	324.560	1434.000	75.000	0.840	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.690	0.130	0.750	0.020	0.910	**A**	W
1	CO 60	23.030	2.580	23.300	1.200	0.980	**A**	A
1	CS134	66.720	7.330	66.000	2.600	1.010	**A**	
1	CS137	35.090	3.930	34.300	1.700	1.020	**A**	A
1	GA	624.780	103.120	557.000	60.000	1.120	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: ES Environmental Sci. & Engr., Inc., Gainesville, FL

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	GB	932.030	137.960	712.000	70.000	1.300	**A**	A
1	H 3	104.610	41.700	115.000	6.000	0.900	**A**	W
1	MN 54	38.810	4.340	37.800	1.900	1.020	**A**	A
1	PU238	0.730	0.130	0.720	0.020	1.010	**A**	A
1	PU239	0.760	0.140	0.750	0.040	1.010	**A**	A
1	SR 90	8.130	2.370	2.940	0.180	2.760	**N**	A
1	U UG	****.***	***.***	0.020	0.001	*.***	**N**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: FG FGL Environmental, Santa Paula, CA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.450	0.200	0.210	0.009	2.110	**N**	A
1	CE144	16.600	2.400	19.120	0.700	0.860	**A**	A
1	CO 57	11.900	1.500	12.640	0.430	0.940	**A**	A
1	CO 60	9.200	3.100	10.730	1.090	0.850	**A**	A
1	CS134	23.300	6.200	28.170	0.730	0.820	**A**	W
1	CS137	7.100	1.800	7.310	0.250	0.970	**A**	W
1	GA	1.550	0.100	1.490	0.090	1.040	**A**	A
1	GB	2.950	0.100	3.000	0.140	0.980	**A**	N
1	MN 54	5.900	1.400	6.720	0.270	0.870	**A**	N
1	SB125	14.200	3.500	16.120	0.790	0.880	**A**	W
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	3.840	1.100	6.040	0.580	0.630	**W**	A
1	CO 60	0.940	0.400	1.500	0.400	0.620	**N**	A
1	CS137	750.000	50.000	810.000	40.000	0.920	**A**	N
1	K 40	274.000	30.000	315.000	20.000	0.860	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.750	0.250	0.750	0.020	1.000	**A**	N
1	CO 60	24.200	1.070	23.300	1.200	1.030	**A**	W
1	CS134	72.620	3.360	66.000	2.600	1.100	**A**	A
1	CS137	39.640	1.630	34.300	1.700	1.150	**A**	W
1	GA	623.450	26.000	557.000	60.000	1.110	**A**	W
1	GB	814.000	37.000	712.000	70.000	1.140	**A**	W
1	MN 54	44.570	1.830	37.800	1.900	1.170	**W**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: FJ University of the South Pacific, Fiji Islands

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix: AI Air Filter Bq/filter								
1	AM241	0.920	0.150	0.210	0.009	4.310	**N**	
1	CE144	18.000	2.000	19.120	0.700	0.940	**A**	
1	CO 60	12.200	0.100	10.730	1.090	1.130	**W**	
1	CS134	25.000	2.000	28.170	0.730	0.880	**A**	
1	CS137	9.100	0.200	7.310	0.250	1.240	**W**	
1	MN 54	8.000	0.300	6.720	0.270	1.190	**W**	
1	SB125	19.700	0.500	16.120	0.790	1.220	**W**	
Matrix: SO Soil Bq/kg								
1	AM241	5.500	0.100	6.040	0.580	0.910	**A**	
1	CO 60	1.930	0.400	1.500	0.400	1.280	**A**	
1	CS137	788.000	9.000	810.000	40.000	0.970	**A**	
1	K 40	313.000	22.000	315.000	20.000	0.990	**A**	
1	U BQ	35.000	1.000	72.900	0.850	0.480	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: FL Florida Dept of Health & Rehab. Serv., Orlando

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.440	0.050	0.210	0.009	2.060	**N**	N
1	CE144	15.700	0.300	19.120	0.700	0.820	**A**	W
1	CO 57	10.330	0.050	12.640	0.430	0.810	**A**	W
1	CO 60	9.170	0.120	10.730	1.090	0.850	**A**	W
1	CS134	21.900	0.170	28.170	0.730	0.770	**W**	A
1	CS137	6.900	0.100	7.310	0.250	0.940	**A**	W
1	GA	1.470	0.040	1.490	0.090	0.980	**A**	A
1	GB	3.280	0.050	3.000	0.140	1.090	**A**	A
1	MN 54	6.300	0.100	6.720	0.270	0.930	**A**	W
1	PU238	0.210	0.007	0.210	0.007	1.000	**A**	W
1	PU239	0.110	0.005	0.100	0.004	1.030	**A**	W
1	SB125	13.900	0.400	16.120	0.790	0.860	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	5.700	0.600	6.040	0.580	0.940	**A**	A
1	CO 60	1.600	0.200	1.500	0.400	1.060	**A**	
1	CS137	838.000	2.000	810.000	40.000	1.030	**A**	A
1	K 40	306.000	5.000	315.000	20.000	0.970	**A**	A
1	U238	27.700	3.700	34.900	0.140	0.790	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	5.300	0.700	3.460	0.250	1.530	**A**	W
1	CO 60	34.900	0.500	32.400	1.600	1.070	**A**	A
1	CS137	738.000	2.000	624.000	31.000	1.180	**A**	A
1	K 40	1183.000	10.000	1130.000	70.000	1.040	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	25.700	0.300	23.300	1.200	1.100	**A**	A
1	CS134	74.500	0.500	66.000	2.600	1.120	**A**	A
1	CS137	39.300	0.600	34.300	1.700	1.140	**A**	A
1	GA	841.620	12.750	557.000	60.000	1.510	**N**	W
1	GB	1060.000	9.400	712.000	70.000	1.480	**W**	A
1	H 3	112.000	1.700	115.000	6.000	0.970	**A**	A
1	MN 54	45.300	0.600	37.800	1.900	1.190	**W**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: FM Florida Mobile Emergency Radiological Laboratory, Orlando

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix: AI Air Filter Bq/filter								
1	CE144	16.600	0.400	19.120	0.700	0.860	**A**	A
1	CO 57	11.100	0.200	12.640	0.430	0.870	**A**	A
1	CO 60	9.700	0.100	10.730	1.090	0.900	**A**	A
1	CS134	18.800	0.200	28.170	0.730	0.660	**N**	A
1	CS137	7.100	0.200	7.310	0.250	0.970	**A**	A
1	MN 54	6.800	0.200	6.720	0.270	1.010	**A**	W
1	SB125	17.200	0.300	16.120	0.790	1.060	**A**	A
Matrix: WA Water Bq/L								
1	CO 60	25.300	0.010	23.300	1.200	1.080	**A**	A
1	CS134	76.300	0.040	66.000	2.600	1.150	**A**	A
1	CS137	39.900	0.030	34.300	1.700	1.160	**A**	A
1	MN 54	43.200	0.030	37.800	1.900	1.140	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: FN Fermi Lab, Batavia, IL

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	22.640	1.900	19.120	0.700	1.180	**W**	A
1	CO 57	11.850	1.010	12.640	0.430	0.940	**A**	A
1	CO 60	10.500	0.870	10.730	1.090	0.980	**A**	A
1	CS134	28.650	1.960	28.170	0.730	1.020	**A**	A
1	CS137	7.220	0.752	7.310	0.250	0.990	**A**	A
1	MN 54	6.650	0.730	6.720	0.270	0.990	**A**	A
1	SB125	19.800	0.890	16.120	0.790	1.230	**W**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.600	2.270	6.040	0.580	1.090	**A**	A
1	CS137	813.000	81.000	810.000	40.000	1.000	**A**	A
1	K 40	291.000	30.000	315.000	20.000	0.920	**A**	A
1	U238	29.400	2.100	34.900	0.140	0.840	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	30.800	2.400	32.400	1.600	0.950	**A**	A
1	CS137	603.000	60.000	624.000	31.000	0.960	**A**	A
1	K 40	1080.000	110.000	1130.000	70.000	0.950	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	22.900	1.700	23.300	1.200	0.980	**A**	A
1	CS134	68.300	4.100	66.000	2.600	1.030	**A**	A
1	CS137	35.200	3.600	34.300	1.700	1.020	**A**	A
1	H 3	126.000	11.000	115.000	6.000	1.090	**A**	A
1	MN 54	39.000	4.000	37.800	1.900	1.030	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: FR Service Mixte de Surveillance Radiologique et Biologique (SMSRB), France

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.130	0.020	0.210	0.009	0.640	**N**	A
1	CE144	12.890	1.420	19.120	0.700	0.670	**A**	A
1	CO 57	8.520	0.850	12.640	0.430	0.670	**W**	A
1	CO 60	7.690	0.770	10.730	1.090	0.710	**N**	A
1	CS134	17.890	1.780	28.170	0.730	0.630	**N**	A
1	CS137	4.840	0.480	7.310	0.250	0.660	**N**	A
1	GA	1.360	0.210	1.490	0.090	0.910	**A**	
1	GB	2.990	0.450	3.000	0.140	0.990	**A**	
1	MN 54	4.570	0.500	6.720	0.270	0.680	**N**	A
1	SB125	12.250	1.340	16.120	0.790	0.760	**W**	A
1	U BQ	0.150	0.020	0.110	0.004	1.310	**A**	
1	U234	0.070	0.010	0.050	0.001	1.250	**A**	
1	U238	0.070	0.010	0.050	0.003	1.330	**W**	
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.650	1.140	6.040	0.580	1.100	**A**	A
1	CO 60	0.980	0.390	1.500	0.400	0.650	**N**	N
1	CS137	853.690	85.400	810.000	40.000	1.050	**A**	A
1	K 40	328.220	36.100	315.000	20.000	1.040	**A**	A
1	PU239	11.860	1.420	10.160	0.370	1.160	**A**	W
1	U BQ	57.590	6.700	72.900	0.850	0.780	**A**	
1	U234	28.190	4.600	37.150	0.640	0.750	**A**	
1	U238	28.150	2.040	34.900	0.140	0.800	**A**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.370	0.960	3.460	0.250	1.260	**A**	A
1	CO 60	31.080	2.800	32.400	1.600	0.950	**A**	A
1	CS137	650.570	71.600	624.000	31.000	1.040	**A**	A
1	K 40	1141.500	125.000	1130.000	70.000	1.010	**A**	A
1	PU239	6.430	1.280	5.480	0.440	1.170	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.930	0.160	0.750	0.020	1.240	**W**	
1	CO 60	22.810	2.050	23.300	1.200	0.970	**A**	
1	CS134	67.120	6.710	66.000	2.600	1.010	**A**	
1	CS137	34.290	2.100	34.300	1.700	0.990	**A**	
1	GA	319.000	64.000	557.000	60.000	0.570	**W**	
1	GB	856.000	171.000	712.000	70.000	1.200	**A**	
1	H 3	480.700	39.000	115.000	6.000	4.180	**N**	
1	MN 54	37.860	3.750	37.800	1.900	1.000	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: FR Service Mixte de Surveillance Radiologique et Biologique (SMSRB), France

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	PU238	0.730	0.070	0.720	0.020	1.010	**A**	
1	PU239	0.770	0.070	0.750	0.040	1.030	**A**	
1	U BQ	0.490	0.090	0.480	0.030	1.020	**A**	
1	U234	0.240	0.030	0.230	0.020	1.060	**A**	
1	U238	0.230	0.040	0.240	0.010	0.970	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: FS Florida State University, Tallahassee

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**SO**	**Soil**	**Bq/kg**					
1	AM241	6.100	0.400	6.040	0.580	1.000	**A**	A
1	CS137	749.000	6.000	810.000	40.000	0.920	**A**	A
1	K 40	287.000	6.000	315.000	20.000	0.910	**A**	A
1	PU238	0.360	0.140	0.440	0.090	0.810	**A**	A
1	PU239	12.300	0.600	10.160	0.370	1.210	**A**	A
1	U234	36.600	1.600	37.150	0.640	0.980	**A**	A
1	U238	38.600	1.600	34.900	0.140	1.100	**W**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: GA Lockheed Martin, Pikton, OH

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.250	0.010	0.210	0.009	1.170	**A**	A
1	CE144	17.000	2.700	19.120	0.700	0.880	**A**	A
1	CO 57	12.000	0.620	12.640	0.430	0.940	**A**	A
1	CO 60	9.500	0.580	10.730	1.090	0.880	**A**	A
1	CS134	24.000	2.400	28.170	0.730	0.850	**A**	A
1	CS137	6.500	0.560	7.310	0.250	0.880	**A**	A
1	MN 54	6.100	1.300	6.720	0.270	0.900	**A**	A
1	PU238	0.260	0.010	0.210	0.007	1.200	**W**	W
1	SB125	13.000	2.600	16.120	0.790	0.800	**W**	A
1	SR 90	2.400	0.100	2.760	0.100	0.860	**A**	A
1	U UG	5.100	0.320	4.650	0.210	1.090	**A**	
1	U234	0.070	0.003	0.050	0.001	1.340	**A**	A
1	U238	0.060	0.004	0.050	0.003	1.110	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	7.430	0.770	6.040	0.580	1.230	**A**	A
1	CS137	895.000	43.000	810.000	40.000	1.100	**A**	A
1	K 40	302.000	83.000	315.000	20.000	0.950	**A**	A
1	PU239	9.760	0.680	10.160	0.370	0.960	**A**	A
1	U UG	2.770	0.000	2.820	0.200	0.980	**A**	A
1	U234	37.000	1.900	37.150	0.640	0.990	**A**	W
1	U238	37.000	2.700	34.900	0.140	1.060	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.370	0.400	3.460	0.250	1.260	**A**	A
1	CM244	2.920	0.300	2.750	0.100	1.060	**A**	A
1	CO 60	37.000	11.000	32.400	1.600	1.140	**A**	W
1	CS137	703.000	37.000	624.000	31.000	1.120	**A**	A
1	K 40	1251.000	167.000	1130.000	70.000	1.100	**A**	A
1	PU239	6.140	0.410	5.480	0.440	1.120	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.790	0.020	0.750	0.020	1.050	**A**	A
1	CO 60	26.000	4.600	23.300	1.200	1.110	**A**	A
1	CS134	66.000	9.200	66.000	2.600	1.000	**A**	
1	CS137	35.000	5.100	34.300	1.700	1.020	**A**	A
1	MN 54	40.000	14.000	37.800	1.900	1.050	**A**	A
1	PU238	0.840	0.140	0.720	0.020	1.160	**W**	A
1	PU239	0.870	0.130	0.750	0.040	1.160	**A**	A
1	SR 90	2.000	0.320	2.940	0.180	0.680	**N**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: GA Lockheed Martin, Pikton, OH

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	U UG	0.020	0.002	0.020	0.001	1.200	**W**	A
1	U234	0.310	0.020	0.230	0.020	1.340	**W**	A
1	U238	0.290	0.020	0.240	0.010	1.200	**W**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: GC Georgia Power Company Environmental Lab

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.510		1.500	0.400	1.000	**A**	
1	CS137	854.460		810.000	40.000	1.050	**A**	
1	K 40	340.260		315.000	20.000	1.080	**A**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	31.610		32.400	1.600	0.970	**A**	
1	CS137	639.650		624.000	31.000	1.020	**A**	
1	K 40	1151.400		1130.000	70.000	1.010	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.520		23.300	1.200	1.000	**A**	
1	CS134	65.880		66.000	2.600	0.990	**A**	
1	CS137	34.590		34.300	1.700	1.000	**A**	
1	GA	682.650		557.000	60.000	1.220	**W**	
1	GB	923.150		712.000	70.000	1.290	**A**	
1	H 3	129.500		115.000	6.000	1.120	**A**	
1	MN 54	39.160		37.800	1.900	1.030	**A**	
1	SR 90	2.720		2.940	0.180	0.920	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: GE Environmental Physics, Inc., Charleston, SC

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.030	0.210	0.009	0.980	**A**	A
1	CE144	15.240	2.620	19.120	0.700	0.790	**A**	A
1	CO 57	11.150	1.020	12.640	0.430	0.880	**A**	A
1	CO 60	9.580	1.010	10.730	1.090	0.890	**A**	A
1	CS134	23.380	0.690	28.170	0.730	0.820	**A**	A
1	CS137	6.260	2.620	7.310	0.250	0.850	**A**	A
1	GA	2.480	0.710	1.490	0.090	1.660	**N**	A
1	GB	2.860	0.720	3.000	0.140	0.950	**A**	A
1	MN 54	6.120	1.470	6.720	0.270	0.910	**A**	A
1	PU238	0.220	0.020	0.210	0.007	1.050	**A**	A
1	SB125	15.810	2.570	16.120	0.790	0.980	**A**	A
1	SR 90	1.800	1.300	2.760	0.100	0.650	**N**	A
1	U UG	5.020	0.270	4.650	0.210	1.070	**A**	A
1	U234	0.060	0.010	0.050	0.001	1.170	**A**	A
1	U238	0.060	0.009	0.050	0.003	1.110	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	5.960	1.530	6.040	0.580	0.980	**A**	A
1	CO 60	1.700	0.710	1.500	0.400	1.130	**A**	W
1	CS137	748.140	73.090	810.000	40.000	0.920	**A**	A
1	K 40	282.300	32.550	315.000	20.000	0.890	**A**	A
1	PU239	12.480	1.570	10.160	0.370	1.220	**A**	A
1	U UG	2.890	0.240	2.820	0.200	1.020	**A**	A
1	U234	34.920	4.070	37.150	0.640	0.930	**A**	A
1	U238	36.830	4.280	34.900	0.140	1.050	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.530	0.630	3.460	0.250	1.020	**A**	A
1	CM244	2.620	0.480	2.750	0.100	0.950	**A**	A
1	CO 60	27.950	3.330	32.400	1.600	0.860	**A**	W
1	CS137	526.700	55.090	624.000	31.000	0.840	**W**	A
1	K 40	1006.200	104.950	1130.000	70.000	0.890	**W**	W
1	PU239	5.530	0.540	5.480	0.440	1.000	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.740	0.080	0.750	0.020	0.990	**A**	A
1	CO 60	23.760	2.390	23.300	1.200	1.010	**A**	A
1	CS134	65.620	6.650	66.000	2.600	0.990	**A**	
1	CS137	35.210	3.590	34.300	1.700	1.020	**A**	A
1	GA	798.600	92.300	557.000	60.000	1.430	**W**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: GE Environmental Physics, Inc., Charleston, SC

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	GB	856.000	101.200	712.000	70.000	1.200	**A**	A
1	H 3	134.390	10.640	115.000	6.000	1.160	**A**	A
1	MN 54	40.310	4.250	37.800	1.900	1.060	**A**	A
1	PU238	0.740	0.090	0.720	0.020	1.030	**A**	A
1	PU239	0.780	0.100	0.750	0.040	1.050	**A**	W
1	SR 90	2.600	1.500	2.940	0.180	0.880	**A**	A
1	U UG	0.020	0.002	0.020	0.001	1.050	**A**	A
1	U234	0.250	0.040	0.230	0.020	1.080	**A**	A
1	U238	0.250	0.040	0.240	0.010	1.050	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: GP GPU Nuclear, Inc., Harrisburg, PA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.160	0.020	0.210	0.009	0.750	**W**	A
1	CE144	15.000	3.000	19.120	0.700	0.780	**A**	A
1	CO 57	11.000	2.000	12.640	0.430	0.870	**A**	A
1	CO 60	5.500	1.400	10.730	1.090	0.510	**N**	A
1	CS134	11.000	2.000	28.170	0.730	0.390	**N**	A
1	CS137	8.200	1.600	7.310	0.250	1.120	**W**	A
1	GA	1.000	0.100	1.490	0.090	0.670	**W**	A
1	GB	0.610	0.070	3.000	0.140	0.200	**N**	A
1	MN 54	7.600	1.600	6.720	0.270	1.130	**W**	A
1	PU238	0.090	0.009	0.210	0.007	0.420	**N**	A
1	PU239	0.120	0.010	0.100	0.004	1.110	**A**	A
1	SB125	11.000	3.000	16.120	0.790	0.680	**W**	A
1	SR 90	1.300	0.300	2.760	0.100	0.470	**N**	A
1	U BQ	0.210		0.110	0.004	1.800	**W**	A
1	U234	0.110	0.010	0.050	0.001	1.920	**W**	A
1	U238	0.100	0.010	0.050	0.003	1.730	**W**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	8.900	2.000	6.040	0.580	1.470	**A**	W
1	CS137	980.000	200.000	810.000	40.000	1.200	**A**	A
1	K 40	400.000	80.000	315.000	20.000	1.260	**A**	A
1	PU238	0.780	0.540	0.440	0.090	1.770	**W**	W
1	PU239	130.000	10.000	10.160	0.370	*.***	**N**	A
1	SR 90	31.000	6.000	34.750	1.000	0.890	**A**	A
1	U BQ	83.100		72.900	0.850	1.130	**W**	A
1	U234	40.000	6.000	37.150	0.640	1.070	**A**	A
1	U238	41.000	6.000	34.900	0.140	1.170	**W**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	1.300	0.200	3.460	0.250	0.370	**N**	A
1	CM244	0.990	0.160	2.750	0.100	0.360	**N**	A
1	CO 60	16.000	5.000	32.400	1.600	0.490	**N**	W
1	CS137	210.000	30.000	624.000	31.000	0.330	**N**	A
1	K 40	920.000	160.000	1130.000	70.000	0.810	**W**	A
1	PU238	0.160	0.040	0.400	0.150	0.390	**N**	A
1	PU239	1.900	0.200	5.480	0.440	0.340	**N**	A
1	SR 90	380.000	80.000	1434.000	75.000	0.260	**N**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.890	0.140	0.750	0.020	1.180	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: GP GPU Nuclear, Inc., Harrisburg, PA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	99.000	17.000	23.300	1.200	4.240	**N**	A
1	CS134	22.000	3.000	66.000	2.600	0.330	**N**	A
1	CS137	80.000	14.000	34.300	1.700	2.330	**N**	A
1	FE 55	220.000	40.000	115.000	10.000	1.910	**N**	W
1	GA	1200.000	200.000	557.000	60.000	2.150	**N**	W
1	GB	610.000	100.000	712.000	70.000	0.850	**A**	A
1	H 3	270.000	30.000	115.000	6.000	2.340	**N**	A
1	MN 54	24.000	4.000	37.800	1.900	0.630	**N**	A
1	PU238	1.300	0.100	0.720	0.020	1.800	**N**	A
1	PU239	0.850	0.160	0.750	0.040	1.130	**A**	A
1	SR 90	20.000	3.000	2.940	0.180	6.800	**N**	W
1	U BQ	1.300		0.480	0.030	2.700	**N**	A
1	U234	0.610	0.140	0.230	0.020	2.650	**N**	A
1	U238	0.620	0.140	0.240	0.010	2.580	**N**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: GS USGS/NWQL, Arvada, CO

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	GA	546.000	82.900	557.000	60.000	0.980	**A**	W
1	GB	864.300	87.200	712.000	70.000	1.210	**A**	W
1	U UG	0.010	0.000	0.020	0.001	0.930	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: GT Georgia Institute of Technology

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.020	0.210	0.009	0.930	**A**	A
1	CE144	14.000	8.000	19.120	0.700	0.730	**A**	A
1	CO 57	9.700	2.000	12.640	0.430	0.760	**A**	A
1	CO 60	8.700	2.000	10.730	1.090	0.810	**W**	A
1	CS134	20.000	2.000	28.170	0.730	0.700	**N**	A
1	CS137	5.900	2.000	7.310	0.250	0.800	**W**	A
1	GA	1.900	0.200	1.490	0.090	1.270	**A**	W
1	GB	3.900	0.400	3.000	0.140	1.300	**A**	W
1	MN 54	5.900	2.000	6.720	0.270	0.870	**A**	A
1	PU238	0.230	0.020	0.210	0.007	1.060	**A**	A
1	SB125	13.000	2.000	16.120	0.790	0.800	**W**	A
1	SR 90	2.400	0.300	2.760	0.100	0.860	**A**	A
1	U238	0.060	0.020	0.050	0.003	1.040	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	12.000	5.000	6.040	0.580	1.980	**W**	W
1	CO 60	1.200	0.600	1.500	0.400	0.800	**N**	W
1	CS137	880.000	10.000	810.000	40.000	1.080	**A**	W
1	K 40	300.000	20.000	315.000	20.000	0.950	**A**	A
1	PU239	9.800	5.000	10.160	0.370	0.960	**A**	A
1	SR 90	39.000	30.000	34.750	1.000	1.120	**A**	A
1	U238	36.000	9.000	34.900	0.140	1.030	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.500	0.600	3.460	0.250	1.010	**A**	
1	CO 60	36.000	10.000	32.400	1.600	1.110	**A**	A
1	CS137	600.000	200.000	624.000	31.000	0.960	**A**	A
1	K 40	1200.000	300.000	1130.000	70.000	1.060	**A**	A
1	PU239	6.000	1.000	5.480	0.440	1.090	**A**	
1	SR 90	1050.000	100.000	1434.000	75.000	0.730	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.780	0.040	0.750	0.020	1.030	**A**	
1	CO 60	23.000	5.000	23.300	1.200	0.980	**A**	A
1	CS134	65.000	5.000	66.000	2.600	0.980	**A**	A
1	CS137	35.000	5.000	34.300	1.700	1.020	**A**	A
1	GA	560.000	50.000	557.000	60.000	1.000	**A**	W
1	GB	1100.000	100.000	712.000	70.000	1.540	**W**	A
1	H 3	110.000	10.000	115.000	6.000	0.950	**A**	A
1	MN 54	40.000	5.000	37.800	1.900	1.050	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: GT Georgia Institute of Technology

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	PU238	0.360	0.040	0.720	0.020	0.500	**N**	W
1	PU239	0.350	0.040	0.750	0.040	0.460	**N**	A
1	SR 90	2.500	1.000	2.940	0.180	0.850	**W**	A
1	U238	0.150	0.040	0.240	0.010	0.620	**N**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: HC Lawrence Livermore Laboratory, California

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	GA	1.300	0.130	1.490	0.090	0.870	**A**	A
1	GB	2.420	0.130	3.000	0.140	0.800	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	GA	513.000	50.000	557.000	60.000	0.920	**A**	W
1	GB	967.000	95.000	712.000	70.000	1.350	**A**	A
1	H 3	110.000	17.000	115.000	6.000	0.950	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: HU Water Resources Research Centre (VITUKI), Hungary

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix: AI Air Filter Bq/filter								
1	CE144	25.500	2.400	19.120	0.700	1.330	**N**	
1	CO 57	20.400	1.300	12.640	0.430	1.610	**N**	
1	CO 60	11.800	1.000	10.730	1.090	1.090	**A**	
1	CS134	29.000	0.700	28.170	0.730	1.020	**A**	
1	CS137	8.200	1.000	7.310	0.250	1.120	**W**	
1	MN 54	9.000	0.700	6.720	0.270	1.330	**N**	
1	SB125	16.700	1.800	16.120	0.790	1.030	**A**	
Matrix: SO Soil Bq/kg								
1	CS137	870.000	12.000	810.000	40.000	1.070	**A**	
Matrix: VE Vegetation Bq/kg								
1	CO 60	32.000	6.000	32.400	1.600	0.980	**A**	
1	CS137	490.000	20.000	624.000	31.000	0.780	**N**	
1	K 40	800.000	85.000	1130.000	70.000	0.700	**N**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: ID DPRA - IRD/CNEN, Rio de Janeiro, Brazil

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	17.870	1.230	19.120	0.700	0.930	**A**	A
1	CO 57	11.300	0.570	12.640	0.430	0.890	**A**	A
1	CO 60	10.270	0.520	10.730	1.090	0.950	**A**	A
1	CS134	27.630	1.610	28.170	0.730	0.980	**A**	W
1	CS137	7.100	0.750	7.310	0.250	0.970	**A**	A
1	GA	1.270	0.090	1.490	0.090	0.850	**A**	A
1	GB	3.400	0.240	3.000	0.140	1.130	**A**	A
1	MN 54	6.370	0.500	6.720	0.270	0.940	**A**	A
1	PU238	0.220	0.030	0.210	0.007	1.050	**A**	W
1	SB125	16.200	2.010	16.120	0.790	1.000	**A**	W
1	SR 90	9.750	0.570	2.760	0.100	3.530	**N**	
1	U BQ	0.110	0.008	0.110	0.004	1.000	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	5.300	0.620	6.040	0.580	0.870	**A**	A
1	CS137	910.600	45.690	810.000	40.000	1.120	**A**	A
1	K 40	348.830	39.750	315.000	20.000	1.100	**A**	A
1	PU239	10.720	1.000	10.160	0.370	1.050	**A**	W
1	SR 90	28.560	3.190	34.750	1.000	0.820	**A**	A
1	U BQ	185.830	11.540	72.900	0.850	2.540	**N**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	31.630	1.660	32.400	1.600	0.970	**A**	A
1	CS137	745.330	37.860	624.000	31.000	1.190	**A**	A
1	K 40	1251.000	69.520	1130.000	70.000	1.100	**A**	A
1	PU239	5.690	0.320	5.480	0.440	1.030	**A**	A
1	SR 90	1219.330	62.270	1434.000	75.000	0.850	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.570	1.220	23.300	1.200	1.010	**A**	A
1	CS134	70.470	4.030	66.000	2.600	1.060	**A**	
1	CS137	36.600	1.990	34.300	1.700	1.060	**A**	W
1	H 3	455.200	46.880	115.000	6.000	3.950	**N**	A
1	MN 54	38.830	2.820	37.800	1.900	1.020	**A**	A
1	PU238	0.920	0.120	0.720	0.020	1.270	**N**	A
1	PU239	0.850	0.100	0.750	0.040	1.130	**A**	A
1	SR 90	2.620	0.130	2.940	0.180	0.890	**A**	A
1	U BQ	0.580	0.030	0.480	0.030	1.200	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: IE IEA, Inc., Morrisville, NC

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.010	0.210	0.009	0.980	**A**	A
1	CE144	21.260	2.130	19.120	0.700	1.110	**W**	A
1	CO 57	13.950	1.400	12.640	0.430	1.100	**W**	A
1	CO 60	10.500	1.050	10.730	1.090	0.970	**A**	A
1	CS134	27.830	2.780	28.170	0.730	0.980	**A**	A
1	CS137	7.490	0.750	7.310	0.250	1.020	**A**	A
1	MN 54	6.820	0.680	6.720	0.270	1.010	**A**	A
1	PU238	0.220	0.010	0.210	0.007	1.060	**A**	A
1	PU239	0.110	0.007	0.100	0.004	1.080	**A**	A
1	SB125	19.420	1.940	16.120	0.790	1.200	**W**	A
1	SR 90	3.120	0.310	2.760	0.100	1.130	**A**	W
1	U UG	5.230	0.600	4.650	0.210	1.120	**A**	A
1	U234	0.070	0.010	0.050	0.001	1.250	**A**	A
1	U238	0.060	0.007	0.050	0.003	1.120	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.500	0.800	6.040	0.580	1.070	**A**	A
1	CO 60	1.490	0.280	1.500	0.400	0.990	**A**	
1	CS137	842.000	33.000	810.000	40.000	1.030	**A**	A
1	K 40	309.000	31.000	315.000	20.000	0.980	**A**	A
1	PU239	10.180	0.490	10.160	0.370	1.000	**A**	A
1	SR 90	38.900	5.700	34.750	1.000	1.110	**A**	A
1	U UG	2.730	0.080	2.820	0.200	0.960	**A**	A
1	U234	34.400	2.300	37.150	0.640	0.920	**A**	A
1	U238	33.800	1.100	34.900	0.140	0.960	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.620	0.370	3.460	0.250	1.040	**A**	A
1	CM244	2.660	0.450	2.750	0.100	0.960	**A**	A
1	CO 60	30.590	1.820	32.400	1.600	0.940	**A**	N
1	CS137	617.000	36.000	624.000	31.000	0.980	**A**	W
1	K 40	1017.000	97.000	1130.000	70.000	0.900	**W**	W
1	PU239	5.910	0.840	5.480	0.440	1.070	**A**	A
1	SR 90	1530.000	210.000	1434.000	75.000	1.060	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.690	0.030	0.750	0.020	0.920	**A**	A
1	CO 60	22.830	0.810	23.300	1.200	0.970	**A**	A
1	CS134	65.850	3.670	66.000	2.600	0.990	**A**	A
1	CS137	34.810	1.640	34.300	1.700	1.010	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: IE IEA, Inc., Morrisville, NC

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	GA	631.700	37.300	557.000	60.000	1.130	**A**	W
1	GB	853.800	23.600	712.000	70.000	1.190	**A**	W
1	H 3	106.000	4.300	115.000	6.000	0.920	**A**	A
1	MN 54	38.000	2.650	37.800	1.900	1.000	**A**	A
1	PU238	0.730	0.030	0.720	0.020	1.020	**A**	A
1	PU239	0.800	0.090	0.750	0.040	1.070	**A**	A
1	SR 90	3.400	0.510	2.940	0.180	1.150	**A**	A
1	U UG	0.020	0.001	0.020	0.001	1.000	**A**	A
1	U234	0.240	0.020	0.230	0.020	1.060	**A**	A
1	U238	0.240	0.010	0.240	0.010	1.020	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: IN Lockheed Martin Idaho Technical Corp., Analytical Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	16.000	0.500	19.120	0.700	0.830	**A**	A
1	CO 57	11.000	0.200	12.640	0.430	0.870	**A**	A
1	CO 60	8.900	0.400	10.730	1.090	0.820	**A**	A
1	CS134	24.300	0.600	28.170	0.730	0.860	**A**	A
1	CS137	5.900	0.200	7.310	0.250	0.800	**W**	A
1	MN 54	5.800	0.300	6.720	0.270	0.860	**A**	A
1	SB125	16.100	0.200	16.120	0.790	0.990	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	7.900	1.400	6.040	0.580	1.300	**A**	A
1	CS137	884.000	9.000	810.000	40.000	1.090	**A**	A
1	K 40	294.000	6.000	315.000	20.000	0.930	**A**	A
1	PU239	11.700	1.200	10.160	0.370	1.150	**A**	A
1	SR 90	90.000	16.000	34.750	1.000	2.580	**W**	
1	U BQ	87.000	12.000	72.900	0.850	1.190	**W**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	36.900	2.300	32.400	1.600	1.130	**A**	A
1	CS137	668.500	3.100	624.000	31.000	1.070	**A**	A
1	K 40	1250.000	70.000	1130.000	70.000	1.100	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.770	0.060	0.750	0.020	1.020	**A**	A
1	CO 60	26.300	0.200	23.300	1.200	1.120	**A**	W
1	CS134	74.800	2.200	66.000	2.600	1.130	**A**	
1	CS137	37.300	2.400	34.300	1.700	1.080	**A**	A
1	MN 54	43.800	1.400	37.800	1.900	1.150	**A**	W
1	PU238	0.690	0.070	0.720	0.020	0.950	**A**	W
1	PU239	0.770	0.080	0.750	0.040	1.020	**A**	A
1	SR 90	3.400	0.200	2.940	0.180	1.150	**A**	A
1	U BQ	0.570	0.090	0.480	0.030	1.180	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: IS Quanterra- St. Louis

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.150	0.020	0.210	0.009	0.720	**W**	N
1	CE144	13.300	2.800	19.120	0.700	0.690	**A**	W
1	CO 57	9.800	1.000	12.640	0.430	0.770	**A**	A
1	CO 60	7.990	0.700	10.730	1.090	0.740	**N**	A
1	CS134	21.700	2.700	28.170	0.730	0.770	**W**	A
1	CS137	5.910	0.660	7.310	0.250	0.800	**W**	A
1	GA	1.960	0.200	1.490	0.090	1.310	**A**	A
1	GB	3.040	0.310	3.000	0.140	1.010	**A**	A
1	MN 54	4.860	0.630	6.720	0.270	0.720	**N**	A
1	PU238	0.220	0.030	0.210	0.007	1.010	**A**	W
1	SB125	9.450	1.940	16.120	0.790	0.580	**W**	A
1	SR 90	4.810	0.950	2.760	0.100	1.740	**W**	W
1	U UG	3.390	0.900	4.650	0.210	0.720	**W**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	8.260	2.280	6.040	0.580	1.360	**A**	N
1	CO 60	0.260	2.180	1.500	0.400	0.170	**N**	N
1	CS137	899.000	113.000	810.000	40.000	1.100	**A**	A
1	K 40	356.000	50.000	315.000	20.000	1.130	**A**	W
1	PU239	12.600	2.800	10.160	0.370	1.240	**A**	A
1	SR 90	29.800	6.500	34.750	1.000	0.850	**A**	A
1	U UG	2.020	0.550	2.820	0.200	0.710	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.580	1.820	3.460	0.250	1.320	**A**	A
1	CO 60	44.700	8.900	32.400	1.600	1.370	**W**	N
1	CS137	708.000	130.000	624.000	31.000	1.130	**A**	W
1	K 40	1350.000	190.000	1130.000	70.000	1.190	**A**	A
1	PU239	4.940	0.940	5.480	0.440	0.900	**A**	W
1	SR 90	1230.000	240.000	1434.000	75.000	0.850	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.760	0.120	0.750	0.020	1.010	**A**	A
1	CO 60	23.300	1.100	23.300	1.200	1.000	**A**	A
1	CS134	63.200	5.800	66.000	2.600	0.950	**A**	
1	CS137	35.300	2.300	34.300	1.700	1.020	**A**	A
1	FE 55	1336.000	12.000	115.000	10.000	*.***	**N**	
1	GA	574.000	62.000	557.000	60.000	1.030	**A**	W
1	GB	932.000	95.000	712.000	70.000	1.300	**A**	N
1	H 3	117.000	19.000	115.000	6.000	1.010	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: IS Quanterra- St. Louis

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	MN 54	41.100	3.200	37.800	1.900	1.080	**A**	A
1	PU238	0.830	0.100	0.720	0.020	1.160	**W**	A
1	PU239	1.000	0.110	0.750	0.040	1.330	**W**	A
1	SR 90	1.330	0.270	2.940	0.180	0.450	**N**	N
1	U UG	0.010	0.005	0.020	0.001	0.940	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: IT Quanterra- Richland Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.010	0.210	0.009	0.940	**A**	A
1	CE144	16.800	0.600	19.120	0.700	0.870	**A**	A
1	CO 57	11.700	0.600	12.640	0.430	0.920	**A**	A
1	CO 60	9.600	0.400	10.730	1.090	0.890	**A**	A
1	CS134	24.100	0.900	28.170	0.730	0.850	**A**	A
1	CS137	6.600	0.100	7.310	0.250	0.900	**A**	A
1	GA	2.040	0.050	1.490	0.090	1.360	**W**	A
1	GB	3.530	0.010	3.000	0.140	1.170	**A**	A
1	MN 54	6.530	0.170	6.720	0.270	0.970	**A**	A
1	PU238	0.240	0.010	0.210	0.007	1.110	**A**	A
1	PU239	0.120	0.010	0.100	0.004	1.160	**A**	A
1	SB125	7.500	0.200	16.120	0.790	0.460	**N**	A
1	SR 90	3.000	0.600	2.760	0.100	1.080	**A**	A
1	U UG	4.700	0.020	4.650	0.210	1.010	**A**	A
1	U234	0.050	0.001	0.050	0.001	1.030	**A**	A
1	U238	0.060	0.006	0.050	0.003	1.120	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.000	0.130	6.040	0.580	0.990	**A**	A
1	CO 60	1.540	0.580	1.500	0.400	1.020	**A**	W
1	CS137	903.000	2.000	810.000	40.000	1.110	**A**	A
1	K 40	332.000	6.500	315.000	20.000	1.050	**A**	A
1	PU238	0.440	0.070	0.440	0.090	1.000	**A**	W
1	PU239	10.850	0.300	10.160	0.370	1.060	**A**	W
1	SR 90	37.300	0.840	34.750	1.000	1.070	**A**	A
1	U UG	2.720	0.060	2.820	0.200	0.960	**A**	A
1	U234	35.800	1.100	37.150	0.640	0.960	**A**	W
1	U238	33.800	0.500	34.900	0.140	0.960	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.820	0.220	3.460	0.250	1.100	**A**	A
1	CM244	2.280	0.020	2.750	0.100	0.820	**W**	A
1	CO 60	36.000	1.600	32.400	1.600	1.110	**A**	W
1	CS137	617.000	33.000	624.000	31.000	0.980	**A**	A
1	K 40	1120.000	82.000	1130.000	70.000	0.990	**A**	A
1	PU239	6.470	0.490	5.480	0.440	1.180	**A**	A
1	SR 90	1405.000	63.000	1434.000	75.000	0.970	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.710	0.020	0.750	0.020	0.940	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: IT Quanterra- Richland Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.100	1.000	23.300	1.200	0.990	**A**	N
1	CS134	66.500	1.800	66.000	2.600	1.000	**A**	
1	CS137	34.400	2.500	34.300	1.700	1.000	**A**	A
1	GA	576.000	67.000	557.000	60.000	1.030	**A**	W
1	GB	754.000	22.000	712.000	70.000	1.050	**A**	A
1	H 3	127.000	9.000	115.000	6.000	1.100	**A**	A
1	MN 54	40.000	1.000	37.800	1.900	1.050	**A**	N
1	PU238	0.710	0.020	0.720	0.020	0.980	**A**	A
1	PU239	0.770	0.050	0.750	0.040	1.020	**A**	A
1	SR 90	3.000	0.200	2.940	0.180	1.020	**A**	A
1	U UG	0.020	0.000	0.020	0.001	1.030	**A**	A
1	U234	0.250	0.020	0.230	0.020	1.080	**A**	A
1	U238	0.270	0.020	0.240	0.010	1.120	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: JL Jefferson Lab, Newport News, VA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CO 57	12.300	0.500	12.640	0.430	0.970	**A**	
1	CO 60	9.500	0.600	10.730	1.090	0.880	**A**	
1	CS134	23.600	0.800	28.170	0.730	0.830	**A**	
1	CS137	6.100	0.600	7.310	0.250	0.830	**A**	
1	GA	2.500	0.300	1.490	0.090	1.670	**N**	
1	GB	3.900	0.500	3.000	0.140	1.300	**A**	
1	MN 54	5.300	0.600	6.720	0.270	0.780	**W**	
1	SB125	14.100	1.200	16.120	0.790	0.870	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	AM241	1.700	0.500	0.750	0.020	2.260	**N**	
1	CO 60	23.000	1.900	23.300	1.200	0.980	**A**	
1	CS134	69.000	2.400	66.000	2.600	1.040	**A**	
1	CS137	34.000	2.600	34.300	1.700	0.990	**A**	
1	H 3	116.000	27.200	115.000	6.000	1.000	**A**	
1	MN 54	42.000	2.600	37.800	1.900	1.110	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: KA Knolls Atomic Power Lab, Schenectady

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	GA	1.880	0.140	1.490	0.090	1.260	**A**	A
1	GB	3.460	0.140	3.000	0.140	1.150	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.300	0.300	1.500	0.400	0.860	**W**	A
1	CS137	851.000	190.000	810.000	40.000	1.050	**A**	A
1	K 40	308.000	96.000	315.000	20.000	0.970	**A**	A
1	PU239	11.790	1.240	10.160	0.370	1.160	**A**	A
1	SR 90	40.000	3.800	34.750	1.000	1.150	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.000	3.000	23.300	1.200	0.980	**A**	A
1	CS134	74.000	7.000	66.000	2.600	1.120	**A**	
1	CS137	35.000	3.000	34.300	1.700	1.020	**A**	A
1	FE 55	122.000	9.000	115.000	10.000	1.060	**A**	W
1	GA	701.000	88.000	557.000	60.000	1.250	**W**	W
1	GB	930.000	66.000	712.000	70.000	1.300	**A**	A
1	H 3	128.000	26.000	115.000	6.000	1.110	**A**	W
1	MN 54	38.000	7.000	37.800	1.900	1.000	**A**	A
1	PU239	0.850	0.020	0.750	0.040	1.140	**A**	A
1	SR 90	2.840	0.600	2.940	0.180	0.960	**A**	A
1	U UG	0.020	0.001	0.020	0.001	1.040	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: KO Korea Institute of Nuclear Safety

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	16.080	0.820	19.120	0.700	0.840	**A**	W
1	CO 57	11.210	0.240	12.640	0.430	0.880	**A**	W
1	CO 60	9.330	0.340	10.730	1.090	0.860	**A**	W
1	CS134	26.870	0.860	28.170	0.730	0.950	**A**	A
1	CS137	6.440	0.250	7.310	0.250	0.880	**A**	W
1	GA	1.540	0.050	1.490	0.090	1.030	**A**	A
1	GB	2.460	0.060	3.000	0.140	0.820	**A**	W
1	MN 54	5.980	0.270	6.720	0.270	0.890	**A**	W
1	SB125	16.290	0.910	16.120	0.790	1.010	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.250	0.330	1.500	0.400	0.830	**W**	
1	CS137	802.400	23.780	810.000	40.000	0.990	**A**	A
1	K 40	299.500	12.200	315.000	20.000	0.950	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	31.960	1.390	32.400	1.600	0.980	**A**	A
1	CS137	687.000	16.350	624.000	31.000	1.100	**A**	A
1	K 40	1136.000	38.340	1130.000	70.000	1.000	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: LA Los Alamos National Laboratory, NM

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.220	0.020	0.210	0.009	1.030	**A**	A
2		0.230	0.020	0.210	0.009	1.070	**A**	A
3		0.250	0.030	0.210	0.009	1.170	**A**	A
1	CE144	16.500	1.600	19.120	0.700	0.860	**A**	A
2		16.600	1.600	19.120	0.700	0.860	**A**	A
3		16.800	1.700	19.120	0.700	0.870	**A**	A
1	CO 57	11.000	0.900	12.640	0.430	0.870	**A**	A
2		11.100	0.900	12.640	0.430	0.870	**A**	A
1	CO 60	10.200	0.900	10.730	1.090	0.950	**A**	A
2		10.400	0.900	10.730	1.090	0.960	**A**	A
1	CS134	24.300	2.100	28.170	0.730	0.860	**A**	N
1	CS137	7.070	0.650	7.310	0.250	0.960	**A**	A
2		7.210	0.660	7.310	0.250	0.980	**A**	A
3		7.240	0.660	7.310	0.250	0.990	**A**	A
1	MN 54	6.720	0.620	6.720	0.270	1.000	**A**	A
2		6.850	0.630	6.720	0.270	1.010	**A**	A
3		6.930	0.640	6.720	0.270	1.030	**A**	A
1	PU238	0.220	0.020	0.210	0.007	1.010	**A**	A
2		0.240	0.030	0.210	0.007	1.110	**A**	A
1	PU239	0.110	0.010	0.100	0.004	1.010	**A**	A
2		0.120	0.010	0.100	0.004	1.110	**A**	A
1	SB125	17.500	1.600	16.120	0.790	1.080	**A**	W
2		17.600	1.600	16.120	0.790	1.090	**A**	W
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.700	0.700	6.040	0.580	1.100	**A**	A
2		7.400	0.700	6.040	0.580	1.220	**A**	A
3		8.100	0.700	6.040	0.580	1.340	**A**	A
1	CS137	823.000	53.000	810.000	40.000	1.010	**A**	A
2		826.000	53.000	810.000	40.000	1.010	**A**	A
3		871.000	56.000	810.000	40.000	1.070	**A**	A
1	PU238	0.390	0.050	0.440	0.090	0.880	**A**	A
2		0.430	0.050	0.440	0.090	0.970	**A**	A
3		0.500	0.050	0.440	0.090	1.130	**A**	A
1	PU239	10.500	0.300	10.160	0.370	1.030	**A**	A
2		10.600	0.300	10.160	0.370	1.040	**A**	A
3		11.200	0.300	10.160	0.370	1.100	**A**	A
1	U UG	2.730	0.270	2.820	0.200	0.960	**A**	A
2		2.770	0.280	2.820	0.200	0.980	**A**	A
3		3.010	0.300	2.820	0.200	1.060	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: LA Los Alamos National Laboratory, NM

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.300	0.170	3.460	0.250	0.950	**A**	A
2		3.650	0.180	3.460	0.250	1.050	**A**	A
3		3.650	0.190	3.460	0.250	1.050	**A**	A
1	CO 60	61.900	7.000	32.400	1.600	1.910	**N**	A
1	CS137	670.000	59.000	624.000	31.000	1.070	**A**	W
2		676.000	60.000	624.000	31.000	1.080	**A**	W
3		679.000	60.000	624.000	31.000	1.080	**A**	W
1	PU239	5.120	0.170	5.480	0.440	0.930	**A**	A
2		5.350	0.180	5.480	0.440	0.970	**A**	A
3		5.610	0.180	5.480	0.440	1.020	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.710	0.080	0.750	0.020	0.940	**A**	A
2		0.790	0.080	0.750	0.020	1.050	**A**	A
3		0.800	0.080	0.750	0.020	1.060	**A**	A
1	CS134	54.200	4.800	66.000	2.600	0.820	**N**	
2		54.300	4.800	66.000	2.600	0.820	**N**	
3		55.900	5.000	66.000	2.600	0.840	**N**	
1	CS137	27.700	2.600	34.300	1.700	0.800	**W**	A
2		28.000	2.600	34.300	1.700	0.810	**W**	A
3		28.100	2.600	34.300	1.700	0.810	**W**	A
1	GA	593.000	121.000	557.000	60.000	1.060	**A**	W
2		610.000	95.000	557.000	60.000	1.090	**A**	W
3		654.000	118.000	557.000	60.000	1.170	**A**	W
1	GB	902.000	183.000	712.000	70.000	1.260	**A**	A
2		910.000	137.000	712.000	70.000	1.270	**A**	A
3		970.000	147.000	712.000	70.000	1.360	**A**	A
1	H 3	128.000	21.000	115.000	6.000	1.110	**A**	A
2		143.000	22.000	115.000	6.000	1.240	**W**	A
3		148.000	22.000	115.000	6.000	1.280	**W**	A
1	MN 54	32.200	3.000	37.800	1.900	0.850	**W**	A
2		32.900	3.100	37.800	1.900	0.870	**W**	A
3		33.900	3.200	37.800	1.900	0.890	**W**	A
1	PU238	0.710	0.070	0.720	0.020	0.980	**A**	A
2		0.720	0.070	0.720	0.020	1.000	**A**	A
3		0.750	0.070	0.720	0.020	1.040	**A**	A
1	PU239	0.720	0.080	0.750	0.040	0.960	**A**	A
2		0.800	0.080	0.750	0.040	1.060	**A**	A
3		0.820	0.080	0.750	0.040	1.090	**A**	A
1	U UG	0.010	0.010	0.020	0.001	0.500	**N**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: LH LAS Laboratory, Las Vegas

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.020	0.210	0.009	0.930	**A**	A
1	CO 57	10.500	1.000	12.640	0.430	0.830	**A**	A
1	CO 60	8.600	0.700	10.730	1.090	0.800	**W**	A
1	CS134	22.800	1.600	28.170	0.730	0.800	**W**	A
1	CS137	6.100	0.700	7.310	0.250	0.830	**A**	A
1	GA	2.200	0.140	1.490	0.090	1.470	**W**	W
1	GB	2.990	0.160	3.000	0.140	0.990	**A**	W
1	MN 54	4.500	0.500	6.720	0.270	0.660	**N**	A
1	PU238	0.220	0.020	0.210	0.007	1.010	**A**	A
1	SB125	14.500	1.200	16.120	0.790	0.890	**A**	A
1	SR 90	2.650	0.190	2.760	0.100	0.960	**A**	A
1	U234	0.070	0.010	0.050	0.001	1.320	**A**	A
1	U238	0.070	0.010	0.050	0.003	1.260	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.600	1.300	6.040	0.580	1.090	**A**	A
1	CS137	882.000	87.000	810.000	40.000	1.080	**A**	A
1	K 40	317.000	43.000	315.000	20.000	1.000	**A**	A
1	PU239	12.000	1.100	10.160	0.370	1.180	**A**	A
1	SR 90	20.500	1.400	34.750	1.000	0.580	**W**	A
1	U234	31.800	2.500	37.150	0.640	0.850	**A**	A
1	U238	33.100	2.500	34.900	0.140	0.940	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.800	0.400	3.460	0.250	1.090	**A**	A
1	CM244	2.300	0.250	2.750	0.100	0.830	**A**	W
1	CO 60	32.000	3.000	32.400	1.600	0.980	**A**	A
1	CS137	700.000	70.000	624.000	31.000	1.120	**A**	A
1	K 40	1150.000	120.000	1130.000	70.000	1.010	**A**	A
1	PU239	6.100	0.400	5.480	0.440	1.110	**A**	A
1	SR 90	1270.000	70.000	1434.000	75.000	0.880	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.600	0.060	0.750	0.020	0.800	**W**	A
1	CO 60	22.000	1.800	23.300	1.200	0.940	**A**	A
1	CS134	63.000	5.000	66.000	2.600	0.950	**A**	
1	CS137	35.000	4.000	34.300	1.700	1.020	**A**	A
1	FE 55	127.000	8.400	115.000	10.000	1.100	**A**	W
1	GA	555.000	36.000	557.000	60.000	0.990	**A**	W
1	GB	830.000	46.000	712.000	70.000	1.160	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: LH LAS Laboratory, Las Vegas

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	H 3	103.000	9.000	115.000	6.000	0.890	**A**	A
1	MN 54	40.000	4.000	37.800	1.900	1.050	**A**	A
1	PU238	0.720	0.080	0.720	0.020	1.000	**A**	A
1	PU239	0.750	0.080	0.750	0.040	1.000	**A**	A
1	SR 90	3.060	0.190	2.940	0.180	1.040	**A**	W
1	U234	0.340	0.050	0.230	0.020	1.470	**N**	W
1	U238	0.290	0.050	0.240	0.010	1.200	**W**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: LL LLNL Chemistry and Material Science/ Environmental

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.220	0.010	0.210	0.009	1.030	**A**	A
1	CE144	17.200	3.200	19.120	0.700	0.890	**A**	A
1	CO 57	11.900	2.200	12.640	0.430	0.940	**A**	A
1	CO 60	9.830	1.800	10.730	1.090	0.920	**A**	A
1	CS134	27.400	1.600	28.170	0.730	0.970	**A**	A
1	CS137	6.850	2.800	7.310	0.250	0.930	**A**	A
1	GA	1.620	0.020	1.490	0.090	1.080	**A**	A
1	GB	3.620	0.030	3.000	0.140	1.200	**A**	A
1	MN 54	6.440	2.800	6.720	0.270	0.960	**A**	A
1	PU238	0.210	0.020	0.210	0.007	1.010	**A**	A
1	PU239	0.110	0.010	0.100	0.004	1.010	**A**	A
1	SB125	17.600	2.600	16.120	0.790	1.090	**A**	W
1	U UG	4.450		4.650	0.210	0.950	**A**	A
1	U238	0.050		0.050	0.003	0.950	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	10.600	34.800	6.040	0.580	1.750	**W**	A
1	CO 60	1.250	45.600	1.500	0.400	0.830	**W**	W
1	CS137	768.000	2.200	810.000	40.000	0.940	**A**	A
1	K 40	284.000	12.200	315.000	20.000	0.900	**A**	A
1	PU238	0.440	0.130	0.440	0.090	1.010	**A**	A
1	PU239	10.800	0.960	10.160	0.370	1.060	**A**	A
1	U UG	2.450		2.820	0.200	0.860	**A**	A
1	U234	33.000	5.530	37.150	0.640	0.880	**A**	A
1	U238	30.500	5.240	34.900	0.140	0.870	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.240	0.330	3.460	0.250	1.220	**A**	A
1	CM244	1.150	0.160	2.750	0.100	0.410	**N**	A
1	CO 60	28.300	12.800	32.400	1.600	0.870	**A**	A
1	CS137	618.000	2.600	624.000	31.000	0.990	**A**	A
1	K 40	1060.000	8.800	1130.000	70.000	0.940	**A**	A
1	PU239	5.980	0.620	5.480	0.440	1.090	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.830	0.080	0.750	0.020	1.110	**A**	A
1	CO 60	21.700	8.200	23.300	1.200	0.930	**A**	A
1	CS134	69.500	2.800	66.000	2.600	1.050	**A**	
1	CS137	36.600	7.400	34.300	1.700	1.060	**A**	A
1	GA	562.000	12.000	557.000	60.000	1.000	**A**	W
1	GB	1050.000	7.600	712.000	70.000	1.470	**W**	A
1	H 3	124.000	3.600	115.000	6.000	1.080	**A**	A
1	MN 54	38.300	6.600	37.800	1.900	1.010	**A**	A
1	PU238	0.760	0.140	0.720	0.020	1.060	**A**	A
1	PU239	0.780	0.140	0.750	0.040	1.040	**A**	A
1	U UG	0.020		0.020	0.001	1.010	**A**	A
1	U234	0.260	0.040	0.230	0.020	1.160	**A**	A
1	U238	0.250	0.040	0.240	0.010	1.050	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: LN Los Alamos National Lab, ES&H

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	15.500	1.540	19.120	0.700	0.810	**A**	
1	CO 57	10.600	1.060	12.640	0.430	0.830	**A**	
1	CO 60	8.540	0.850	10.730	1.090	0.790	**W**	
1	CS134	20.000	2.000	28.170	0.730	0.700	**N**	
1	CS137	6.000	0.600	7.310	0.250	0.820	**A**	
1	GA	1.950	0.200	1.490	0.090	1.300	**A**	
1	GB	3.110	0.310	3.000	0.140	1.030	**A**	
1	MN 54	6.000	0.600	6.720	0.270	0.890	**A**	
1	SB125	12.200	1.200	16.120	0.790	0.750	**W**	
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	21.200	2.120	23.300	1.200	0.900	**A**	
1	CS134	71.100	7.110	66.000	2.600	1.070	**A**	
1	CS137	39.300	3.900	34.300	1.700	1.140	**A**	
1	H 3	500.000	50.000	115.000	6.000	4.340	**N**	
1	MN 54	38.700	3.800	37.800	1.900	1.020	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: LV UNLV, Dept of Health Physics

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.410	0.070	0.210	0.009	1.920	**N**	A
1	CE144	23.200	5.400	19.120	0.700	1.210	**W**	N
1	CO 57	12.800	0.110	12.640	0.430	1.010	**A**	A
1	CS134	26.200	0.800	28.170	0.730	0.930	**A**	A
1	CS137	7.490	0.120	7.310	0.250	1.020	**A**	A
1	GA	1.040	0.070	1.490	0.090	0.690	**W**	N
1	GB	2.080	0.040	3.000	0.140	0.690	**W**	W
1	MN 54	6.000	0.120	6.720	0.270	0.890	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	11.400	0.940	6.040	0.580	1.880	**W**	A
1	CO 60	1.930	0.260	1.500	0.400	1.280	**A**	A
1	CS137	945.000	3.000	810.000	40.000	1.160	**A**	A
1	K 40	341.000	7.000	315.000	20.000	1.080	**A**	A
1	U238	71.800	6.500	34.900	0.140	2.050	**N**	N
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.840	0.870	3.460	0.250	1.390	**A**	A
1	CO 60	33.300	1.000	32.400	1.600	1.020	**A**	A
1	CS137	594.000	4.000	624.000	31.000	0.950	**A**	A
1	K 40	1220.000	40.000	1130.000	70.000	1.070	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	1.130	0.290	0.750	0.020	1.500	**W**	N
1	CO 60	24.000	0.700	23.300	1.200	1.030	**A**	A
1	CS134	70.100	1.300	66.000	2.600	1.060	**A**	
1	CS137	34.700	0.500	34.300	1.700	1.010	**A**	A
1	GA	808.000	53.000	557.000	60.000	1.450	**W**	W
1	GB	1040.000	60.000	712.000	70.000	1.460	**W**	A
1	H 3	148.000	4.000	115.000	6.000	1.280	**W**	A
1	MN 54	40.500	0.500	37.800	1.900	1.070	**A**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: LW LLNL Chemistry and Material Science/Waste

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	790.000	1.800	810.000	40.000	0.970	**A**	A
1	K 40	280.000	14.000	315.000	20.000	0.880	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	30.000	14.000	32.400	1.600	0.920	**A**	A
1	CS137	650.000	2.400	624.000	31.000	1.040	**A**	A
1	K 40	1100.000	7.000	1130.000	70.000	0.970	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	21.900	8.600	23.300	1.200	0.930	**A**	A
1	CS134	67.200	3.400	66.000	2.600	1.010	**A**	
1	CS137	35.400	8.600	34.300	1.700	1.030	**A**	A
1	GA	510.600	6.200	557.000	60.000	0.910	**A**	W
1	GB	853.800	3.900	712.000	70.000	1.190	**A**	A
1	H 3	130.000	6.900	115.000	6.000	1.130	**A**	A
1	MN 54	38.400	7.200	37.800	1.900	1.010	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: MA ORNL Health Sciences Research Div.

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.800	0.100	6.040	0.580	1.120	**A**	A
1	CO 60	2.900	1.900	1.500	0.400	1.930	**W**	N
1	CS137	925.000	18.000	810.000	40.000	1.140	**A**	A
1	K 40	288.000	53.000	315.000	20.000	0.910	**A**	A
1	U238	30.000	15.000	34.900	0.140	0.850	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	7.400	0.100	3.460	0.250	2.130	**W**	
1	CO 60	29.000	6.700	32.400	1.600	0.890	**A**	A
1	CS137	736.000	29.000	624.000	31.000	1.170	**A**	A
1	K 40	1136.000	148.000	1130.000	70.000	1.000	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: ME Radiation Control Program, Jamaica Plain, MA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.140	0.070	0.210	0.009	0.650	**N**	
1	CE144	19.400	1.250	19.120	0.700	1.010	**A**	A
1	CO 57	14.800	0.440	12.640	0.430	1.170	**W**	A
1	CO 60	11.900	0.290	10.730	1.090	1.100	**W**	W
1	CS134	25.300	0.540	28.170	0.730	0.890	**A**	A
1	CS137	8.630	0.360	7.310	0.250	1.180	**W**	W
1	GA	2.290	0.060	1.490	0.090	1.530	**W**	W
1	GB	3.880	0.060	3.000	0.140	1.290	**A**	A
1	MN 54	8.550	0.310	6.720	0.270	1.270	**W**	W
1	SB125	19.700	0.530	16.120	0.790	1.220	**W**	W
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.600	1.900	6.040	0.580	1.090	**A**	A
1	CO 60	1.190	0.250	1.500	0.400	0.790	**N**	A
1	CS137	826.000	30.000	810.000	40.000	1.010	**A**	A
1	K 40	308.000	15.800	315.000	20.000	0.970	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.480	1.420	3.460	0.250	1.290	**A**	
1	CO 60	36.700	1.140	32.400	1.600	1.130	**A**	W
1	CS137	742.000	29.900	624.000	31.000	1.180	**A**	W
1	K 40	1270.000	54.000	1130.000	70.000	1.120	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.520	0.340	0.750	0.020	0.690	**W**	
1	CO 60	25.200	0.670	23.300	1.200	1.080	**A**	A
1	CS134	67.700	1.610	66.000	2.600	1.020	**A**	
1	CS137	37.800	1.740	34.300	1.700	1.100	**A**	A
1	MN 54	50.300	1.600	37.800	1.900	1.330	**N**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: MH Maine Health & Environmental Testing Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	17.800	0.900	19.120	0.700	0.930	**A**	
1	CO 57	12.400	0.500	12.640	0.430	0.980	**A**	
1	CO 60	10.700	0.300	10.730	1.090	0.990	**A**	
1	CS134	26.600	0.700	28.170	0.730	0.940	**A**	
1	CS137	7.500	0.300	7.310	0.250	1.020	**A**	
1	MN 54	7.300	0.300	6.720	0.270	1.080	**A**	
1	SB125	19.000	0.500	16.120	0.790	1.170	**W**	
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.500	0.200	1.500	0.400	1.000	**A**	
1	CS137	803.100	41.900	810.000	40.000	0.990	**A**	
1	K 40	298.500	19.800	315.000	20.000	0.940	**A**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	31.200	1.300	32.400	1.600	0.960	**A**	
1	CS137	627.900	32.800	624.000	31.000	1.000	**A**	
1	K 40	1057.600	66.000	1130.000	70.000	0.930	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	24.800	0.900	23.300	1.200	1.060	**A**	
1	CS134	73.700	2.800	66.000	2.600	1.110	**A**	
1	CS137	37.500	2.100	34.300	1.700	1.090	**A**	
1	GA	738.700	2.800	557.000	60.000	1.320	**W**	
1	GB	869.700	6.000	712.000	70.000	1.220	**A**	
1	H 3	105.100	3.600	115.000	6.000	0.910	**A**	
1	MN 54	41.700	2.200	37.800	1.900	1.100	**A**	
1	SR 90	3.160	0.300	2.940	0.180	1.070	**A**	
1	U234	0.240	0.030	0.230	0.020	1.040	**A**	
1	U238	0.270	0.040	0.240	0.010	1.120	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: ML EG&G Mound Applied Technologies, Miamisburg, OH

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CO 57	15.010	1.500	12.640	0.430	1.180	**W**	
1	CO 60	11.780	1.200	10.730	1.090	1.090	**A**	
1	CS134	33.400	3.300	28.170	0.730	1.180	**W**	
1	CS137	8.270	0.800	7.310	0.250	1.130	**W**	
1	MN 54	7.860	0.800	6.720	0.270	1.160	**W**	
1	PU238	0.230	0.010	0.210	0.007	1.060	**A**	A
1	SB125	19.880	2.000	16.120	0.790	1.230	**W**	
1	U234	0.060	0.005	0.050	0.001	1.040	**A**	A
1	U238	0.060	0.005	0.050	0.003	1.040	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.460	0.600	6.040	0.580	1.060	**A**	
1	CO 60	40.000	4.000	1.500	0.400	*.***	**N**	
1	CS137	500.750	50.100	810.000	40.000	0.610	**N**	
1	K 40	394.000	39.400	315.000	20.000	1.250	**A**	
1	PU239	11.020	0.800	10.160	0.370	1.080	**A**	A
1	U234	33.650	2.670	37.150	0.640	0.900	**A**	A
1	U238	34.720	2.720	34.900	0.140	0.990	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.860	0.400	3.460	0.250	1.110	**A**	
1	CO 60	33.840	3.400	32.400	1.600	1.040	**A**	
1	CS137	663.720	66.400	624.000	31.000	1.060	**A**	
1	K 40	1204.430	120.400	1130.000	70.000	1.060	**A**	
1	PU239	5.980	0.440	5.480	0.440	1.090	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.990	0.100	0.750	0.020	1.320	**W**	W
1	CO 60	24.150	2.400	23.300	1.200	1.030	**A**	
1	CS134	76.080	7.600	66.000	2.600	1.150	**A**	
1	CS137	35.410	3.500	34.300	1.700	1.030	**A**	
1	H 3	130.170	20.720	115.000	6.000	1.130	**A**	A
1	MN 54	39.020	3.900	37.800	1.900	1.030	**A**	
1	PU238	0.760	0.060	0.720	0.020	1.050	**A**	A
1	PU239	0.810	0.060	0.750	0.040	1.080	**A**	A
1	U234	0.270	0.030	0.230	0.020	1.170	**A**	A
1	U238	0.270	0.030	0.240	0.010	1.120	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: MS Manufacturing Sciences Corporation, Oak Ridge

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.050	0.210	0.009	0.930	**A**	
1	CE144	16.500	1.650	19.120	0.700	0.860	**A**	A
1	CO 57	10.900	1.090	12.640	0.430	0.860	**A**	A
1	CO 60	9.350	0.940	10.730	1.090	0.870	**A**	A
1	CS134	24.600	2.460	28.170	0.730	0.870	**A**	A
1	CS137	6.760	0.680	7.310	0.250	0.920	**A**	A
1	MN 54	6.370	0.640	6.720	0.270	0.940	**A**	A
1	SB125	14.000	1.400	16.120	0.790	0.860	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	8.200	0.820	6.040	0.580	1.350	**A**	
1	CO 60	1.200	0.120	1.500	0.400	0.800	**N**	N
1	CS137	730.000	7.300	810.000	40.000	0.900	**A**	A
1	K 40	212.300	21.200	315.000	20.000	0.670	**N**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.530	0.100	0.750	0.020	0.700	**W**	
1	CO 60	24.100	2.400	23.300	1.200	1.030	**A**	A
1	CS134	64.000	6.400	66.000	2.600	0.960	**A**	A
1	CS137	36.100	3.600	34.300	1.700	1.050	**A**	A
1	MN 54	41.300	4.130	37.800	1.900	1.090	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: NA US EPA NAREL, Montgomery, AL

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.010	0.210	0.009	0.930	**A**	
1	CO 60	8.500	0.060	10.730	1.090	0.790	**W**	W
1	PU238	0.200	0.010	0.210	0.007	0.920	**A**	A
1	SR 90	300.000	22.000	2.760	0.100	*.***	**N**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	7.400	2.300	6.040	0.580	1.220	**A**	A
1	CO 60	0.960	0.250	1.500	0.400	0.630	**N**	A
1	CS137	820.000	3.100	810.000	40.000	1.010	**A**	A
1	K 40	300.000	8.800	315.000	20.000	0.950	**A**	A
1	PU239	10.300	1.300	10.160	0.370	1.010	**A**	W
1	U234	40.000	3.300	37.150	0.640	1.070	**A**	W
1	U238	34.000	3.000	34.900	0.140	0.970	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	0.920	0.020	32.400	1.600	0.020	**N**	A
1	CS137	19.000	0.110	624.000	31.000	0.030	**N**	A
1	K 40	32.000	0.640	1130.000	70.000	0.020	**N**	A
1	PU239	0.950	0.090	5.480	0.440	0.170	**N**	A
1	SR 90	250.000	4.300	1434.000	75.000	0.170	**N**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.730	0.070	0.750	0.020	0.970	**A**	
1	CO 60	24.000	0.330	23.300	1.200	1.030	**A**	A
1	CS134	69.000	0.490	66.000	2.600	1.040	**A**	
1	CS137	36.000	0.510	34.300	1.700	1.040	**A**	A
1	H 3	127.000	3.600	115.000	6.000	1.100	**A**	A
1	MN 54	40.000	0.820	37.800	1.900	1.050	**A**	A
1	SR 90	2.200	0.480	2.940	0.180	0.740	**W**	N
1	U234	0.340	0.040	0.230	0.020	1.470	**N**	A
1	U238	0.310	0.040	0.240	0.010	1.290	**W**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: ND Dept of Environmental Health & Safety, NC State University

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter**	**Bq/filter**					
1	CE144	16.410	1.660	19.120	0.700	0.850	**A**	A
1	CO 57	10.950	0.430	12.640	0.430	0.860	**A**	A
1	CO 60	8.370	0.560	10.730	1.090	0.780	**W**	A
1	CS134	25.200	0.690	28.170	0.730	0.890	**A**	W
1	CS137	6.540	0.530	7.310	0.250	0.890	**A**	A
1	GA	1.550	0.060	1.490	0.090	1.040	**A**	
1	GB	2.800	0.060	3.000	0.140	0.930	**A**	
1	MN 54	6.340	0.570	6.720	0.270	0.940	**A**	W
1	SB125	14.750	1.340	16.120	0.790	0.910	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: NF Nuclear Fuel Services, Irwin, TN

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix: AI Air Filter Bq/filter								
1	PU238	0.290	0.040	0.210	0.007	1.350	**W**	
1	U234	0.110	0.009	0.050	0.001	2.080	**N**	
1	U238	0.060	0.006	0.050	0.003	1.180	**A**	
Matrix: SO Soil Bq/kg								
1	PU239	6.720	3.070	10.160	0.370	0.660	**W**	
1	U234	40.010	4.190	37.150	0.640	1.070	**A**	
1	U238	47.510	4.600	34.900	0.140	1.360	**W**	
Matrix: VE Vegetation Bq/kg								
1	PU239	5.290	0.410	5.480	0.440	0.960	**A**	
Matrix: WA Water Bq/L								
1	PU238	0.730	0.030	0.720	0.020	1.020	**A**	
1	PU239	0.710	0.030	0.750	0.040	0.950	**A**	
1	U234	0.240	0.040	0.230	0.020	1.050	**A**	
1	U238	0.240	0.040	0.240	0.010	1.000	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: NP JAF Environmental Laboratory, New York Power Authority

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	14.910	0.290	19.120	0.700	0.770	**A**	A
1	CO 57	11.350	0.060	12.640	0.430	0.890	**A**	A
1	CO 60	9.240	0.130	10.730	1.090	0.860	**A**	A
1	CS134	21.510	0.190	28.170	0.730	0.760	**W**	A
1	CS137	5.810	0.120	7.310	0.250	0.790	**W**	A
1	GB	3.080	0.030	3.000	0.140	1.020	**A**	A
1	MN 54	6.310	0.130	6.720	0.270	0.930	**A**	A
1	SB125	15.190	0.310	16.120	0.790	0.940	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.330	0.060	1.500	0.400	0.880	**W**	W
1	CS137	730.380	0.770	810.000	40.000	0.900	**A**	W
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	25.100	0.500	32.400	1.600	0.770	**W**	N
1	CS137	538.000	2.400	624.000	31.000	0.860	**W**	N
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.600	0.900	23.300	1.200	1.010	**A**	A
1	CS134	79.900	1.200	66.000	2.600	1.210	**W**	A
1	CS137	38.300	1.200	34.300	1.700	1.110	**A**	A
1	GB	909.000	6.000	712.000	70.000	1.270	**A**	N
1	H 3	107.000	12.000	115.000	6.000	0.930	**A**	W
1	MN 54	43.800	1.300	37.800	1.900	1.150	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: NR Naval Reactors Facility Chemistry, Scoville, ID

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	862.000	172.000	810.000	40.000	1.060	**A**	A
1	K 40	346.000	69.000	315.000	20.000	1.090	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	33.400	6.700	32.400	1.600	1.030	**A**	W
1	CS137	673.000	135.000	624.000	31.000	1.070	**A**	A
1	K 40	1177.000	235.000	1130.000	70.000	1.040	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: NZ National Radiation Laboratory, New Zealand

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.300	0.100	0.210	0.009	1.400	**W**	
2		0.400	0.100	0.210	0.009	1.870	**W**	
1	CE144	15.800	0.900	19.120	0.700	0.820	**A**	W
2		17.300	1.000	19.120	0.700	0.900	**A**	W
1	CO 57	11.400	0.600	12.640	0.430	0.900	**A**	W
2		12.300	0.600	12.640	0.430	0.970	**A**	W
1	CO 60	9.500	0.500	10.730	1.090	0.880	**A**	W
2		10.000	0.500	10.730	1.090	0.930	**A**	W
1	CS134	21.200	1.100	28.170	0.730	0.750	**W**	A
2		22.400	1.200	28.170	0.730	0.790	**W**	A
1	CS137	6.600	0.400	7.310	0.250	0.900	**A**	W
2		7.200	0.400	7.310	0.250	0.980	**A**	W
1	GA	1.500	0.100	1.490	0.090	1.000	**A**	A
2		1.600	0.100	1.490	0.090	1.070	**A**	A
1	GB	3.100	0.100	3.000	0.140	1.030	**A**	A
2		3.200	0.100	3.000	0.140	1.060	**A**	A
1	MN 54	7.000	0.400	6.720	0.270	1.040	**A**	W
2		8.500	0.300	6.720	0.270	1.260	**W**	W
1	PU238	0.220	0.010	0.210	0.007	1.010	**A**	A
2		0.230	0.010	0.210	0.007	1.060	**A**	A
1	PU239	0.110	0.010	0.100	0.004	1.010	**A**	A
2		0.120	0.010	0.100	0.004	1.110	**A**	A
1	SB125	16.100	0.900	16.120	0.790	0.990	**A**	W
2		17.300	0.900	16.120	0.790	1.070	**A**	W
1	SR 90	2.600	0.100	2.760	0.100	0.940	**A**	A
1	U234	0.060	0.000	0.050	0.001	1.040	**A**	A
1	U238	0.060	0.000	0.050	0.003	1.040	**A**	A
2		0.070	0.000	0.050	0.003	1.210	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	2.000	0.200	1.500	0.400	1.330	**W**	W
2		2.100	0.200	1.500	0.400	1.390	**W**	W
1	CS137	869.000	45.000	810.000	40.000	1.070	**A**	A
2		877.000	45.000	810.000	40.000	1.080	**A**	A
1	K 40	649.000	36.000	315.000	20.000	2.060	**N**	A
2		675.000	37.000	315.000	20.000	2.140	**N**	A
1	PU238	1.100	0.400	0.440	0.090	2.500	**N**	A
2		1.200	0.300	0.440	0.090	2.720	**N**	A
1	PU239	10.400	1.000	10.160	0.370	1.020	**A**	A
2		10.600	1.100	10.160	0.370	1.040	**A**	A
1	U234	27.500	1.400	37.150	0.640	0.740	**A**	A
2		29.900	2.100	37.150	0.640	0.800	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: NZ National Radiation Laboratory, New Zealand

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**SO**	**Soil Bq/kg**						
1	U238	28.800	1.500	34.900	0.140	0.820	**A**	A
2		32.400	2.200	34.900	0.140	0.920	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	32.300	1.900	32.400	1.600	0.990	**A**	A
2		32.500	1.900	32.400	1.600	1.000	**A**	A
1	CS137	669.000	35.000	624.000	31.000	1.070	**A**	A
1	K 40	1594.000	87.000	1130.000	70.000	1.410	**W**	A
2		1631.000	88.000	1130.000	70.000	1.440	**W**	A
1	PU239	5.600	0.400	5.480	0.440	1.020	**A**	A
2		6.000	0.300	5.480	0.440	1.090	**A**	A
1	SR 90	7174.000	30.000	1434.000	75.000	5.000	**N**	N
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	22.800	1.300	23.300	1.200	0.970	**A**	A
2		23.400	1.400	23.300	1.200	1.000	**A**	A
1	CS134	63.300	3.500	66.000	2.600	0.950	**A**	
2		64.300	3.600	66.000	2.600	0.970	**A**	
1	CS137	35.700	2.100	34.300	1.700	1.040	**A**	A
2		37.000	2.100	34.300	1.700	1.070	**A**	A
1	GA	477.000	32.000	557.000	60.000	0.850	**A**	W
2		500.000	33.000	557.000	60.000	0.890	**A**	W
1	GB	893.000	38.000	712.000	70.000	1.250	**A**	A
2		901.000	38.000	712.000	70.000	1.260	**A**	A
1	MN 54	41.800	2.400	37.800	1.900	1.100	**A**	W
2		42.900	2.400	37.800	1.900	1.130	**A**	W
1	PU238	0.710	0.050	0.720	0.020	0.980	**A**	A
2		0.790	0.050	0.720	0.020	1.090	**A**	A
1	PU239	0.770	0.050	0.750	0.040	1.020	**A**	A
2		0.790	0.050	0.750	0.040	1.050	**A**	A
1	SR 90	3.100	0.100	2.940	0.180	1.050	**A**	A
1	U234	0.250	0.050	0.230	0.020	1.080	**A**	A
2		0.280	0.050	0.230	0.020	1.210	**W**	A
1	U238	0.260	0.050	0.240	0.010	1.080	**A**	A
2		0.280	0.030	0.240	0.010	1.160	**W**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: OB OBG Laboratories, East Syracuse, NY

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	GA	1.200	1.270	1.490	0.090	0.800	**A**	A
1	GB	3.350	0.050	3.000	0.140	1.110	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	GA	583.000	31.500	557.000	60.000	1.040	**A**	A
1	GB	718.500	28.500	712.000	70.000	1.000	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: OD ORNL, Radiobioassay Lab

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	15.940	0.540	19.120	0.700	0.830	**A**	A
1	CO 57	11.900	0.340	12.640	0.430	0.940	**A**	W
1	CO 60	9.630	0.110	10.730	1.090	0.890	**A**	A
1	CS134	25.560	0.540	28.170	0.730	0.900	**A**	A
1	CS137	6.860	0.370	7.310	0.250	0.930	**A**	W
1	GA	1.620	0.050	1.490	0.090	1.080	**A**	A
1	GB	3.630	0.090	3.000	0.140	1.210	**A**	A
1	MN 54	6.280	0.390	6.720	0.270	0.930	**A**	W
1	SB125	15.560	0.420	16.120	0.790	0.960	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.680	0.070	0.750	0.020	0.910	**A**	A
1	CO 60	26.260	1.810	23.300	1.200	1.120	**A**	A
1	CS134	68.600	2.680	66.000	2.600	1.030	**A**	
1	CS137	39.620	3.030	34.300	1.700	1.150	**A**	A
1	H 3	139.670	5.830	115.000	6.000	1.210	**A**	A
1	MN 54	41.750	2.990	37.800	1.900	1.100	**A**	A
1	PU238	0.720	0.070	0.720	0.020	1.000	**A**	A
1	PU239	0.740	0.080	0.750	0.040	0.990	**A**	A
1	SR 90	2.670	0.360	2.940	0.180	0.900	**A**	A
1	U234	0.260	0.020	0.230	0.020	1.150	**A**	A
1	U238	0.240	0.020	0.240	0.010	1.020	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: OL ORNL Environmental Sciences Div.

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	17.900	0.400	19.120	0.700	0.930	**A**	W
1	CO 57	12.200	0.270	12.640	0.430	0.960	**A**	W
1	CO 60	10.100	0.190	10.730	1.090	0.940	**A**	A
1	CS134	23.500	0.830	28.170	0.730	0.830	**A**	A
1	CS137	7.260	0.330	7.310	0.250	0.990	**A**	W
1	MN 54	7.100	0.310	6.720	0.270	1.050	**A**	W
1	SB125	16.500	0.860	16.120	0.790	1.020	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	896.000	28.000	810.000	40.000	1.100	**A**	A
1	K 40	360.000	25.000	315.000	20.000	1.140	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	33.300	3.400	32.400	1.600	1.020	**A**	A
1	CS137	664.000	30.400	624.000	31.000	1.060	**A**	A
1	K 40	1213.000	74.000	1130.000	70.000	1.070	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	24.200	0.610	23.300	1.200	1.030	**A**	A
1	CS134	69.000	1.200	66.000	2.600	1.040	**A**	A
1	CS137	37.400	0.740	34.300	1.700	1.090	**A**	A
1	MN 54	40.800	1.000	37.800	1.900	1.070	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: OS Oregon Health Division Radiation Controls Section, Portland

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	24.650	1.050	19.120	0.700	1.280	**N**	N
1	CO 57	14.000	2.080	12.640	0.430	1.100	**W**	N
1	CO 60	10.570	0.200	10.730	1.090	0.980	**A**	N
1	CS134	26.250	0.160	28.170	0.730	0.930	**A**	A
1	CS137	7.050	0.270	7.310	0.250	0.960	**A**	W
1	MN 54	7.250	0.280	6.720	0.270	1.070	**A**	W
1	SB125	16.820	0.740	16.120	0.790	1.040	**A**	W
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	2.240	0.220	1.500	0.400	1.490	**W**	
1	CS137	680.000	2.000	810.000	40.000	0.830	**W**	W
1	K 40	209.500	7.200	315.000	20.000	0.660	**N**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: OT ORNL Radioactive Material Analysis Lab

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	18.000	1.000	19.120	0.700	0.940	**A**	A
1	CO 57	13.000	1.000	12.640	0.430	1.020	**A**	W
1	CO 60	10.000	1.000	10.730	1.090	0.930	**A**	A
1	CS134	25.000	1.000	28.170	0.730	0.880	**A**	A
1	CS137	7.300	0.200	7.310	0.250	0.990	**A**	A
1	MN 54	6.900	0.200	6.720	0.270	1.020	**A**	A
1	SB125	17.000	1.000	16.120	0.790	1.050	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.900	1.300	1.500	0.400	1.260	**A**	W
1	CS137	740.000	10.000	810.000	40.000	0.910	**A**	A
1	K 40	290.000	30.000	315.000	20.000	0.920	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	27.000	3.000	32.400	1.600	0.830	**A**	A
1	CS137	570.000	10.000	624.000	31.000	0.910	**A**	A
1	K 40	1000.000	100.000	1130.000	70.000	0.880	**W**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	22.000	2.000	23.300	1.200	0.940	**A**	A
1	CS134	66.000	2.000	66.000	2.600	1.000	**A**	
1	CS137	34.000	2.000	34.300	1.700	0.990	**A**	A
1	MN 54	40.000	2.000	37.800	1.900	1.050	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: OU Outreach Laboratory, Broken Arrow, OK

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	12.500	1.680	19.120	0.700	0.650	**W**	
1	CO 57	12.000	1.550	12.640	0.430	0.940	**A**	
1	CO 60	10.990	3.740	10.730	1.090	1.020	**A**	
1	CS134	25.300	6.810	28.170	0.730	0.890	**A**	
1	CS137	6.710	1.780	7.310	0.250	0.910	**A**	
1	GA	1.600	0.160	1.490	0.090	1.070	**A**	
1	GB	2.170	0.150	3.000	0.140	0.720	**W**	
1	MN 54	7.330	2.140	6.720	0.270	1.090	**A**	
1	SB125	16.090	3.740	16.120	0.790	0.990	**A**	
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	837.000	28.000	810.000	40.000	1.030	**A**	
1	K 40	292.000	69.800	315.000	20.000	0.920	**A**	
1	U UG	2.410		2.820	0.200	0.850	**A**	
1	U234	29.500	5.120	37.150	0.640	0.790	**A**	
1	U238	28.750	4.650	34.900	0.140	0.820	**A**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	22.400	9.100	32.400	1.600	0.690	**W**	
1	CS137	608.000	32.500	624.000	31.000	0.970	**A**	
1	K 40	822.000	133.000	1130.000	70.000	0.720	**N**	
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	21.930	4.270	23.300	1.200	0.940	**A**	
1	CS134	60.600	12.700	66.000	2.600	0.910	**A**	A
1	CS137	33.400	4.900	34.300	1.700	0.970	**A**	A
1	GA	717.000	86.800	557.000	60.000	1.280	**W**	
1	GB	1247.000	123.000	712.000	70.000	1.750	**N**	
1	H 3	172.000	14.000	115.000	6.000	1.490	**W**	
1	MN 54	33.980	6.300	37.800	1.900	0.890	**W**	
1	U UG	0.020		0.020	0.001	1.210	**W**	
1	U234	0.290	0.003	0.230	0.020	1.290	**W**	
1	U238	0.290	0.005	0.240	0.010	1.220	**W**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: PO Institute of Oceanology PAN, Poland

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CO 60	10.400	0.600	10.730	1.090	0.960	**A**	A
1	CS134	29.700	1.500	28.170	0.730	1.050	**A**	A
1	CS137	7.400	0.900	7.310	0.250	1.010	**A**	A
1	MN 54	6.600	0.700	6.720	0.270	0.980	**A**	
1	SB125	19.000	2.200	16.120	0.790	1.170	**W**	
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.100	0.300	1.500	0.400	0.730	**N**	W
1	CS137	837.000	42.000	810.000	40.000	1.030	**A**	A
1	K 40	299.000	24.000	315.000	20.000	0.940	**A**	A
1	PU238	0.400	0.100	0.440	0.090	0.900	**A**	
1	PU239	11.300	0.500	10.160	0.370	1.110	**A**	W
1	SR 90	37.000	3.000	34.750	1.000	1.060	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	28.500	2.600	32.400	1.600	0.870	**A**	A
1	CS137	648.000	32.000	624.000	31.000	1.030	**A**	A
1	K 40	1062.000	53.000	1130.000	70.000	0.930	**A**	A
1	PU238	0.300	0.200	0.400	0.150	0.750	**W**	W
1	PU239	4.000	2.000	5.480	0.440	0.720	**W**	A
1	SR 90	1360.000	120.000	1434.000	75.000	0.940	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: PR Princeton Plasma Physics Lab

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.140	0.000	0.210	0.009	0.690	**W**	
1	CE144	9.490	0.220	19.120	0.700	0.490	**N**	
2		9.710	0.220	19.120	0.700	0.500	**N**	
3		9.940	0.220	19.120	0.700	0.520	**N**	
1	CO 57	8.800	0.260	12.640	0.430	0.690	**A**	
2		9.090	0.260	12.640	0.430	0.710	**A**	
3		9.170	0.260	12.640	0.430	0.720	**A**	
4		9.300	0.260	12.640	0.430	0.730	**A**	
1	CO 60	8.380	0.180	10.730	1.090	0.780	**W**	
2		8.590	0.180	10.730	1.090	0.800	**W**	
3		8.660	0.180	10.730	1.090	0.800	**W**	
4		8.730	0.180	10.730	1.090	0.810	**W**	
1	CS134	21.800	0.350	28.170	0.730	0.770	**W**	
2		21.950	0.350	28.170	0.730	0.770	**W**	
3		22.080	0.350	28.170	0.730	0.780	**W**	
4		22.490	0.360	28.170	0.730	0.790	**W**	
1	CS137	4.930	0.090	7.310	0.250	0.670	**N**	
2		5.040	0.090	7.310	0.250	0.680	**N**	
3		5.050	0.090	7.310	0.250	0.690	**N**	
4		5.120	0.090	7.310	0.250	0.700	**N**	
1	MN 54	5.390	0.110	6.720	0.270	0.800	**W**	
2		5.400	0.110	6.720	0.270	0.800	**W**	
3		5.460	0.110	6.720	0.270	0.810	**W**	
4		5.600	0.110	6.720	0.270	0.830	**A**	
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	1.240	0.000	6.040	0.580	0.200	**N**	
1	CO 60	0.930	0.001	1.500	0.400	0.620	**N**	
2		0.940	0.001	1.500	0.400	0.620	**N**	
1	CS137	264.970	0.080	810.000	40.000	0.320	**N**	
2		265.090	0.080	810.000	40.000	0.320	**N**	
1	K 40	135.050	0.000	315.000	20.000	0.420	**N**	
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	27.380	0.260	23.300	1.200	1.170	**W**	
2		27.570	0.260	23.300	1.200	1.180	**N**	
3		27.630	0.260	23.300	1.200	1.180	**N**	
4		28.000	0.260	23.300	1.200	1.200	**N**	
1	CS134	79.280	1.920	66.000	2.600	1.200	**W**	
2		80.080	1.920	66.000	2.600	1.210	**W**	
3		81.450	1.920	66.000	2.600	1.230	**W**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: PR Princeton Plasma Physics Lab

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
4	CS134	83.660	1.920	66.000	2.600	1.260	**N**	
1	CS137	42.430	0.300	34.300	1.700	1.230	**W**	
2		42.580	0.300	34.300	1.700	1.240	**W**	
3		42.720	0.300	34.300	1.700	1.240	**W**	
4		43.130	0.300	34.300	1.700	1.250	**W**	
1	H 3	120.770	1.910	115.000	6.000	1.050	**A**	A
2		121.030	2.040	115.000	6.000	1.050	**A**	A
3		121.400	1.360	115.000	6.000	1.050	**A**	A
4		121.800	0.590	115.000	6.000	1.050	**A**	A
5		122.430	1.860	115.000	6.000	1.060	**A**	A
6		123.200	1.110	115.000	6.000	1.070	**A**	A
1	MN 54	41.030	0.640	37.800	1.900	1.080	**A**	
2		41.830	0.640	37.800	1.900	1.100	**A**	
3		42.270	0.640	37.800	1.900	1.110	**A**	
4		42.490	0.640	37.800	1.900	1.120	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: RA V. G. Khlopin Radium Institute, St. Petersburg, Russia

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	15.000	1.000	19.120	0.700	0.780	**A**	A
2		17.600	0.900	19.120	0.700	0.920	**A**	A
1	CO 57	11.100	0.600	12.640	0.430	0.870	**A**	A
2		12.400	0.520	12.640	0.430	0.980	**A**	A
1	CO 60	9.580	0.310	10.730	1.090	0.890	**A**	A
2		9.600	0.700	10.730	1.090	0.890	**A**	A
1	CS134	25.000	1.600	28.170	0.730	0.880	**A**	A
2		28.800	2.000	28.170	0.730	1.020	**A**	A
1	CS137	6.500	0.500	7.310	0.250	0.880	**A**	A
2		7.310	0.480	7.310	0.250	1.000	**A**	A
1	MN 54	6.300	0.600	6.720	0.270	0.930	**A**	A
2		6.960	0.570	6.720	0.270	1.030	**A**	A
1	PU238	0.240	0.050	0.210	0.007	1.110	**A**	A
1	PU239	0.120	0.020	0.100	0.004	1.110	**A**	A
1	SB125	15.000	1.400	16.120	0.790	0.930	**A**	A
2		17.100	1.700	16.120	0.790	1.060	**A**	A
1	SR 90	2.800	0.600	2.760	0.100	1.010	**A**	A
1	U UG	5.600	0.500	4.650	0.210	1.200	**A**	A
2		5.900	0.500	4.650	0.210	1.260	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	780.000	50.000	810.000	40.000	0.960	**A**	A
2		806.000	21.000	810.000	40.000	0.990	**A**	A
1	K 40	210.000	70.000	315.000	20.000	0.660	**N**	A
2		220.000	30.000	315.000	20.000	0.690	**N**	A
1	PU239	12.100	1.200	10.160	0.370	1.190	**A**	A
1	SR 90	37.000	8.000	34.750	1.000	1.060	**A**	A
1	U UG	2.700	0.280	2.820	0.200	0.950	**A**	A
1	U238	41.000	8.000	34.900	0.140	1.170	**W**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	29.100	0.900	32.400	1.600	0.890	**A**	N
2		31.200	3.100	32.400	1.600	0.960	**A**	N
1	CS137	595.000	35.000	624.000	31.000	0.950	**A**	A
2		612.000	16.000	624.000	31.000	0.980	**A**	A
1	K 40	864.000	65.000	1130.000	70.000	0.760	**N**	A
2		890.000	90.000	1130.000	70.000	0.780	**N**	A
1	PU238	0.550	0.110	0.400	0.150	1.370	**A**	W
1	PU239	6.500	0.700	5.480	0.440	1.180	**A**	A
1	SR 90	1600.000	300.000	1434.000	75.000	1.110	**W**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: RC US NRC Region I Laboratory, PA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	16.300	1.400	19.120	0.700	0.850	**A**	
1	CO 57	10.600	0.600	12.640	0.430	0.830	**A**	
1	CO 60	9.400	0.800	10.730	1.090	0.870	**A**	
1	CS134	26.000	2.000	28.170	0.730	0.920	**A**	
1	CS137	6.400	0.400	7.310	0.250	0.870	**A**	
1	GA	2.200	0.200	1.490	0.090	1.470	**W**	
1	GB	3.200	0.300	3.000	0.140	1.060	**A**	
1	MN 54	6.000	0.500	6.720	0.270	0.890	**A**	
1	SB125	15.900	0.900	16.120	0.790	0.980	**A**	
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.500	0.400	1.500	0.400	1.000	**A**	
1	CS137	810.000	40.000	810.000	40.000	1.000	**A**	
1	K 40	300.000	20.000	315.000	20.000	0.950	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	22.800	1.200	23.300	1.200	0.970	**A**	A
1	CS134	66.000	4.000	66.000	2.600	1.000	**A**	A
1	CS137	34.000	2.000	34.300	1.700	0.990	**A**	A
1	H 3	130.000	7.000	115.000	6.000	1.130	**A**	A
1	MN 54	40.000	2.000	37.800	1.900	1.050	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: RD Radiation Detection Company, CA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	GA	1.450	0.040	1.490	0.090	0.970	**A**	A
1	GB	1.480	0.070	3.000	0.140	0.490	**N**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: RE Bechtel Nevada, Mercury, NV

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.230	0.020	0.210	0.009	1.070	**A**	A
1	CE144	15.800	2.400	19.120	0.700	0.820	**A**	A
1	CO 57	12.000	1.100	12.640	0.430	0.940	**A**	A
1	CO 60	9.720	1.070	10.730	1.090	0.900	**A**	A
1	CS134	23.900	2.100	28.170	0.730	0.840	**A**	A
1	CS137	6.440	0.750	7.310	0.250	0.880	**A**	A
1	GA	1.560	0.180	1.490	0.090	1.040	**A**	A
1	GB	2.940	0.880	3.000	0.140	0.980	**A**	A
1	MN 54	6.510	0.760	6.720	0.270	0.960	**A**	A
1	PU238	0.210	0.020	0.210	0.007	0.990	**A**	A
1	SB125	15.500	1.900	16.120	0.790	0.960	**A**	A
1	SR 90	2.560	0.150	2.760	0.100	0.920	**A**	A
1	U234	0.060	0.008	0.050	0.001	1.130	**A**	A
1	U238	0.060	0.008	0.050	0.003	1.180	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	5.750	0.790	6.040	0.580	0.950	**A**	A
1	CO 60	1.170	0.480	1.500	0.400	0.770	**N**	A
1	CS137	618.000	47.000	810.000	40.000	0.760	**N**	W
1	K 40	236.000	26.000	315.000	20.000	0.740	**W**	W
1	PU239	10.100	1.400	10.160	0.370	0.990	**A**	W
1	SR 90	30.000	3.300	34.750	1.000	0.860	**A**	A
1	U234	32.900	3.800	37.150	0.640	0.880	**A**	A
1	U238	34.600	3.900	34.900	0.140	0.990	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.980	0.590	3.460	0.250	1.150	**A**	A
1	CO 60	21.000	3.200	32.400	1.600	0.640	**W**	A
1	CS137	371.000	31.000	624.000	31.000	0.590	**N**	W
1	K 40	993.000	100.000	1130.000	70.000	0.870	**W**	A
1	PU239	4.970	0.460	5.480	0.440	0.900	**A**	W
1	SR 90	1280.000	67.000	1434.000	75.000	0.890	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.710	0.070	0.750	0.020	0.950	**A**	A
1	CO 60	23.200	2.800	23.300	1.200	0.990	**A**	A
1	CS134	65.200	6.200	66.000	2.600	0.980	**A**	
1	CS137	35.300	3.800	34.300	1.700	1.020	**A**	A
1	GA	533.000	80.000	557.000	60.000	0.950	**A**	W
1	GB	850.000	108.000	712.000	70.000	1.190	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: RE Bechtel Nevada, Mercury, NV

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	H 3	123.000	22.000	115.000	6.000	1.060	**A**	A
1	MN 54	41.500	4.400	37.800	1.900	1.090	**A**	A
1	PU238	0.650	0.070	0.720	0.020	0.910	**A**	W
1	PU239	0.690	0.070	0.750	0.040	0.920	**A**	A
1	SR 90	2.640	0.210	2.940	0.180	0.890	**A**	A
1	U234	0.250	0.030	0.230	0.020	1.100	**A**	A
1	U238	0.250	0.030	0.240	0.010	1.070	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: RI Rust Federal Services of Hanford, Inc., 222S Lab

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.430	0.030	0.210	0.009	2.030	**N**	A
1	CE144	19.700	2.000	19.120	0.700	1.030	**A**	A
1	CO 57	12.300	0.460	12.640	0.430	0.970	**A**	A
1	CO 60	9.320	0.460	10.730	1.090	0.860	**A**	A
1	CS134	27.900	0.560	28.170	0.730	0.990	**A**	A
1	CS137	6.960	0.660	7.310	0.250	0.950	**A**	A
1	MN 54	6.490	0.640	6.720	0.270	0.960	**A**	A
1	PU238	0.220	0.010	0.210	0.007	1.040	**A**	W
1	SB125	8.720	0.960	16.120	0.790	0.540	**N**	A
1	SR 90	2.950	0.180	2.760	0.100	1.060	**A**	W
1	U UG	4.320	0.090	4.650	0.210	0.920	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	945.000	15.000	810.000	40.000	1.160	**A**	W
1	K 40	266.000	94.000	315.000	20.000	0.840	**W**	A
1	SR 90	43.700	5.700	34.750	1.000	1.250	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	5.570	0.460	3.460	0.250	1.600	**W**	
1	CM244	3.030	0.310	2.750	0.100	1.100	**A**	
1	CO 60	34.900	5.900	32.400	1.600	1.070	**A**	A
1	CS137	76.900	18.000	624.000	31.000	0.120	**N**	W
1	K 40	1234.000	155.000	1130.000	70.000	1.090	**A**	A
1	PU239	5.110	0.400	5.480	0.440	0.930	**A**	
1	SR 90	1150.000	57.000	1434.000	75.000	0.800	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.800	0.050	0.750	0.020	1.070	**A**	A
1	CO 60	24.200	2.300	23.300	1.200	1.030	**A**	A
1	CS134	67.700	2.300	66.000	2.600	1.020	**A**	N
1	CS137	35.600	4.000	34.300	1.700	1.030	**A**	A
1	MN 54	37.800	3.500	37.800	1.900	1.000	**A**	A
1	PU238	0.710	0.050	0.720	0.020	0.980	**A**	W
1	PU239	0.640	0.040	0.750	0.040	0.860	**W**	A
1	SR 90	2.990	0.380	2.940	0.180	1.010	**A**	A
1	U UG	0.010	0.000	0.020	0.001	0.870	**W**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: RL Thermo Hanford

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.650	0.140	0.210	0.009	3.050	**N**	
1	CE144	16.500	1.300	19.120	0.700	0.860	**A**	N
1	CO 57	11.300	1.700	12.640	0.430	0.890	**A**	N
1	CO 60	8.420	2.600	10.730	1.090	0.780	**W**	N
1	CS134	21.500	0.750	28.170	0.730	0.760	**W**	N
1	CS137	7.170	1.300	7.310	0.250	0.980	**A**	N
1	GA	1.600	0.120	1.490	0.090	1.070	**A**	A
1	GB	3.900	0.300	3.000	0.140	1.300	**A**	A
1	MN 54	6.660	1.200	6.720	0.270	0.990	**A**	N
1	SB125	17.300	5.800	16.120	0.790	1.070	**A**	N
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	759.000	65.000	810.000	40.000	0.930	**A**	A
1	K 40	297.000	72.400	315.000	20.000	0.940	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	37.200	7.600	32.400	1.600	1.140	**A**	A
1	CS137	625.000	65.800	624.000	31.000	1.000	**A**	A
1	K 40	1155.000	92.000	1130.000	70.000	1.020	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	27.900	7.600	23.300	1.200	1.190	**N**	A
1	CS134	75.600	3.800	66.000	2.600	1.140	**A**	
1	CS137	43.100	2.200	34.300	1.700	1.250	**W**	A
1	GA	150.000	8.000	557.000	60.000	0.260	**N**	N
1	GB	850.000	44.500	712.000	70.000	1.190	**A**	A
1	MN 54	51.500	5.600	37.800	1.900	1.360	**N**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: SA Sandia Labs Radioactive Sample Diag. Prog., NM

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	16.600	1.660	19.120	0.700	0.860	**A**	A
1	CO 57	11.600	1.200	12.640	0.430	0.910	**A**	A
1	CO 60	9.600	0.670	10.730	1.090	0.890	**A**	A
1	CS134	25.200	1.900	28.170	0.730	0.890	**A**	A
1	CS137	6.600	0.560	7.310	0.250	0.900	**A**	A
1	GA	1.570	0.220	1.490	0.090	1.050	**A**	A
1	GB	2.850	0.230	3.000	0.140	0.940	**A**	A
1	MN 54	6.600	0.530	6.720	0.270	0.980	**A**	A
1	SB125	16.300	0.890	16.120	0.790	1.010	**A**	W
1	U UG	5.050	0.210	4.650	0.210	1.080	**A**	
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	864.000	17.000	810.000	40.000	1.060	**A**	A
1	K 40	331.000	26.000	315.000	20.000	1.050	**A**	A
1	U UG	2.200	0.130	2.820	0.200	0.780	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	24.000	1.000	23.300	1.200	1.030	**A**	A
1	CS134	70.000	1.400	66.000	2.600	1.060	**A**	
1	CS137	36.000	2.100	34.300	1.700	1.040	**A**	A
1	GA	415.000	42.000	557.000	60.000	0.740	**W**	W
1	GB	1234.000	99.000	712.000	70.000	1.730	**N**	A
1	H 3	139.000	28.000	115.000	6.000	1.200	**A**	
1	MN 54	43.000	1.700	37.800	1.900	1.130	**A**	A
1	U UG	0.020	0.002	0.020	0.001	1.000	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: SB SC Dept. of Health and Environment Control Radiological Lab

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	16.700	0.200	19.120	0.700	0.870	**A**	
1	CO 57	11.300	0.200	12.640	0.430	0.890	**A**	
1	CO 60	8.900	0.200	10.730	1.090	0.820	**A**	
1	CS134	21.300	0.300	28.170	0.730	0.750	**W**	
1	CS137	7.000	0.200	7.310	0.250	0.950	**A**	
1	GA	2.220	0.140	1.490	0.090	1.480	**W**	W
1	GB	3.370	0.120	3.000	0.140	1.120	**A**	A
1	MN 54	6.290	0.250	6.720	0.270	0.930	**A**	
1	SB125	13.000	0.200	16.120	0.790	0.800	**W**	
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.250	0.150	1.500	0.400	0.830	**W**	
1	CS137	710.000	35.000	810.000	40.000	0.870	**W**	A
1	K 40	275.000	30.000	315.000	20.000	0.870	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	31.800	1.200	32.400	1.600	0.980	**A**	W
1	CS137	632.000	40.000	624.000	31.000	1.010	**A**	N
1	K 40	1190.000	120.000	1130.000	70.000	1.050	**A**	N
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	2.290	0.100	23.300	1.200	0.090	**N**	N
1	CS134	5.920	0.240	66.000	2.600	0.080	**N**	N
1	CS137	3.110	0.150	34.300	1.700	0.090	**N**	N
1	GA	493.000	20.000	557.000	60.000	0.880	**A**	W
1	GB	793.000	30.000	712.000	70.000	1.110	**A**	N
1	H 3	310.000	15.000	115.000	6.000	2.690	**N**	N
1	MN 54	3.700	0.100	37.800	1.900	0.090	**N**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: SK Savannah River Plant

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.230	0.040	0.210	0.009	1.070	**A**	
1	CE144	16.200	1.400	19.120	0.700	0.840	**A**	A
1	CO 57	11.400	1.000	12.640	0.430	0.900	**A**	A
1	CO 60	9.500	1.000	10.730	1.090	0.880	**A**	A
1	CS134	26.200	2.700	28.170	0.730	0.930	**A**	W
1	CS137	6.220	0.530	7.310	0.250	0.850	**A**	A
1	MN 54	5.820	0.500	6.720	0.270	0.860	**A**	A
1	SB125	9.800	1.000	16.120	0.790	0.600	**W**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.250	0.060	1.500	0.400	0.830	**W**	W
1	CS137	908.000	45.000	810.000	40.000	1.120	**A**	W
1	K 40	301.000	19.000	315.000	20.000	0.950	**A**	A
1	PU239	10.240	0.090	10.160	0.370	1.000	**A**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.700	0.300	3.460	0.250	1.060	**A**	
1	CM244	2.600	0.200	2.750	0.100	0.940	**A**	
1	CO 60	34.300	3.200	32.400	1.600	1.050	**A**	A
1	CS137	683.000	58.000	624.000	31.000	1.090	**A**	A
1	K 40	1055.000	69.000	1130.000	70.000	0.930	**A**	A
1	PU239	5.450	0.120	5.480	0.440	0.990	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.710	0.060	0.750	0.020	0.940	**A**	
1	CO 60	25.100	2.100	23.300	1.200	1.070	**A**	W
1	CS134	76.200	6.500	66.000	2.600	1.150	**A**	
1	CS137	36.300	2.200	34.300	1.700	1.050	**A**	A
1	H 3	122.000	1.000	115.000	6.000	1.060	**A**	
1	MN 54	39.400	1.000	37.800	1.900	1.040	**A**	A
1	PU238	0.740	0.060	0.720	0.020	1.020	**A**	
1	PU239	1.090	0.050	0.750	0.040	1.450	**N**	
1	U UG	0.020	0.003	0.020	0.001	1.050	**A**	
1	U234	0.250	0.040	0.230	0.020	1.080	**A**	
1	U238	0.250	0.040	0.240	0.010	1.040	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x (**

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

QAP 47 Results by Laboratory

Lab: SL Stanford Linear Accelerator Center

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	22.400	1.000	23.300	1.200	0.960	**A**	A
1	CS134	74.000	2.000	66.000	2.600	1.120	**A**	N
1	CS137	35.400	1.000	34.300	1.700	1.030	**A**	A
1	MN 54	36.000	1.000	37.800	1.900	0.950	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: SN Sanford Cohen Associates, Inc., Montgomery, AL

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.210	0.020	0.210	0.009	1.000	**A**	
1	PU238	0.220	0.020	0.210	0.007	1.050	**A**	A
1	U234	0.060	0.007	0.050	0.001	1.180	**A**	
1	U238	0.060	0.007	0.050	0.003	1.120	**A**	
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	9.660	2.160	6.040	0.580	1.600	**W**	
1	CO 60	1.880	0.860	1.500	0.400	1.250	**A**	A
1	CS137	953.380	95.300	810.000	40.000	1.170	**A**	A
1	K 40	382.530	38.990	315.000	20.000	1.210	**A**	A
1	PU239	27.620	4.540	10.160	0.370	2.710	**N**	A
1	U234	38.380	4.940	37.150	0.640	1.030	**A**	
1	U238	36.020	4.740	34.900	0.140	1.030	**A**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.390	0.850	3.460	0.250	1.270	**A**	
1	CO 60	38.770	4.010	32.400	1.600	1.190	**A**	W
1	CS137	735.470	73.620	624.000	31.000	1.170	**A**	A
1	K 40	1336.290	125.150	1130.000	70.000	1.180	**A**	W
1	PU239	6.780	1.350	5.480	0.440	1.230	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.770	0.070	0.750	0.020	1.030	**A**	
1	CO 60	23.670	2.180	23.300	1.200	1.010	**A**	A
1	CS134	67.110	6.170	66.000	2.600	1.010	**A**	
1	CS137	33.260	3.020	34.300	1.700	0.960	**A**	A
1	GA	410.980	33.180	557.000	60.000	0.730	**W**	W
1	GB	931.630	45.460	712.000	70.000	1.300	**A**	A
1	MN 54	39.990	4.230	37.800	1.900	1.050	**A**	A
1	PU238	0.730	0.070	0.720	0.020	1.020	**A**	A
1	PU239	0.810	0.080	0.750	0.040	1.090	**A**	A
1	U234	0.270	0.020	0.230	0.020	1.180	**A**	
1	U238	0.270	0.020	0.240	0.010	1.150	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: SR Savannah River Environmental Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.250	0.020	0.210	0.009	1.210	**A**	A
1	CE144	18.300	2.100	19.120	0.700	0.950	**A**	A
1	CO 57	11.900	0.700	12.640	0.430	0.940	**A**	A
1	CO 60	9.600	0.700	10.730	1.090	0.890	**A**	A
1	CS134	26.200	1.000	28.170	0.730	0.930	**A**	A
1	CS137	6.900	0.700	7.310	0.250	0.940	**A**	A
1	GA	1.530	0.130	1.490	0.090	1.020	**A**	
1	GB	3.780	0.190	3.000	0.140	1.250	**A**	
1	MN 54	6.600	0.700	6.720	0.270	0.980	**A**	A
1	PU238	0.150	0.030	0.210	0.007	0.730	**W**	A
1	PU239	0.140	0.010	0.100	0.004	1.290	**W**	A
1	SB125	17.200	0.800	16.120	0.790	1.060	**A**	A
1	SR 90	1.180	0.070	2.760	0.100	0.420	**N**	A
1	U234	0.060	0.009	0.050	0.001	1.040	**A**	A
1	U238	0.060	0.009	0.050	0.003	1.110	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	914.000	42.000	810.000	40.000	1.120	**A**	A
1	K 40	346.000	31.000	315.000	20.000	1.090	**A**	A
1	PU239	12.200	1.900	10.160	0.370	1.200	**A**	A
1	SR 90	31.000	10.000	34.750	1.000	0.890	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	5.090	0.840	3.460	0.250	1.470	**A**	A
1	CM244	2.790	0.570	2.750	0.100	1.010	**A**	A
1	CO 60	36.100	2.700	32.400	1.600	1.110	**A**	A
1	CS137	722.000	34.000	624.000	31.000	1.150	**A**	A
1	K 40	1248.000	83.000	1130.000	70.000	1.100	**A**	A
1	PU239	5.620	1.230	5.480	0.440	1.020	**A**	A
1	SR 90	1080.000	33.000	1434.000	75.000	0.750	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.880	0.110	0.750	0.020	1.170	**A**	A
1	CO 60	23.700	1.400	23.300	1.200	1.010	**A**	A
1	CS134	63.000	3.800	66.000	2.600	0.950	**A**	
1	CS137	35.500	2.100	34.300	1.700	1.030	**A**	A
1	GA	604.000	106.000	557.000	60.000	1.080	**A**	
1	GB	828.000	110.000	712.000	70.000	1.160	**A**	
1	H 3	125.000	20.000	115.000	6.000	1.080	**A**	A
1	MN 54	40.300	2.400	37.800	1.900	1.060	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: SR Savannah River Environmental Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	PU238	0.740	0.120	0.720	0.020	1.020	**A**	A
1	PU239	0.790	0.130	0.750	0.040	1.050	**A**	A
1	SR 90	2.810	1.020	2.940	0.180	0.950	**A**	A
1	U234	0.260	0.060	0.230	0.020	1.130	**A**	A
1	U238	0.250	0.060	0.240	0.010	1.040	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: SS Savannah River Tech Center

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	16.500	0.200	19.120	0.700	0.860	**A**	A
1	CO 57	11.500	0.200	12.640	0.430	0.900	**A**	A
1	CO 60	10.300	0.100	10.730	1.090	0.950	**A**	A
1	CS134	23.300	0.200	28.170	0.730	0.820	**A**	A
1	CS137	7.260	0.040	7.310	0.250	0.990	**A**	A
1	MN 54	7.050	0.080	6.720	0.270	1.040	**A**	A
1	SB125	17.200	0.200	16.120	0.790	1.060	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.060	0.140	1.500	0.400	0.700	**N**	A
1	CS137	832.000	3.000	810.000	40.000	1.020	**A**	A
1	K 40	312.000	5.000	315.000	20.000	0.990	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	33.400	0.500	32.400	1.600	1.030	**A**	A
1	CS137	698.000	3.000	624.000	31.000	1.110	**A**	A
1	K 40	1190.000	17.000	1130.000	70.000	1.050	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	22.900	0.400	23.300	1.200	0.980	**A**	A
1	CS134	66.200	1.000	66.000	2.600	1.000	**A**	
1	CS137	34.600	0.300	34.300	1.700	1.000	**A**	A
1	MN 54	39.100	1.100	37.800	1.900	1.030	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: SW Southwest Research Institute, San Antonio, TX

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.150	0.030	0.210	0.009	0.700	**W**	A
1	CE144	16.400	0.160	19.120	0.700	0.850	**A**	A
1	CO 57	11.950	0.050	12.640	0.430	0.940	**A**	A
1	CO 60	9.740	0.050	10.730	1.090	0.900	**A**	A
1	CS134	24.730	0.090	28.170	0.730	0.870	**A**	A
1	CS137	6.630	0.530	7.310	0.250	0.900	**A**	A
1	GA	2.320	0.040	1.490	0.090	1.550	**W**	A
1	GB	2.830	0.040	3.000	0.140	0.940	**A**	A
1	MN 54	6.320	0.060	6.720	0.270	0.940	**A**	A
1	PU238	0.580	0.110	0.210	0.007	2.680	**N**	W
1	SB125	14.710	0.120	16.120	0.790	0.910	**A**	A
1	SR 90	6.180	0.190	2.760	0.100	2.230	**W**	A
1	U UG	6.770	0.000	4.650	0.210	1.450	**W**	
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	9.770	1.160	6.040	0.580	1.610	**W**	A
1	CO 60	1.100	0.290	1.500	0.400	0.730	**N**	N
1	CS137	831.400	2.350	810.000	40.000	1.020	**A**	N
1	K 40	318.100	6.850	315.000	20.000	1.000	**A**	A
1	PU239	7.170	1.140	10.160	0.370	0.700	**W**	N
1	SR 90	78.150	2.960	34.750	1.000	2.240	**W**	W
1	U UG	3.030	0.000	2.820	0.200	1.070	**A**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	7.240	1.050	3.460	0.250	2.090	**W**	N
1	CM244	10.720	2.390	2.750	0.100	3.890	**N**	W
1	CO 60	43.700	0.750	32.400	1.600	1.340	**W**	N
1	CS137	905.400	2.500	624.000	31.000	1.450	**N**	A
1	K 40	1550.000	15.000	1130.000	70.000	1.370	**W**	A
1	PU239	8.330	3.600	5.480	0.440	1.520	**W**	W
1	SR 90	2785.000	27.000	1434.000	75.000	1.940	**N**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.670	0.060	0.750	0.020	0.890	**A**	A
1	CO 60	24.330	0.120	23.300	1.200	1.040	**A**	A
1	CS134	68.520	4.350	66.000	2.600	1.030	**A**	
1	CS137	36.300	0.170	34.300	1.700	1.050	**A**	A
1	GA	597.410	14.070	557.000	60.000	1.070	**A**	W
1	GB	801.110	13.150	712.000	70.000	1.120	**A**	W
1	H 3	527.700	8.800	115.000	6.000	4.580	**N**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: SW Southwest Research Institute, San Antonio, TX

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	MN 54	41.360	0.190	37.800	1.900	1.090	**A**	A
1	PU238	1.240	0.080	0.720	0.020	1.720	**N**	N
1	PU239	0.650	0.050	0.750	0.040	0.860	**W**	N
1	SR 90	6.290	0.370	2.940	0.180	2.130	**N**	A
1	U UG	0.020	0.000	0.020	0.001	1.110	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TE Teledyne Isotopes Midwest Lab, Northbrook, IL

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	16.200	1.100	19.120	0.700	0.840	**A**	
1	CO 57	10.600	0.300	12.640	0.430	0.830	**A**	A
1	CO 60	9.800	0.100	10.730	1.090	0.910	**A**	A
1	CS134	24.700	0.500	28.170	0.730	0.870	**A**	A
1	CS137	7.200	0.400	7.310	0.250	0.980	**A**	A
1	GA	1.800	0.100	1.490	0.090	1.200	**A**	A
1	GB	3.300	0.100	3.000	0.140	1.090	**A**	A
1	MN 54	6.800	0.400	6.720	0.270	1.010	**A**	W
1	PU238	0.230	0.100	0.210	0.007	1.060	**A**	N
1	SB125	18.000	1.300	16.120	0.790	1.110	**A**	W
1	SR 90	2.800	0.400	2.760	0.100	1.010	**A**	A
1	U BQ	0.130	0.100	0.110	0.004	1.110	**A**	N
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	1239.000	25.000	810.000	40.000	1.520	**N**	A
1	K 40	478.000	29.000	315.000	20.000	1.510	**W**	A
1	PU239	10.800	0.400	10.160	0.370	1.060	**A**	A
1	SR 90	32.000	6.000	34.750	1.000	0.920	**A**	A
1	U BQ	57.000	1.100	72.900	0.850	0.780	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	32.300	6.000	32.400	1.600	0.990	**A**	W
1	CS137	627.000	17.000	624.000	31.000	1.000	**A**	A
1	K 40	1092.000	95.000	1130.000	70.000	0.960	**A**	
1	SR 90	1335.000	32.000	1434.000	75.000	0.930	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	23.700	1.500	23.300	1.200	1.010	**A**	A
1	CS134	63.500	2.600	66.000	2.600	0.960	**A**	
1	CS137	34.900	2.400	34.300	1.700	1.010	**A**	A
1	FE 55	102.000	34.000	115.000	10.000	0.880	**A**	W
1	GA	597.000	12.000	557.000	60.000	1.070	**A**	W
1	GB	985.000	13.000	712.000	70.000	1.380	**W**	A
1	H 3	228.000	1.800	115.000	6.000	1.980	**N**	A
1	MN 54	39.000	3.000	37.800	1.900	1.030	**A**	A
1	PU238	0.670	0.150	0.720	0.020	0.930	**A**	A
1	PU239	0.710	0.100	0.750	0.040	0.940	**A**	A
1	SR 90	3.500	0.700	2.940	0.180	1.190	**A**	A
1	U BQ	0.460	0.100	0.480	0.030	0.950	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TI Teledyne Brown Engineering Environmental Services, Westwood, NJ

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.270	0.050	0.210	0.009	1.260	**A**	A
1	CE144	14.300	1.400	19.120	0.700	0.740	**A**	A
1	CO 57	10.600	1.100	12.640	0.430	0.830	**A**	W
1	CO 60	8.900	0.890	10.730	1.090	0.820	**A**	W
1	CS134	23.000	2.300	28.170	0.730	0.810	**A**	A
1	CS137	6.540	0.650	7.310	0.250	0.890	**A**	W
1	GA	2.200	0.100	1.490	0.090	1.470	**W**	A
1	GB	3.800	0.100	3.000	0.140	1.260	**A**	W
1	MN 54	6.320	0.630	6.720	0.270	0.940	**A**	W
1	PU238	0.240	0.050	0.210	0.007	1.110	**A**	A
1	SB125	15.700	1.600	16.120	0.790	0.970	**A**	W
1	SR 90	2.500	0.200	2.760	0.100	0.900	**A**	A
1	U UG	5.100	0.800	4.650	0.210	1.090	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	4.000	2.000	6.040	0.580	0.660	**W**	A
1	CO 60	1.790	0.560	1.500	0.400	1.190	**A**	
1	CS137	917.000	92.000	810.000	40.000	1.130	**A**	A
1	K 40	328.000	33.000	315.000	20.000	1.040	**A**	A
1	PU239	9.900	1.200	10.160	0.370	0.970	**A**	A
1	SR 90	37.000	8.000	34.750	1.000	1.060	**A**	A
1	U UG	2.500	0.400	2.820	0.200	0.880	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.000	0.900	3.460	0.250	1.150	**A**	A
1	CM244	3.200	0.800	2.750	0.100	1.160	**A**	A
1	CO 60	34.900	3.500	32.400	1.600	1.070	**A**	N
1	CS137	752.000	75.000	624.000	31.000	1.200	**A**	W
1	K 40	1240.000	120.000	1130.000	70.000	1.090	**A**	W
1	PU239	5.600	0.900	5.480	0.440	1.020	**A**	A
1	SR 90	1400.000	100.000	1434.000	75.000	0.970	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TM Thermo NUtech Albuquerque Lab, NM

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.250	0.010	0.210	0.009	1.170	**A**	A
1	CE144	20.800	0.750	19.120	0.700	1.080	**A**	W
1	CO 57	14.400	0.430	12.640	0.430	1.130	**W**	W
1	CO 60	10.800	0.400	10.730	1.090	1.000	**A**	W
1	CS134	28.100	0.850	28.170	0.730	0.990	**A**	W
1	CS137	8.230	0.310	7.310	0.250	1.120	**W**	W
1	GA	1.990	0.250	1.490	0.090	1.330	**A**	A
1	GB	2.560	0.220	3.000	0.140	0.850	**A**	W
1	MN 54	7.420	0.280	6.720	0.270	1.100	**A**	W
1	PU238	0.240	0.010	0.210	0.007	1.120	**A**	A
1	SB125	18.800	0.720	16.120	0.790	1.160	**W**	W
1	SR 90	2.400	0.180	2.760	0.100	0.860	**A**	A
1	U UG	5.080	0.560	4.650	0.210	1.090	**A**	A
1	U234	0.070	0.005	0.050	0.001	1.280	**A**	A
1	U238	0.060	0.005	0.050	0.003	1.110	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.720	1.050	6.040	0.580	1.110	**A**	A
1	CS137	880.000	27.000	810.000	40.000	1.080	**A**	A
1	K 40	292.000	57.000	315.000	20.000	0.920	**A**	A
1	PU239	10.900	0.870	10.160	0.370	1.070	**A**	A
1	SR 90	44.800	7.340	34.750	1.000	1.280	**A**	W
1	U UG	2.500	0.240	2.820	0.200	0.880	**A**	A
1	U234	32.500	2.690	37.150	0.640	0.870	**A**	A
1	U238	32.500	2.680	34.900	0.140	0.930	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.110	0.480	3.460	0.250	1.180	**A**	A
1	CM244	1.040	0.220	2.750	0.100	0.370	**N**	A
1	CO 60	34.100	3.930	32.400	1.600	1.050	**A**	W
1	CS137	675.000	21.200	624.000	31.000	1.080	**A**	W
1	K 40	1150.000	67.100	1130.000	70.000	1.010	**A**	A
1	PU239	7.140	0.370	5.480	0.440	1.300	**A**	A
1	SR 90	1250.000	74.400	1434.000	75.000	0.870	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.920	0.090	0.750	0.020	1.230	**W**	A
1	CO 60	26.100	1.030	23.300	1.200	1.120	**A**	A
1	CS134	72.100	2.300	66.000	2.600	1.090	**A**	
1	CS137	36.700	1.340	34.300	1.700	1.060	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TM Thermo NUtech Albuquerque Lab, NM

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	GA	728.000	84.400	557.000	60.000	1.300	**W**	A
1	GB	733.000	58.500	712.000	70.000	1.020	**A**	N
1	H 3	128.000	9.550	115.000	6.000	1.110	**A**	A
1	MN 54	43.400	1.540	37.800	1.900	1.140	**A**	W
1	PU238	0.780	0.030	0.720	0.020	1.090	**A**	A
1	PU239	0.800	0.030	0.750	0.040	1.070	**A**	A
1	SR 90	2.710	0.240	2.940	0.180	0.920	**A**	A
1	U UG	0.010	0.001	0.020	0.001	0.950	**A**	A
1	U234	0.270	0.020	0.230	0.020	1.170	**A**	A
1	U238	0.240	0.020	0.240	0.010	1.030	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TN Thermo NUtech, Richmond, CA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.220	0.010	0.210	0.009	1.040	**A**	A
1	CE144	15.910	1.630	19.120	0.700	0.830	**A**	N
1	CO 57	10.580	0.800	12.640	0.430	0.830	**A**	N
1	CO 60	9.090	0.290	10.730	1.090	0.840	**A**	N
1	CS134	26.920	1.070	28.170	0.730	0.950	**A**	N
1	CS137	6.240	0.360	7.310	0.250	0.850	**A**	N
1	GA	2.440	0.080	1.490	0.090	1.630	**N**	W
1	GB	3.210	0.070	3.000	0.140	1.070	**A**	N
1	MN 54	5.910	0.340	6.720	0.270	0.870	**A**	N
1	PU238	0.230	0.010	0.210	0.007	1.090	**A**	A
1	SB125	14.120	0.140	16.120	0.790	0.870	**A**	N
1	SR 90	2.920	0.150	2.760	0.100	1.060	**A**	A
1	U UG	5.330	0.860	4.650	0.210	1.140	**A**	A
1	U234	0.070	0.009	0.050	0.001	1.250	**A**	A
1	U238	0.060	0.008	0.050	0.003	1.160	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	7.070	1.260	6.040	0.580	1.170	**A**	A
1	CO 60	1.000	0.050	1.500	0.400	0.660	**N**	
1	CS137	850.000	51.000	810.000	40.000	1.040	**A**	A
1	K 40	320.000	25.600	315.000	20.000	1.010	**A**	A
1	PU239	10.800	1.510	10.160	0.370	1.060	**A**	A
1	SR 90	34.950	3.470	34.750	1.000	1.000	**A**	A
1	U UG	2.650	0.430	2.820	0.200	0.930	**A**	A
1	U234	33.890	3.870	37.150	0.640	0.910	**A**	A
1	U238	33.550	3.860	34.900	0.140	0.960	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.180	0.840	3.460	0.250	0.910	**A**	A
1	CM244	2.930	0.790	2.750	0.100	1.060	**A**	W
1	CO 60	30.000	6.400	32.400	1.600	0.920	**A**	W
1	CS137	615.000	0.200	624.000	31.000	0.980	**A**	A
1	K 40	1033.000	2.060	1130.000	70.000	0.910	**A**	A
1	PU239	6.440	1.200	5.480	0.440	1.170	**A**	A
1	SR 90	1566.000	29.740	1434.000	75.000	1.090	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.720	0.040	0.750	0.020	0.970	**A**	A
1	CO 60	23.740	2.990	23.300	1.200	1.010	**A**	A
1	CS134	79.090	9.640	66.000	2.600	1.190	**W**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TN Thermo NUtech, Richmond, CA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	CS137	35.690	4.140	34.300	1.700	1.040	**A**	A
1	FE 55	119.300	5.170	115.000	10.000	1.030	**A**	W
1	GA	558.600	21.890	557.000	60.000	1.000	**A**	W
1	GB	712.600	19.020	712.000	70.000	1.000	**A**	W
1	H 3	91.480	9.320	115.000	6.000	0.790	**A**	A
1	MN 54	41.560	5.810	37.800	1.900	1.090	**A**	A
1	PU238	0.790	0.050	0.720	0.020	1.100	**A**	A
1	PU239	0.810	0.050	0.750	0.040	1.090	**A**	A
1	SR 90	3.200	0.130	2.940	0.180	1.080	**A**	A
1	U UG	0.010	0.002	0.020	0.001	0.660	**N**	A
1	U234	0.270	0.030	0.230	0.020	1.200	**A**	A
1	U238	0.240	0.030	0.240	0.010	1.020	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TO Thermo NUtech Oak Ridge Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CO 57	16.200	1.800	12.640	0.430	1.280	**N**	W
1	CO 60	13.100	1.600	10.730	1.090	1.220	**W**	W
1	CS134	28.100	2.000	28.170	0.730	0.990	**A**	W
1	CS137	8.600	1.500	7.310	0.250	1.170	**W**	W
1	GA	1.900	0.050	1.490	0.090	1.270	**A**	W
1	GB	3.000	0.050	3.000	0.140	1.000	**A**	W
1	MN 54	8.100	1.500	6.720	0.270	1.200	**W**	A
1	SB125	21.200	1.500	16.120	0.790	1.310	**W**	W
1	U UG	3.800	0.100	4.650	0.210	0.810	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	7.200	2.600	6.040	0.580	1.190	**A**	A
1	CO 60	1.000	0.500	1.500	0.400	0.660	**N**	
1	CS137	747.400	77.500	810.000	40.000	0.920	**A**	A
1	K 40	265.900	30.800	315.000	20.000	0.840	**W**	A
1	PU239	9.800	3.000	10.160	0.370	0.960	**A**	A
1	SR 90	30.900	2.500	34.750	1.000	0.880	**A**	W
1	U UG	2.600	0.400	2.820	0.200	0.920	**A**	
1	U234	31.400	3.000	37.150	0.640	0.840	**A**	W
1	U238	33.300	2.900	34.900	0.140	0.950	**A**	W
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	2.900	1.500	3.460	0.250	0.830	**W**	W
1	CM244	1.700	1.000	2.750	0.100	0.610	**W**	N
1	CO 60	30.400	4.200	32.400	1.600	0.930	**A**	N
1	CS137	616.200	47.700	624.000	31.000	0.980	**A**	N
1	K 40	1063.000	121.800	1130.000	70.000	0.940	**A**	N
1	PU239	7.100	0.600	5.480	0.440	1.290	**A**	A
1	SR 90	1597.000	74.100	1434.000	75.000	1.110	**W**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	1.100	0.300	0.750	0.020	1.460	**W**	A
1	CO 60	23.700	1.600	23.300	1.200	1.010	**A**	A
1	CS134	65.700	4.000	66.000	2.600	0.990	**A**	
1	CS137	36.300	4.400	34.300	1.700	1.050	**A**	A
1	FE 55	162.400	49.100	115.000	10.000	1.410	**W**	N
1	GA	712.200	29.700	557.000	60.000	1.270	**W**	W
1	GB	770.100	24.800	712.000	70.000	1.080	**A**	A
1	H 3	120.800	22.400	115.000	6.000	1.050	**A**	A
1	MN 54	40.600	5.200	37.800	1.900	1.070	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TO Thermo NUtech Oak Ridge Laboratory

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	PU238	0.800	0.200	0.720	0.020	1.110	**A**	A
1	PU239	0.800	0.200	0.750	0.040	1.060	**A**	A
1	SR 90	2.700	0.300	2.940	0.180	0.910	**A**	A
1	U UG	0.020	0.001	0.020	0.001	1.000	**A**	A
1	U234	0.280	0.130	0.230	0.020	1.240	**W**	A
1	U238	0.300	0.150	0.240	0.010	1.280	**W**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TP Taiwan Power Company, Taipei, Taiwan

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	13.290	0.970	19.120	0.700	0.690	**A**	A
1	CO 57	11.330	0.140	12.640	0.430	0.890	**A**	A
1	CO 60	9.350	0.070	10.730	1.090	0.870	**A**	A
1	CS134	24.120	1.320	28.170	0.730	0.850	**A**	A
1	CS137	6.610	0.230	7.310	0.250	0.900	**A**	A
1	GA	1.560	0.080	1.490	0.090	1.050	**A**	A
1	GB	2.510	0.140	3.000	0.140	0.830	**A**	A
1	MN 54	6.350	0.110	6.720	0.270	0.940	**A**	A
1	SB125	14.940	0.460	16.120	0.790	0.920	**A**	A
1	SR 90	2.410	0.120	2.760	0.100	0.870	**A**	W
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	747.250	14.590	810.000	40.000	0.920	**A**	A
1	K 40	302.430	8.430	315.000	20.000	0.960	**A**	
1	SR 90	40.220	1.210	34.750	1.000	1.150	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	27.940	0.980	32.400	1.600	0.860	**A**	A
1	CS137	574.570	19.210	624.000	31.000	0.920	**A**	A
1	K 40	1002.250	27.770	1130.000	70.000	0.880	**W**	A
1	SR 90	1441.080	130.600	1434.000	75.000	1.000	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	22.600	1.670	23.300	1.200	0.970	**A**	A
1	CS137	21.710	0.820	34.300	1.700	0.630	**N**	A
1	GA	428.350	72.520	557.000	60.000	0.760	**W**	
1	GB	736.960	84.910	712.000	70.000	1.030	**A**	A
1	H 3	126.460	1.280	115.000	6.000	1.090	**A**	A
1	MN 54	34.880	1.290	37.800	1.900	0.920	**A**	A
1	SR 90	2.870	0.310	2.940	0.180	0.970	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TR University of Istanbul, Turkey

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.080	0.210	0.009	0.940	**A**	
1	CE144	18.150	1.250	19.120	0.700	0.940	**A**	W
1	CO 57	12.880	1.190	12.640	0.430	1.010	**A**	N
1	CO 60	10.420	0.650	10.730	1.090	0.970	**A**	N
1	CS134	25.120	2.320	28.170	0.730	0.890	**A**	N
1	CS137	7.500	0.700	7.310	0.250	1.020	**A**	N
1	MN 54	6.670	0.540	6.720	0.270	0.990	**A**	N
1	SB125	14.960	1.230	16.120	0.790	0.920	**A**	N
1	U238	0.080	0.010	0.050	0.003	1.400	**W**	
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	0.630	0.370	1.500	0.400	0.420	**N**	N
1	CS137	758.680	14.130	810.000	40.000	0.930	**A**	N
1	K 40	322.000	13.650	315.000	20.000	1.020	**A**	N
1	U238	47.300	6.250	34.900	0.140	1.350	**W**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	5.010	1.740	3.460	0.250	1.440	**A**	N
1	CO 60	29.240	3.150	32.400	1.600	0.900	**A**	A
1	CS137	596.400	24.020	624.000	31.000	0.950	**A**	N
1	K 40	860.770	24.980	1130.000	70.000	0.760	**N**	N
1	PU239	2.970	0.770	5.480	0.440	0.540	**N**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TW Taiwan Radiation Monitoring Center

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.240	0.009	0.210	0.009	1.160	**A**	W
1	GA	1.410	0.020	1.490	0.090	0.940	**A**	A
1	GB	2.730	0.020	3.000	0.140	0.910	**A**	A
1	PU238	0.240	0.007	0.210	0.007	1.120	**A**	W
1	PU239	0.120	0.005	0.100	0.004	1.140	**A**	A
1	SR 90	2.820	0.090	2.760	0.100	1.020	**A**	A
1	U234	0.060	0.005	0.050	0.001	1.180	**A**	A
1	U238	0.070	0.005	0.050	0.003	1.240	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.600	0.300	6.040	0.580	1.090	**A**	N
1	CS137	804.000	7.000	810.000	40.000	0.990	**A**	A
1	K 40	314.000	14.000	315.000	20.000	0.990	**A**	A
1	PU238	0.750	0.070	0.440	0.090	1.700	**W**	W
1	PU239	11.400	0.300	10.160	0.370	1.120	**A**	W
1	SR 90	31.000	2.000	34.750	1.000	0.890	**A**	A
1	U234	18.300	0.400	37.150	0.640	0.490	**W**	A
1	U238	19.600	0.500	34.900	0.140	0.560	**W**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.300	0.200	3.460	0.250	0.950	**A**	A
1	CM244	2.600	0.200	2.750	0.100	0.940	**A**	A
1	CO 60	31.500	0.900	32.400	1.600	0.970	**A**	A
1	CS137	667.000	6.000	624.000	31.000	1.060	**A**	A
1	K 40	1148.000	23.000	1130.000	70.000	1.010	**A**	A
1	PU238	0.500	0.060	0.400	0.150	1.240	**A**	
1	PU239	6.100	0.200	5.480	0.440	1.110	**A**	A
1	SR 90	1490.000	14.000	1434.000	75.000	1.030	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.830	0.020	0.750	0.020	1.100	**A**	A
1	CO 60	21.600	0.900	23.300	1.200	0.920	**A**	A
1	CS134	57.600	0.900	66.000	2.600	0.870	**N**	A
1	CS137	31.500	0.900	34.300	1.700	0.910	**A**	A
1	GA	387.000	0.200	557.000	60.000	0.690	**W**	W
1	GB	923.700	0.100	712.000	70.000	1.290	**A**	A
1	H 3	128.000	4.000	115.000	6.000	1.110	**A**	A
1	MN 54	36.900	0.900	37.800	1.900	0.970	**A**	A
1	PU238	0.770	0.020	0.720	0.020	1.060	**A**	A
1	PU239	0.760	0.020	0.750	0.040	1.010	**A**	A
1	SR 90	3.000	0.300	2.940	0.180	1.020	**A**	A
1	U234	0.290	0.020	0.230	0.020	1.260	**W**	W
1	U238	0.300	0.020	0.240	0.010	1.250	**W**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TX Texas Dept. of Health/Laboratories, Austin

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.270	0.010	0.210	0.009	1.300	**A**	A
1	CE144	17.400	0.200	19.120	0.700	0.910	**A**	A
1	CO 57	11.480	0.060	12.640	0.430	0.900	**A**	A
1	CO 60	9.700	0.100	10.730	1.090	0.900	**A**	A
1	CS134	24.000	0.100	28.170	0.730	0.850	**A**	A
1	CS137	6.750	0.100	7.310	0.250	0.920	**A**	A
1	GA	1.770	0.060	1.490	0.090	1.180	**A**	A
1	GB	3.060	0.080	3.000	0.140	1.010	**A**	W
1	MN 54	6.820	0.100	6.720	0.270	1.010	**A**	W
1	PU238	0.240	0.008	0.210	0.007	1.110	**A**	A
1	PU239	0.120	0.006	0.100	0.004	1.140	**A**	W
1	SB125	15.840	0.170	16.120	0.790	0.980	**A**	A
1	U BQ	0.130	0.009	0.110	0.004	1.170	**A**	
1	U234	0.060	0.004	0.050	0.001	1.130	**A**	A
1	U238	0.060	0.004	0.050	0.003	1.160	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	8.640	1.170	6.040	0.580	1.430	**A**	A
1	CO 60	1.440	0.270	1.500	0.400	0.960	**A**	W
1	CS137	860.000	3.000	810.000	40.000	1.060	**A**	A
1	K 40	323.000	8.000	315.000	20.000	1.020	**A**	A
1	PU239	11.400	0.500	10.160	0.370	1.120	**A**	A
1	SR 90	38.000	8.000	34.750	1.000	1.090	**A**	A
1	U BQ	79.800	2.400	72.900	0.850	1.090	**A**	
1	U234	37.800	1.000	37.150	0.640	1.010	**A**	W
1	U238	39.600	1.000	34.900	0.140	1.130	**W**	W
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.350	0.540	3.460	0.250	1.250	**A**	A
1	CO 60	36.100	1.500	32.400	1.600	1.110	**A**	A
1	CS137	709.000	5.000	624.000	31.000	1.130	**A**	A
1	K 40	1250.000	30.000	1130.000	70.000	1.100	**A**	A
1	PU239	6.200	0.300	5.480	0.440	1.130	**A**	A
1	SR 90	1277.000	36.000	1434.000	75.000	0.890	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.870	0.070	0.750	0.020	1.160	**A**	W
1	CO 60	24.500	0.200	23.300	1.200	1.050	**A**	A
1	CS134	67.340	0.310	66.000	2.600	1.020	**A**	
1	CS137	36.000	0.300	34.300	1.700	1.040	**A**	A
1	GA	687.000	30.000	557.000	60.000	1.230	**W**	W
1	GB	837.000	35.000	712.000	70.000	1.170	**A**	W
1	H 3	128.000	8.000	115.000	6.000	1.110	**A**	A
1	MN 54	42.300	0.400	37.800	1.900	1.110	**A**	A
1	PU238	0.780	0.030	0.720	0.020	1.090	**A**	A
1	PU239	0.800	0.030	0.750	0.040	1.070	**A**	A
1	SR 90	3.230	0.440	2.940	0.180	1.090	**A**	A
1	U BQ	0.590	0.040	0.480	0.030	1.230	**W**	
1	U234	0.270	0.010	0.230	0.020	1.190	**A**	W
1	U238	0.290	0.010	0.240	0.010	1.230	**W**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TY Scientific Production Association, Typhoon, Russia

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	714.000	3.000	810.000	40.000	0.880	**W**	
1	K 40	296.000	5.000	315.000	20.000	0.940	**A**	
1	CO 60	1.000	1.000	1.500	0.400	0.670	**N**	
1	U238	25.000	5.000	34.900	0.140	0.720	**A**	
1	AM241	14.000	7.000	6.040	0.580	2.320	**W**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	K 40	1050.000	30.000	1130.000	70.000	0.930	**A**	
1	CO 60	27.000	1.000	32.400	1.600	0.830	**A**	
1	PU238	5.000		0.400	0.150	*.***	**N**	
1	PU239	5.000		5.480	0.440	0.910	**A**	
1	CS137	540.000	5.000	624.000	31.000	0.860	**W**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: TX Texas Dept. of Health/Laboratories, Austin

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	GA	687.000	30.000	557.000	60.000	1.230	**W**	W
1	GB	837.000	35.000	712.000	70.000	1.170	**A**	W
1	H 3	128.000	8.000	115.000	6.000	1.110	**A**	A
1	MN 54	42.300	0.400	37.800	1.900	1.110	**A**	A
1	PU238	0.780	0.030	0.720	0.020	1.090	**A**	A
1	PU239	0.800	0.030	0.750	0.040	1.070	**A**	A
1	SR 90	3.230	0.440	2.940	0.180	1.090	**A**	A
1	U BQ	0.590	0.040	0.480	0.030	1.230	**W**	
1	U234	0.270	0.010	0.230	0.020	1.190	**A**	W
1	U238	0.290	0.010	0.240	0.010	1.230	**W**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: UC Lockheed Martin, Paducah, KY

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CO 60	8.230	0.280	10.730	1.090	0.760	**W**	A
1	CS137	5.480	0.550	7.310	0.250	0.740	**W**	W
1	GA	1.520	0.060	1.490	0.090	1.020	**A**	A
1	GB	3.960	0.070	3.000	0.140	1.320	**A**	A
1	PU238	0.210	0.030	0.210	0.007	0.970	**A**	
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.590	0.420	1.500	0.400	1.060	**A**	W
1	CS137	969.940	77.690	810.000	40.000	1.190	**A**	A
1	K 40	359.780	21.140	315.000	20.000	1.140	**A**	A
1	PU239	10.170	1.290	10.160	0.370	1.000	**A**	
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	36.120	1.020	32.400	1.600	1.110	**A**	A
1	CS137	746.780	58.550	624.000	31.000	1.190	**A**	A
1	K 40	1258.860	58.870	1130.000	70.000	1.110	**A**	A
1	PU239	5.730	0.980	5.480	0.440	1.040	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	24.430	0.570	23.300	1.200	1.040	**A**	A
1	CS137	36.790	2.780	34.300	1.700	1.070	**A**	A
1	GA	528.600	33.300	557.000	60.000	0.940	**A**	W
1	GB	819.900	27.800	712.000	70.000	1.150	**A**	N
1	PU238	0.660	0.110	0.720	0.020	0.910	**A**	
1	PU239	0.690	0.100	0.750	0.040	0.910	**A**	W
1	U UG	0.020		0.020	0.001	1.000	**A**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: UK Lockheed Martin Energy Systems, Oak Ridge

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.200	0.050	0.210	0.009	0.950	**A**	A
1	CO 57	9.600	0.260	12.640	0.430	0.750	**A**	A
1	CO 60	9.470	0.350	10.730	1.090	0.880	**A**	A
1	CS134	23.900	0.440	28.170	0.730	0.840	**A**	A
1	CS137	6.400	0.410	7.310	0.250	0.870	**A**	A
1	GA	2.450	0.050	1.490	0.090	1.640	**N**	A
1	GB	3.350	0.040	3.000	0.140	1.110	**A**	A
1	MN 54	6.090	0.420	6.720	0.270	0.900	**A**	A
1	PU238	0.350	0.110	0.210	0.007	1.650	**N**	W
1	U BQ	0.130	0.040	0.110	0.004	1.120	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CS137	722.000	6.600	810.000	40.000	0.890	**W**	A
1	K 40	313.000	34.000	315.000	20.000	0.990	**A**	A
1	PU239	12.630	10.500	10.160	0.370	1.240	**A**	A
1	U BQ	90.000	25.000	72.900	0.850	1.230	**W**	
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.750	0.160	0.750	0.020	1.000	**A**	A
1	CO 60	22.300	1.500	23.300	1.200	0.950	**A**	A
1	CS134	69.900	2.000	66.000	2.600	1.050	**A**	
1	CS137	36.800	2.300	34.300	1.700	1.070	**A**	A
1	GA	661.000	28.000	557.000	60.000	1.180	**A**	W
1	GB	923.000	24.000	712.000	70.000	1.290	**A**	A
1	MN 54	40.000	2.500	37.800	1.900	1.050	**A**	A
1	PU238	1.020	0.240	0.720	0.020	1.410	**N**	A
1	PU239	0.910	0.230	0.750	0.040	1.210	**W**	A
1	U BQ	0.410	0.130	0.480	0.030	0.860	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: UN Ministry of Agriculture, Fisheries and Food (MAFF), UK

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	15.100	0.600	19.120	0.700	0.780	**A**	A
1	CO 57	10.500	0.400	12.640	0.430	0.830	**A**	A
1	CO 60	9.150	0.340	10.730	1.090	0.850	**A**	A
1	CS134	26.700	1.000	28.170	0.730	0.940	**A**	N
1	CS137	6.300	0.240	7.310	0.250	0.860	**A**	A
1	MN 54	6.260	0.240	6.720	0.270	0.930	**A**	A
1	SB125	15.000	0.600	16.120	0.790	0.930	**A**	A
1	U234	0.050	0.004	0.050	0.001	0.960	**A**	A
1	U238	0.050	0.003	0.050	0.003	0.950	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.460	0.320	6.040	0.580	1.060	**A**	A
1	CO 60	1.560	0.740	1.500	0.400	1.030	**A**	A
1	CS137	780.000	26.000	810.000	40.000	0.960	**A**	A
1	K 40	335.000	22.000	315.000	20.000	1.060	**A**	A
1	PU238	0.410	0.070	0.440	0.090	0.930	**A**	A
1	PU239	10.900	0.400	10.160	0.370	1.070	**A**	A
1	U234	33.800	0.590	37.150	0.640	0.900	**A**	A
1	U238	35.400	1.580	34.900	0.140	1.010	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	5.060	0.340	3.460	0.250	1.460	**A**	A
1	CM244	2.780	0.190	2.750	0.100	1.010	**A**	A
1	CO 60	31.100	2.800	32.400	1.600	0.950	**A**	A
1	CS137	615.000	22.000	624.000	31.000	0.980	**A**	A
1	K 40	121.000	6.000	1130.000	70.000	0.100	**N**	A
1	PU238	0.450	0.070	0.400	0.150	1.140	**A**	W
1	PU239	6.310	0.250	5.480	0.440	1.150	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: UP Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.220	0.030	0.210	0.009	1.050	**A**	
1	CE144	16.100	2.300	19.120	0.700	0.840	**A**	
1	CO 57	11.300	0.490	12.640	0.430	0.890	**A**	
1	CO 60	9.290	0.260	10.730	1.090	0.860	**A**	
1	CS134	24.900	1.200	28.170	0.730	0.880	**A**	
1	CS137	6.330	0.360	7.310	0.250	0.860	**A**	
1	GA	1.620	0.080	1.490	0.090	1.080	**A**	A
1	GB	3.100	0.090	3.000	0.140	1.030	**A**	A
1	MN 54	6.030	0.440	6.720	0.270	0.890	**A**	
1	PU238	0.240	0.040	0.210	0.007	1.110	**A**	
1	PU239	0.110	0.020	0.100	0.004	1.010	**A**	
1	SB125	14.200	1.550	16.120	0.790	0.880	**A**	
1	SR 90	1.690	0.280	2.760	0.100	0.610	**N**	
1	U BQ	0.170	0.030	0.110	0.004	1.530	**A**	A
1	U UG	5.040	1.000	4.650	0.210	1.080	**A**	
1	U234	0.090	0.020	0.050	0.001	1.670	**W**	A
1	U238	0.070	0.020	0.050	0.003	1.300	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	7.040	1.480	6.040	0.580	1.160	**A**	
1	CS137	806.000	71.400	810.000	40.000	0.990	**A**	
1	PU239	11.800	2.060	10.160	0.370	1.160	**A**	
1	SR 90	37.200	9.620	34.750	1.000	1.070	**A**	
1	U BQ	67.100	6.530	72.900	0.850	0.920	**A**	
1	U UG	2.700	0.300	2.820	0.200	0.950	**A**	A
1	U234	31.700	4.500	37.150	0.640	0.850	**A**	
1	U238	32.800	4.620	34.900	0.140	0.930	**A**	
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.920	0.150	0.750	0.020	1.220	**A**	
1	CO 60	20.400	0.910	23.300	1.200	0.870	**W**	
1	CS134	60.900	3.100	66.000	2.600	0.920	**A**	
1	CS137	31.100	1.810	34.300	1.700	0.900	**A**	
1	GA	640.000	80.000	557.000	60.000	1.140	**A**	
1	GB	1029.000	78.000	712.000	70.000	1.440	**W**	
1	H 3	104.000	22.700	115.000	6.000	0.900	**A**	
1	MN 54	35.600	2.580	37.800	1.900	0.940	**A**	
1	PU238	0.670	0.130	0.720	0.020	0.940	**A**	
1	PU239	0.680	0.130	0.750	0.040	0.910	**A**	
1	SR 90	3.100	0.570	2.940	0.180	1.050	**A**	
1	U BQ	0.520	0.190	0.480	0.030	1.100	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: UP Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	U UG	0.020	0.002	0.020	0.001	1.050	**A**	A
1	U234	0.230	0.170	0.230	0.020	1.010	**A**	
1	U238	0.290	0.090	0.240	0.010	1.220	**W**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: UY Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.170	0.020	0.210	0.009	0.790	**W**	W
1	CE144	16.700	1.400	19.120	0.700	0.870	**A**	A
1	CO 57	11.400	0.600	12.640	0.430	0.900	**A**	A
1	CO 60	9.860	2.400	10.730	1.090	0.910	**A**	A
1	CS134	26.300	3.000	28.170	0.730	0.930	**A**	A
1	CS137	6.950	1.400	7.310	0.250	0.950	**A**	A
1	GA	1.360	0.060	1.490	0.090	0.910	**A**	A
1	GB	3.200	0.090	3.000	0.140	1.060	**A**	A
1	MN 54	6.500	1.600	6.720	0.270	0.960	**A**	W
1	PU238	0.200	0.020	0.210	0.007	0.920	**A**	A
1	PU239	0.100	0.010	0.100	0.004	0.920	**A**	W
1	SB125	16.900	1.600	16.120	0.790	1.040	**A**	A
1	SR 90	2.100	0.100	2.760	0.100	0.760	**W**	W
1	U BQ	0.120	0.040	0.110	0.004	1.080	**A**	A
1	U UG	5.530	0.500	4.650	0.210	1.180	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.110	0.880	6.040	0.580	1.010	**A**	N
1	CS137	838.000	80.000	810.000	40.000	1.030	**A**	A
1	K 40	355.000	100.000	315.000	20.000	1.120	**A**	A
1	PU238	1.280	0.260	0.440	0.090	2.900	**N**	N
1	PU239	11.200	1.300	10.160	0.370	1.100	**A**	A
1	SR 90	31.900	4.000	34.750	1.000	0.910	**A**	A
1	U BQ	58.100	11.100	72.900	0.850	0.790	**A**	W
1	U UG	2.630	0.300	2.820	0.200	0.930	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.020	0.590	3.460	0.250	1.160	**A**	W
1	CM244	2.770	0.470	2.750	0.100	1.000	**A**	A
1	CO 60	39.900	4.000	32.400	1.600	1.230	**W**	A
1	CS137	703.000	30.000	624.000	31.000	1.120	**A**	A
1	K 40	1190.000	100.000	1130.000	70.000	1.050	**A**	A
1	PU238	0.830	0.190	0.400	0.150	2.080	**A**	
1	PU239	6.440	0.710	5.480	0.440	1.170	**A**	W
1	SR 90	1243.000	30.000	1434.000	75.000	0.860	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.730	0.100	0.750	0.020	0.980	**A**	W
1	CO 60	24.700	2.000	23.300	1.200	1.060	**A**	A
1	CS134	70.300	4.000	66.000	2.600	1.060	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: UY Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	CS137	38.200	5.000	34.300	1.700	1.110	**A**	A
1	GA	463.000	32.000	557.000	60.000	0.830	**A**	W
1	GB	862.000	35.000	712.000	70.000	1.210	**A**	A
1	H 3	134.000	30.000	115.000	6.000	1.160	**A**	A
1	MN 54	42.400	5.000	37.800	1.900	1.120	**A**	A
1	PU238	0.720	0.080	0.720	0.020	1.000	**A**	W
1	PU239	0.770	0.090	0.750	0.040	1.030	**A**	N
1	SR 90	3.140	0.400	2.940	0.180	1.060	**A**	A
1	U BQ	0.510	0.090	0.480	0.030	1.060	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: WA Environmental Radiation Lab, Off. of Public Health Labs. Seattle

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.190	0.020	0.210	0.009	0.910	**A**	A
1	CE144	19.200	0.700	19.120	0.700	1.000	**A**	A
1	CO 57	13.200	0.300	12.640	0.430	1.040	**A**	A
1	CO 60	10.700	0.300	10.730	1.090	0.990	**A**	A
1	CS134	24.800	0.400	28.170	0.730	0.880	**A**	A
1	CS137	7.510	0.260	7.310	0.250	1.020	**A**	A
1	GA	1.810	0.130	1.490	0.090	1.210	**A**	A
1	GB	3.390	0.130	3.000	0.140	1.130	**A**	A
1	MN 54	7.620	0.330	6.720	0.270	1.130	**W**	W
1	PU238	0.230	0.030	0.210	0.007	1.090	**A**	A
1	PU239	0.120	0.020	0.100	0.004	1.110	**A**	A
1	SB125	18.500	0.500	16.120	0.790	1.140	**W**	W
1	SR 90	2.830	0.190	2.760	0.100	1.020	**A**	A
1	U BQ	0.140	0.030	0.110	0.004	1.210	**A**	A
1	U234	0.070	0.020	0.050	0.001	1.320	**A**	A
1	U238	0.060	0.020	0.050	0.003	1.090	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	4.800	0.310	6.040	0.580	0.790	**A**	A
1	CO 60	1.500	0.700	1.500	0.400	1.000	**A**	A
1	CS137	848.000	37.000	810.000	40.000	1.040	**A**	A
1	K 40	348.000	26.000	315.000	20.000	1.100	**A**	A
1	PU238	0.400	0.220	0.440	0.090	0.900	**A**	W
1	PU239	10.500	0.700	10.160	0.370	1.030	**A**	N
1	SR 90	41.000	2.300	34.750	1.000	1.170	**A**	A
1	U BQ	80.700	5.500	72.900	0.850	1.100	**W**	W
1	U234	38.500	3.700	37.150	0.640	1.030	**A**	W
1	U238	40.000	3.700	34.900	0.140	1.140	**W**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	3.150	0.280	3.460	0.250	0.910	**A**	A
1	CO 60	34.600	2.800	32.400	1.600	1.060	**A**	A
1	CS137	636.000	33.000	624.000	31.000	1.010	**A**	A
1	K 40	1160.000	60.000	1130.000	70.000	1.020	**A**	A
1	PU239	6.290	0.490	5.480	0.440	1.140	**A**	A
1	SR 90	1390.000	30.000	1434.000	75.000	0.960	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.730	0.060	0.750	0.020	0.970	**A**	A
1	CO 60	24.800	2.000	23.300	1.200	1.060	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: WA Environmental Radiation Lab, Off. of Public Health Labs. Seattle

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	CS134	69.300	4.100	66.000	2.600	1.050	**A**	A
1	CS137	38.100	4.800	34.300	1.700	1.110	**A**	A
1	GA	594.000	41.000	557.000	60.000	1.060	**A**	W
1	GB	980.000	40.000	712.000	70.000	1.370	**A**	A
1	H 3	118.000	4.000	115.000	6.000	1.020	**A**	A
1	MN 54	41.100	4.800	37.800	1.900	1.080	**A**	A
1	PU238	0.390	0.060	0.720	0.020	0.540	**N**	A
1	PU239	0.370	0.050	0.750	0.040	0.490	**N**	A
1	SR 90	3.070	0.240	2.940	0.180	1.040	**A**	A
1	U BQ	0.520	0.060	0.480	0.030	1.100	**A**	A
1	U234	0.240	0.040	0.230	0.020	1.060	**A**	A
1	U238	0.260	0.040	0.240	0.010	1.100	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: WC Westinghouse Hanford Co.

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.220	0.040	0.210	0.009	1.070	**A**	A
1	CE144	16.300	2.040	19.120	0.700	0.850	**A**	
1	CO 57	11.100	0.980	12.640	0.430	0.870	**A**	N
1	CO 60	9.660	0.760	10.730	1.090	0.900	**A**	N
1	CS134	23.400	1.400	28.170	0.730	0.830	**A**	A
1	CS137	6.560	0.890	7.310	0.250	0.890	**A**	N
1	GA	2.410	0.040	1.490	0.090	1.610	**N**	A
1	GB	3.330	0.060	3.000	0.140	1.100	**A**	W
1	MN 54	6.480	0.900	6.720	0.270	0.960	**A**	N
1	PU238	0.240	0.040	0.210	0.007	1.120	**A**	A
1	PU239	0.130	0.020	0.100	0.004	1.250	**W**	A
1	SB125	4.300	0.420	16.120	0.790	0.260	**N**	N
1	SR 90	3.200	0.410	2.760	0.100	1.150	**A**	W
1	U234	0.070	0.010	0.050	0.001	1.270	**A**	A
1	U238	0.070	0.010	0.050	0.003	1.280	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	6.660	1.270	6.040	0.580	1.100	**A**	A
1	CS137	842.000	126.000	810.000	40.000	1.030	**A**	A
1	K 40	386.000	48.800	315.000	20.000	1.220	**A**	A
1	PU239	11.000	1.980	10.160	0.370	1.080	**A**	A
1	SR 90	46.300	13.400	34.750	1.000	1.330	**A**	W
1	U234	19.000	1.900	37.150	0.640	0.510	**W**	A
1	U238	20.100	2.010	34.900	0.140	0.570	**W**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	AM241	4.810	0.670	3.460	0.250	1.390	**A**	W
1	CM244	2.220	0.550	2.750	0.100	0.800	**W**	
1	CO 60	34.400	3.500	32.400	1.600	1.060	**A**	A
1	CS137	705.000	105.000	624.000	31.000	1.120	**A**	A
1	K 40	1390.000	167.000	1130.000	70.000	1.230	**A**	W
1	PU239	6.290	1.760	5.480	0.440	1.140	**A**	W
1	SR 90	1690.000	304.000	1434.000	75.000	1.170	**W**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.840	0.140	0.750	0.020	1.130	**A**	A
1	CO 60	24.600	1.930	23.300	1.200	1.050	**A**	A
1	CS134	63.500	3.960	66.000	2.600	0.960	**A**	
1	CS137	37.400	5.030	34.300	1.700	1.090	**A**	A
1	GA	652.000	65.200	557.000	60.000	1.170	**A**	W

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: WC Westinghouse Hanford Co.

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	GB	938.000	93.800	712.000	70.000	1.310	**A**	W
1	H 3	104.000	7.250	115.000	6.000	0.900	**A**	A
1	MN 54	43.100	5.940	37.800	1.900	1.140	**A**	W
1	PU238	0.830	0.140	0.720	0.020	1.150	**W**	A
1	PU239	0.830	0.140	0.750	0.040	1.110	**A**	A
1	SR 90	3.140	0.500	2.940	0.180	1.060	**A**	A
1	U234	0.270	0.030	0.230	0.020	1.190	**A**	A
1	U238	0.270	0.030	0.240	0.010	1.150	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: WE Westinghouse Electric Corp., Madison, PA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.360	0.170	0.210	0.009	1.720	**W**	N
1	CE144	19.500	2.900	19.120	0.700	1.010	**A**	A
1	CO 57	13.700	1.000	12.640	0.430	1.080	**A**	W
1	CO 60	11.700	0.270	10.730	1.090	1.090	**A**	N
1	CS134	27.000	3.700	28.170	0.730	0.950	**A**	A
1	CS137	8.350	1.500	7.310	0.250	1.140	**W**	A
1	MN 54	8.070	0.800	6.720	0.270	1.200	**W**	N
1	SB125	18.900	2.000	16.120	0.790	1.170	**W**	W
Matrix:	**SO**	**Soil Bq/kg**						
1	AM241	5.940	0.003	6.040	0.580	0.980	**A**	W
1	CS137	942.000	0.240	810.000	40.000	1.160	**A**	A
1	K 40	348.000	0.010	315.000	20.000	1.100	**A**	A
1	PU238	1.750	0.720	0.440	0.090	3.970	**N**	
1	PU239	10.960	1.900	10.160	0.370	1.070	**A**	
1	U234	0.020	0.004	37.150	0.640	0.001	**N**	W
1	U238	0.020	0.003	34.900	0.140	0.001	**N**	W
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	33.800	3.400	32.400	1.600	1.040	**A**	N
1	CS137	743.000	190.000	624.000	31.000	1.190	**A**	W
1	K 40	1207.000	57.000	1130.000	70.000	1.060	**A**	W
Matrix:	**WA**	**Water Bq/L**						
1	AM241	1.380	0.860	0.750	0.020	1.830	**N**	A
1	CO 60	23.700	1.200	23.300	1.200	1.010	**A**	N
1	CS134	69.700	5.600	66.000	2.600	1.050	**A**	
1	CS137	39.500	4.600	34.300	1.700	1.150	**A**	W
1	MN 54	43.700	2.800	37.800	1.900	1.150	**A**	N

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: WI WIPP Site, Westinghouse Electric Corp.

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	AM241	0.240	0.040	0.210	0.009	1.130	**A**	A
1	CE144	14.100	3.500	19.120	0.700	0.730	**A**	A
1	CO 57	10.400	1.740	12.640	0.430	0.820	**A**	A
1	CO 60	8.790	1.340	10.730	1.090	0.810	**W**	A
1	CS134	22.500	2.300	28.170	0.730	0.790	**W**	A
1	CS137	5.900	1.200	7.310	0.250	0.800	**W**	A
1	MN 54	5.650	1.160	6.720	0.270	0.840	**A**	A
1	PU238	0.220	0.030	0.210	0.007	1.020	**A**	A
1	PU239	0.120	0.020	0.100	0.004	1.140	**A**	A
1	SB125	14.800	1.900	16.120	0.790	0.910	**A**	A
1	U234	0.060	0.010	0.050	0.001	1.090	**A**	A
1	U238	0.060	0.010	0.050	0.003	1.100	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	AM241	0.730	0.110	0.750	0.020	0.970	**A**	A
1	CO 60	22.600	3.200	23.300	1.200	0.960	**A**	A
1	CS134	66.100	6.400	66.000	2.600	1.000	**A**	A
1	CS137	33.900	6.400	34.300	1.700	0.980	**A**	A
1	MN 54	38.600	6.900	37.800	1.900	1.020	**A**	A
1	PU238	0.670	0.040	0.720	0.020	0.930	**A**	A
1	PU239	0.720	0.040	0.750	0.040	0.960	**A**	A
1	U234	0.240	0.040	0.230	0.020	1.040	**A**	A
1	U238	0.220	0.040	0.240	0.010	0.910	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: WS Weldon Springs Site, St Charles, MO

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix: AI Air Filter Bq/filter								
1	GA	1.540	0.020	1.490	0.090	1.030	**A**	A
Matrix: SO Soil Bq/kg								
1	AM241	7.000	0.740	6.040	0.580	1.150	**A**	A
1	CS137	884.300	29.200	810.000	40.000	1.090	**A**	A
1	K 40	327.500	12.900	315.000	20.000	1.030	**A**	A
1	U238	33.700	5.000	34.900	0.140	0.960	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: WV West Valley Nuclear Services Co, Inc, NY

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	GA	1.230	0.030	1.490	0.090	0.820	**A**	A
1	GB	3.140	0.040	3.000	0.140	1.040	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	24.300	0.380	23.300	1.200	1.040	**A**	A
1	CS134	66.230	0.480	66.000	2.600	1.000	**A**	
1	CS137	35.130	0.400	34.300	1.700	1.020	**A**	A
1	GA	543.900	49.770	557.000	60.000	0.970	**A**	W
1	GB	953.860	55.610	712.000	70.000	1.330	**A**	A
1	H 3	122.030	5.590	115.000	6.000	1.060	**A**	A
1	MN 54	41.920	0.480	37.800	1.900	1.100	**A**	W
1	SR 90	3.460	0.280	2.940	0.180	1.170	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: YA Duke Engineering, Westboro, MA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**AI**	**Air Filter Bq/filter**						
1	CE144	14.940	0.290	19.120	0.700	0.780	**A**	
1	CO 57	10.940	0.070	12.640	0.430	0.860	**A**	
1	CO 60	9.360	0.090	10.730	1.090	0.870	**A**	
1	CS134	27.540	0.180	28.170	0.730	0.970	**A**	W
1	CS137	6.290	0.090	7.310	0.250	0.860	**A**	A
1	GA	1.430	0.010	1.490	0.090	0.960	**A**	A
1	GB	2.800	0.020	3.000	0.140	0.930	**A**	W
1	MN 54	6.040	0.100	6.720	0.270	0.890	**A**	
1	PU238	0.230	0.005	0.210	0.007	1.100	**A**	A
1	SB125	5.810	0.160	16.120	0.790	0.360	**N**	
1	SR 90	2.420	0.120	2.760	0.100	0.880	**A**	A
1	U UG	4.480	0.220	4.650	0.210	0.960	**A**	A
1	U234	0.050	0.003	0.050	0.001	0.980	**A**	A
1	U238	0.050	0.003	0.050	0.003	0.960	**A**	A
Matrix:	**SO**	**Soil Bq/kg**						
1	CO 60	1.380	0.280	1.500	0.400	0.920	**A**	A
1	CS137	906.370	3.790	810.000	40.000	1.110	**A**	A
1	K 40	343.230	11.100	315.000	20.000	1.080	**A**	A
1	PU239	11.400	0.350	10.160	0.370	1.120	**A**	A
1	SR 90	31.150	2.140	34.750	1.000	0.890	**A**	A
1	U UG	2.710	0.140	2.820	0.200	0.960	**A**	A
1	U234	32.600	1.240	37.150	0.640	0.870	**A**	A
1	U238	33.300	1.270	34.900	0.140	0.950	**A**	A
Matrix:	**VE**	**Vegetation Bq/kg**						
1	CO 60	33.180	0.810	32.400	1.600	1.020	**A**	A
1	CS137	685.790	3.530	624.000	31.000	1.090	**A**	A
1	K 40	1180.110	19.240	1130.000	70.000	1.040	**A**	A
1	PU239	6.380	0.190	5.480	0.440	1.160	**A**	A
1	SR 90	1367.760	71.530	1434.000	75.000	0.950	**A**	A
Matrix:	**WA**	**Water Bq/L**						
1	CO 60	22.310	0.530	23.300	1.200	0.950	**A**	A
1	CS134	71.010	1.010	66.000	2.600	1.070	**A**	
1	CS137	33.890	0.780	34.300	1.700	0.980	**A**	A
1	FE 55	125.060	13.190	115.000	10.000	1.080	**A**	
1	GA	279.220	16.890	557.000	60.000	0.500	**W**	W
1	GB	784.520	21.210	712.000	70.000	1.100	**A**	W
1	H 3	122.470	5.790	115.000	6.000	1.060	**A**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: YA Duke Engineering, Westboro, MA

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix:	**WA**	**Water Bq/L**						
1	MN 54	38.360	0.860	37.800	1.900	1.010	**A**	A
1	PU238	0.740	0.020	0.720	0.020	1.040	**A**	A
1	PU239	0.810	0.020	0.750	0.040	1.080	**A**	A
1	SR 90	2.840	0.370	2.940	0.180	0.960	**A**	A
1	U UG	0.020	0.001	0.020	0.001	1.060	**A**	A
1	U234	0.270	0.010	0.230	0.020	1.190	**A**	A
1	U238	0.260	0.010	0.240	0.010	1.090	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: YP US Army Proving Ground, Yuma, AZ

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix: AI Air Filter Bq/filter								
1	U UG	4.420	0.110	4.650	0.210	0.950	**A**	A
Matrix: SO Soil Bq/kg								
1	U UG	3.110	0.130	2.820	0.200	1.100	**W**	A
Matrix: WA Water Bq/L								
1	U UG	0.010	0.001	0.020	0.001	0.990	**A**	A

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Laboratory

Lab: YU Institute of Occupational and Radiological Health, Yugoslavia

No. Test	Radio-nuclide	Reported Value	Reported Error	EML Value	EML Error	Reported / EML	Evaluation	QAP 46 Evaluation
Matrix: AI Air Filter Bq/filter								
1	AM241	0.260	0.080	0.210	0.009	1.220	**A**	
1	CE144	12.300	0.600	19.120	0.700	0.640	**W**	
1	CO 57	9.500	0.300	12.640	0.430	0.750	**A**	
1	CO 60	7.300	0.200	10.730	1.090	0.680	**N**	
1	CS134	20.900	0.500	28.170	0.730	0.740	**W**	
1	CS137	5.600	0.200	7.310	0.250	0.760	**W**	
1	MN 54	5.400	0.200	6.720	0.270	0.800	**W**	
1	SB125	14.600	0.400	16.120	0.790	0.900	**A**	
Matrix: SO Soil Bq/kg								
1	AM241	4.000	1.000	6.040	0.580	0.660	**W**	
1	CO 60	3.200	0.700	1.500	0.400	2.130	**N**	
1	CS137	833.000	22.000	810.000	40.000	1.020	**A**	
1	K 40	397.000	17.000	315.000	20.000	1.260	**A**	
Matrix: VE Vegetation Bq/kg								
1	AM241	5.000	2.000	3.460	0.250	1.440	**A**	
1	CO 60	48.000	2.000	32.400	1.600	1.480	**N**	
1	CS137	780.000	20.000	624.000	31.000	1.250	**W**	
1	K 40	1680.000	55.000	1130.000	70.000	1.480	**W**	
Matrix: WA Water Bq/L								
1	CO 60	15.500	0.500	23.300	1.200	0.660	**N**	
1	CS134	36.100	0.900	66.000	2.600	0.540	**N**	
1	CS137	18.700	0.500	34.300	1.700	0.540	**N**	
1	MN 54	23.100	0.600	37.800	1.900	0.610	**N**	

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

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable **pCi/g or mL = Bq x 0.027**

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: AM241

EML Value: 0.210
EML Error: 0.009

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	0.190	0.030	**0.90**		**A**
AM	1	0.170	0.040	**0.79**	N	**W**
AN	1	0.200	0.010	**0.98**	A	**A**
AR	1	0.170	0.010	**0.83**	A	**W**
AU	1	0.200	0.010	**0.97**	A	**A**
BE	1	0.200	0.010	**0.93**	A	**A**
BL	1	0.280	0.040	**1.31**	A	**A**
BL	1	0.220	0.040	**1.04**	A	**A**
BM	1	0.210	0.030	**0.99**	A	**A**
BN	1	0.570	0.080	**2.67**	N	**N**
BN	2	0.750	0.100	**3.52**	N	**N**
BN	3	0.800	0.110	**3.75**	N	**N**
BP	1	0.220	0.009	**1.05**	A	**A**
BX	1	0.250	0.010	**1.17**	W	**A**
CH	1	0.230	0.005	**1.11**	A	**A**
CL	1	0.420	0.110	**1.97**	W	**N**
CN	1	0.820	0.070	**3.84**		**N**
CS	1	0.180	0.020	**0.84**	W	**A**
DC	1	0.050	0.010	**0.24**	A	**N**
EG	1	0.220	0.000	**1.06**	A	**A**
ES	1	0.200	0.040	**0.93**	A	**A**
FG	1	0.450	0.200	**2.11**	A	**N**
FJ	1	0.920	0.150	**4.31**		**N**
FL	1	0.440	0.050	**2.06**	N	**N**
FR	1	0.130	0.020	**0.64**	A	**N**
GA	1	0.250	0.010	**1.17**	A	**A**
GE	1	0.200	0.030	**0.98**	A	**A**
GP	1	0.160	0.020	**0.75**	A	**W**
GT	1	0.200	0.020	**0.93**	A	**A**
IE	1	0.200	0.010	**0.98**	A	**A**
IS	1	0.150	0.020	**0.72**	N	**W**
IT	1	0.200	0.010	**0.94**	A	**A**
LA	1	0.220	0.020	**1.03**	A	**A**
LA	2	0.230	0.020	**1.07**	A	**A**
LA	3	0.250	0.030	**1.17**	A	**A**
LH	1	0.200	0.020	**0.93**	A	**A**
LL	1	0.220	0.010	**1.03**	A	**A**
LV	1	0.410	0.070	**1.92**	A	**N**
ME	1	0.140	0.070	**0.65**		**N**
MS	1	0.200	0.050	**0.93**		**A**
NA	1	0.200	0.010	**0.93**		**A**
NZ	1	0.300	0.100	**1.40**		**W**
NZ	2	0.400	0.100	**1.87**		**W**
PR	1	0.140	0.000	**0.69**		**W**
RE	1	0.230	0.020	**1.07**	A	**A**
RI	1	0.430	0.030	**2.03**	A	**N**
RL	1	0.650	0.140	**3.05**		**N**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: AM241

EML Value: 0.210
EML Error: 0.009

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
SK	1	0.230	0.040	**1.07**		**A**
SN	1	0.210	0.020	**1.00**		**A**
SR	1	0.250	0.020	**1.21**	A	**A**
SW	1	0.150	0.030	**0.70**	A	**W**
TI	1	0.270	0.050	**1.26**	A	**A**
TM	1	0.250	0.010	**1.17**	A	**A**
TN	1	0.220	0.010	**1.04**	A	**A**
TR	1	0.200	0.080	**0.94**		**A**
TW	1	0.240	0.009	**1.16**	W	**A**
TX	1	0.270	0.010	**1.30**	A	**A**
UK	1	0.200	0.050	**0.95**	A	**A**
UP	1	0.220	0.030	**1.05**		**A**
UY	1	0.170	0.020	**0.79**	W	**W**
WA	1	0.190	0.020	**0.91**	A	**A**
WC	1	0.220	0.040	**1.07**	A	**A**
WE	1	0.360	0.170	**1.72**	N	**W**
WI	1	0.240	0.040	**1.13**	A	**A**
YU	1	0.260	0.080	**1.22**		**A**

Total Number Reported: 65

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CE144

EML Value: 19.120
EML Error: 0.700

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	12.700	2.140	**0.66**	A	**A**
AG	1	16.200	4.600	**0.84**	A	**A**
AM	1	15.510	0.490	**0.81**	W	**A**
AN	1	20.700	1.600	**1.08**	A	**A**
AR	1	44.000	1.300	**2.30**	N	**N**
AU	1	20.900	3.000	**1.09**	A	**A**
BC	1	18.300	0.890	**0.95**	A	**A**
BE	1	16.950	1.770	**0.88**	N	**A**
BL	1	18.600	1.400	**0.97**	A	**A**
BN	1	22.700	0.830	**1.18**	N	**W**
BN	2	24.100	0.880	**1.26**	N	**N**
BN	3	24.790	0.900	**1.29**	N	**N**
BP	1	16.200	0.600	**0.84**	A	**A**
BQ	1	14.700	0.300	**0.76**	W	**A**
BU	1	19.000	2.000	**0.99**		**A**
BX	1	17.400	0.850	**0.91**	A	**A**
CA	1	16.100	2.300	**0.84**	A	**A**
CH	1	17.300	1.900	**0.90**	A	**A**
CL	1	17.700	1.950	**0.92**	A	**A**
CO	1	20.000	4.000	**1.04**	N	**A**
CS	1	12.160	0.560	**0.63**	A	**W**
DC	1	26.200	9.130	**1.37**	N	**N**
EG	1	16.600	0.400	**0.86**	A	**A**
ES	1	19.490	2.160	**1.01**	A	**A**
FG	1	16.600	2.400	**0.86**	A	**A**
FJ	1	18.000	2.000	**0.94**		**A**
FL	1	15.700	0.300	**0.82**	W	**A**
FM	1	16.600	0.400	**0.86**	A	**A**
FN	1	22.640	1.900	**1.18**	A	**W**
FR	1	12.890	1.420	**0.67**	A	**A**
GA	1	17.000	2.700	**0.88**	A	**A**
GE	1	15.240	2.620	**0.79**	A	**A**
GP	1	15.000	3.000	**0.78**	A	**A**
GT	1	14.000	8.000	**0.73**	A	**A**
HU	1	25.500	2.400	**1.33**		**N**
ID	1	17.870	1.230	**0.93**	A	**A**
IE	1	21.260	2.130	**1.11**	A	**W**
IN	1	16.000	0.500	**0.83**	A	**A**
IS	1	13.300	2.800	**0.69**	W	**A**
IT	1	16.800	0.600	**0.87**	A	**A**
KO	1	16.080	0.820	**0.84**	W	**A**
LA	1	16.500	1.600	**0.86**	A	**A**
LA	2	16.600	1.600	**0.86**	A	**A**
LA	3	16.800	1.700	**0.87**	A	**A**
LL	1	17.200	3.200	**0.89**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CE144

EML Value: 19.120
EML Error: 0.700

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
LN	1	15.500	1.540	**0.81**		**A**
LV	1	23.200	5.400	**1.21**	N	**W**
ME	1	19.400	1.250	**1.01**	A	**A**
MH	1	17.800	0.900	**0.93**		**A**
MS	1	16.500	1.650	**0.86**	A	**A**
ND	1	16.410	1.660	**0.85**	A	**A**
NP	1	14.910	0.290	**0.77**	A	**A**
NZ	1	15.800	0.900	**0.82**	W	**A**
NZ	2	17.300	1.000	**0.90**	W	**A**
OD	1	15.940	0.540	**0.83**	A	**A**
OL	1	17.900	0.400	**0.93**	W	**A**
OS	1	24.650	1.050	**1.28**	N	**N**
OT	1	18.000	1.000	**0.94**	A	**A**
OU	1	12.500	1.680	**0.65**		**W**
PR	1	9.490	0.220	**0.49**		**N**
PR	2	9.710	0.220	**0.50**		**N**
PR	3	9.940	0.220	**0.52**		**N**
RA	1	15.000	1.000	**0.78**	A	**A**
RA	2	17.600	0.900	**0.92**	A	**A**
RC	1	16.300	1.400	**0.85**		**A**
RE	1	15.800	2.400	**0.82**	A	**A**
RI	1	19.700	2.000	**1.03**	A	**A**
RL	1	16.500	1.300	**0.86**	N	**A**
SA	1	16.600	1.660	**0.86**	A	**A**
SB	1	16.700	0.200	**0.87**		**A**
SK	1	16.200	1.400	**0.84**	A	**A**
SR	1	18.300	2.100	**0.95**	A	**A**
SS	1	16.500	0.200	**0.86**	A	**A**
SW	1	16.400	0.160	**0.85**	A	**A**
TE	1	16.200	1.100	**0.84**		**A**
TI	1	14.300	1.400	**0.74**	A	**A**
TM	1	20.800	0.750	**1.08**	W	**A**
TN	1	15.910	1.630	**0.83**	N	**A**
TP	1	13.290	0.970	**0.69**	A	**A**
TR	1	18.150	1.250	**0.94**	W	**A**
TX	1	17.400	0.200	**0.91**	A	**A**
UN	1	15.100	0.600	**0.78**	A	**A**
UP	1	16.100	2.300	**0.84**		**A**
UY	1	16.700	1.400	**0.87**	A	**A**
WA	1	19.200	0.700	**1.00**	A	**A**
WC	1	16.300	2.040	**0.85**		**A**
WE	1	19.500	2.900	**1.01**	A	**A**
WI	1	14.100	3.500	**0.73**	A	**A**
YA	1	14.940	0.290	**0.78**		**A**
YU	1	12.300	0.600	**0.64**		**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: Al Air Filter
Radionuclide: CE144

EML Value: 19.120
EML Error: 0.700

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation

Total Number Reported: 90

Units for matrices: Al=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CO 57

EML Value: 12.640
EML Error: 0.430

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	9.710	0.960	**0.76**	A	**A**
AG	1	10.900	1.500	**0.86**	A	**A**
AM	1	9.860	0.090	**0.78**	N	**A**
AN	1	14.800	0.400	**1.17**	W	**W**
AR	1	12.700	0.300	**1.00**	W	**A**
AU	1	13.430	0.600	**1.06**	A	**A**
BC	1	12.500	0.600	**0.98**	A	**A**
BE	1	12.240	0.900	**0.96**	A	**A**
BL	1	13.300	0.900	**1.05**	A	**A**
BM	1	12.100	0.130	**0.95**	N	**A**
BN	1	16.050	0.470	**1.26**	N	**W**
BN	2	16.500	0.480	**1.30**	N	**N**
BN	3	17.230	0.500	**1.36**	N	**N**
BP	1	11.500	0.300	**0.90**	A	**A**
BQ	1	10.300	0.100	**0.81**	W	**A**
BS	1	12.330	0.060	**0.97**	A	**A**
BU	1	12.000	2.000	**0.94**	N	**A**
BX	1	12.300	0.590	**0.97**	A	**A**
CA	1	11.500	0.600	**0.90**	A	**A**
CH	1	12.400	0.510	**0.98**	A	**A**
CL	1	11.600	0.360	**0.91**	A	**A**
CN	1	19.830	0.690	**1.56**	W	**N**
CO	1	16.000	1.000	**1.26**	N	**W**
CS	1	8.320	0.270	**0.65**	A	**W**
DC	1	13.400	2.880	**1.06**	N	**A**
EG	1	11.900	0.100	**0.94**	A	**A**
EP	1	11.100	1.300	**0.87**	N	**A**
ES	1	13.730	1.510	**1.08**	A	**A**
FG	1	11.900	1.500	**0.94**	A	**A**
FL	1	10.330	0.050	**0.81**	W	**A**
FM	1	11.100	0.200	**0.87**	A	**A**
FN	1	11.850	1.010	**0.94**	A	**A**
FR	1	8.520	0.850	**0.67**	A	**W**
GA	1	12.000	0.620	**0.94**	A	**A**
GE	1	11.150	1.020	**0.88**	A	**A**
GP	1	11.000	2.000	**0.87**	A	**A**
GT	1	9.700	2.000	**0.76**	A	**A**
HU	1	20.400	1.300	**1.61**		**N**
ID	1	11.300	0.570	**0.89**	A	**A**
IE	1	13.950	1.400	**1.10**	A	**W**
IN	1	11.000	0.200	**0.87**	A	**A**
IS	1	9.800	1.000	**0.77**	A	**A**
IT	1	11.700	0.600	**0.92**	A	**A**
JL	1	12.300	0.500	**0.97**		**A**
KO	1	11.210	0.240	**0.88**	W	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CO 57

EML Value: 12.640
EML Error: 0.430

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
LA	1	11.000	0.900	**0.87**	A	**A**
LA	2	11.100	0.900	**0.87**	A	**A**
LH	1	10.500	1.000	**0.83**	A	**A**
LN	1	10.600	1.060	**0.83**		**A**
LV	1	12.800	0.110	**1.01**	A	**A**
ME	1	14.800	0.440	**1.17**	A	**W**
MH	1	12.400	0.500	**0.98**		**A**
ML	1	15.010	1.500	**1.18**		**W**
MS	1	10.900	1.090	**0.86**	A	**A**
ND	1	10.950	0.430	**0.86**	A	**A**
NP	1	11.350	0.060	**0.89**	A	**A**
NZ	1	11.400	0.600	**0.90**	W	**A**
NZ	2	12.300	0.600	**0.97**	W	**A**
OD	1	11.900	0.340	**0.94**	W	**A**
OL	1	12.200	0.270	**0.96**	W	**A**
OS	1	14.000	2.080	**1.10**	N	**W**
OT	1	13.000	1.000	**1.02**	W	**A**
OU	1	12.000	1.550	**0.94**		**A**
PR	1	8.800	0.260	**0.69**		**A**
PR	2	9.090	0.260	**0.71**		**A**
PR	3	9.170	0.260	**0.72**		**A**
PR	4	9.300	0.260	**0.73**		**A**
RA	1	11.100	0.600	**0.87**	A	**A**
RA	2	12.400	0.520	**0.98**	A	**A**
RC	1	10.600	0.600	**0.83**		**A**
RE	1	12.000	1.100	**0.94**	A	**A**
RI	1	12.300	0.460	**0.97**	A	**A**
RL	1	11.300	1.700	**0.89**	N	**A**
SA	1	11.600	1.200	**0.91**	A	**A**
SB	1	11.300	0.200	**0.89**		**A**
SK	1	11.400	1.000	**0.90**	A	**A**
SR	1	11.900	0.700	**0.94**	A	**A**
SS	1	11.500	0.200	**0.90**	A	**A**
SW	1	11.950	0.050	**0.94**	A	**A**
TE	1	10.600	0.300	**0.83**	A	**A**
TI	1	10.600	1.100	**0.83**	W	**A**
TM	1	14.400	0.430	**1.13**	W	**W**
TN	1	10.580	0.800	**0.83**	N	**A**
TO	1	16.200	1.800	**1.28**	W	**N**
TP	1	11.330	0.140	**0.89**	A	**A**
TR	1	12.880	1.190	**1.01**	N	**A**
TX	1	11.480	0.060	**0.90**	A	**A**
UK	1	9.600	0.260	**0.75**	A	**A**
UN	1	10.500	0.400	**0.83**	A	**A**
UP	1	11.300	0.490	**0.89**		**A**
UY	1	11.400	0.600	**0.90**	A	**A**
WA	1	13.200	0.300	**1.04**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CO 57

EML Value: 12.640
EML Error: 0.430

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
WC	1	11.100	0.980	**0.87**	N	**A**
WE	1	13.700	1.000	**1.08**	W	**A**
WI	1	10.400	1.740	**0.82**	A	**A**
YA	1	10.940	0.070	**0.86**		**A**
YU	1	9.500	0.300	**0.75**		**A**

Total Number Reported: 97

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CO 60

EML Value: 10.730
EML Error: 1.090

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	5.290	0.660	**0.49**	A	**N**
AG	1	9.180	1.000	**0.85**	A	**A**
AM	1	8.310	0.130	**0.77**	N	**W**
AN	1	11.800	0.500	**1.09**	W	**A**
AR	1	10.500	0.200	**0.97**	N	**A**
AU	1	11.210	0.780	**1.04**	A	**A**
BA	1	10.550	1.000	**0.98**		**A**
BC	1	10.200	0.530	**0.95**	A	**A**
BE	1	9.920	0.770	**0.92**	A	**A**
BL	1	10.500	0.500	**0.97**	A	**A**
BM	1	10.100	0.300	**0.94**	W	**A**
BN	1	9.990	0.390	**0.93**	A	**A**
BN	2	10.850	0.420	**1.01**	A	**A**
BN	3	10.860	0.420	**1.01**	A	**A**
BP	1	9.340	0.190	**0.87**	A	**A**
BQ	1	9.300	0.100	**0.86**	A	**A**
BS	1	9.820	0.130	**0.91**	A	**A**
BU	1	10.000	1.000	**0.93**	W	**A**
BX	1	10.400	0.540	**0.96**	A	**A**
CA	1	9.100	1.100	**0.84**	A	**A**
CH	1	10.000	0.920	**0.93**	A	**A**
CL	1	10.200	0.460	**0.95**	A	**A**
CN	1	10.890	0.410	**1.01**	W	**A**
CO	1	11.200	0.400	**1.04**	N	**A**
CR	1	13.200	0.600	**1.23**	N	**W**
CS	1	7.890	0.260	**0.73**	A	**N**
DC	1	10.400	2.180	**0.96**	W	**A**
EG	1	9.900	0.100	**0.92**	A	**A**
EP	1	9.400	1.200	**0.87**	N	**A**
ES	1	10.800	1.190	**1.00**	A	**A**
FG	1	9.200	3.100	**0.85**	A	**A**
FJ	1	12.200	0.100	**1.13**		**W**
FL	1	9.170	0.120	**0.85**	W	**A**
FM	1	9.700	0.100	**0.90**	A	**A**
FN	1	10.500	0.870	**0.98**	A	**A**
FR	1	7.690	0.770	**0.71**	A	**N**
GA	1	9.500	0.580	**0.88**	A	**A**
GE	1	9.580	1.010	**0.89**	A	**A**
GP	1	5.500	1.400	**0.51**	A	**N**
GT	1	8.700	2.000	**0.81**	A	**W**
HU	1	11.800	1.000	**1.09**		**A**
ID	1	10.270	0.520	**0.95**	A	**A**
IE	1	10.500	1.050	**0.97**	A	**A**
IN	1	8.900	0.400	**0.82**	A	**A**
IS	1	7.990	0.700	**0.74**	A	**N**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CO 60

EML Value: 10.730
EML Error: 1.090

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
IT	1	9.600	0.400	**0.89**	A	**A**
JL	1	9.500	0.600	**0.88**		**A**
KO	1	9.330	0.340	**0.86**	W	**A**
LA	1	10.200	0.900	**0.95**	A	**A**
LA	2	10.400	0.900	**0.96**	A	**A**
LH	1	8.600	0.700	**0.80**	A	**W**
LN	1	8.540	0.850	**0.79**		**W**
ME	1	11.900	0.290	**1.10**	W	**W**
MH	1	10.700	0.300	**0.99**		**A**
ML	1	11.780	1.200	**1.09**		**A**
MS	1	9.350	0.940	**0.87**	A	**A**
NA	1	8.500	0.060	**0.79**	W	**W**
ND	1	8.370	0.560	**0.78**	A	**W**
NP	1	9.240	0.130	**0.86**	A	**A**
NZ	1	9.500	0.500	**0.88**	W	**A**
NZ	2	10.000	0.500	**0.93**	W	**A**
OD	1	9.630	0.110	**0.89**	A	**A**
OL	1	10.100	0.190	**0.94**	A	**A**
OS	1	10.570	0.200	**0.98**	N	**A**
OT	1	10.000	1.000	**0.93**	A	**A**
OU	1	10.990	3.740	**1.02**		**A**
PO	1	10.400	0.600	**0.96**	A	**A**
PR	1	8.380	0.180	**0.78**		**W**
PR	2	8.590	0.180	**0.80**		**W**
PR	3	8.660	0.180	**0.80**		**W**
PR	4	8.730	0.180	**0.81**		**W**
RA	1	9.580	0.310	**0.89**	A	**A**
RA	2	9.600	0.700	**0.89**	A	**A**
RC	1	9.400	0.800	**0.87**		**A**
RE	1	9.720	1.070	**0.90**	A	**A**
RI	1	9.320	0.460	**0.86**	A	**A**
RL	1	8.420	2.600	**0.78**	N	**W**
SA	1	9.600	0.670	**0.89**	A	**A**
SB	1	8.900	0.200	**0.82**		**A**
SK	1	9.500	1.000	**0.88**	A	**A**
SR	1	9.600	0.700	**0.89**	A	**A**
SS	1	10.300	0.100	**0.95**	A	**A**
SW	1	9.740	0.050	**0.90**	A	**A**
TE	1	9.800	0.100	**0.91**	A	**A**
TI	1	8.900	0.890	**0.82**	W	**A**
TM	1	10.800	0.400	**1.00**	W	**A**
TN	1	9.090	0.290	**0.84**	N	**A**
TO	1	13.100	1.600	**1.22**	W	**W**
TP	1	9.350	0.070	**0.87**	A	**A**
TR	1	10.420	0.650	**0.97**	N	**A**
TX	1	9.700	0.100	**0.90**	A	**A**
UC	1	8.230	0.280	**0.76**	A	**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CO 60

EML Value: 10.730
EML Error: 1.090

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
UK	1	9.470	0.350	**0.88**	A	**A**
UN	1	9.150	0.340	**0.85**	A	**A**
UP	1	9.290	0.260	**0.86**		**A**
UY	1	9.860	2.400	**0.91**	A	**A**
WA	1	10.700	0.300	**0.99**	A	**A**
WC	1	9.660	0.760	**0.90**	N	**A**
WE	1	11.700	0.270	**1.09**	N	**A**
WI	1	8.790	1.340	**0.81**	A	**W**
YA	1	9.360	0.090	**0.87**		**A**
YU	1	7.300	0.200	**0.68**		**N**

Total Number Reported: 102

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CS134

EML Value: 28.170
EML Error: 0.730

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	11.140	1.280	**0.39**	A	**N**
AG	1	24.700	4.100	**0.87**	A	**A**
AM	1	18.280	0.190	**0.64**	A	**N**
AN	1	28.200	1.300	**1.00**	A	**A**
AR	1	27.300	0.500	**0.96**	W	**A**
AU	1	27.800	1.900	**0.98**	A	**A**
BA	1	22.850	1.000	**0.81**		**A**
BC	1	27.300	1.610	**0.96**	A	**A**
BE	1	22.450	1.710	**0.79**	A	**W**
BL	1	25.100	1.400	**0.89**	A	**A**
BM	1	27.500	0.350	**0.97**	N	**A**
BN	1	24.900	0.510	**0.88**	A	**A**
BN	2	25.860	0.530	**0.91**	A	**A**
BN	3	26.120	0.540	**0.92**	A	**A**
BP	1	27.200	0.500	**0.96**	W	**A**
BQ	1	25.300	0.200	**0.89**	A	**A**
BS	1	26.850	0.180	**0.95**	A	**A**
BU	1	26.000	3.000	**0.92**	A	**A**
BX	1	27.000	1.590	**0.95**	A	**A**
CA	1	27.200	2.200	**0.96**	W	**A**
CH	1	27.500	1.000	**0.97**	A	**A**
CL	1	36.700	6.580	**1.30**	A	**N**
CN	1	30.520	1.200	**1.08**	W	**A**
CO	1	26.000	1.000	**0.92**	N	**A**
CR	1	34.100	1.300	**1.21**	N	**W**
CS	1	21.370	0.470	**0.75**	A	**W**
DC	1	27.900	6.720	**0.99**	A	**A**
EG	1	25.600	0.200	**0.90**	A	**A**
EP	1	24.000	2.900	**0.85**	N	**A**
ES	1	27.520	3.020	**0.97**	A	**A**
FG	1	23.300	6.200	**0.82**	W	**A**
FJ	1	25.000	2.000	**0.88**		**A**
FL	1	21.900	0.170	**0.77**	A	**W**
FM	1	18.800	0.200	**0.66**	A	**N**
FN	1	28.650	1.960	**1.02**	A	**A**
FR	1	17.890	1.780	**0.63**	A	**N**
GA	1	24.000	2.400	**0.85**	A	**A**
GE	1	23.380	0.690	**0.82**	A	**A**
GP	1	11.000	2.000	**0.39**	A	**N**
GT	1	20.000	2.000	**0.70**	A	**N**
HU	1	29.000	0.700	**1.02**		**A**
ID	1	27.630	1.610	**0.98**	W	**A**
IE	1	27.830	2.780	**0.98**	A	**A**
IN	1	24.300	0.600	**0.86**	A	**A**
IS	1	21.700	2.700	**0.77**	A	**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CS134

EML Value: 28.170
EML Error: 0.730

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
IT	1	24.100	0.900	**0.85**	A	**A**
JL	1	23.600	0.800	**0.83**		**A**
KO	1	26.870	0.860	**0.95**	A	**A**
LA	1	24.300	2.100	**0.86**	N	**A**
LH	1	22.800	1.600	**0.80**	A	**W**
LL	1	27.400	1.600	**0.97**	A	**A**
LN	1	20.000	2.000	**0.70**		**N**
LV	1	26.200	0.800	**0.93**	A	**A**
ME	1	25.300	0.540	**0.89**	A	**A**
MH	1	26.600	0.700	**0.94**		**A**
ML	1	33.400	3.300	**1.18**		**W**
MS	1	24.600	2.460	**0.87**	A	**A**
ND	1	25.200	0.690	**0.89**	W	**A**
NP	1	21.510	0.190	**0.76**	A	**W**
NZ	1	21.200	1.100	**0.75**	A	**W**
NZ	2	22.400	1.200	**0.79**	A	**W**
OD	1	25.560	0.540	**0.90**	A	**A**
OL	1	23.500	0.830	**0.83**	A	**A**
OS	1	26.250	0.160	**0.93**	A	**A**
OT	1	25.000	1.000	**0.88**	A	**A**
OU	1	25.300	6.810	**0.89**		**A**
PO	1	29.700	1.500	**1.05**	A	**A**
PR	1	21.800	0.350	**0.77**		**W**
PR	2	21.950	0.350	**0.77**		**W**
PR	3	22.080	0.350	**0.78**		**W**
PR	4	22.490	0.360	**0.79**		**W**
RA	1	25.000	1.600	**0.88**	A	**A**
RA	2	28.800	2.000	**1.02**	A	**A**
RC	1	26.000	2.000	**0.92**		**A**
RE	1	23.900	2.100	**0.84**	A	**A**
RI	1	27.900	0.560	**0.99**	A	**A**
RL	1	21.500	0.750	**0.76**	N	**W**
SA	1	25.200	1.900	**0.89**	A	**A**
SB	1	21.300	0.300	**0.75**		**W**
SK	1	26.200	2.700	**0.93**	W	**A**
SR	1	26.200	1.000	**0.93**	A	**A**
SS	1	23.300	0.200	**0.82**	A	**A**
SW	1	24.730	0.090	**0.87**	A	**A**
TE	1	24.700	0.500	**0.87**	A	**A**
TI	1	23.000	2.300	**0.81**	A	**A**
TM	1	28.100	0.850	**0.99**	W	**A**
TN	1	26.920	1.070	**0.95**	N	**A**
TO	1	28.100	2.000	**0.99**	W	**A**
TP	1	24.120	1.320	**0.85**	A	**A**
TR	1	25.120	2.320	**0.89**	N	**A**
TX	1	24.000	0.100	**0.85**	A	**A**
UK	1	23.900	0.440	**0.84**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CS134

EML Value: 28.170
EML Error: 0.730

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
UN	1	26.700	1.000	**0.94**	N	**A**
UP	1	24.900	1.200	**0.88**		**A**
UY	1	26.300	3.000	**0.93**	A	**A**
WA	1	24.800	0.400	**0.88**	A	**A**
WC	1	23.400	1.400	**0.83**	A	**A**
WE	1	27.000	3.700	**0.95**	A	**A**
WI	1	22.500	2.300	**0.79**	A	**W**
YA	1	27.540	0.180	**0.97**	W	**A**
YU	1	20.900	0.500	**0.74**		**W**

Total Number Reported: 101

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CS137

EML Value: 7.310
EML Error: 0.250

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	8.010	0.910	**1.09**	A	**A**
AG	1	6.670	0.780	**0.91**	A	**A**
AM	1	5.920	0.170	**0.80**	N	**W**
AN	1	8.100	0.640	**1.10**	A	**A**
AR	1	7.500	0.190	**1.02**	W	**A**
AU	1	7.990	0.700	**1.09**	A	**A**
BA	1	7.700	0.680	**1.05**		**A**
BC	1	7.360	0.490	**1.00**	A	**A**
BE	1	7.220	0.570	**0.98**	A	**A**
BL	1	7.320	0.430	**1.00**	A	**A**
BM	1	7.370	0.260	**1.00**	W	**A**
BN	1	9.320	0.340	**1.27**	N	**W**
BN	2	9.740	0.350	**1.33**	N	**N**
BN	3	10.190	0.370	**1.39**	N	**N**
BP	1	6.620	0.170	**0.90**	A	**A**
BQ	1	7.400	0.200	**1.01**	A	**A**
BS	1	6.820	0.090	**0.93**	A	**A**
BU	1	7.200	0.800	**0.98**	W	**A**
BX	1	7.290	0.480	**0.99**	A	**A**
CA	1	6.400	0.700	**0.87**	A	**A**
CH	1	6.760	0.740	**0.92**	A	**A**
CL	1	7.310	5.000	**1.00**	A	**A**
CN	1	7.140	0.340	**0.97**	W	**A**
CO	1	7.500	0.200	**1.02**	W	**A**
CR	1	8.800	0.400	**1.20**	N	**W**
CS	1	5.320	0.240	**0.72**	A	**W**
DC	1	7.590	1.590	**1.03**	W	**A**
EG	1	6.800	0.100	**0.93**	A	**A**
EP	1	6.300	0.900	**0.86**	W	**A**
ES	1	8.040	0.890	**1.09**	A	**A**
FG	1	7.100	1.800	**0.97**	W	**A**
FJ	1	9.100	0.200	**1.24**		**W**
FL	1	6.900	0.100	**0.94**	W	**A**
FM	1	7.100	0.200	**0.97**	A	**A**
FN	1	7.220	0.752	**0.99**	A	**A**
FR	1	4.840	0.480	**0.66**	A	**N**
GA	1	6.500	0.560	**0.88**	A	**A**
GE	1	6.260	2.620	**0.85**	A	**A**
GP	1	8.200	1.600	**1.12**	A	**W**
GT	1	5.900	2.000	**0.80**	A	**W**
HU	1	8.200	1.000	**1.12**		**W**
ID	1	7.100	0.750	**0.97**	A	**A**
IE	1	7.490	0.750	**1.02**	A	**A**
IN	1	5.900	0.200	**0.80**	A	**W**
IS	1	5.910	0.660	**0.80**	A	**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CS137

EML Value: 7.310
EML Error: 0.250

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
IT	1	6.600	0.100	**0.90**	A	**A**
JL	1	6.100	0.600	**0.83**		**A**
KO	1	6.440	0.250	**0.88**	W	**A**
LA	1	7.070	0.650	**0.96**	A	**A**
LA	2	7.210	0.660	**0.98**	A	**A**
LA	3	7.240	0.660	**0.99**	A	**A**
LH	1	6.100	0.700	**0.83**	A	**A**
LL	1	6.850	2.800	**0.93**	A	**A**
LN	1	6.000	0.600	**0.82**		**A**
LV	1	7.490	0.120	**1.02**	A	**A**
ME	1	8.630	0.360	**1.18**	W	**W**
MH	1	7.500	0.300	**1.02**		**A**
ML	1	8.270	0.800	**1.13**		**W**
MS	1	6.760	0.680	**0.92**	A	**A**
ND	1	6.540	0.530	**0.89**	A	**A**
NP	1	5.810	0.120	**0.79**	A	**W**
NZ	1	6.600	0.400	**0.90**	W	**A**
NZ	2	7.200	0.400	**0.98**	W	**A**
OD	1	6.860	0.370	**0.93**	W	**A**
OL	1	7.260	0.330	**0.99**	W	**A**
OS	1	7.050	0.270	**0.96**	W	**A**
OT	1	7.300	0.200	**0.99**	A	**A**
OU	1	6.710	1.780	**0.91**		**A**
PO	1	7.400	0.900	**1.01**	A	**A**
PR	1	4.930	0.090	**0.67**		**N**
PR	2	5.040	0.090	**0.68**		**N**
PR	3	5.050	0.090	**0.69**		**N**
PR	4	5.120	0.090	**0.70**		**N**
RA	1	6.500	0.500	**0.88**	A	**A**
RA	2	7.310	0.480	**1.00**	A	**A**
RC	1	6.400	0.400	**0.87**		**A**
RE	1	6.440	0.750	**0.88**	A	**A**
RI	1	6.960	0.660	**0.95**	A	**A**
RL	1	7.170	1.300	**0.98**	N	**A**
SA	1	6.600	0.560	**0.90**	A	**A**
SB	1	7.000	0.200	**0.95**		**A**
SK	1	6.220	0.530	**0.85**	A	**A**
SR	1	6.900	0.700	**0.94**	A	**A**
SS	1	7.260	0.040	**0.99**	A	**A**
SW	1	6.630	0.530	**0.90**	A	**A**
TE	1	7.200	0.400	**0.98**	A	**A**
TI	1	6.540	0.650	**0.89**	W	**A**
TM	1	8.230	0.310	**1.12**	W	**W**
TN	1	6.240	0.360	**0.85**	N	**A**
TO	1	8.600	1.500	**1.17**	W	**W**
TP	1	6.610	0.230	**0.90**	A	**A**
TR	1	7.500	0.700	**1.02**	N	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: CS137

EML Value: 7.310
EML Error: 0.250

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
TX	1	6.750	0.100	**0.92**	A	**A**
UC	1	5.480	0.550	**0.74**	W	**W**
UK	1	6.400	0.410	**0.87**	A	**A**
UN	1	6.300	0.240	**0.86**	A	**A**
UP	1	6.330	0.360	**0.86**		**A**
UY	1	6.950	1.400	**0.95**	A	**A**
WA	1	7.510	0.260	**1.02**	A	**A**
WC	1	6.560	0.890	**0.89**	N	**A**
WE	1	8.350	1.500	**1.14**	A	**W**
WI	1	5.900	1.200	**0.80**	A	**W**
YA	1	6.290	0.090	**0.86**	A	**A**
YU	1	5.600	0.200	**0.76**		**W**

Total Number Reported: 104

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: GA

EML Value: 1.490
EML Error: 0.090

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	1.100	0.040	**0.73**	A	**W**
AI	1	1.340	0.030	**0.90**	A	**A**
AM	1	1.730	0.030	**1.16**	A	**A**
AR	1	3.970	0.080	**2.66**	N	**N**
AU	1	1.750	0.040	**1.17**	A	**A**
BC	1	1.490	0.030	**1.00**	A	**A**
BE	1	1.760	0.110	**1.18**	A	**A**
BL	1	2.060	0.110	**1.38**	W	**W**
BN	1	1.390	0.001	**0.93**	A	**A**
BP	1	1.530	0.060	**1.02**	A	**A**
BS	1	2.030	0.010	**1.36**	A	**W**
BU	1	1.310	0.080	**0.87**		**A**
BX	1	1.500	0.030	**1.00**	A	**A**
CA	1	0.990	0.020	**0.66**	A	**W**
CH	1	1.800	0.060	**1.20**	A	**A**
CS	1	1.780	0.080	**1.19**	A	**A**
DC	1	1.480	0.290	**0.99**	A	**A**
DH	1	1.740	0.180	**1.16**		**A**
DP	1	1.740	0.030	**1.16**	A	**A**
DP	2	1.800	0.030	**1.20**	A	**A**
EG	1	1.610	0.120	**1.08**	A	**A**
EI	1	1.760	0.180	**1.18**	W	**A**
ES	1	1.730	0.300	**1.16**	A	**A**
FG	1	1.550	0.100	**1.04**	A	**A**
FL	1	1.470	0.040	**0.98**	A	**A**
FR	1	1.360	0.210	**0.91**		**A**
GE	1	2.480	0.710	**1.66**	A	**N**
GP	1	1.000	0.100	**0.67**	A	**W**
GT	1	1.900	0.200	**1.27**	W	**A**
HC	1	1.300	0.130	**0.87**	A	**A**
ID	1	1.270	0.090	**0.85**	A	**A**
IS	1	1.960	0.200	**1.31**	A	**A**
IT	1	2.040	0.050	**1.36**	A	**W**
JL	1	2.500	0.300	**1.67**		**N**
KA	1	1.880	0.140	**1.26**	A	**A**
KO	1	1.540	0.050	**1.03**	A	**A**
LH	1	2.200	0.140	**1.47**	W	**W**
LL	1	1.620	0.020	**1.08**	A	**A**
LN	1	1.950	0.200	**1.30**		**A**
LV	1	1.040	0.070	**0.69**	N	**W**
ME	1	2.290	0.060	**1.53**	W	**W**
ND	1	1.550	0.060	**1.04**		**A**
NZ	1	1.500	0.100	**1.00**	A	**A**
NZ	2	1.600	0.100	**1.07**	A	**A**
OB	1	1.200	1.270	**0.80**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: GA

EML Value: 1.490
EML Error: 0.090

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
OD	1	1.620	0.050	**1.08**	A	**A**
OU	1	1.600	0.160	**1.07**		**A**
RC	1	2.200	0.200	**1.47**		**W**
RD	1	1.450	0.040	**0.97**	A	**A**
RE	1	1.560	0.180	**1.04**	A	**A**
RL	1	1.600	0.120	**1.07**	A	**A**
SA	1	1.570	0.220	**1.05**	A	**A**
SB	1	2.220	0.140	**1.48**	W	**W**
SR	1	1.530	0.130	**1.02**		**A**
SW	1	2.320	0.040	**1.55**	A	**W**
TE	1	1.800	0.100	**1.20**	A	**A**
TI	1	2.200	0.100	**1.47**	A	**W**
TM	1	1.990	0.250	**1.33**	A	**A**
TN	1	2.440	0.080	**1.63**	W	**N**
TO	1	1.900	0.050	**1.27**	W	**A**
TP	1	1.560	0.080	**1.05**	A	**A**
TW	1	1.410	0.020	**0.94**	A	**A**
TX	1	1.770	0.060	**1.18**	A	**A**
UC	1	1.520	0.060	**1.02**	A	**A**
UK	1	2.450	0.050	**1.64**	A	**N**
UP	1	1.620	0.080	**1.08**	A	**A**
UY	1	1.360	0.060	**0.91**	A	**A**
WA	1	1.810	0.130	**1.21**	A	**A**
WC	1	2.410	0.040	**1.61**	A	**N**
WS	1	1.540	0.020	**1.03**	A	**A**
WV	1	1.230	0.030	**0.82**	A	**A**
YA	1	1.430	0.010	**0.96**	A	**A**

Total Number Reported: 72

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: GB

EML Value: 3.000
EML Error: 0.140

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	0.290	0.440	**0.09**	N	**N**
AI	1	2.680	0.040	**0.89**	A	**A**
AM	1	3.430	0.040	**1.14**	A	**A**
AR	1	3.300	0.040	**1.09**	N	**A**
AU	1	3.210	0.040	**1.07**	A	**A**
BC	1	2.920	0.030	**0.97**	W	**A**
BE	1	2.920	0.120	**0.97**	A	**A**
BL	1	2.970	0.120	**0.99**	A	**A**
BN	1	2.870	0.070	**0.95**	A	**A**
BN	2	2.990	0.070	**0.99**	A	**A**
BN	3	3.030	0.070	**1.00**	A	**A**
BP	1	3.060	0.010	**1.01**	A	**A**
BS	1	3.540	0.010	**1.17**	A	**A**
BU	1	2.600	0.300	**0.86**		**A**
BX	1	2.960	0.030	**0.98**	W	**A**
CA	1	2.900	0.300	**0.96**	A	**A**
CH	1	3.140	0.110	**1.04**	W	**A**
CS	1	4.510	0.340	**1.50**	W	**W**
DC	1	2.630	0.520	**0.87**	A	**A**
DH	1	3.270	0.340	**1.08**		**A**
DP	1	3.150	0.030	**1.05**	N	**A**
DP	2	3.200	0.030	**1.06**	N	**A**
DP	3	3.300	0.030	**1.09**	N	**A**
EG	1	3.610	0.210	**1.20**	W	**A**
ES	1	3.690	0.640	**1.23**	A	**A**
FG	1	2.950	0.100	**0.98**	N	**A**
FL	1	3.280	0.050	**1.09**	A	**A**
FR	1	2.990	0.450	**0.99**		**A**
GE	1	2.860	0.720	**0.95**	A	**A**
GP	1	0.610	0.070	**0.20**	A	**N**
GT	1	3.900	0.400	**1.30**	W	**A**
HC	1	2.420	0.130	**0.80**	W	**A**
ID	1	3.400	0.240	**1.13**	A	**A**
IS	1	3.040	0.310	**1.01**	A	**A**
IT	1	3.530	0.010	**1.17**	A	**A**
JL	1	3.900	0.500	**1.30**		**A**
KA	1	3.460	0.140	**1.15**	A	**A**
KO	1	2.460	0.060	**0.82**	W	**A**
LH	1	2.990	0.160	**0.99**	W	**A**
LL	1	3.620	0.030	**1.20**	A	**A**
LN	1	3.110	0.310	**1.03**		**A**
LV	1	2.080	0.040	**0.69**	W	**W**
ME	1	3.880	0.060	**1.29**	A	**A**
ND	1	2.800	0.060	**0.93**		**A**
NP	1	3.080	0.030	**1.02**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: GB

EML Value: 3.000
EML Error: 0.140

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
NZ	1	3.100	0.100	**1.03**	A	**A**
NZ	2	3.200	0.100	**1.06**	A	**A**
OB	1	3.350	0.050	**1.11**	W	**A**
OD	1	3.630	0.090	**1.21**	A	**A**
OU	1	2.170	0.150	**0.72**		**W**
RC	1	3.200	0.300	**1.06**		**A**
RD	1	1.480	0.070	**0.49**	W	**N**
RE	1	2.940	0.880	**0.98**	A	**A**
RL	1	3.900	0.300	**1.30**	A	**A**
SA	1	2.850	0.230	**0.94**	A	**A**
SB	1	3.370	0.120	**1.12**	A	**A**
SR	1	3.780	0.190	**1.25**		**A**
SW	1	2.830	0.040	**0.94**	A	**A**
TE	1	3.300	0.100	**1.09**	A	**A**
TI	1	3.800	0.100	**1.26**	W	**A**
TM	1	2.560	0.220	**0.85**	W	**A**
TN	1	3.210	0.070	**1.07**	N	**A**
TO	1	3.000	0.050	**1.00**	W	**A**
TP	1	2.510	0.140	**0.83**	A	**A**
TW	1	2.730	0.020	**0.91**	A	**A**
TX	1	3.060	0.080	**1.01**	W	**A**
UC	1	3.960	0.070	**1.32**	A	**A**
UK	1	3.350	0.040	**1.11**	A	**A**
UP	1	3.100	0.090	**1.03**	A	**A**
UY	1	3.200	0.090	**1.06**	A	**A**
WA	1	3.390	0.130	**1.13**	A	**A**
WC	1	3.330	0.060	**1.10**	W	**A**
WV	1	3.140	0.040	**1.04**	A	**A**
YA	1	2.800	0.020	**0.93**	W	**A**

Total Number Reported: 74

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: MN 54

EML Value: 6.720
EML Error: 0.270

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	6.700	0.890	**0.99**	A	**A**
AG	1	6.310	0.830	**0.93**	W	**A**
AM	1	5.420	0.160	**0.80**	N	**W**
AN	1	7.390	0.100	**1.09**	W	**A**
AR	1	7.140	0.180	**1.06**	W	**A**
AU	1	8.030	0.780	**1.19**	W	**W**
BA	1	7.450	0.770	**1.10**		**A**
BC	1	6.850	0.400	**1.01**	A	**A**
BE	1	7.260	0.550	**1.08**	A	**A**
BL	1	7.100	0.370	**1.05**	A	**A**
BN	1	8.700	0.330	**1.29**	N	**W**
BN	2	8.910	0.330	**1.32**	N	**N**
BN	3	9.500	0.360	**1.41**	N	**N**
BP	1	6.220	0.140	**0.92**	A	**A**
BQ	1	6.200	0.100	**0.92**	A	**A**
BS	1	7.070	0.120	**1.05**	W	**A**
BU	1	6.600	1.000	**0.98**	W	**A**
BX	1	6.480	0.380	**0.96**	A	**A**
CA	1	5.800	0.700	**0.86**	A	**A**
CH	1	6.750	0.740	**1.00**	A	**A**
CL	1	7.050	0.560	**1.04**	A	**A**
CN	1	9.770	0.400	**1.45**	W	**N**
CO	1	7.300	0.200	**1.08**	N	**A**
CR	1	7.700	0.400	**1.14**	N	**W**
CS	1	5.150	0.220	**0.76**	A	**W**
DC	1	7.640	2.130	**1.13**	W	**W**
EG	1	6.800	0.100	**1.01**	A	**A**
ES	1	7.390	0.820	**1.09**	A	**A**
FG	1	5.900	1.400	**0.87**	N	**A**
FJ	1	8.000	0.300	**1.19**		**W**
FL	1	6.300	0.100	**0.93**	W	**A**
FM	1	6.800	0.200	**1.01**	W	**A**
FN	1	6.650	0.730	**0.99**	A	**A**
FR	1	4.570	0.500	**0.68**	A	**N**
GA	1	6.100	1.300	**0.90**	A	**A**
GE	1	6.120	1.470	**0.91**	A	**A**
GP	1	7.600	1.600	**1.13**	A	**W**
GT	1	5.900	2.000	**0.87**	A	**A**
HU	1	9.000	0.700	**1.33**		**N**
ID	1	6.370	0.500	**0.94**	A	**A**
IE	1	6.820	0.680	**1.01**	A	**A**
IN	1	5.800	0.300	**0.86**	A	**A**
IS	1	4.860	0.630	**0.72**	A	**N**
IT	1	6.530	0.170	**0.97**	A	**A**
JL	1	5.300	0.600	**0.78**		**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: MN 54

EML Value: 6.720
EML Error: 0.270

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
KO	1	5.980	0.270	**0.89**	W	**A**
LA	1	6.720	0.620	**1.00**	A	**A**
LA	2	6.850	0.630	**1.01**	A	**A**
LA	3	6.930	0.640	**1.03**	A	**A**
LH	1	4.500	0.500	**0.66**	A	**N**
LN	1	6.000	0.600	**0.89**		**A**
LV	1	6.000	0.120	**0.89**	A	**A**
ME	1	8.550	0.310	**1.27**	W	**W**
MH	1	7.300	0.300	**1.08**		**A**
ML	1	7.860	0.800	**1.16**		**W**
MS	1	6.370	0.640	**0.94**	A	**A**
ND	1	6.340	0.570	**0.94**	W	**A**
NP	1	6.310	0.130	**0.93**	A	**A**
NZ	1	7.000	0.400	**1.04**	W	**A**
NZ	2	8.500	0.300	**1.26**	W	**W**
OD	1	6.280	0.390	**0.93**	W	**A**
OL	1	7.100	0.310	**1.05**	W	**A**
OS	1	7.250	0.280	**1.07**	W	**A**
OT	1	6.900	0.200	**1.02**	A	**A**
OU	1	7.330	2.140	**1.09**		**A**
PO	1	6.600	0.700	**0.98**		**A**
PR	1	5.390	0.110	**0.80**		**W**
PR	2	5.400	0.110	**0.80**		**W**
PR	3	5.460	0.110	**0.81**		**W**
PR	4	5.600	0.110	**0.83**		**A**
RA	1	6.300	0.600	**0.93**	A	**A**
RA	2	6.960	0.570	**1.03**	A	**A**
RC	1	6.000	0.500	**0.89**		**A**
RE	1	6.510	0.760	**0.96**	A	**A**
RI	1	6.490	0.640	**0.96**	A	**A**
RL	1	6.660	1.200	**0.99**	N	**A**
SA	1	6.600	0.530	**0.98**	A	**A**
SB	1	6.290	0.250	**0.93**		**A**
SK	1	5.820	0.500	**0.86**	A	**A**
SR	1	6.600	0.700	**0.98**	A	**A**
SS	1	7.050	0.080	**1.04**	A	**A**
SW	1	6.320	0.060	**0.94**	A	**A**
TE	1	6.800	0.400	**1.01**	W	**A**
TI	1	6.320	0.630	**0.94**	W	**A**
TM	1	7.420	0.280	**1.10**	W	**A**
TN	1	5.910	0.340	**0.87**	N	**A**
TO	1	8.100	1.500	**1.20**	A	**W**
TP	1	6.350	0.110	**0.94**	A	**A**
TR	1	6.670	0.540	**0.99**	N	**A**
TX	1	6.820	0.100	**1.01**	W	**A**
UK	1	6.090	0.420	**0.90**	A	**A**
UN	1	6.260	0.240	**0.93**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: MN 54

EML Value: 6.720
EML Error: 0.270

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
UP	1	6.030	0.440	**0.89**		**A**
UY	1	6.500	1.600	**0.96**	W	**A**
WA	1	7.620	0.330	**1.13**	W	**W**
WC	1	6.480	0.900	**0.96**	N	**A**
WE	1	8.070	0.800	**1.20**	N	**W**
WI	1	5.650	1.160	**0.84**	A	**A**
YA	1	6.040	0.100	**0.89**		**A**
YU	1	5.400	0.200	**0.80**		**W**

Total Number Reported: 100

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: PU238

EML Value: 0.210
EML Error: 0.007

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	0.240	0.040	**1.11**	W	**A**
AN	1	0.220	0.010	**1.04**	A	**A**
AR	1	0.210	0.010	**0.99**	W	**A**
AU	1	0.230	0.010	**1.09**	A	**A**
BE	1	0.230	0.010	**1.06**	A	**A**
BL	1	0.280	0.020	**1.31**	A	**W**
BL	1	0.280	0.020	**1.33**	A	**W**
BM	1	0.250	0.030	**1.16**	A	**W**
BP	1	0.230	0.007	**1.06**	A	**A**
BU	1	0.110	0.020	**0.50**	A	**N**
BX	1	0.230	0.010	**1.10**	A	**A**
CH	1	0.230	0.010	**1.09**	A	**A**
CL	1	0.320	0.009	**1.48**	W	**N**
DC	1	0.040	0.010	**0.20**	A	**N**
EG	1	0.230	0.000	**1.08**	W	**A**
ES	1	0.200	0.040	**0.92**	A	**A**
FL	1	0.210	0.007	**1.00**	W	**A**
GA	1	0.260	0.010	**1.20**	W	**W**
GE	1	0.220	0.020	**1.05**	A	**A**
GP	1	0.090	0.009	**0.42**	A	**N**
GT	1	0.230	0.020	**1.06**	A	**A**
ID	1	0.220	0.030	**1.05**	W	**A**
IE	1	0.220	0.010	**1.06**	A	**A**
IS	1	0.220	0.030	**1.01**	W	**A**
IT	1	0.240	0.010	**1.11**	A	**A**
LA	1	0.220	0.020	**1.01**	A	**A**
LA	2	0.240	0.030	**1.11**	A	**A**
LH	1	0.220	0.020	**1.01**	A	**A**
LL	1	0.210	0.020	**1.01**	A	**A**
ML	1	0.230	0.010	**1.06**	A	**A**
NA	1	0.200	0.010	**0.92**	A	**A**
NF	1	0.290	0.040	**1.35**		**W**
NZ	1	0.220	0.010	**1.01**	A	**A**
NZ	2	0.230	0.010	**1.06**	A	**A**
RA	1	0.240	0.050	**1.11**	A	**A**
RE	1	0.210	0.020	**0.99**	A	**A**
RI	1	0.220	0.010	**1.04**	W	**A**
SN	1	0.220	0.020	**1.05**	A	**A**
SR	1	0.150	0.030	**0.73**	A	**W**
SW	1	0.580	0.110	**2.68**	W	**N**
TE	1	0.230	0.100	**1.06**	N	**A**
TI	1	0.240	0.050	**1.11**	A	**A**
TM	1	0.240	0.010	**1.12**	A	**A**
TN	1	0.230	0.010	**1.09**	A	**A**
TW	1	0.240	0.007	**1.12**	W	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: PU238

EML Value: 0.210
EML Error: 0.007

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
TX	1	0.240	0.008	**1.11**	A	**A**
UC	1	0.210	0.030	**0.97**		**A**
UK	1	0.350	0.110	**1.65**	W	**N**
UP	1	0.240	0.040	**1.11**		**A**
UY	1	0.200	0.020	**0.92**	A	**A**
WA	1	0.230	0.030	**1.09**	A	**A**
WC	1	0.240	0.040	**1.12**	A	**A**
WI	1	0.220	0.030	**1.02**	A	**A**
YA	1	0.230	0.005	**1.10**	A	**A**

Total Number Reported: 54

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: PU239

EML Value: 0.100
EML Error: 0.004

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	0.130	0.070	**1.20**	A	**W**
AR	1	0.110	0.010	**1.03**	A	**A**
AU	1	0.110	0.010	**1.10**	A	**A**
BP	1	0.120	0.004	**1.12**	A	**A**
DC	1	0.020	0.007	**0.21**	A	**N**
FL	1	0.110	0.005	**1.03**	W	**A**
GP	1	0.120	0.010	**1.11**	A	**A**
IE	1	0.110	0.007	**1.08**	A	**A**
IT	1	0.120	0.010	**1.16**	A	**A**
LA	1	0.110	0.010	**1.01**	A	**A**
LA	2	0.120	0.010	**1.11**	A	**A**
LL	1	0.110	0.010	**1.01**	A	**A**
NZ	1	0.110	0.010	**1.01**	A	**A**
NZ	2	0.120	0.010	**1.11**	A	**A**
RA	1	0.120	0.020	**1.11**	A	**A**
SR	1	0.140	0.010	**1.29**	A	**W**
TW	1	0.120	0.005	**1.14**	A	**A**
TX	1	0.120	0.006	**1.14**	W	**A**
UP	1	0.110	0.020	**1.01**		**A**
UY	1	0.100	0.010	**0.92**	W	**A**
WA	1	0.120	0.020	**1.11**	A	**A**
WC	1	0.130	0.020	**1.25**	A	**W**
WI	1	0.120	0.020	**1.14**	A	**A**

Total Number Reported: 23

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: SB125

EML Value: 16.120
EML Error: 0.790

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	10.770	1.680	**0.66**	A	**W**
AG	1	17.000	2.600	**1.05**	W	**A**
AM	1	10.160	0.380	**0.63**	W	**W**
AN	1	18.700	1.700	**1.16**	A	**W**
AR	1	17.000	0.500	**1.05**	W	**A**
AU	1	15.500	1.900	**0.96**	A	**A**
BA	1	17.850	0.910	**1.10**		**A**
BC	1	16.500	0.850	**1.02**	A	**A**
BE	1	13.220	1.060	**0.82**	A	**A**
BL	1	14.300	1.000	**0.88**	A	**A**
BN	1	23.140	0.720	**1.43**	N	**N**
BN	2	23.730	0.740	**1.47**	N	**N**
BN	3	24.940	0.780	**1.54**	N	**N**
BP	1	9.990	0.290	**0.61**	A	**W**
BQ	1	15.900	0.200	**0.98**	N	**A**
BS	1	11.190	0.230	**0.69**	A	**W**
BU	1	16.000	2.000	**0.99**	A	**A**
BX	1	14.700	0.770	**0.91**	A	**A**
CA	1	15.800	2.500	**0.98**	A	**A**
CH	1	17.600	2.000	**1.09**	A	**A**
CL	1	18.000	1.340	**1.11**	A	**A**
CN	1	19.340	0.930	**1.19**	A	**W**
CO	1	18.000	1.000	**1.11**	W	**A**
CR	1	21.600	1.000	**1.33**	N	**W**
CS	1	13.020	0.320	**0.80**	A	**W**
DC	1	19.500	6.140	**1.20**	W	**W**
EG	1	15.000	0.200	**0.93**	W	**A**
ES	1	16.750	1.850	**1.03**	A	**A**
FG	1	14.200	3.500	**0.88**	W	**A**
FJ	1	19.700	0.500	**1.22**		**W**
FL	1	13.900	0.400	**0.86**	A	**A**
FM	1	17.200	0.300	**1.06**	A	**A**
FN	1	19.800	0.890	**1.23**	A	**W**
FR	1	12.250	1.340	**0.76**	A	**W**
GA	1	13.000	2.600	**0.80**	A	**W**
GE	1	15.810	2.570	**0.98**	A	**A**
GP	1	11.000	3.000	**0.68**	A	**W**
GT	1	13.000	2.000	**0.80**	A	**W**
HU	1	16.700	1.800	**1.03**		**A**
ID	1	16.200	2.010	**1.00**	W	**A**
IE	1	19.420	1.940	**1.20**	A	**W**
IN	1	16.100	0.200	**0.99**	A	**A**
IS	1	9.450	1.940	**0.58**	A	**W**
IT	1	7.500	0.200	**0.46**	A	**N**
JL	1	14.100	1.200	**0.87**		**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: SB125

EML Value: 16.120
EML Error: 0.790

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
KO	1	16.290	0.910	**1.01**	A	**A**
LA	1	17.500	1.600	**1.08**	W	**A**
LA	2	17.600	1.600	**1.09**	W	**A**
LH	1	14.500	1.200	**0.89**	A	**A**
LL	1	17.600	2.600	**1.09**	W	**A**
LN	1	12.200	1.200	**0.75**		**W**
ME	1	19.700	0.530	**1.22**	W	**W**
MH	1	19.000	0.500	**1.17**		**W**
ML	1	19.880	2.000	**1.23**		**W**
MS	1	14.000	1.400	**0.86**	A	**A**
ND	1	14.750	1.340	**0.91**	A	**A**
NP	1	15.190	0.310	**0.94**	A	**A**
NZ	1	16.100	0.900	**0.99**	W	**A**
NZ	2	17.300	0.900	**1.07**	W	**A**
OD	1	15.560	0.420	**0.96**	W	**A**
OL	1	16.500	0.860	**1.02**	A	**A**
OS	1	16.820	0.740	**1.04**	W	**A**
OT	1	17.000	1.000	**1.05**	A	**A**
OU	1	16.090	3.740	**0.99**		**A**
PO	1	19.000	2.200	**1.17**		**W**
RA	1	15.000	1.400	**0.93**	A	**A**
RA	2	17.100	1.700	**1.06**	A	**A**
RC	1	15.900	0.900	**0.98**		**A**
RE	1	15.500	1.900	**0.96**	A	**A**
RI	1	8.720	0.960	**0.54**	A	**N**
RL	1	17.300	5.800	**1.07**	N	**A**
SA	1	16.300	0.890	**1.01**	W	**A**
SB	1	13.000	0.200	**0.80**		**W**
SK	1	9.800	1.000	**0.60**	A	**W**
SR	1	17.200	0.800	**1.06**	A	**A**
SS	1	17.200	0.200	**1.06**	A	**A**
SW	1	14.710	0.120	**0.91**	A	**A**
TE	1	18.000	1.300	**1.11**	W	**A**
TI	1	15.700	1.600	**0.97**	W	**A**
TM	1	18.800	0.720	**1.16**	W	**W**
TN	1	14.120	0.140	**0.87**	N	**A**
TO	1	21.200	1.500	**1.31**	W	**W**
TP	1	14.940	0.460	**0.92**	A	**A**
TR	1	14.960	1.230	**0.92**	N	**A**
TX	1	15.840	0.170	**0.98**	A	**A**
UN	1	15.000	0.600	**0.93**	A	**A**
UP	1	14.200	1.550	**0.88**		**A**
UY	1	16.900	1.600	**1.04**	A	**A**
WA	1	18.500	0.500	**1.14**	W	**W**
WC	1	4.300	0.420	**0.26**	N	**N**
WE	1	18.900	2.000	**1.17**	W	**W**
WI	1	14.800	1.900	**0.91**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: SB125

EML Value: 16.120
EML Error: 0.790

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
YA	1	5.810	0.160	**0.36**		**N**
YU	1	14.600	0.400	**0.90**		**A**

Total Number Reported: 94

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: SR 90

EML Value: 2.760
EML Error: 0.100

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	1.460	0.150	**0.52**	A	**N**
AG	1	2.390	0.430	**0.86**	W	**A**
AN	1	2.670	0.030	**0.96**	A	**A**
AR	1	5.200	0.620	**1.88**	A	**W**
BC	1	2.660	0.510	**0.96**	A	**A**
BE	1	3.000	0.190	**1.08**	A	**A**
BL	1	2.510	1.120	**0.90**	A	**A**
BM	1	2.720	0.050	**0.98**	A	**A**
BP	1	2.480	0.090	**0.89**	A	**A**
BX	1	2.800	0.600	**1.01**	A	**A**
CH	1	2.530	0.070	**0.91**	A	**A**
CL	1	5.130	0.780	**1.85**	A	**W**
DC	1	2.650	0.250	**0.96**	A	**A**
DP	1	2.630	0.110	**0.95**		**A**
DP	2	2.640	0.100	**0.95**		**A**
DP	3	2.650	0.100	**0.96**		**A**
EG	1	2.660	0.000	**0.96**	A	**A**
EI	1	2.490	0.150	**0.90**	N	**A**
ES	1	4.630	1.340	**1.67**	A	**W**
GA	1	2.400	0.100	**0.86**	A	**A**
GE	1	1.800	1.300	**0.65**	A	**N**
GP	1	1.300	0.300	**0.47**	A	**N**
GT	1	2.400	0.300	**0.86**	A	**A**
ID	1	9.750	0.570	**3.53**		**N**
IE	1	3.120	0.310	**1.13**	W	**A**
IS	1	4.810	0.950	**1.74**	W	**W**
IT	1	3.000	0.600	**1.08**	A	**A**
LH	1	2.650	0.190	**0.96**	A	**A**
NA	1	300.000	22.000	****.****	A	**N**
NZ	1	2.600	0.100	**0.94**	A	**A**
RA	1	2.800	0.600	**1.01**	A	**A**
RE	1	2.560	0.150	**0.92**	A	**A**
RI	1	2.950	0.180	**1.06**	W	**A**
SR	1	1.180	0.070	**0.42**	A	**N**
SW	1	6.180	0.190	**2.23**	A	**W**
TE	1	2.800	0.400	**1.01**	A	**A**
TI	1	2.500	0.200	**0.90**	A	**A**
TM	1	2.400	0.180	**0.86**	A	**A**
TN	1	2.920	0.150	**1.06**	A	**A**
TP	1	2.410	0.120	**0.87**	W	**A**
TW	1	2.820	0.090	**1.02**	A	**A**
UP	1	1.690	0.280	**0.61**		**N**
UY	1	2.100	0.100	**0.76**	W	**W**
WA	1	2.830	0.190	**1.02**	A	**A**
WC	1	3.200	0.410	**1.15**	W	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: SR 90

EML Value: 2.760
EML Error: 0.100

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
YA	1	2.420	0.120	**0.88**	A	**A**

Total Number Reported: 46

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: U BQ

EML Value: 0.110
EML Error: 0.004

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	0.130	0.010	**1.16**	A	**A**
AM	1	0.320	0.020	**2.74**	N	**W**
AR	1	0.150	0.020	**1.34**		**A**
BL	1	0.140	0.004	**1.27**	A	**A**
BU	1	0.150	0.020	**1.28**	W	**A**
CH	1	0.140	0.003	**1.22**	A	**A**
CL	1	0.130	0.010	**1.11**	A	**A**
ES	1	0.140	0.040	**1.20**		**A**
FR	1	0.150	0.020	**1.31**		**A**
GP	1	0.210		**1.80**	A	**W**
ID	1	0.110	0.008	**1.00**	A	**A**
TE	1	0.130	0.100	**1.11**	N	**A**
TX	1	0.130	0.009	**1.17**		**A**
UK	1	0.130	0.040	**1.12**	A	**A**
UP	1	0.170	0.030	**1.53**	A	**A**
UY	1	0.120	0.040	**1.08**	A	**A**
WA	1	0.140	0.030	**1.21**	A	**A**

Total Number Reported: 17

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: U UG

EML Value: 4.650
EML Error: 0.210

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	11.200	5.890	**2.40**	W	**N**
AG	1	4.850	0.660	**1.04**	W	**A**
AR	1	4.600	0.500	**0.98**	A	**A**
BE	1	5.300	0.000	**1.13**	A	**A**
BL	1	6.020	0.160	**1.29**		**W**
BL	2	5.800	0.000	**1.24**		**A**
BQ	1	4.360	0.200	**0.93**	A	**A**
CH	1	5.040	0.090	**1.08**	A	**A**
DC	1	0.430	0.040	**0.09**	A	**N**
ES	1	9.510	1.900	**2.04**	A	**N**
GA	1	5.100	0.320	**1.09**		**A**
GE	1	5.020	0.270	**1.07**	A	**A**
IE	1	5.230	0.600	**1.12**	A	**A**
IS	1	3.390	0.900	**0.72**	A	**W**
IT	1	4.700	0.020	**1.01**	A	**A**
LL	1	4.450		**0.95**	A	**A**
RA	1	5.600	0.500	**1.20**	A	**A**
RA	2	5.900	0.500	**1.26**	A	**A**
RI	1	4.320	0.090	**0.92**	A	**A**
SA	1	5.050	0.210	**1.08**		**A**
SW	1	6.770	0.000	**1.45**		**W**
TI	1	5.100	0.800	**1.09**	A	**A**
TM	1	5.080	0.560	**1.09**	A	**A**
TN	1	5.330	0.860	**1.14**	A	**A**
TO	1	3.800	0.100	**0.81**	A	**A**
UP	1	5.040	1.000	**1.08**		**A**
UY	1	5.530	0.500	**1.18**	A	**A**
YA	1	4.480	0.220	**0.96**	A	**A**
YP	1	4.420	0.110	**0.95**	A	**A**

Total Number Reported: 29

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: U234

EML Value: 0.050
EML Error: 0.001

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	0.060	0.010	**1.15**	A	**A**
AM	1	0.160	0.010	**2.79**		**N**
AN	1	0.060	0.005	**1.20**	A	**A**
AR	1	0.070	0.010	**1.38**	A	**A**
AU	1	0.050	0.009	**1.03**	A	**A**
BC	1	0.090	0.009	**1.61**	A	**W**
BE	1	0.060	0.008	**1.11**	A	**A**
BL	1	0.070	0.002	**1.31**	A	**A**
BM	1	0.060	0.010	**1.15**	A	**A**
BX	1	0.080	0.020	**1.48**	A	**W**
CH	1	0.070	0.006	**1.36**	A	**A**
CL	1	0.050	0.010	**0.87**	W	**W**
DC	1	0.010	0.006	**0.28**	A	**N**
EG	1	0.060	0.000	**1.10**		**A**
FR	1	0.070	0.010	**1.25**		**A**
GA	1	0.070	0.003	**1.34**	A	**A**
GE	1	0.060	0.010	**1.17**	A	**A**
GP	1	0.110	0.010	**1.92**	A	**W**
IE	1	0.070	0.010	**1.25**	A	**A**
IT	1	0.050	0.001	**1.03**	A	**A**
LH	1	0.070	0.010	**1.32**	A	**A**
ML	1	0.060	0.005	**1.04**	A	**A**
NF	1	0.110	0.009	**2.08**		**N**
NZ	1	0.060	0.000	**1.04**	A	**A**
RE	1	0.060	0.008	**1.13**	A	**A**
SN	1	0.060	0.007	**1.18**		**A**
SR	1	0.060	0.009	**1.04**	A	**A**
TM	1	0.070	0.005	**1.28**	A	**A**
TN	1	0.070	0.009	**1.25**	A	**A**
TW	1	0.060	0.005	**1.18**	A	**A**
TX	1	0.060	0.004	**1.13**	A	**A**
UN	1	0.050	0.004	**0.96**	A	**A**
UP	1	0.090	0.020	**1.67**	A	**W**
WA	1	0.070	0.020	**1.32**	A	**A**
WC	1	0.070	0.010	**1.27**	A	**A**
WI	1	0.060	0.010	**1.09**	A	**A**
YA	1	0.050	0.003	**0.98**	A	**A**

Total Number Reported: 37

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: AI Air Filter
Radionuclide: U238

EML Value: 0.050
EML Error: 0.003

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	0.060	0.010	**1.07**	A	**A**
AM	1	0.160	0.010	**2.77**		**N**
AN	1	0.060	0.007	**1.11**	A	**A**
AR	1	0.070	0.010	**1.26**	A	**A**
AU	1	0.060	0.009	**1.11**	A	**A**
BC	1	0.080	0.010	**1.45**	A	**W**
BE	1	0.060	0.008	**1.04**	A	**A**
BL	1	0.070	0.002	**1.26**	A	**A**
BM	1	0.060	0.010	**1.11**	A	**A**
BP	1	0.120	0.008	**2.23**		**W**
BX	1	0.090	0.030	**1.59**	A	**W**
CH	1	0.060	0.003	**1.12**	A	**A**
CL	1	0.060	0.010	**1.04**	A	**A**
DC	1	0.010	0.005	**0.26**	A	**N**
EG	1	0.060	0.000	**1.09**		**A**
FR	1	0.070	0.010	**1.33**		**W**
GA	1	0.060	0.004	**1.11**	A	**A**
GE	1	0.060	0.009	**1.11**	A	**A**
GP	1	0.100	0.010	**1.73**	A	**W**
GT	1	0.060	0.020	**1.04**	A	**A**
IE	1	0.060	0.007	**1.12**	A	**A**
IT	1	0.060	0.006	**1.12**	A	**A**
LH	1	0.070	0.010	**1.26**	A	**A**
LL	1	0.050		**0.95**	A	**A**
ML	1	0.060	0.005	**1.04**	A	**A**
NF	1	0.060	0.006	**1.18**		**A**
NZ	1	0.060	0.000	**1.04**	A	**A**
NZ	2	0.070	0.000	**1.21**	A	**A**
RE	1	0.060	0.008	**1.18**	A	**A**
SN	1	0.060	0.007	**1.12**		**A**
SR	1	0.060	0.009	**1.11**	A	**A**
TM	1	0.060	0.005	**1.11**	A	**A**
TN	1	0.060	0.008	**1.16**	A	**A**
TR	1	0.080	0.010	**1.40**		**W**
TW	1	0.070	0.005	**1.24**	A	**A**
TX	1	0.060	0.004	**1.16**	A	**A**
UN	1	0.050	0.003	**0.95**	A	**A**
UP	1	0.070	0.020	**1.30**	A	**A**
WA	1	0.060	0.020	**1.09**	A	**A**
WC	1	0.070	0.010	**1.28**	A	**A**
WI	1	0.060	0.010	**1.10**	A	**A**
YA	1	0.050	0.003	**0.96**	A	**A**

Total Number Reported: 42

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: AM241

EML Value: 6.040
EML Error: 0.580

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	7.400	1.480	**1.22**	A	**A**
AG	1	7.590	1.570	**1.25**	A	**A**
AI	1	17.300	2.010	**2.86**	A	**N**
AM	1	8.840	2.220	**1.46**	W	**A**
AN	1	8.280	0.480	**1.37**	A	**A**
AR	1	5.010	0.720	**0.82**	A	**A**
AU	1	6.320	0.780	**1.04**	A	**A**
BE	1	6.300	0.400	**1.04**	A	**A**
BM	1	5.200	1.500	**0.86**	W	**A**
BN	1	13.830	0.560	**2.28**	W	**W**
BN	2	13.960	0.570	**2.31**	W	**W**
BN	3	15.130	0.620	**2.50**	W	**W**
BP	1	6.390	0.270	**1.05**	A	**A**
BR	1	8.400	2.900	**1.39**	A	**A**
BS	1	129.260	1.800	**21.40**	A	**N**
BU	1	6.600	0.700	**1.09**		**A**
BX	1	9.660	0.880	**1.59**	N	**W**
CH	1	5.810	1.700	**0.96**	A	**A**
CL	1	6.040	1.800	**1.00**	W	**A**
CN	1	9.000	0.800	**1.49**	A	**A**
CO	1	6.000	1.000	**0.99**	A	**A**
CS	1	5.590	0.450	**0.92**	A	**A**
DC	1	8.470	2.090	**1.40**	W	**A**
EG	1	6.560	0.000	**1.08**	A	**A**
ES	1	6.180	1.100	**1.02**	W	**A**
FG	1	3.840	1.100	**0.63**	A	**W**
FJ	1	5.500	0.100	**0.91**		**A**
FL	1	5.700	0.600	**0.94**	A	**A**
FN	1	6.600	2.270	**1.09**	A	**A**
FR	1	6.650	1.140	**1.10**	A	**A**
FS	1	6.100	0.400	**1.00**	A	**A**
GA	1	7.430	0.770	**1.23**	A	**A**
GE	1	5.960	1.530	**0.98**	A	**A**
GP	1	8.900	2.000	**1.47**	W	**A**
GT	1	12.000	5.000	**1.98**	W	**W**
ID	1	5.300	0.620	**0.87**	A	**A**
IE	1	6.500	0.800	**1.07**	A	**A**
IN	1	7.900	1.400	**1.30**	A	**A**
IS	1	8.260	2.280	**1.36**	N	**A**
IT	1	6.000	0.130	**0.99**	A	**A**
LA	1	6.700	0.700	**1.10**	A	**A**
LA	2	7.400	0.700	**1.22**	A	**A**
LA	3	8.100	0.700	**1.34**	A	**A**
LH	1	6.600	1.300	**1.09**	A	**A**
LL	1	10.600	34.800	**1.75**	A	**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: AM241

EML Value: 6.040
EML Error: 0.580

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
LV	1	11.400	0.940	**1.88**	A	**W**
MA	1	6.800	0.100	**1.12**	A	**A**
ME	1	6.600	1.900	**1.09**	A	**A**
ML	1	6.460	0.600	**1.06**		**A**
MS	1	8.200	0.820	**1.35**		**A**
NA	1	7.400	2.300	**1.22**	A	**A**
PR	1	1.240	0.000	**0.20**		**N**
RE	1	5.750	0.790	**0.95**	A	**A**
SN	1	9.660	2.160	**1.60**		**W**
SW	1	9.770	1.160	**1.61**	A	**W**
TI	1	4.000	2.000	**0.66**	A	**W**
TM	1	6.720	1.050	**1.11**	A	**A**
TN	1	7.070	1.260	**1.17**	A	**A**
TO	1	7.200	2.600	**1.19**	A	**A**
TW	1	6.600	0.300	**1.09**	N	**A**
TX	1	8.640	1.170	**1.43**	A	**A**
UN	1	6.460	0.320	**1.06**	A	**A**
UP	1	7.040	1.480	**1.16**		**A**
UY	1	6.110	0.880	**1.01**	N	**A**
WA	1	4.800	0.310	**0.79**	A	**A**
WC	1	6.660	1.270	**1.10**	A	**A**
WE	1	5.940	0.003	**0.98**	W	**A**
WS	1	7.000	0.740	**1.15**	A	**A**
YU	1	4.000	1.000	**0.66**		**W**

Total Number Reported: 69

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: CO 60

EML Value: 1.500
EML Error: 0.400

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	2.220	1.110	**1.48**	N	**W**
AG	1	1.150	0.540	**0.76**	A	**N**
AI	1	2.310	1.130	**1.53**		**W**
AM	1	2.620	1.110	**1.74**		**W**
AN	1	1.330	0.310	**0.88**		**W**
AR	1	1.400	0.440	**0.93**	N	**A**
BC	1	2.380	0.510	**1.58**	W	**W**
BL	1	1.230	0.390	**0.82**	A	**W**
BN	1	1.200	0.120	**0.80**	A	**N**
BN	2	1.270	0.130	**0.84**	A	**W**
BN	3	1.510	0.150	**1.00**	A	**A**
BP	1	1.300	0.300	**0.86**	W	**W**
BS	1	197.040	2.040	****.****	A	**N**
BU	1	1.300	0.300	**0.86**		**W**
BX	1	2.260	0.640	**1.50**	W	**W**
CH	1	1.650	0.100	**1.09**	A	**A**
CL	1	2.590	0.150	**1.72**	N	**W**
CN	1	1.180	0.320	**0.78**	A	**N**
CS	1	1.810	0.100	**1.20**	A	**A**
DC	1	1.100	0.730	**0.73**	W	**N**
DH	1	2.740	0.920	**1.82**		**W**
EG	1	2.000	1.400	**1.33**		**W**
ES	1	2.360	1.450	**1.57**	A	**W**
FG	1	0.940	0.400	**0.62**	A	**N**
FJ	1	1.930	0.400	**1.28**		**A**
FL	1	1.600	0.200	**1.06**		**A**
FR	1	0.980	0.390	**0.65**	N	**N**
GC	1	1.510		**1.00**		**A**
GE	1	1.700	0.710	**1.13**	W	**A**
GT	1	1.200	0.600	**0.80**	W	**N**
IE	1	1.490	0.280	**0.99**		**A**
IS	1	0.260	2.180	**0.17**	N	**N**
IT	1	1.540	0.580	**1.02**	W	**A**
KA	1	1.300	0.300	**0.86**	A	**W**
KO	1	1.250	0.330	**0.83**		**W**
LL	1	1.250	45.600	**0.83**	W	**W**
LV	1	1.930	0.260	**1.28**	A	**A**
MA	1	2.900	1.900	**1.93**	N	**W**
ME	1	1.190	0.250	**0.79**	A	**N**
MH	1	1.500	0.200	**1.00**		**A**
ML	1	40.000	4.000	**26.66**		**N**
MS	1	1.200	0.120	**0.80**	N	**N**
NA	1	0.960	0.250	**0.63**	A	**N**
NP	1	1.330	0.060	**0.88**	W	**W**
NZ	1	2.000	0.200	**1.33**	W	**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: CO 60

EML Value: 1.500
EML Error: 0.400

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
NZ	2	2.100	0.200	**1.39**	W	**W**
OS	1	2.240	0.220	**1.49**		**W**
OT	1	1.900	1.300	**1.26**	W	**A**
PO	1	1.100	0.300	**0.73**	W	**N**
PR	1	0.930	0.001	**0.62**		**N**
PR	2	0.940	0.001	**0.62**		**N**
RC	1	1.500	0.400	**1.00**		**A**
RE	1	1.170	0.480	**0.77**	A	**N**
SB	1	1.250	0.150	**0.83**		**W**
SK	1	1.250	0.060	**0.83**	W	**W**
SN	1	1.880	0.860	**1.25**	A	**A**
SS	1	1.060	0.140	**0.70**	A	**N**
SW	1	1.100	0.290	**0.73**	N	**N**
TI	1	1.790	0.560	**1.19**		**A**
TN	1	1.000	0.050	**0.66**		**N**
TO	1	1.000	0.500	**0.66**		**N**
TR	1	0.630	0.370	**0.42**	N	**N**
TX	1	1.440	0.270	**0.96**	W	**A**
UC	1	1.590	0.420	**1.06**	W	**A**
UN	1	1.560	0.740	**1.03**	A	**A**
WA	1	1.500	0.700	**1.00**	A	**A**
YA	1	1.380	0.280	**0.92**	A	**A**
YU	1	3.200	0.700	**2.13**		**N**

Total Number Reported: 68

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: CS137

EML Value: 810.000
EML Error: 40.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	758.500	85.100	**0.93**	A	**A**
AG	1	876.000	56.000	**1.08**	A	**A**
AI	1	770.000	5.900	**0.95**	N	**A**
AM	1	902.700	5.550	**1.11**	A	**A**
AN	1	919.000	10.000	**1.13**	W	**A**
AR	1	1000.000	17.000	**1.23**	A	**W**
AU	1	870.000	47.000	**1.07**	A	**A**
BA	1	848.000	77.000	**1.04**		**A**
BC	1	962.000	74.000	**1.18**	A	**A**
BE	1	835.570	63.340	**1.03**	A	**A**
BL	1	820.000	27.000	**1.01**	A	**A**
BM	1	804.000	7.500	**0.99**	A	**A**
BN	1	775.520	15.900	**0.95**	A	**A**
BN	2	799.940	16.400	**0.98**	A	**A**
BN	2	815.110	16.710	**1.00**	A	**A**
BP	1	779.000	31.000	**0.96**	W	**A**
BQ	1	821.000	14.000	**1.01**	A	**A**
BR	1	973.100	10.100	**1.20**	N	**A**
BS	1	962.960	3.470	**1.18**	A	**A**
BU	1	730.000	40.000	**0.90**	A	**A**
BX	1	944.000	62.200	**1.16**	A	**A**
CH	1	798.000	30.000	**0.98**	A	**A**
CL	1	837.000	10.000	**1.03**	A	**A**
CN	1	868.300	31.000	**1.07**	A	**A**
CO	1	866.000	56.000	**1.06**	A	**A**
CR	1	893.100	28.600	**1.10**	W	**A**
CS	1	796.800	34.420	**0.98**	A	**A**
DC	1	1070.000	309.000	**1.32**	W	**W**
DH	1	851.000	96.900	**1.05**	A	**A**
EG	1	907.000	15.000	**1.11**	A	**A**
ES	1	871.970	96.570	**1.07**	A	**A**
FG	1	750.000	50.000	**0.92**	N	**A**
FJ	1	788.000	9.000	**0.97**		**A**
FL	1	838.000	2.000	**1.03**	A	**A**
FN	1	813.000	81.000	**1.00**	A	**A**
FR	1	853.690	85.400	**1.05**	A	**A**
FS	1	749.000	6.000	**0.92**	A	**A**
GA	1	895.000	43.000	**1.10**	A	**A**
GC	1	854.460		**1.05**		**A**
GE	1	748.140	73.090	**0.92**	A	**A**
GP	1	980.000	200.000	**1.20**	A	**A**
GT	1	880.000	10.000	**1.08**	W	**A**
HU	1	870.000	12.000	**1.07**		**A**
ID	1	910.600	45.690	**1.12**	A	**A**
IE	1	842.000	33.000	**1.03**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: CS137

EML Value: 810.000
EML Error: 40.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
IN	1	884.000	9.000	**1.09**	A	**A**
IS	1	899.000	113.000	**1.10**	A	**A**
IT	1	903.000	2.000	**1.11**	A	**A**
KA	1	851.000	190.000	**1.05**	A	**A**
KO	1	802.400	23.780	**0.99**	A	**A**
LA	1	823.000	53.000	**1.01**	A	**A**
LA	2	826.000	53.000	**1.01**	A	**A**
LA	3	871.000	56.000	**1.07**	A	**A**
LH	1	882.000	87.000	**1.08**	A	**A**
LL	1	768.000	2.200	**0.94**	A	**A**
LV	1	945.000	3.000	**1.16**	A	**A**
LW	1	790.000	1.800	**0.97**	A	**A**
MA	1	925.000	18.000	**1.14**	A	**A**
ME	1	826.000	30.000	**1.01**	A	**A**
MH	1	803.100	41.900	**0.99**		**A**
ML	1	500.750	50.100	**0.61**		**N**
MS	1	730.000	7.300	**0.90**	A	**A**
NA	1	820.000	3.100	**1.01**	A	**A**
NP	1	730.380	0.770	**0.90**	W	**A**
NR	1	862.000	172.000	**1.06**	A	**A**
NZ	1	869.000	45.000	**1.07**	A	**A**
NZ	2	877.000	45.000	**1.08**	A	**A**
OL	1	896.000	28.000	**1.10**	A	**A**
OS	1	680.000	2.000	**0.83**	W	**W**
OT	1	740.000	10.000	**0.91**	A	**A**
OU	1	837.000	28.000	**1.03**		**A**
PO	1	837.000	42.000	**1.03**	A	**A**
PR	1	264.970	0.080	**0.32**		**N**
PR	2	265.090	0.080	**0.32**		**N**
RA	1	780.000	50.000	**0.96**	A	**A**
RA	2	806.000	21.000	**0.99**	A	**A**
RC	1	810.000	40.000	**1.00**		**A**
RE	1	618.000	47.000	**0.76**	W	**N**
RI	1	945.000	15.000	**1.16**	W	**A**
RL	1	759.000	65.000	**0.93**	A	**A**
SA	1	864.000	17.000	**1.06**	A	**A**
SB	1	710.000	35.000	**0.87**	A	**W**
SK	1	908.000	45.000	**1.12**	W	**A**
SN	1	953.380	95.300	**1.17**	A	**A**
SR	1	914.000	42.000	**1.12**	A	**A**
SS	1	832.000	3.000	**1.02**	A	**A**
SW	1	831.400	2.350	**1.02**	N	**A**
TE	1	1239.000	25.000	**1.52**	A	**N**
TI	1	917.000	92.000	**1.13**	A	**A**
TM	1	880.000	27.000	**1.08**	A	**A**
TN	1	850.000	51.000	**1.04**	A	**A**
TO	1	747.400	77.500	**0.92**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: CS137

EML Value: 810.000
EML Error: 40.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
TP	1	747.250	14.590	**0.92**	A	**A**
TR	1	758.680	14.130	**0.93**	N	**A**
TW	1	804.000	7.000	**0.99**	A	**A**
TX	1	860.000	3.000	**1.06**	A	**A**
UC	1	969.940	77.690	**1.19**	A	**A**
UK	1	722.000	6.600	**0.89**	A	**W**
UN	1	780.000	26.000	**0.96**	A	**A**
UP	1	806.000	71.400	**0.99**		**A**
UY	1	838.000	80.000	**1.03**	A	**A**
WA	1	848.000	37.000	**1.04**	A	**A**
WC	1	842.000	126.000	**1.03**	A	**A**
WE	1	942.000	0.240	**1.16**	A	**A**
WS	1	884.300	29.200	**1.09**	A	**A**
YA	1	906.370	3.790	**1.11**	A	**A**
YU	1	833.000	22.000	**1.02**		**A**

Total Number Reported: 107

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: K 40

EML Value: 315.000
EML Error: 20.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	325.600	37.000	**1.03**	A	**A**
AG	1	299.000	31.000	**0.94**	A	**A**
AI	1	333.000	31.000	**1.05**	W	**A**
AM	1	333.000	21.820	**1.05**	A	**A**
AN	1	340.000	7.000	**1.07**	A	**A**
AR	1	351.000	18.000	**1.11**	A	**A**
AU	1	361.000	76.000	**1.14**	A	**A**
BC	1	340.000	20.100	**1.07**	A	**A**
BE	1	352.340	30.440	**1.11**	A	**A**
BL	1	319.000	16.000	**1.01**	A	**A**
BM	1	326.000	30.000	**1.03**	A	**A**
BN	1	261.000	2.400	**0.82**	A	**W**
BN	2	263.030	2.420	**0.83**	A	**W**
BN	3	266.840	2.450	**0.84**	A	**W**
BP	1	301.000	13.000	**0.95**	W	**A**
BQ	1	304.000	15.000	**0.96**	A	**A**
BR	1	395.900	26.600	**1.25**	A	**A**
BS	1	320.000	10.400	**1.01**	A	**A**
BU	1	270.000	30.000	**0.85**	A	**A**
BX	1	334.000	20.200	**1.06**	A	**A**
CH	1	295.000	19.000	**0.93**	A	**A**
CL	1	345.000	31.000	**1.09**	W	**A**
CN	1	369.000	16.000	**1.17**	W	**A**
CR	1	302.600	49.000	**0.96**	A	**A**
CS	1	313.300	14.260	**0.99**	A	**A**
DC	1	329.000	149.000	**1.04**	A	**A**
DH	1	323.000	47.200	**1.02**	A	**A**
EG	1	337.000	42.000	**1.06**	A	**A**
ES	1	343.110	57.030	**1.08**	A	**A**
FG	1	274.000	30.000	**0.86**	A	**A**
FJ	1	313.000	22.000	**0.99**		**A**
FL	1	306.000	5.000	**0.97**	A	**A**
FN	1	291.000	30.000	**0.92**	A	**A**
FR	1	328.220	36.100	**1.04**	A	**A**
FS	1	287.000	6.000	**0.91**	A	**A**
GA	1	302.000	83.000	**0.95**	A	**A**
GC	1	340.260		**1.08**		**A**
GE	1	282.300	32.550	**0.89**	A	**A**
GP	1	400.000	80.000	**1.26**	A	**A**
GT	1	300.000	20.000	**0.95**	A	**A**
ID	1	348.830	39.750	**1.10**	A	**A**
IE	1	309.000	31.000	**0.98**	A	**A**
IN	1	294.000	6.000	**0.93**	A	**A**
IS	1	356.000	50.000	**1.13**	W	**A**
IT	1	332.000	6.500	**1.05**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: K 40

EML Value: 315.000
EML Error: 20.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
KA	1	308.000	96.000	**0.97**	A	**A**
KO	1	299.500	12.200	**0.95**	A	**A**
LH	1	317.000	43.000	**1.00**	A	**A**
LL	1	284.000	12.200	**0.90**	A	**A**
LV	1	341.000	7.000	**1.08**	A	**A**
LW	1	280.000	14.000	**0.88**	A	**A**
MA	1	288.000	53.000	**0.91**	A	**A**
ME	1	308.000	15.800	**0.97**	A	**A**
MH	1	298.500	19.800	**0.94**		**A**
ML	1	394.000	39.400	**1.25**		**A**
MS	1	212.300	21.200	**0.67**	A	**N**
NA	1	300.000	8.800	**0.95**	A	**A**
NR	1	346.000	69.000	**1.09**	A	**A**
NZ	1	649.000	36.000	**2.06**	A	**N**
NZ	2	675.000	37.000	**2.14**	A	**N**
OL	1	360.000	25.000	**1.14**	A	**A**
OS	1	209.500	7.200	**0.66**	N	**N**
OT	1	290.000	30.000	**0.92**	A	**A**
OU	1	292.000	69.800	**0.92**		**A**
PO	1	299.000	24.000	**0.94**	A	**A**
PR	1	135.050	0.000	**0.42**		**N**
RA	1	210.000	70.000	**0.66**	A	**N**
RA	2	220.000	30.000	**0.69**	A	**N**
RC	1	300.000	20.000	**0.95**		**A**
RE	1	236.000	26.000	**0.74**	W	**W**
RI	1	266.000	94.000	**0.84**	A	**W**
RL	1	297.000	72.400	**0.94**	A	**A**
SA	1	331.000	26.000	**1.05**	A	**A**
SB	1	275.000	30.000	**0.87**	A	**A**
SK	1	301.000	19.000	**0.95**	A	**A**
SN	1	382.530	38.990	**1.21**	A	**A**
SR	1	346.000	31.000	**1.09**	A	**A**
SS	1	312.000	5.000	**0.99**	A	**A**
SW	1	318.100	6.850	**1.00**	A	**A**
TE	1	478.000	29.000	**1.51**	A	**W**
TI	1	328.000	33.000	**1.04**	A	**A**
TM	1	292.000	57.000	**0.92**	A	**A**
TN	1	320.000	25.600	**1.01**	A	**A**
TO	1	265.900	30.800	**0.84**	A	**W**
TP	1	302.430	8.430	**0.96**		**A**
TR	1	322.000	13.650	**1.02**	N	**A**
TW	1	314.000	14.000	**0.99**	A	**A**
TX	1	323.000	8.000	**1.02**	A	**A**
UC	1	359.780	21.140	**1.14**	A	**A**
UK	1	313.000	34.000	**0.99**	A	**A**
UN	1	335.000	22.000	**1.06**	A	**A**
UY	1	355.000	100.000	**1.12**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: K 40

EML Value: 315.000
EML Error: 20.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
WA	1	348.000	26.000	**1.10**	A	**A**
WC	1	386.000	48.800	**1.22**	A	**A**
WE	1	348.000	0.010	**1.10**	A	**A**
WS	1	327.500	12.900	**1.03**	A	**A**
YA	1	343.230	11.100	**1.08**	A	**A**
YU	1	397.000	17.000	**1.26**		**A**

Total Number Reported: 98

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: PU238

EML Value: 0.440
EML Error: 0.090

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AR	1	0.570	0.630	**1.29**	N	**W**
AU	1	1.300	0.700	**2.95**	N	**N**
BU	1	0.600	0.100	**1.36**	A	**W**
CO	1	0.500	0.200	**1.13**	W	**A**
DC	1	0.710	0.740	**1.63**	W	**W**
FS	1	0.360	0.140	**0.81**	A	**A**
GP	1	0.780	0.540	**1.77**	W	**W**
IT	1	0.440	0.070	**1.00**	W	**A**
LA	1	0.390	0.050	**0.88**	A	**A**
LA	2	0.430	0.050	**0.97**	A	**A**
LA	3	0.500	0.050	**1.13**	A	**A**
LL	1	0.440	0.130	**1.01**	A	**A**
NZ	1	1.100	0.400	**2.50**	A	**N**
NZ	2	1.200	0.300	**2.72**	A	**N**
PO	1	0.400	0.100	**0.90**		**A**
TW	1	0.750	0.070	**1.70**	W	**W**
UN	1	0.410	0.070	**0.93**	A	**A**
UY	1	1.280	0.260	**2.90**	N	**N**
WA	1	0.400	0.220	**0.90**	W	**A**
WE	1	1.750	0.720	**3.97**		**N**

Total Number Reported: 20

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: PU239

EML Value: 10.160
EML Error: 0.370

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	122.100	40.700	**12.01**	A	**N**
AG	1	11.900	1.600	**1.17**	A	**A**
AI	1	15.550	0.950	**1.53**	A	**W**
AN	1	12.220	1.080	**1.20**	A	**A**
AR	1	8.820	1.810	**0.86**	A	**W**
AU	1	11.700	2.000	**1.15**	A	**A**
BE	1	10.700	0.600	**1.05**	A	**A**
BL	1	10.200	1.200	**1.00**	A	**A**
BL	2	12.000	0.700	**1.18**	A	**A**
BM	1	12.180	1.820	**1.19**	A	**A**
BP	1	11.400	0.290	**1.12**	N	**A**
BU	1	11.000	1.000	**1.08**	A	**A**
BX	1	14.700	5.180	**1.44**	W	**W**
CH	1	11.400	0.670	**1.12**	A	**A**
CL	1	11.300	2.400	**1.11**	A	**A**
CO	1	11.000	1.000	**1.08**	W	**A**
DC	1	11.300	2.710	**1.11**	A	**A**
EG	1	11.170	0.000	**1.09**	A	**A**
ES	1	13.250	2.600	**1.30**	A	**W**
FR	1	11.860	1.420	**1.16**	W	**A**
FS	1	12.300	0.600	**1.21**	A	**A**
GA	1	9.760	0.680	**0.96**	A	**A**
GE	1	12.480	1.570	**1.22**	A	**A**
GP	1	130.000	10.000	**12.79**	A	**N**
GT	1	9.800	5.000	**0.96**	A	**A**
ID	1	10.720	1.000	**1.05**	W	**A**
IE	1	10.180	0.490	**1.00**	A	**A**
IN	1	11.700	1.200	**1.15**	A	**A**
IS	1	12.600	2.800	**1.24**	A	**A**
IT	1	10.850	0.300	**1.06**	W	**A**
KA	1	11.790	1.240	**1.16**	A	**A**
LA	1	10.500	0.300	**1.03**	A	**A**
LA	2	10.600	0.300	**1.04**	A	**A**
LA	3	11.200	0.300	**1.10**	A	**A**
LH	1	12.000	1.100	**1.18**	A	**A**
LL	1	10.800	0.960	**1.06**	A	**A**
ML	1	11.020	0.800	**1.08**	A	**A**
NA	1	10.300	1.300	**1.01**	W	**A**
NF	1	6.720	3.070	**0.66**		**W**
NZ	1	10.400	1.000	**1.02**	A	**A**
NZ	2	10.600	1.100	**1.04**	A	**A**
PO	1	11.300	0.500	**1.11**	W	**A**
RA	1	12.100	1.200	**1.19**	A	**A**
RE	1	10.100	1.400	**0.99**	W	**A**
SK	1	10.240	0.090	**1.00**		**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: PU239

EML Value: 10.160
EML Error: 0.370

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
SN	1	27.620	4.540	**2.71**	A	**N**
SR	1	12.200	1.900	**1.20**	A	**A**
SW	1	7.170	1.140	**0.70**	N	**W**
TE	1	10.800	0.400	**1.06**	A	**A**
TI	1	9.900	1.200	**0.97**	A	**A**
TM	1	10.900	0.870	**1.07**	A	**A**
TN	1	10.800	1.510	**1.06**	A	**A**
TO	1	9.800	3.000	**0.96**	A	**A**
TW	1	11.400	0.300	**1.12**	W	**A**
TX	1	11.400	0.500	**1.12**	A	**A**
UC	1	10.170	1.290	**1.00**		**A**
UK	1	12.630	10.500	**1.24**	A	**A**
UN	1	10.900	0.400	**1.07**	A	**A**
UP	1	11.800	2.060	**1.16**		**A**
UY	1	11.200	1.300	**1.10**	A	**A**
WA	1	10.500	0.700	**1.03**	N	**A**
WC	1	11.000	1.980	**1.08**	A	**A**
WE	1	10.960	1.900	**1.07**		**A**
YA	1	11.400	0.350	**1.12**	A	**A**

Total Number Reported: 64

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: SR 90

EML Value: 34.750
EML Error: 1.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AC	1	40.000	3.000	**1.15**		**A**
AG	1	34.100	8.200	**0.98**	A	**A**
AN	1	35.720	0.710	**1.02**	A	**A**
AR	1	34.300	5.300	**0.98**	A	**A**
AU	1	42.500	6.500	**1.22**	A	**A**
BC	1	44.400	12.500	**1.27**	W	**A**
BE	1	35.700	3.100	**1.02**	A	**A**
BL	1	38.000	6.000	**1.09**	A	**A**
BM	1	34.920	3.810	**1.00**	A	**A**
BP	1	29.000	0.400	**0.83**	A	**A**
BX	1	36.600	9.880	**1.05**	N	**A**
CH	1	24.800	4.600	**0.71**	A	**W**
CL	1	20.900	5.200	**0.60**	W	**W**
DC	1	32.900	4.500	**0.94**	A	**A**
EG	1	100.000	0.000	**2.87**	N	**N**
ES	1	32.190	10.910	**0.92**	A	**A**
GP	1	31.000	6.000	**0.89**	A	**A**
GT	1	39.000	30.000	**1.12**	A	**A**
ID	1	28.560	3.190	**0.82**	A	**A**
IE	1	38.900	5.700	**1.11**	A	**A**
IN	1	90.000	16.000	**2.58**		**W**
IS	1	29.800	6.500	**0.85**	A	**A**
IT	1	37.300	0.840	**1.07**	A	**A**
KA	1	40.000	3.800	**1.15**	A	**A**
LH	1	20.500	1.400	**0.58**	A	**W**
PO	1	37.000	3.000	**1.06**	A	**A**
RA	1	37.000	8.000	**1.06**	A	**A**
RE	1	30.000	3.300	**0.86**	A	**A**
RI	1	43.700	5.700	**1.25**	A	**A**
SR	1	31.000	10.000	**0.89**	A	**A**
SW	1	78.150	2.960	**2.24**	W	**W**
TE	1	32.000	6.000	**0.92**	A	**A**
TI	1	37.000	8.000	**1.06**	A	**A**
TM	1	44.800	7.340	**1.28**	W	**A**
TN	1	34.950	3.470	**1.00**	A	**A**
TO	1	30.900	2.500	**0.88**	W	**A**
TP	1	40.220	1.210	**1.15**	A	**A**
TW	1	31.000	2.000	**0.89**	A	**A**
TX	1	38.000	8.000	**1.09**	A	**A**
UP	1	37.200	9.620	**1.07**		**A**
UY	1	31.900	4.000	**0.91**	A	**A**
WA	1	41.000	2.300	**1.17**	A	**A**
WC	1	46.300	13.400	**1.33**	W	**A**
YA	1	31.150	2.140	**0.89**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: SR 90

EML Value: 34.750
EML Error: 1.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation

Total Number Reported: 44

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: U BQ

EML Value: 72.900
EML Error: 0.850

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	60.300	5.600	**0.82**	A	**A**
AM	1	73.000	2.500	**1.00**	A	**A**
AR	1	65.200	6.000	**0.89**		**A**
BL	1	68.700	0.000	**0.94**	A	**A**
BL	2	73.100	2.100	**1.00**	A	**A**
CH	1	57.800	2.900	**0.79**	A	**A**
CL	1	84.300	2.000	**1.15**	A	**W**
ES	1	58.670	10.700	**0.80**		**A**
FJ	1	35.000	1.000	**0.48**		**A**
FR	1	57.590	6.700	**0.78**		**A**
GP	1	83.100		**1.13**	A	**W**
ID	1	185.830	11.540	**2.54**	A	**N**
IN	1	87.000	12.000	**1.19**		**W**
TE	1	57.000	1.100	**0.78**	A	**A**
TX	1	79.800	2.400	**1.09**		**A**
UK	1	90.000	25.000	**1.23**		**W**
UP	1	67.100	6.530	**0.92**		**A**
UY	1	58.100	11.100	**0.79**	W	**A**
WA	1	80.700	5.500	**1.10**	W	**W**

Total Number Reported: 19

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: U UG

EML Value: 2.820
EML Error: 0.200

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AC	1	2.590	0.040	**0.91**		**A**
AF	1	2.270	0.900	**0.80**	A	**A**
AG	1	2.290	0.320	**0.81**	A	**A**
BE	1	2.950	0.000	**1.04**	A	**A**
BL	1	2.800	0.000	**0.99**	A	**A**
BL	2	2.980	0.090	**1.05**	A	**A**
BQ	1	4.360	0.200	**1.54**	A	**N**
CA	1	3.200	0.300	**1.13**	A	**W**
CH	1	2.380	0.200	**0.84**	A	**A**
DC	1	3.200	0.480	**1.13**	A	**W**
ES	1	2.950	0.590	**1.04**	A	**A**
GA	1	2.770	0.000	**0.98**	A	**A**
GE	1	2.890	0.240	**1.02**	A	**A**
IE	1	2.730	0.080	**0.96**	A	**A**
IS	1	2.020	0.550	**0.71**	A	**A**
IT	1	2.720	0.060	**0.96**	A	**A**
LA	1	2.730	0.270	**0.96**	A	**A**
LA	2	2.770	0.280	**0.98**	A	**A**
LA	3	3.010	0.300	**1.06**	A	**A**
LL	1	2.450		**0.86**	A	**A**
OU	1	2.410		**0.85**		**A**
RA	1	2.700	0.280	**0.95**	A	**A**
SA	1	2.200	0.130	**0.78**		**A**
SW	1	3.030	0.000	**1.07**		**A**
TI	1	2.500	0.400	**0.88**	A	**A**
TM	1	2.500	0.240	**0.88**	A	**A**
TN	1	2.650	0.430	**0.93**	A	**A**
TO	1	2.600	0.400	**0.92**		**A**
UP	1	2.700	0.300	**0.95**	A	**A**
UY	1	2.630	0.300	**0.93**	A	**A**
YA	1	2.710	0.140	**0.96**	A	**A**
YP	1	3.110	0.130	**1.10**	A	**W**

Total Number Reported: 32

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: U234

EML Value: 37.150
EML Error: 0.640

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	28.800	3.860	**0.77**	A	**A**
AM	1	36.000	1.250	**0.96**	A	**A**
AN	1	40.500	5.340	**1.09**	A	**A**
AR	1	33.400	4.300	**0.89**	A	**A**
AU	1	34.300	4.500	**0.92**	W	**A**
BC	1	53.300	2.210	**1.43**	W	**W**
BE	1	35.900	3.900	**0.96**	W	**A**
BL	1	34.800	0.000	**0.93**	A	**A**
BL	2	37.000	1.100	**0.99**	A	**A**
BM	1	31.600	5.680	**0.85**	A	**A**
BX	1	57.700	2.540	**1.55**	W	**N**
CH	1	28.700	1.700	**0.77**	A	**A**
CL	1	43.200	12.600	**1.16**	A	**W**
DC	1	51.800	7.650	**1.39**	W	**W**
EG	1	39.700	0.000	**1.06**		**A**
FR	1	28.190	4.600	**0.75**		**A**
FS	1	36.600	1.600	**0.98**	A	**A**
GA	1	37.000	1.900	**0.99**	W	**A**
GE	1	34.920	4.070	**0.93**	A	**A**
GP	1	40.000	6.000	**1.07**	A	**A**
IE	1	34.400	2.300	**0.92**	A	**A**
IT	1	35.800	1.100	**0.96**	W	**A**
LH	1	31.800	2.500	**0.85**	A	**A**
LL	1	33.000	5.530	**0.88**	A	**A**
ML	1	33.650	2.670	**0.90**	A	**A**
NA	1	40.000	3.300	**1.07**	W	**A**
NF	1	40.010	4.190	**1.07**		**A**
NZ	1	27.500	1.400	**0.74**	A	**A**
NZ	2	29.900	2.100	**0.80**	A	**A**
OU	1	29.500	5.120	**0.79**		**A**
RE	1	32.900	3.800	**0.88**	A	**A**
SN	1	38.380	4.940	**1.03**		**A**
TM	1	32.500	2.690	**0.87**	A	**A**
TN	1	33.890	3.870	**0.91**	A	**A**
TO	1	31.400	3.000	**0.84**	W	**A**
TW	1	18.300	0.400	**0.49**	A	**W**
TX	1	37.800	1.000	**1.01**	W	**A**
UN	1	33.800	0.590	**0.90**	A	**A**
UP	1	31.700	4.500	**0.85**		**A**
WA	1	38.500	3.700	**1.03**	W	**A**
WC	1	19.000	1.900	**0.51**	A	**W**
WE	1	0.020	0.004	**0.00**	W	**N**
YA	1	32.600	1.240	**0.87**	A	**A**

Total Number Reported: 43

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: U238

EML Value: 34.900
EML Error: 0.140

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	30.000	4.000	**0.85**	A	**A**
AM	1	37.000	1.130	**1.06**	A	**A**
AN	1	41.190	5.610	**1.18**	A	**W**
AR	1	30.100	4.100	**0.86**	A	**A**
AU	1	34.000	4.500	**0.97**	A	**A**
BC	1	23.300	1.200	**0.66**	W	**A**
BE	1	36.600	4.000	**1.04**	A	**A**
BL	1	33.900	0.000	**0.97**	A	**A**
BL	2	36.100	1.000	**1.03**	A	**A**
BM	1	32.430	5.810	**0.92**	A	**A**
BR	1	52.200	14.900	**1.49**		**W**
BX	1	23.500	1.300	**0.67**	W	**A**
CH	1	29.000	1.300	**0.83**	A	**A**
CL	1	45.300	13.100	**1.29**	A	**W**
DC	1	59.200	8.570	**1.69**	A	**N**
EG	1	40.500	0.000	**1.16**		**W**
FL	1	27.700	3.700	**0.79**	A	**A**
FN	1	29.400	2.100	**0.84**	A	**A**
FR	1	28.150	2.040	**0.80**		**A**
FS	1	38.600	1.600	**1.10**	A	**W**
GA	1	37.000	2.700	**1.06**	A	**A**
GE	1	36.830	4.280	**1.05**	A	**A**
GP	1	41.000	6.000	**1.17**	A	**W**
GT	1	36.000	9.000	**1.03**	A	**A**
IE	1	33.800	1.100	**0.96**	A	**A**
IT	1	33.800	0.500	**0.96**	A	**A**
LH	1	33.100	2.500	**0.94**	A	**A**
LL	1	30.500	5.240	**0.87**	A	**A**
LV	1	71.800	6.500	**2.05**	N	**N**
MA	1	30.000	15.000	**0.85**	A	**A**
ML	1	34.720	2.720	**0.99**	A	**A**
NA	1	34.000	3.000	**0.97**	A	**A**
NF	1	47.510	4.600	**1.36**		**W**
NZ	1	28.800	1.500	**0.82**	A	**A**
NZ	2	32.400	2.200	**0.92**	A	**A**
OU	1	28.750	4.650	**0.82**		**A**
RA	1	41.000	8.000	**1.17**	A	**W**
RE	1	34.600	3.900	**0.99**	A	**A**
SN	1	36.020	4.740	**1.03**		**A**
TM	1	32.500	2.680	**0.93**	A	**A**
TN	1	33.550	3.860	**0.96**	A	**A**
TO	1	33.300	2.900	**0.95**	W	**A**
TR	1	47.300	6.250	**1.35**		**W**
TW	1	19.600	0.500	**0.56**	A	**W**
TX	1	39.600	1.000	**1.13**	W	**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: SO Soil
Radionuclide: U238

EML Value: 34.900
EML Error: 0.140

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
UN	1	35.400	1.580	**1.01**	A	**A**
UP	1	32.800	4.620	**0.93**		**A**
WA	1	40.000	3.700	**1.14**	A	**W**
WC	1	20.100	2.010	**0.57**	A	**W**
WE	1	0.020	0.003	**0.00**	W	**N**
WS	1	33.700	5.000	**0.96**	A	**A**
YA	1	33.300	1.270	**0.95**	A	**A**

Total Number Reported: 52

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: AM241

EML Value: 3.460
EML Error: 0.250

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	4.710	0.920	**1.36**	A	**A**
AI	1	2.460	0.210	**0.71**	A	**W**
AM	1	4.810	1.840	**1.39**	W	**A**
AN	1	3.660	0.230	**1.05**	A	**A**
AR	1	3.600	0.230	**1.04**		**A**
AU	1	3.690	0.370	**1.06**	A	**A**
BE	1	3.900	0.700	**1.12**	N	**A**
BL	1	2.960	0.490	**0.85**	A	**W**
BM	1	4.240	0.760	**1.22**	A	**A**
BN	1	9.390	0.770	**2.71**		**W**
BN	2	9.750	0.790	**2.81**		**N**
BN	3	11.300	0.920	**3.26**		**N**
BP	1	3.980	0.160	**1.15**	A	**A**
BS	1	5.630	1.190	**1.62**	W	**W**
BU	1	3.600	0.200	**1.04**	A	**A**
BX	1	7.070	0.740	**2.04**	N	**W**
CH	1	4.170	0.280	**1.20**	A	**A**
CL	1	4.700	1.700	**1.35**	A	**A**
CN	1	7.860	0.710	**2.27**	W	**W**
CO	1	4.000	1.000	**1.15**	A	**A**
CS	1	3.060	0.440	**0.88**		**A**
DC	1	38.200	5.880	**11.04**	A	**N**
EG	1	3.970	0.000	**1.14**	A	**A**
ES	1	3.880	0.730	**1.12**	A	**A**
FL	1	5.300	0.700	**1.53**	W	**A**
FR	1	4.370	0.960	**1.26**	A	**A**
GA	1	4.370	0.400	**1.26**	A	**A**
GE	1	3.530	0.630	**1.02**	A	**A**
GP	1	1.300	0.200	**0.37**	A	**N**
GT	1	3.500	0.600	**1.01**		**A**
IE	1	3.620	0.370	**1.04**	A	**A**
IS	1	4.580	1.820	**1.32**	A	**A**
IT	1	3.820	0.220	**1.10**	A	**A**
LA	1	3.300	0.170	**0.95**	A	**A**
LA	2	3.650	0.180	**1.05**	A	**A**
LA	3	3.650	0.190	**1.05**	A	**A**
LH	1	3.800	0.400	**1.09**	A	**A**
LL	1	4.240	0.330	**1.22**	A	**A**
LV	1	4.840	0.870	**1.39**	A	**A**
MA	1	7.400	0.100	**2.13**		**W**
ME	1	4.480	1.420	**1.29**		**A**
ML	1	3.860	0.400	**1.11**		**A**
RE	1	3.980	0.590	**1.15**	A	**A**
RI	1	5.570	0.460	**1.60**		**W**
SK	1	3.700	0.300	**1.06**		**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: AM241

EML Value: 3.460
EML Error: 0.250

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
SN	1	4.390	0.850	**1.27**		**A**
SR	1	5.090	0.840	**1.47**	A	**A**
SW	1	7.240	1.050	**2.09**	N	**W**
TI	1	4.000	0.900	**1.15**	A	**A**
TM	1	4.110	0.480	**1.18**	A	**A**
TN	1	3.180	0.840	**0.91**	A	**A**
TO	1	2.900	1.500	**0.83**	W	**W**
TR	1	5.010	1.740	**1.44**	N	**A**
TW	1	3.300	0.200	**0.95**	A	**A**
TX	1	4.350	0.540	**1.25**	A	**A**
UN	1	5.060	0.340	**1.46**	A	**A**
UY	1	4.020	0.590	**1.16**	W	**A**
WA	1	3.150	0.280	**0.91**	A	**A**
WC	1	4.810	0.670	**1.39**	W	**A**
YU	1	5.000	2.000	**1.44**		**A**

Total Number Reported: 60

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: CM244

EML Value: 2.750
EML Error: 0.100

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	2.260	1.500	**0.82**	A	**W**
AN	1	2.420	0.160	**0.88**	A	**A**
AR	1	2.430	0.180	**0.88**		**A**
BE	1	2.500	0.400	**0.90**	N	**A**
BL	1	1.110	0.370	**0.40**	A	**N**
BP	1	2.260	0.120	**0.82**		**W**
BX	1	4.440	0.590	**1.61**	A	**W**
CH	1	2.880	0.120	**1.04**	A	**A**
CL	1	1.800	0.900	**0.65**	N	**W**
DC	1	30.600	4.960	**11.12**	A	**N**
EG	1	4.010	0.000	**1.45**	A	**W**
ES	1	2.420	0.510	**0.88**	W	**A**
GA	1	2.920	0.300	**1.06**	A	**A**
GE	1	2.620	0.480	**0.95**	A	**A**
GP	1	0.990	0.160	**0.36**	A	**N**
IE	1	2.660	0.450	**0.96**	A	**A**
IT	1	2.280	0.020	**0.82**	A	**W**
LH	1	2.300	0.250	**0.83**	W	**A**
LL	1	1.150	0.160	**0.41**	A	**N**
RI	1	3.030	0.310	**1.10**		**A**
SK	1	2.600	0.200	**0.94**		**A**
SR	1	2.790	0.570	**1.01**	A	**A**
SW	1	10.720	2.390	**3.89**	W	**N**
TI	1	3.200	0.800	**1.16**	A	**A**
TM	1	1.040	0.220	**0.37**	A	**N**
TN	1	2.930	0.790	**1.06**	W	**A**
TO	1	1.700	1.000	**0.61**	N	**W**
TW	1	2.600	0.200	**0.94**	A	**A**
UN	1	2.780	0.190	**1.01**	A	**A**
UY	1	2.770	0.470	**1.00**	A	**A**
WC	1	2.220	0.550	**0.80**		**W**

Total Number Reported: 31

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: CO 60

EML Value: 32.400
EML Error: 1.600

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	34.600	3.400	**1.06**	A	**A**
AI	1	42.700	3.800	**1.31**	N	**W**
AM	1	35.520	1.480	**1.09**	A	**A**
AN	1	3.350	0.180	**0.10**	A	**N**
AR	1	32.500	1.300	**1.00**	A	**A**
AU	1	36.000	7.000	**1.11**	W	**A**
BA	1	37.500	9.200	**1.15**		**A**
BC	1	36.500	2.370	**1.12**	A	**A**
BE	1	30.070	2.900	**0.92**		**A**
BL	1	29.300	1.600	**0.90**	A	**A**
BM	1	37.000	4.280	**1.14**	A	**A**
BN	1	23.610	0.870	**0.72**	A	**W**
BN	2	25.230	0.930	**0.77**	A	**W**
BN	3	25.770	0.950	**0.79**	A	**W**
BP	1	28.400	1.000	**0.87**	W	**A**
BR	1	3.600	3.300	**0.11**		**N**
BS	1	22.650	1.740	**0.69**	A	**W**
BU	1	32.000	3.000	**0.98**	W	**A**
BX	1	33.900	2.400	**1.04**	A	**A**
CH	1	34.900	0.810	**1.07**	W	**A**
CL	1	35.300	4.110	**1.08**	A	**A**
CN	1	31.600	1.600	**0.97**	A	**A**
CO	1	34.000	4.000	**1.04**	A	**A**
CR	1	32.300	4.100	**0.99**	A	**A**
CS	1	30.360	1.040	**0.93**	A	**A**
DC	1	80.300	21.600	**2.47**	W	**N**
EG	1	34.000	3.000	**1.04**	A	**A**
ES	1	35.690	5.810	**1.10**	A	**A**
FL	1	34.900	0.500	**1.07**	A	**A**
FN	1	30.800	2.400	**0.95**	A	**A**
FR	1	31.080	2.800	**0.95**	A	**A**
GA	1	37.000	11.000	**1.14**	W	**A**
GC	1	31.610		**0.97**		**A**
GE	1	27.950	3.330	**0.86**	W	**A**
GP	1	16.000	5.000	**0.49**	W	**N**
GT	1	36.000	10.000	**1.11**	A	**A**
HU	1	32.000	6.000	**0.98**		**A**
ID	1	31.630	1.660	**0.97**	A	**A**
IE	1	30.590	1.820	**0.94**	N	**A**
IN	1	36.900	2.300	**1.13**	A	**A**
IS	1	44.700	8.900	**1.37**	N	**W**
IT	1	36.000	1.600	**1.11**	W	**A**
KO	1	31.960	1.390	**0.98**	A	**A**
LA	1	61.900	7.000	**1.91**	A	**N**
LH	1	32.000	3.000	**0.98**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: CO 60

EML Value: 32.400
EML Error: 1.600

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
LV	1	33.300	1.000	**1.02**	A	**A**
LW	1	30.000	14.000	**0.92**	A	**A**
MA	1	29.000	6.700	**0.89**	A	**A**
ME	1	36.700	1.140	**1.13**	W	**A**
MH	1	31.200	1.300	**0.96**		**A**
ML	1	33.840	3.400	**1.04**		**A**
NA	1	0.920	0.020	**0.02**	A	**N**
NP	1	25.100	0.500	**0.77**	N	**W**
NR	1	33.400	6.700	**1.03**	W	**A**
NZ	1	32.300	1.900	**0.99**	A	**A**
NZ	2	32.500	1.900	**1.00**	A	**A**
OL	1	33.300	3.400	**1.02**	A	**A**
OT	1	27.000	3.000	**0.83**	A	**A**
OU	1	22.400	9.100	**0.69**		**W**
PO	1	28.500	2.600	**0.87**	A	**A**
RA	1	29.100	0.900	**0.89**	N	**A**
RA	2	31.200	3.100	**0.96**	N	**A**
RE	1	21.000	3.200	**0.64**	A	**W**
RI	1	34.900	5.900	**1.07**	A	**A**
RL	1	37.200	7.600	**1.14**	A	**A**
SB	1	31.800	1.200	**0.98**	W	**A**
SK	1	34.300	3.200	**1.05**	A	**A**
SN	1	38.770	4.010	**1.19**	W	**A**
SR	1	36.100	2.700	**1.11**	A	**A**
SS	1	33.400	0.500	**1.03**	A	**A**
SW	1	43.700	0.750	**1.34**	N	**W**
TE	1	32.300	6.000	**0.99**	W	**A**
TI	1	34.900	3.500	**1.07**	N	**A**
TM	1	34.100	3.930	**1.05**	W	**A**
TN	1	30.000	6.400	**0.92**	W	**A**
TO	1	30.400	4.200	**0.93**	N	**A**
TP	1	27.940	0.980	**0.86**	A	**A**
TR	1	29.240	3.150	**0.90**	A	**A**
TW	1	31.500	0.900	**0.97**	A	**A**
TX	1	36.100	1.500	**1.11**	A	**A**
UC	1	36.120	1.020	**1.11**	A	**A**
UN	1	31.100	2.800	**0.95**	A	**A**
UY	1	39.900	4.000	**1.23**	A	**W**
WA	1	34.600	2.800	**1.06**	A	**A**
WC	1	34.400	3.500	**1.06**	A	**A**
WE	1	33.800	3.400	**1.04**	N	**A**
YA	1	33.180	0.810	**1.02**	A	**A**
YU	1	48.000	2.000	**1.48**		**N**

Total Number Reported: 88

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: CS137

EML Value: 624.000
EML Error: 31.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	173.900	38.000	**0.27**	A	**N**
AG	1	734.000	48.000	**1.17**	A	**A**
AI	1	710.000	12.200	**1.13**	W	**A**
AM	1	724.800	4.810	**1.16**	A	**A**
AN	1	63.000	7.000	**0.10**	A	**N**
AR	1	699.000	12.000	**1.12**	A	**A**
AU	1	676.000	41.000	**1.08**	A	**A**
BA	1	674.000	61.000	**1.08**		**A**
BC	1	770.000	51.100	**1.23**	W	**A**
BE	1	659.350	50.200	**1.05**	N	**A**
BL	1	546.000	25.000	**0.87**	A	**W**
BM	1	515.000	7.520	**0.82**	A	**W**
BN	1	556.110	17.910	**0.89**	W	**W**
BN	2	595.700	19.180	**0.95**	W	**A**
BN	3	596.070	19.190	**0.95**	W	**A**
BP	1	587.000	10.000	**0.94**	A	**A**
BQ	1	650.000	17.000	**1.04**	A	**A**
BR	1	654.900	33.500	**1.04**		**A**
BS	1	461.110	2.950	**0.73**	W	**N**
BU	1	580.000	30.000	**0.92**	W	**A**
BX	1	777.000	59.900	**1.24**	W	**A**
CH	1	673.000	7.800	**1.07**	A	**A**
CL	1	751.000	66.000	**1.20**	W	**A**
CN	1	723.000	27.000	**1.15**	A	**A**
CO	1	697.000	17.000	**1.11**	A	**A**
CR	1	710.300	28.600	**1.13**	A	**A**
CS	1	587.400	25.430	**0.94**	A	**A**
DC	1	944.000	365.000	**1.51**	N	**N**
EG	1	637.000	15.000	**1.02**	A	**A**
ES	1	683.270	76.910	**1.09**	A	**A**
FL	1	738.000	2.000	**1.18**	A	**A**
FN	1	603.000	60.000	**0.96**	A	**A**
FR	1	650.570	71.600	**1.04**	A	**A**
GA	1	703.000	37.000	**1.12**	A	**A**
GC	1	639.650		**1.02**		**A**
GE	1	526.700	55.090	**0.84**	A	**W**
GP	1	210.000	30.000	**0.33**	A	**N**
GT	1	600.000	200.000	**0.96**	A	**A**
HU	1	490.000	20.000	**0.78**		**N**
ID	1	745.330	37.860	**1.19**	A	**A**
IE	1	617.000	36.000	**0.98**	W	**A**
IN	1	668.500	3.100	**1.07**	A	**A**
IS	1	708.000	130.000	**1.13**	W	**A**
IT	1	617.000	33.000	**0.98**	A	**A**
KO	1	687.000	16.350	**1.10**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: CS137

EML Value: 624.000
EML Error: 31.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
LA	1	670.000	59.000	**1.07**	W	**A**
LA	2	676.000	60.000	**1.08**	W	**A**
LA	3	679.000	60.000	**1.08**	W	**A**
LH	1	700.000	70.000	**1.12**	A	**A**
LL	1	618.000	2.600	**0.99**	A	**A**
LV	1	594.000	4.000	**0.95**	A	**A**
LW	1	650.000	2.400	**1.04**	A	**A**
MA	1	736.000	29.000	**1.17**	A	**A**
ME	1	742.000	29.900	**1.18**	W	**A**
MH	1	627.900	32.800	**1.00**		**A**
ML	1	663.720	66.400	**1.06**		**A**
NA	1	19.000	0.110	**0.03**	A	**N**
NP	1	538.000	2.400	**0.86**	N	**W**
NR	1	673.000	135.000	**1.07**	A	**A**
NZ	1	669.000	35.000	**1.07**	A	**A**
OL	1	664.000	30.400	**1.06**	A	**A**
OT	1	570.000	10.000	**0.91**	A	**A**
OU	1	608.000	32.500	**0.97**		**A**
PO	1	648.000	32.000	**1.03**	A	**A**
RA	1	595.000	35.000	**0.95**	A	**A**
RA	2	612.000	16.000	**0.98**	A	**A**
RE	1	371.000	31.000	**0.59**	W	**N**
RI	1	76.900	18.000	**0.12**	W	**N**
RL	1	625.000	65.800	**1.00**	A	**A**
SB	1	632.000	40.000	**1.01**	N	**A**
SK	1	683.000	58.000	**1.09**	A	**A**
SN	1	735.470	73.620	**1.17**	A	**A**
SR	1	722.000	34.000	**1.15**	A	**A**
SS	1	698.000	3.000	**1.11**	A	**A**
SW	1	905.400	2.500	**1.45**	A	**N**
TE	1	627.000	17.000	**1.00**	A	**A**
TI	1	752.000	75.000	**1.20**	W	**A**
TM	1	675.000	21.200	**1.08**	W	**A**
TN	1	615.000	0.200	**0.98**	A	**A**
TO	1	616.200	47.700	**0.98**	N	**A**
TP	1	574.570	19.210	**0.92**	A	**A**
TR	1	596.400	24.020	**0.95**	N	**A**
TW	1	667.000	6.000	**1.06**	A	**A**
TX	1	709.000	5.000	**1.13**	A	**A**
UC	1	746.780	58.550	**1.19**	A	**A**
UN	1	615.000	22.000	**0.98**	A	**A**
UY	1	703.000	30.000	**1.12**	A	**A**
WA	1	636.000	33.000	**1.01**	A	**A**
WC	1	705.000	105.000	**1.12**	A	**A**
WE	1	743.000	190.000	**1.19**	W	**A**
YA	1	685.790	3.530	**1.09**	A	**A**
YU	1	780.000	20.000	**1.25**		**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: CS137

EML Value: 624.000
EML Error: 31.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation

Total Number Reported: 92

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: K 40

EML Value: 1130.000
EML Error: 70.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	514.000	438.000	**0.45**	N	**N**
AG	1	1160.000	140.000	**1.02**	A	**A**
AI	1	1370.000	82.000	**1.21**	W	**A**
AM	1	1259.000	25.160	**1.11**	A	**A**
AN	1	109.000	2.000	**0.09**	A	**N**
AR	1	1120.000	32.000	**0.99**	A	**A**
AU	1	1235.000	104.000	**1.09**	A	**A**
BC	1	1210.000	65.100	**1.07**	A	**A**
BE	1	1239.800	101.650	**1.09**	W	**A**
BL	1	1034.000	51.000	**0.91**	A	**A**
BM	1	840.000	50.600	**0.74**	A	**N**
BN	1	859.880	28.120	**0.76**	A	**N**
BN	2	890.590	29.120	**0.78**	A	**N**
BN	3	931.290	30.450	**0.82**	A	**W**
BP	1	1015.000	36.000	**0.89**	W	**W**
BQ	1	1370.000	70.000	**1.21**	W	**A**
BR	1	1191.400	408.000	**1.05**		**A**
BS	1	862.960	19.420	**0.76**	W	**N**
BU	1	1000.000	100.000	**0.88**	N	**W**
BX	1	1290.000	69.600	**1.14**	A	**A**
CH	1	1328.000	50.000	**1.17**	A	**A**
CL	1	1130.000	71.000	**1.00**	W	**A**
CN	1	1208.000	64.000	**1.06**	A	**A**
CR	1	1193.000	91.000	**1.05**	A	**A**
CS	1	1077.000	48.360	**0.95**	A	**A**
DC	1	1060.000	309.000	**0.93**	A	**A**
EG	1	1094.000	84.000	**0.96**	A	**A**
ES	1	1166.730	160.930	**1.03**	A	**A**
FL	1	1183.000	10.000	**1.04**	A	**A**
FN	1	1080.000	110.000	**0.95**	A	**A**
FR	1	1141.500	125.000	**1.01**	A	**A**
GA	1	1251.000	167.000	**1.10**	A	**A**
GC	1	1151.400		**1.01**		**A**
GE	1	1006.200	104.950	**0.89**	W	**W**
GP	1	920.000	160.000	**0.81**	A	**W**
GT	1	1200.000	300.000	**1.06**	A	**A**
HU	1	800.000	85.000	**0.70**		**N**
ID	1	1251.000	69.520	**1.10**	A	**A**
IE	1	1017.000	97.000	**0.90**	W	**W**
IN	1	1250.000	70.000	**1.10**	A	**A**
IS	1	1350.000	190.000	**1.19**	A	**A**
IT	1	1120.000	82.000	**0.99**	A	**A**
KO	1	1136.000	38.340	**1.00**	A	**A**
LH	1	1150.000	120.000	**1.01**	A	**A**
LV	1	1220.000	40.000	**1.07**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: K 40

EML Value: 1130.000
EML Error: 70.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
LW	1	1100.000	7.000	**0.97**	A	**A**
MA	1	1136.000	148.000	**1.00**	A	**A**
ME	1	1270.000	54.000	**1.12**	W	**A**
MH	1	1057.600	66.000	**0.93**		**A**
ML	1	1204.430	120.400	**1.06**		**A**
NA	1	32.000	0.640	**0.02**	A	**N**
NR	1	1177.000	235.000	**1.04**	A	**A**
NZ	1	1594.000	87.000	**1.41**	A	**W**
NZ	2	1631.000	88.000	**1.44**	A	**W**
OL	1	1213.000	74.000	**1.07**	A	**A**
OT	1	1000.000	100.000	**0.88**	A	**W**
OU	1	822.000	133.000	**0.72**		**N**
PO	1	1062.000	53.000	**0.93**	A	**A**
RA	1	864.000	65.000	**0.76**	A	**N**
RA	2	890.000	90.000	**0.78**	A	**N**
RE	1	993.000	100.000	**0.87**	A	**W**
RI	1	1234.000	155.000	**1.09**	A	**A**
RL	1	1155.000	92.000	**1.02**	A	**A**
SB	1	1190.000	120.000	**1.05**	N	**A**
SK	1	1055.000	69.000	**0.93**	A	**A**
SN	1	1336.290	125.150	**1.18**	W	**A**
SR	1	1248.000	83.000	**1.10**	A	**A**
SS	1	1190.000	17.000	**1.05**	A	**A**
SW	1	1550.000	15.000	**1.37**	A	**W**
TE	1	1092.000	95.000	**0.96**		**A**
TI	1	1240.000	120.000	**1.09**	W	**A**
TM	1	1150.000	67.100	**1.01**	A	**A**
TN	1	1033.000	2.060	**0.91**	A	**A**
TO	1	1063.000	121.800	**0.94**	N	**A**
TP	1	1002.250	27.770	**0.88**	A	**W**
TR	1	860.770	24.980	**0.76**	N	**N**
TW	1	1148.000	23.000	**1.01**	A	**A**
TX	1	1250.000	30.000	**1.10**	A	**A**
UC	1	1258.860	58.870	**1.11**	A	**A**
UN	1	121.000	6.000	**0.10**	A	**N**
UY	1	1190.000	100.000	**1.05**	A	**A**
WA	1	1160.000	60.000	**1.02**	A	**A**
WC	1	1390.000	167.000	**1.23**	W	**A**
WE	1	1207.000	57.000	**1.06**	W	**A**
YA	1	1180.110	19.240	**1.04**	A	**A**
YU	1	1680.000	55.000	**1.48**		**W**

Total Number Reported: 86

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: PU238

EML Value: 0.400
EML Error: 0.150

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AR	1	0.390	0.160	**0.97**		**A**
BU	1	0.350	0.070	**0.87**		**A**
GP	1	0.160	0.040	**0.39**	A	**N**
PO	1	0.300	0.200	**0.75**	W	**W**
RA	1	0.550	0.110	**1.37**	W	**A**
TW	1	0.500	0.060	**1.24**		**A**
UN	1	0.450	0.070	**1.14**	W	**A**
UY	1	0.830	0.190	**2.08**		**A**

Total Number Reported: 8

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: PU239

EML Value: 5.480
EML Error: 0.440

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	9.470	1.200	**1.72**	A	**W**
AI	1	5.040	0.280	**0.91**	A	**A**
AN	1	6.270	0.330	**1.14**	A	**A**
AR	1	5.570	0.550	**1.01**	A	**A**
AU	1	6.770	0.710	**1.23**	A	**A**
BE	1	6.000	0.700	**1.09**	N	**A**
BL	1	5.460	0.340	**0.99**	A	**A**
BL	2	5.700	0.350	**1.04**	A	**A**
BM	1	6.900	0.860	**1.25**	A	**A**
BP	1	5.860	0.300	**1.06**		**A**
BU	1	5.100	0.300	**0.93**	A	**A**
BX	1	4.660	1.140	**0.85**	A	**A**
CH	1	6.330	0.210	**1.15**	A	**A**
CL	1	6.000	1.800	**1.09**	A	**A**
CO	1	6.000	1.000	**1.09**	A	**A**
DC	1	6.010	0.880	**1.09**	A	**A**
EG	1	6.230	0.000	**1.13**	A	**A**
ES	1	6.150	1.150	**1.12**	A	**A**
FR	1	6.430	1.280	**1.17**	A	**A**
GA	1	6.140	0.410	**1.12**	A	**A**
GE	1	5.530	0.540	**1.00**	A	**A**
GP	1	1.900	0.200	**0.34**	A	**N**
GT	1	6.000	1.000	**1.09**		**A**
ID	1	5.690	0.320	**1.03**	A	**A**
IE	1	5.910	0.840	**1.07**	A	**A**
IS	1	4.940	0.940	**0.90**	W	**A**
IT	1	6.470	0.490	**1.18**	A	**A**
LA	1	5.120	0.170	**0.93**	A	**A**
LA	2	5.350	0.180	**0.97**	A	**A**
LA	3	5.610	0.180	**1.02**	A	**A**
LH	1	6.100	0.400	**1.11**	A	**A**
LL	1	5.980	0.620	**1.09**	A	**A**
ML	1	5.980	0.440	**1.09**	A	**A**
NA	1	0.950	0.090	**0.17**	A	**N**
NF	1	5.290	0.410	**0.96**		**A**
NZ	1	5.600	0.400	**1.02**	A	**A**
NZ	2	6.000	0.300	**1.09**	A	**A**
PO	1	4.000	2.000	**0.72**	A	**W**
RA	1	6.500	0.700	**1.18**	A	**A**
RE	1	4.970	0.460	**0.90**	W	**A**
RI	1	5.110	0.400	**0.93**		**A**
SK	1	5.450	0.120	**0.99**		**A**
SN	1	6.780	1.350	**1.23**	W	**A**
SR	1	5.620	1.230	**1.02**	A	**A**
SW	1	8.330	3.600	**1.52**	W	**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: PU239

EML Value: 5.480
EML Error: 0.440

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
TI	1	5.600	0.900	**1.02**	A	**A**
TM	1	7.140	0.370	**1.30**	A	**A**
TN	1	6.440	1.200	**1.17**	A	**A**
TO	1	7.100	0.600	**1.29**	A	**A**
TR	1	2.970	0.770	**0.54**	A	**N**
TW	1	6.100	0.200	**1.11**	A	**A**
TX	1	6.200	0.300	**1.13**	A	**A**
UC	1	5.730	0.980	**1.04**		**A**
UN	1	6.310	0.250	**1.15**	A	**A**
UY	1	6.440	0.710	**1.17**	W	**A**
WA	1	6.290	0.490	**1.14**	A	**A**
WC	1	6.290	1.760	**1.14**	W	**A**
YA	1	6.380	0.190	**1.16**	A	**A**

Total Number Reported: 58

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: SR 90

EML Value: 1434.000
EML Error: 75.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	407.000	33.300	**0.28**	W	**N**
AG	1	1230.000	320.000	**0.85**	A	**A**
AN	1	1361.000	23.000	**0.94**	W	**A**
AR	1	1370.000	90.000	**0.95**	W	**A**
AU	1	1355.000	18.000	**0.94**	A	**A**
BC	1	1540.000	107.000	**1.07**	A	**A**
BE	1	1348.000	78.000	**0.94**	N	**A**
BL	1	1313.000	14.000	**0.91**	A	**A**
BM	1	1272.000	10.600	**0.88**	W	**A**
BP	1	1279.000	91.000	**0.89**	A	**A**
BU	1	1300.000	90.000	**0.90**	A	**A**
BX	1	1520.000	108.000	**1.05**	A	**A**
CH	1	1269.000	23.000	**0.88**	A	**A**
CL	1	670.000	29.000	**0.46**	N	**N**
DC	1	628.000	48.200	**0.43**	A	**N**
EG	1	1550.000	0.000	**1.08**	N	**A**
ES	1	1205.580	324.560	**0.84**	A	**A**
GP	1	380.000	80.000	**0.26**	A	**N**
GT	1	1050.000	100.000	**0.73**	A	**A**
ID	1	1219.330	62.270	**0.85**	A	**A**
IE	1	1530.000	210.000	**1.06**	A	**A**
IS	1	1230.000	240.000	**0.85**	W	**A**
IT	1	1405.000	63.000	**0.97**	A	**A**
LH	1	1270.000	70.000	**0.88**	W	**A**
NA	1	250.000	4.300	**0.17**	A	**N**
NZ	1	7174.000	30.000	**5.00**	N	**N**
PO	1	1360.000	120.000	**0.94**	A	**A**
RA	1	1600.000	300.000	**1.11**	N	**W**
RE	1	1280.000	67.000	**0.89**	A	**A**
RI	1	1150.000	57.000	**0.80**	W	**A**
SR	1	1080.000	33.000	**0.75**	A	**A**
SW	1	2785.000	27.000	**1.94**	W	**N**
TE	1	1335.000	32.000	**0.93**	A	**A**
TI	1	1400.000	100.000	**0.97**	W	**A**
TM	1	1250.000	74.400	**0.87**	W	**A**
TN	1	1566.000	29.740	**1.09**	W	**A**
TO	1	1597.000	74.100	**1.11**	W	**W**
TP	1	1441.080	130.600	**1.00**	W	**A**
TW	1	1490.000	14.000	**1.03**	W	**A**
TX	1	1277.000	36.000	**0.89**	A	**A**
UY	1	1243.000	30.000	**0.86**	A	**A**
WA	1	1390.000	30.000	**0.96**	A	**A**
WC	1	1690.000	304.000	**1.17**	W	**W**
YA	1	1367.760	71.530	**0.95**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: VE Vegetation
Radionuclide: SR 90

EML Value: 1434.000
EML Error: 75.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation

Total Number Reported: 44

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: AM241

EML Value: 0.750
EML Error: 0.020

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	0.690	0.090	**0.93**	A	**A**
AI	1	0.740	0.030	**0.99**	A	**A**
AM	1	0.800	0.680	**1.06**	W	**A**
AN	1	0.740	0.020	**0.98**	A	**A**
AR	1	0.670	0.050	**0.89**	W	**A**
AU	1	1.360	0.090	**1.81**	A	**N**
BE	1	0.720	0.040	**0.96**	A	**A**
BL	1	0.700	0.200	**0.93**	W	**A**
BL	2	0.820	0.210	**1.10**	W	**A**
BM	1	0.770	0.130	**1.02**	A	**A**
BP	1	0.780	0.020	**1.05**	A	**A**
BR	1	0.990	0.610	**1.32**		**W**
BS	1	1.120	0.210	**1.49**	A	**W**
BU	1	0.850	0.050	**1.13**		**A**
BX	1	0.850	0.020	**1.14**	W	**A**
CH	1	0.810	0.030	**1.08**	A	**A**
CL	1	0.790	0.180	**1.05**	A	**A**
CS	1	1.080	0.140	**1.44**	A	**W**
DC	1	0.730	0.110	**0.98**	A	**A**
EG	1	0.750	0.000	**1.00**	A	**A**
ES	1	0.690	0.130	**0.91**	W	**A**
FG	1	0.750	0.250	**1.00**	N	**A**
FR	1	0.930	0.160	**1.24**		**W**
GA	1	0.790	0.020	**1.05**	A	**A**
GE	1	0.740	0.080	**0.99**	A	**A**
GP	1	0.890	0.140	**1.18**	A	**A**
GT	1	0.780	0.040	**1.03**		**A**
IE	1	0.690	0.030	**0.92**	A	**A**
IN	1	0.770	0.060	**1.02**	A	**A**
IS	1	0.760	0.120	**1.01**	A	**A**
IT	1	0.710	0.020	**0.94**	A	**A**
JL	1	1.700	0.500	**2.26**		**N**
LA	1	0.710	0.080	**0.94**	A	**A**
LA	2	0.790	0.080	**1.05**	A	**A**
LA	3	0.800	0.080	**1.06**	A	**A**
LH	1	0.600	0.060	**0.80**	A	**W**
LL	1	0.830	0.080	**1.11**	A	**A**
LV	1	1.130	0.290	**1.50**	N	**W**
ME	1	0.520	0.340	**0.69**		**W**
ML	1	0.990	0.100	**1.32**	W	**W**
MS	1	0.530	0.100	**0.70**		**W**
NA	1	0.730	0.070	**0.97**		**A**
OD	1	0.680	0.070	**0.91**	A	**A**
RE	1	0.710	0.070	**0.95**	A	**A**
RI	1	0.800	0.050	**1.07**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: AM241

EML Value: 0.750
EML Error: 0.020

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
SK	1	0.710	0.060	**0.94**		**A**
SN	1	0.770	0.070	**1.03**		**A**
SR	1	0.880	0.110	**1.17**	A	**A**
SW	1	0.670	0.060	**0.89**	A	**A**
TM	1	0.920	0.090	**1.23**	A	**W**
TN	1	0.720	0.040	**0.97**	A	**A**
TO	1	1.100	0.300	**1.46**	A	**W**
TW	1	0.830	0.020	**1.10**	A	**A**
TX	1	0.870	0.070	**1.16**	W	**A**
UK	1	0.750	0.160	**1.00**	A	**A**
UP	1	0.920	0.150	**1.22**		**A**
UY	1	0.730	0.100	**0.98**	W	**A**
WA	1	0.730	0.060	**0.97**	A	**A**
WC	1	0.840	0.140	**1.13**	A	**A**
WE	1	1.380	0.860	**1.83**	A	**N**
WI	1	0.730	0.110	**0.97**	A	**A**

Total Number Reported: 61

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: CO 60

EML Value: 23.300
EML Error: 1.200

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	104.000	11.100	**4.46**	W	**N**
AG	1	22.400	1.500	**0.96**	A	**A**
AI	1	22.400	0.800	**0.96**	A	**A**
AM	1	26.420	0.660	**1.13**	A	**W**
AN	1	23.800	0.300	**1.02**	W	**A**
AR	1	26.300	0.900	**1.12**	N	**A**
AU	1	25.800	2.300	**1.10**	A	**A**
AW	1	18.400	2.750	**0.78**	N	**N**
BA	1	23.000	3.700	**0.98**		**A**
BC	1	25.600	1.380	**1.09**	A	**A**
BE	1	29.940	1.210	**1.28**	W	**N**
BL	1	22.800	0.900	**0.97**	A	**A**
BM	1	23.100	2.340	**0.99**	A	**A**
BN	1	23.570	0.270	**1.01**	A	**A**
BN	2	23.800	0.280	**1.02**	A	**A**
BN	3	24.240	0.280	**1.04**	A	**A**
BP	1	24.600	2.100	**1.05**	A	**A**
BQ	1	23.700	0.700	**1.01**	A	**A**
BR	1	26.500	1.000	**1.13**	A	**W**
BS	1	22.960	0.420	**0.98**	A	**A**
BU	1	24.000	2.000	**1.03**		**A**
BX	1	24.900	1.350	**1.06**	A	**A**
CA	1	23.500	3.700	**1.00**	A	**A**
CH	1	23.400	0.300	**1.00**	A	**A**
CL	1	26.000	0.590	**1.11**	W	**A**
CS	1	24.080	0.780	**1.03**	A	**A**
DC	1	22.600	4.710	**0.96**	A	**A**
DH	1	24.900	2.360	**1.06**	A	**A**
DP	1	25.300	1.550	**1.08**	A	**A**
DP	2	26.300	1.290	**1.12**	A	**A**
DP	3	29.600	1.260	**1.27**	A	**N**
EG	1	23.300	0.700	**1.00**	A	**A**
EP	1	23.800	3.000	**1.02**	N	**A**
ES	1	23.030	2.580	**0.98**	A	**A**
FG	1	24.200	1.070	**1.03**	W	**A**
FL	1	25.700	0.300	**1.10**	A	**A**
FM	1	25.300	0.010	**1.08**	A	**A**
FN	1	22.900	1.700	**0.98**	A	**A**
FR	1	22.810	2.050	**0.97**		**A**
GA	1	26.000	4.600	**1.11**	A	**A**
GC	1	23.520		**1.00**		**A**
GE	1	23.760	2.390	**1.01**	A	**A**
GP	1	99.000	17.000	**4.24**	A	**N**
GT	1	23.000	5.000	**0.98**	A	**A**
ID	1	23.570	1.220	**1.01**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: CO 60

EML Value: 23.300
EML Error: 1.200

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
IE	1	22.830	0.810	**0.97**	A	**A**
IN	1	26.300	0.200	**1.12**	W	**A**
IS	1	23.300	1.100	**1.00**	A	**A**
IT	1	23.100	1.000	**0.99**	N	**A**
JL	1	23.000	1.900	**0.98**		**A**
KA	1	23.000	3.000	**0.98**	A	**A**
LH	1	22.000	1.800	**0.94**	A	**A**
LN	1	21.200	2.120	**0.90**		**A**
LV	1	24.000	0.700	**1.03**	A	**A**
LW	1	21.900	8.600	**0.93**	A	**A**
ME	1	25.200	0.670	**1.08**	A	**A**
MH	1	24.800	0.900	**1.06**		**A**
ML	1	24.150	2.400	**1.03**		**A**
MS	1	24.100	2.400	**1.03**	A	**A**
NA	1	24.000	0.330	**1.03**	A	**A**
NP	1	23.600	0.900	**1.01**	A	**A**
NZ	1	22.800	1.300	**0.97**	A	**A**
NZ	2	23.400	1.400	**1.00**	A	**A**
OD	1	26.260	1.810	**1.12**	A	**A**
OL	1	24.200	0.610	**1.03**	A	**A**
OT	1	22.000	2.000	**0.94**	A	**A**
OU	1	21.930	4.270	**0.94**		**A**
PR	1	27.380	0.260	**1.17**		**W**
PR	2	27.570	0.260	**1.18**		**N**
PR	3	27.630	0.260	**1.18**		**N**
PR	4	28.000	0.260	**1.20**		**N**
RC	1	22.800	1.200	**0.97**	A	**A**
RE	1	23.200	2.800	**0.99**	A	**A**
RI	1	24.200	2.300	**1.03**	A	**A**
RL	1	27.900	7.600	**1.19**	A	**N**
SA	1	24.000	1.000	**1.03**	A	**A**
SB	1	2.290	0.100	**0.09**	N	**N**
SK	1	25.100	2.100	**1.07**	W	**A**
SL	1	22.400	1.000	**0.96**	A	**A**
SN	1	23.670	2.180	**1.01**	A	**A**
SR	1	23.700	1.400	**1.01**	A	**A**
SS	1	22.900	0.400	**0.98**	A	**A**
SW	1	24.330	0.120	**1.04**	A	**A**
TE	1	23.700	1.500	**1.01**	A	**A**
TM	1	26.100	1.030	**1.12**	A	**A**
TN	1	23.740	2.990	**1.01**	A	**A**
TO	1	23.700	1.600	**1.01**	A	**A**
TP	1	22.600	1.670	**0.97**	A	**A**
TW	1	21.600	0.900	**0.92**	A	**A**
TX	1	24.500	0.200	**1.05**	A	**A**
UC	1	24.430	0.570	**1.04**	A	**A**
UK	1	22.300	1.500	**0.95**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: CO 60

EML Value: 23.300
EML Error: 1.200

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
UP	1	20.400	0.910	**0.87**		**W**
UY	1	24.700	2.000	**1.06**	A	**A**
WA	1	24.800	2.000	**1.06**	A	**A**
WC	1	24.600	1.930	**1.05**	A	**A**
WE	1	23.700	1.200	**1.01**	N	**A**
WI	1	22.600	3.200	**0.96**	A	**A**
WV	1	24.300	0.380	**1.04**	A	**A**
YA	1	22.310	0.530	**0.95**	A	**A**
YU	1	15.500	0.500	**0.66**		**N**

Total Number Reported: 101

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: CS134

EML Value: 66.000
EML Error: 2.600

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	63.800	9.900	**0.96**		**A**
AI	1	68.100	1.200	**1.03**		**A**
AM	1	73.230	1.220	**1.10**		**A**
AN	1	69.000	1.800	**1.04**		**A**
AR	1	75.400	1.900	**1.14**	N	**A**
AU	1	72.500	5.400	**1.09**		**A**
AW	1	61.500	9.200	**0.93**	N	**A**
BA	1	67.700	5.300	**1.02**		**A**
BC	1	72.500	3.920	**1.09**		**A**
BE	1	89.030	3.230	**1.34**		**N**
BL	1	63.800	2.300	**0.96**		**A**
BM	1	68.500	2.650	**1.03**		**A**
BN	1	71.370	1.160	**1.08**		**A**
BN	2	71.890	1.160	**1.08**		**A**
BN	3	74.070	1.200	**1.12**		**A**
BP	1	72.800	5.000	**1.10**		**A**
BQ	1	64.600	0.900	**0.97**		**A**
BR	1	75.100	1.950	**1.13**		**A**
BS	1	70.000	0.590	**1.06**	A	**A**
BU	1	75.000	8.000	**1.13**		**A**
BX	1	72.900	3.920	**1.10**		**A**
CA	1	66.000	8.300	**1.00**	A	**A**
CH	1	78.400	0.180	**1.18**		**W**
CL	1	78.500	1.200	**1.18**		**W**
CS	1	66.920	1.320	**1.01**	A	**A**
DC	1	63.500	15.200	**0.96**		**A**
DH	1	73.100	6.310	**1.10**		**A**
DP	1	68.800	1.530	**1.04**	A	**A**
DP	2	73.600	1.690	**1.11**	A	**A**
DP	3	75.100	1.930	**1.13**	A	**A**
EG	1	68.600	1.000	**1.03**	A	**A**
EP	1	67.200	8.000	**1.01**		**A**
ES	1	66.720	7.330	**1.01**		**A**
FG	1	72.620	3.360	**1.10**	A	**A**
FL	1	74.500	0.500	**1.12**	A	**A**
FM	1	76.300	0.040	**1.15**	A	**A**
FN	1	68.300	4.100	**1.03**	A	**A**
FR	1	67.120	6.710	**1.01**		**A**
GA	1	66.000	9.200	**1.00**		**A**
GC	1	65.880		**0.99**		**A**
GE	1	65.620	6.650	**0.99**		**A**
GP	1	22.000	3.000	**0.33**	A	**N**
GT	1	65.000	5.000	**0.98**	A	**A**
ID	1	70.470	4.030	**1.06**		**A**
IE	1	65.850	3.670	**0.99**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: CS134

EML Value: 66.000
EML Error: 2.600

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
IN	1	74.800	2.200	**1.13**		**A**
IS	1	63.200	5.800	**0.95**		**A**
IT	1	66.500	1.800	**1.00**		**A**
JL	1	69.000	2.400	**1.04**		**A**
KA	1	74.000	7.000	**1.12**		**A**
LA	1	54.200	4.800	**0.82**		**N**
LA	2	54.300	4.800	**0.82**		**N**
LA	3	55.900	5.000	**0.84**		**N**
LH	1	63.000	5.000	**0.95**		**A**
LL	1	69.500	2.800	**1.05**		**A**
LN	1	71.100	7.110	**1.07**		**A**
LV	1	70.100	1.300	**1.06**		**A**
LW	1	67.200	3.400	**1.01**		**A**
ME	1	67.700	1.610	**1.02**		**A**
MH	1	73.700	2.800	**1.11**		**A**
ML	1	76.080	7.600	**1.15**		**A**
MS	1	64.000	6.400	**0.96**	A	**A**
NA	1	69.000	0.490	**1.04**		**A**
NP	1	79.900	1.200	**1.21**	A	**W**
NZ	1	63.300	3.500	**0.95**		**A**
NZ	2	64.300	3.600	**0.97**		**A**
OD	1	68.600	2.680	**1.03**		**A**
OL	1	69.000	1.200	**1.04**	A	**A**
OT	1	66.000	2.000	**1.00**		**A**
OU	1	60.600	12.700	**0.91**	A	**A**
PR	1	79.280	1.920	**1.20**		**W**
PR	2	80.080	1.920	**1.21**		**W**
PR	3	81.450	1.920	**1.23**		**W**
PR	4	83.660	1.920	**1.26**		**N**
RC	1	66.000	4.000	**1.00**	A	**A**
RE	1	65.200	6.200	**0.98**		**A**
RI	1	67.700	2.300	**1.02**	N	**A**
RL	1	75.600	3.800	**1.14**		**A**
SA	1	70.000	1.400	**1.06**		**A**
SB	1	5.920	0.240	**0.08**	N	**N**
SK	1	76.200	6.500	**1.15**		**A**
SL	1	74.000	2.000	**1.12**	N	**A**
SN	1	67.110	6.170	**1.01**		**A**
SR	1	63.000	3.800	**0.95**		**A**
SS	1	66.200	1.000	**1.00**		**A**
SW	1	68.520	4.350	**1.03**		**A**
TE	1	63.500	2.600	**0.96**		**A**
TM	1	72.100	2.300	**1.09**		**A**
TN	1	79.090	9.640	**1.19**		**W**
TO	1	65.700	4.000	**0.99**		**A**
TW	1	57.600	0.900	**0.87**	A	**N**
TX	1	67.340	0.310	**1.02**		**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: CS134

EML Value: 66.000
EML Error: 2.600

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
UK	1	69.900	2.000	**1.05**		**A**
UP	1	60.900	3.100	**0.92**		**A**
UY	1	70.300	4.000	**1.06**		**A**
WA	1	69.300	4.100	**1.05**	A	**A**
WC	1	63.500	3.960	**0.96**		**A**
WE	1	69.700	5.600	**1.05**		**A**
WI	1	66.100	6.400	**1.00**	A	**A**
WV	1	66.230	0.480	**1.00**		**A**
YA	1	71.010	1.010	**1.07**		**A**
YU	1	36.100	0.900	**0.54**		**N**

Total Number Reported: 102

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: CS137

EML Value: 34.300
EML Error: 1.700

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	77.700	7.400	**2.26**	A	**N**
AG	1	35.200	3.100	**1.02**	A	**A**
AI	1	34.300	1.200	**1.00**	A	**A**
AM	1	38.720	1.070	**1.12**	A	**A**
AN	1	35.300	1.100	**1.02**	A	**A**
AR	1	40.200	1.400	**1.17**	N	**A**
AU	1	36.400	2.800	**1.06**	A	**A**
AW	1	33.200	5.000	**0.96**	N	**A**
BA	1	38.000	5.400	**1.10**		**A**
BC	1	38.100	2.410	**1.11**	A	**A**
BE	1	51.090	2.050	**1.48**	W	**N**
BL	1	32.700	1.200	**0.95**	A	**A**
BM	1	35.600	2.500	**1.03**	A	**A**
BN	1	41.510	0.200	**1.21**	N	**W**
BN	2	41.630	0.200	**1.21**	N	**W**
BN	3	42.000	0.210	**1.22**	N	**W**
BP	1	37.400	1.600	**1.09**	A	**A**
BQ	1	31.700	0.600	**0.92**	A	**A**
BR	1	40.300	1.600	**1.17**	W	**A**
BS	1	34.110	0.390	**0.99**	A	**A**
BU	1	32.000	3.000	**0.93**		**A**
BX	1	37.700	2.370	**1.09**	A	**A**
CA	1	36.800	4.400	**1.07**	A	**A**
CH	1	34.700	0.490	**1.01**	A	**A**
CL	1	41.000	1.000	**1.19**	W	**W**
CS	1	35.320	1.550	**1.02**	A	**A**
DC	1	35.800	7.800	**1.04**	A	**A**
DH	1	37.100	3.210	**1.08**	W	**A**
DP	1	34.300	1.260	**1.00**	A	**A**
DP	2	37.100	1.660	**1.08**	A	**A**
DP	3	37.700	1.190	**1.09**	A	**A**
EG	1	34.800	1.000	**1.01**	A	**A**
EP	1	35.000	4.000	**1.02**	W	**A**
ES	1	35.090	3.930	**1.02**	A	**A**
FG	1	39.640	1.630	**1.15**	W	**A**
FL	1	39.300	0.600	**1.14**	A	**A**
FM	1	39.900	0.030	**1.16**	A	**A**
FN	1	35.200	3.600	**1.02**	A	**A**
FR	1	34.290	2.100	**0.99**		**A**
GA	1	35.000	5.100	**1.02**	A	**A**
GC	1	34.590		**1.00**		**A**
GE	1	35.210	3.590	**1.02**	A	**A**
GP	1	80.000	14.000	**2.33**	A	**N**
GT	1	35.000	5.000	**1.02**	A	**A**
ID	1	36.600	1.990	**1.06**	W	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: CS137

EML Value: 34.300
EML Error: 1.700

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
IE	1	34.810	1.640	**1.01**	A	**A**
IN	1	37.300	2.400	**1.08**	A	**A**
IS	1	35.300	2.300	**1.02**	A	**A**
IT	1	34.400	2.500	**1.00**	A	**A**
JL	1	34.000	2.600	**0.99**		**A**
KA	1	35.000	3.000	**1.02**	A	**A**
LA	1	27.700	2.600	**0.80**	A	**W**
LA	2	28.000	2.600	**0.81**	A	**W**
LA	3	28.100	2.600	**0.81**	A	**W**
LH	1	35.000	4.000	**1.02**	A	**A**
LL	1	36.600	7.400	**1.06**	A	**A**
LN	1	39.300	3.900	**1.14**		**A**
LV	1	34.700	0.500	**1.01**	A	**A**
LW	1	35.400	8.600	**1.03**	A	**A**
ME	1	37.800	1.740	**1.10**	A	**A**
MH	1	37.500	2.100	**1.09**		**A**
ML	1	35.410	3.500	**1.03**		**A**
MS	1	36.100	3.600	**1.05**	A	**A**
NA	1	36.000	0.510	**1.04**	A	**A**
NP	1	38.300	1.200	**1.11**	A	**A**
NZ	1	35.700	2.100	**1.04**	A	**A**
NZ	2	37.000	2.100	**1.07**	A	**A**
OD	1	39.620	3.030	**1.15**	A	**A**
OL	1	37.400	0.740	**1.09**	A	**A**
OT	1	34.000	2.000	**0.99**	A	**A**
OU	1	33.400	4.900	**0.97**	A	**A**
PR	1	42.430	0.300	**1.23**		**W**
PR	2	42.580	0.300	**1.24**		**W**
PR	3	42.720	0.300	**1.24**		**W**
PR	4	43.130	0.300	**1.25**		**W**
RC	1	34.000	2.000	**0.99**	A	**A**
RE	1	35.300	3.800	**1.02**	A	**A**
RI	1	35.600	4.000	**1.03**	A	**A**
RL	1	43.100	2.200	**1.25**	A	**W**
SA	1	36.000	2.100	**1.04**	A	**A**
SB	1	3.110	0.150	**0.09**	N	**N**
SK	1	36.300	2.200	**1.05**	A	**A**
SL	1	35.400	1.000	**1.03**	A	**A**
SN	1	33.260	3.020	**0.96**	A	**A**
SR	1	35.500	2.100	**1.03**	A	**A**
SS	1	34.600	0.300	**1.00**	A	**A**
SW	1	36.300	0.170	**1.05**	A	**A**
TE	1	34.900	2.400	**1.01**	A	**A**
TM	1	36.700	1.340	**1.06**	W	**A**
TN	1	35.690	4.140	**1.04**	A	**A**
TO	1	36.300	4.400	**1.05**	A	**A**
TP	1	21.710	0.820	**0.63**	A	**N**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: CS137

EML Value: 34.300
EML Error: 1.700

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
TW	1	31.500	0.900	**0.91**	A	**A**
TX	1	36.000	0.300	**1.04**	A	**A**
UC	1	36.790	2.780	**1.07**	A	**A**
UK	1	36.800	2.300	**1.07**	A	**A**
UP	1	31.100	1.810	**0.90**		**A**
UY	1	38.200	5.000	**1.11**	A	**A**
WA	1	38.100	4.800	**1.11**	A	**A**
WC	1	37.400	5.030	**1.09**	A	**A**
WE	1	39.500	4.600	**1.15**	W	**A**
WI	1	33.900	6.400	**0.98**	A	**A**
WV	1	35.130	0.400	**1.02**	A	**A**
YA	1	33.890	0.780	**0.98**	A	**A**
YU	1	18.700	0.500	**0.54**		**N**

Total Number Reported: 105

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: FE 55

EML Value: 115.000
EML Error: 10.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
BL	1	134.800	16.900	**1.17**	W	**A**
BL	2	139.500	17.200	**1.21**	W	**A**
BP	1	128.000	7.000	**1.11**	W	**A**
BU	1	63.000	6.000	**0.54**		**W**
BX	1	135.000	11.000	**1.17**	W	**A**
CL	1	120.000	10.000	**1.04**	W	**A**
DP	1	166.100	5.000	**1.44**		**W**
DP	2	179.800	5.000	**1.56**		**N**
GP	1	220.000	40.000	**1.91**	W	**N**
IS	1	1336.000	12.000	**11.61**		**N**
KA	1	122.000	9.000	**1.06**	W	**A**
LH	1	127.000	8.400	**1.10**	W	**A**
TE	1	102.000	34.000	**0.88**	W	**A**
TN	1	119.300	5.170	**1.03**	W	**A**
TO	1	162.400	49.100	**1.41**	N	**W**
YA	1	125.060	13.190	**1.08**		**A**

Total Number Reported: 16

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: GA

EML Value: 557.000
EML Error: 60.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	1110.000	30.000	**1.99**	W	**N**
AI	1	914.300	30.200	**1.64**	W	**N**
AM	1	393.800	17.680	**0.70**	N	**W**
AR	1	570.000	53.000	**1.02**	W	**A**
AU	1	437.000	18.000	**0.78**	W	**W**
BC	1	511.000	15.500	**0.91**	W	**A**
BE	1	643.300	62.000	**1.15**	W	**A**
BL	1	600.000	19.000	**1.07**	W	**A**
BN	1	492.280	8.320	**0.88**	W	**A**
BN	2	506.560	8.560	**0.90**	W	**A**
BN	3	512.510	8.660	**0.92**	W	**A**
BP	1	612.000	11.000	**1.09**	W	**A**
BS	1	606.470	4.970	**1.08**	W	**A**
BU	1	600.000	36.000	**1.07**		**A**
BX	1	599.000	16.700	**1.07**	W	**A**
CA	1	328.000	15.000	**0.58**	N	**W**
CH	1	493.000	54.000	**0.88**	W	**A**
DC	1	696.000	137.000	**1.24**	W	**W**
DP	1	1088.000	31.880	**1.95**	W	**N**
DP	2	1141.000	32.450	**2.04**	W	**N**
DP	3	1203.000	33.300	**2.15**	W	**N**
EG	1	563.000	0.000	**1.01**	W	**A**
EI	1	692.230	71.090	**1.24**	W	**W**
ES	1	624.780	103.120	**1.12**	W	**A**
FG	1	623.450	26.000	**1.11**	W	**A**
FL	1	841.620	12.750	**1.51**	W	**N**
FR	1	319.000	64.000	**0.57**		**W**
GC	1	682.650		**1.22**		**W**
GE	1	798.600	92.300	**1.43**	W	**W**
GP	1	1200.000	200.000	**2.15**	W	**N**
GS	1	546.000	82.900	**0.98**	W	**A**
GT	1	560.000	50.000	**1.00**	W	**A**
HC	1	513.000	50.000	**0.92**	W	**A**
IE	1	631.700	37.300	**1.13**	W	**A**
IS	1	574.000	62.000	**1.03**	W	**A**
IT	1	576.000	67.000	**1.03**	W	**A**
KA	1	701.000	88.000	**1.25**	W	**W**
LA	1	593.000	121.000	**1.06**	W	**A**
LA	2	610.000	95.000	**1.09**	W	**A**
LA	3	654.000	118.000	**1.17**	W	**A**
LH	1	555.000	36.000	**0.99**	W	**A**
LL	1	562.000	12.000	**1.00**	W	**A**
LV	1	808.000	53.000	**1.45**	W	**W**
LW	1	510.600	6.200	**0.91**	W	**A**
MH	1	738.700	2.800	**1.32**		**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: GA

EML Value: 557.000
EML Error: 60.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
NZ	1	477.000	32.000	**0.85**	W	**A**
NZ	2	500.000	33.000	**0.89**	W	**A**
OB	1	583.000	31.500	**1.04**	A	**A**
OU	1	717.000	86.800	**1.28**		**W**
RE	1	533.000	80.000	**0.95**	W	**A**
RL	1	150.000	8.000	**0.26**	N	**N**
SA	1	415.000	42.000	**0.74**	W	**W**
SB	1	493.000	20.000	**0.88**	W	**A**
SN	1	410.980	33.180	**0.73**	W	**W**
SR	1	604.000	106.000	**1.08**		**A**
SW	1	597.410	14.070	**1.07**	W	**A**
TE	1	597.000	12.000	**1.07**	W	**A**
TM	1	728.000	84.400	**1.30**	A	**W**
TN	1	558.600	21.890	**1.00**	W	**A**
TO	1	712.200	29.700	**1.27**	W	**W**
TP	1	428.350	72.520	**0.76**		**W**
TW	1	387.000	0.200	**0.69**	W	**W**
TX	1	687.000	30.000	**1.23**	W	**W**
UC	1	528.600	33.300	**0.94**	W	**A**
UK	1	661.000	28.000	**1.18**	W	**A**
UP	1	640.000	80.000	**1.14**		**A**
UY	1	463.000	32.000	**0.83**	W	**A**
WA	1	594.000	41.000	**1.06**	W	**A**
WC	1	652.000	65.200	**1.17**	W	**A**
WV	1	543.900	49.770	**0.97**	W	**A**
YA	1	279.220	16.890	**0.50**	W	**W**

Total Number Reported: 71

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: GB

EML Value: 712.000
EML Error: 70.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	303.000	15.000	**0.42**	N	**N**
AI	1	633.000	28.500	**0.88**	A	**A**
AM	1	896.000	17.850	**1.25**	A	**A**
AR	1	839.000	102.000	**1.17**	W	**A**
AU	1	896.000	21.000	**1.25**	A	**A**
BC	1	847.000	14.900	**1.18**	A	**A**
BE	1	870.000	55.000	**1.22**	W	**A**
BL	1	807.000	21.000	**1.13**	N	**A**
BN	1	812.450	46.800	**1.14**	A	**A**
BN	2	830.590	47.840	**1.16**	A	**A**
BN	3	924.980	53.280	**1.29**	A	**A**
BP	1	1051.000	32.000	**1.47**	A	**W**
BS	1	848.160	4.660	**1.19**	A	**A**
BU	1	1000.000	100.000	**1.40**		**W**
BX	1	955.000	15.800	**1.34**	A	**A**
CA	1	438.000	48.000	**0.61**	N	**W**
CH	1	861.000	24.000	**1.20**	W	**A**
DC	1	1079.000	212.000	**1.51**	A	**W**
DP	1	2459.000	37.320	**3.45**	W	**N**
DP	2	2539.000	37.860	**3.56**	W	**N**
DP	3	2577.000	38.230	**3.61**	W	**N**
EG	1	1030.000	0.000	**1.44**	A	**W**
ES	1	932.030	137.960	**1.30**	A	**A**
FG	1	814.000	37.000	**1.14**	W	**A**
FL	1	1060.000	9.400	**1.48**	A	**W**
FR	1	856.000	171.000	**1.20**		**A**
GC	1	923.150		**1.29**		**A**
GE	1	856.000	101.200	**1.20**	A	**A**
GP	1	610.000	100.000	**0.85**	A	**A**
GS	1	864.300	87.200	**1.21**	W	**A**
GT	1	1100.000	100.000	**1.54**	A	**W**
HC	1	967.000	95.000	**1.35**	A	**A**
IE	1	853.800	23.600	**1.19**	W	**A**
IS	1	932.000	95.000	**1.30**	N	**A**
IT	1	754.000	22.000	**1.05**	A	**A**
KA	1	930.000	66.000	**1.30**	A	**A**
LA	1	902.000	183.000	**1.26**	A	**A**
LA	2	910.000	137.000	**1.27**	A	**A**
LA	3	970.000	147.000	**1.36**	A	**A**
LH	1	830.000	46.000	**1.16**	W	**A**
LL	1	1050.000	7.600	**1.47**	A	**W**
LV	1	1040.000	60.000	**1.46**	A	**W**
LW	1	853.800	3.900	**1.19**	A	**A**
MH	1	869.700	6.000	**1.22**		**A**
NP	1	909.000	6.000	**1.27**	N	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: GB

EML Value: 712.000
EML Error: 70.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
NZ	1	893.000	38.000	**1.25**	A	**A**
NZ	2	901.000	38.000	**1.26**	A	**A**
OB	1	718.500	28.500	**1.00**	W	**A**
OU	1	1247.000	123.000	**1.75**		**N**
RE	1	850.000	108.000	**1.19**	A	**A**
RL	1	850.000	44.500	**1.19**	A	**A**
SA	1	1234.000	99.000	**1.73**	A	**N**
SB	1	793.000	30.000	**1.11**	N	**A**
SN	1	931.630	45.460	**1.30**	A	**A**
SR	1	828.000	110.000	**1.16**		**A**
SW	1	801.110	13.150	**1.12**	W	**A**
TE	1	985.000	13.000	**1.38**	A	**W**
TM	1	733.000	58.500	**1.02**	N	**A**
TN	1	712.600	19.020	**1.00**	W	**A**
TO	1	770.100	24.800	**1.08**	A	**A**
TP	1	736.960	84.910	**1.03**	A	**A**
TW	1	923.700	0.100	**1.29**	A	**A**
TX	1	837.000	35.000	**1.17**	W	**A**
UC	1	819.900	27.800	**1.15**	N	**A**
UK	1	923.000	24.000	**1.29**	A	**A**
UP	1	1029.000	78.000	**1.44**		**W**
UY	1	862.000	35.000	**1.21**	A	**A**
WA	1	980.000	40.000	**1.37**	A	**A**
WC	1	938.000	93.800	**1.31**	W	**A**
WV	1	953.860	55.610	**1.33**	A	**A**
YA	1	784.520	21.210	**1.10**	W	**A**

Total Number Reported: 71

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: H 3

EML Value: 115.000
EML Error: 6.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	116.000	27.000	**1.00**	A	**A**
AI	1	367.000	9.900	**3.19**	N	**N**
AN	1	118.000	1.000	**1.02**	A	**A**
AR	1	121.000	68.000	**1.05**	A	**A**
AU	1	108.000	13.000	**0.93**		**A**
BE	1	116.000	9.000	**1.00**	A	**A**
BL	1	130.000	11.000	**1.13**	A	**A**
BN	1	117.220	6.200	**1.01**	A	**A**
BN	2	122.920	6.500	**1.06**	A	**A**
BN	3	133.120	7.040	**1.15**	A	**A**
BP	1	125.300	7.200	**1.08**	A	**A**
BU	1	122.200	5.000	**1.06**		**A**
BX	1	128.000	13.500	**1.11**	A	**A**
CA	1	129.000	13.000	**1.12**		**A**
CH	1	134.000	3.900	**1.16**	A	**A**
CL	1	107.000	12.000	**0.93**	N	**A**
CZ	1	114.000	22.000	**0.99**	N	**A**
DC	1	177.000	12.300	**1.53**	W	**W**
DP	1	132.600	3.360	**1.15**	A	**A**
DP	2	134.800	3.510	**1.17**	A	**A**
DP	3	138.800	3.610	**1.20**	A	**A**
EG	1	134.000	0.000	**1.16**	A	**A**
EI	1	386.930	21.290	**3.36**	W	**N**
EP	1	126.000	7.000	**1.09**	A	**A**
ES	1	104.610	41.700	**0.90**	W	**A**
FL	1	112.000	1.700	**0.97**	A	**A**
FN	1	126.000	11.000	**1.09**	A	**A**
FR	1	480.700	39.000	**4.18**		**N**
GC	1	129.500		**1.12**		**A**
GE	1	134.390	10.640	**1.16**	A	**A**
GP	1	270.000	30.000	**2.34**	A	**N**
GT	1	110.000	10.000	**0.95**	A	**A**
HC	1	110.000	17.000	**0.95**	A	**A**
ID	1	455.200	46.880	**3.95**	A	**N**
IE	1	106.000	4.300	**0.92**	A	**A**
IS	1	117.000	19.000	**1.01**	A	**A**
IT	1	127.000	9.000	**1.10**	A	**A**
JL	1	116.000	27.200	**1.00**		**A**
KA	1	128.000	26.000	**1.11**	W	**A**
LA	1	128.000	21.000	**1.11**	A	**A**
LA	2	143.000	22.000	**1.24**	A	**W**
LA	3	148.000	22.000	**1.28**	A	**W**
LH	1	103.000	9.000	**0.89**	A	**A**
LN	1	500.000	50.000	**4.34**		**N**
LV	1	148.000	4.000	**1.28**	A	**W**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: H 3

EML Value: 115.000
EML Error: 6.000

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
LW	1	130.000	6.900	**1.13**	A	**A**
MH	1	105.100	3.600	**0.91**		**A**
ML	1	130.170	20.720	**1.13**	A	**A**
NA	1	127.000	3.600	**1.10**	A	**A**
NP	1	107.000	12.000	**0.93**	W	**A**
OD	1	139.670	5.830	**1.21**	A	**A**
OU	1	172.000	14.000	**1.49**		**W**
PR	1	120.770	1.910	**1.05**	A	**A**
PR	2	121.030	2.040	**1.05**	A	**A**
PR	3	121.400	1.360	**1.05**	A	**A**
PR	4	121.800	0.590	**1.05**	A	**A**
PR	5	122.430	1.860	**1.06**	A	**A**
PR	6	123.200	1.110	**1.07**	A	**A**
RC	1	130.000	7.000	**1.13**	A	**A**
RE	1	123.000	22.000	**1.06**	A	**A**
SA	1	139.000	28.000	**1.20**		**A**
SB	1	310.000	15.000	**2.69**	N	**N**
SK	1	122.000	1.000	**1.06**		**A**
SR	1	125.000	20.000	**1.08**	A	**A**
SW	1	527.700	8.800	**4.58**	W	**N**
TE	1	228.000	1.800	**1.98**	A	**N**
TM	1	128.000	9.550	**1.11**	A	**A**
TN	1	91.480	9.320	**0.79**	A	**A**
TO	1	120.800	22.400	**1.05**	A	**A**
TP	1	126.460	1.280	**1.09**	A	**A**
TW	1	128.000	4.000	**1.11**	A	**A**
TX	1	128.000	8.000	**1.11**	A	**A**
UP	1	104.000	22.700	**0.90**		**A**
UY	1	134.000	30.000	**1.16**	A	**A**
WA	1	118.000	4.000	**1.02**	A	**A**
WC	1	104.000	7.250	**0.90**	A	**A**
WV	1	122.030	5.590	**1.06**	A	**A**
YA	1	122.470	5.790	**1.06**		**A**

Total Number Reported: 78

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: MN 54

EML Value: 37.800
EML Error: 1.900

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	24.130	3.360	**0.63**	A	**N**
AG	1	39.800	3.700	**1.05**	A	**A**
AI	1	38.500	1.400	**1.01**	A	**A**
AM	1	44.340	1.600	**1.17**	A	**W**
AN	1	38.800	1.100	**1.02**	W	**A**
AR	1	46.100	1.700	**1.21**	N	**W**
AU	1	41.900	3.700	**1.10**	W	**A**
AW	1	41.400	6.200	**1.09**	N	**A**
BA	1	41.700	6.200	**1.10**		**A**
BC	1	43.700	2.220	**1.15**	A	**A**
BE	1	58.140	2.110	**1.53**	N	**N**
BL	1	37.400	1.300	**0.98**	A	**A**
BN	1	45.570	0.480	**1.20**	N	**W**
BN	2	45.770	0.490	**1.21**	N	**W**
BN	3	46.620	0.490	**1.23**	N	**N**
BP	1	41.700	2.500	**1.10**	W	**A**
BQ	1	37.000	0.700	**0.97**	A	**A**
BR	1	44.800	1.700	**1.18**	W	**W**
BS	1	40.370	0.540	**1.06**	A	**A**
BU	1	54.000	10.000	**1.42**		**N**
BX	1	44.000	2.220	**1.16**	W	**W**
CA	1	39.500	5.000	**1.04**	A	**A**
CH	1	40.000	0.360	**1.05**	A	**A**
CL	1	45.500	1.200	**1.20**	A	**W**
CS	1	42.210	1.760	**1.11**	W	**A**
DC	1	40.900	12.200	**1.08**	A	**A**
DH	1	42.300	3.510	**1.11**	A	**A**
DP	1	42.000	1.380	**1.11**	A	**A**
DP	2	44.400	1.730	**1.17**	A	**W**
DP	3	47.400	1.380	**1.25**	A	**N**
EG	1	39.500	1.300	**1.04**	A	**A**
ES	1	38.810	4.340	**1.02**	A	**A**
FG	1	44.570	1.830	**1.17**	W	**W**
FL	1	45.300	0.600	**1.19**	W	**W**
FM	1	43.200	0.030	**1.14**	A	**A**
FN	1	39.000	4.000	**1.03**	A	**A**
FR	1	37.860	3.750	**1.00**		**A**
GA	1	40.000	14.000	**1.05**	A	**A**
GC	1	39.160		**1.03**		**A**
GE	1	40.310	4.250	**1.06**	A	**A**
GP	1	24.000	4.000	**0.63**	A	**N**
GT	1	40.000	5.000	**1.05**	A	**A**
ID	1	38.830	2.820	**1.02**	A	**A**
IE	1	38.000	2.650	**1.00**	A	**A**
IN	1	43.800	1.400	**1.15**	W	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: MN 54

EML Value: 37.800
EML Error: 1.900

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
IS	1	41.100	3.200	**1.08**	A	**A**
IT	1	40.000	1.000	**1.05**	N	**A**
JL	1	42.000	2.600	**1.11**		**A**
KA	1	38.000	7.000	**1.00**	A	**A**
LA	1	32.200	3.000	**0.85**	A	**W**
LA	2	32.900	3.100	**0.87**	A	**W**
LA	3	33.900	3.200	**0.89**	A	**W**
LH	1	40.000	4.000	**1.05**	A	**A**
LN	1	38.700	3.800	**1.02**		**A**
LV	1	40.500	0.500	**1.07**	N	**A**
LW	1	38.400	7.200	**1.01**	A	**A**
ME	1	50.300	1.600	**1.33**	W	**N**
MH	1	41.700	2.200	**1.10**		**A**
ML	1	39.020	3.900	**1.03**		**A**
MS	1	41.300	4.130	**1.09**	A	**A**
NA	1	40.000	0.820	**1.05**	A	**A**
NP	1	43.800	1.300	**1.15**	A	**A**
NZ	1	41.800	2.400	**1.10**	W	**A**
NZ	2	42.900	2.400	**1.13**	W	**A**
OD	1	41.750	2.990	**1.10**	A	**A**
OL	1	40.800	1.000	**1.07**	A	**A**
OT	1	40.000	2.000	**1.05**	A	**A**
OU	1	33.980	6.300	**0.89**		**W**
PR	1	41.030	0.640	**1.08**		**A**
PR	2	41.830	0.640	**1.10**		**A**
PR	3	42.270	0.640	**1.11**		**A**
PR	4	42.490	0.640	**1.12**		**A**
RC	1	40.000	2.000	**1.05**	A	**A**
RE	1	41.500	4.400	**1.09**	A	**A**
RI	1	37.800	3.500	**1.00**	A	**A**
RL	1	51.500	5.600	**1.36**	A	**N**
SA	1	43.000	1.700	**1.13**	A	**A**
SB	1	3.700	0.100	**0.09**	N	**N**
SK	1	122.000	1.000	**3.22**	A	**N**
SL	1	36.000	1.000	**0.95**	A	**A**
SN	1	39.990	4.230	**1.05**	A	**A**
SR	1	40.300	2.400	**1.06**	A	**A**
SS	1	39.100	1.100	**1.03**	A	**A**
SW	1	41.360	0.190	**1.09**	A	**A**
TE	1	39.000	3.000	**1.03**	A	**A**
TM	1	43.400	1.540	**1.14**	W	**A**
TN	1	41.560	5.810	**1.09**	A	**A**
TO	1	40.600	5.200	**1.07**	A	**A**
TP	1	34.880	1.290	**0.92**	A	**A**
TW	1	36.900	0.900	**0.97**	A	**A**
TX	1	42.300	0.400	**1.11**	A	**A**
UK	1	40.000	2.500	**1.05**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: MN 54

EML Value: 37.800
EML Error: 1.900

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
UP	1	35.600	2.580	**0.94**		**A**
UY	1	42.400	5.000	**1.12**	A	**A**
WA	1	41.100	4.800	**1.08**	A	**A**
WC	1	43.100	5.940	**1.14**	W	**A**
WE	1	43.700	2.800	**1.15**	N	**A**
WI	1	38.600	6.900	**1.02**	A	**A**
WV	1	41.920	0.480	**1.10**	W	**A**
YA	1	38.360	0.860	**1.01**	A	**A**
YU	1	23.100	0.600	**0.61**		**N**

Total Number Reported: 101

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: PU238

EML Value: 0.720
EML Error: 0.020

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	0.740	0.130	**1.02**	A	**A**
AI	1	0.680	0.020	**0.95**	W	**A**
AN	1	0.740	0.020	**1.02**	A	**A**
AR	1	0.770	0.090	**1.08**	W	**A**
AU	1	0.220	0.040	**0.30**	A	**N**
BA	1	0.750	0.180	**1.04**		**A**
BE	1	0.760	0.040	**1.05**	A	**A**
BL	1	0.890	0.080	**1.23**	A	**W**
BL	2	1.010	0.080	**1.40**	A	**N**
BM	1	0.850	0.120	**1.19**	A	**W**
BP	1	0.730	0.050	**1.01**	A	**A**
BX	1	0.780	0.040	**1.08**	A	**A**
CH	1	0.860	0.040	**1.19**	A	**W**
CL	1	0.560	0.150	**0.77**	A	**W**
DC	1	0.640	0.120	**0.89**	W	**W**
EG	1	0.780	0.000	**1.08**	A	**A**
ES	1	0.730	0.130	**1.01**	A	**A**
FR	1	0.730	0.070	**1.01**		**A**
GA	1	0.840	0.140	**1.16**	A	**W**
GE	1	0.740	0.090	**1.03**	A	**A**
GP	1	1.300	0.100	**1.80**	A	**N**
GT	1	0.360	0.040	**0.50**	W	**N**
ID	1	0.920	0.120	**1.27**	A	**N**
IE	1	0.730	0.030	**1.02**	A	**A**
IN	1	0.690	0.070	**0.95**	W	**A**
IS	1	0.830	0.100	**1.16**	A	**W**
IT	1	0.710	0.020	**0.98**	A	**A**
LA	1	0.710	0.070	**0.98**	A	**A**
LA	2	0.720	0.070	**1.00**	A	**A**
LA	3	0.750	0.070	**1.04**	A	**A**
LH	1	0.720	0.080	**1.00**	A	**A**
LL	1	0.760	0.140	**1.06**	A	**A**
ML	1	0.760	0.060	**1.05**	A	**A**
NF	1	0.730	0.030	**1.02**		**A**
NZ	1	0.710	0.050	**0.98**	A	**A**
NZ	2	0.790	0.050	**1.09**	A	**A**
OD	1	0.720	0.070	**1.00**	A	**A**
RE	1	0.650	0.070	**0.91**	W	**A**
RI	1	0.710	0.050	**0.98**	W	**A**
SK	1	0.740	0.060	**1.02**		**A**
SN	1	0.730	0.070	**1.02**	A	**A**
SR	1	0.740	0.120	**1.02**	A	**A**
SW	1	1.240	0.080	**1.72**	N	**N**
TE	1	0.670	0.150	**0.93**	A	**A**
TM	1	0.780	0.030	**1.09**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: PU238

EML Value: 0.720
EML Error: 0.020

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
TN	1	0.790	0.050	**1.10**	A	**A**
TO	1	0.800	0.200	**1.11**	A	**A**
TW	1	0.770	0.020	**1.06**	A	**A**
TX	1	0.780	0.030	**1.09**	A	**A**
UC	1	0.660	0.110	**0.91**		**A**
UK	1	1.020	0.240	**1.41**	A	**N**
UP	1	0.670	0.130	**0.94**		**A**
UY	1	0.720	0.080	**1.00**	W	**A**
WA	1	0.390	0.060	**0.54**	A	**N**
WC	1	0.830	0.140	**1.15**	A	**W**
WI	1	0.670	0.040	**0.93**	A	**A**
YA	1	0.740	0.020	**1.04**	A	**A**

Total Number Reported: 57

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: PU239

EML Value: 0.750
EML Error: 0.040

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AF	1	1.250	0.370	**1.66**	N	**N**
AG	1	0.790	0.130	**1.05**	W	**A**
AI	1	0.700	0.020	**0.94**	W	**A**
AN	1	0.780	0.030	**1.04**	A	**A**
AR	1	0.690	0.080	**0.92**	A	**A**
AU	1	0.230	0.040	**0.30**	A	**N**
BA	1	0.840	0.200	**1.12**		**A**
BE	1	0.770	0.040	**1.02**	A	**A**
BL	1	0.720	0.070	**0.96**	A	**A**
BL	2	0.750	0.070	**1.00**	A	**A**
BM	1	0.860	0.110	**1.14**	W	**A**
BP	1	0.790	0.010	**1.05**	A	**A**
BU	1	0.720	0.040	**0.96**		**A**
BX	1	0.700	0.040	**0.93**	A	**A**
CH	1	0.790	0.080	**1.05**	A	**A**
CL	1	0.680	0.160	**0.90**	A	**A**
DC	1	0.710	0.130	**0.95**	A	**A**
EG	1	0.700	0.000	**0.93**	A	**A**
ES	1	0.760	0.140	**1.01**	A	**A**
FR	1	0.770	0.070	**1.03**		**A**
GA	1	0.870	0.130	**1.16**	A	**A**
GE	1	0.780	0.100	**1.05**	W	**A**
GP	1	0.850	0.160	**1.13**	A	**A**
GT	1	0.350	0.040	**0.46**	A	**N**
ID	1	0.850	0.100	**1.13**	A	**A**
IE	1	0.800	0.090	**1.07**	A	**A**
IN	1	0.770	0.080	**1.02**	A	**A**
IS	1	1.000	0.110	**1.33**	A	**W**
IT	1	0.770	0.050	**1.02**	A	**A**
KA	1	0.850	0.020	**1.14**	A	**A**
LA	1	0.720	0.080	**0.96**	A	**A**
LA	2	0.800	0.080	**1.06**	A	**A**
LA	3	0.820	0.080	**1.09**	A	**A**
LH	1	0.750	0.080	**1.00**	A	**A**
LL	1	0.780	0.140	**1.04**	A	**A**
ML	1	0.810	0.060	**1.08**	A	**A**
NF	1	0.710	0.030	**0.95**		**A**
NZ	1	0.770	0.050	**1.02**	A	**A**
NZ	2	0.790	0.050	**1.05**	A	**A**
OD	1	0.740	0.080	**0.99**	A	**A**
RE	1	0.690	0.070	**0.92**	A	**A**
RI	1	0.640	0.040	**0.86**	A	**W**
SK	1	1.090	0.050	**1.45**		**N**
SN	1	0.810	0.080	**1.09**	A	**A**
SR	1	0.790	0.130	**1.05**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: PU239

EML Value: 0.750
EML Error: 0.040

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
SW	1	0.650	0.050	**0.86**	N	**W**
TE	1	0.710	0.100	**0.94**	A	**A**
TM	1	0.800	0.030	**1.07**	A	**A**
TN	1	0.810	0.050	**1.09**	A	**A**
TO	1	0.800	0.200	**1.06**	A	**A**
TW	1	0.760	0.020	**1.01**	A	**A**
TX	1	0.800	0.030	**1.07**	A	**A**
UC	1	0.690	0.100	**0.91**	W	**A**
UK	1	0.910	0.230	**1.21**	A	**W**
UP	1	0.680	0.130	**0.91**		**A**
UY	1	0.770	0.090	**1.03**	N	**A**
WA	1	0.370	0.050	**0.49**	A	**N**
WC	1	0.830	0.140	**1.11**	A	**A**
WI	1	0.720	0.040	**0.96**	A	**A**
YA	1	0.810	0.020	**1.08**	A	**A**

Total Number Reported: 60

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: SR 90

EML Value: 2.940
EML Error: 0.180

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AC	1	3.360	0.130	**1.14**		**A**
AF	1	20.190	0.500	**6.86**	W	**N**
AG	1	2.860	0.740	**0.97**	A	**A**
AN	1	3.050	0.040	**1.03**	A	**A**
AR	1	2.080	0.520	**0.70**	A	**N**
AU	1	2.990	0.340	**1.01**	A	**A**
BC	1	2.970	0.340	**1.01**	A	**A**
BE	1	3.030	0.390	**1.03**	A	**A**
BL	1	3.200	0.700	**1.08**	A	**A**
BL	2	3.260	1.330	**1.10**	A	**A**
BM	1	3.040	0.240	**1.03**	A	**A**
BN	1	3.000	0.160	**1.02**	W	**A**
BN	2	3.170	0.160	**1.07**	W	**A**
BN	3	3.410	0.180	**1.15**	W	**A**
BP	1	2.720	0.150	**0.92**	A	**A**
BU	1	3.400	0.300	**1.15**		**A**
BX	1	2.990	0.590	**1.01**	A	**A**
CH	1	3.040	0.240	**1.03**	W	**A**
CL	1	3.700	1.100	**1.25**	A	**A**
DC	1	2.920	0.420	**0.99**	A	**A**
DP	1	2.700	0.700	**0.91**	A	**A**
DP	2	3.200	0.730	**1.08**	A	**A**
EG	1	3.700	0.000	**1.25**	A	**A**
EI	1	3.470	0.270	**1.18**	A	**A**
EP	1	3.490	0.730	**1.18**	A	**A**
ES	1	8.130	2.370	**2.76**	A	**N**
GA	1	2.000	0.320	**0.68**	A	**N**
GC	1	2.720		**0.92**		**A**
GE	1	2.600	1.500	**0.88**	A	**A**
GP	1	20.000	3.000	**6.80**	W	**N**
GT	1	2.500	1.000	**0.85**	A	**W**
ID	1	2.620	0.130	**0.89**	A	**A**
IE	1	3.400	0.510	**1.15**	A	**A**
IN	1	3.400	0.200	**1.15**	A	**A**
IS	1	1.330	0.270	**0.45**	N	**N**
IT	1	3.000	0.200	**1.02**	A	**A**
KA	1	2.840	0.600	**0.96**	A	**A**
LH	1	3.060	0.190	**1.04**	W	**A**
MH	1	3.160	0.300	**1.07**		**A**
NA	1	2.200	0.480	**0.74**	N	**W**
NZ	1	3.100	0.100	**1.05**	A	**A**
OD	1	2.670	0.360	**0.90**	A	**A**
RE	1	2.640	0.210	**0.89**	A	**A**
RI	1	2.990	0.380	**1.01**	A	**A**
SR	1	2.810	1.020	**0.95**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: SR 90

EML Value: 2.940
EML Error: 0.180

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
SW	1	6.290	0.370	**2.13**	A	**N**
TE	1	3.500	0.700	**1.19**	A	**A**
TM	1	2.710	0.240	**0.92**	A	**A**
TN	1	3.200	0.130	**1.08**	A	**A**
TO	1	2.700	0.300	**0.91**	A	**A**
TP	1	2.870	0.310	**0.97**	A	**A**
TW	1	3.000	0.300	**1.02**	A	**A**
TX	1	3.230	0.440	**1.09**	A	**A**
UP	1	3.100	0.570	**1.05**		**A**
UY	1	3.140	0.400	**1.06**	A	**A**
WA	1	3.070	0.240	**1.04**	A	**A**
WC	1	3.140	0.500	**1.06**	A	**A**
WV	1	3.460	0.280	**1.17**	A	**A**
YA	1	2.840	0.370	**0.96**	A	**A**

Total Number Reported: 59

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: U BQ

EML Value: 0.480
EML Error: 0.030

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	0.490	0.060	**1.03**	A	**A**
AI	1	0.550	0.030	**1.15**	N	**A**
AM	1	0.960	0.110	**2.00**	W	**N**
AR	1	0.610	0.060	**1.27**		**W**
BL	1	0.520	0.010	**1.10**	A	**A**
BL	2	0.530	0.000	**1.10**	A	**A**
BU	1	0.610	0.060	**1.27**		**W**
CH	1	0.510	0.008	**1.07**	A	**A**
CL	1	0.390	0.080	**0.81**	W	**W**
FR	1	0.490	0.090	**1.02**		**A**
GP	1	1.300		**2.70**	A	**N**
ID	1	0.580	0.030	**1.20**	A	**A**
IN	1	0.570	0.090	**1.18**		**A**
TE	1	0.460	0.100	**0.95**	W	**A**
TX	1	0.590	0.040	**1.23**		**W**
UK	1	0.410	0.130	**0.86**	A	**A**
UP	1	0.520	0.190	**1.10**		**A**
UY	1	0.510	0.090	**1.06**	W	**A**
WA	1	0.520	0.060	**1.10**	A	**A**

Total Number Reported: 19

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: U UG

EML Value: 0.020
EML Error: 0.001

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AC	1	20.800	0.400	**.**		**N**
AF	1	34.450	13.900	**.**	N	**N**
AG	1	19.900	2.800	**.**	W	**N**
AR	1	0.010	0.001	**0.89**	N	**A**
BE	1	0.020	0.000	**1.00**	A	**A**
BL	1	0.020		**1.07**	A	**A**
BL	2	0.020	0.000	**1.10**	A	**A**
BQ	1	2.980	0.060	**.**	W	**N**
CA	1	0.020	0.010	**1.35**	W	**N**
CH	1	21.400	1.030	**.**	A	**N**
CZ	1	0.020	0.001	**1.01**	N	**A**
DC	1	0.010	0.002	**0.94**	A	**A**
ES	1	****.***	***.***	**.**	A	**N**
GA	1	0.020	0.002	**1.20**	A	**W**
GE	1	0.020	0.002	**1.05**	A	**A**
GS	1	0.010	0.000	**0.93**	A	**A**
IE	1	0.020	0.001	**1.00**	A	**A**
IS	1	0.010	0.005	**0.94**	W	**A**
IT	1	0.020	0.000	**1.03**	A	**A**
KA	1	0.020	0.001	**1.04**	A	**A**
LA	1	0.010	0.010	**0.50**	W	**N**
LL	1	0.020		**1.01**	A	**A**
OU	1	0.020		**1.21**		**W**
RI	1	0.010	0.000	**0.87**	A	**W**
SA	1	0.020	0.002	**1.00**		**A**
SK	1	0.020	0.003	**1.05**		**A**
SW	1	0.020	0.000	**1.11**		**A**
TM	1	0.010	0.001	**0.95**	A	**A**
TN	1	0.010	0.002	**0.66**	A	**N**
TO	1	0.020	0.001	**1.00**	A	**A**
UC	1	0.020		**1.00**	N	**A**
UP	1	0.020	0.002	**1.05**	A	**A**
YA	1	0.020	0.001	**1.06**	A	**A**
YP	1	0.010	0.001	**0.99**	A	**A**

Total Number Reported: 34

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: U234

EML Value: 0.230
EML Error: 0.020

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	0.250	0.070	**1.08**	A	**A**
AM	1	0.490	0.070	**2.13**	N	**N**
AN	1	0.280	0.020	**1.22**	A	**W**
AR	1	0.250	0.040	**1.10**	A	**A**
AU	1	0.260	0.040	**1.13**	A	**A**
BC	1	0.410	0.060	**1.78**	W	**N**
BE	1	0.240	0.030	**1.04**	A	**A**
BL	1	0.260	0.000	**1.16**	A	**A**
BL	2	0.260	0.007	**1.16**	A	**A**
BM	1	0.250	0.050	**1.10**	A	**A**
BX	1	0.350	0.060	**1.53**	W	**N**
CH	1	0.250	0.003	**1.12**	A	**A**
CL	1	0.190	0.080	**0.82**	A	**W**
DC	1	0.290	0.060	**1.29**	A	**W**
EG	1	0.240	0.000	**1.04**		**A**
FR	1	0.240	0.030	**1.06**		**A**
GA	1	0.310	0.020	**1.34**	A	**W**
GE	1	0.250	0.040	**1.08**	A	**A**
GP	1	0.610	0.140	**2.65**	A	**N**
IE	1	0.240	0.020	**1.06**	A	**A**
IT	1	0.250	0.020	**1.08**	A	**A**
LH	1	0.340	0.050	**1.47**	W	**N**
LL	1	0.260	0.040	**1.16**	A	**A**
MH	1	0.240	0.030	**1.04**		**A**
ML	1	0.270	0.030	**1.17**	A	**A**
NA	1	0.340	0.040	**1.47**	A	**N**
NF	1	0.240	0.040	**1.05**		**A**
NZ	1	0.250	0.050	**1.08**	A	**A**
NZ	2	0.280	0.050	**1.21**	A	**W**
OD	1	0.260	0.020	**1.15**	A	**A**
OU	1	0.290	0.003	**1.29**		**W**
RE	1	0.250	0.030	**1.10**	A	**A**
SK	1	0.250	0.040	**1.08**		**A**
SN	1	0.270	0.020	**1.18**		**A**
SR	1	0.260	0.060	**1.13**	A	**A**
TM	1	0.270	0.020	**1.17**	A	**A**
TN	1	0.270	0.030	**1.20**	A	**A**
TO	1	0.280	0.130	**1.24**	A	**W**
TW	1	0.290	0.020	**1.26**	W	**W**
TX	1	0.270	0.010	**1.19**	W	**A**
UP	1	0.230	0.170	**1.01**		**A**
WA	1	0.240	0.040	**1.06**	A	**A**
WC	1	0.270	0.030	**1.19**	A	**A**
WI	1	0.240	0.040	**1.04**	A	**A**
YA	1	0.270	0.010	**1.19**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: U234

EML Value: 0.230
EML Error: 0.020

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation

Total Number Reported: 45

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: U238

EML Value: 0.240
EML Error: 0.010

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
AG	1	0.230	0.040	**0.97**	A	**A**
AM	1	0.480	0.060	**2.00**	N	**N**
AN	1	0.270	0.020	**1.13**	A	**A**
AR	1	0.260	0.040	**1.10**	A	**A**
AU	1	0.240	0.040	**1.02**	A	**A**
BC	1	0.250	0.050	**1.05**	W	**A**
BE	1	0.250	0.030	**1.04**	A	**A**
BL	1	0.260	0.000	**1.09**	A	**A**
BL	2	0.260	0.006	**1.08**	A	**A**
BM	1	0.210	0.040	**0.90**	A	**A**
BP	1	0.530	0.010	**2.21**		**N**
BX	1	0.250	0.060	**1.07**	W	**A**
CH	1	0.250	0.005	**1.05**	A	**A**
CL	1	0.200	0.080	**0.83**	A	**W**
DC	1	0.250	0.050	**1.07**	A	**A**
EG	1	0.250	0.000	**1.07**		**A**
FR	1	0.230	0.040	**0.97**		**A**
GA	1	0.290	0.020	**1.20**	A	**W**
GE	1	0.250	0.040	**1.05**	A	**A**
GP	1	0.620	0.140	**2.58**	A	**N**
GT	1	0.150	0.040	**0.62**	A	**N**
IE	1	0.240	0.010	**1.02**	A	**A**
IT	1	0.270	0.020	**1.12**	A	**A**
LH	1	0.290	0.050	**1.20**	W	**W**
LL	1	0.250	0.040	**1.05**	A	**A**
MH	1	0.270	0.040	**1.12**		**A**
ML	1	0.270	0.030	**1.12**	A	**A**
NA	1	0.310	0.040	**1.29**	W	**W**
NF	1	0.240	0.040	**1.00**		**A**
NZ	1	0.260	0.050	**1.08**	A	**A**
NZ	2	0.280	0.030	**1.16**	A	**W**
OD	1	0.240	0.020	**1.02**	A	**A**
OU	1	0.290	0.005	**1.22**		**W**
RE	1	0.250	0.030	**1.07**	A	**A**
SK	1	0.250	0.040	**1.04**		**A**
SN	1	0.270	0.020	**1.15**		**A**
SR	1	0.250	0.060	**1.04**	A	**A**
TM	1	0.240	0.020	**1.03**	A	**A**
TN	1	0.240	0.030	**1.02**	A	**A**
TO	1	0.300	0.150	**1.28**	A	**W**
TW	1	0.300	0.020	**1.25**	W	**W**
TX	1	0.290	0.010	**1.23**	W	**W**
UP	1	0.290	0.090	**1.22**		**W**
WA	1	0.260	0.040	**1.10**	A	**A**
WC	1	0.270	0.030	**1.15**	A	**A**

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

QAP 47 Results by Nuclide

Matrix: WA Water
Radionuclide: U238

EML Value: 0.240
EML Error: 0.010

Labcode	Test #	Reported Value	Reported Error	Reported EML	QAP 46 Evaluation	Evaluation
WI	1	0.220	0.040	**0.91**	A	**A**
YA	1	0.260	0.010	**1.09**	A	**A**

Total Number Reported: 47

Units for matrices: AI=Bq/filter SO or VE=Bq/kg WA=Bq/L Values for elemental uranium are reported in µg/filter, g or mL.

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable pCi/g or mL = Bq x 0.027

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

Participating Laboratories in EML QAP47

Laboratories Reporting Data

Code	Laboratory Name
AC	Analytical Chemistry Laboratory Chemical Technology Div., Argonne, IL
AF	AL/OEBA , Brooks AFB, TX
AG	Paragon Analytics, Inc. , Fort Collins, CO
AI	Nuclear Technology Services, Inc. Radiochemistry Lab, Roswell, GA
AM	American Radiation Services, Inc. , Baton Rouge, LA
AN	Argonne Nat'l Laboratory ESH, Bldg 200, Rm. F109, Argonne, IL
AR	Accu-Labs Research Inc. , Golden, CO
AU	ORISE EESD/ESSAP PO Box 117, Oak Ridge, TN
AW	Argonne National Laboratory , Idaho Falls, ID
BA	Westinghouse Electric Corp. Bettis Atomic Power Lab, West Mifflin, PA
BC	Babcock & Wilcox MC #42 Naval Nuclear Fuel Division, Lynchburg, VA
BE	RUST Geotech , Grand Junction, CO
BL	Barringer Laboratories Inc. , Golden, CO
BM	Battelle Memorial Institute , Columbus, OH
BN	Brookhaven Nat'l Laboratory Bldg. #535 A, Upton, NY
BP	Battelle PNNL , Richland, WA
BQ	Becquerel Laboratories Inc. , Mississauga, Ontario, Canada
BR	US Army Research Laboratory Attn: AMSRL-OP-AP-RK(Richard M, Aberdeen Proving Ground, MD
BS	B&W Nuclear Envir. Services Fed-EX address, Leechburg, PA
BU	Autoridad Regulatoria , Buenos Aires, Argentina
BX	B&W Nuclear Environmental Services Nuclear Environmental Labs, Lynchburg, VA
CA	Atomic Energy Control Board , Ottawa, K1P 5S9, CANADA
CH	California State Dept. Health Serv. Sanitation & Radiation Laborat, Berkeley, CA
CL	Core Laboratories , Casper, WY
CN	China Institute for Radiation Protect PO Box 120, Shanxi, China
CO	Bedford Institute of Oceanography Marine Chemistry Department, P, Dartmouth. Nova Scotia, Cana
CR	Laboratorio de Fisica Nuclear Aplicad Escuela de Fisica, San Jose, Costa Rica
CS	Boeing North American Inc. Rad. Protection T100, Canoga Park, CA
CZ	ACZ Laboratories, Inc. , Steamboat Springs, CO
DC	Datachem Laboratories , Salt Lake City, UT
DH	Duke Engineering Services Hanford PO BOX 350, Richland, WA
DP	Duke Power Co, Env Center/MG03A2 Radiological & Environmental S, Huntersville, NC
EG	TRA-MTR604 LAB 124 ATTN: Anita Freeman 208-533-41, Scoville, ID
EI	Argonne National Laboratory Building 211, Argonne, IL
EP	US EPA-LV Mail Stop/ RSD , Las Vegas, NV
ES	Environmental Sci. & Engr., Inc. Inorganic Analyt.Chem., Gainesville, FL
FG	FGL Environmental , Santa Paula, CA
FJ	The University of the South Pacific , Suva, Fiji Islan
FL	Dept of Health & Rehab. Serv. Office of Rad. Control, Orlando, FL
FM	Office of Radiation Control Mobile Emergency Radiological, Orlando, FL
FN	Fermi Lab Shipping and Receiving Departm, Batavia, IL
FR	CEA/DIRCEN Serv. Mixte de Surv. Rad. et B, F-91311 Montlhery, France
FS	Florida State University Department of Oceanography, Tallahassee, FL
GA	Lockheed Martin Rm. 333 Bldg X710, Pikton, OH
GC	Georgia Power Company Environmental L , Smyrna, GA
GE	General Engineering Labs Environmental Physics, Inc., Charleston, SC
GP	GPU Nuclear Inc. Environmental Radioactivity La, Harrisburg, PA
GS	USGS/NWQL , Arvada, CO
GT	Georgia Institute of Technology Environmental Resources Center, Atlanta, GA
HC	Lawrence Livermore Laboratory Hazards Control, L383, Livermore, CA
HU	Water Resources Research Centre (VITU Danube River Basin Project, 1095 Budapest, Hungary

Participating Laboratories in EML QAP47

Laboratories Reporting Data

Code	Laboratory Name
ID	Av. Salvador Allende S/N, Recreio CEP 222780-160, Rio De Janeiro, Brasil
IE	IEA, Inc. , Morrisville, NC
IN	Lockheed Martin Idaho Technical Corp. Analytical Lab. Dept., Idaho Falls, ID
IS	Quanterra- St. Louis , Earth City, MO
IT	Quanterra- Richland Laboratory , Richland, WA
JL	Jefferson Lab Trailer 52B, Newport News, VA
KA	Knolls Atomic Power Lab, Bldg A-3 Rm 2401 River Road, Schenectady, NY
KO	Korea Institute of Nuclear Safety Department of Radiation Enviro, Taejon,305-338, Korea
LA	Analytical Services, CST-3 MS K484, Los Alamos, NM
LH	LAS Laboratories , Las Vegas, NV
LL	Lawrence Livermore Nat'l Lab Nuclear Chem. Div., Livermore, CA
LN	Los Alamos Nat'l Lab, ES&H , Los Alamos, NM
LV	UNLV, Dept of Health Physics Bigelow H. S. BLDG, RM 350, Las Vegas, NV
LW	Lawrence Livermore Nat'l Lab Nuclear Chem. Div., Livermore, CA
MA	ORNL Life Sciences Division BLDG 7710 MS 6379, Oak Ridge, TN
ME	Radiation Control Program , Jamaica Plain, MA
MH	Maine Health & Environmental Testing 221 State Street, Augusta, ME
ML	EG&G Mound Applied Technologies , Miamisburg, OH
MS	Manufacturing Sciences Corporation , Oak Ridge, TN
NA	USEPA NAREL , Montgomery, AL
ND	Department of Environmental Health & North Carolina State Universit, Raleigh, NC
NF	Nuclear Fuel Services , Erwin, TN
NP	JAF Environmental Laboratory New York Power Authority, Fulton, NY
NR	NRF Chemistry, S1W2 , Scoville, ID
NZ	National Radiation Laboratory , Christchurch, New Zealan
OB	OBG Laboratories , East Syracuse, NY
OD	ORNL, Radiobioassay Lab Bldg 4500-S Rm H-249 MS 6105, Oak Ridge, TN
OL	Oak Ridge National Laboratory Environmental Sciences Div., Oak Ridge, TN
OS	Oregon Health Division Radiation Controls Section, Portland, OR
OT	ORNLRadioactive Material Analysis Lab BLDG 2026, Room 129, Oak Ridge, TN
OU	Outreach Laboratory , Broken Arrow, OK
PO	Institute of Oceanology PAN , PL-81-712 Sopot, Poland
PR	Princeton Plasma Physics Lab REML, Princeton, NJ
RA	V. G. Khlopin Radium Institute , St. Petersburg, Russia
RC	Region I Laboratory U.S. NRC, King of Prussia, PA
RD	Radiation Detection Company , Sunnyvale, CA
RE	Bechtel Nevada Building 650, room 19, Mercury, NV
RI	Rust Federal Services of Hanford, Inc 222S Analytical Labs,PO Box 70, Richland, WA
RL	Thermo Hanford 3350 George Washington Way, Richland, WA
SA	Sandia Labs - Organization 7715 Radioactive Sample Diag. Prog., Albuquerque, NM
SB	SC Dept. of Health & Env. Control Rad , Columbia, SC
SK	Savannah River Plant Bldg 735-7A Rm 110, Aiken, SC
SL	Stanford Linear Accelerator Center Off. of Hlth Physics, MS 84, Menlow Park, CA
SN	Sanford Cohen Associates, Inc. , Montgomery, AL
SR	Savannah River Plant , Aiken, SC
SS	Savannah River Tech Center , Aiken, SC
SW	Southwest Research Institute, Div. 01 P.O. Drawer 28510, San Antonio, TX
TE	Teledyne Isotopes Midwest Lab , Northbrook, IL
TI	Teledyne Brown Engineering Environmental Services, Westwood, NJ
TM	Thermo NUtech , Albuquerque, NM
TN	TMA/NORCAL , Richmond, CA

Participating Laboratories in EML QAP47

Laboratories Reporting Data

Code	Laboratory Name
TO	Thermo NUtech Oak Ridge Laboratory, Oak Ridge, TN
TP	Taiwan Power Company , TAIPEI, TAIWAN, ROC
TR	University of Istanbul Nuclear Physics, Istanbul, Turkey
TW	Taiwan Radiation Monitoring Center Atomic Energy Council, Executi, Kaohsiung, Taiwan, ROC
TX	TDH/Laboratories , Austin, TX
TY	Scientific Production Association , Typhoon, Russia
UC	Lockheed Martin RM 60 BLDG C-710, Paducah, KY
UK	K-25 Plant Lockheed Martin Energy Systems, Oak Ridge, TN
UN	Directorate of Fisheries Research Ministry of Agriculture, Fishe, Lowestoft, Suffolk NR33, UK
UP	Y-12 Plant, ASO, QC Laboratory 113C Union Valley Road, Oak Ridge, TN
UY	Y-12 Plant, ASO, QC Laboratory 113C Union Valley Road, Oak Ridge, TN
WA	Environmental Radiation Lab Off. of Public Health Labs., Seattle, WA
WC	Fluor Daniel Hanford 6266/600 Area, MSIN S3-28, Richland, WA
WE	Westinghouse Electric Corp. Chemical & Materials Tech., Madison, PA
WI	Westinghouse Electric Corp. WIPP Site, Carlsbad, NM
WS	Weldon Springs Site , St. Charles, MO
WV	West Valley Nuclear Services Co, Inc MS 307, West Valley, NY
YA	Yankee Atomic Electric Company , Westboro, MA
YP	US Army Proving Ground ATTN: STEYP-RS-LS-MP, Yuma, AZ
YU	Institute for Occupational and Radiol , Belgrade, Yugoslavia

Total Reporting Labs: 122

Participating Laboratories in EML QAP47

Laboratories NOT Reporting Data

Code	Laboratory Name
AL	Ames Laboratory Safety, Health & Env. G40TASF, Ames, IA
AP	Aberdeen Test Center , Aberdeen Proving Ground, MD
BV	Department Radiofisica PO Box 3268, Buenos Aires, Argentina
CB	Environmental Radiation Hazards Divis Bureau of Radiation and Medica, Ottawa, Ontario, Canada
CE	Comision Chilena de Energia Nuclear (Casilla 188D, Santiago de Chile, Chile
CU	Auburn University at Montgomery Institute for Advanced Infroma, Montgomery, AL
CW	Carlsbad Environmental Monitoring Res , Carlsbad, NM
EL	Energy Laboratories, Inc. Radiochemistry Department, Casper, WY
EM	3M Center Building 2-3E-09, St. Paul, MN
FC	Marine Nat. Lab del Surv. de l'Enviro Sec. de Surv. Rad. du Port de, F-50115 Cherbourg, France
HS	RESL - USDOE , Idaho Falls, ID
IA	Bhabha Atomic Research Centre Regional Collaborating Centre, Trombay, Bombay 400 085, INDIA
IL	ISU Environmental Assessment Laborato Physical Science 103, Pocatello, ID
IR	Idaho National Engineering Laboratory , Scoville, ID
KR	Korea Atomic Energy Research Institut , Yusong, Taejon, Korea
LB	Lawrence Berkeley Lab UCB Bldg 75, Room 124, Berkeley, CA
LM	Los Alamos Nat'l Lab , Mercury, NV
MI	Massachusetts Inst. of Tech. , Middleton, MA
MO	CNESTEN , Rabat, Morocco
MR	Centre National de Radioprotection Ministry of Public Health, Sale, Morocco
MX	Centro Nuclear de Mexico , Salazar Edo. de Mexico, Mexico
NC	Head, Nuclear Services North Carolina State Universit, Raleigh, NC
NL	FERMCO Fernald Environmental Restorat 7400 Willey Road, Fernald, OH, Cincinnati, OH
NM	Environmental Evaluation Group 505 North Main Street, Carlsbad, NM
NS	State Lab of Public Health, Environme Environmental Radiochemistry B, Raleigh, NC
OK	Southwest Laboratory of Oklahoma , Broken Arrow, OK
PA	Mason & Hanger-Silas Mason Co., Inc. , Amarillo, TX
PE	Commision Permanente del Pacifico Sur Juan del la Fuente 743, Lima 18, Peru
PG	Comision Nacional de Energia Atomica Ciudad Universitaria San Loren, Asuncion, Paraguay
RB	Region III Laboratory U.S. NRC, Lisle, IL
RG	EG&G Rocky Flats Plant , Golden, CO
RK	Materials Laboratory Division Radiati SIORI-SEL, Building 210, room, Rock Island, IL
RM	Moscow State University Radiochemical Faculty, 119899 Moscow, Russia
RN	Hydochemical Institute , 344104 Rostov-on Don, Russia
RO	Radiation Hygiene Laboratory Institute of Hygiene and Publi, 76256 Bucharest 35, Romania
SC	Ceimic Corp. , San Diego, CA
SE	Shealy Environmental Services Inc. Overlook Business Center, Cayce, SC
TT	Tracer Technologies International, In , Cleveland, OH
TU	Department of Nuclear Engineering Texas A&M University, College Station, TX
VE	Departamento de Fisica Universidad Simon Bolivar, Caracas, Venezuela
WP	Washington Public Power Supply System , Richland, WA

Total Non-Reporting Labs: 41