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1. Because products, technical data, and technical assistance (i.e., services) provided to Customer by RESL may be subject to U.S. export control laws and regulations, (i) transactions with certain persons and companies and (ii) the export or reexport of certain types and levels of products, technical data, and services are prohibited or restricted.
2. Customer acknowledges that it is responsible for its own compliance with U.S. export control laws and regulations. Customer further agrees that it assumes the responsibility to obtain all necessary U.S. export licenses or other U.S. governmental authorizations, as well as all liability for the failure to do so.
3. Customer acknowledges that export control requirements may change and that the export or reexport of RESL products, technical data, and services without an export license or other appropriate governmental authorization may result in criminal and/or civil liability.
4. The obligations and requirements described herein shall survive the expiration or termination of any agreement or contract between RESL and Customer.

Query Results

Generated November 13, 2012

Lab Code	Lab Name
1 ADEM01	Alabama Department of Environmental Management
2 AFOH01	USAFSAM/OEHHL
3 ANLB01	Argonne National Laboratory
4 ANTE01	ALS Environmental
5 AREV01	AREVA - CMC
6 ARGO01	Idaho National Laboratory
7 ARPL01	Analytical Support Operations - Radiochemical Processing Lab
8 ARSL01	American Radiation Services LLC
9 AY1201	B&W Y-12, Analytical Chemistry Organization Laboratory
10 CDHS01	California Department of Public Health
11 CESL01	Lawrence Livermore National Laboratory - EMRL
12 CHMH01	222-S Laboratory
13 CMRC01	Carlsbad Environmental Monitoring and Research Center
14 CRCE99	Centre for Radiation, Chemical and Environmental Hazards
15 CSSL99	Chemistry Support Services
16 DEHS01	Department of Environmental Health & Safety
17 DINL99	Departamento Ingeniería Nuclear y Mecánica de Fluidos
18 DPHE01	Colorado Dept. of Public Health & Env. / Laboratory Services Div.
19 DRMG01	B&W Pantex - D&RMG
20 ERCL01	Washington State Public Health Laboratories
21 ERLG01	Environmental Radiation Laboratory
22 ERPD99	Ministry Of Health, Radiation Protection Department Lab
23 ESGL99	Environmental Scientifics Group
24 EULC01	EnergySolutions, LLC
25 FDHE01	Florida Dept of Health Environmental Laboratory
26 FDOH01	Florida Dept. of Health, Mobile Environmental Radiological Lab
27 FMEC99	Foods and Water Laboratories Center
28 GENE01	GEL Laboratories, LLC
29 GPCL01	Georgia Power Company Environmental Laboratory
30 HECR01	SC Dept. Health and Environmental Control Radiological Laboratory
31 HERR01	Washington Closure Hanford
32 IAEA99	International Atomic Energy Agency
33 ISUP01	ISU - Department of Physics/Health Physics/EAL
34 JAEC99	Radiation Measurements Laboratory
35 JLNN01	Jefferson Laboratory
36 JNRC99	Jordan Nuclear Regulatory Commission
37 KDHE01	Kansas Dept. of Health & Environment
38 KUFS99	Center for Research in Environmental Radiation
39 LAEC99	Lebanese Atomic Energy Commission - Environmental Radiation
40 LANL01	Los Alamos National Laboratory
41 LAWRO1	LAWRENCE BERKELEY NATIONAL LABORATORY
42 LDRA99	Laboratori de Radiologia Ambiental-Universitat de Barcelona
43 LOCK01	AMWTP Analytical Chemistry Laboratory
44 LOCK03	Advanced Test Reactor (ATR) Complex Radioanalytical Laboratory
45 MAHP59	Materials Assessment and Health Physics Group
46 MART01	Fluor B&W Ports Analytical Laboratory
47 MART02	United States Enrichment Corporation
48 MART03	Radioactive Material Analysis Laboratory

49	MDPH01	MDPH-Radiation Control Program
50	MSDH01	Mississippi State Dept of Health
51	NARL01	National Air and Radiation Environmental Laboratory
52	NARL02	USEPA - NAREL - MERL
53	NCNS99	National Center for Nuclear Sciences and Technologies
54	NESI01	B&W Technical Services-Radioisotope & Analytical Chemistry Labora
55	NJDH01	New Jersey Dept. of Health, PHEL, ECLS
56	NOCS99	National Oceanography Centre, Southampton
57	ODHL01	Ohio Department of Health Laboratory
58	ORIS01	ORISE/IEAV
59	OTLI01	Outreach Technologies, Inc.
60	QUAN01	TestAmerica St. Louis
61	QUAN03	TestAmerica
62	RMCL99	Royal Scientific Society - Radiation Protection Lab
63	RPSC01	Radiation Protection Service
64	RSAL01	RSA Laboratories, Inc.
65	RSIR99	Instituto de Radioprotecao e Dosimetria - IRD/CNEN
66	SANC99	RadioAnalysis, South Africa Nuclear Energy Corp.
67	SEML01	SRS Environmental Monitoring Laboratory
68	SNRC99	Soreq NRC
69	SOUT01	Southwest Research Institute
70	SRPD01	Sandia National Laboratories, Radiation Protection Sample Diagnostic
71	TDHL01	Texas Department of State Health Services Laboratory
72	TELE01	TELEDYNE BROWN ENGINEERING - ENVIRONMENTAL SERVICE
73	TELE02	Environmental, Inc., Midwest Lab
74	TMA001	EBERLINE SERVICES OAK RIDGE LABORATORY
75	TMAR01	Eberline Analytical Corp. Richmond CA Lab
76	URSL01	UNLV Radioanalytical Services Laboratory
77	USED99	National Center for Nuclear Energy, Sciences and Techniques
78	WEST03	Waste Sampling and Characterization Facility, MSA
79	WEST04	PACE ANALYTICAL SERVICES, PITTSBURGH
80	WIPH01	WI, DPH, Radiation Protection Section
81	WIPP01	WIPP Laboratories
82	WSHL01	Wisconsin State Laboratory of Hygiene
83	WVPL01	WVDP Radiation Protection Lab
84	YPGA01	US Army Yuma Proving Ground / Material Analysis Lab

RdF27 Laboratories Not Reporting Data

1	ADEM01	Alabama Department of Environmental Management
2	DRMG01	B&W Pantex - D&RMG
3	HERR01	Washington Closure Hanford
4	RMCL99	Royal Scientific Society - Radiation Protection Lab
5	RSAL01	RSA Laboratories, Inc.



Setup and Process Data

MAPEP-12-RdF27

Analyte	Ref. Value	Total Ref.	Uncertainty	F.P.	S.E.
Inorganic					
Uranium-235	0.0148		0.0006		
Uranium-238	8.0		0.2		
Uranium-Total	8.0		0.2		
Radiological					
Cobalt-57	1.91		0.04		
Uranium-234/233	0.0155		0.0005		
Uranium-238	0.099		0.003		
Americium-241	0.0780		0.0014		
Cesium-134	2.74		0.04		
Cesium-137				✓	
Cobalt-60	1.728		0.011		
Manganese-54	2.36		0.05		
Plutonium-238	0.0625		0.0011		
Plutonium-239/240	0.00081		0.00024	✓	
Strontium-90	1.03		0.02		
Zinc-65				✓	



Sample Statistical Summary

MAPEP-12-RdF27

Analyte	T(1)	A(2)	Grand ⁽³⁾ Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Inorganic						Units: (ug/sample)	
Uranium-235	7	7	0.0151	0.0007	0.0148	0.0006	0.0104 - 0.0192
Uranium-238	7	7	7.5	0.4	8.0	0.2	5.6 - 10.4
Uranium-Total	8	8	7.4	0.4	8.1	0.2	5.7 - 10.5
Analyte	T(1)	A(2)	Grand ⁽³⁾ Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Radiological						Units: (Bq/sample)	
Americium-241	52	42	0.0769	0.0100	0.0780	0.0014	0.0546 - 0.1014
Cesium-134	75	70	2.50	0.27	2.74	0.04	1.92 - 3.56
Cesium-137	65	62					False Positive Test
Cobalt-57	76	72	1.93	0.19	1.91	0.04	1.34 - 2.48
Cobalt-60	77	75	1.777	0.168	1.728	0.011	1.210 - 2.246
Manganese-54	76	72	2.47	0.19	2.36	0.05	1.65 - 3.07
Plutonium-238	40	37	0.0623	0.0074	0.0625	0.0011	0.0438 - 0.0813
Plutonium-239/240	40	37	0.00202	0.00212	0.00081	0.00024	Sensitivity Evaluatation
Strontium-90	35	31	0.98	0.11	1.03	0.02	0.72 - 1.34
Uranium-234/233	36	26	0.0143	0.0019	0.0141	0.0004	0.0099 - 0.0183
Uranium-238	38	36	0.091	0.009	0.100	0.003	0.070 - 0.130
Zinc-65	65	61					False Positive Test

Note: (1) T = Total number of laboratories reporting analyte.
(2) A = Number of laboratories with 'Acceptable' performance.
(3) Mean excludes values derived as total metals and values indicated as "Not Acceptable".

Other Flags:

A = Result acceptable Bias <=20%

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Flag Summary Report

Study: MAPEP-12-RdF27: Radiological air filter ▼

Inorganic

Analyte	A	W	RW	N
Uranium-Total	8			
Uranium-235	7			
Uranium-238	7			
Radiological				
Analyte	A	W	RW	N
Americium-241	36	6		10
Cesium-134	58	12		5
Cesium-137	62			13
Cobalt-57	67	5		4
Cobalt-60	69	6		2
Manganese-54	70	2		4
Plutonium-238	33	4		3
Plutonium-239/240	37			3
Strontium-90	28	3		4
Uranium-234/233	22	7		7
Uranium-238	33	3		2
Zinc-65	61			14



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(AFOH01) USAFSAM/OEHHL

2510 Fifth Street, Area B

Wright-Patterson AFB, OH 45433-7913

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	1.84	2.74	N		-32.8	1.92 - 3.56	0.03	L	
Cesium-137	-0.0006		A			False Positive Test	0.0180		
Cobalt-57	1.71	1.91	A		-10.5	1.34 - 2.48	0.03	L	
Cobalt-60	1.59	1.728	A		-8.0	1.210 - 2.246	0.03	L	
Manganese-54	2.27	2.36	A		-3.8	1.65 - 3.07	0.04	L	
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	-0.0186		A			False Positive Test	0.0218		

Radiological Reference Date: August 1, 2012

Other Flags:

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N = Result not acceptable Bias > 30%

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Notes:

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(ANLB01) Argonne National Laboratory

9700 S. Cass Ave

Argonne, IL 60439

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148			0.0104 - 0.0192				
Uranium-238	NR	8.0			5.6 - 10.4				
Uranium-Total	NR	8.1			5.7 - 10.5				

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.074	0.0780	A				-5.1	0.0546 - 0.1014	0.006
Cesium-134	2.21	2.74	A				-19.3	1.92 - 3.56	0.26
Cesium-137	0.05	A			False Positive Test			0.12	
Cobalt-57	1.85	1.91	A				-3.1	1.34 - 2.48	0.1
Cobalt-60	1.83	1.728	A				5.9	1.210 - 2.246	0.31
Manganese-54	2.31	2.36	A				-2.1	1.65 - 3.07	0.18
Plutonium-238	0.057	0.0625	A				-8.8	0.0438 - 0.0813	0.0081
Plutonium-239/240	0.005	0.00081	A	(17)	Sensitivity Evaluation			0.002	
Strontium-90	1.020	1.03	A				-1.0	0.72 - 1.34	0.0433
Uranium-234/233	0.016	0.0141	A				13.5	0.0099 - 0.0183	0.003
Uranium-238	0.082	0.100	A				-18.0	0.070 - 0.130	0.006
Zinc-65	-0.41	A			False Positive Test			0.64	

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27(ANTE01) ALS Environmental
225 Commerce Drive
Fort Collins, CO 80524-1416

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0678	0.0780	A		-13.1	0.0546 - 0.1014	0.0068		
Cesium-134	2.38	2.74	A		-13.1	1.92 - 3.56	0.15		
Cesium-137	-0.020		A			False Positive Test	0.026		
Cobalt-57	1.93	1.91	A		1.0	1.34 - 2.48	0.12		
Cobalt-60	1.61	1.728	A		-6.8	1.210 - 2.246	0.10		
Manganese-54	2.23	2.36	A		-5.5	1.65 - 3.07	0.14		
Plutonium-238	0.0619	0.0625	A		-1.0	0.0438 - 0.0813	0.0063		
Plutonium-239/240	0.0022	0.00081	A	(17)		Sensitivity Evaluation	0.0008		
Strontium-90	0.99	1.03	A		-3.9	0.72 - 1.34	0.12		
Uranium-234/233	0.0131	0.0141	A		-7.1	0.0099 - 0.0183	0.0021		
Uranium-238	0.0896	0.100	A		-10.4	0.070 - 0.130	0.0083		
Zinc-65	-0.007		A			False Positive Test	0.060		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(AREV01) AREVA - CMC
 1724 Mount Athos Road CN-70
 Lynchburg, VA 24504

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.90	2.74	A		5.8	1.92 - 3.56	0.067	L	
Cesium-137	-0.0838		A			False Positive Test	0.16		
Cobalt-57	2.11	1.91	A		10.5	1.34 - 2.48	0.077		
Cobalt-60	2.22	1.728	W		28.5	1.210 - 2.246	0.0679		
Manganese-54	2.55	2.36	A		8.1	1.65 - 3.07	0.109		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.349		A			False Positive Test	0.368		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(ARGO01) Idaho National Laboratory

INL, Materials and Fuels Complex

Idaho Falls, ID 83415

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.26E+00	2.74	A		-17.5	1.92 - 3.56	3.74E-02	L	
Cesium-137	7.01E-02		N	(1)		False Positive Test	1.31E-02		
Cobalt-57	1.90E+00	1.91	A		-0.5	1.34 - 2.48	5.79E-02		
Cobalt-60	1.77E+00	1.728	A		2.4	1.210 - 2.246	3.52E-02	L	
Manganese-54	2.49E+00	2.36	A		5.5	1.65 - 3.07	7.90E-02		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	3.22E-02		A			False Positive Test	2.46E-02		

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27(ARPL01) Analytical Support Operations - Radiochemical Processing Lab
PO Box 999
Richland, WA 99354

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.074	0.0780	A		-5.1	0.0546 - 0.1014	0.003		
Cesium-134	2.36	2.74	A		-13.9	1.92 - 3.56	0.22		
Cesium-137	-0.002		A			False Positive Test	0.007		
Cobalt-57	1.96	1.91	A		2.6	1.34 - 2.48	0.03 L		
Cobalt-60	1.69	1.728	A		-2.2	1.210 - 2.246	0.10		
Manganese-54	2.32	2.36	A		-1.7	1.65 - 3.07	0.14		
Plutonium-238	0.063	0.0625	A		0.8	0.0438 - 0.0813	0.002		
Plutonium-239/240	0.0001	0.00081	A	(17)		Sensitivity Evaluation	0.0007		
Strontium-90	0.96	1.03	A		-6.8	0.72 - 1.34	0.10		
Uranium-234/233	0.012	0.0141	A		-14.9	0.0099 - 0.0183	0.001		
Uranium-238	0.091	0.100	A		-9.0	0.070 - 0.130	0.003		
Zinc-65	0.07		A			False Positive Test	0.06		

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (ARSL01) American Radiation Services LLC
 2609 North River Road
 Port Allen, LA 70767

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.088	0.0780	A		12.8	0.0546 - 0.1014	0.012		
Cesium-134	2.118	2.74	W		-22.7	1.92 - 3.56	0.083		
Cesium-137	-0.004		A			False Positive Test	0.015		
Cobalt-57	1.951	1.91	A		2.1	1.34 - 2.48	0.098		
Cobalt-60	1.756	1.728	A		1.6	1.210 - 2.246	0.050	L	
Manganese-54	2.533	2.36	A		7.3	1.65 - 3.07	0.100		
Plutonium-238	0.060	0.0625	A		-4.0	0.0438 - 0.0813	0.015	H	
Plutonium-239/240	0.003	0.00081	A	(17)		Sensitivity Evaluation	0.004		
Strontium-90	0.929	1.03	A		-9.8	0.72 - 1.34	0.095		
Uranium-234/233	0.020	0.0141	N		41.8	0.0099 - 0.0183	0.006	H	
Uranium-238	0.091	0.100	A		-9.0	0.070 - 0.130	0.013		
Zinc-65	0.001		A			False Positive Test	0.040		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27(AY1201) B&W Y-12, Analytical Chemistry Organization Laboratory
Y12, NSC, Bldg. 9995, Rm 142
Oak Ridge, TN 37831-8189

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.0148			0.0104 - 0.0192			
Uranium-238	NR	8.0			5.6 - 10.4			
Uranium-Total	NR	8.1			5.7 - 10.5			

Radiological						Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.066	0.0780	A		-15.4	0.0546 - 0.1014	0.014	H	
Cesium-134	NR	2.74				1.92 - 3.56			
Cesium-137	0.00014	A			False Positive Test			0.063	
Cobalt-57	1.99	1.91	A		4.2	1.34 - 2.48	0.11		
Cobalt-60	1.75	1.728	A		1.3	1.210 - 2.246	0.12		
Manganese-54	2.50	2.36	A		5.9	1.65 - 3.07	0.21		
Plutonium-238	0.0577	0.0625	A		-7.7	0.0438 - 0.0813	0.012	H	
Plutonium-239/240	0.0009	0.00081	A	(17)	Sensitivity Evaluation			0.0026	
Strontium-90	0.992	1.03	A		-3.7	0.72 - 1.34	0.094		
Uranium-234/233	0.0166	0.0141	A		17.7	0.0099 - 0.0183	0.0054	H	
Uranium-238	0.082	0.100	A		-18.0	0.070 - 0.130	0.012		
Zinc-65	-0.04	A			False Positive Test			0.14	

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (CDHS01) California Department of Public Health
 Drinking Water & Radiation Lab.
 Richmond, CA 94804-6403

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0726	0.0780	A		-6.9	0.0546 - 0.1014	0.00637		
Cesium-134	2.70	2.74	A		-1.5	1.92 - 3.56	0.0320	L	
Cesium-137	0.00852		A			False Positive Test	0.0270		
Cobalt-57	2.29	1.91	A		19.9	1.34 - 2.48	0.0242	L	
Cobalt-60	1.91	1.728	A		10.5	1.210 - 2.246	0.0253	L	
Manganese-54	2.82	2.36	A		19.5	1.65 - 3.07	0.0313	L	
Plutonium-238	0.0614	0.0625	A		-1.8	0.0438 - 0.0813	0.00283		
Plutonium-239/240	0.000663	0.00081	A	(17)		Sensitivity Evaluation	0.000692		
Strontium-90	0.8296	1.03	A		-19.5	0.72 - 1.34	0.0640		
Uranium-234/233	0.0100	0.0141	W		-29.1	0.0099 - 0.0183	0.001654		
Uranium-238	0.0911	0.100	A		-8.9	0.070 - 0.130	0.004065		
Zinc-65	0.0318		A			False Positive Test	0.0657		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (CESL01) Lawrence Livermore National Laboratory - EMRL
 7000 East Avenue
 Livermore, CA 94551

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)				
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag			
Americium-241	NR	0.0780				0.0546 - 0.1014					
Cesium-134	NR	2.74				1.92 - 3.56					
Cesium-137	NR	N (11)				False Positive Test					
Cobalt-57	NR	1.91				1.34 - 2.48					
Cobalt-60	NR	1.728 N (28)				1.210 - 2.246					
Manganese-54	NR	2.36				1.65 - 3.07					
Plutonium-238	6.81e-02	0.0625 A				9.0	0.0438 - 0.0813		4.13e-03		
Plutonium-239/240	7.69e-04	0.00081 A				Sensitivity Evaluation			2.44e-04		
Strontium-90	NR	1.03				0.72 - 1.34					
Uranium-234/233	NR	0.0141				0.0099 - 0.0183					
Uranium-238	NR	0.100				0.070 - 0.130					
Zinc-65	NR	N (11)				False Positive Test					

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(CHMH01) 222-S Laboratory

P.O. Box 250, MS T6-10

Richland, WA 99352

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0147	0.0148	A		-0.7	0.0104 - 0.0192			
Uranium-238	7.24	8.0	A		-9.5	5.6 - 10.4			
Uranium-Total	7.25	8.1	A		-10.5	5.7 - 10.5			

Radiological						Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.258	0.0780	N		230.8	0.0546 - 0.1014	0.0316		
Cesium-134	2.53	2.74	A		-7.7	1.92 - 3.56	0.143		
Cesium-137	0.00136		A			False Positive Test	0.137		
Cobalt-57	1.96	1.91	A		2.6	1.34 - 2.48	0.125		
Cobalt-60	1.71	1.728	A		-1.0	1.210 - 2.246	0.107		
Manganese-54	2.49	2.36	A		5.5	1.65 - 3.07	0.157		
Plutonium-238	0.0607	0.0625	A		-2.9	0.0438 - 0.0813	0.00995		
Plutonium-239/240	0.00633	0.00081	A	(17)		Sensitivity Evaluation	0.00232		
Strontium-90	1.07	1.03	A		3.9	0.72 - 1.34	0.0867		
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	-0.231		A			False Positive Test	0.323		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (CMRC01) Carlsbad Environmental Monitoring and Research Center
 1400 University Dr.
 Carlsbad, NM 88220

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	2.82E-01	0.0780	N		261.5	0.0546 - 0.1014	4.23E-03	L	
Cesium-134	NR	2.74				1.92 - 3.56			
Cesium-137	NR					False Positive Test			
Cobalt-57	NR	1.91				1.34 - 2.48			
Cobalt-60	NR	1.728				1.210 - 2.246			
Manganese-54	NR	2.36				1.65 - 3.07			
Plutonium-238	6.26E-02	0.0625	A		0.2	0.0438 - 0.0813	4.78E-03		
Plutonium-239/240	9.07E-04	0.00081	A	(17)		Sensitivity Evaluation	5.07E-04		
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	NR					False Positive Test			

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(CRCE99) Centre for Radiation, Chemical and Environmental Hazards

Health Protection Agency

Didcot, OXON OX11 0RQ

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.0148				0.0104 - 0.0192		
Uranium-238	NR	8.0				5.6 - 10.4		
Uranium-Total	NR	8.1				5.7 - 10.5		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0720	0.0780	A		-7.7	0.0546 - 0.1014	0.0035	
Cesium-134	2.75	2.74	A		0.4	1.92 - 3.56	0.22	
Cesium-137	0.001		A			False Positive Test	0.04	
Cobalt-57	1.8	1.91	A		-5.8	1.34 - 2.48	0.14	
Cobalt-60	1.8	1.728	A		4.2	1.210 - 2.246	0.15	
Manganese-54	2.20	2.36	A		-6.8	1.65 - 3.07	0.17	
Plutonium-238	0.0615	0.0625	A		-1.6	0.0438 - 0.0813	0.003	
Plutonium-239/240	0.00024	0.00081	A	(17)		Sensitivity Evaluation	0.00024	
Strontium-90	NR	1.03				0.72 - 1.34		
Uranium-234/233	0.0146	0.0141	A		3.5	0.0099 - 0.0183	0.0008	
Uranium-238	0.0964	0.100	A		-3.6	0.070 - 0.130	0.0046	
Zinc-65	-0.04		A			False Positive Test	0.7	

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(CSSL99) Chemistry Support Services

Dounreay Site Restoration Limited

Dounreay, Caithness KW14 7TZ

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148					0.0104 - 0.0192		
Uranium-238	NR	8.0					5.6 - 10.4		
Uranium-Total	NR	8.1					5.7 - 10.5		

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	6.795E-02	0.0780	A		-12.9	0.0546 - 0.1014	1.41E-02	H	
Cesium-134	2.332E+00	2.74	A		-14.9	1.92 - 3.56	3.20E-01		
Cesium-137	1.782E-01		A			False Positive Test	8.91E-02		
Cobalt-57	1.864E+00	1.91	A		-2.4	1.34 - 2.48	2.04E-01		
Cobalt-60	1.889E+00	1.728	A		9.3	1.210 - 2.246	2.43E-01		
Manganese-54	2.451E+00	2.36	A		3.9	1.65 - 3.07	2.81E-01		
Plutonium-238	5.435E-02	0.0625	A		-13.0	0.0438 - 0.0813	9.48E-03		
Plutonium-239/240	5.484E-03	0.00081	A	(17)		Sensitivity Evaluation	3.49E-03		
Strontium-90	NR	1.03					0.72 - 1.34		
Uranium-234/233	NR	0.0141					0.0099 - 0.0183		
Uranium-238	NR	0.100					0.070 - 0.130		
Zinc-65	4.054E-01		A			False Positive Test	2.03E-01		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (DEHS01) Department of Environmental Health & Safety
 North Carolina State Univ.
 Raleigh, NC 27695-8007

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	1.97	2.74	W		-28.1	1.92 - 3.56	0.04	L	
Cesium-137	0.1		A			False Positive Test	0.1		
Cobalt-57	1.78	1.91	A		-6.8	1.34 - 2.48	0.04	L	
Cobalt-60	1.69	1.728	A		-2.2	1.210 - 2.246	0.04	L	
Manganese-54	2.38	2.36	A		0.8	1.65 - 3.07	0.07	L	
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.1		A			False Positive Test	0.1		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(DINL99) Departamento Ingeniería Nuclear y Mecánica de Fluidos

Alameda de Urquijo s/n

Bilbao, Vizcaya 48013

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.0148			0.0104 - 0.0192			
Uranium-238	NR	8.0			5.6 - 10.4			
Uranium-Total	NR	8.1			5.7 - 10.5			

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0743	0.0780	A		-4.7	0.0546 - 0.1014	0.0031	
Cesium-134	2.75	2.74	A		0.4	1.92 - 3.56	0.12	
Cesium-137	0.102		A		False Positive Test			0.102
Cobalt-57	1.93	1.91	A		1.0	1.34 - 2.48	0.09	
Cobalt-60	2.01	1.728	A		16.3	1.210 - 2.246	0.11	
Manganese-54	2.77	2.36	A		17.4	1.65 - 3.07	0.12	
Plutonium-238	0.0646	0.0625	A		3.4	0.0438 - 0.0813	0.00204	
Plutonium-239/240	0.000555	0.00081	A	(17)	Sensitivity Evaluation			0.000555
Strontium-90	0.229	1.03	N		-77.8	0.72 - 1.34	0.004	L
Uranium-234/233	0.0137	0.0141	A		-2.8	0.0099 - 0.0183	0.0006	
Uranium-238	0.0967	0.100	A		-3.3	0.070 - 0.130	0.0023	L
Zinc-65	0.239		A		False Positive Test			0.239

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(DPHE01) Colorado Dept. of Public Health & Env. / Laboratory Services Div.

8100 Lowry Blvd

Denver, CO 80230

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148			0.0104 - 0.0192				
Uranium-238	NR	8.0			5.6 - 10.4				
Uranium-Total	NR	8.1			5.7 - 10.5				

Radiological						Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.080	0.0780	A		2.6	0.0546 - 0.1014	0.005		
Cesium-134	2.05	2.74	W		-25.2	1.92 - 3.56	0.06	L	
Cesium-137	-0.04		A		False Positive Test				
Cobalt-57	0.25	1.91	N		-86.9	1.34 - 2.48	0.01		
Cobalt-60	1.56	1.728	A		-9.7	1.210 - 2.246	0.05		
Manganese-54	2.45	2.36	A		3.8	1.65 - 3.07	0.08		
Plutonium-238	0.067	0.0625	A		7.2	0.0438 - 0.0813	0.003		
Plutonium-239/240	0.0009	0.00081	A	(17)	Sensitivity Evaluation				
Strontium-90	0.98	1.03	A		-4.9	0.72 - 1.34	0.10		
Uranium-234/233	0.014	0.0141	A		-0.7	0.0099 - 0.0183	0.001		
Uranium-238	0.101	0.100	A		1.0	0.070 - 0.130	0.011		
Zinc-65	-0.08		A		False Positive Test				

Radiological Reference Date: August 1, 2012

Other Flags:

A = Result acceptable Bias <=20%

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RW = Report Warning

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Notes:

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (ERCL01) Washington State Public Health Laboratories
 1610 N.E. 150 th Srteet
 Shoreline, WA 98155-9701

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0139	0.0148	A		-6.1	0.0104 - 0.0192	0.0014		
Uranium-238	7.41	8.0	A		-7.4	5.6 - 10.4	0.74		
Uranium-Total	7.42	8.1	A		-8.4	5.7 - 10.5	0.74		

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.081	0.0780	A		3.8	0.0546 - 0.1014	0.0076		
Cesium-134	2.04	2.74	W		-25.5	1.92 - 3.56	0.08		
Cesium-137	0.003		A			False Positive Test	0.014		
Cobalt-57	2.52	1.91	N		31.9	1.34 - 2.48	0.05	L	
Cobalt-60	2.16	1.728	W		25.0	1.210 - 2.246	0.03	L	
Manganese-54	3.37	2.36	N		42.8	1.65 - 3.07	0.28		
Plutonium-238	0.07117	0.0625	A		13.9	0.0438 - 0.0813	0.0080		
Plutonium-239/240	0.0024	0.00081	A	(17)		Sensitivity Evaluation	0.0016		
Strontium-90	1.1	1.03	A		6.8	0.72 - 1.34	0.094		
Uranium-234/233	0.015	0.0141	A		6.4	0.0099 - 0.0183	0.0030		
Uranium-238	0.092	0.100	A		-8.0	0.070 - 0.130	0.0085		
Zinc-65	0.126		N	(1)		False Positive Test	0.034		

Radiological Reference Date: August 1, 2012

Other Flags:

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (ERLG01) Environmental Radiation Laboratory
 Georgia Institute of Tech.
 Atlanta, GA 30332

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	.07	0.0780	A		-10.3	0.0546 - 0.1014	.04	H	
Cesium-134	2.8	2.74	A		2.2	1.92 - 3.56	.3		
Cesium-137	.01		A			False Positive Test	.04		
Cobalt-57	2.2	1.91	A		15.2	1.34 - 2.48	.3		
Cobalt-60	1.9	1.728	A		10.0	1.210 - 2.246	.2		
Manganese-54	2.6	2.36	A		10.2	1.65 - 3.07	.3		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	.9	1.03	A		-12.6	0.72 - 1.34	.1		
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	.05		A			False Positive Test	.1		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (ERPD99) Ministry Of Health, Radiation Protection Department Lab
 Al-Awqaf Complex-Tower#12
 Sharq, Kuwait 656

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.461	2.74	A		-10.2	1.92 - 3.56	0.261		
Cesium-137	NR		N	(11)		False Positive Test			
Cobalt-57	2.212	1.91	A		15.8	1.34 - 2.48	0.227		
Cobalt-60	2.039	1.728	A		18.0	1.210 - 2.246	0.201		
Manganese-54	3.092	2.36	N		31.0	1.65 - 3.07	0.314		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	NR		N	(11)		False Positive Test			

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (ESGL99) Environmental Sciences Group
 Unit 12 Moorbrook
 DIdcot, Oxfordshire OX11 8QT

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.075	0.0780	A		-3.8	0.0546 - 0.1014	0.023	H	
Cesium-134	2.61	2.74	A		-4.7	1.92 - 3.56	0.12		
Cesium-137	-0.014		A			False Positive Test	0.032		
Cobalt-57	2.070	1.91	A		8.4	1.34 - 2.48	0.091		
Cobalt-60	1.90	1.728	A		10.0	1.210 - 2.246	0.12		
Manganese-54	2.58	2.36	A		9.3	1.65 - 3.07	0.14		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.044		A			False Positive Test	0.072		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(EULC01) EnergySolutions, LLC

I-80, Exit 46

Clive, UT 84029

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag		
Americium-241	.071632	0.0780	A			-8.2	0.0546 - 0.1014	.0270914 H		
Cesium-134	2.367	2.74	A			-13.6	1.92 - 3.56	.121		
Cesium-137	.0438	A				False Positive Test				
Cobalt-57	1.775	1.91	A			-7.1	1.34 - 2.48	.15		
Cobalt-60	1.686	1.728	A			-2.4	1.210 - 2.246	.103		
Manganese-54	2.322	2.36	A			-1.6	1.65 - 3.07	.185		
Plutonium-238	NR	0.0625					0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081					Sensitivity Evaluation			
Strontium-90	NR	1.03					0.72 - 1.34			
Uranium-234/233	NR	0.0141					0.0099 - 0.0183			
Uranium-238	NR	0.100					0.070 - 0.130			
Zinc-65	.204	A				False Positive Test				

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (FDHE01) Florida Dept of Health Environmental Laboratory
 PO Box 680069
 Orlando, FL 32868-0069

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.49	2.74	A		-9.1	1.92 - 3.56	0.19		
Cesium-137	-0.04		A			False Positive Test	0.05		
Cobalt-57	1.81	1.91	A		-5.2	1.34 - 2.48	0.16		
Cobalt-60	1.70	1.728	A		-1.6	1.210 - 2.246	0.14		
Manganese-54	2.56	2.36	A		8.5	1.65 - 3.07	0.22		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.03		A			False Positive Test	0.11		

Radiological Reference Date: August 1, 2012

Other Flags:

A = Result acceptable Bias <=20%

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27(FDOH01) Florida Dept. of Health, Mobile Environmental Radiological Lab
PO Box 680069
Orlando, FL 32868-0069

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.0148			0.0104 - 0.0192			
Uranium-238	NR	8.0			5.6 - 10.4			
Uranium-Total	NR	8.1			5.7 - 10.5			

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.0780			0.0546 - 0.1014			
Cesium-134	2.023	2.74	W		-26.2	1.92 - 3.56	0.038	L
Cesium-137	0.032		N	(1)	False Positive Test			0.001
Cobalt-57	1.783	1.91	A		-6.6	1.34 - 2.48	0.038	L
Cobalt-60	1.679	1.728	A		-2.8	1.210 - 2.246	0.041	L
Manganese-54	2.459	2.36	A		4.2	1.65 - 3.07	0.064	L
Plutonium-238	NR	0.0625			0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081			Sensitivity Evaluation			
Strontium-90	NR	1.03			0.72 - 1.34			
Uranium-234/233	NR	0.0141			0.0099 - 0.0183			
Uranium-238	NR	0.100			0.070 - 0.130			
Zinc-65	0.347		N	(1)	False Positive Test			0.031

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (FMEC99) Foods and Water Laboratories Center
 Ministry of Regional Municipalities and Water Resources
 Muscat, seeb 111

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.101	0.0780	W		29.5	0.0546 - 0.1014	0.001	L	
Cesium-134	2.804	2.74	A		2.3	1.92 - 3.56	0.002	L	
Cesium-137	NR		N	(11)		False Positive Test			
Cobalt-57	2.14	1.91	A		12.0	1.34 - 2.48	0.001	L	
Cobalt-60	1.768	1.728	A		2.3	1.210 - 2.246	0.001	L	
Manganese-54	2.55	2.36	A		8.1	1.65 - 3.07	0.003	L	
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	0.146	0.100	N		46.0	0.070 - 0.130	0.001	L	
Zinc-65	NR		N	(11)		False Positive Test			

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(GENE01) GEL Laboratories, LLC

2040 Savage Road

Charleston, SC 29407

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0154	0.0148	A		4.1	0.0104 - 0.0192			
Uranium-238	7.77	8.0	A		-2.9	5.6 - 10.4			
Uranium-Total	7.785	8.1	A		-3.9	5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0716	0.0780	A		-8.2	0.0546 - 0.1014	0.004		
Cesium-134	2.795	2.74	A		2.0	1.92 - 3.56	0.172		
Cesium-137	-0.016		A			False Positive Test	0.045		
Cobalt-57	2.265	1.91	A		18.6	1.34 - 2.48	0.136		
Cobalt-60	1.865	1.728	A		7.9	1.210 - 2.246	0.137		
Manganese-54	2.465	2.36	A		4.4	1.65 - 3.07	0.159		
Plutonium-238	0.061	0.0625	A		-2.4	0.0438 - 0.0813	0.004		
Plutonium-239/240	-0.002	0.00081	A	(17)		Sensitivity Evaluation	0.001		
Strontium-90	0.914	1.03	A		-11.3	0.72 - 1.34	0.119		
Uranium-234/233	0.009	0.0141	N		-36.2	0.0099 - 0.0183	0.002	H	
Uranium-238	0.087	0.100	A		-13.0	0.070 - 0.130	0.003		
Zinc-65	-0.154		A			False Positive Test	0.107		

Radiological Reference Date: August 1, 2012

Other Flags:

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (GPCL01) Georgia Power Company Environmental Laboratory
 5131 Maner Road
 Smyrna, GA 30080

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological						Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.1557	2.74	W		-21.3	1.92 - 3.56	0.16		
Cesium-137	NR		N	(11)		False Positive Test			
Cobalt-57	1.6916	1.91	A		-11.4	1.34 - 2.48	0.12		
Cobalt-60	1.5759	1.728	A		-8.8	1.210 - 2.246	0.10		
Manganese-54	2.2848	2.36	A		-3.2	1.65 - 3.07	0.16		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	NR		N	(11)		False Positive Test			

Radiological Reference Date: August 1, 2012

Other Flags:

A = Result acceptable Bias <=20%

W = Result acceptable with warning 20% < Bias < 30%

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RW = Report Warning

NR = Not Reported

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
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- (18) = Sensitivity Evaluation, Value Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27(HECR01) SC Dept. Health and Environmental Control Radiological Laboratory
2600 Bull St.
Columbia, SC 29201

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.0148			0.0104 - 0.0192			
Uranium-238	NR	8.0			5.6 - 10.4			
Uranium-Total	NR	8.1			5.7 - 10.5			

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.0780			0.0546 - 0.1014			
Cesium-134	2.843	2.74	A		3.8	1.92 - 3.56	0.260	
Cesium-137	-0.156		A		False Positive Test			0.131
Cobalt-57	1.861	1.91	A		-2.6	1.34 - 2.48	0.226	
Cobalt-60	1.672	1.728	A		-3.2	1.210 - 2.246	0.229	
Manganese-54	2.725	2.36	A		15.5	1.65 - 3.07	0.414	
Plutonium-238	NR	0.0625			0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081			Sensitivity Evaluation			
Strontium-90	NR	1.03			0.72 - 1.34			
Uranium-234/233	NR	0.0141			0.0099 - 0.0183			
Uranium-238	NR	0.100			0.070 - 0.130			
Zinc-65	-0.349		A		False Positive Test			0.334

Radiological Reference Date: August 1, 2012

Other Flags:

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RW = Report Warning

NR = Not Reported

Notes:

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- (29) = Statistically significant negative value at 3 standard deviations



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (IAEA99) International Atomic Energy Agency
 Agency's Laboratories Seibersdorf
 Seibersdorf, Austria A-2444

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0714	0.0780	A		-8.5	0.0546 - 0.1014	0.0041		
Cesium-134	1.85	2.74	N		-32.5	1.92 - 3.56	0.11		
Cesium-137	0.0179		A			False Positive Test	0.0075		
Cobalt-57	1.826	1.91	A		-4.4	1.34 - 2.48	0.041	L	
Cobalt-60	1.650	1.728	A		-4.5	1.210 - 2.246	0.044	L	
Manganese-54	2.166	2.36	A		-8.2	1.65 - 3.07	0.053	L	
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.036		A			False Positive Test	0.021		

Radiological Reference Date: August 1, 2012

Other Flags:

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RW = Report Warning

NR = Not Reported

Notes:

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- (29) = Statistically significant negative value at 3 standard deviations



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (ISUP01) ISU - Department of Physics/Health Physics/EAL
 785 S. 8th Ave, Rm 120
 Pocatello, ID 83209-8106

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag		
Americium-241	NR	0.0780				0.0546 - 0.1014				
Cesium-134	2.60	2.74	A		-5.1	1.92 - 3.56	0.23			
Cesium-137	-0.01		A			False Positive Test	0.03			
Cobalt-57	1.95	1.91	A		2.1	1.34 - 2.48	0.20			
Cobalt-60	1.86	1.728	A		7.6	1.210 - 2.246	0.17			
Manganese-54	2.50	2.36	A		5.9	1.65 - 3.07	0.20			
Plutonium-238	NR	0.0625				0.0438 - 0.0813				
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation				
Strontium-90	NR	1.03				0.72 - 1.34				
Uranium-234/233	NR	0.0141				0.0099 - 0.0183				
Uranium-238	NR	0.100				0.070 - 0.130				
Zinc-65	-0.02		A			False Positive Test	0.10			

Radiological Reference Date: August 1, 2012

Other Flags:

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- (29) = Statistically significant negative value at 3 standard deviations



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (JAEC99) Radiation Measurements Laboratory
 Jordan Atomic Energy Commission
 Amman, Jordan 70 (11934)

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.118	0.0780	N		51.3	0.0546 - 0.1014	0.014		
Cesium-134	2.904	2.74	A		6.0	1.92 - 3.56	0.232		
Cesium-137	-1		A			False Positive Test	1		
Cobalt-57	1.92	1.91	A		0.5	1.34 - 2.48	0.1536		
Cobalt-60	1.835	1.728	A		6.2	1.210 - 2.246	0.1468		
Manganese-54	2.55	2.36	A		8.1	1.65 - 3.07	0.204		
Plutonium-238	0.148	0.0625	N		136.8	0.0438 - 0.0813	0.024		
Plutonium-239/240	0.0124	0.00081	N	(4)		Sensitivity Evaluation	0.002		
Strontium-90	1.04	1.03	A		1.0	0.72 - 1.34	0.07		
Uranium-234/233	0.0141	0.0141	A		0.0	0.0099 - 0.0183	0.0023		
Uranium-238	0.085	0.100	A		-15.0	0.070 - 0.130	0.0129		
Zinc-65	-1		A			False Positive Test	1		

Radiological Reference Date: August 1, 2012

Other Flags:

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RW = Report Warning

NR = Not Reported

Notes:

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- (29) = Statistically significant negative value at 3 standard deviations



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(JLNN01) Jefferson Laboratory

12000 Jefferson Ave

Newport News, VA 23606

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0406	0.0780	N		-47.9	0.0546 - 0.1014	0.0270	H	
Cesium-134	2.16	2.74	W		-21.2	1.92 - 3.56		0.13	
Cesium-137	0.0166		A			False Positive Test	0.0740		
Cobalt-57	2.05	1.91	A		7.3	1.34 - 2.48		0.12	
Cobalt-60	1.74	1.728	A		0.7	1.210 - 2.246		0.16	
Manganese-54	2.58	2.36	A		9.3	1.65 - 3.07		0.25	
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.001		A			False Positive Test	0.187		

Radiological Reference Date: August 1, 2012

Other Flags:

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Notes:

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (JNRC99) Jordan Nuclear Regulatory Commission
 Supportive and Technical Services
 Amman, Amman 11183

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	0.75	2.74	N		-72.6	1.92 - 3.56	0.04		
Cesium-137	0.01		A			False Positive Test	0.02		
Cobalt-57	0.62	1.91	N		-67.5	1.34 - 2.48	0.04		
Cobalt-60	0.53	1.728	N		-69.3	1.210 - 2.246	0.02		
Manganese-54	0.72	2.36	N		-69.5	1.65 - 3.07	0.04		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.003		A			False Positive Test	0.006		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (KDHE01) Kansas Dept. of Health & Environment
 Forbes Bldg. 740
 Topeka, KS 66620

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.38	2.74	A		-13.1	1.92 - 3.56	0.06	L	
Cesium-137	NR					False Positive Test			
Cobalt-57	1.82	1.91	A		-4.7	1.34 - 2.48	0.07		
Cobalt-60	1.79	1.728	A		3.6	1.210 - 2.246	0.06		
Manganese-54	2.37	2.36	A		0.4	1.65 - 3.07	0.10		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	NR					False Positive Test			

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(KUFS99) Center for Research in Environmental Radiation

Kuwait University - Faculty of Science

Khaldia, Kuwait 13060

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	3.24	2.74	A		18.2	1.92 - 3.56	0.06	L	
Cesium-137	NR		N	(11)		False Positive Test			
Cobalt-57	1.68	1.91	A		-12.0	1.34 - 2.48	0.03	L	
Cobalt-60	2.20	1.728	W		27.3	1.210 - 2.246	0.03	L	
Manganese-54	3.22	2.36	N		36.4	1.65 - 3.07	0.04	L	
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	NR		N	(11)		False Positive Test			

Radiological Reference Date: August 1, 2012

Other Flags:

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NR = Not Reported

Notes:

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27(LAEC99) Lebanese Atomic Energy Commission - Environmental Radiation
National Council for Scientific Research
Beirut, Beirut 1107 2260

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological						Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.7	2.74	A		-1.5	1.92 - 3.56			
Cesium-137	-1		A			False Positive Test			
Cobalt-57	1.96	1.91	A		2.6	1.34 - 2.48			
Cobalt-60	1.88	1.728	A		8.8	1.210 - 2.246			
Manganese-54	2.4	2.36	A		1.7	1.65 - 3.07			
Plutonium-238	0.078	0.0625	W		24.8	0.0438 - 0.0813			
Plutonium-239/240	0.0028	0.00081	A			Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	0.016	0.0141	A		13.5	0.0099 - 0.0183			
Uranium-238	0.098	0.100	A		-2.0	0.070 - 0.130			
Zinc-65	-1		A			False Positive Test			

Radiological Reference Date: August 1, 2012

Other Flags:

A = Result acceptable Bias <=20%

W = Result acceptable with warning 20% < Bias < 30%

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RW = Report Warning

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Notes:

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(LANL01) Los Alamos National Laboratory

Mail Stop J514

Los Alamos, NM 87545

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological						Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.52	2.74	A		-8.0	1.92 - 3.56	0.19		
Cesium-137	NR		N	(11)		False Positive Test			
Cobalt-57	1.78	1.91	A		-6.8	1.34 - 2.48	0.18		
Cobalt-60	1.84	1.728	A		6.5	1.210 - 2.246	0.20		
Manganese-54	2.54	2.36	A		7.6	1.65 - 3.07	0.20		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	NR		N	(11)		False Positive Test			

Radiological Reference Date: August 1, 2012

Other Flags:

A = Result acceptable Bias <=20%

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Notes:

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(LAWR01) LAWRENCE BERKELEY NATIONAL LABORATORY
 1 CYCLOTRON RD.
 BERKELEY, CA 94720

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.0148			0.0104 - 0.0192			
Uranium-238	NR	8.0			5.6 - 10.4			
Uranium-Total	NR	8.1			5.7 - 10.5			

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.0780			0.0546 - 0.1014			
Cesium-134	2.38	2.74	A		-13.1	1.92 - 3.56	.09	
Cesium-137	.002		A		False Positive Test			.021
Cobalt-57	2.01	1.91	A		5.2	1.34 - 2.48	.08	
Cobalt-60	1.77	1.728	A		2.4	1.210 - 2.246	.08	
Manganese-54	2.56	2.36	A		8.5	1.65 - 3.07	.08	
Plutonium-238	NR	0.0625			0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081			Sensitivity Evaluation			
Strontium-90	NR	1.03			0.72 - 1.34			
Uranium-234/233	NR	0.0141			0.0099 - 0.0183			
Uranium-238	NR	0.100			0.070 - 0.130			
Zinc-65	.043		A		False Positive Test			.049

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(LDRA99) Laboratori de Radiologia Ambiental-Universitat de Barcelona

Facultat de Quimica

Barcelona, Catalunya 08028

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.0148				0.0104 - 0.0192		
Uranium-238	NR	8.0				5.6 - 10.4		
Uranium-Total	NR	8.1				5.7 - 10.5		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.075	0.0780	A		-3.8	0.0546 - 0.1014	0.021	H
Cesium-134	2.4	2.74	A		-12.4	1.92 - 3.56	0.5	H
Cesium-137	0.01		A			False Positive Test	0.02	
Cobalt-57	2.1	1.91	A		9.9	1.34 - 2.48	0.5	H
Cobalt-60	1.8	1.728	A		4.2	1.210 - 2.246	0.4	H
Manganese-54	2.6	2.36	A		10.2	1.65 - 3.07	0.6	H
Plutonium-238	NR	0.0625				0.0438 - 0.0813		
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation		
Strontium-90	NR	1.03				0.72 - 1.34		
Uranium-234/233	NR	0.0141				0.0099 - 0.0183		
Uranium-238	NR	0.100				0.070 - 0.130		
Zinc-65	0.01		A			False Positive Test	0.04	

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (LOCK01) AMWTP Analytical Chemistry Laboratory
 Idaho Treatment Group
 Idaho Falls, ID 83401

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0155	0.0148	A		4.7	0.0104 - 0.0192		0.003	
Uranium-238	8.16	8.0	A		2.0	5.6 - 10.4		1.6	
Uranium-Total	8.17	8.1	A		0.9	5.7 - 10.5		1.6	

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0807	0.0780	A		3.5	0.0546 - 0.1014		0.006	
Cesium-134	2.50	2.74	A		-8.8	1.92 - 3.56		0.14	
Cesium-137	0.283		A			False Positive Test		0.13	
Cobalt-57	1.97	1.91	A		3.1	1.34 - 2.48		0.11	
Cobalt-60	1.77	1.728	A		2.4	1.210 - 2.246		0.12	
Manganese-54	2.65	2.36	A		12.3	1.65 - 3.07		0.18	
Plutonium-238	0.0683	0.0625	A		9.3	0.0438 - 0.0813		0.005	
Plutonium-239/240	0.00109	0.00081	A	(17)		Sensitivity Evaluation	0.0007		
Strontium-90	1.40	1.03	N		35.9	0.72 - 1.34		0.14	
Uranium-234/233	0.0137	0.0141	A		-2.8	0.0099 - 0.0183		0.002	
Uranium-238	0.0967	0.100	A		-3.3	0.070 - 0.130		0.008	
Zinc-65	-0.15		A			False Positive Test		0.2	

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(LOCK03) Advanced Test Reactor (ATR) Complex Radioanalytical Laboratory

INL/Battelle Energy Alliance, LLC

Idaho Falls, ID 83415-7111

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.0148			0.0104 - 0.0192			
Uranium-238	NR	8.0			5.6 - 10.4			
Uranium-Total	NR	8.1			5.7 - 10.5			

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.088	0.0780	A		12.8	0.0546 - 0.1014	0.008	
Cesium-134	2.49	2.74	A		-9.1	1.92 - 3.56	0.19	
Cesium-137	-0.004		A			False Positive Test	0.059	
Cobalt-57	1.94	1.91	A		1.6	1.34 - 2.48	0.15	
Cobalt-60	1.79	1.728	A		3.6	1.210 - 2.246	0.14	
Manganese-54	2.53	2.36	A		7.2	1.65 - 3.07	0.20	
Plutonium-238	0.068	0.0625	A		8.8	0.0438 - 0.0813	0.008	
Plutonium-239/240	0.0022	0.00081	A			Sensitivity Evaluation	0.0007	
Strontium-90	NR	1.03				0.72 - 1.34		
Uranium-234/233	0.014	0.0141	A		-0.7	0.0099 - 0.0183	0.003	H
Uranium-238	0.087	0.100	A		-13.0	0.070 - 0.130	0.013	
Zinc-65	0.006		A			False Positive Test	0.048	

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (MAHP59) Materials Assessment and Health Physics Group
 Imperial College Reactor Centre
 Ascot, Berkshire SL5 7TE

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.08	0.0780	A		2.6	0.0546 - 0.1014	0.02	H	
Cesium-134	2.58	2.74	A		-5.8	1.92 - 3.56	0.07	L	
Cesium-137	NR		N	(11)		False Positive Test			
Cobalt-57	1.88	1.91	A		-1.6	1.34 - 2.48	0.06		
Cobalt-60	1.80	1.728	A		4.2	1.210 - 2.246	0.08		
Manganese-54	2.32	2.36	A		-1.7	1.65 - 3.07	0.07		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	NR		N	(11)		False Positive Test			

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (MART01) Fluor B&W Ports Analytical Laboratory
 Lab COC, Bldg. X-710, Rm 222
 Piketon, OH 45661-

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological						Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.07907	0.0780	A		1.4	0.0546 - 0.1014	0.00637		
Cesium-134	2.306	2.74	A		-15.8	1.92 - 3.56	0.1197		
Cesium-137	-0.07255		A			False Positive Test	0.08346		
Cobalt-57	1.419	1.91	W		-25.7	1.34 - 2.48	0.1919		
Cobalt-60	1.562	1.728	A		-9.6	1.210 - 2.246	0.1003		
Manganese-54	2.328	2.36	A		-1.4	1.65 - 3.07	0.1493		
Plutonium-238	0.07924	0.0625	W		26.8	0.0438 - 0.0813	0.007315		
Plutonium-239/240	0.001357	0.00081	A	(17)		Sensitivity Evaluation	0.0008195		
Strontium-90	1.07	1.03	A		3.9	0.72 - 1.34	0.072		
Uranium-234/233	0.01621	0.0141	A		15.0	0.0099 - 0.0183	0.002219		
Uranium-238	0.08090	0.100	A		-19.1	0.070 - 0.130	0.00725		
Zinc-65	-1.697		N	(29)		False Positive Test	0.2809		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (MART02) United States Enrichment Corporation
 PO Box 1410
 Paducah, KY 42002

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148			0.0104 - 0.0192				
Uranium-238	NR	8.0			5.6 - 10.4				
Uranium-Total	NR	8.1			5.7 - 10.5				

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0682	0.0780	A		-12.6	0.0546 - 0.1014	0.0139	H	
Cesium-134	2.15	2.74	W		-21.5	1.92 - 3.56	0.1167		
Cesium-137	0.00607		A			False Positive Test	0.01258		
Cobalt-57	1.96	1.91	A		2.6	1.34 - 2.48	0.01056	L	
Cobalt-60	1.76	1.728	A		1.9	1.210 - 2.246	0.0955		
Manganese-54	2.55	2.36	A		8.1	1.65 - 3.07	0.1634		
Plutonium-238	0.0569	0.0625	A		-9.0	0.0438 - 0.0813	0.0112		
Plutonium-239/240	0.000929	0.00081	A	(17)		Sensitivity Evaluation	0.00112		
Strontium-90	1.03	1.03	A		0.0	0.72 - 1.34	0.128		
Uranium-234/233	0.0191	0.0141	N		35.5	0.0099 - 0.0183	0.006211	H	
Uranium-238	0.102	0.100	A		2.0	0.070 - 0.130	0.01841		
Zinc-65	-0.00196		A			False Positive Test	0.03004		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (MART03) Radioactive Material Analysis Laboratory
 ORNL
 Oak Ridge, TN 37831-6223

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.18	0.0780	N		130.8	0.0546 - 0.1014	0.014		
Cesium-134	2.59	2.74	A		-5.5	1.92 - 3.56	0.21		
Cesium-137	0.042		A			False Positive Test	0.067		
Cobalt-57	2.2	1.91	A		15.2	1.34 - 2.48	0.08		
Cobalt-60	1.98	1.728	A		14.6	1.210 - 2.246	0.084		
Manganese-54	2.87	2.36	W		21.6	1.65 - 3.07	0.14		
Plutonium-238	0.057	0.0625	A		-8.8	0.0438 - 0.0813	0.01		
Plutonium-239/240	0.006	0.00081	A	(17)		Sensitivity Evaluation	0.004		
Strontium-90	0.91	1.03	A		-11.7	0.72 - 1.34	0.07		
Uranium-234/233	0.019	0.0141	N		34.8	0.0099 - 0.0183	0.003		
Uranium-238	0.093	0.100	A		-7.0	0.070 - 0.130	0.007		
Zinc-65	0.03		A			False Positive Test	0.19		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (MDPH01) MDPH-Radiation Control Program
 MERL-Room 002
 Jamaica Plain, MA 02130-3597

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.15	2.74	W		-21.5	1.92 - 3.56	0.05	L	
Cesium-137	-0.02		N	(29)		False Positive Test	0.002		
Cobalt-57	1.75	1.91	A		-8.4	1.34 - 2.48	0.07		
Cobalt-60	1.63	1.728	A		-5.7	1.210 - 2.246	0.05		
Manganese-54	2.26	2.36	A		-4.2	1.65 - 3.07	0.08		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	-0.04		N	(29)		False Positive Test	0.004		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(MSDH01) Mississippi State Dept of Health

Radiological Environmental Laboratory

Jackson, MS 39213

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.12159	0.0780	N		55.9	0.0546 - 0.1014	.03944	H	
Cesium-134	2.7298	2.74	A		-0.4	1.92 - 3.56	0.1358		
Cesium-137	-0.010		A			False Positive Test	0.095		
Cobalt-57	2.1954	1.91	A		14.9	1.34 - 2.48	.0716		
Cobalt-60	1.8509	1.728	A		7.1	1.210 - 2.246	.1193		
Manganese-54	2.8272	2.36	A		19.8	1.65 - 3.07	.1480		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.10785		A			False Positive Test	.10325		

Radiological Reference Date: August 1, 2012

Other Flags:

A = Result acceptable Bias <=20%

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RW = Report Warning

NR = Not Reported

Notes:

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- (29) = Statistically significant negative value at 3 standard deviations



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (NARL01) National Air and Radiation Environmental Laboratory
 540 S. Morris Ave.
 Montgomery, AL 36115-2601

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148			0.0104 - 0.0192				
Uranium-238	NR	8.0			5.6 - 10.4				
Uranium-Total	NR	8.1			5.7 - 10.5				

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0932	0.0780	A		19.5	0.0546 - 0.1014	.0103		
Cesium-134	2.53	2.74	A		-7.7	1.92 - 3.56	0.115		
Cesium-137	0.000559		A		False Positive Test			.0147	
Cobalt-57	1.74	1.91	A		-8.9	1.34 - 2.48	0.0968		
Cobalt-60	1.58	1.728	A		-8.6	1.210 - 2.246	0.0889		
Manganese-54	2.28	2.36	A		-3.4	1.65 - 3.07	0.129		
Plutonium-238	.0573	0.0625	A		-8.3	0.0438 - 0.0813	0.00652		
Plutonium-239/240	.00295	0.00081	A	(17)	Sensitivity Evaluation			0.00133	
Strontium-90	1.13	1.03	A		9.7	0.72 - 1.34	0.157		
Uranium-234/233	0.0144	0.0141	A		2.1	0.0099 - 0.0183	.0031	H	
Uranium-238	0.11	0.100	A		10.0	0.070 - 0.130	.0109		
Zinc-65	.0193		A		False Positive Test			0.0331	

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(NARL02) USEPA - NAREL - MERL

540 S Morris Ave

Montgomery, AL 36115

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0757	0.0780	A		-2.9	0.0546 - 0.1014	0.0158	H	
Cesium-134	2.55	2.74	A		-6.9	1.92 - 3.56	0.170		
Cesium-137	0.00960		A			False Positive Test	0.0238		
Cobalt-57	1.9	1.91	A		-0.5	1.34 - 2.48	0.129		
Cobalt-60	2.12	1.728	W		22.7	1.210 - 2.246	0.152		
Manganese-54	2.49	2.36	A		5.5	1.65 - 3.07	0.413		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.0743		A			False Positive Test	0.0599		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(NCNS99) National Center for Nuclear Sciences and Technologies

Technopole Sidi

Thabet Ariana, Ariana 2020

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148			0.0104 - 0.0192				
Uranium-238	NR	8.0			5.6 - 10.4				
Uranium-Total	NR	8.1			5.7 - 10.5				

Radiological						Units: (Bq/sample)				
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag		
Americium-241	NR	0.0780			0.0546 - 0.1014					
Cesium-134	2.80	2.74	A		2.2	1.92 - 3.56	0.13			
Cesium-137	NR		N	(11)	False Positive Test					
Cobalt-57	1.28	1.91	N		-33.0	1.34 - 2.48	0.30 H			
Cobalt-60	1.95	1.728	A		12.8	1.210 - 2.246	0.13			
Manganese-54	2.58	2.36	A		9.3	1.65 - 3.07	0.14			
Plutonium-238	NR	0.0625			0.0438 - 0.0813					
Plutonium-239/240	NR	0.00081			Sensitivity Evaluation					
Strontium-90	NR	1.03			0.72 - 1.34					
Uranium-234/233	NR	0.0141			0.0099 - 0.0183					
Uranium-238	NR	0.100			0.070 - 0.130					
Zinc-65	NR		N	(11)	False Positive Test					

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(NESI01) B&W Technical Services-Radioisotope & Analytical Chemistry Laboratory

Lynchburg Technology Center

Lynchburg, VA 24504-5447

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.07	0.0780	A		-10.3	0.0546 - 0.1014	0.006		
Cesium-134	2.43	2.74	A		-11.3	1.92 - 3.56	0.11		
Cesium-137	0.06		A			False Positive Test	0.08		
Cobalt-57	1.85	1.91	A		-3.1	1.34 - 2.48	0.10		
Cobalt-60	1.76	1.728	A		1.9	1.210 - 2.246	0.04	L	
Manganese-54	2.34	2.36	A		-0.8	1.65 - 3.07	0.12		
Plutonium-238	0.059	0.0625	A		-5.6	0.0438 - 0.0813	0.006		
Plutonium-239/240	0.002	0.00081	A	(17)		Sensitivity Evaluation	0.001		
Strontium-90	0.923	1.03	A		-10.4	0.72 - 1.34	0.07		
Uranium-234/233	0.018	0.0141	W		27.7	0.0099 - 0.0183	0.002		
Uranium-238	0.102	0.100	A		2.0	0.070 - 0.130	0.006		
Zinc-65	0.08		A			False Positive Test	0.19		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (NJDH01) New Jersey Dept. of Health, PHEL, ECLS
 3 Schwarzkopf Drive
 West Trenton, NJ 08628

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.100	0.0780	W		28.2	0.0546 - 0.1014	0.010		
Cesium-134	2.604	2.74	A		-5.0	1.92 - 3.56	0.041	L	
Cesium-137	0.0044		A			False Positive Test	0.0033		
Cobalt-57	2.050	1.91	A		7.3	1.34 - 2.48	0.035	L	
Cobalt-60	1.898	1.728	A		9.8	1.210 - 2.246	0.030	L	
Manganese-54	2.72	2.36	A		15.3	1.65 - 3.07	0.08	L	
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	-0.164	0.100	N		-264.0	0.070 - 0.130	0.041	L	
Zinc-65	0.014		A			False Positive Test	0.009		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (NOCS99) National Oceanography Centre, Southampton
 GAU-Radioanalytical
 Southampton, Hampshire SO14 3ZH

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.084	0.0780	A		7.7	0.0546 - 0.1014	0.003		
Cesium-134	3.17	2.74	A		15.7	1.92 - 3.56	0.10		
Cesium-137	-0.034		A			False Positive Test	0.172		
Cobalt-57	1.71	1.91	A		-10.5	1.34 - 2.48	0.07		
Cobalt-60	1.66	1.728	A		-3.9	1.210 - 2.246	0.05		
Manganese-54	2.24	2.36	A		-5.1	1.65 - 3.07	0.08		
Plutonium-238	0.064	0.0625	A		2.4	0.0438 - 0.0813	0.003		
Plutonium-239/240	0.00075	0.00081	A			Sensitivity Evaluation	0.00023		
Strontium-90	0.84	1.03	A		-18.4	0.72 - 1.34	0.06		
Uranium-234/233	0.0144	0.0141	A		2.1	0.0099 - 0.0183	0.0014		
Uranium-238	0.0884	0.100	A		-11.6	0.070 - 0.130	0.0056		
Zinc-65	-0.092		A			False Positive Test	0.46		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (ODHL01) Ohio Department of Health Laboratory
 8995 E Main Street
 Reynoldsburg, OH 43068

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	1.86	2.74	N		-32.1	1.92 - 3.56	0.0477	L	
Cesium-137	NR		N	(11)		False Positive Test			
Cobalt-57	1.68	1.91	A		-12.0	1.34 - 2.48	0.0788		
Cobalt-60	1.36	1.728	W		-21.3	1.210 - 2.246	0.0350	L	
Manganese-54	2.09	2.36	A		-11.4	1.65 - 3.07	0.0834		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	NR		N	(11)		False Positive Test			

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(ORIS01) ORISE/IEAV

PO Box 117

Oak Ridge, TN 37831-0117

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.077	0.0780	A		-1.3	0.0546 - 0.1014	0.003		
Cesium-134	2.78	2.74	A		1.5	1.92 - 3.56	0.16		
Cesium-137	0.041		A			False Positive Test	0.034		
Cobalt-57	1.746	1.91	A		-8.6	1.34 - 2.48	0.085		
Cobalt-60	1.659	1.728	A		-4.0	1.210 - 2.246	0.094		
Manganese-54	2.29	2.36	A		-3.0	1.65 - 3.07	0.13		
Plutonium-238	0.063	0.0625	A		0.8	0.0438 - 0.0813	0.004		
Plutonium-239/240	0.0004	0.00081	A	(17)		Sensitivity Evaluation	0.0004		
Strontium-90	0.981	1.03	A		-4.8	0.72 - 1.34	0.023	L	
Uranium-234/233	0.013	0.0141	A		-7.8	0.0099 - 0.0183	0.001		
Uranium-238	0.089	0.100	A		-11.0	0.070 - 0.130	0.006		
Zinc-65	-0.09		A			False Positive Test	0.10		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(OTLI01) Outreach Technologies, Inc.

311 N. Aspen

Broken Arrow, OK 74012-

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	6.82	8.1	A		-15.8	5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	1.99	2.74	W		-27.4	1.92 - 3.56	0.134		
Cesium-137	0.038		A			False Positive Test	0.053		
Cobalt-57	2.14	1.91	A		12.0	1.34 - 2.48	0.240		
Cobalt-60	1.52	1.728	A		-12.0	1.210 - 2.246	0.144		
Manganese-54	2.23	2.36	A		-5.5	1.65 - 3.07	0.235		
Plutonium-238	0.062	0.0625	A		-0.8	0.0438 - 0.0813	0.007		
Plutonium-239/240	0.008	0.00081	N	(4)		Sensitivity Evaluation	0.002		
Strontium-90	9.58	1.03	N		830.1	0.72 - 1.34	0.865		
Uranium-234/233	0.013	0.0141	A		-7.8	0.0099 - 0.0183	0.013	H	
Uranium-238	0.115	0.100	A		15.0	0.070 - 0.130	0.017		
Zinc-65	0.076		A			False Positive Test	0.078		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(QUAN01) TestAmerica St. Louis

13715 Rider Trail North

Earth City, MO 63045-

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological						Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0592	0.0780	W		-24.1	0.0546 - 0.1014	0.0116		
Cesium-134	2.28	2.74	A		-16.8	1.92 - 3.56	0.138		
Cesium-137	-0.0321		A			False Positive Test	0.0742		
Cobalt-57	1.68	1.91	A		-12.0	1.34 - 2.48	0.0965		
Cobalt-60	1.66	1.728	A		-3.9	1.210 - 2.246	0.102		
Manganese-54	2.24	2.36	A		-5.1	1.65 - 3.07	0.147		
Plutonium-238	0.0786	0.0625	W		25.8	0.0438 - 0.0813	0.0125		
Plutonium-239/240	0.00839	0.00081	A	(17)		Sensitivity Evaluation	0.0048		
Strontium-90	0.835	1.03	A		-18.9	0.72 - 1.34	0.0559		
Uranium-234/233	0.0241	0.0141	N		70.9	0.0099 - 0.0183	0.00785	H	
Uranium-238	0.0861	0.100	A		-13.9	0.070 - 0.130	0.0139		
Zinc-65	-0.1008		A			False Positive Test	0.09138		

Radiological Reference Date: August 1, 2012

Other Flags:

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27(QUAN03) TestAmerica
2800 GEORGE WASHINGTON WAY
RICHLAND, WA 99354-

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.068	0.0780	A		-12.8	0.0546 - 0.1014	0.014	H	
Cesium-134	2.456	2.74	A		-10.4	1.92 - 3.56	0.157		
Cesium-137	0.006		A			False Positive Test	0.024		
Cobalt-57	1.978	1.91	A		3.6	1.34 - 2.48	0.203		
Cobalt-60	1.619	1.728	A		-6.3	1.210 - 2.246	0.112		
Manganese-54	2.497	2.36	A		5.8	1.65 - 3.07	0.159		
Plutonium-238	0.056	0.0625	A		-10.4	0.0438 - 0.0813	0.012	H	
Plutonium-239/240	0.0002	0.00081	A	(17)		Sensitivity Evaluation	0.0009		
Strontium-90	0.953	1.03	A		-7.5	0.72 - 1.34	0.149		
Uranium-234/233	0.009	0.0141	N		-36.2	0.0099 - 0.0183	0.003	H	
Uranium-238	0.095	0.100	A		-5.0	0.070 - 0.130	0.019		
Zinc-65	-0.161		A			False Positive Test	0.059		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(RPSC01) Radiation Protection Service

Ontario Ministry of Labour

Weston, Ontario M9P 3T1

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.11	2.74	W		-23.0	1.92 - 3.56	.08		
Cesium-137	-.01		A			False Positive Test	.01		
Cobalt-57	1.81	1.91	A		-5.2	1.34 - 2.48	.07		
Cobalt-60	1.51	1.728	A		-12.6	1.210 - 2.246	.06		
Manganese-54	2.22	2.36	A		-5.9	1.65 - 3.07	.09		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	.03		A			False Positive Test	.04		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(RSIR99) Instituto de Radioprotecao e Dosimetria - IRD/CNEN

Avenida Salvador Allende S/no.

RJ, Rio de Janeiro 22780-160

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148			0.0104 - 0.0192				
Uranium-238	NR	8.0			5.6 - 10.4				
Uranium-Total	NR	8.1			5.7 - 10.5				

Radiological						Units: (Bq/sample)				
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag		
Americium-241	NR	0.0780	N	(28)	0.0546 - 0.1014					
Cesium-134	2.40	2.74	A		-12.4	1.92 - 3.56	0.10			
Cesium-137	NR		N	(11)	False Positive Test					
Cobalt-57	2.40	1.91	W		25.7	1.34 - 2.48	0.10			
Cobalt-60	2.07	1.728	A		19.8	1.210 - 2.246	0.10			
Manganese-54	2.80	2.36	A		18.6	1.65 - 3.07	0.10			
Plutonium-238	NR	0.0625	N	(28)	0.0438 - 0.0813					
Plutonium-239/240	NR	0.00081	N	(18)	Sensitivity Evaluation					
Strontium-90	1.16	1.03	A		12.6	0.72 - 1.34	0.05			
Uranium-234/233	NR	0.0141			0.0099 - 0.0183					
Uranium-238	NR	0.100			0.070 - 0.130					
Zinc-65	NR		N	(11)	False Positive Test					

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (SANC99) RadioAnalysis, South Africa Nuclear Energy Corp.
 Building 1600, Pelindaba Site
 Pretoria, Gauteng 0001

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.44	2.74	A		-10.9	1.92 - 3.56	0.15		
Cesium-137	NR					False Positive Test			
Cobalt-57	2.15	1.91	A		12.6	1.34 - 2.48	0.22		
Cobalt-60	1.90	1.728	A		10.0	1.210 - 2.246	0.08		
Manganese-54	2.77	2.36	A		17.4	1.65 - 3.07	0.14		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	NR					False Positive Test			

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (SEML01) SRS Environmental Monitoring Laboratory
 Bldg 735-B
 Aiken, SC 29808

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.074	0.0780	A		-5.1	0.0546 - 0.1014			
Cesium-134	2.75	2.74	A		0.4	1.92 - 3.56			
Cesium-137	0.0032		A			False Positive Test			
Cobalt-57	1.78	1.91	A		-6.8	1.34 - 2.48			
Cobalt-60	1.65	1.728	A		-4.5	1.210 - 2.246			
Manganese-54	2.32	2.36	A		-1.7	1.65 - 3.07			
Plutonium-238	0.0623	0.0625	A		-0.3	0.0438 - 0.0813			
Plutonium-239/240	0.0014	0.00081	A			Sensitivity Evaluation			
Strontium-90	0.95	1.03	A		-7.8	0.72 - 1.34			
Uranium-234/233	0.013	0.0141	A		-7.8	0.0099 - 0.0183			
Uranium-238	0.094	0.100	A		-6.0	0.070 - 0.130			
Zinc-65	-0.089		A			False Positive Test			

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(SNRC99) Soreq NRC

Radioactivity Measurement Section

Yavne, Israel 81800

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.10	0.0780	W		28.2	0.0546 - 0.1014	0.10	H	
Cesium-134	2.74	2.74	A		0.0	1.92 - 3.56	0.06	L	
Cesium-137	0.02		A			False Positive Test	0.02		
Cobalt-57	1.97	1.91	A		3.1	1.34 - 2.48	0.04	L	
Cobalt-60	1.96	1.728	A		13.4	1.210 - 2.246	0.06		
Manganese-54	2.51	2.36	A		6.4	1.65 - 3.07	0.06	L	
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.04		A			False Positive Test	0.04		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(SOUT01) Southwest Research Institute

6220 Culebra Rd.

San Antonio, TX 78228-0510

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0172	0.0148	A		16.2	0.0104 - 0.0192	0.00171		
Uranium-238	8.00	8.0	A		0.0	5.6 - 10.4	0.540		
Uranium-Total	8.02	8.1	A		-1.0	5.7 - 10.5	0.541		

Radiological						Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0719	0.0780	A		-7.8	0.0546 - 0.1014	0.00763		
Cesium-134	2.45	2.74	A		-10.6	1.92 - 3.56	0.1104		
Cesium-137	-0.0633		A			False Positive Test	0.0253		
Cobalt-57	2.07	1.91	A		8.4	1.34 - 2.48	0.0526	L	
Cobalt-60	1.87	1.728	A		8.2	1.210 - 2.246	0.0448	L	
Manganese-54	2.74	2.36	A		16.1	1.65 - 3.07	0.150		
Plutonium-238	0.0526	0.0625	A		-15.8	0.0438 - 0.0813	0.00581		
Plutonium-239/240	0.00342	0.00081	A	(17)		Sensitivity Evaluation	0.00149		
Strontium-90	0.793	1.03	W		-23.0	0.72 - 1.34	0.0596		
Uranium-234/233	0.0164	0.0141	A		16.3	0.0099 - 0.0183	0.00286		
Uranium-238	0.0948	0.100	A		-5.2	0.070 - 0.130	0.00870		
Zinc-65	0.1141		A			False Positive Test	0.0800		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(SRPD01) Sandia National Laboratories, Radiation Protection Sample Diagnostics
 PO Box 5800, MS1103
 Albuquerque, NM 87185-1103

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	1.59E-02	0.0148	A		7.4	0.0104 - 0.0192	4.14E-04	L	
Uranium-238	7.48	8.0	A		-6.5	5.6 - 10.4	0.173	L	
Uranium-Total	7.5	8.1	A		-7.4	5.7 - 10.5	0.173	L	

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	5.91E-02	0.0780	W		-24.2	0.0546 - 0.1014	1.37E-02	H	
Cesium-134	2.69	2.74	A		-1.8	1.92 - 3.56	0.19		
Cesium-137	0.06		A			False Positive Test	0.06		
Cobalt-57	1.88	1.91	A		-1.6	1.34 - 2.48	0.13		
Cobalt-60	1.68	1.728	A		-2.8	1.210 - 2.246	0.13		
Manganese-54	2.42	2.36	A		2.5	1.65 - 3.07	0.18		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.17		A			False Positive Test	0.13		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (TDHL01) Texas Department of State Health Services Laboratory
 1100 W 49th Street
 Austin, TX 78756

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.080	0.0780	A		2.6	0.0546 - 0.1014		0.008	
Cesium-134	2.44	2.74	A		-10.9	1.92 - 3.56		0.05 L	
Cesium-137	0.023	A				False Positive Test		0.012	
Cobalt-57	1.98	1.91	A		3.7	1.34 - 2.48		0.06	
Cobalt-60	1.79	1.728	A		3.6	1.210 - 2.246		0.05 L	
Manganese-54	2.56	2.36	A		8.5	1.65 - 3.07		0.08	
Plutonium-238	0.053	0.0625	A		-15.2	0.0438 - 0.0813		0.007	
Plutonium-239/240	0.001	0.00081	A	(17)	Sensitivity Evaluation			0.001	
Strontium-90	1.11	1.03	A		7.8	0.72 - 1.34		0.03 L	
Uranium-234/233	0.014	0.0141	A		-0.7	0.0099 - 0.0183		0.003 H	
Uranium-238	0.093	0.100	A		-7.0	0.070 - 0.130		0.010	
Zinc-65	-0.006	A				False Positive Test		0.003	

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(TELE01) TELEDYNE BROWN ENGINEERING - ENVIRONMENTAL SERVICES

2508 Quality Lane

Knoxville, TN 37931-6819

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.1040	0.0780	N		33.3	0.0546 - 0.1014	0.0279	H	
Cesium-134	2.76	2.74	A		0.7	1.92 - 3.56	0.265		
Cesium-137	0.0415		A			False Positive Test	0.2193		
Cobalt-57	2.00	1.91	A		4.7	1.34 - 2.48	0.253		
Cobalt-60	1.78	1.728	A		3.0	1.210 - 2.246	0.296		
Manganese-54	2.40	2.36	A		1.7	1.65 - 3.07	0.415		
Plutonium-238	0.0881	0.0625	N		41.0	0.0438 - 0.0813	0.0268	H	
Plutonium-239/240	0.0009	0.00081	A	(17)		Sensitivity Evaluation	0.0031		
Strontium-90	0.931	1.03	A		-9.6	0.72 - 1.34	0.0404		
Uranium-234/233	0.0207	0.0141	N		46.8	0.0099 - 0.0183	0.0108	H	
Uranium-238	0.0770	0.100	W		-23.0	0.070 - 0.130	0.0228	H	
Zinc-65	-0.688		A			False Positive Test	0.566		

Radiological Reference Date: August 1, 2012

Other Flags:

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (TELE02) Environmental, Inc., Midwest Lab
 700 Landwehr Road
 Northbrook, IL 60062-

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.124	0.0780	N					0.023	
Cesium-134	2.74	2.74	A					0.18	
Cesium-137	-0.004	A				False Positive Test			
Cobalt-57	1.96	1.91	A					0.05 L	
Cobalt-60	1.76	1.728	A					0.07	
Manganese-54	2.52	2.36	A					0.10	
Plutonium-238	0.050	0.0625	A					0.015 H	
Plutonium-239/240	0.001	0.00081	A	(17)					
Strontium-90	NR	1.03	N	(28)					
Uranium-234/233	0.009	0.0141	N					0.011 H	
Uranium-238	0.083	0.100	A					0.023 H	
Zinc-65	0.005	A				False Positive Test			

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (TMAO01) EBERLINE SERVICES OAK RIDGE LABORATORY
 601 SCARBORO RD
 OAK RIDGE, TN 37830-

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.095	0.0780	W		21.8	0.0546 - 0.1014	0.030	H	
Cesium-134	2.19	2.74	W		-20.1	1.92 - 3.56	0.31		
Cesium-137	0.01		A			False Positive Test	0.08		
Cobalt-57	1.85	1.91	A		-3.1	1.34 - 2.48	0.30		
Cobalt-60	1.68	1.728	A		-2.8	1.210 - 2.246	0.24		
Manganese-54	2.62	2.36	A		11.0	1.65 - 3.07	0.84	H	
Plutonium-238	0.049	0.0625	W		-21.6	0.0438 - 0.0813	0.034	H	
Plutonium-239/240	0.0001	0.00081	A	(17)		Sensitivity Evaluation	0.013		
Strontium-90	0.85	1.03	A		-17.5	0.72 - 1.34	0.09		
Uranium-234/233	0.020	0.0141	N		41.8	0.0099 - 0.0183	0.024	H	
Uranium-238	0.074	0.100	W		-26.0	0.070 - 0.130	0.049	H	
Zinc-65	0.01		A			False Positive Test	0.20		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (TMAR01) Eberline Analytical Corp. Richmond CA Lab
 2030 Wright Ave
 Richmond, CA 94804-3849

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148			0.0104 - 0.0192				
Uranium-238	NR	8.0			5.6 - 10.4				
Uranium-Total	NR	8.1			5.7 - 10.5				

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.080	0.0780	A		2.6	0.0546 - 0.1014	0.012		
Cesium-134	2.60	2.74	A		-5.1	1.92 - 3.56	0.26		
Cesium-137	0.1		A		False Positive Test			0.2	
Cobalt-57	2.39	1.91	W		25.1	1.34 - 2.48	0.22		
Cobalt-60	1.97	1.728	A		14.0	1.210 - 2.246	0.16		
Manganese-54	2.91	2.36	W		23.3	1.65 - 3.07	0.35		
Plutonium-238	0.060	0.0625	A		-4.0	0.0438 - 0.0813	0.014	H	
Plutonium-239/240	0.003	0.00081	A	(17)	Sensitivity Evaluation			0.003	
Strontium-90	0.984	1.03	A		-4.5	0.72 - 1.34	0.074		
Uranium-234/233	0.011	0.0141	W		-22.0	0.0099 - 0.0183	0.015	H	
Uranium-238	0.100	0.100	A		0.0	0.070 - 0.130	0.020		
Zinc-65	0.2		A		False Positive Test			0.2	

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (URSL01) UNLV Radioanalytical Services Laboratory
 Campus Mail Stop 453037
 Las Vegas, NV 89154-3037

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0508	0.0780	N		-34.9	0.0546 - 0.1014	0.0119	H	
Cesium-134	2.33	2.74	A		-15.0	1.92 - 3.56	0.0473	L	
Cesium-137	-0.0559		A			False Positive Test	0.0886		
Cobalt-57	1.78	1.91	A		-6.8	1.34 - 2.48	0.0760		
Cobalt-60	1.66	1.728	A		-3.9	1.210 - 2.246	0.0423	L	
Manganese-54	2.18	2.36	A		-7.6	1.65 - 3.07	0.0688		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	-0.0264		A			False Positive Test	0.249		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27

(USED99) National Center for Nuclear Energy, Sciences and Techniques

CNESTEN BP 1382

RABAT, RABAT RP 10001

Inorganic						Units: (ug/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148			0.0104 - 0.0192				
Uranium-238	NR	8.0			5.6 - 10.4				
Uranium-Total	NR	8.1			5.7 - 10.5				

Radiological						Units: (Bq/sample)				
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag		
Americium-241	NR	0.0780			0.0546 - 0.1014					
Cesium-134	1.75	2.74	N		-36.1	1.92 - 3.56	0.18			
Cesium-137	-3.20E-4		A		False Positive Test					
Cobalt-57	1.48	1.91	W		-22.5	1.34 - 2.48	0.16			
Cobalt-60	1.37	1.728	W		-20.7	1.210 - 2.246	0.14			
Manganese-54	2.01	2.36	A		-14.8	1.65 - 3.07	0.22			
Plutonium-238	NR	0.0625			0.0438 - 0.0813					
Plutonium-239/240	NR	0.00081			Sensitivity Evaluation					
Strontium-90	NR	1.03			0.72 - 1.34					
Uranium-234/233	0.0170	0.0141	W		20.6	0.0099 - 0.0183	0.0021			
Uranium-238	0.0830	0.100	A		-17.0	0.070 - 0.130	0.0063			
Zinc-65	-4.96E-2		A		False Positive Test					

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (WEST03) Waste Sampling and Characterization Facility, MSA
 PO Box 650, S3-30
 Richland, WA 99352

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.077	0.0780	A		-1.3	0.0546 - 0.1014	0.012		
Cesium-134	2.68	2.74	A		-2.2	1.92 - 3.56	0.12		
Cesium-137	-0.01		A			False Positive Test	0.03		
Cobalt-57	1.98	1.91	A		3.7	1.34 - 2.48	0.12		
Cobalt-60	1.76	1.728	A		1.9	1.210 - 2.246	0.10		
Manganese-54	2.49	2.36	A		5.5	1.65 - 3.07	0.18		
Plutonium-238	0.072	0.0625	A		15.2	0.0438 - 0.0813	0.011		
Plutonium-239/240	0.001	0.00081	A (17)			Sensitivity Evaluation	0.001		
Strontium-90	1.30	1.03	W		26.2	0.72 - 1.34	0.11		
Uranium-234/233	0.0095	0.0141	N		-32.6	0.0099 - 0.0183	0.004	H	
Uranium-238	0.102	0.100	A		2.0	0.070 - 0.130	0.015		
Zinc-65	-0.06		A			False Positive Test	0.08		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (WEST04) PACE ANALYTICAL SERVICES, PITTSBURGH
 1638 Roseytown Road
 Greensburg, PA 15601

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148			0.0104 - 0.0192				
Uranium-238	NR	8.0			5.6 - 10.4				
Uranium-Total	NR	8.1			5.7 - 10.5				

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0779	0.0780	A		-0.1	0.0546 - 0.1014	0.0203	H	
Cesium-134	2.210	2.74	A		-19.3	1.92 - 3.56	0.1636		
Cesium-137	0.0072		A			False Positive Test	0.0379		
Cobalt-57	1.675	1.91	A		-12.3	1.34 - 2.48	0.1482		
Cobalt-60	1.625	1.728	A		-6.0	1.210 - 2.246	0.1179		
Manganese-54	2.491	2.36	A		5.6	1.65 - 3.07	0.2470		
Plutonium-238	0.0551	0.0625	A		-11.8	0.0438 - 0.0813	0.0164	H	
Plutonium-239/240	0.0051	0.00081	A	(17)		Sensitivity Evaluation	0.0053		
Strontium-90	0.8177	1.03	W		-20.6	0.72 - 1.34	0.1635		
Uranium-234/233	0.0154	0.0141	A		9.2	0.0099 - 0.0183	0.0071	H	
Uranium-238	0.0860	0.100	A		-14.0	0.070 - 0.130	0.0195	H	
Zinc-65	-0.0716		A			False Positive Test	0.0988		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (WIPH01) WI, DPH, Radiation Protection Section
 1 West Wilson
 Madison, WI 53703

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.48	2.74	A		-9.5	1.92 - 3.56	0.19		
Cesium-137	0.06		A			False Positive Test	0.8		
Cobalt-57	1.85	1.91	A		-3.1	1.34 - 2.48	0.15		
Cobalt-60	1.84	1.728	A		6.5	1.210 - 2.246	0.19		
Manganese-54	2.5	2.36	A		5.9	1.65 - 3.07	0.3		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.4		A			False Positive Test	2.2		

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27(WIPP01) WIPP Laboratories
1400 University Drive
Carlsbad, NM 88220

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148			0.0104 - 0.0192				
Uranium-238	NR	8.0			5.6 - 10.4				
Uranium-Total	NR	8.1			5.7 - 10.5				

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	7.01E-02	0.0780	A		-10.1	0.0546 - 0.1014	4.62E-03		
Cesium-134	2.64E+00	2.74	A		-3.7	1.92 - 3.56	1.80E-01		
Cesium-137	-5.10E-02		A		False Positive Test			8.04E-02	
Cobalt-57	2.30E+00	1.91	W		20.4	1.34 - 2.48	1.73E-01		
Cobalt-60	1.86E+00	1.728	A		7.6	1.210 - 2.246	1.39E-01		
Manganese-54	2.74E+00	2.36	A		16.1	1.65 - 3.07	1.99E-01		
Plutonium-238	7.02E-02	0.0625	A		12.3	0.0438 - 0.0813	3.13E-03		
Plutonium-239/240	1.31E-03	0.00081	A		Sensitivity Evaluation			3.93E-04	
Strontium-90	1.06E+00	1.03	A		2.9	0.72 - 1.34	6.53E-02		
Uranium-234/233	1.21E-02	0.0141	A		-14.2	0.0099 - 0.0183	1.51E-03		
Uranium-238	7.82E-02	0.100	W		-21.8	0.070 - 0.130	7.06E-03		
Zinc-65	1.18E-01		A		False Positive Test			1.94E-01	

Radiological Reference Date: August 1, 2012

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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (WSHL01) Wisconsin State Laboratory of Hygiene
 2601 Agriculture Drive
 Madison, WI 53718

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	2.64	2.74	A		-3.7	1.92 - 3.56	0.108		
Cesium-137	0.0264		A			False Positive Test	0.0372		
Cobalt-57	1.92	1.91	A		0.5	1.34 - 2.48	0.095		
Cobalt-60	1.75	1.728	A		1.3	1.210 - 2.246	0.183		
Manganese-54	2.36	2.36	A		0.0	1.65 - 3.07	0.199		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.00258		A			False Positive Test	0.0451		

Radiological Reference Date: August 1, 2012

Other Flags:

A = Result acceptable Bias <=20%

W = Result acceptable with warning 20% < Bias < 30%

N = Result not acceptable Bias > 30%

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

RW = Report Warning

NR = Not Reported

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (WVPL01) WVDP Radiation Protection Lab
 10282 Rock Springs Rd
 West Valley, NY 14171

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.0148				0.0104 - 0.0192			
Uranium-238	NR	8.0				5.6 - 10.4			
Uranium-Total	NR	8.1				5.7 - 10.5			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.07	0.0780	A		-10.3	0.0546 - 0.1014	0.02	H	
Cesium-134	2.62	2.74	A		-4.4	1.92 - 3.56	0.10		
Cesium-137	0.001		A			False Positive Test			
Cobalt-57	1.97	1.91	A		3.1	1.34 - 2.48	0.12		
Cobalt-60	1.76	1.728	A		1.9	1.210 - 2.246	0.07		
Manganese-54	2.52	2.36	A		6.8	1.65 - 3.07	0.16		
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	0.01		A			False Positive Test			

Radiological Reference Date: August 1, 2012

Other Flags:

A = Result acceptable Bias <=20%

W = Result acceptable with warning 20% < Bias < 30%

N = Result not acceptable Bias > 30%

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

RW = Report Warning

NR = Not Reported

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-12-RdF27
 (YPGA01) US Army Yuma Proving Ground / Material Analysis Lab
 301 C. Street
 Yuma, AZ 85365

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.015	0.0148	A		1.4	0.0104 - 0.0192	0.002		
Uranium-238	7.104	8.0	A		-11.2	5.6 - 10.4	0.002	L	
Uranium-Total	7.12	8.1	A		-12.1	5.7 - 10.5	0.216		

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0780				0.0546 - 0.1014			
Cesium-134	NR	2.74				1.92 - 3.56			
Cesium-137	NR					False Positive Test			
Cobalt-57	NR	1.91				1.34 - 2.48			
Cobalt-60	NR	1.728				1.210 - 2.246			
Manganese-54	NR	2.36				1.65 - 3.07			
Plutonium-238	NR	0.0625				0.0438 - 0.0813			
Plutonium-239/240	NR	0.00081				Sensitivity Evaluation			
Strontium-90	NR	1.03				0.72 - 1.34			
Uranium-234/233	NR	0.0141				0.0099 - 0.0183			
Uranium-238	NR	0.100				0.070 - 0.130			
Zinc-65	NR					False Positive Test			

Radiological Reference Date: August 1, 2012

Other Flags:

A = Result acceptable Bias <=20%

W = Result acceptable with warning 20% < Bias < 30%

N = Result not acceptable Bias > 30%

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

RW = Report Warning

NR = Not Reported

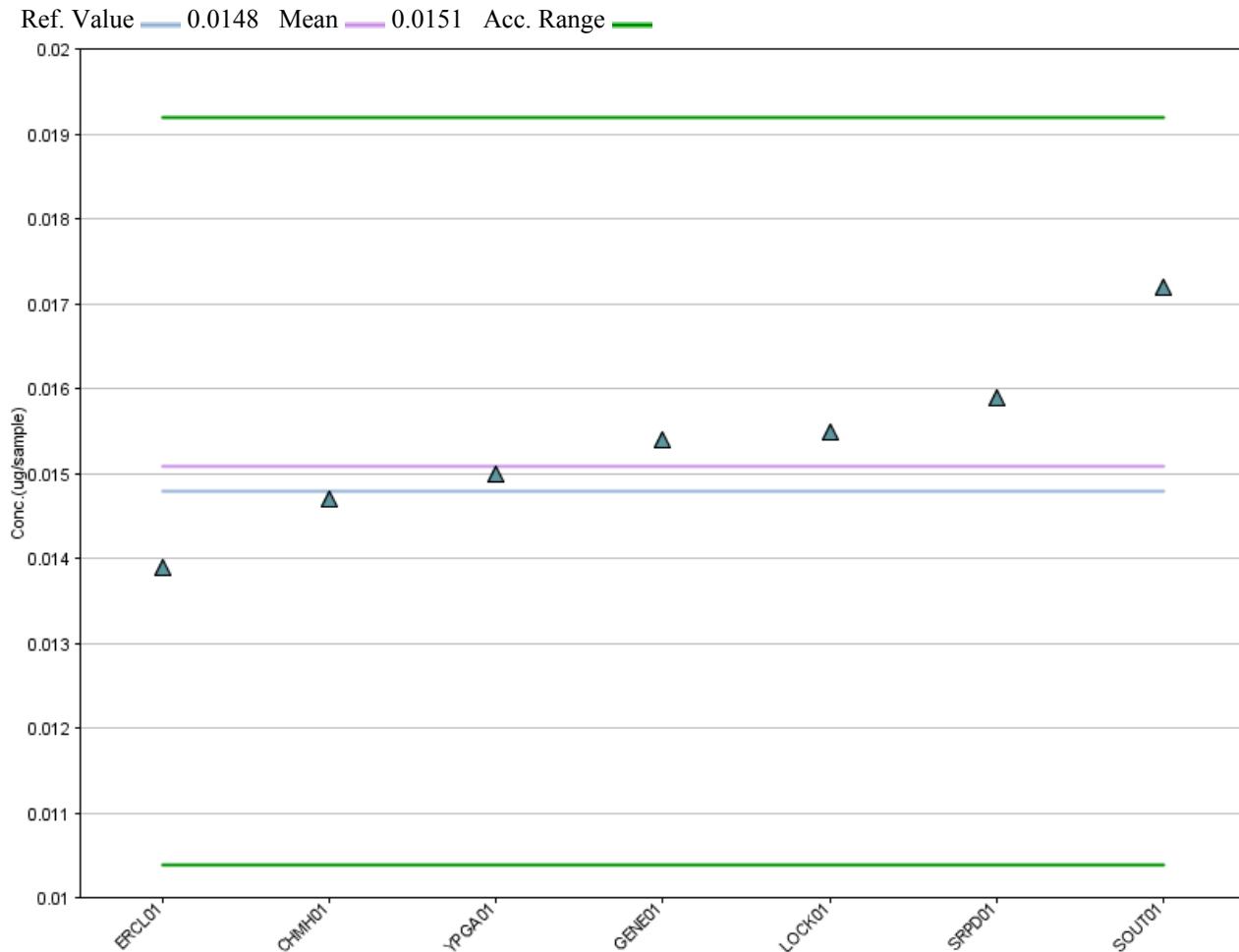
Radiological							Units: (Bq/sample)		
Analyte	Result	Ref	Flag	Notes	Bias	Acceptance	Unc	Unc	
		Value			(%)	Range	Value	Flag	

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations

Uranium-235

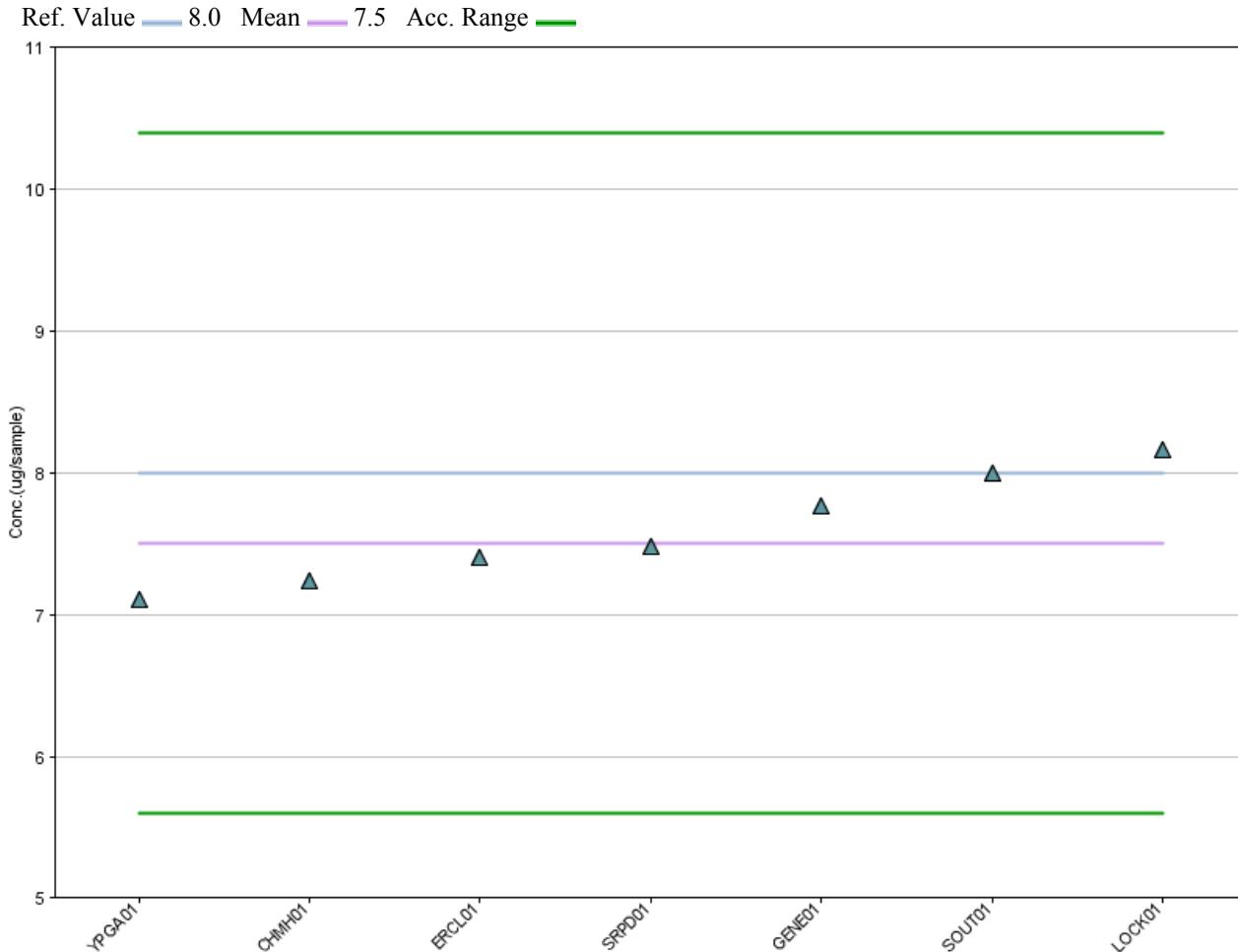
MAPEP-12-RdF27



Note: This chart shows only data points with values between 0.01 and 0.02 (± 5 Standard Deviations)

Uranium-238

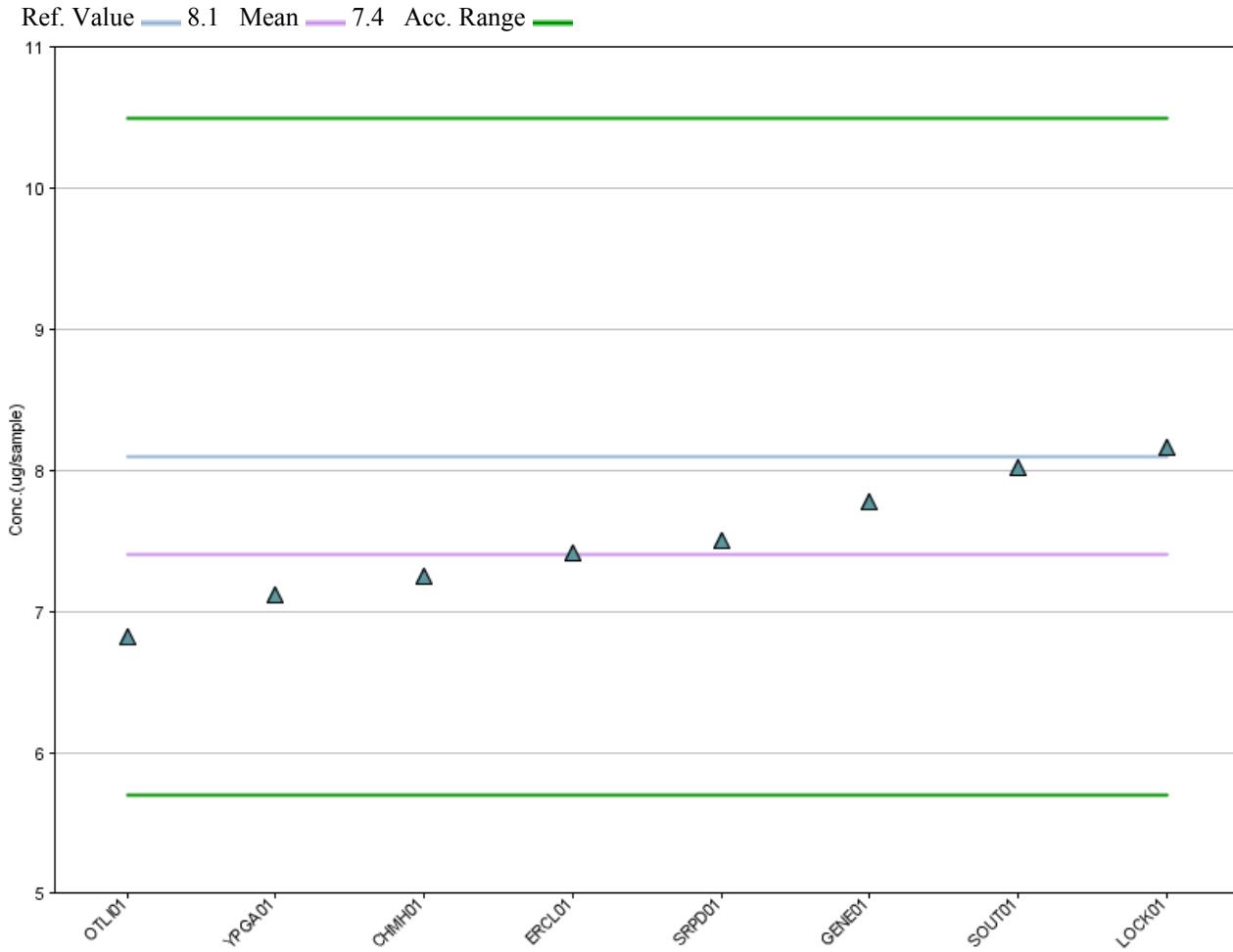
MAPEP-12-RdF27



Note: This chart shows only data points with values between 5.50 and 9.50 (± 5 Standard Deviations)

Uranium-Total

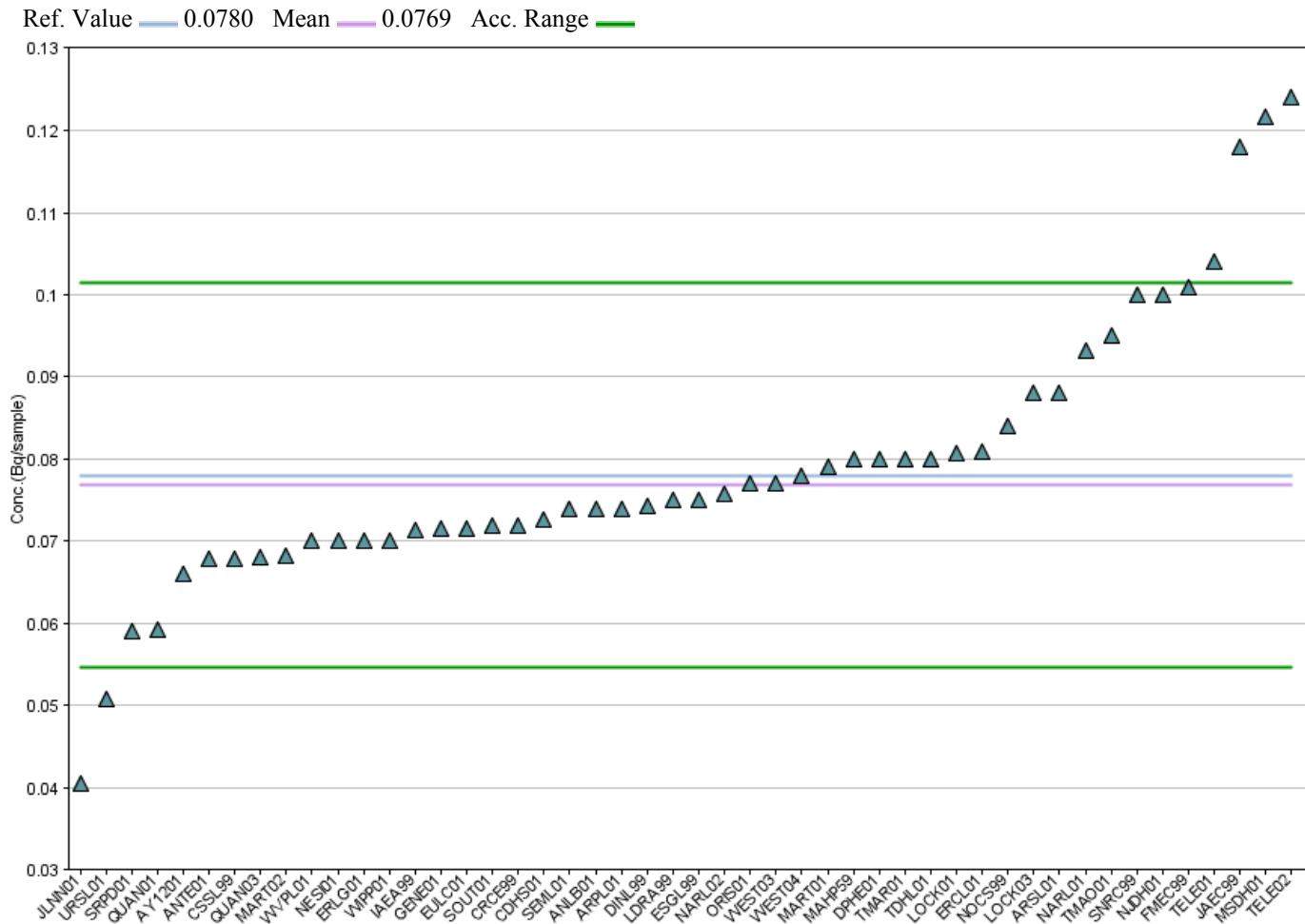
MAPEP-12-RdF27



Note: This chart shows only data points with values between 5.40 and 9.40 (± 5 Standard Deviations)

Americium-241

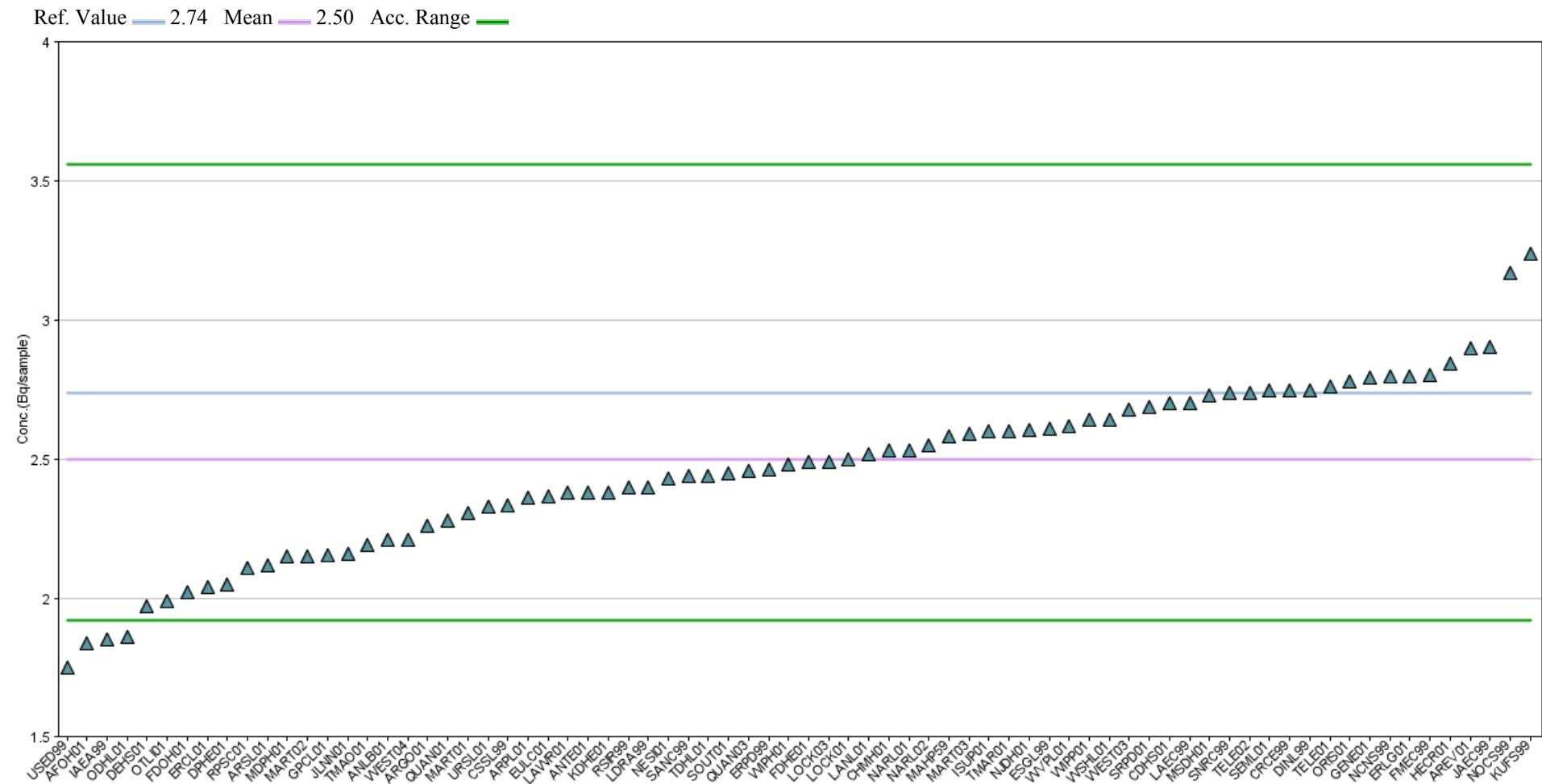
MAPEP-12-RdF27



Note: This chart shows only data points with values between 0.03 and 0.13 (± 5 Standard Deviations)

Cesium-134

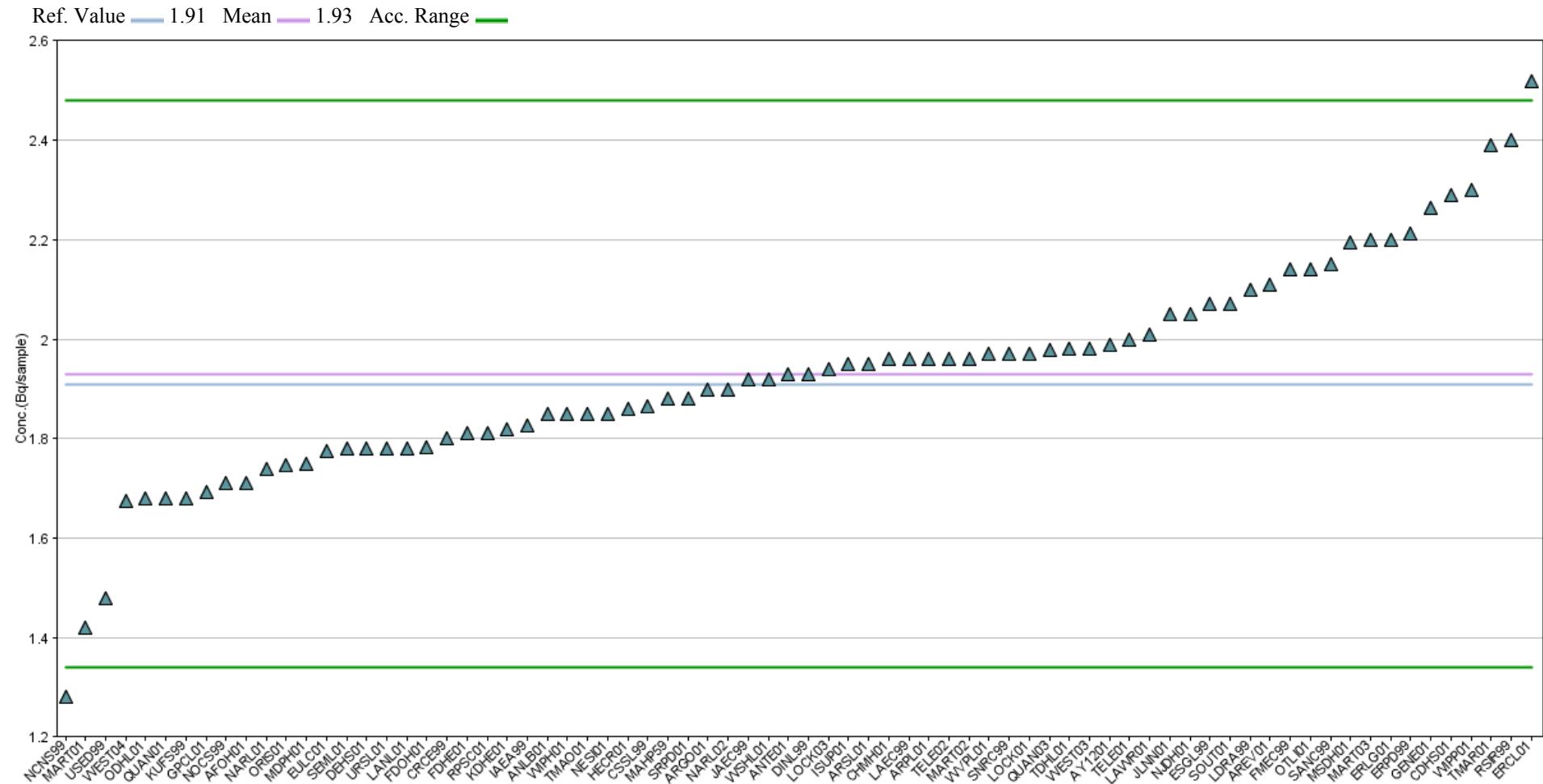
MAPEP-12-RdF27



Note: This chart shows only data points with values between 1.15 and 3.85 (± 5 Standard Deviations)

Cobalt-57

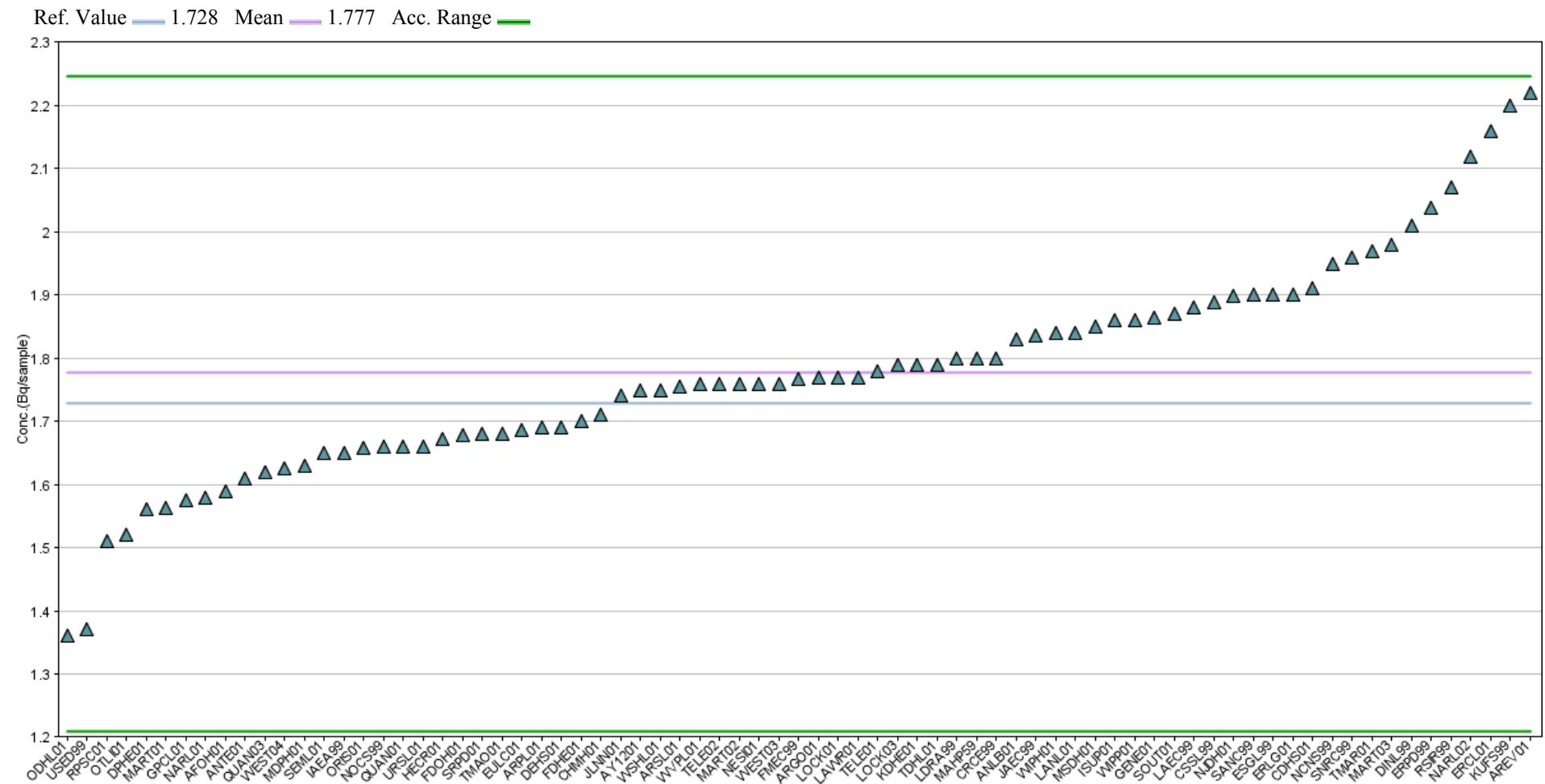
MAPEP-12-RdF27



Note: This chart shows only data points with values between 0.98 and 2.88 (± 5 Standard Deviations)

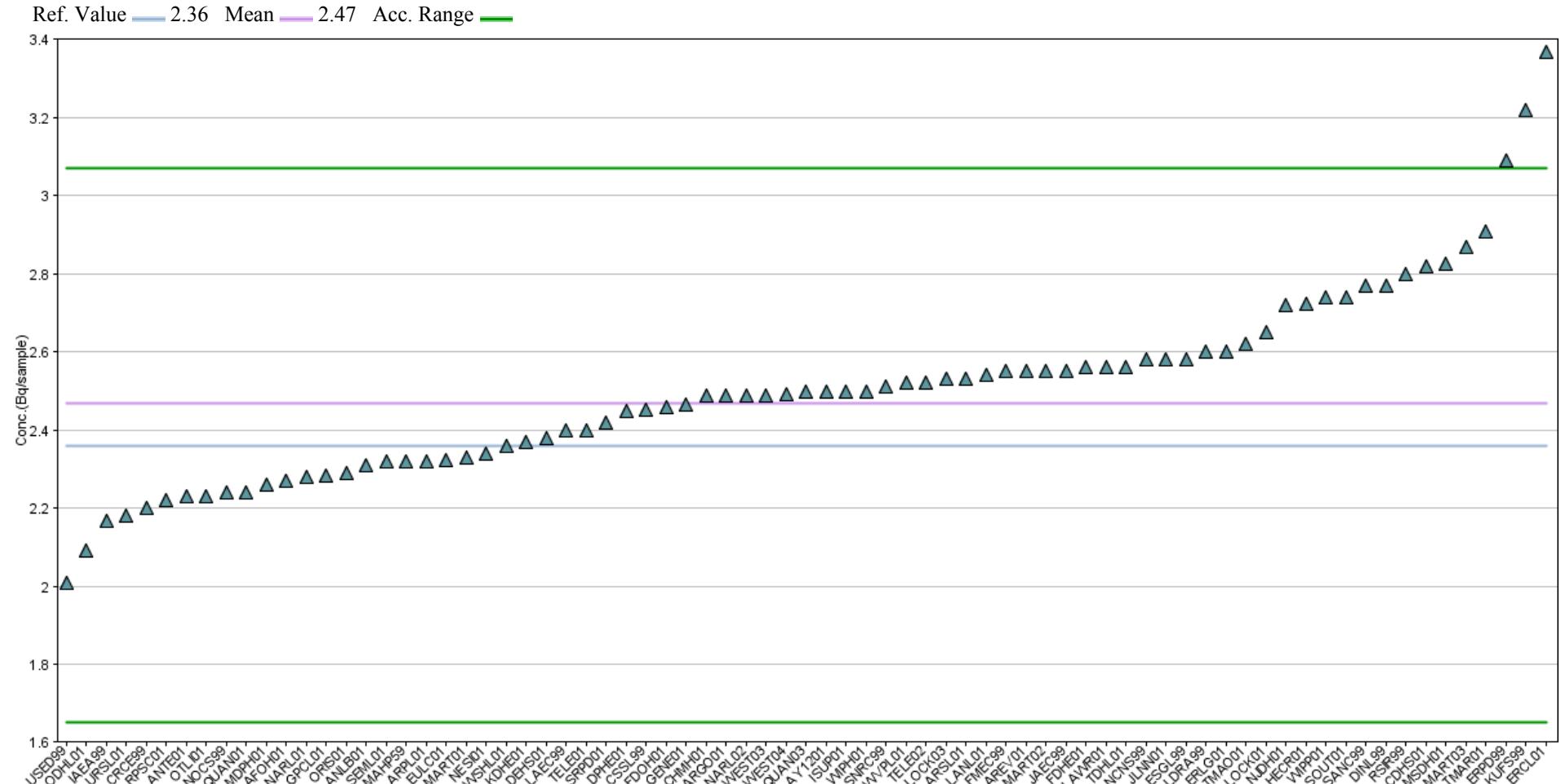
Cobalt-60

MAPEP-12-RdF27



Manganese-54

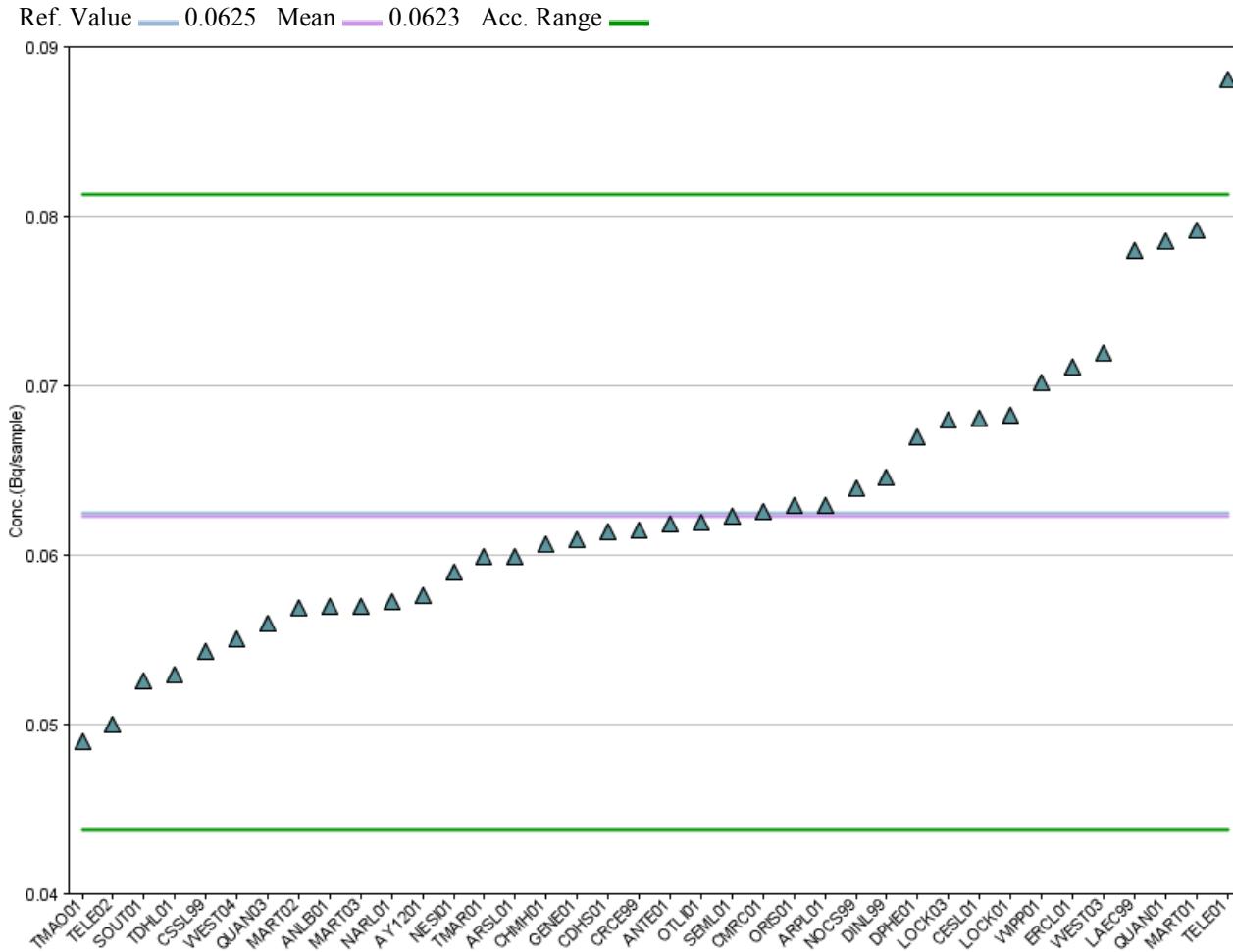
MAPEP-12-RdF27



Note: This chart shows only data points with values between 1.52 and 3.42 (± 5 Standard Deviations)

Plutonium-238

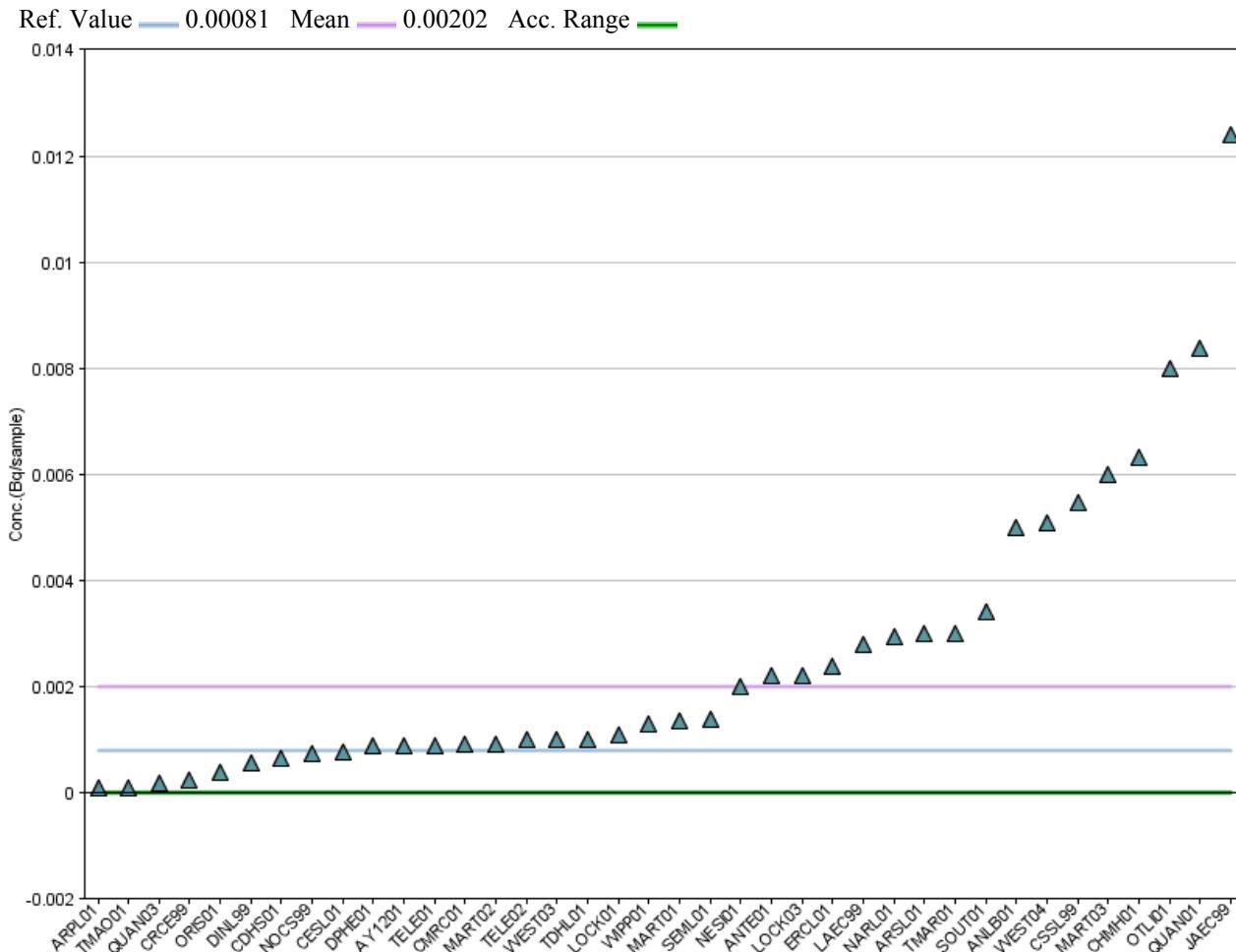
MAPEP-12-RdF27



Note: This chart shows only data points with values between 0.03 and 0.10 (± 5 Standard Deviations)

Plutonium-239/240

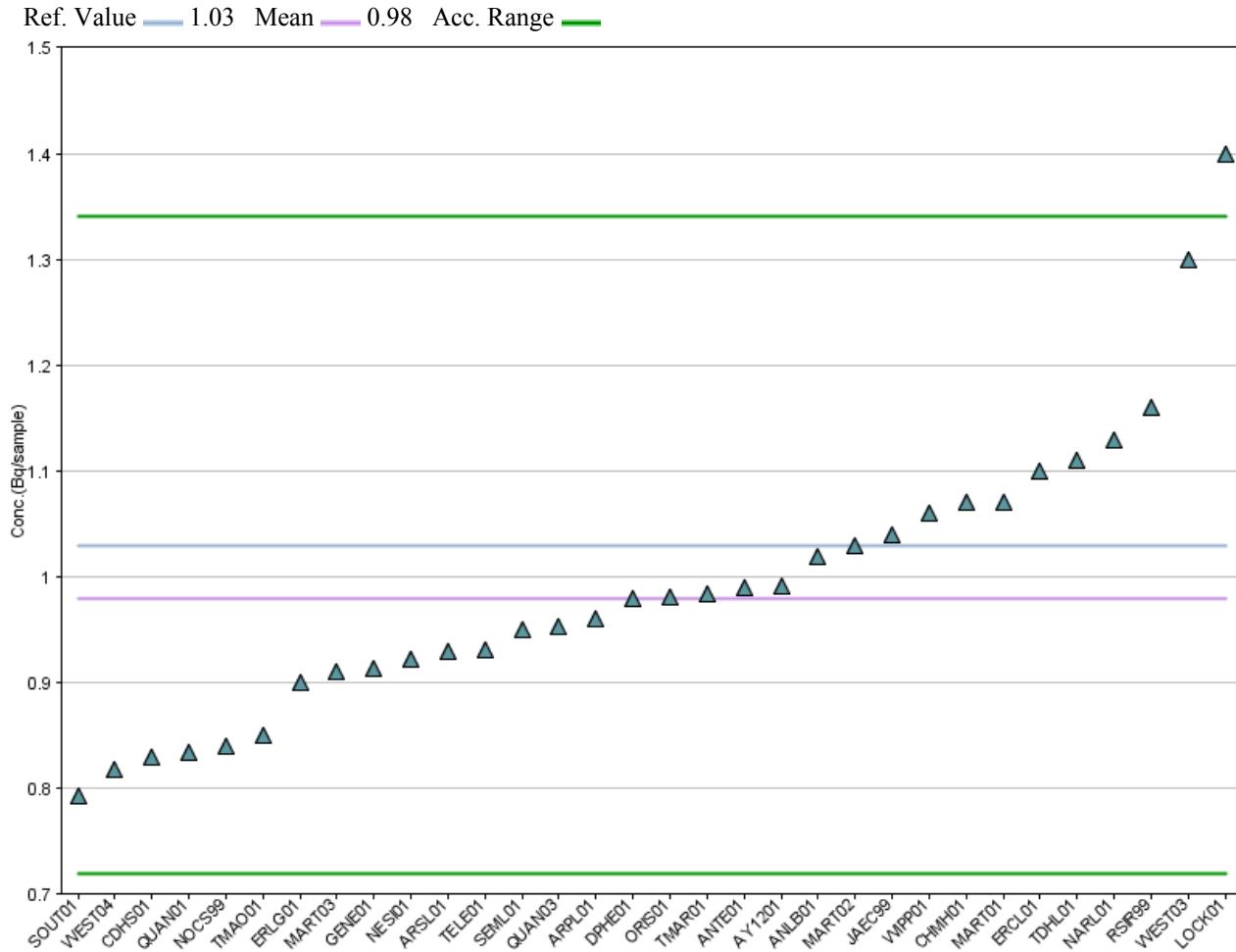
MAPEP-12-RdF27



Note: This chart shows only data points with values between 0.00 and 0.01 (± 5 Standard Deviations)

Strontium-90

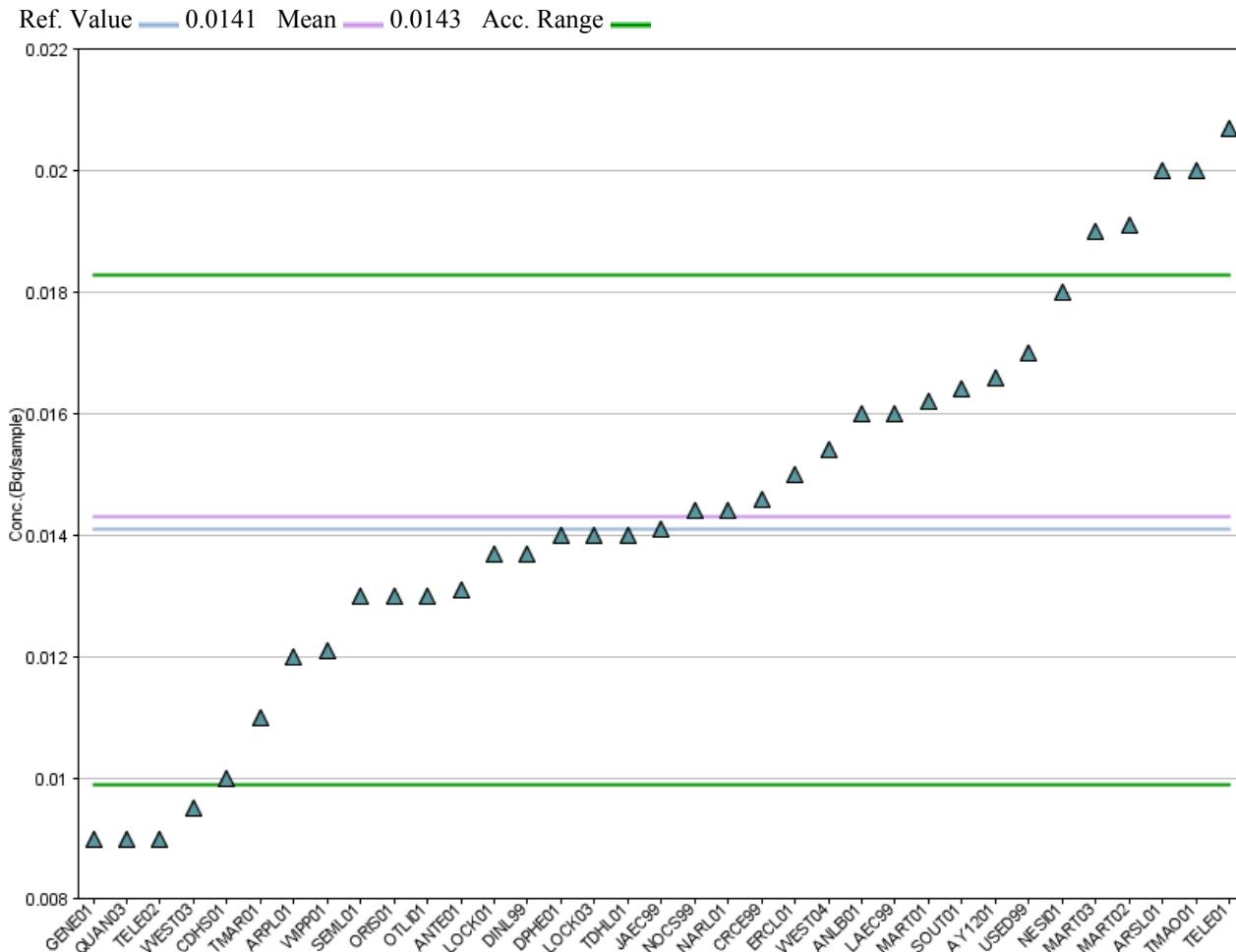
MAPEP-12-RdF27



Note: This chart shows only data points with values between 0.43 and 1.53 (± 5 Standard Deviations)

Uranium-234/233

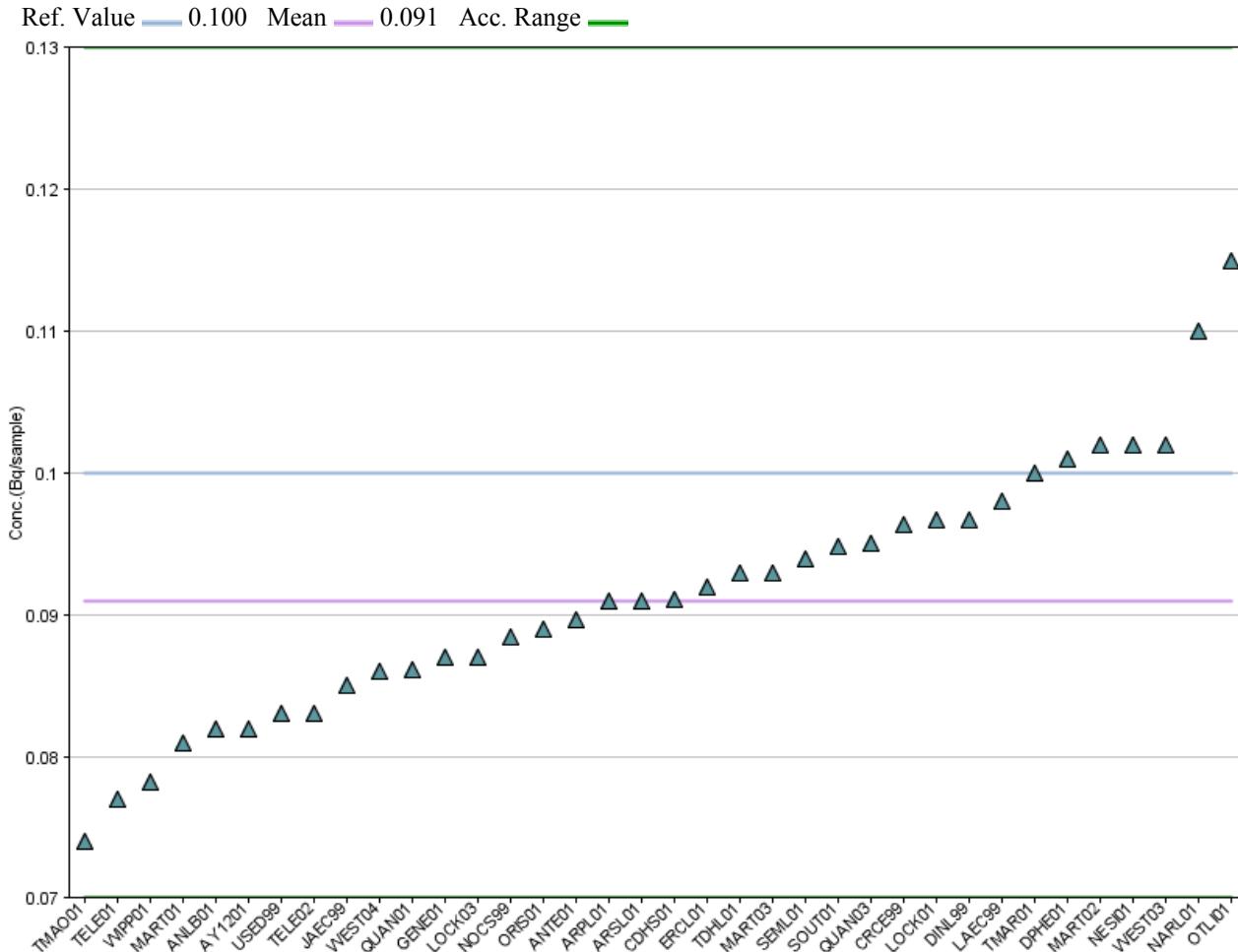
MAPEP-12-RdF27



Note: This chart shows only data points with values between 0.00 and 0.02 (± 5 Standard Deviations)

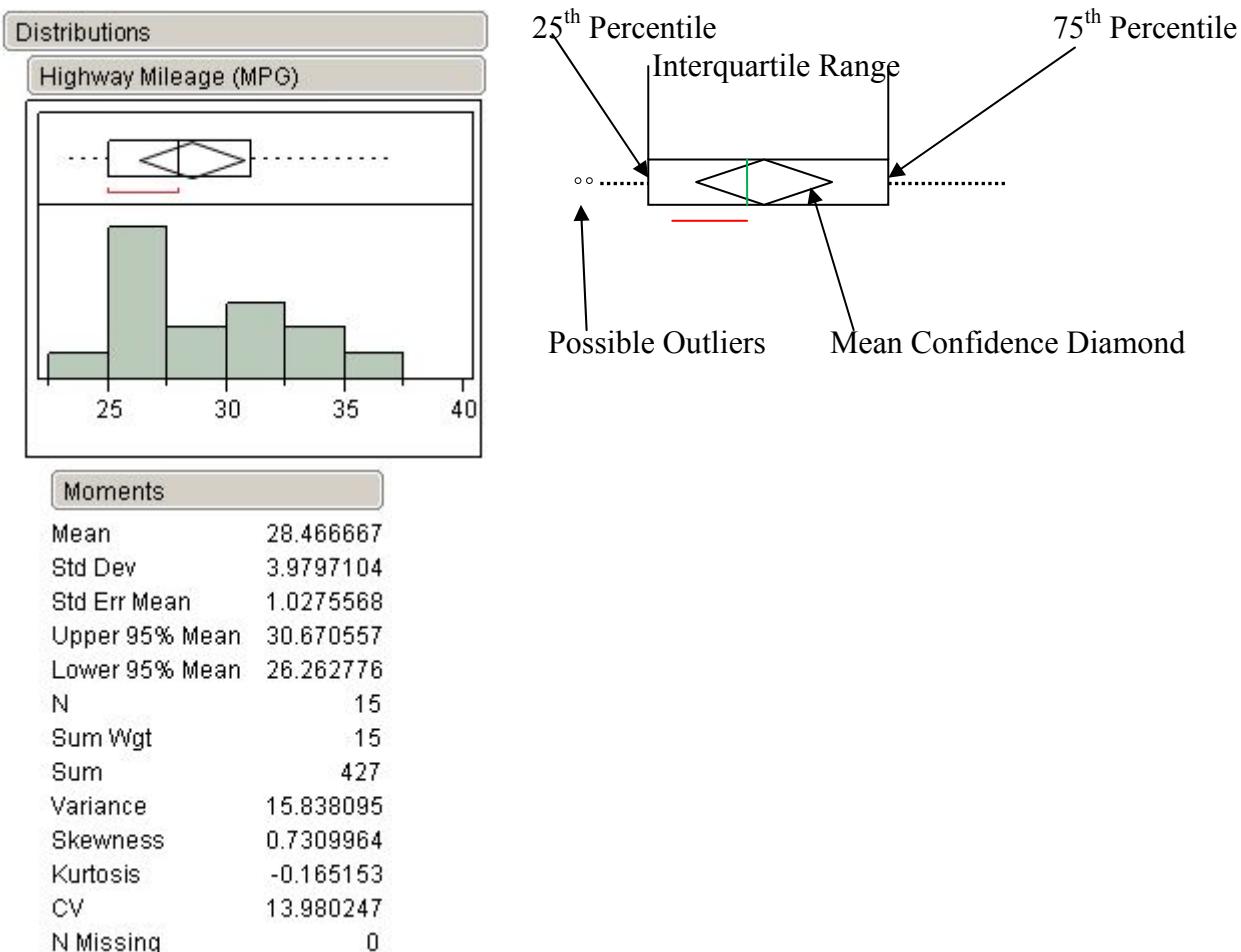
Uranium-238

MAPEP-12-RdF27



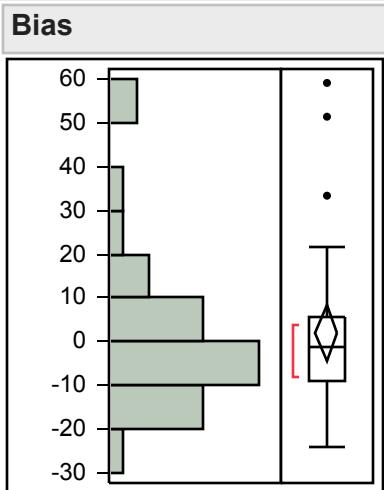
Note: This chart shows only data points with values between 0.05 and 0.14 (± 5 Standard Deviations)

The intent of the distribution graphs contained within this report is to graphically demonstrate to users how % Bias data within the current MAPEP Series appears when examined by matrix, by analyte, by method of sample preparation or by method of detection. The data points (small 'dots') plot the bias (or z-score for organic constituents) of each of the analytes in each of the matrices. The BLACK small vertical line inside the small rectangle at the top of the data distribution graph is the mean of the population of the bias shown for that analyte in the matrix.



The box plots summarize the distribution of points for each analyte. The ends of the box are the 25th and 75th quantiles. The difference between the quartiles is the interquartile range. The line across the middle of the box identifies the median bias value. Each box has lines, sometimes called whiskers, which extend from each end. The whiskers extend from the ends of the small box to the outermost data point that falls within the distances computed. Any potential outliers are represented as small black dots.

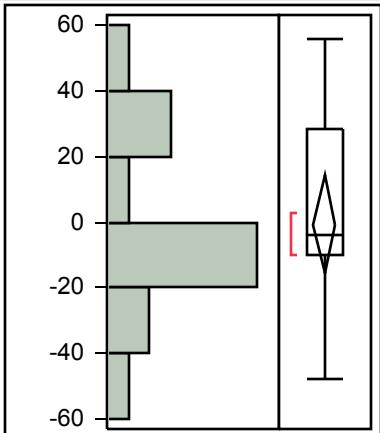
The box plot of the bias data points and the mean visually illustrate the breadth of the distribution and where any potential outliers in the distribution might lie. The moments for the distribution plot are provided below the Bias plot. In some cases, N becomes very small and thus developed statistics may not accurately reflect estimates of the population if N were a significantly larger value.

RdF Distribution by Detection Method**Distributions Analyte_Detection=Americium-
241 Alpha Spectrometry****Quantiles**

100.0%	maximum	59
99.5%		59
97.5%		59
90.0%		28.7
75.0%	quartile	5.75
50.0%	median	-1.3
25.0%	quartile	-9.15
10.0%		-13.02
2.5%		-24.1
0.5%		-24.1
0.0%	minimum	-24.1

Summary Statistics

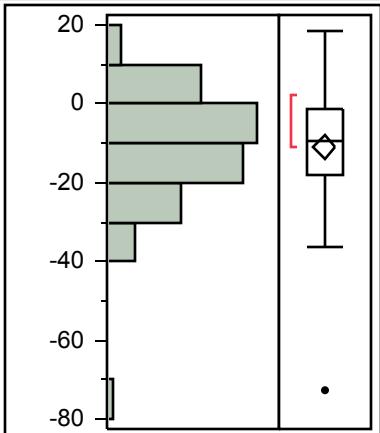
Mean	2.1242424
Std Dev	18.018429
Std Err Mean	3.1366058
Upper 95% Mean	8.5132994
Lower 95% Mean	-4.264815
N	33

RdF Distribution by Detection Method**Distributions Analyte_Detection=Americium-****241 Gamma Spectrometry****Bias****Quantiles**

100.0%	maximum	55.9
99.5%		55.9
97.5%		55.9
90.0%		40.06
75.0%	quartile	28.2
50.0%	median	-3.8
25.0%	quartile	-10.3
10.0%		-40.1
2.5%		-47.9
0.5%		-47.9
0.0%	minimum	-47.9

Summary Statistics

Mean	-0.693333
Std Dev	26.822311
Std Err Mean	6.925491
Upper 95% Mean	14.160368
Lower 95% Mean	-15.54703
N	15

RdF Distribution by Detection Method**Distributions Analyte_Detection=Cesium-
134 Gamma Spectrometry****Bias****Quantiles**

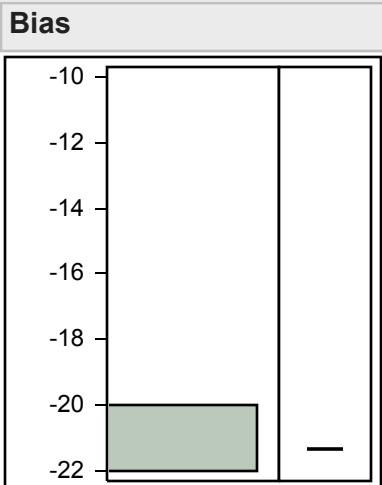
100.0%	maximum	18.2
99.5%		18.2
97.5%		16.0125
90.0%		2.2
75.0%	quartile	-1.5
50.0%	median	-9.3
25.0%	quartile	-17.95
10.0%		-26.8
2.5%		-40.663
0.5%		-72.6
0.0%	minimum	-72.6

Summary Statistics

Mean	-10.79189
Std Dev	13.263863
Std Err Mean	1.5418928
Upper 95% Mean	-7.718904
Lower 95% Mean	-13.86488
N	74

RdF Distribution by Detection Method

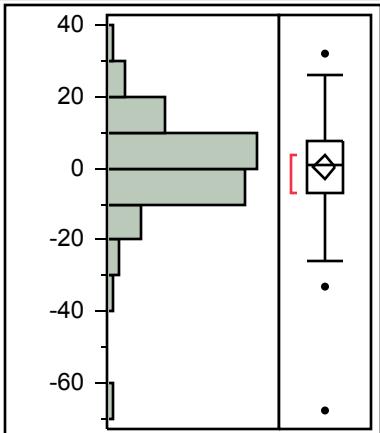
Distributions Analyte_Detection=Cesium-134 Gross
Alpha/Beta - 2 pi gas flow proportional counter

**Quantiles**

100.0%	maximum	-21.3
99.5%		-21.3
97.5%		-21.3
90.0%		-21.3
75.0%	quartile	-21.3
50.0%	median	-21.3
25.0%	quartile	-21.3
10.0%		-21.3
2.5%		-21.3
0.5%		-21.3
0.0%	minimum	-21.3

Summary Statistics

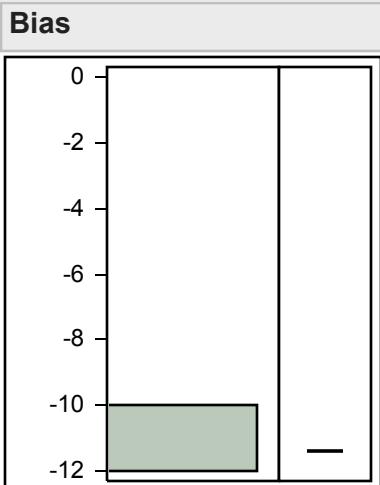
Mean	-21.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Detection Method**Distributions Analyte_Detection=Cobalt-57 Gamma Spectrometry****Bias****Quantiles**

100.0%	maximum	31.9
99.5%		31.9
97.5%		26.475
90.0%		15.5
75.0%	quartile	7.3
50.0%	median	1
25.0%	quartile	-6.65
10.0%		-12
2.5%		-37.313
0.5%		-67.5
0.0%	minimum	-67.5

Summary Statistics

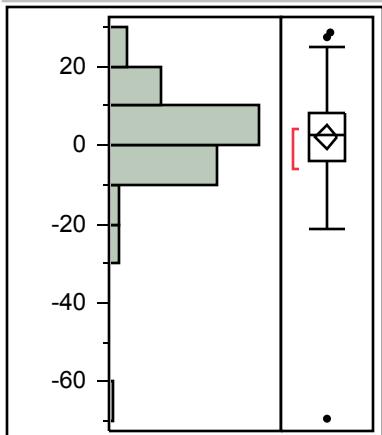
Mean	0.2108108
Std Dev	13.742849
Std Err Mean	1.5975738
Upper 95% Mean	3.3947708
Lower 95% Mean	-2.973149
N	74

RdF Distribution by Detection Method**Distributions Analyte_Detection=Cobalt-57 Gross****Alpha/Beta - 2 pi gas flow proportional counter****Quantiles**

100.0%	maximum	-11.4
99.5%		-11.4
97.5%		-11.4
90.0%		-11.4
75.0%	quartile	-11.4
50.0%	median	-11.4
25.0%	quartile	-11.4
10.0%		-11.4
2.5%		-11.4
0.5%		-11.4
0.0%	minimum	-11.4

Summary Statistics

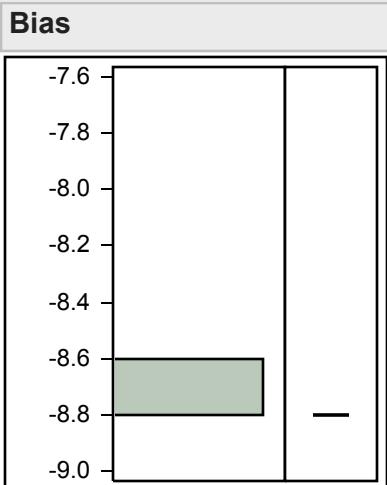
Mean	-11.4
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Detection Method**Distributions Analyte_Detection=Cobalt-60 Gamma Spectrometry****Bias****Quantiles**

100.0%	maximum	28.5
99.5%		28.5
97.5%		27.42
90.0%		15.28
75.0%	quartile	8.2
50.0%	median	2.3
25.0%	quartile	-3.9
10.0%		-9
2.5%		-26.1
0.5%		-69.3
0.0%	minimum	-69.3

Summary Statistics

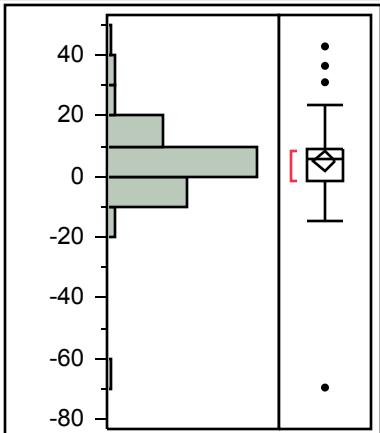
Mean	2.0306667
Std Dev	12.742353
Std Err Mean	1.4713602
Upper 95% Mean	4.9624158
Lower 95% Mean	-0.901083
N	75

RdF Distribution by Detection Method**Distributions Analyte_Detection=Cobalt-60 Gross****Alpha/Beta - 2 pi gas flow proportional counter****Quantiles**

100.0%	maximum	-8.8
99.5%		-8.8
97.5%		-8.8
90.0%		-8.8
75.0%	quartile	-8.8
50.0%	median	-8.8
25.0%	quartile	-8.8
10.0%		-8.8
2.5%		-8.8
0.5%		-8.8
0.0%	minimum	-8.8

Summary Statistics

Mean	-8.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Detection Method**Distributions Analyte_Detection=Manganese-
54 Gamma Spectrometry****Bias****Quantiles**

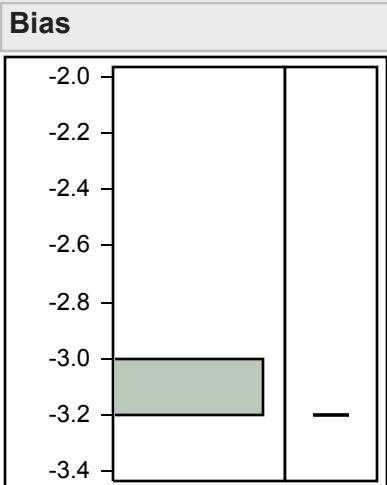
100.0%	maximum	42.8
99.5%		42.8
97.5%		37.04
90.0%		18.96
75.0%	quartile	9.3
50.0%	median	5.8
25.0%	quartile	-1.7
10.0%		-5.66
2.5%		-20.27
0.5%		-69.5
0.0%	minimum	-69.5

Summary Statistics

Mean	5.148
Std Dev	13.411425
Std Err Mean	1.5486179
Upper 95% Mean	8.2336886
Lower 95% Mean	2.0623114
N	75

RdF Distribution by Detection Method

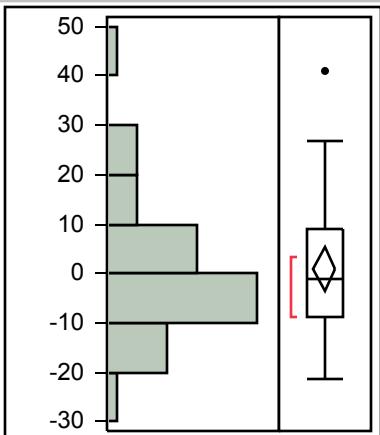
Distributions Analyte_Detection=Manganese-54 Gross
Alpha/Beta - 2 pi gas flow proportional counter

**Quantiles**

100.0%	maximum	-3.2
99.5%		-3.2
97.5%		-3.2
90.0%		-3.2
75.0%	quartile	-3.2
50.0%	median	-3.2
25.0%	quartile	-3.2
10.0%		-3.2
2.5%		-3.2
0.5%		-3.2
0.0%	minimum	-3.2

Summary Statistics

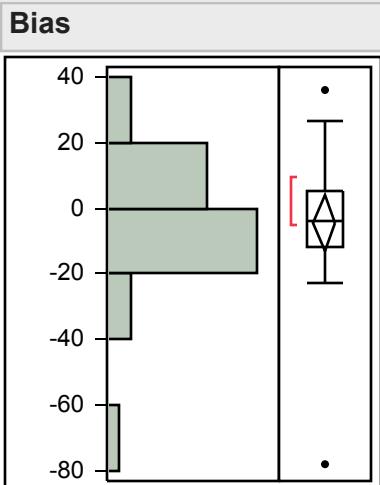
Mean	-3.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Detection Method**Distributions Analyte_Detection=Plutonium-238 Alpha Spectrometry****Bias****Quantiles**

100.0%	maximum	41
99.5%		41
97.5%		41
90.0%		24.9
75.0%	quartile	8.85
50.0%	median	-1.3
25.0%	quartile	-8.8
10.0%		-15.26
2.5%		-21.6
0.5%		-21.6
0.0%	minimum	-21.6

Summary Statistics

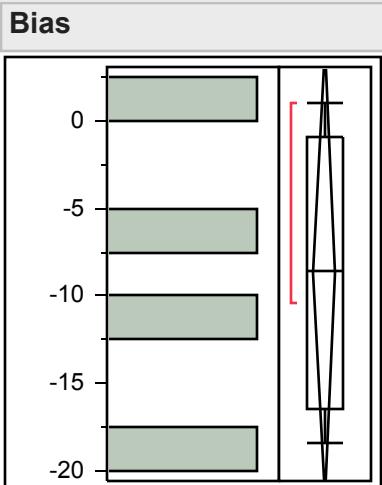
Mean	0.7078947
Std Dev	13.521342
Std Err Mean	2.1934513
Upper 95% Mean	5.1522493
Lower 95% Mean	-3.73646
N	38

RdF Distribution by Detection Method**Distributions Analyte_Detection=Strontium-90****Beta Counting - 2 pi gas flow proportional counter****Quantiles**

100.0%	maximum	35.9
99.5%		35.9
97.5%		35.9
90.0%		18.04
75.0%	quartile	5.35
50.0%	median	-3.9
25.0%	quartile	-11.5
10.0%		-21.56
2.5%		-77.8
0.5%		-77.8
0.0%	minimum	-77.8

Summary Statistics

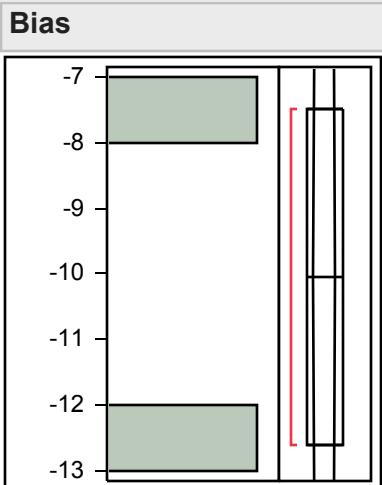
Mean	-4.556
Std Dev	20.511949
Std Err Mean	4.1023899
Upper 95% Mean	3.9109166
Lower 95% Mean	-13.02292
N	25

RdF Distribution by Detection Method**Distributions Analyte_Detection=Strontium-90****Beta Counting - liquid scintillation counter****Quantiles**

100.0%	maximum	1
99.5%		1
97.5%		1
90.0%		1
75.0%	quartile	-0.95
50.0%	median	-8.6
25.0%	quartile	-16.4
10.0%		-18.4
2.5%		-18.4
0.5%		-18.4
0.0%	minimum	-18.4

Summary Statistics

Mean	-8.65
Std Dev	8.0554329
Std Err Mean	4.0277165
Upper 95% Mean	4.1679914
Lower 95% Mean	-21.46799
N	4

RdF Distribution by Detection Method**Distributions Analyte_Detection=Strontium-90 Gamma Spectrometry****Quantiles**

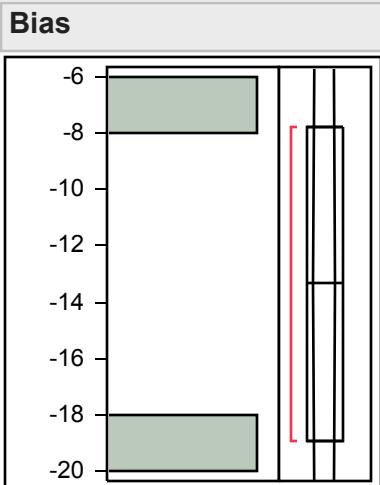
100.0%	maximum	-7.5
99.5%		-7.5
97.5%		-7.5
90.0%		-7.5
75.0%	quartile	-7.5
50.0%	median	-10.05
25.0%	quartile	-12.6
10.0%		-12.6
2.5%		-12.6
0.5%		-12.6
0.0%	minimum	-12.6

Summary Statistics

Mean	-10.05
Std Dev	3.6062446
Std Err Mean	2.55
Upper 95% Mean	22.350822
Lower 95% Mean	-42.45082
N	2

RdF Distribution by Detection Method

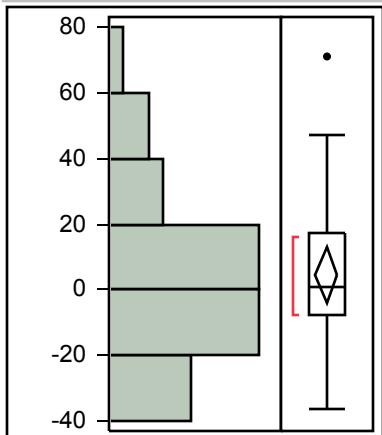
Distributions Analyte_Detection=Strontium-90 Gross
Alpha/Beta - 2 pi gas flow proportional counter

**Quantiles**

100.0%	maximum	-7.8
99.5%		-7.8
97.5%		-7.8
90.0%		-7.8
75.0%	quartile	-7.8
50.0%	median	-13.35
25.0%	quartile	-18.9
10.0%		-18.9
2.5%		-18.9
0.5%		-18.9
0.0%	minimum	-18.9

Summary Statistics

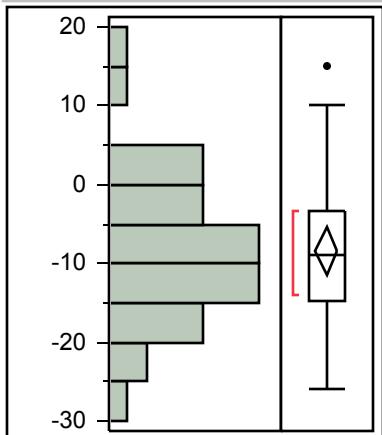
Mean	-13.35
Std Dev	7.8488853
Std Err Mean	5.55
Upper 95% Mean	57.169436
Lower 95% Mean	-83.86944
N	2

RdF Distribution by Detection Method**Distributions Analyte_Detection=Uranium-
234/233 Alpha Spectrometry****Bias****Quantiles**

100.0%	maximum	70.9
99.5%		70.9
97.5%		70.9
90.0%		41.8
75.0%	quartile	17.35
50.0%	median	1.05
25.0%	quartile	-7.8
10.0%		-33.68
2.5%		-36.2
0.5%		-36.2
0.0%	minimum	-36.2

Summary Statistics

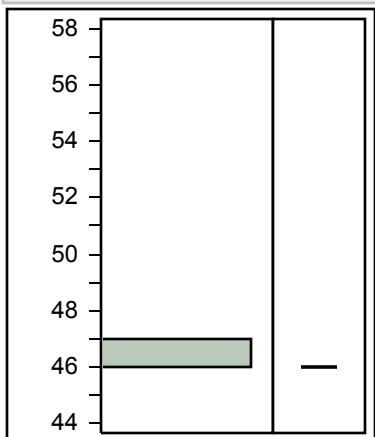
Mean	4.4333333
Std Dev	25.060316
Std Err Mean	4.1767193
Upper 95% Mean	12.912524
Lower 95% Mean	-4.045858
N	36

RdF Distribution by Detection Method**Distributions Analyte_Detection=Uranium-
238 Alpha Spectrometry****Bias****Quantiles**

100.0%	maximum	15
99.5%		15
97.5%		15
90.0%		2
75.0%	quartile	-3.3
50.0%	median	-8.95
25.0%	quartile	-14.75
10.0%		-19.91
2.5%		-26
0.5%		-26
0.0%	minimum	-26

Summary Statistics

Mean	-8.530556
Std Dev	9.0003752
Std Err Mean	1.5000625
Upper 95% Mean	-5.485267
Lower 95% Mean	-11.57584
N	36

RdF Distribution by Detection Method**Distributions Analyte_Detection=Uranium-
238 Gamma Spectrometry****Bias****Quantiles**

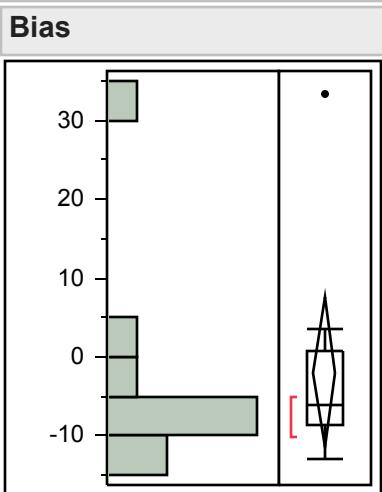
100.0%	maximum	46
99.5%		46
97.5%		46
90.0%		46
75.0%	quartile	46
50.0%	median	46
25.0%	quartile	46
10.0%		46
2.5%		46
0.5%		46
0.0%	minimum	46

Summary Statistics

Mean	46
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

Distributions Analyte_Method=Americium-241 Acid
dissolution by strong Aqua Regia, hydrofluoric acid, etc.

**Quantiles**

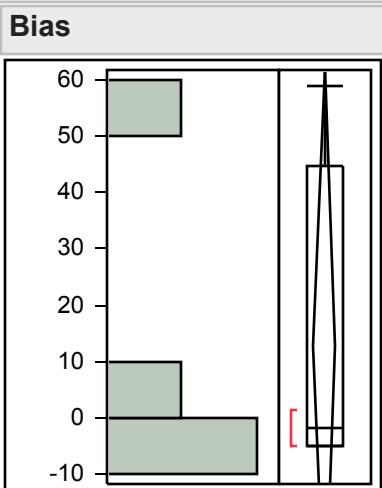
100.0%	maximum	33.3
99.5%		33.3
97.5%		33.3
90.0%		30.32
75.0%	quartile	0.8
50.0%	median	-6
25.0%	quartile	-8.675
10.0%		-12.62
2.5%		-12.9
0.5%		-12.9
0.0%	minimum	-12.9

Summary Statistics

Mean	-1.94
Std Dev	13.248245
Std Err Mean	4.189463
Upper 95% Mean	7.5372237
Lower 95% Mean	-11.41722
N	10

RdF Distribution by Prep Method

Distributions Analyte_Method=Americium-
241 Acid leaching without hydrofluoric acid



Quantiles

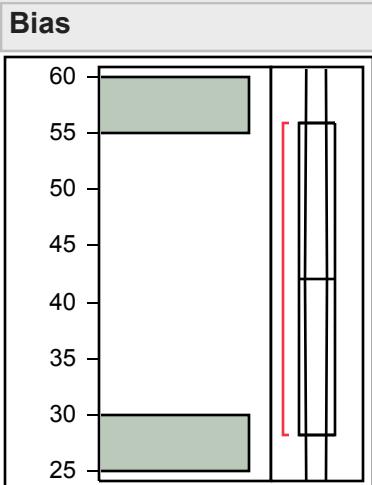
100.0%	maximum	59
99.5%		59
97.5%		59
90.0%		59
75.0%	quartile	44.6
50.0%	median	-1.65
25.0%	quartile	-5
10.0%		-5.1
2.5%		-5.1
0.5%		-5.1
0.0%	minimum	-5.1

Summary Statistics

Mean	12.65
Std Dev	31.04282
Std Err Mean	15.52141
Upper 95% Mean	62.046054
Lower 95% Mean	-36.74605
N	4

RdF Distribution by Prep Method

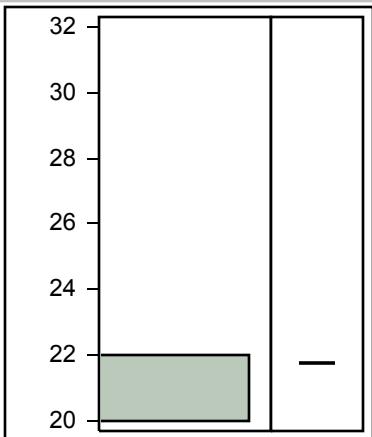
Distributions Analyte_Method=Americium-
241 EPA 901.1, Gamma Emitting, 600/4-80-032

**Quantiles**

100.0%	maximum	55.9
99.5%		55.9
97.5%		55.9
90.0%		55.9
75.0%	quartile	55.9
50.0%	median	42.05
25.0%	quartile	28.2
10.0%		28.2
2.5%		28.2
0.5%		28.2
0.0%	minimum	28.2

Summary Statistics

Mean	42.05
Std Dev	19.586858
Std Err Mean	13.85
Upper 95% Mean	218.03094
Lower 95% Mean	-133.9309
N	2

RdF Distribution by Prep Method**Distributions Analyte_Method=Americium-241****EPA 907, Actinide Elements, 600/4/80-032****Bias****Quantiles**

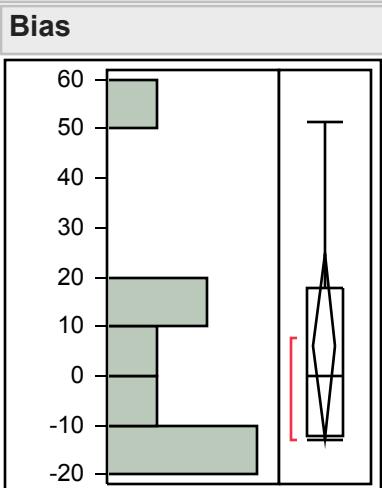
100.0%	maximum	21.8
99.5%		21.8
97.5%		21.8
90.0%		21.8
75.0%	quartile	21.8
50.0%	median	21.8
25.0%	quartile	21.8
10.0%		21.8
2.5%		21.8
0.5%		21.8
0.0%	minimum	21.8

Summary Statistics

Mean	21.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

Distributions Analyte_Method=Americium-241 Ion
Exchange Chromatography / Ion Chromatography



Quantiles

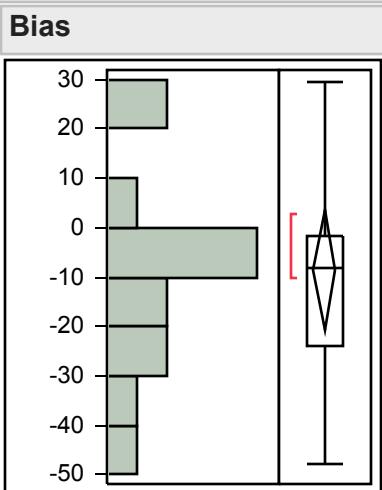
100.0%	maximum	51.3
99.5%		51.3
97.5%		51.3
90.0%		51.3
75.0%	quartile	17.825
50.0%	median	0
25.0%	quartile	-12.025
10.0%		-13.1
2.5%		-13.1
0.5%		-13.1
0.0%	minimum	-13.1

Summary Statistics

Mean	5.95
Std Dev	22.192663
Std Err Mean	7.8462912
Upper 95% Mean	24.50353
Lower 95% Mean	-12.60353
N	8

RdF Distribution by Prep Method

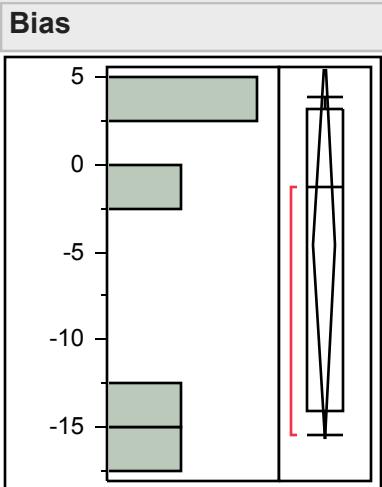
Distributions Analyte_Method=Americium-
241 No preparation - analyzed as received

**Quantiles**

100.0%	maximum	29.5
99.5%		29.5
97.5%		29.5
90.0%		28.85
75.0%	quartile	-1.525
50.0%	median	-8.35
25.0%	quartile	-24.125
10.0%		-41.4
2.5%		-47.9
0.5%		-47.9
0.0%	minimum	-47.9

Summary Statistics

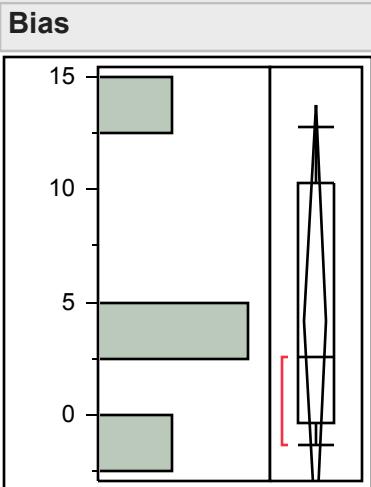
Mean	-8.471429
Std Dev	21.004338
Std Err Mean	5.6136454
Upper 95% Mean	3.6561149
Lower 95% Mean	-20.59897
N	14

RdF Distribution by Prep Method**Distributions****Analyte_Method=Americium-241 Other****Quantiles**

100.0%	maximum	3.8
99.5%		3.8
97.5%		3.8
90.0%		3.8
75.0%	quartile	3.2
50.0%	median	-1.3
25.0%	quartile	-14.1
10.0%		-15.4
2.5%		-15.4
0.5%		-15.4
0.0%	minimum	-15.4

Summary Statistics

Mean	-4.62
Std Dev	8.9046055
Std Err Mean	3.9822607
Upper 95% Mean	6.4365281
Lower 95% Mean	-15.67653
N	5

RdF Distribution by Prep Method**Distributions Analyte_Method=Americium-****241 Total dissolution by fusion****Quantiles**

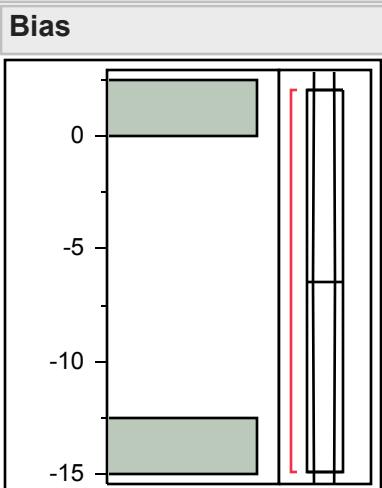
100.0%	maximum	12.8
99.5%		12.8
97.5%		12.8
90.0%		12.8
75.0%	quartile	10.25
50.0%	median	2.6
25.0%	quartile	-0.325
10.0%		-1.3
2.5%		-1.3
0.5%		-1.3
0.0%	minimum	-1.3

Summary Statistics

Mean	4.175
Std Dev	6.0367624
Std Err Mean	3.0183812
Upper 95% Mean	13.780836
Lower 95% Mean	-5.430836
N	4

RdF Distribution by Prep Method

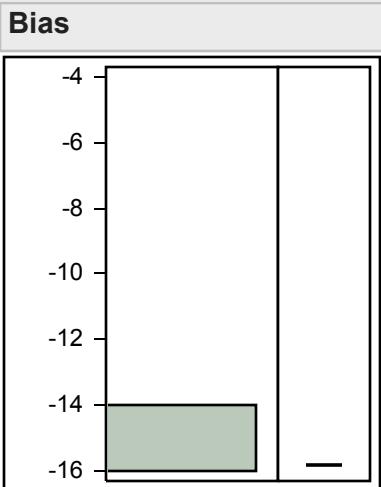
Distributions Analyte_Method=Cesium-134 Acid
dissolution by strong Aqua Regia, hydrofluoric acid, etc.

**Quantiles**

100.0%	maximum	2
99.5%		2
97.5%		2
90.0%		2
75.0%	quartile	2
50.0%	median	-6.45
25.0%	quartile	-14.9
10.0%		-14.9
2.5%		-14.9
0.5%		-14.9
0.0%	minimum	-14.9

Summary Statistics

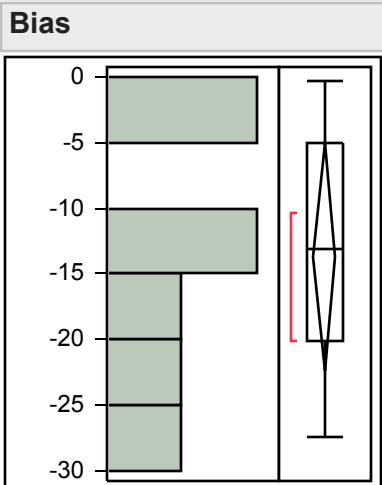
Mean	-6.45
Std Dev	11.950105
Std Err Mean	8.45
Upper 95% Mean	100.91743
Lower 95% Mean	-113.8174
N	2

RdF Distribution by Prep Method**Distributions Analyte_Method=Cesium-134****Acid leaching without hydrofluoric acid****Quantiles**

100.0%	maximum	-15.8
99.5%		-15.8
97.5%		-15.8
90.0%		-15.8
75.0%	quartile	-15.8
50.0%	median	-15.8
25.0%	quartile	-15.8
10.0%		-15.8
2.5%		-15.8
0.5%		-15.8
0.0%	minimum	-15.8

Summary Statistics

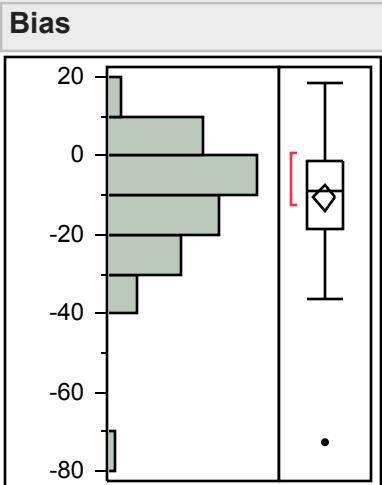
Mean	-15.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method**Distributions Analyte_Method=Cesium-134****EPA 901.1, Gamma Emitting, 600/4-80-032****Quantiles**

100.0%	maximum	-0.4
99.5%		-0.4
97.5%		-0.4
90.0%		-0.4
75.0%	quartile	-5
50.0%	median	-13.1
25.0%	quartile	-20.1
10.0%		-27.4
2.5%		-27.4
0.5%		-27.4
0.0%	minimum	-27.4

Summary Statistics

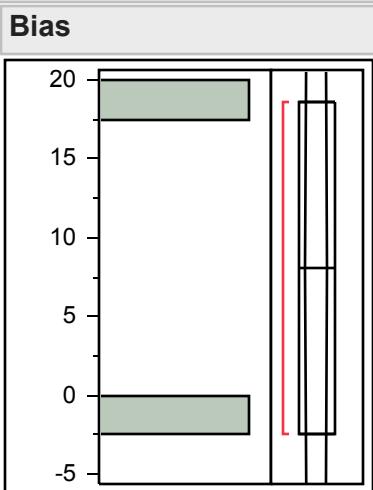
Mean	-13.67143
Std Dev	9.3437527
Std Err Mean	3.5316066
Upper 95% Mean	-5.029899
Lower 95% Mean	-22.31296
N	7

RdF Distribution by Prep Method**Distributions Analyte_Method=Cesium-134****No preparation - analyzed as received****Quantiles**

100.0%	maximum	18.2
99.5%		18.2
97.5%		16.575
90.0%		2.24
75.0%	quartile	-1.5
50.0%	median	-9.1
25.0%	quartile	-18.4
10.0%		-26.96
2.5%		-48.875
0.5%		-72.6
0.0%	minimum	-72.6

Summary Statistics

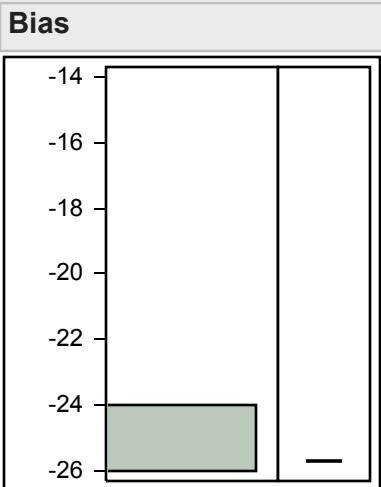
Mean	-10.7
Std Dev	13.787052
Std Err Mean	1.7100734
Upper 95% Mean	-7.283736
Lower 95% Mean	-14.11626
N	65

RdF Distribution by Prep Method**Distributions Analyte_Method=Cobalt-57 Acid dissolution
by strong Aqua Requia, hydrofluoric acid, etc.****Quantiles**

100.0%	maximum	18.6
99.5%		18.6
97.5%		18.6
90.0%		18.6
75.0%	quartile	18.6
50.0%	median	8.1
25.0%	quartile	-2.4
10.0%		-2.4
2.5%		-2.4
0.5%		-2.4
0.0%	minimum	-2.4

Summary Statistics

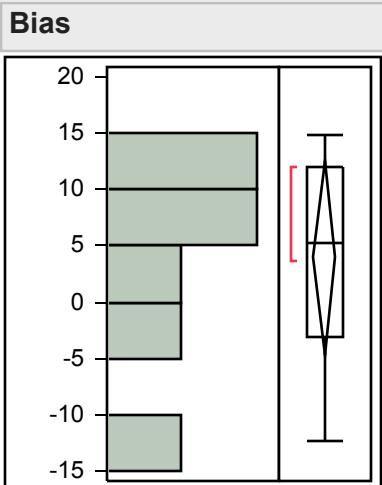
Mean	8.1
Std Dev	14.849242
Std Err Mean	10.5
Upper 95% Mean	141.51515
Lower 95% Mean	-125.3151
N	2

RdF Distribution by Prep Method**Distributions Analyte_Method=Cobalt-57****Acid leaching without hydrofluoric acid****Quantiles**

100.0%	maximum	-25.7
99.5%		-25.7
97.5%		-25.7
90.0%		-25.7
75.0%	quartile	-25.7
50.0%	median	-25.7
25.0%	quartile	-25.7
10.0%		-25.7
2.5%		-25.7
0.5%		-25.7
0.0%	minimum	-25.7

Summary Statistics

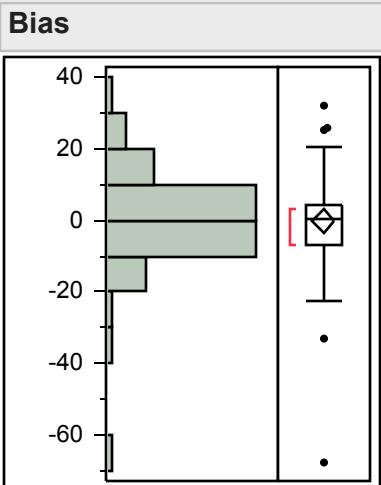
Mean	-25.7
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method**Distributions Analyte_Method=Cobalt-57****EPA 901.1, Gamma Emitting, 600/4-80-032****Quantiles**

100.0%	maximum	14.9
99.5%		14.9
97.5%		14.9
90.0%		14.9
75.0%	quartile	12
50.0%	median	5.2
25.0%	quartile	-3.1
10.0%		-12.3
2.5%		-12.3
0.5%		-12.3
0.0%	minimum	-12.3

Summary Statistics

Mean	3.9428571
Std Dev	9.2319837
Std Err Mean	3.4893619
Upper 95% Mean	12.481018
Lower 95% Mean	-4.595304
N	7

RdF Distribution by Prep Method**Distributions Analyte_Method=Cobalt-57****No preparation - analyzed as received****Quantiles**

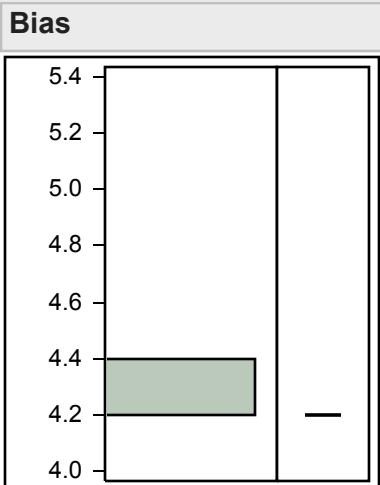
100.0%	maximum	31.9
99.5%		31.9
97.5%		28.025
90.0%		15.5
75.0%	quartile	4.45
50.0%	median	0.5
25.0%	quartile	-6.8
10.0%		-11.7
2.5%		-45.938
0.5%		-67.5
0.0%	minimum	-67.5

Summary Statistics

Mean	-0.282812
Std Dev	13.953034
Std Err Mean	1.7441293
Upper 95% Mean	3.2025517
Lower 95% Mean	-3.768177
N	64

RdF Distribution by Prep Method**Distributions**

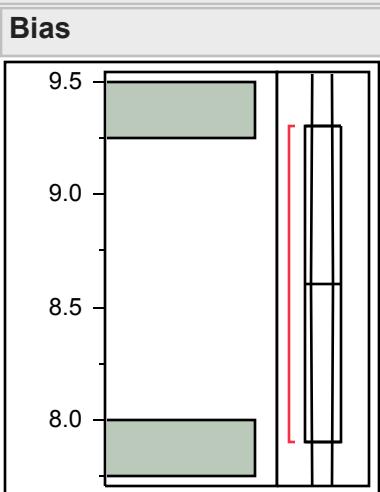
Analyte_Method=Cobalt-57 Other

**Quantiles**

100.0%	maximum	4.2
99.5%		4.2
97.5%		4.2
90.0%		4.2
75.0%	quartile	4.2
50.0%	median	4.2
25.0%	quartile	4.2
10.0%		4.2
2.5%		4.2
0.5%		4.2
0.0%	minimum	4.2

Summary Statistics

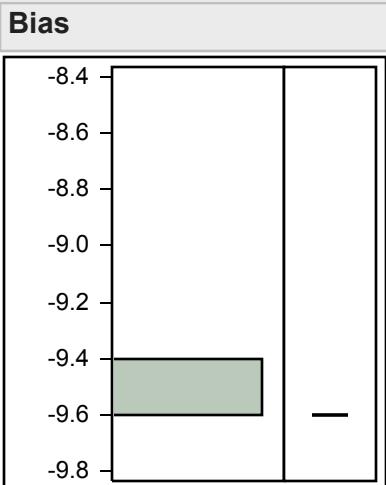
Mean	4.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method**Distributions Analyte_Method=Cobalt-60 Acid dissolution
by strong Aqua Requia, hydrofluoric acid, etc.****Quantiles**

100.0%	maximum	9.3
99.5%		9.3
97.5%		9.3
90.0%		9.3
75.0%	quartile	9.3
50.0%	median	8.6
25.0%	quartile	7.9
10.0%		7.9
2.5%		7.9
0.5%		7.9
0.0%	minimum	7.9

Summary Statistics

Mean	8.6
Std Dev	0.9899495
Std Err Mean	0.7
Upper 95% Mean	17.494343
Lower 95% Mean	-0.294343
N	2

RdF Distribution by Prep Method**Distributions Analyte_Method=Cobalt-60****Acid leaching without hydrofluoric acid****Quantiles**

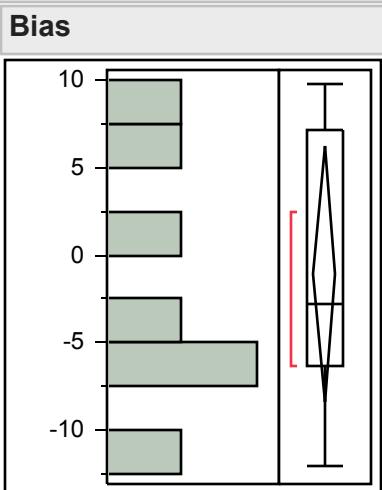
100.0%	maximum	-9.6
99.5%		-9.6
97.5%		-9.6
90.0%		-9.6
75.0%	quartile	-9.6
50.0%	median	-9.6
25.0%	quartile	-9.6
10.0%		-9.6
2.5%		-9.6
0.5%		-9.6
0.0%	minimum	-9.6

Summary Statistics

Mean	-9.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

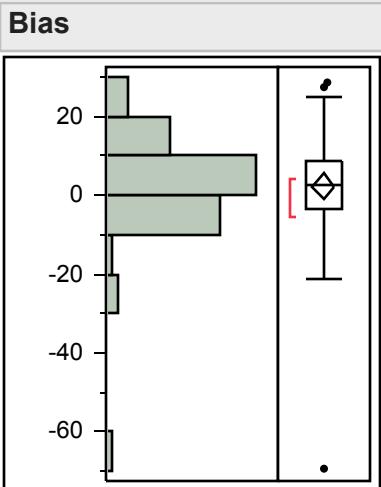
Distributions Analyte_Method=Cobalt-60
EPA 901.1, Gamma Emitting, 600/4-80-032

**Quantiles**

100.0%	maximum	9.8
99.5%		9.8
97.5%		9.8
90.0%		9.8
75.0%	quartile	7.1
50.0%	median	-2.8
25.0%	quartile	-6.3
10.0%		-12
2.5%		-12
0.5%		-12
0.0%	minimum	-12

Summary Statistics

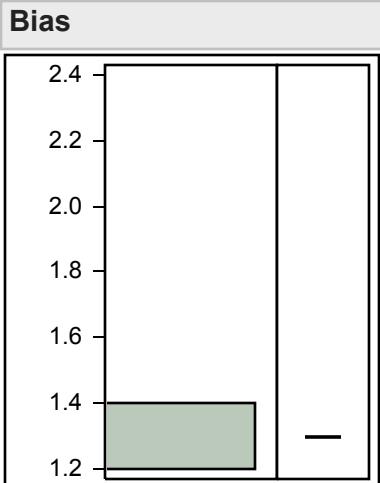
Mean	-1.114286
Std Dev	7.8639321
Std Err Mean	2.972287
Upper 95% Mean	6.1586385
Lower 95% Mean	-8.38721
N	7

RdF Distribution by Prep Method**Distributions Analyte_Method=Cobalt-60****No preparation - analyzed as received****Quantiles**

100.0%	maximum	28.5
99.5%		28.5
97.5%		27.72
90.0%		16.98
75.0%	quartile	8.5
50.0%	median	2.3
25.0%	quartile	-3.55
10.0%		-8.68
2.5%		-38.1
0.5%		-69.3
0.0%	minimum	-69.3

Summary Statistics

Mean	2.1907692
Std Dev	13.385775
Std Err Mean	1.6603011
Upper 95% Mean	5.5076019
Lower 95% Mean	-1.126063
N	65

RdF Distribution by Prep Method**Distributions****Analyte_Method=Cobalt-60 Other****Quantiles**

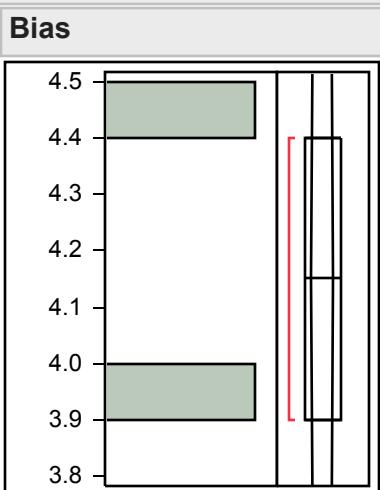
100.0%	maximum	1.3
99.5%		1.3
97.5%		1.3
90.0%		1.3
75.0%	quartile	1.3
50.0%	median	1.3
25.0%	quartile	1.3
10.0%		1.3
2.5%		1.3
0.5%		1.3
0.0%	minimum	1.3

Summary Statistics

Mean	1.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

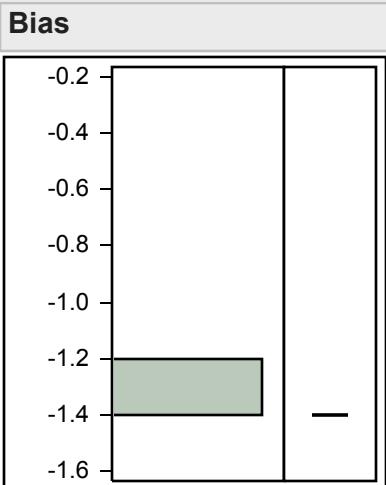
Distributions Analyte_Method=Manganese-54 Acid
dissolution by strong Aqua Regia, hydrofluoric acid, etc.

**Quantiles**

100.0%	maximum	4.4
99.5%		4.4
97.5%		4.4
90.0%		4.4
75.0%	quartile	4.4
50.0%	median	4.15
25.0%	quartile	3.9
10.0%		3.9
2.5%		3.9
0.5%		3.9
0.0%	minimum	3.9

Summary Statistics

Mean	4.15
Std Dev	0.3535534
Std Err Mean	0.25
Upper 95% Mean	7.3265512
Lower 95% Mean	0.9734488
N	2

RdF Distribution by Prep Method**Distributions Analyte_Method=Manganese-54****Acid leaching without hydrofluoric acid****Quantiles**

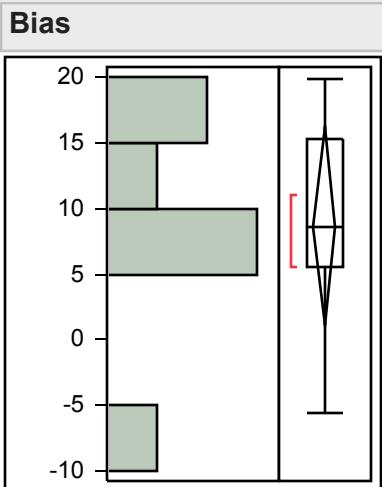
100.0%	maximum	-1.4
99.5%		-1.4
97.5%		-1.4
90.0%		-1.4
75.0%	quartile	-1.4
50.0%	median	-1.4
25.0%	quartile	-1.4
10.0%		-1.4
2.5%		-1.4
0.5%		-1.4
0.0%	minimum	-1.4

Summary Statistics

Mean	-1.4
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

Distributions Analyte_Method=Manganese-54
EPA 901.1, Gamma Emitting, 600/4-80-032

**Quantiles**

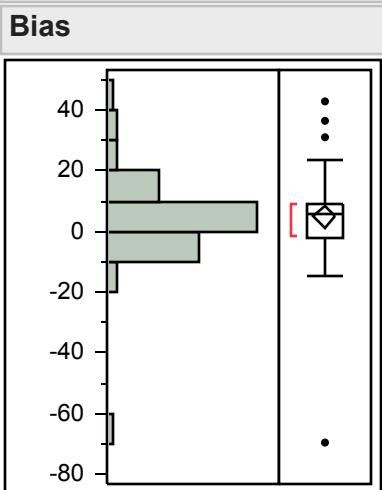
100.0%	maximum	19.8
99.5%		19.8
97.5%		19.8
90.0%		19.8
75.0%	quartile	15.3
50.0%	median	8.5
25.0%	quartile	5.6
10.0%		-5.5
2.5%		-5.5
0.5%		-5.5
0.0%	minimum	-5.5

Summary Statistics

Mean	8.6428571
Std Dev	8.0801933
Std Err Mean	3.054026
Upper 95% Mean	16.11579
Lower 95% Mean	1.1699247
N	7

RdF Distribution by Prep Method

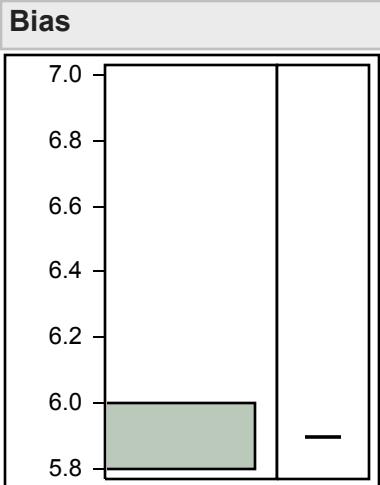
Distributions Analyte_Method=Manganese-
54 No preparation - analyzed as received

**Quantiles**

100.0%	maximum	42.8
99.5%		42.8
97.5%		38.64
90.0%		18.96
75.0%	quartile	9.3
50.0%	median	5.5
25.0%	quartile	-1.9
10.0%		-6.26
2.5%		-33.945
0.5%		-69.5
0.0%	minimum	-69.5

Summary Statistics

Mean	4.7630769
Std Dev	14.168281
Std Err Mean	1.7573589
Upper 95% Mean	8.273805
Lower 95% Mean	1.2523489
N	65

RdF Distribution by Prep Method**Distributions****Analyte_Method=Manganese-54 Other****Quantiles**

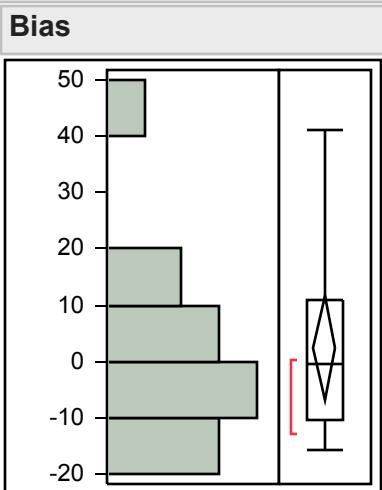
100.0%	maximum	5.9
99.5%		5.9
97.5%		5.9
90.0%		5.9
75.0%	quartile	5.9
50.0%	median	5.9
25.0%	quartile	5.9
10.0%		5.9
2.5%		5.9
0.5%		5.9
0.0%	minimum	5.9

Summary Statistics

Mean	5.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

Distributions Analyte_Method=Plutonium-238 Acid
dissolution by strong Aqua Regia, hydrofluoric acid, etc.

**Quantiles**

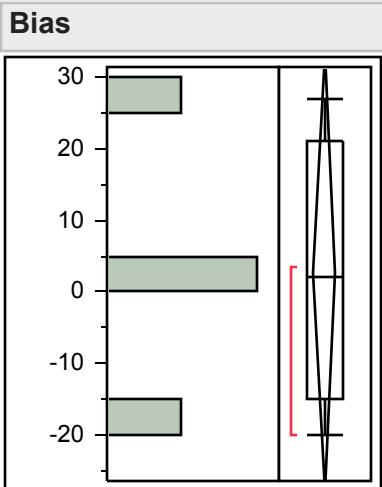
100.0%	maximum	41
99.5%		41
97.5%		41
90.0%		30.16
75.0%	quartile	10.8
50.0%	median	-0.3
25.0%	quartile	-10.3
10.0%		-14.68
2.5%		-15.8
0.5%		-15.8
0.0%	minimum	-15.8

Summary Statistics

Mean	2.4461538
Std Dev	15.164796
Std Err Mean	4.2059575
Upper 95% Mean	11.610148
Lower 95% Mean	-6.71784
N	13

RdF Distribution by Prep Method

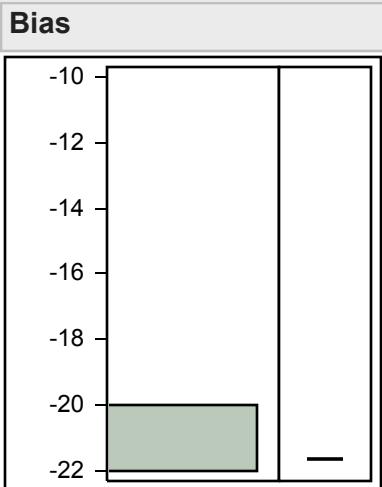
Distributions Analyte_Method=Plutonium-
238 Acid leaching without hydrofluoric acid

**Quantiles**

100.0%	maximum	26.8
99.5%		26.8
97.5%		26.8
90.0%		26.8
75.0%	quartile	20.95
50.0%	median	2.1
25.0%	quartile	-14.8
10.0%		-20
2.5%		-20
0.5%		-20
0.0%	minimum	-20

Summary Statistics

Mean	2.75
Std Dev	19.150196
Std Err Mean	9.5750979
Upper 95% Mean	33.222235
Lower 95% Mean	-27.72223
N	4

RdF Distribution by Prep Method**Distributions Analyte_Method=Plutonium-238****EPA 907, Actinide Elements, 600/4/80-032****Quantiles**

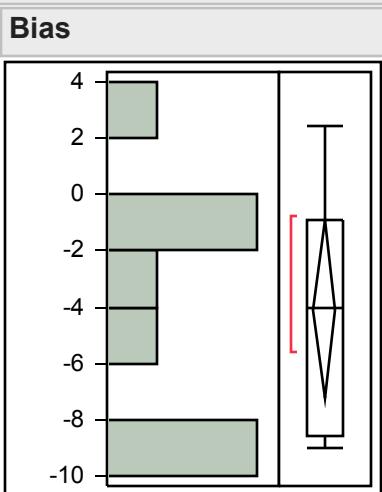
100.0%	maximum	-21.6
99.5%		-21.6
97.5%		-21.6
90.0%		-21.6
75.0%	quartile	-21.6
50.0%	median	-21.6
25.0%	quartile	-21.6
10.0%		-21.6
2.5%		-21.6
0.5%		-21.6
0.0%	minimum	-21.6

Summary Statistics

Mean	-21.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

Distributions Analyte_Method=Plutonium-238 Ion
Exchange Chromatography / Ion Chromatography



Quantiles

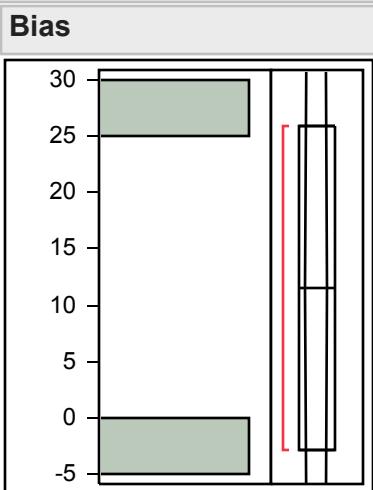
100.0%	maximum	2.4
99.5%		2.4
97.5%		2.4
90.0%		2.4
75.0%	quartile	-0.9
50.0%	median	-4
25.0%	quartile	-8.55
10.0%		-9
2.5%		-9
0.5%		-9
0.0%	minimum	-9

Summary Statistics

Mean	-4.077778
Std Dev	4.1078516
Std Err Mean	1.3692839
Upper 95% Mean	-0.920204
Lower 95% Mean	-7.235352
N	9

RdF Distribution by Prep Method

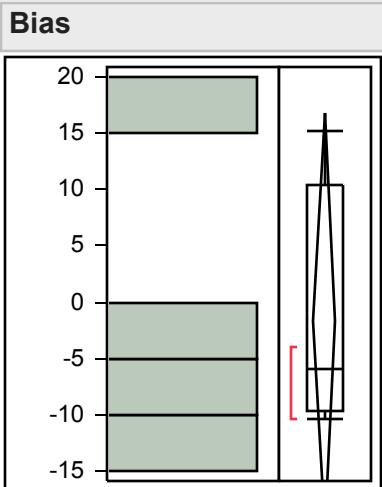
Distributions Analyte_Method=Plutonium-
238 No preparation - analyzed as received

**Quantiles**

100.0%	maximum	25.8
99.5%		25.8
97.5%		25.8
90.0%		25.8
75.0%	quartile	25.8
50.0%	median	11.45
25.0%	quartile	-2.9
10.0%		-2.9
2.5%		-2.9
0.5%		-2.9
0.0%	minimum	-2.9

Summary Statistics

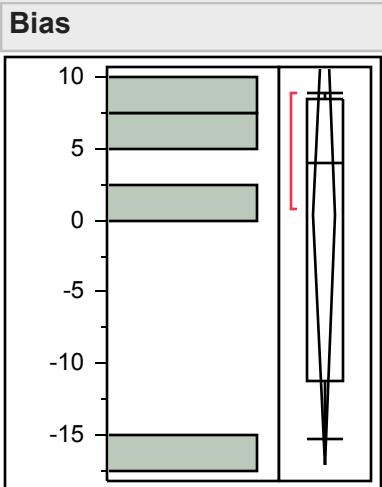
Mean	11.45
Std Dev	20.293965
Std Err Mean	14.35
Upper 95% Mean	193.78404
Lower 95% Mean	-170.884
N	2

RdF Distribution by Prep Method**Distributions****Analyte_Method=Plutonium-238 Other****Quantiles**

100.0%	maximum	15.2
99.5%		15.2
97.5%		15.2
90.0%		15.2
75.0%	quartile	10.4
50.0%	median	-5.85
25.0%	quartile	-9.725
10.0%		-10.4
2.5%		-10.4
0.5%		-10.4
0.0%	minimum	-10.4

Summary Statistics

Mean	-1.725
Std Dev	11.584293
Std Err Mean	5.7921463
Upper 95% Mean	16.708194
Lower 95% Mean	-20.15819
N	4

RdF Distribution by Prep Method**Distributions Analyte_Method=Plutonium-
238 Total dissolution by fusion****Quantiles**

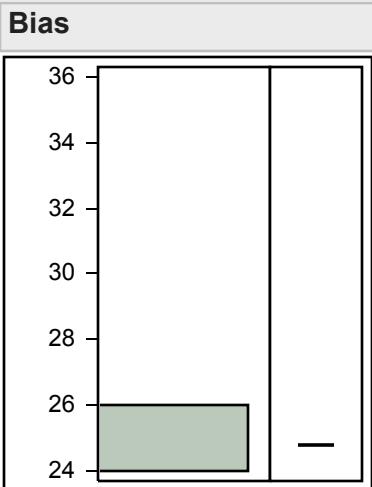
100.0%	maximum	8.8
99.5%		8.8
97.5%		8.8
90.0%		8.8
75.0%	quartile	8.4
50.0%	median	4
25.0%	quartile	-11.2
10.0%		-15.2
2.5%		-15.2
0.5%		-15.2
0.0%	minimum	-15.2

Summary Statistics

Mean	0.4
Std Dev	10.959319
Std Err Mean	5.4796594
Upper 95% Mean	17.838722
Lower 95% Mean	-17.03872
N	4

RdF Distribution by Prep Method

Distributions Analyte_Method=Plutonium-238 Wet ash -
Acid digestion - the use of oxidizers to destroy organics

**Quantiles**

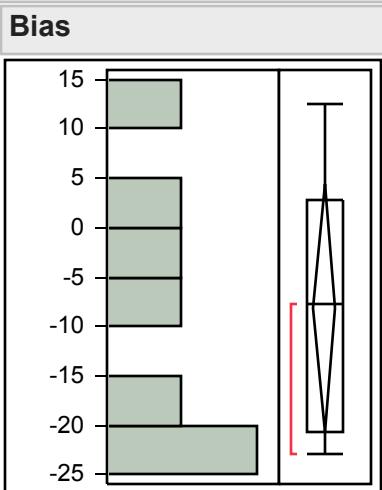
100.0%	maximum	24.8
99.5%		24.8
97.5%		24.8
90.0%		24.8
75.0%	quartile	24.8
50.0%	median	24.8
25.0%	quartile	24.8
10.0%		24.8
2.5%		24.8
0.5%		24.8
0.0%	minimum	24.8

Summary Statistics

Mean	24.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

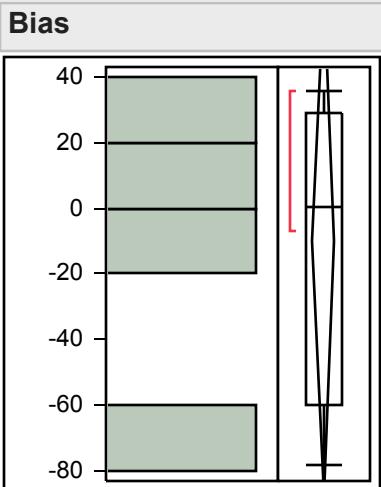
Distributions Analyte_Method=Strontium-90 Acid
dissolution by strong Aqua Requia, hydrofluoric acid, etc.

**Quantiles**

100.0%	maximum	12.6
99.5%		12.6
97.5%		12.6
90.0%		12.6
75.0%	quartile	2.9
50.0%	median	-7.8
25.0%	quartile	-20.6
10.0%		-23
2.5%		-23
0.5%		-23
0.0%	minimum	-23

Summary Statistics

Mean	-8.057143
Std Dev	13.59042
Std Err Mean	5.136696
Upper 95% Mean	4.5118996
Lower 95% Mean	-20.62619
N	7

RdF Distribution by Prep Method**Distributions Analyte_Method=Strontium-90****Acid leaching without hydrofluoric acid****Quantiles**

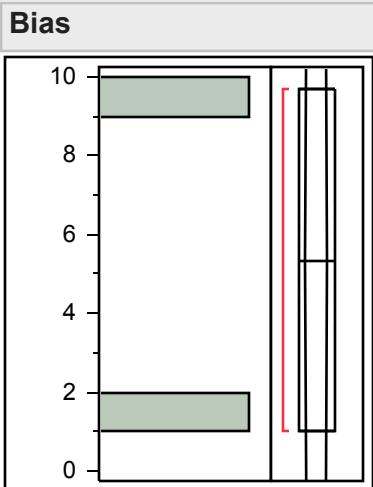
100.0%	maximum	35.9
99.5%		35.9
97.5%		35.9
90.0%		35.9
75.0%	quartile	28.875
50.0%	median	0.5
25.0%	quartile	-60.05
10.0%		-77.8
2.5%		-77.8
0.5%		-77.8
0.0%	minimum	-77.8

Summary Statistics

Mean	-10.225
Std Dev	48.409804
Std Err Mean	24.204902
Upper 95% Mean	66.805802
Lower 95% Mean	-87.2558
N	4

RdF Distribution by Prep Method

Distributions Analyte_Method=Strontium-
90 Coprecipitation, acidified

**Quantiles**

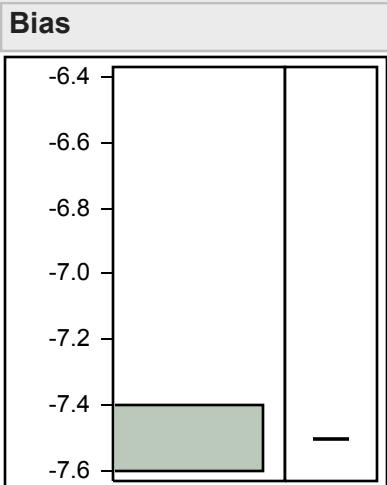
100.0%	maximum	9.7
99.5%		9.7
97.5%		9.7
90.0%		9.7
75.0%	quartile	9.7
50.0%	median	5.35
25.0%	quartile	1
10.0%		1
2.5%		1
0.5%		1
0.0%	minimum	1

Summary Statistics

Mean	5.35
Std Dev	6.151829
Std Err Mean	4.35
Upper 95% Mean	60.621991
Lower 95% Mean	-49.92199
N	2

RdF Distribution by Prep Method

Distributions Analyte_Method=Strontium-90
EPA 901.1, Gamma Emitting, 600/4-80-032

**Quantiles**

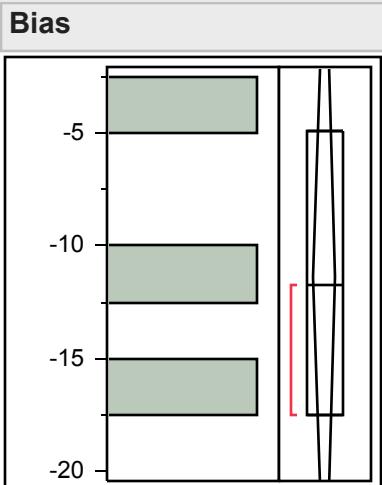
100.0%	maximum	-7.5
99.5%		-7.5
97.5%		-7.5
90.0%		-7.5
75.0%	quartile	-7.5
50.0%	median	-7.5
25.0%	quartile	-7.5
10.0%		-7.5
2.5%		-7.5
0.5%		-7.5
0.0%	minimum	-7.5

Summary Statistics

Mean	-7.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

**Distributions Analyte_Method=Strontium-90
EPA 905, Radioactive Strontium, 600/4-80-032**

**Quantiles**

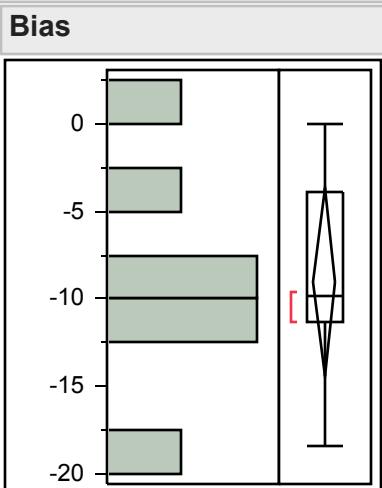
100.0%	maximum	-4.9
99.5%		-4.9
97.5%		-4.9
90.0%		-4.9
75.0%	quartile	-4.9
50.0%	median	-11.7
25.0%	quartile	-17.5
10.0%		-17.5
2.5%		-17.5
0.5%		-17.5
0.0%	minimum	-17.5

Summary Statistics

Mean	-11.36667
Std Dev	6.3066103
Std Err Mean	3.6411231
Upper 95% Mean	4.2998218
Lower 95% Mean	-27.03316
N	3

RdF Distribution by Prep Method

Distributions Analyte_Method=Strontium-90 Ion
Exchange Chromatography / Ion Chromatography

**Quantiles**

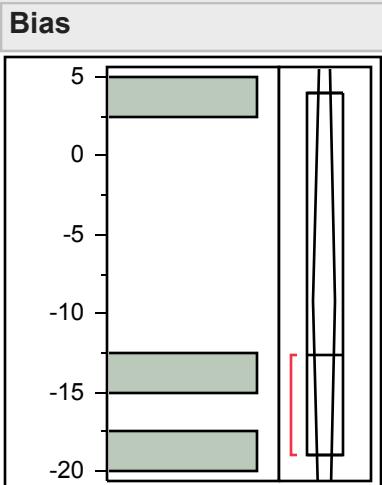
100.0%	maximum	0
99.5%		0
97.5%		0
90.0%		0
75.0%	quartile	-3.9
50.0%	median	-9.8
25.0%	quartile	-11.3
10.0%		-18.4
2.5%		-18.4
0.5%		-18.4
0.0%	minimum	-18.4

Summary Statistics

Mean	-9.057143
Std Dev	5.8251916
Std Err Mean	2.2017155
Upper 95% Mean	-3.669739
Lower 95% Mean	-14.44455
N	7

RdF Distribution by Prep Method

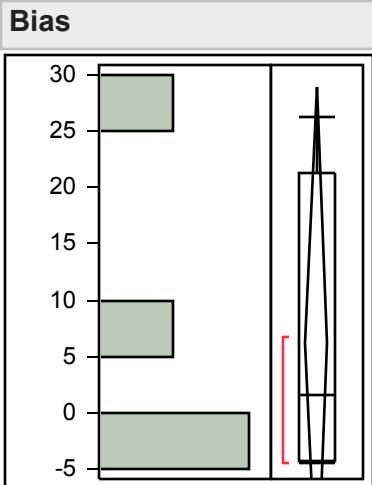
Distributions Analyte_Method=Strontium-
90 No preparation - analyzed as received

**Quantiles**

100.0%	maximum	3.9
99.5%		3.9
97.5%		3.9
90.0%		3.9
75.0%	quartile	3.9
50.0%	median	-12.6
25.0%	quartile	-18.9
10.0%		-18.9
2.5%		-18.9
0.5%		-18.9
0.0%	minimum	-18.9

Summary Statistics

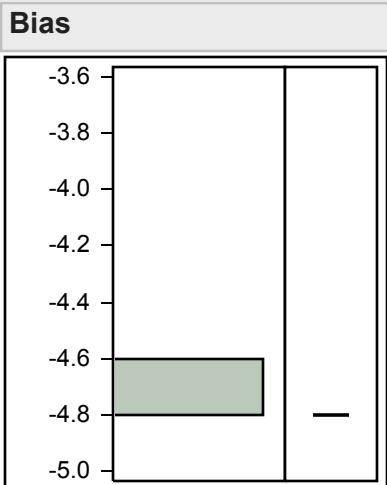
Mean	-9.2
Std Dev	11.774124
Std Err Mean	6.7977938
Upper 95% Mean	20.048546
Lower 95% Mean	-38.44855
N	3

RdF Distribution by Prep Method**Distributions****Analyte_Method=Strontium-90 Other****Quantiles**

100.0%	maximum	26.2
99.5%		26.2
97.5%		26.2
90.0%		26.2
75.0%	quartile	21.35
50.0%	median	1.55
25.0%	quartile	-4.3
10.0%		-4.5
2.5%		-4.5
0.5%		-4.5
0.0%	minimum	-4.5

Summary Statistics

Mean	6.2
Std Dev	14.292889
Std Err Mean	7.1464443
Upper 95% Mean	28.943175
Lower 95% Mean	-16.54318
N	4

RdF Distribution by Prep Method**Distributions Analyte_Method=Strontium-****90 Total dissolution by fusion****Quantiles**

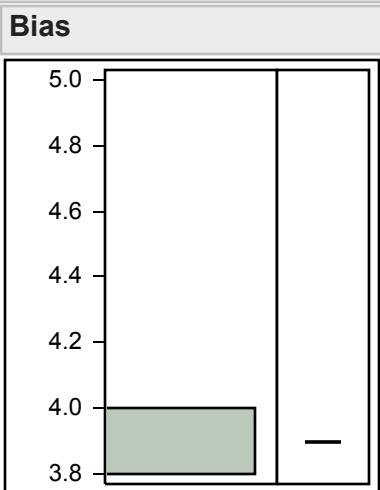
100.0%	maximum	-4.8
99.5%		-4.8
97.5%		-4.8
90.0%		-4.8
75.0%	quartile	-4.8
50.0%	median	-4.8
25.0%	quartile	-4.8
10.0%		-4.8
2.5%		-4.8
0.5%		-4.8
0.0%	minimum	-4.8

Summary Statistics

Mean	-4.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

Distributions Analyte_Method=Strontium-90 Wet ash -
Acid digestion - the use of oxidizers to destroy organics

**Quantiles**

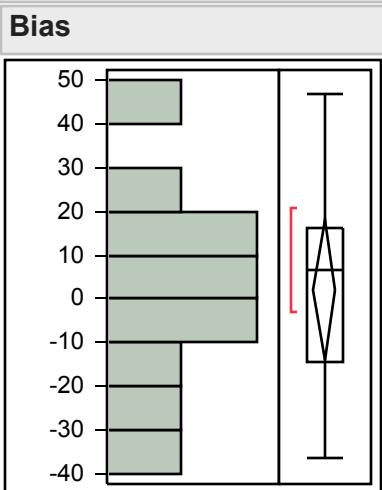
100.0%	maximum	3.9
99.5%		3.9
97.5%		3.9
90.0%		3.9
75.0%	quartile	3.9
50.0%	median	3.9
25.0%	quartile	3.9
10.0%		3.9
2.5%		3.9
0.5%		3.9
0.0%	minimum	3.9

Summary Statistics

Mean	3.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

Distributions Analyte_Method=Uranium-234/233 Acid dissolution by strong Aqua Regia, hydrofluoric acid, etc.

**Quantiles**

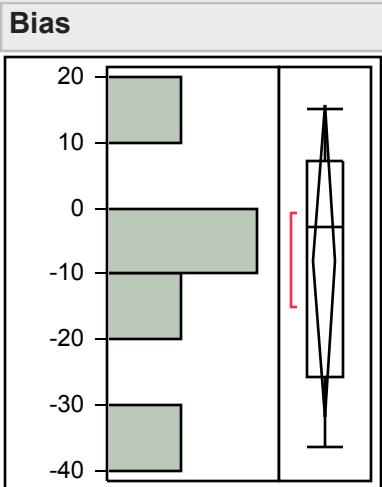
100.0%	maximum	46.8
99.5%		46.8
97.5%		46.8
90.0%		41.56
75.0%	quartile	16.3
50.0%	median	6.4
25.0%	quartile	-14.2
10.0%		-34.78
2.5%		-36.2
0.5%		-36.2
0.0%	minimum	-36.2

Summary Statistics

Mean	2.0636364
Std Dev	23.598444
Std Err Mean	7.1151985
Upper 95% Mean	17.917287
Lower 95% Mean	-13.79001
N	11

RdF Distribution by Prep Method

Distributions Analyte_Method=Uranium-234/
233 Acid leaching without hydrofluoric acid

**Quantiles**

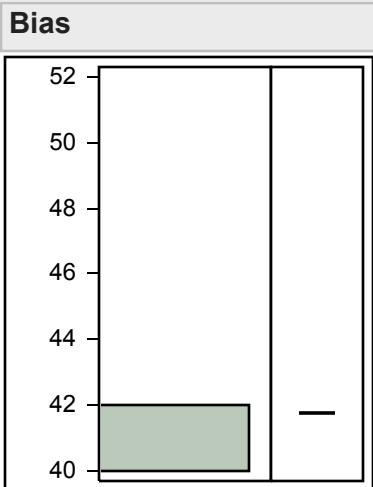
100.0%	maximum	15
99.5%		15
97.5%		15
90.0%		15
75.0%	quartile	7.15
50.0%	median	-2.8
25.0%	quartile	-25.55
10.0%		-36.2
2.5%		-36.2
0.5%		-36.2
0.0%	minimum	-36.2

Summary Statistics

Mean	-7.92
Std Dev	19.05353
Std Err Mean	8.5209976
Upper 95% Mean	15.738082
Lower 95% Mean	-31.57808
N	5

RdF Distribution by Prep Method

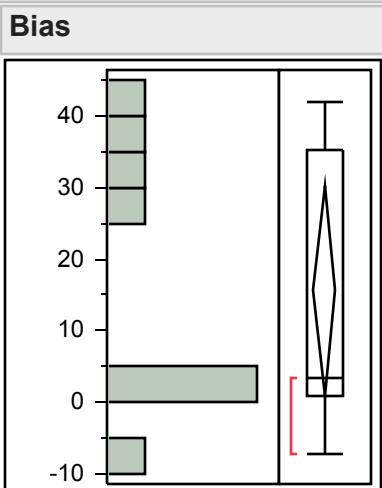
Distributions Analyte_Method=Uranium-234/233 EPA
908, Uranium-Radiochemical Method, 600/4/80-032

**Quantiles**

100.0%	maximum	41.8
99.5%		41.8
97.5%		41.8
90.0%		41.8
75.0%	quartile	41.8
50.0%	median	41.8
25.0%	quartile	41.8
10.0%		41.8
2.5%		41.8
0.5%		41.8
0.0%	minimum	41.8

Summary Statistics

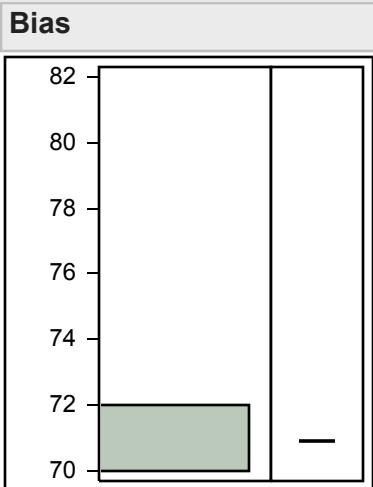
Mean	41.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method**Distributions Analyte_Method=Uranium-234/233****Ion Exchange Chromatography / Ion Chromatography****Quantiles**

100.0%	maximum	41.8
99.5%		41.8
97.5%		41.8
90.0%		41.8
75.0%	quartile	35.15
50.0%	median	3.5
25.0%	quartile	1.05
10.0%		-7.1
2.5%		-7.1
0.5%		-7.1
0.0%	minimum	-7.1

Summary Statistics

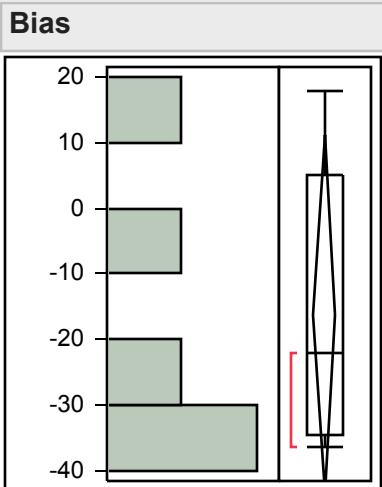
Mean	15.6
Std Dev	18.930993
Std Err Mean	6.310331
Upper 95% Mean	30.151649
Lower 95% Mean	1.0483505
N	9

RdF Distribution by Prep Method**Distributions Analyte_Method=Uranium-234/****233 No preparation - analyzed as received****Quantiles**

100.0%	maximum	70.9
99.5%		70.9
97.5%		70.9
90.0%		70.9
75.0%	quartile	70.9
50.0%	median	70.9
25.0%	quartile	70.9
10.0%		70.9
2.5%		70.9
0.5%		70.9
0.0%	minimum	70.9

Summary Statistics

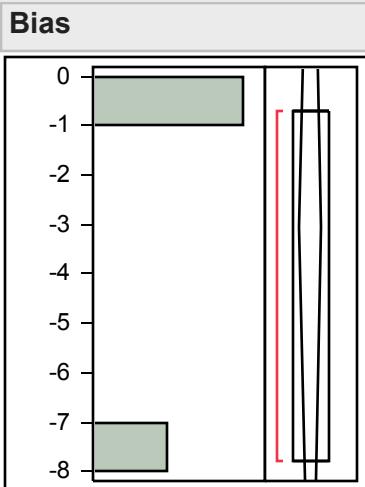
Mean	70.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method**Distributions****Analyte_Method=Uranium-234/233 Other****Quantiles**

100.0%	maximum	17.7
99.5%		17.7
97.5%		17.7
90.0%		17.7
75.0%	quartile	4.95
50.0%	median	-22
25.0%	quartile	-34.4
10.0%		-36.2
2.5%		-36.2
0.5%		-36.2
0.0%	minimum	-36.2

Summary Statistics

Mean	-16.18
Std Dev	21.922409
Std Err Mean	9.8039992
Upper 95% Mean	11.040266
Lower 95% Mean	-43.40027
N	5

RdF Distribution by Prep Method**Distributions Analyte_Method=Uranium-
234/233 Total dissolution by fusion****Quantiles**

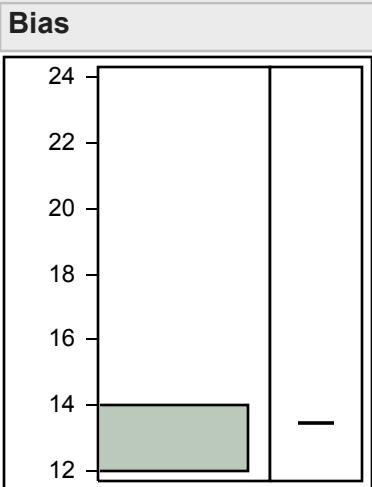
100.0%	maximum	-0.7
99.5%		-0.7
97.5%		-0.7
90.0%		-0.7
75.0%	quartile	-0.7
50.0%	median	-0.7
25.0%	quartile	-7.8
10.0%		-7.8
2.5%		-7.8
0.5%		-7.8
0.0%	minimum	-7.8

Summary Statistics

Mean	-3.066667
Std Dev	4.0991869
Std Err Mean	2.3666667
Upper 95% Mean	7.1162781
Lower 95% Mean	-13.24961
N	3

RdF Distribution by Prep Method

Distributions Analyte_Method=Uranium-234/233 Wet ash -
Acid digestion - the use of oxidizers to destroy organics

**Quantiles**

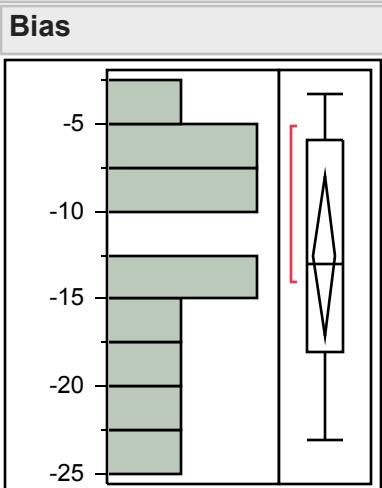
100.0%	maximum	13.5
99.5%		13.5
97.5%		13.5
90.0%		13.5
75.0%	quartile	13.5
50.0%	median	13.5
25.0%	quartile	13.5
10.0%		13.5
2.5%		13.5
0.5%		13.5
0.0%	minimum	13.5

Summary Statistics

Mean	13.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

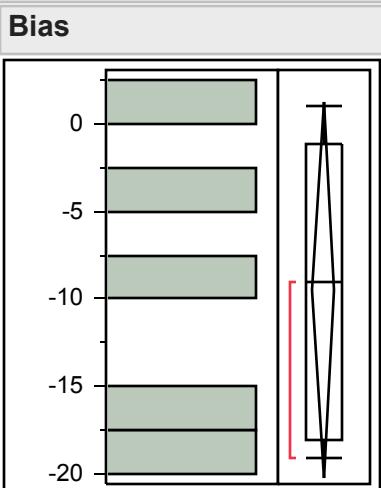
Distributions Analyte_Method=Uranium-238 Acid
dissolution by strong Aqua Regia, hydrofluoric acid, etc.

**Quantiles**

100.0%	maximum	-3.3
99.5%		-3.3
97.5%		-3.3
90.0%		-3.68
75.0%	quartile	-6
50.0%	median	-13
25.0%	quartile	-18
10.0%		-22.76
2.5%		-23
0.5%		-23
0.0%	minimum	-23

Summary Statistics

Mean	-12.56364
Std Dev	6.8050382
Std Err Mean	2.0517962
Upper 95% Mean	-7.991949
Lower 95% Mean	-17.13532
N	11

RdF Distribution by Prep Method**Distributions Analyte_Method=Uranium-238****Acid leaching without hydrofluoric acid****Quantiles**

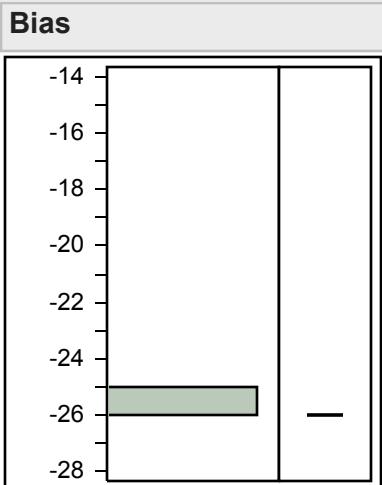
100.0%	maximum	1
99.5%		1
97.5%		1
90.0%		1
75.0%	quartile	-1.15
50.0%	median	-9
25.0%	quartile	-18.05
10.0%		-19.1
2.5%		-19.1
0.5%		-19.1
0.0%	minimum	-19.1

Summary Statistics

Mean	-9.48
Std Dev	8.6218907
Std Err Mean	3.8558268
Upper 95% Mean	1.2254913
Lower 95% Mean	-20.18549
N	5

RdF Distribution by Prep Method

Distributions Analyte_Method=Uranium-238 EPA
908, Uranium-Radiochemical Method, 600/4/80-032

**Quantiles**

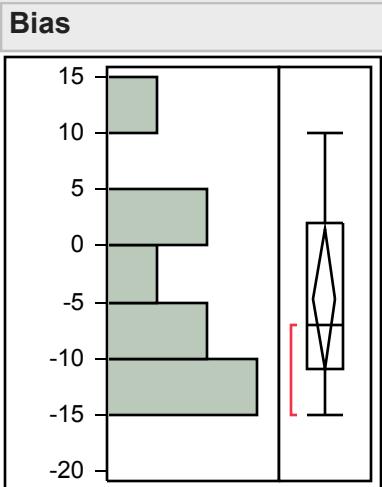
100.0%	maximum	-26
99.5%		-26
97.5%		-26
90.0%		-26
75.0%	quartile	-26
50.0%	median	-26
25.0%	quartile	-26
10.0%		-26
2.5%		-26
0.5%		-26
0.0%	minimum	-26

Summary Statistics

Mean	-26
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1

RdF Distribution by Prep Method

Distributions Analyte_Method=Uranium-238 Ion
Exchange Chromatography / Ion Chromatography

**Quantiles**

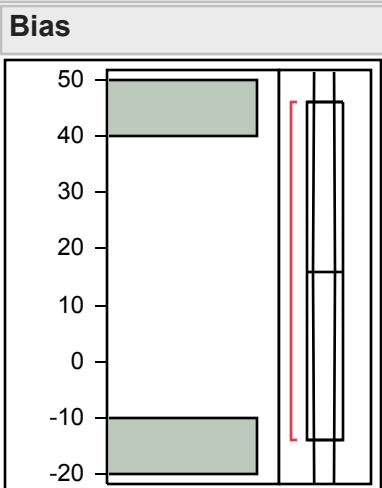
100.0%	maximum	10
99.5%		10
97.5%		10
90.0%		10
75.0%	quartile	2
50.0%	median	-7
25.0%	quartile	-11
10.0%		-15
2.5%		-15
0.5%		-15
0.0%	minimum	-15

Summary Statistics

Mean	-4.733333
Std Dev	8.0392786
Std Err Mean	2.6797595
Upper 95% Mean	1.4462032
Lower 95% Mean	-10.91287
N	9

RdF Distribution by Prep Method

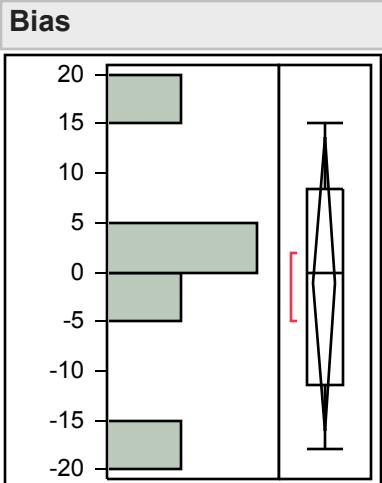
Distributions Analyte_Method=Uranium-
238 No preparation - analyzed as received

**Quantiles**

100.0%	maximum	46
99.5%		46
97.5%		46
90.0%		46
75.0%	quartile	46
50.0%	median	16.05
25.0%	quartile	-13.9
10.0%		-13.9
2.5%		-13.9
0.5%		-13.9
0.0%	minimum	-13.9

Summary Statistics

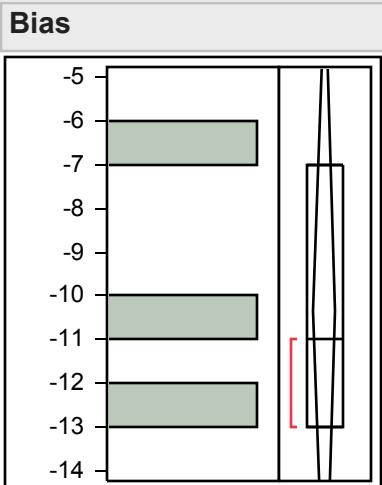
Mean	16.05
Std Dev	42.355696
Std Err Mean	29.95
Upper 95% Mean	396.60083
Lower 95% Mean	-364.5008
N	2

RdF Distribution by Prep Method**Distributions****Analyte_Method=Uranium-238 Other****Quantiles**

100.0%	maximum	15
99.5%		15
97.5%		15
90.0%		15
75.0%	quartile	8.5
50.0%	median	0
25.0%	quartile	-11.5
10.0%		-18
2.5%		-18
0.5%		-18
0.0%	minimum	-18

Summary Statistics

Mean	-1.2
Std Dev	11.945711
Std Err Mean	5.3422842
Upper 95% Mean	13.632559
Lower 95% Mean	-16.03256
N	5

RdF Distribution by Prep Method**Distributions Analyte_Method=Uranium-
238 Total dissolution by fusion****Quantiles**

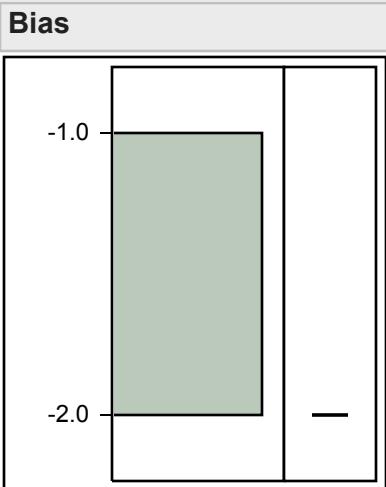
100.0%	maximum	-7
99.5%		-7
97.5%		-7
90.0%		-7
75.0%	quartile	-7
50.0%	median	-11
25.0%	quartile	-13
10.0%		-13
2.5%		-13
0.5%		-13
0.0%	minimum	-13

Summary Statistics

Mean	-10.33333
Std Dev	3.0550505
Std Err Mean	1.7638342
Upper 95% Mean	-2.744167
Lower 95% Mean	-17.9225
N	3

RdF Distribution by Prep Method

Distributions Analyte_Method=Uranium-238 Wet ash -
Acid digestion - the use of oxidizers to destroy organics

**Quantiles**

100.0%	maximum	-2
99.5%		-2
97.5%		-2
90.0%		-2
75.0%	quartile	-2
50.0%	median	-2
25.0%	quartile	-2
10.0%		-2
2.5%		-2
0.5%		-2
0.0%	minimum	-2

Summary Statistics

Mean	-2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1