

RESL CUSTOMER EXPORT CONTROL AGREEMENT

It is the Radiological and Environmental Sciences Laboratory's (RESL) policy to conduct business in accordance with all applicable U.S. export control laws and regulations. It is also RESL's policy that its Customers comply with U.S. export control laws and regulations. Therefore, Customer agrees to the following:

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.

RdV51 Participating Laboratories

Lab Code	Lab Name	Matrix Code
ADEM01	Alabama Department of Environmental Management	RdV
ADFC99	Abu Dhabi Quality and Conformity Council-Central Testing Lab	RdV
AMEC99	Jacobs Clean Energy Limited - Analytical Services	RdV
ARSL01	ARS	RdV
ASUK99	AWE (Aldermaston)	RdV
CDHS01	California Department of Public Health	RdV
CMRC01	Carlsbad Environmental Monitoring and Research Center	RdV
CSSL99	Chemistry Support Services	RdV
DINL99	Departamento Ingeniería Energética	RdV
ERCL01	Washington State Public Health Laboratories	RdV
ERHD99	National Monitoring Section, Radiation Protection Bureau, Health Canada	RdV
FDHE01	Florida Dept of Health Environmental Laboratory	RdV
FDOH01	Florida Dept. of Health, Mobile Environmental Radiological Lab	RdV
GENE01	GEL Laboratories, LLC	RdV
GPCL01	Georgia Power Company Environmental Laboratory	RdV
HECR01	SC Dept. Health and Environmental Control Radiological Laboratory	RdV
HPAC99	UKHSA, RCE Glasgow	RdV
IAEA20	IAEA Marine Environment Laboratories, Radiometrics Laboratory	RdV
IDOH01	Indiana Department of Health	RdV
IEMA01	Illinois Emergency Management Agency Radiochemistry Laboratory	RdV
ISUE01	ISU Environmental Monitoring Laboratory	RdV
LOCK03	Advanced Test Reactor (ATR) Complex Radioanalytical Laboratory	RdV
NARL01	National Analytical Radiation Environmental Laboratory	RdV
NJDH01	New Jersey Dept. of Health, ECLS	RdV
NOCS99	National Oceanography Centre, Southampton	RdV
NRL99	Environmental Radioactivity - National Centre for Radiation Science	RdV
NSPH01	Nevada State Public Health Laboratory	RdV
ODHL01	Ohio Department of Health Laboratory	RdV
RAVR99	Radiactividad Ambiental y Vigilancia Radiologica	RdV
SANC99	RadioAnalysis, South Africa Nuclear Energy Corp.	RdV
SEML01	SRS Environmental Monitoring Laboratory	RdV
SOUT01	Southwest Research Institute	RdV
SRPD01	Sandia National Laboratories, Radiation Protection Sample Diagnostics	RdV
TDHL01	Texas Department of State Health Services Laboratory	RdV
TELE01	Teledyne Brown Engineering - Environmental Services	RdV
TELE02	Microbac Laboratories Inc. - Northbrook	RdV
TMAO01	EBERLINE Analytical Corporation	RdV
WIPH01	WI, DPH, Radiation Protection Section	RdV
WIPP01	WIPP Laboratories	RdV
WSHL01	Wisconsin State Laboratory of Hygiene	RdV

Laboratories Not Reporting

Lab Code	Lab Name	Matrix Code
COPS99	Health Canada Radiation Protection Bureau	RdV
IAEA99	International Atomic Energy Agency	RdV
ISUP01	ISU - Department of Physics/Health Physics/EAL	RdV
MDPH01	MDPH-Radiation Control Program	RdV
MSDH01	Mississippi State Dept of Health	RdV
RPSC01	Radiation Protection Service	RdV
STRL01	South Texas Project Radiological Laboratory	RdV
UNTE01	UniTech-235	RdV

Study Reference Values

MAPEP-24-RdV51: Radiological vegetation

Radiological Reference Date: 08/01/2024

Inorganic		Units: (ug/sample)	
Analyte	Reference Value	Reference Uncertainty	
Uranium-235	0.040	0.002	
Uranium-238	5.51	0.09	
Uranium-Total	5.51	0.09	

Radiological		Units: (Bq/sample)	
Analyte	Reference Value	Reference Uncertainty	
Americium-241	0.087	0.002	
Cesium-134	2.89	0.06	
Cesium-137	1.91	0.03	
Cobalt-60	2.01	0.04	
Manganese-54	3.53	0.07	
Plutonium-238	0.0368	0.0012	
Plutonium-239/240	0.0356	0.0011	
Strontium-90	2.39	0.05	
Uranium-234	0.0660	0.0010	
Uranium-238	0.0685	0.0011	
Zinc-65	9.13	0.18	

Sample Statistical Summary

MAPEP-24-RdV51: Radiological vegetation

Radiological Reference Date: 08/01/2024

Inorganic							Units: (ug/sample)
Analyte	T(1)	A(2)	Grand ⁽³⁾ Mean	Standard Deviation	Reference Value	Reference Uncertainty	Acceptance Range
Uranium-235	4	4			0.040	0.002	0.028 - 0.052
Uranium-238	4	4			5.51	0.09	3.86 - 7.16
Uranium-Total	3	3			5.51	0.09	3.86 - 7.16

Radiological							Units: (Bq/sample)
Analyte	T(1)	A(2)	Grand ⁽³⁾ Mean	Standard Deviation	Reference Value	Reference Uncertainty	Acceptance Range
Americium-241	23	17	0.087	0.010	0.087	0.002	0.061 - 0.113
Cesium-134	37	35	2.83	0.25	2.89	0.06	2.02 - 3.76
Cesium-137	38	35	1.97	0.18	1.91	0.03	1.34 - 2.48
Cobalt-57	34	33					False Positive Test
Cobalt-60	38	34	2.04	0.17	2.01	0.04	1.41 - 2.61
Manganese-54	37	35	3.62	0.31	3.53	0.07	2.47 - 4.59
Plutonium-238	19	14	0.0360	0.0036	0.0368	0.0012	0.0258 - 0.0478
Plutonium-239/240	19	16	0.0347	0.0049	0.0356	0.0011	0.0249 - 0.0463
Strontium-90	20	16	2.27	0.24	2.39	0.05	1.67 - 3.11
Uranium-234	20	17	0.0654	0.0087	0.0660	0.0010	0.0462 - 0.0858
Uranium-238	21	18	0.0674	0.0085	0.0685	0.0011	0.0480 - 0.0891
Zinc-65	37	34	9.38	0.87	9.13	0.18	6.39 - 11.87

- 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, from large vegetation sample size and values indicated as "Not Acceptable".
 (4) Uranium Reference values shown for small vegetation sample size only.

Results Flags:

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Flag Summary Report

MAPEP-24-RdV51: Radiological vegetation

Radiological Reference Date: 08/01/2024

Inorganic				
Analyte	A	W	RW	N
Uranium-Total	3			
Uranium-235	4			
Uranium-238	4			

Radiological				
Analyte	A	W	RW	N
Americium-241	17			6
Cesium-134	34	1		2
Cesium-137	33	2		3
Cobalt-57	33			1
Cobalt-60	33	1		4
Manganese-54	35			2
Plutonium-238	13	1		5
Plutonium-239/240	13	3		3
Strontium-90	16			4
Uranium-234	14	3		3
Uranium-238	16	2		3
Zinc-65	32	2		3



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

Laboratory Results For MAPEP Series 51
 (ADEM01) Alabama Department of Environmental Management
 1350 Coliseum Blvd.
 Montgomery, AL 36110

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.1	0.087	A		14.9	0.061 - 0.113	0.05	N	
Cesium-134	2.7700	2.89	A		-4.2	2.02 - 3.76	0.1610	A	
Cesium-137	2.1200	1.91	A		11.0	1.34 - 2.48	0.0901	A	
Cobalt-57	0.1		A			False Positive Test	0.05		
Cobalt-60	2.0400	2.01	A		1.5	1.41 - 2.61	0.0694	A	
Manganese-54	4.1400	3.53	A		17.3	2.47 - 4.59	0.1270	A	
Plutonium-238	0.1	0.0368	N		171.7	0.0258 - 0.0478	0.05	N	
Plutonium-239/240	0.1	0.0356	N		180.9	0.0249 - 0.0463	0.05	N	
Strontium-90	0.1	2.39	N		-95.8	1.67 - 3.11	0.05	N	
Uranium-234	0.1	0.0660	N		51.5	0.0462 - 0.0858	0.05	N	
Uranium-238	0.1	0.0685	N		46.0	0.0480 - 0.0891	0.05	N	
Zinc-65	10.4000	9.13	A		13.9	6.39 - 11.87	0.3210	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (ADFC99) Abu Dhabi Quality and Conformity Council-Central Testing Lab
 Radiation Lab
 Abu Dhabi, Abu Dhabi 853

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.63	2.89	A		-9.0	2.02 - 3.76	0.25	A	
Cesium-137	1.98	1.91	A		3.7	1.34 - 2.48	0.29	A	
Cobalt-57	NR					False Positive Test			
Cobalt-60	1.92	2.01	A		-4.5	1.41 - 2.61	0.14	A	
Manganese-54	3.58	3.53	A		1.4	2.47 - 4.59	0.42	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	9.45	9.13	A		3.5	6.39 - 11.87	0.66	A	

Results Flags:

Radiological Reference Date: August 1, 2024

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- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
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Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

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

Laboratory Results For MAPEP Series 51
 (AMEC99) Jacobs Clean Energy Limited - Analytical Services
 612 Faraday Street
 Birchwood Park, Warrington WA3 6GN

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.41	0.087	N		371.3	0.061 - 0.113	0.11	W	
Cesium-134	3.22	2.89	A		11.4	2.02 - 3.76	0.12	A	
Cesium-137	2.189	1.91	A		14.6	1.34 - 2.48	0.088	A	
Cobalt-57	0.033		A			False Positive Test	0.033		
Cobalt-60	2.72	2.01	N		35.3	1.41 - 2.61	0.12	A	
Manganese-54	3.91	3.53	A		10.8	2.47 - 4.59	0.15	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	2.23	2.39	A		-6.7	1.67 - 3.11	0.14	A	
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	11.24	9.13	W		23.1	6.39 - 11.87	0.39	A	

Results Flags:

Radiological Reference Date: August 1, 2024

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- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

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

Laboratory Results For MAPEP Series 51
 (ARSL01) ARS
 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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.768	2.89	A		-4.2	2.02 - 3.76	.105	A	
Cesium-137	2.064	1.91	A		8.1	1.34 - 2.48	.067	A	
Cobalt-57	-0.027		A			False Positive Test	0.03		
Cobalt-60	2.071	2.01	A		3.0	1.41 - 2.61	0.07	A	
Manganese-54	3.777	3.53	A		7.0	2.47 - 4.59	0.144	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	9.848	9.13	A		7.9	6.39 - 11.87	.365	A	

Results Flags:

Radiological Reference Date: August 1, 2024

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- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

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

Laboratory Results For MAPEP Series 51
 (ASUK99) AWE (Aldermaston)
 A38.1 AWE
 Reading, Berkshire RG7 4PR

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	NR	2.89				2.02 - 3.76			
Cesium-137	NR	1.91				1.34 - 2.48			
Cobalt-57	NR					False Positive Test			
Cobalt-60	NR	2.01				1.41 - 2.61			
Manganese-54	NR	3.53				2.47 - 4.59			
Plutonium-238	0.028746	0.0368	W		-21.9	0.0258 - 0.0478	0.004289	A	
Plutonium-239/240	0.026758	0.0356	W		-24.8	0.0249 - 0.0463	0.004008	A	
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	0.043252	0.0660	N		-34.5	0.0462 - 0.0858	0.006907	W	
Uranium-238	0.049584	0.0685	W		-27.6	0.0480 - 0.0891	0.007877	W	
Zinc-65	NR	9.13				6.39 - 11.87			

Results Flags:

Radiological Reference Date: August 1, 2024

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- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

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

Laboratory Results For MAPEP Series 51
 (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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0851	0.087	A		-2.2	0.061 - 0.113	0.00626	A	
Cesium-134	3.06	2.89	A		5.9	2.02 - 3.76	0.0874	A	
Cesium-137	2.19	1.91	A		14.7	1.34 - 2.48	0.0768	A	
Cobalt-57	0.0137		A			False Positive Test	0.0150		
Cobalt-60	2.15	2.01	A		7.0	1.41 - 2.61	0.0508	A	
Manganese-54	4.04	3.53	A		14.4	2.47 - 4.59	0.106	A	
Plutonium-238	0.0384	0.0368	A		4.3	0.0258 - 0.0478	0.00526	A	
Plutonium-239/240	0.0411	0.0356	A		15.4	0.0249 - 0.0463	0.00541	A	
Strontium-90	2.41	2.39	A		0.8	1.67 - 3.11	0.0543	A	
Uranium-234	0.0549	0.0660	A		-16.8	0.0462 - 0.0858	0.00946	W	
Uranium-238	0.0821	0.0685	A		19.9	0.0480 - 0.0891	0.0118	A	
Zinc-65	9.59	9.13	A		5.0	6.39 - 11.87	0.227	A	

Results Flags:

Radiological Reference Date: August 1, 2024

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- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

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

Laboratory Results For MAPEP Series 51
 (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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	7.68E-02	0.087	A		-11.7	0.061 - 0.113	1.03E-02	A	
Cesium-134	NR	2.89				2.02 - 3.76			
Cesium-137	1.80E+00	1.91	A		-5.8	1.34 - 2.48	5.97E-02	A	
Cobalt-57	NR					False Positive Test			
Cobalt-60	1.28E+00	2.01	N		-36.3	1.41 - 2.61	4.08E-02	A	
Manganese-54	NR	3.53				2.47 - 4.59			
Plutonium-238	5.66E-02	0.0368	N		53.8	0.0258 - 0.0478	1.03E-02	W	
Plutonium-239/240	5.24E-02	0.0356	N		47.2	0.0249 - 0.0463	9.74E-03	W	
Strontium-90	2.62E+00	2.39	A		9.6	1.67 - 3.11	3.22E-02	N	
Uranium-234	6.68E-02	0.0660	A		1.2	0.0462 - 0.0858	1.04E-02	W	
Uranium-238	7.46E-02	0.0685	A		8.9	0.0480 - 0.0891	1.14E-02	W	
Zinc-65	NR	9.13				6.39 - 11.87			

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (CSSL99) Chemistry Support Services
 Dounreay
 Dounreay, Caithness KW14 7TZ

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.078741	0.087	A		-9.5	0.061 - 0.113	0.0022992	A	
Cesium-134	2.628	2.89	A		-9.1	2.02 - 3.76	0.45622	W	
Cesium-137	1.845	1.91	A		-3.4	1.34 - 2.48	0.32029	W	
Cobalt-57	0.10620		N	(1)		False Positive Test	0.018436		
Cobalt-60	1.8070	2.01	A		-10.1	1.41 - 2.61	0.31370	W	
Manganese-54	3.254	3.53	A		-7.8	2.47 - 4.59	0.56489	W	
Plutonium-238	0.033582	0.0368	A		-8.7	0.0258 - 0.0478	0.0010343	A	
Plutonium-239/240	0.032598	0.0356	A		-8.4	0.0249 - 0.0463	0.00098446	A	
Strontium-90	2.16	2.39	A		-9.6	1.67 - 3.11	0.274	A	
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	0.24840	9.13	N		-97.3	6.39 - 11.87	0.043122	W	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (DINL99) Departamento Ingeniería Energética
 Escuela de Ingeniería de Bilbao
 Bilbao, Vizcaya 48013

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.07468	0.087	A		-14.2	0.061 - 0.113	0.004103	A	
Cesium-134	2.868	2.89	A		-0.8	2.02 - 3.76	0.1539	A	
Cesium-137	2.027	1.91	A		6.1	1.34 - 2.48	0.1126	A	
Cobalt-57	0.1355		A			False Positive Test	0.1355		
Cobalt-60	2.103	2.01	A		4.6	1.41 - 2.61	0.1219	A	
Manganese-54	3.522	3.53	A		-0.2	2.47 - 4.59	0.1912	A	
Plutonium-238	0.03697	0.0368	A		0.5	0.0258 - 0.0478	0.003396	A	
Plutonium-239/240	0.03292	0.0356	A		-7.5	0.0249 - 0.0463	0.002906	A	
Strontium-90	2.001	2.39	A		-16.3	1.67 - 3.11	0.1265	A	
Uranium-234	0.07115	0.0660	A		7.8	0.0462 - 0.0858	0.004661	A	
Uranium-238	0.06585	0.0685	A		-3.9	0.0480 - 0.0891	0.004438	A	
Zinc-65	9.312	9.13	A		2.0	6.39 - 11.87	0.4997	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (ERCL01) Washington State Public Health Laboratories
 1610 N.E. 150th Street
 Shoreline, WA 98155-9701

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0337	0.040	A		-15.8	0.028 - 0.052	0.0020	A	
Uranium-238	5.22	5.51	A		-5.3	3.86 - 7.16	0.23	A	
Uranium-Total	5.25	5.51	A		-4.7	3.86 - 7.16	0.23	A	

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0739	0.087	A		-15.1	0.061 - 0.113	0.0058	A	
Cesium-134	2.91	2.89	A		0.7	2.02 - 3.76	0.08	A	
Cesium-137	1.86	1.91	A		-2.6	1.34 - 2.48	0.07	A	
Cobalt-57	-0.011		A			False Positive Test	0.026		
Cobalt-60	1.97	2.01	A		-2.0	1.41 - 2.61	0.06	A	
Manganese-54	3.58	3.53	A		1.4	2.47 - 4.59	0.10	A	
Plutonium-238	0.0385	0.0368	A		4.6	0.0258 - 0.0478	0.0048	A	
Plutonium-239/240	0.0299	0.0356	A		-16.0	0.0249 - 0.0463	0.0034	A	
Strontium-90	2.02	2.39	A		-15.5	1.67 - 3.11	0.10	A	
Uranium-234	0.0550	0.0660	A		-16.7	0.0462 - 0.0858	0.0052	A	
Uranium-238	0.0605	0.0685	A		-11.7	0.0480 - 0.0891	0.0046	A	
Zinc-65	8.66	9.13	A		-5.1	6.39 - 11.87	0.20	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (ERHD99) National Monitoring Section, Radiation Protection Bureau, Health Canada
 775 Brookfield Road AL6302D1
 Ottawa, Ontario K1A 1C1

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.045	0.040	A		12.5	0.028 - 0.052	0.006	A	
Uranium-238	6.00	5.51	A		8.9	3.86 - 7.16	0.06	N	
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0928	0.087	A		6.7	0.061 - 0.113	0.0025	A	
Cesium-134	2.79	2.89	A		-3.5	2.02 - 3.76	0.14	A	
Cesium-137	1.89	1.91	A		-1.0	1.34 - 2.48	0.099	A	
Cobalt-57	0.035		A			False Positive Test	0.070		
Cobalt-60	2.06	2.01	A		2.5	1.41 - 2.61	0.103	A	
Manganese-54	3.48	3.53	A		-1.4	2.47 - 4.59	0.48	A	
Plutonium-238	0.0400	0.0368	A		8.7	0.0258 - 0.0478	0.0016	A	
Plutonium-239/240	0.0359	0.0356	A		0.8	0.0249 - 0.0463	0.0015	A	
Strontium-90	2.73	2.39	A		14.2	1.67 - 3.11	0.003	N	
Uranium-234	0.0671	0.0660	A		1.7	0.0462 - 0.0858	0.0026	A	
Uranium-238	0.0729	0.0685	A		6.4	0.0480 - 0.0891	0.0027	A	
Zinc-65	9.08	9.13	A		-0.5	6.39 - 11.87	0.72	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

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- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (FDHE01) Florida Dept of Health Environmental Laboratory
 2100 All Childrens Way
 Orlando, FL 32818-5271

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.102	0.087	A		17.2	0.061 - 0.113	0.04	N	
Cesium-134	2.924	2.89	A		1.2	2.02 - 3.76	0.078	A	
Cesium-137	2.03	1.91	A		6.3	1.34 - 2.48	0.07	A	
Cobalt-57	0.027		A			False Positive Test	0.106		
Cobalt-60	1.93	2.01	A		-4.0	1.41 - 2.61	0.06	A	
Manganese-54	3.62	3.53	A		2.6	2.47 - 4.59	0.118	A	
Plutonium-238	0.042	0.0368	A		14.1	0.0258 - 0.0478	0.04	N	
Plutonium-239/240	0.041	0.0356	A		15.2	0.0249 - 0.0463	0.04	N	
Strontium-90	2.65	2.39	A		10.9	1.67 - 3.11	0.1	A	
Uranium-234	0.069	0.0660	A		4.5	0.0462 - 0.0858	0.04	N	
Uranium-238	0.063	0.0685	A		-8.0	0.0480 - 0.0891	0.04	N	
Zinc-65	9.18	9.13	A		0.5	6.39 - 11.87	0.314	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (FDOH01) Florida Dept. of Health, Mobile Environmental Radiological Lab
 2100 All Childrens Way
 Orlando, FL 32818-5271

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.099	0.087	A		13.8	0.061 - 0.113	0.025	W	
Cesium-134	2.93	2.89	A		1.4	2.02 - 3.76	0.059	A	
Cesium-137	2.213	1.91	A		15.9	1.34 - 2.48	0.078	A	
Cobalt-57	0.05		A			False Positive Test	0.05		
Cobalt-60	2.13	2.01	A		6.0	1.41 - 2.61	0.056	A	
Manganese-54	3.877	3.53	A		9.8	2.47 - 4.59	0.117	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	0.116	0.0685	N		69.3	0.0480 - 0.0891	0.522	N	
Zinc-65	10.167	9.13	A		11.4	6.39 - 11.87	0.282	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP Series 51
 (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	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0907	0.087	A		4.3	0.061 - 0.113	0.00450	A	
Cesium-134	2.67	2.89	A		-7.6	2.02 - 3.76	0.146	A	
Cesium-137	1.93	1.91	A		1.0	1.34 - 2.48	0.108	A	
Cobalt-57	0.00378		A			False Positive Test	0.0166		
Cobalt-60	2.06	2.01	A		2.5	1.41 - 2.61	0.125	A	
Manganese-54	3.73	3.53	A		5.7	2.47 - 4.59	0.191	A	
Plutonium-238	0.0363	0.0368	A		-1.4	0.0258 - 0.0478	0.00196	A	
Plutonium-239/240	0.0341	0.0356	A		-4.2	0.0249 - 0.0463	0.00188	A	
Strontium-90	2.46	2.39	A		2.9	1.67 - 3.11	0.0638	A	
Uranium-234	0.0644	0.0660	A		-2.4	0.0462 - 0.0858	0.00346	A	
Uranium-238	0.0673	0.0685	A		-1.8	0.0480 - 0.0891	0.00358	A	
Zinc-65	10.1	9.13	A		10.6	6.39 - 11.87	0.487	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (GPCL01) Georgia Power Company Environmental Laboratory
 2480 Maner Road
 Atlanta, GA 30339

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.86	2.89	A		-1.0	2.02 - 3.76	0.23	A	
Cesium-137	1.99	1.91	A		4.2	1.34 - 2.48	0.24	A	
Cobalt-57	-0.01		A			False Positive Test	0.13		
Cobalt-60	2.01	2.01	A		0.0	1.41 - 2.61	0.21	A	
Manganese-54	3.64	3.53	A		3.1	2.47 - 4.59	0.35	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	9.35	9.13	A		2.4	6.39 - 11.87	0.87	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (HECR01) SC Dept. Health and Environmental Control Radiological Laboratory
 8231 Parklane Road
 Columbia, SC 29223

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.450	2.89	A		-15.2	2.02 - 3.76	0.2076	A	
Cesium-137	1.665	1.91	A		-12.8	1.34 - 2.48	0.2532	W	
Cobalt-57	0.007687		A			False Positive Test	0.1118		
Cobalt-60	1.851	2.01	A		-7.9	1.41 - 2.61	0.1860	A	
Manganese-54	3.299	3.53	A		-6.5	2.47 - 4.59	0.4030	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	7.867	9.13	A		-13.8	6.39 - 11.87	0.8874	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (HPAC99) UKHSA, RCE Glasgow
 155 Hardgate Road
 Glasgow, Scotland G51 4LS

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.83	2.89	A		-2.1	2.02 - 3.76	0.18	A	
Cesium-137	1.92	1.91	A		0.5	1.34 - 2.48	0.14	A	
Cobalt-57	0.05		A			False Positive Test	0.05		
Cobalt-60	2.04	2.01	A		1.5	1.41 - 2.61	0.14	A	
Manganese-54	3.75	3.53	A		6.2	2.47 - 4.59	0.25	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	0.079	0.0660	A		19.7	0.0462 - 0.0858	0.006	A	
Uranium-238	0.081	0.0685	A		18.2	0.0480 - 0.0891	0.006	A	
Zinc-65	9.31	9.13	A		2.0	6.39 - 11.87	0.63	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (IAEA20) IAEA Marine Environment Laboratories, Radiometrics Laboratory
 4a, Quai Antoine 1er
 Monaco, Monaco 98000

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	154.9	2.89	N		5259.9	2.02 - 3.76	7.8	A	
Cesium-137	109.4	1.91	N		5627.7	1.34 - 2.48	5.6	A	
Cobalt-57	-0.01		A			False Positive Test	0.50		
Cobalt-60	111.7	2.01	N		5457.2	1.41 - 2.61	4.7	A	
Manganese-54	199	3.53	N		5537.4	2.47 - 4.59	10	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	514	9.13	N		5529.8	6.39 - 11.87	26	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (IDOH01) Indiana Department of Health
 550 W 16th St
 Indianapolis, IN 46202

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	.142	0.087	N		63.2	0.061 - 0.113	.0858	N	
Cesium-134	3.43	2.89	A		18.7	2.02 - 3.76	.0716	A	
Cesium-137	2.32	1.91	W		21.5	1.34 - 2.48	.0903	A	
Cobalt-57	NR					False Positive Test			
Cobalt-60	2.35	2.01	A		16.9	1.41 - 2.61	.0777	A	
Manganese-54	4.08	3.53	A		15.6	2.47 - 4.59	.127	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	10.5	9.13	A		15.0	6.39 - 11.87	.315	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (IEMA01) Illinois Emergency Management Agency Radiochemistry Laboratory
 1301 Knotts St.
 Springfield, IL 62703

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.08002	0.087	A		-8.0	0.061 - 0.113	0.003309	A	
Cesium-134	2.75	2.89	A		-4.8	2.02 - 3.76	0.055	A	
Cesium-137	1.98	1.91	A		3.7	1.34 - 2.48	0.080	A	
Cobalt-57	-0.002		A			False Positive Test	0.018		
Cobalt-60	1.95	2.01	A		-3.0	1.41 - 2.61	0.066	A	
Manganese-54	3.53	3.53	A		0.0	2.47 - 4.59	0.103	A	
Plutonium-238	0.03589	0.0368	A		-2.5	0.0258 - 0.0478	0.002084	A	
Plutonium-239/240	0.03670	0.0356	A		3.1	0.0249 - 0.0463	0.002109	A	
Strontium-90	2.253	2.39	A		-5.7	1.67 - 3.11	0.055	A	
Uranium-234	0.07096	0.0660	A		7.5	0.0462 - 0.0858	0.003112	A	
Uranium-238	0.07246	0.0685	A		5.8	0.0480 - 0.0891	0.003158	A	
Zinc-65	10.12	9.13	A		10.8	6.39 - 11.87	0.271	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (ISUE01) ISU Environmental Monitoring Laboratory
 785 5th 8th Ave Rm B107
 Pocatello, Idaho 83209

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.88	2.89	A		-0.3	2.02 - 3.76	0.06	A	
Cesium-137	2.09	1.91	A		9.4	1.34 - 2.48	0.08	A	
Cobalt-57	0.20		A			False Positive Test	0.16		
Cobalt-60	2.25	2.01	A		11.9	1.41 - 2.61	.06	A	
Manganese-54	3.85	3.53	A		9.1	2.47 - 4.59	0.12	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	10.24	9.13	A		12.2	6.39 - 11.87	0.30	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.52	2.89	A		-12.8	2.02 - 3.76	0.15	A	
Cesium-137	2.60	1.91	N		36.1	1.34 - 2.48	0.23	A	
Cobalt-57	0.04		A			False Positive Test	0.02		
Cobalt-60	2.29	2.01	A		13.9	1.41 - 2.61	0.17	A	
Manganese-54	3.85	3.53	A		9.1	2.47 - 4.59	0.25	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	10.04	9.13	A		10.0	6.39 - 11.87	0.62	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (NARL01) National Analytical 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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0837	0.087	A		-3.8	0.061 - 0.113	0.00752	A	
Cesium-134	2.91	2.89	A		0.7	2.02 - 3.76	0.173	A	
Cesium-137	1.91	1.91	A		0.0	1.34 - 2.48	0.138	A	
Cobalt-57	0.0232		A			False Positive Test	0.0444		
Cobalt-60	1.88	2.01	A		-6.5	1.41 - 2.61	0.120	A	
Manganese-54	3.35	3.53	A		-5.1	2.47 - 4.59	0.216	A	
Plutonium-238	0.0366	0.0368	A		-0.5	0.0258 - 0.0478	0.00274	A	
Plutonium-239/240	0.0358	0.0356	A		0.6	0.0249 - 0.0463	0.00261	A	
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	0.0686	0.0660	A		3.9	0.0462 - 0.0858	0.00405	A	
Uranium-238	0.0655	0.0685	A		-4.4	0.0480 - 0.0891	0.00393	A	
Zinc-65	8.70	9.13	A		-4.7	6.39 - 11.87	0.527	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (NJDH01) New Jersey Dept. of Health, ECLS
 3 Schwarzkopf Drive
 Ewing, NJ 08628

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.36	2.89	A		-18.3	2.02 - 3.76	0.15	A	
Cesium-137	1.6	1.91	A		-16.2	1.34 - 2.48	0.112	A	
Cobalt-57	-0.021		A			False Positive Test	0.022		
Cobalt-60	1.65	2.01	A		-17.9	1.41 - 2.61	0.084	A	
Manganese-54	2.92	3.53	A		-17.3	2.47 - 4.59	0.183	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	7.36	9.13	A		-19.4	6.39 - 11.87	0.332	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (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	0.040	0.040	A		0.0	0.028 - 0.052	0.005	A	
Uranium-238	5.8	5.51	A		5.3	3.86 - 7.16	0.5	A	
Uranium-Total	5.8	5.51	A		5.3	3.86 - 7.16	0.5	A	

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.086	0.087	A		-1.1	0.061 - 0.113	0.006	A	
Cesium-134	2.7	2.89	A		-6.6	2.02 - 3.76	0.1	A	
Cesium-137	2.3	1.91	W		20.4	1.34 - 2.48	0.1	A	
Cobalt-57	0.2		A			False Positive Test	2		
Cobalt-60	2.0	2.01	A		-0.5	1.41 - 2.61	0.1	A	
Manganese-54	3.9	3.53	A		10.5	2.47 - 4.59	0.2	A	
Plutonium-238	0.020	0.0368	N		-45.7	0.0258 - 0.0478	0.002	A	
Plutonium-239/240	0.025	0.0356	W		-29.8	0.0249 - 0.0463	0.002	A	
Strontium-90	2.1	2.39	A		-12.1	1.67 - 3.11	0.1	A	
Uranium-234	0.062	0.0660	A		-6.1	0.0462 - 0.0858	0.003	A	
Uranium-238	0.064	0.0685	A		-6.6	0.0480 - 0.0891	0.003	A	
Zinc-65	10.1	9.13	A		10.6	6.39 - 11.87	0.4	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (NRLL99) Environmental Radioactivity - National Centre for Radiation Science
 PO Box 29181
 Christchurch, Christchurch 8540

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0751	0.087	A		-13.7	0.061 - 0.113	0.0090	A	
Cesium-134	2.91	2.89	A		0.7	2.02 - 3.76	0.13	A	
Cesium-137	1.907	1.91	A		-0.2	1.34 - 2.48	0.086	A	
Cobalt-57	0.024		A			False Positive Test	0.012		
Cobalt-60	1.96	2.01	A		-2.5	1.41 - 2.61	0.10	A	
Manganese-54	3.44	3.53	A		-2.6	2.47 - 4.59	0.15	A	
Plutonium-238	0.0365	0.0368	A		-0.8	0.0258 - 0.0478	0.0022	A	
Plutonium-239/240	0.0367	0.0356	A		3.1	0.0249 - 0.0463	0.0023	A	
Strontium-90	2.26	2.39	A		-5.4	1.67 - 3.11	0.11	A	
Uranium-234	0.0624	0.0660	A		-5.5	0.0462 - 0.0858	0.0026	A	
Uranium-238	0.0650	0.0685	A		-5.1	0.0480 - 0.0891	0.0027	A	
Zinc-65	9.14	9.13	A		0.1	6.39 - 11.87	0.41	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (NSPH01) Nevada State Public Health Laboratory
 1664 North Virginia Street, MS 328
 Reno, NV 89557

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	3.02	2.89	A		4.5	2.02 - 3.76	0.01	N	
Cesium-137	2.06	1.91	A		7.9	1.34 - 2.48	0.13	A	
Cobalt-57	NR					False Positive Test			
Cobalt-60	2.36	2.01	A		17.4	1.41 - 2.61	0.11	A	
Manganese-54	3.91	3.53	A		10.8	2.47 - 4.59	0.18	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	9.97	9.13	A		9.2	6.39 - 11.87	0.45	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.92	2.89	A		1.0	2.02 - 3.76	0.131	A	
Cesium-137	1.94	1.91	A		1.6	1.34 - 2.48	0.151	A	
Cobalt-57	0.0288		A			False Positive Test	0.0530		
Cobalt-60	2.05	2.01	A		2.0	1.41 - 2.61	0.0932	A	
Manganese-54	3.61	3.53	A		2.3	2.47 - 4.59	0.250	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	9.65	9.13	A		5.7	6.39 - 11.87	0.509	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (RAVR99) Radiactividad Ambiental y Vigilancia Radiologica
 CIEMAT (Ed 70 P2 D11)
 Madrid, Madrid 28040

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.85	2.89	A		-1.4	2.02 - 3.76	0.12	A	
Cesium-137	1.942	1.91	A		1.7	1.34 - 2.48	0.074	A	
Cobalt-57	0.108		A			False Positive Test	1		
Cobalt-60	2.027	2.01	A		0.8	1.41 - 2.61	0.057	A	
Manganese-54	3.52	3.53	A		-0.3	2.47 - 4.59	0.13	A	
Plutonium-238	0.0329	0.0368	A		-10.6	0.0258 - 0.0478	0.0034	A	
Plutonium-239/240	0.0320	0.0356	A		-10.1	0.0249 - 0.0463	0.0034	A	
Strontium-90	1.98	2.39	A		-17.2	1.67 - 3.11	0.09	A	
Uranium-234	0.0507	0.0660	W		-23.2	0.0462 - 0.0858	0.0055	A	
Uranium-238	0.0541	0.0685	W		-21.0	0.0480 - 0.0891	0.0055	A	
Zinc-65	9.19	9.13	A		0.7	6.39 - 11.87	0.43	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (SANC99) RadioAnalysis, South Africa Nuclear Energy Corp.
 Sample Receipt Gate 1
 Pretoria, Gauteng 0001

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087	N	(28)		0.061 - 0.113			
Cesium-134	0.03	2.89	N		-99.0	2.02 - 3.76	0.03	N	
Cesium-137	1.29	1.91	N		-32.5	1.34 - 2.48	0.05	A	
Cobalt-57	0.02		A			False Positive Test	0.02		
Cobalt-60	1.22	2.01	N		-39.3	1.41 - 2.61	0.09	A	
Manganese-54	2.35	3.53	N		-33.4	2.47 - 4.59	0.07	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	0.878	2.39	N		-63.3	1.67 - 3.11	0.123	A	
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	6.07	9.13	N		-33.5	6.39 - 11.87	0.35	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.94	0.087	N		980.5	0.061 - 0.113	0.10	A	
Cesium-134	2.81	2.89	A		-2.8	2.02 - 3.76	0.25	A	
Cesium-137	1.83	1.91	A		-4.2	1.34 - 2.48	0.21	A	
Cobalt-57	0.06		A			False Positive Test	0.13		
Cobalt-60	2.10	2.01	A		4.5	1.41 - 2.61	0.19	A	
Manganese-54	3.61	3.53	A		2.3	2.47 - 4.59	0.52	A	
Plutonium-238	0.441	0.0368	N		1098.4	0.0258 - 0.0478	0.029	A	
Plutonium-239/240	0.500	0.0356	N		1304.5	0.0249 - 0.0463	0.032	A	
Strontium-90	2.16	2.39	A		-9.6	1.67 - 3.11	0.12	A	
Uranium-234	0.988	0.0660	N		1397.0	0.0462 - 0.0858	0.061	A	
Uranium-238	1.016	0.0685	N		1383.2	0.0480 - 0.0891	0.054	A	
Zinc-65	9.5	9.13	A		4.1	6.39 - 11.87	1.0	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (SOUT01) Southwest Research Institute
 6220 Culebra Rd.
 San Antonio, TX 78238-5166

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0411	0.040	A		2.8	0.028 - 0.052	0.00718	W	
Uranium-238	5.49	5.51	A		-0.4	3.86 - 7.16	0.879	W	
Uranium-Total	5.53	5.51	A		0.4	3.86 - 7.16	0.885	W	

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	NR	2.89				2.02 - 3.76			
Cesium-137	NR	1.91				1.34 - 2.48			
Cobalt-57	NR					False Positive Test			
Cobalt-60	NR	2.01				1.41 - 2.61			
Manganese-54	NR	3.53				2.47 - 4.59			
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	NR	9.13				6.39 - 11.87			

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (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	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.91E+00	2.89	A		0.7	2.02 - 3.76	2.39E-01	A	
Cesium-137	2.04E+00	1.91	A		6.8	1.34 - 2.48	1.85E-01	A	
Cobalt-57	-1.20E-01		A			False Positive Test	9.58E-02		
Cobalt-60	2.09E+00	2.01	A		4.0	1.41 - 2.61	1.58E-01	A	
Manganese-54	3.61E+00	3.53	A		2.3	2.47 - 4.59	2.38E-01	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	9.01E+00	9.13	A		-1.3	6.39 - 11.87	5.14E-01	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.094	0.087	A		8.0	0.061 - 0.113	0.015	W	
Cesium-134	3.036	2.89	A		5.1	2.02 - 3.76	0.087	A	
Cesium-137	2.13	1.91	A		11.5	1.34 - 2.48	0.11	A	
Cobalt-57	-0.04		A			False Positive Test	0.11		
Cobalt-60	2.050	2.01	A		2.0	1.41 - 2.61	0.072	A	
Manganese-54	3.87	3.53	A		9.6	2.47 - 4.59	0.14	A	
Plutonium-238	0.03034	0.0368	A		-17.6	0.0258 - 0.0478	0.00048	N	
Plutonium-239/240	0.0349	0.0356	A		-2.0	0.0249 - 0.0463	0.0052	A	
Strontium-90	2.089	2.39	A		-12.6	1.67 - 3.11	0.041	N	
Uranium-234	0.0507	0.0660	W		-23.2	0.0462 - 0.0858	0.0094	W	
Uranium-238	0.068	0.0685	A		-0.7	0.0480 - 0.0891	0.011	W	
Zinc-65	9.08	9.13	A		-0.5	6.39 - 11.87	0.34	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	3.12	2.89	A		8.0	2.02 - 3.76	0.223	A	
Cesium-137	2.18	1.91	A		14.1	1.34 - 2.48	0.166	A	
Cobalt-57	0.0013		A			False Positive Test	0.058		
Cobalt-60	2.24	2.01	A		11.4	1.41 - 2.61	0.117	A	
Manganese-54	3.76	3.53	A		6.5	2.47 - 4.59	0.244	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	0.95	2.39	N		-60.3	1.67 - 3.11	0.028	A	
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	10.3	9.13	A		12.8	6.39 - 11.87	0.496	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (TELE02) Microbac Laboratories Inc. - Northbrook
 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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.087				0.061 - 0.113			
Cesium-134	2.10	2.89	W		-27.3	2.02 - 3.76	0.07	A	
Cesium-137	1.53	1.91	A		-19.9	1.34 - 2.48	0.11	A	
Cobalt-57	0.003		A			False Positive Test	0.023		
Cobalt-60	1.54	2.01	W		-23.4	1.41 - 2.61	0.08	A	
Manganese-54	2.89	3.53	A		-18.1	2.47 - 4.59	0.15	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	7.14	9.13	W		-21.8	6.39 - 11.87	0.29	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (TMAO01) EBERLINE Analytical Corporation
 601 A 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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	.32	0.087	N		267.8	0.061 - 0.113	.30	N	
Cesium-134	2.81	2.89	A		-2.8	2.02 - 3.76	.53	W	
Cesium-137	1.93	1.91	A		1.0	1.34 - 2.48	.520	W	
Cobalt-57	.0111		A			False Positive Test	.0221		
Cobalt-60	2.04	2.01	A		1.5	1.41 - 2.61	.41	W	
Manganese-54	3.95	3.53	A		11.9	2.47 - 4.59	.96	W	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	.0807	0.0660	W		22.3	0.0462 - 0.0858	.0199	W	
Uranium-238	.0749	0.0685	A		9.3	0.0480 - 0.0891	.0188	W	
Zinc-65	9.18	9.13	A		0.5	6.39 - 11.87	1.88	W	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (WIPH01) WI, DPH, Radiation Protection Section
 1 West Wilson Street
 Madison, WI 53703

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	.398	0.087	N		357.5	0.061 - 0.113	.224	N	
Cesium-134	3.320	2.89	A		14.9	2.02 - 3.76	.118	A	
Cesium-137	2.019	1.91	A		5.7	1.34 - 2.48	.139	A	
Cobalt-57	.0206		A			False Positive Test	.0276		
Cobalt-60	2.158	2.01	A		7.4	1.41 - 2.61	.0806	A	
Manganese-54	3.571	3.53	A		1.2	2.47 - 4.59	.207	A	
Plutonium-238	NR	0.0368				0.0258 - 0.0478			
Plutonium-239/240	NR	0.0356				0.0249 - 0.0463			
Strontium-90	NR	2.39				1.67 - 3.11			
Uranium-234	NR	0.0660				0.0462 - 0.0858			
Uranium-238	NR	0.0685				0.0480 - 0.0891			
Zinc-65	8.392	9.13	A		-8.1	6.39 - 11.87	.410	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	8.30E-002	0.087	A		-4.6	0.061 - 0.113	5.78E-003	A	
Cesium-134	2.74E+000	2.89	A		-5.2	2.02 - 3.76	1.05E-001	A	
Cesium-137	1.77E+000	1.91	A		-7.3	1.34 - 2.48	1.31E-001	A	
Cobalt-57	-1.76E-002		A			False Positive Test	2.51E-002		
Cobalt-60	2.16E+000	2.01	A		7.5	1.41 - 2.61	1.54E-001	A	
Manganese-54	2.96E+000	3.53	A		-16.1	2.47 - 4.59	1.62E-001	A	
Plutonium-238	3.70E-002	0.0368	A		0.5	0.0258 - 0.0478	3.31E-003	A	
Plutonium-239/240	3.67E-002	0.0356	A		3.1	0.0249 - 0.0463	3.29E-003	A	
Strontium-90	2.24E+000	2.39	A		-6.3	1.67 - 3.11	1.08E-001	A	
Uranium-234	7.16E-002	0.0660	A		8.5	0.0462 - 0.0858	9.27E-003	A	
Uranium-238	7.16E-002	0.0685	A		4.5	0.0480 - 0.0891	9.27E-003	A	
Zinc-65	8.75E+000	9.13	A		-4.2	6.39 - 11.87	4.07E-001	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 51
 (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	0.040				0.028 - 0.052			
Uranium-238	NR	5.51				3.86 - 7.16			
Uranium-Total	NR	5.51				3.86 - 7.16			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.09953	0.087	A		14.4	0.061 - 0.113	0.0116	A	
Cesium-134	2.702	2.89	A		-6.5	2.02 - 3.76	0.114	A	
Cesium-137	1.891	1.91	A		-1.0	1.34 - 2.48	0.069	A	
Cobalt-57	0.0038		A			False Positive Test	0.0152		
Cobalt-60	1.924	2.01	A		-4.3	1.41 - 2.61	0.176	A	
Manganese-54	3.452	3.53	A		-2.2	2.47 - 4.59	0.157	A	
Plutonium-238	0.04835	0.0368	N		31.4	0.0258 - 0.0478	0.00969	W	
Plutonium-239/240	0.04329	0.0356	W		21.6	0.0249 - 0.0463	0.007978	W	
Strontium-90	1.5	2.39	N		-37.2	1.67 - 3.11	0.0193	N	
Uranium-234	0.0672	0.0660	A		1.8	0.0462 - 0.0858	0.00668	A	
Uranium-238	0.06029	0.0685	A		-12.0	0.0480 - 0.0891	0.006011	A	
Zinc-65	9.029	9.13	A		-1.1	6.39 - 11.87	0.737	A	

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

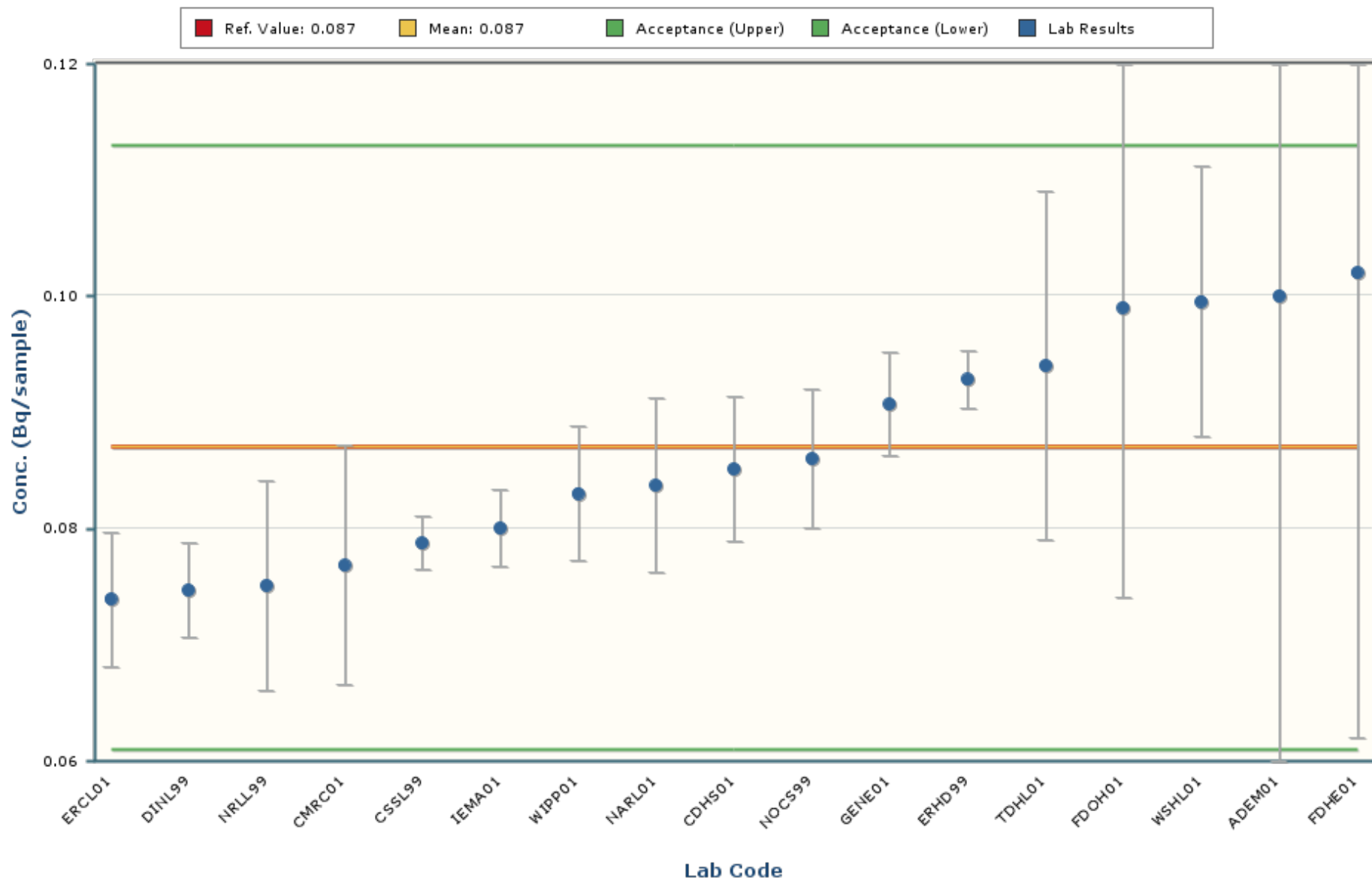
Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (28) = Not Reporting Previously Reported Analyte

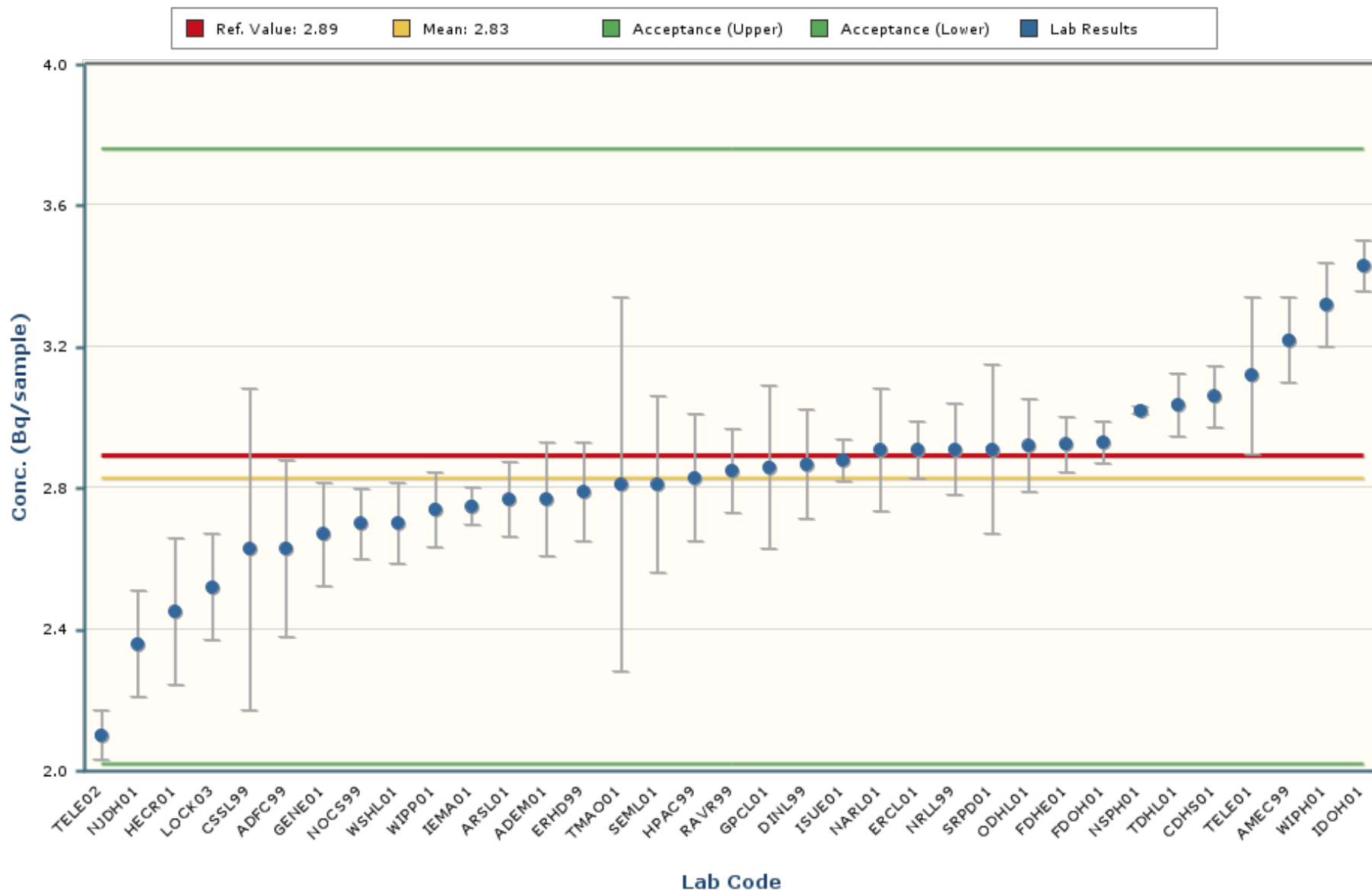
Americium-241
MAPEP-24-RdV51



Notes:

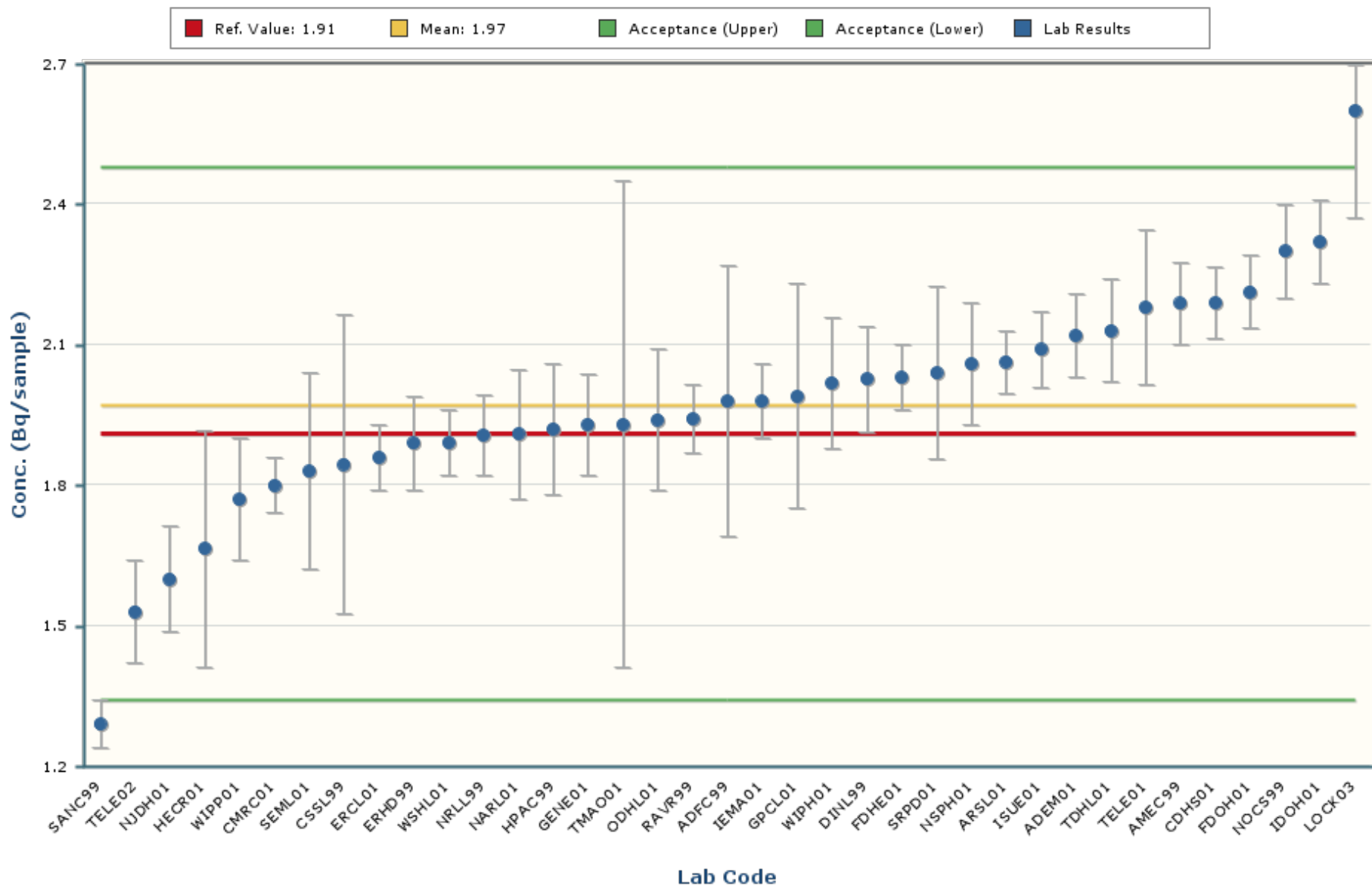
The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.038 and 0.135 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

Cesium-134
MAPEP-24-RdV51



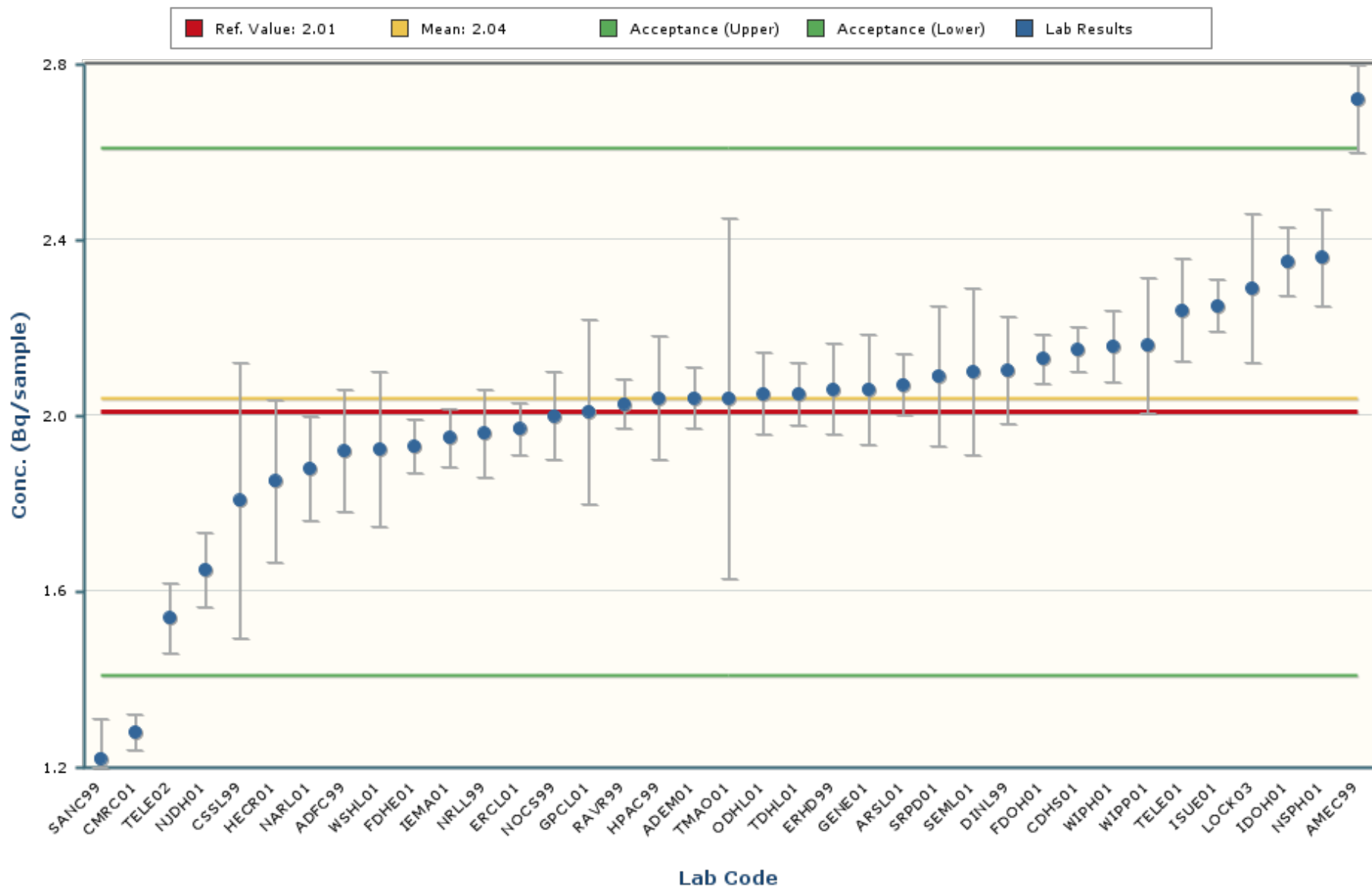
Notes:
 The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 1.56 and 4.10 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

Cesium-137
MAPEP-24-RdV51



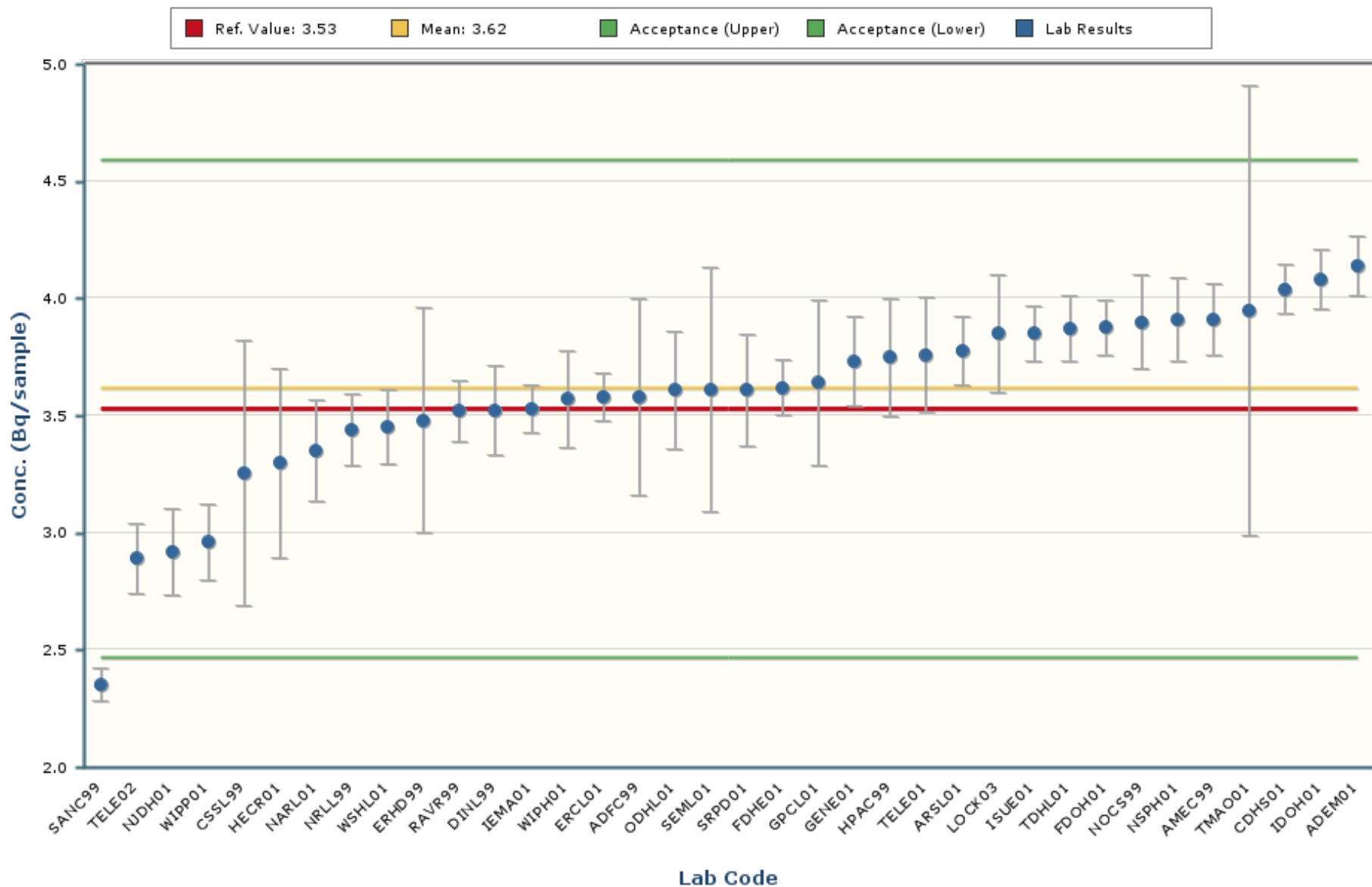
Notes:
 The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 1.08 and 2.87 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

Cobalt-60
MAPEP-24-RdV51



Notes:
 The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 1.17 and 2.90 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

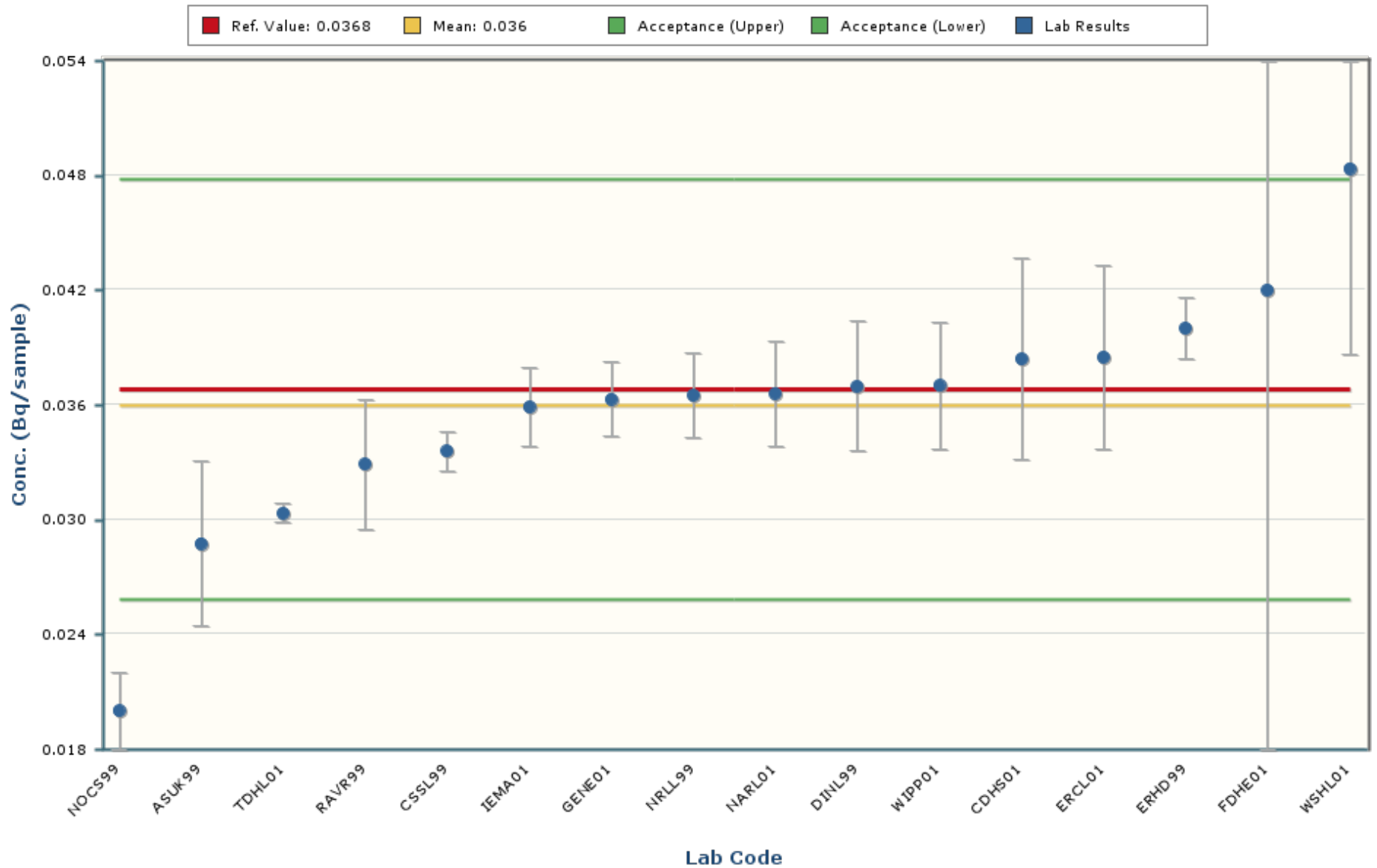
Manganese-54
MAPEP-24-RdV51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 2.09 and 5.16 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

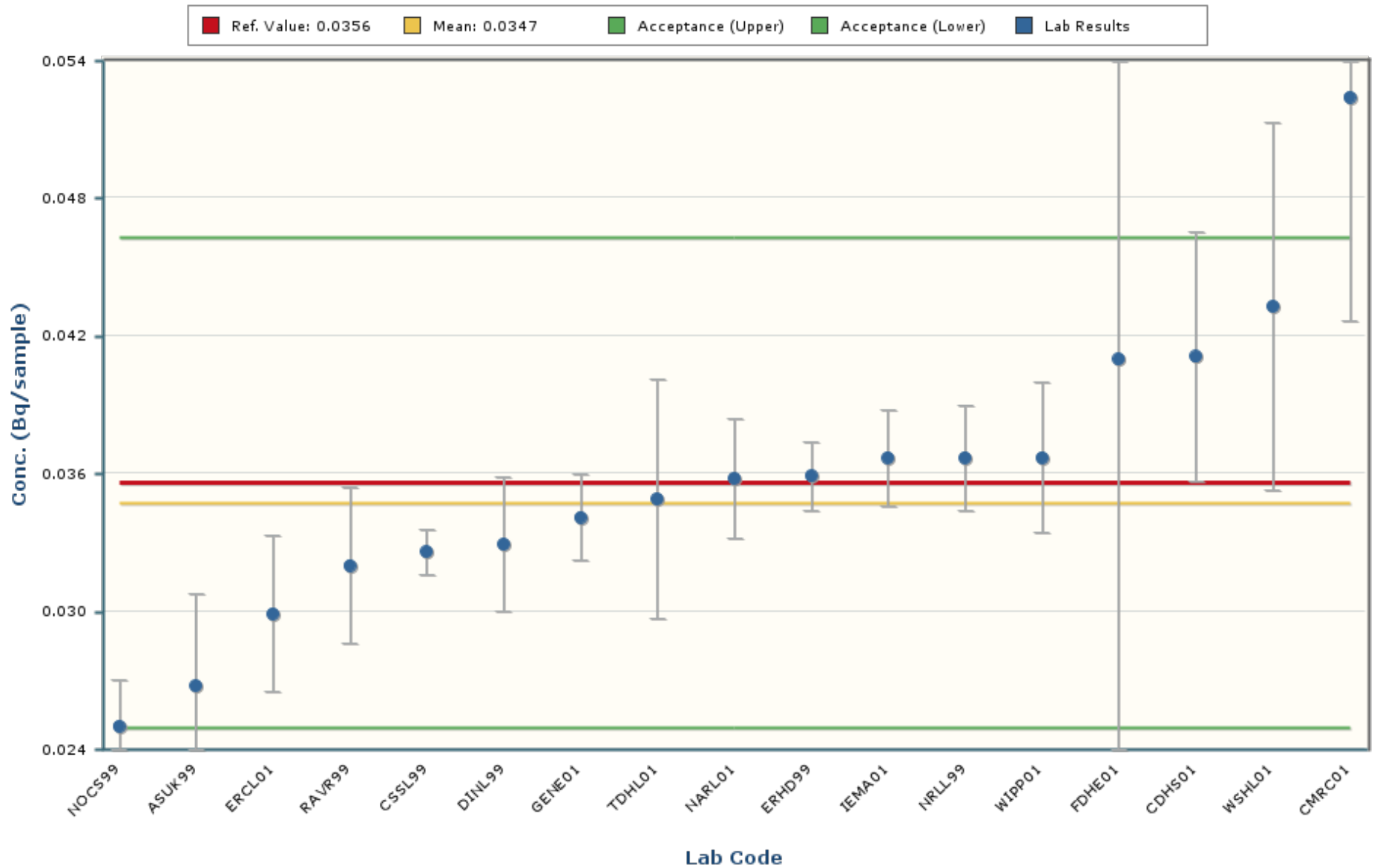
Plutonium-238
MAPEP-24-RdV51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.0181 and 0.0539 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

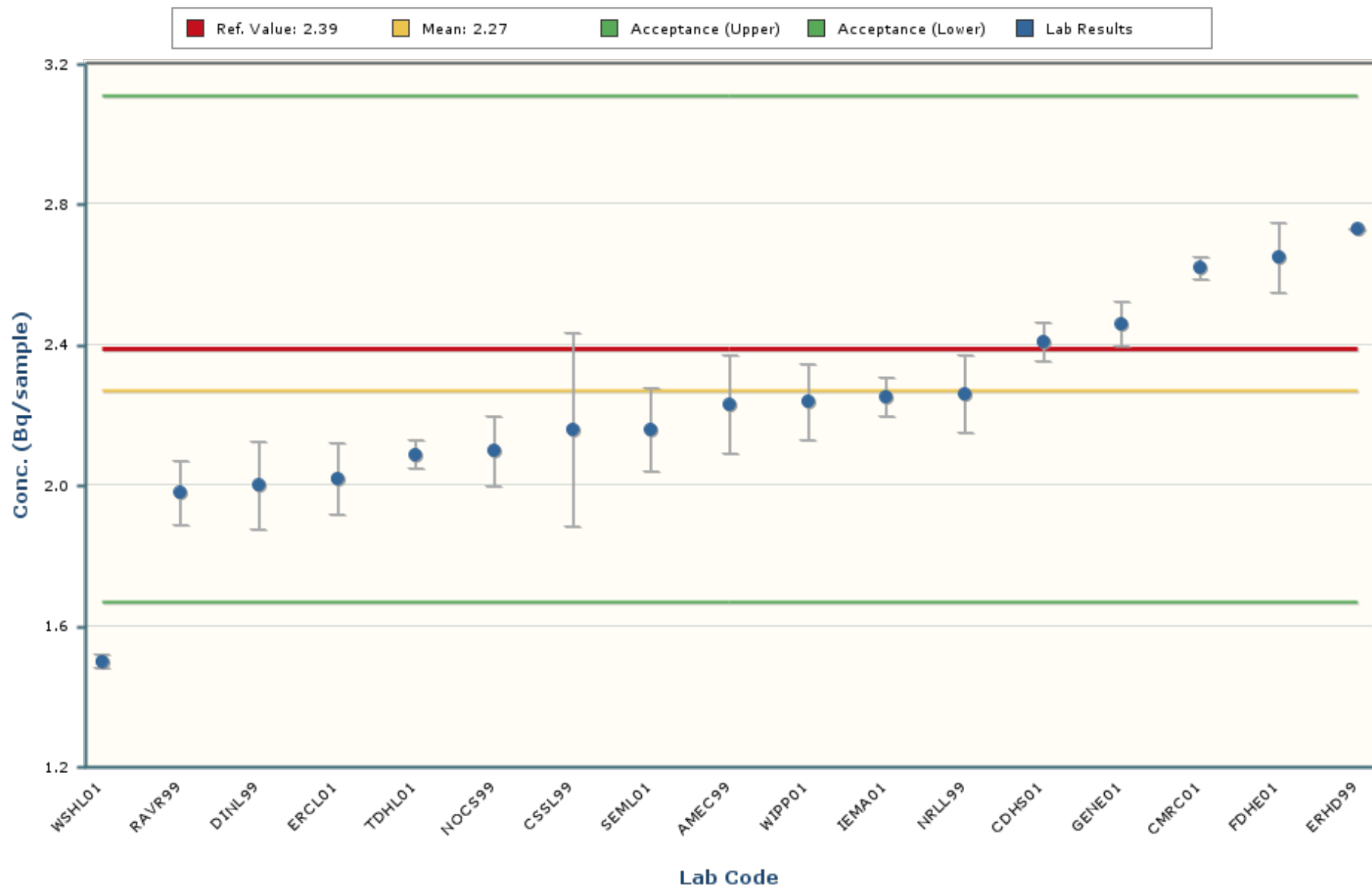
Plutonium-239/240
MAPEP-24-RdV51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.0101 and 0.0594 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

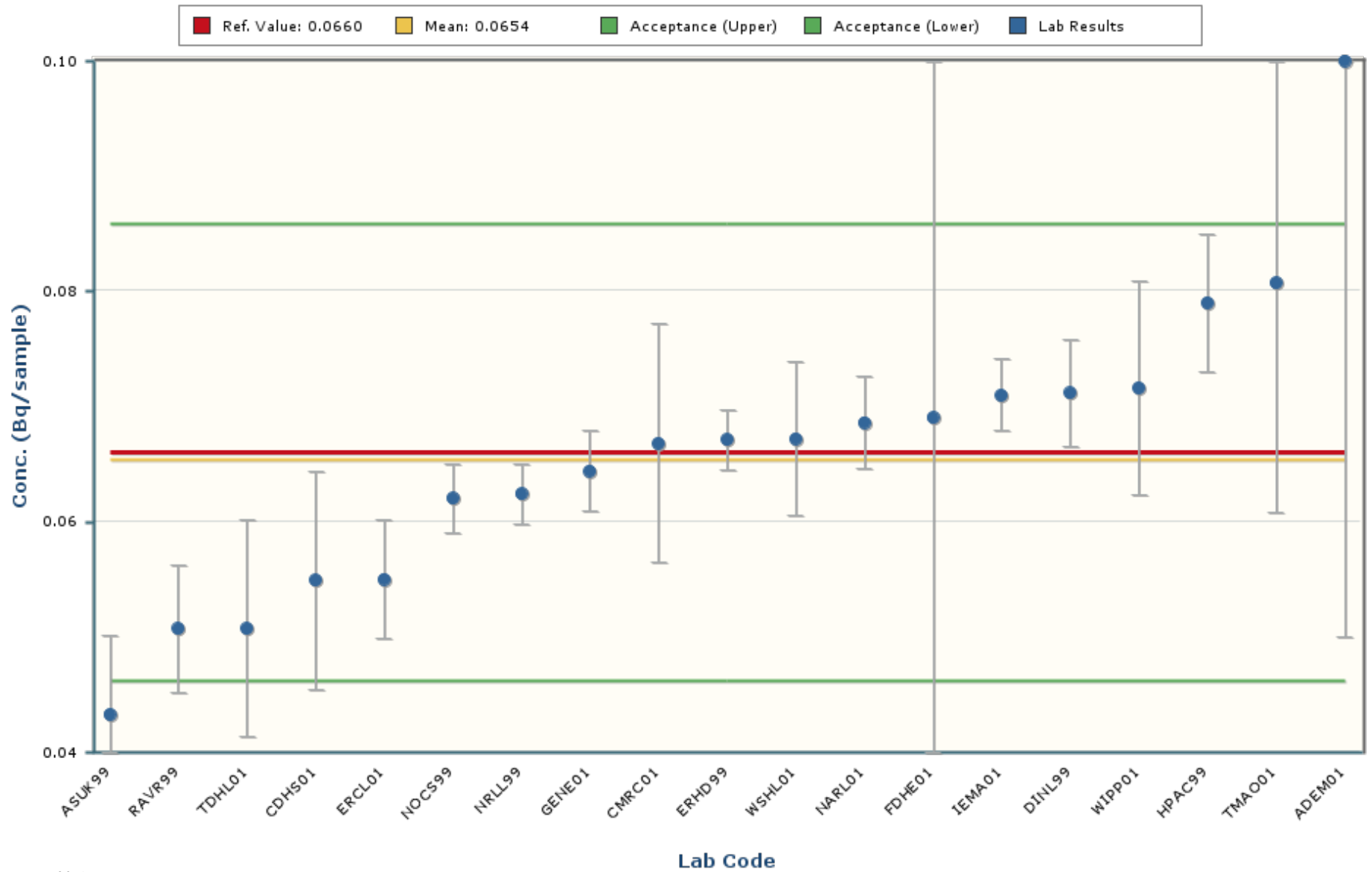
Strontium-90
MAPEP-24-RdV51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 1.09 and 3.46 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

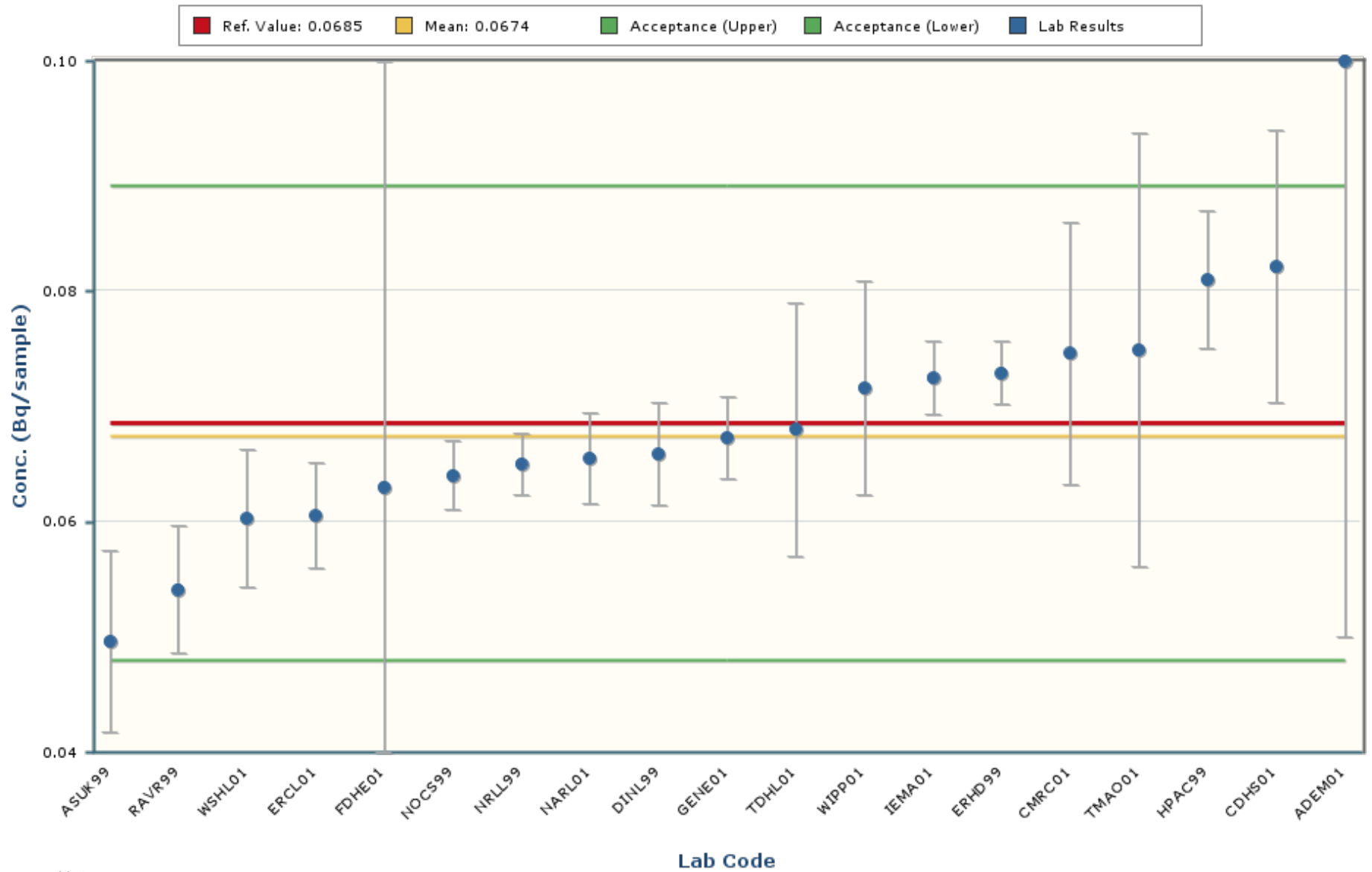
Uranium-234
MAPEP-24-RdV51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.0217 and 0.1092 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

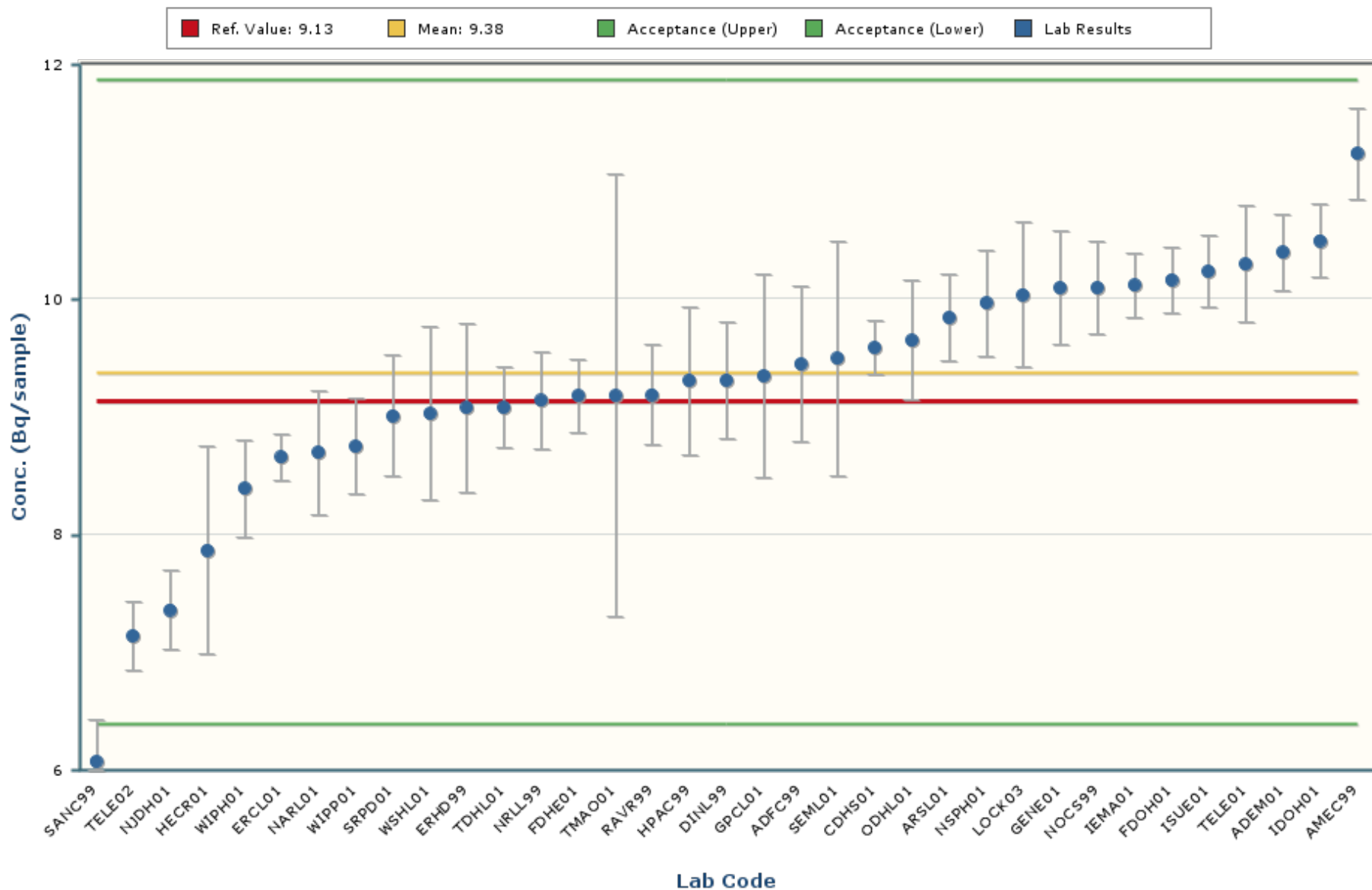
Uranium-238
MAPEP-24-RdV51



Notes:

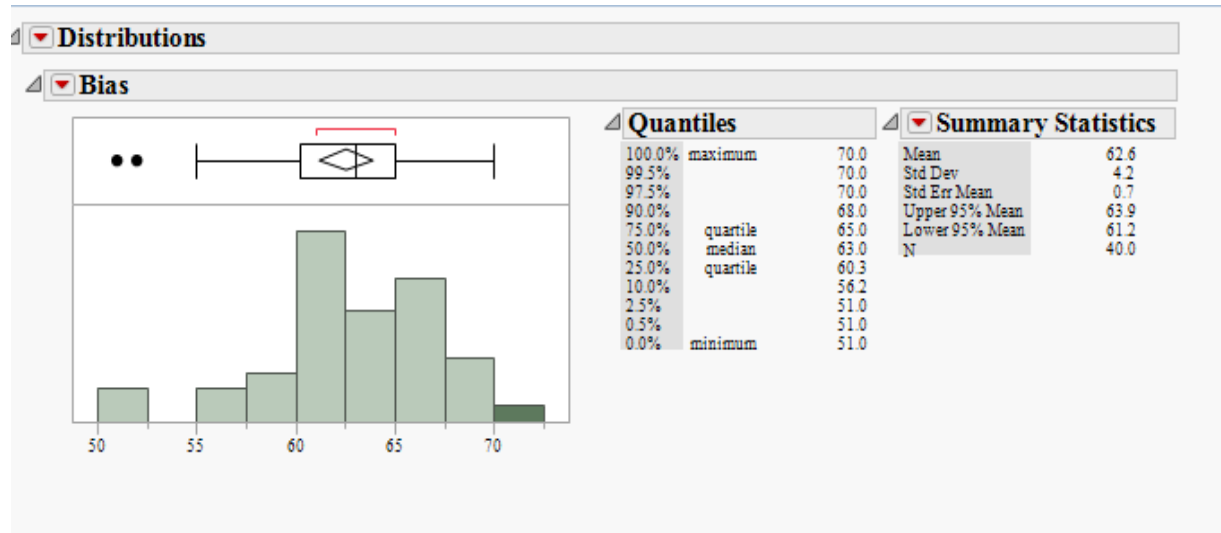
The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.0250 and 0.1097 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

Zinc-65
MAPEP-24-RdV51



Notes:
 The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 5.02 and 13.74 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

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. Biases greater than +/- 100% have been screened from the data. The box plot of the bias data points and the mean visually illustrate the breadth of the distribution and where potential outliers in the distribution might lie. The statistics for the distribution plot are provided adjacent to 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.

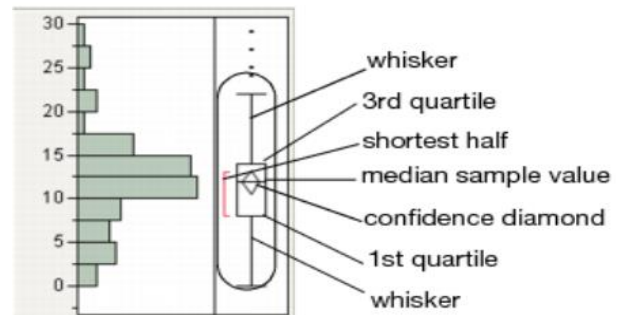


Outlier Box Plot

The BLACK small vertical line inside the small rectangle at the top of the data distribution graph is the median of the population of the bias shown for that analyte in the matrix. The confidence diamond contains the mean and the upper and lower 95% of the mean. If you drew a line through the middle of the diamond, you would have the mean. The top and bottom points of the diamond represent the upper and lower 95% of the mean. The ends of the box represent the 25th and 75th quantiles, also expressed as 1st and 3rd quartile. The difference between the 1st and 3rd quartiles is called the interquartile range. Each box has lines that extend from each end, sometimes called whiskers. The whiskers extend from the ends of the box to the outermost data point that falls within the distances computed as follows:

3rd quartile + 1.5*(interquartile range)

1st quartile - 1.5*(interquartile range)

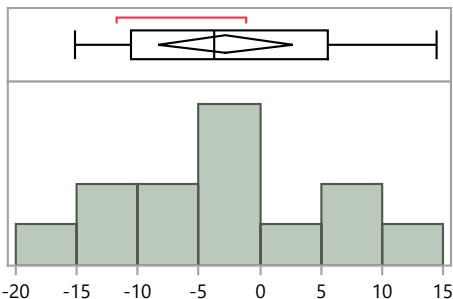


If the data points do not reach the computed ranges, then the whiskers are determined by the upper and lower data point values (not including outliers). The bracket outside of the box identifies the *shortest half*, which is the most dense 50% of the observations (Rousseuw and Leroy 1987).

RdV51 Distribution by Detection Method

Distributions Analyte_Detection=Americium-241 Alpha Spectrometry

Bias

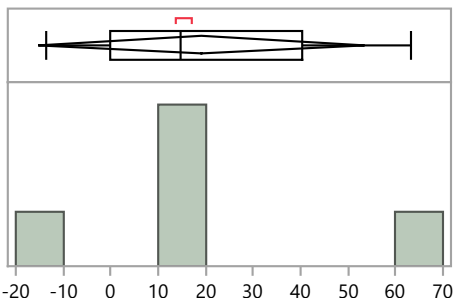


Quantiles	
100.0%	maximum 14.4
99.5%	14.4
97.5%	14.4
90.0%	11.8
75.0%	quartile 5.5
50.0%	median -3.8
25.0%	quartile -10.6
10.0%	-14.7
2.5%	-15.1
0.5%	-15.1
0.0%	minimum -15.1

Summary Statistics	
Mean	-2.8
Std Dev	9.1
Std Err Mean	2.5
Upper 95% Mean	2.7
Lower 95% Mean	-8.3
N	13.0

Distributions Analyte_Detection=Americium-241 Gamma Spectrometry

Bias

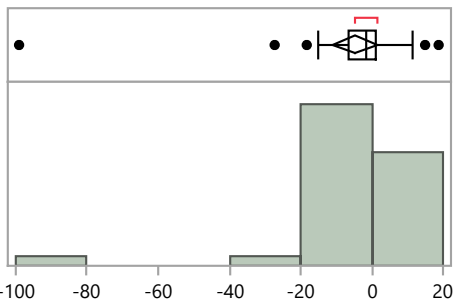


Quantiles	
100.0%	maximum 63.2
99.5%	63.2
97.5%	63.2
90.0%	63.2
75.0%	quartile 40.2
50.0%	median 14.9
25.0%	quartile 0.1
10.0%	-13.7
2.5%	-13.7
0.5%	-13.7
0.0%	minimum -13.7

Summary Statistics	
Mean	19.1
Std Dev	27.7
Std Err Mean	12.4
Upper 95% Mean	53.5
Lower 95% Mean	-15.3
N	5.0

Distributions Analyte_Detection=Cesium-134 Gamma Spectrometry

Bias



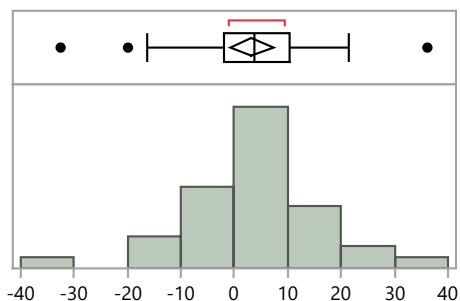
Quantiles	
100.0%	maximum 18.7
99.5%	18.7
97.5%	18.7
90.0%	9.0
75.0%	quartile 1.2
50.0%	median -1.8
25.0%	quartile -6.6
10.0%	-16.1
2.5%	-99.0
0.5%	-99.0
0.0%	minimum -99.0

Summary Statistics	
Mean	-4.7
Std Dev	18.3
Std Err Mean	3.1
Upper 95% Mean	1.5
Lower 95% Mean	-10.9
N	36.0

RdV51 Distribution by Detection Method

Distributions Analyte_Detection=Cesium-137 Gamma Spectrometry

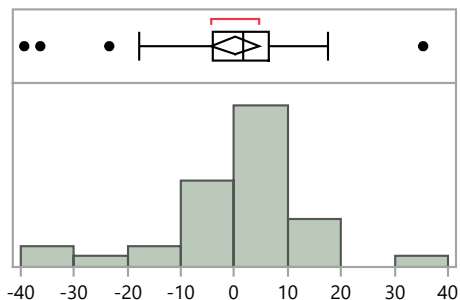
Bias



Quantiles		Summary Statistics		
100.0%	maximum	36.1	Mean	3.3
99.5%		36.1	Std Dev	12.2
97.5%		36.1	Std Err Mean	2.0
90.0%		16.8	Upper 95% Mean	7.3
75.0%	quartile	10.2	Lower 95% Mean	-0.8
50.0%	median	3.7	N	37.0
25.0%	quartile	-1.8		
10.0%		-13.5		
2.5%		-32.5		
0.5%		-32.5		
0.0%	minimum	-32.5		

Distributions Analyte_Detection=Cobalt-60 Gamma Spectrometry

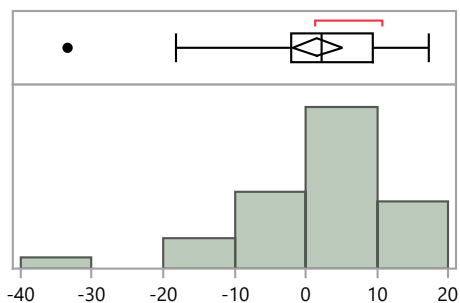
Bias



Quantiles		Summary Statistics		
100.0%	maximum	35.3	Mean	0.1
99.5%		35.3	Std Dev	13.5
97.5%		35.3	Std Err Mean	2.2
90.0%		14.5	Upper 95% Mean	4.6
75.0%	quartile	6.5	Lower 95% Mean	-4.4
50.0%	median	1.5	N	37.0
25.0%	quartile	-4.2		
10.0%		-19.0		
2.5%		-39.3		
0.5%		-39.3		
0.0%	minimum	-39.3		

Distributions Analyte_Detection=Manganese-54 Gamma Spectrometry

Bias

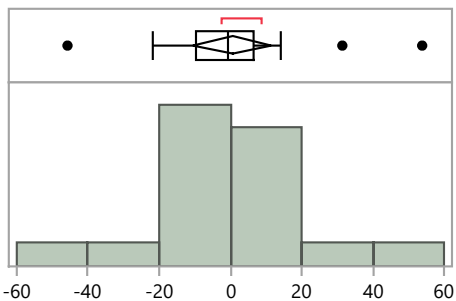


Quantiles		Summary Statistics		
100.0%	maximum	17.3	Mean	1.7
99.5%		17.3	Std Dev	10.5
97.5%		17.3	Std Err Mean	1.7
90.0%		12.7	Upper 95% Mean	5.2
75.0%	quartile	9.5	Lower 95% Mean	-1.9
50.0%	median	2.3	N	36.0
25.0%	quartile	-2.0		
10.0%		-16.5		
2.5%		-33.4		
0.5%		-33.4		
0.0%	minimum	-33.4		

RdV51 Distribution by Detection Method

Distributions Analyte_Detection=Plutonium-238 Alpha Spectrometry

Bias



Quantiles

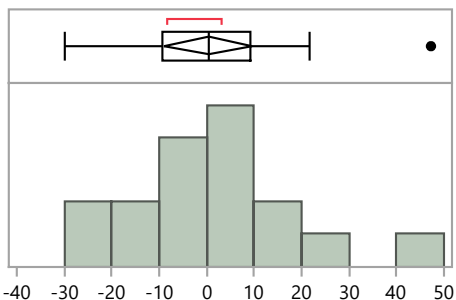
100.0%	maximum	53.8
99.5%		53.8
97.5%		53.8
90.0%		35.9
75.0%	quartile	6.7
50.0%	median	-0.5
25.0%	quartile	-9.7
10.0%		-26.7
2.5%		-45.7
0.5%		-45.7
0.0%	minimum	-45.7

Summary Statistics

Mean	0.5
Std Dev	21.3
Std Err Mean	5.2
Upper 95% Mean	11.4
Lower 95% Mean	-10.5
N	17.0

Distributions Analyte_Detection=Plutonium-239/240 Alpha Spectrometry

Bias



Quantiles

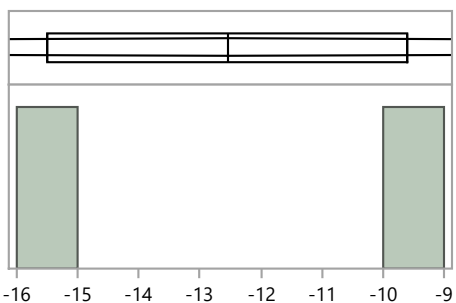
100.0%	maximum	47.2
99.5%		47.2
97.5%		47.2
90.0%		26.7
75.0%	quartile	9.2
50.0%	median	0.6
25.0%	quartile	-9.3
10.0%		-25.8
2.5%		-29.8
0.5%		-29.8
0.0%	minimum	-29.8

Summary Statistics

Mean	0.4
Std Dev	18.0
Std Err Mean	4.4
Upper 95% Mean	9.7
Lower 95% Mean	-8.8
N	17.0

Distributions Analyte_Detection=Strontium-90 Alpha Spectrometry

Bias



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	-12.6
25.0%	quartile	-15.5
10.0%		-15.5
2.5%		-15.5
0.5%		-15.5
0.0%	minimum	-15.5

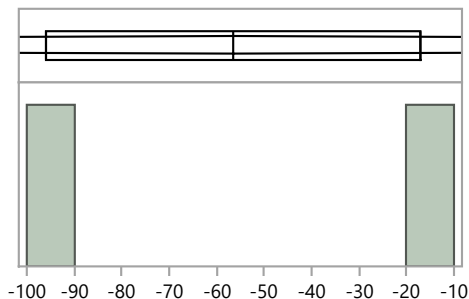
Summary Statistics

Mean	-12.6
Std Dev	4.2
Std Err Mean	3.0
Upper 95% Mean	24.9
Lower 95% Mean	-50.0
N	2.0

RdV51 Distribution by Detection Method

Distributions Analyte_Detection=Strontium-90 Gamma Spectrometry

Bias



Quantiles

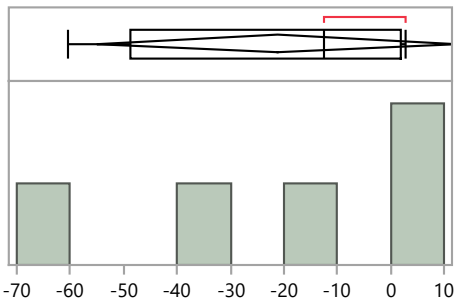
100.0%	maximum	-17.2
99.5%		-17.2
97.5%		-17.2
90.0%		-17.2
75.0%	quartile	-17.2
50.0%	median	-56.5
25.0%	quartile	-95.8
10.0%		-95.8
2.5%		-95.8
0.5%		-95.8
0.0%	minimum	-95.8

Summary Statistics

Mean	-56.5
Std Dev	55.6
Std Err Mean	39.3
Upper 95% Mean	442.9
Lower 95% Mean	-555.9
N	2.0

Distributions Analyte_Detection=Strontium-90 Gas Flow Proportional Counter

Bias



Quantiles

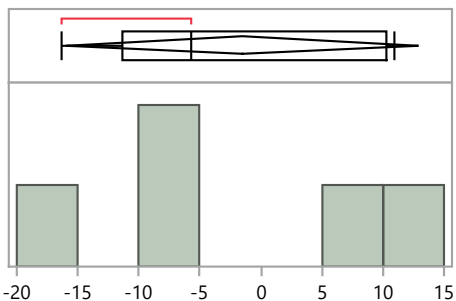
100.0%	maximum	2.9
99.5%		2.9
97.5%		2.9
90.0%		2.9
75.0%	quartile	1.9
50.0%	median	-12.6
25.0%	quartile	-48.8
10.0%		-60.3
2.5%		-60.3
0.5%		-60.3
0.0%	minimum	-60.3

Summary Statistics

Mean	-21.3
Std Dev	27.0
Std Err Mean	12.1
Upper 95% Mean	12.3
Lower 95% Mean	-54.8
N	5.0

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

Bias



Quantiles

100.0%	maximum	10.9
99.5%		10.9
97.5%		10.9
90.0%		10.9
75.0%	quartile	10.3
50.0%	median	-5.7
25.0%	quartile	-11.3
10.0%		-16.3
2.5%		-16.3
0.5%		-16.3
0.0%	minimum	-16.3

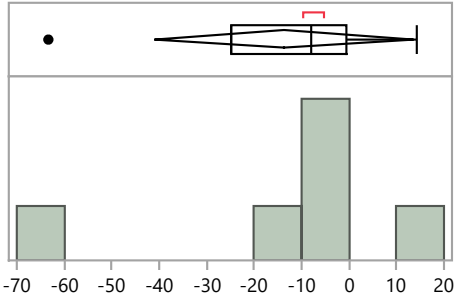
Summary Statistics

Mean	-1.6
Std Dev	11.6
Std Err Mean	5.2
Upper 95% Mean	12.8
Lower 95% Mean	-15.9
N	5.0

RdV51 Distribution by Detection Method

Distributions Analyte_Detection=Strontium-90 Liquid Scintillation Counter

Bias



Quantiles

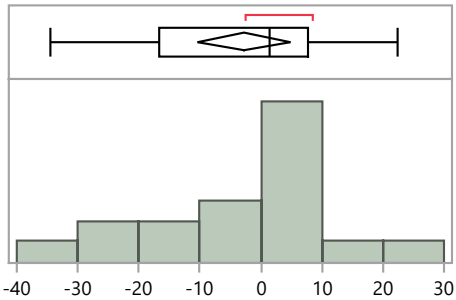
100.0%	maximum	14.2
99.5%		14.2
97.5%		14.2
90.0%		14.2
75.0%	quartile	-0.5
50.0%	median	-8.2
25.0%	quartile	-24.9
10.0%		-63.3
2.5%		-63.3
0.5%		-63.3
0.0%	minimum	-63.3

Summary Statistics

Mean	-13.8
Std Dev	26.0
Std Err Mean	10.6
Upper 95% Mean	13.5
Lower 95% Mean	-41.1
N	6.0

Distributions Analyte_Detection=Uranium-234 Alpha Spectrometry

Bias



Quantiles

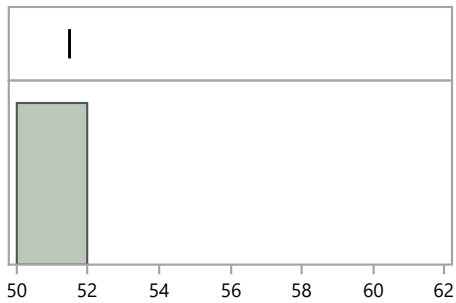
100.0%	maximum	22.3
99.5%		22.3
97.5%		22.3
90.0%		20.0
75.0%	quartile	7.6
50.0%	median	1.5
25.0%	quartile	-16.7
10.0%		-24.3
2.5%		-34.5
0.5%		-34.5
0.0%	minimum	-34.5

Summary Statistics

Mean	-2.8
Std Dev	15.1
Std Err Mean	3.6
Upper 95% Mean	4.8
Lower 95% Mean	-10.3
N	18.0

Distributions Analyte_Detection=Uranium-234 Gamma Spectrometry

Bias



Quantiles

100.0%	maximum	51.5
99.5%		51.5
97.5%		51.5
90.0%		51.5
75.0%	quartile	51.5
50.0%	median	51.5
25.0%	quartile	51.5
10.0%		51.5
2.5%		51.5
0.5%		51.5
0.0%	minimum	51.5

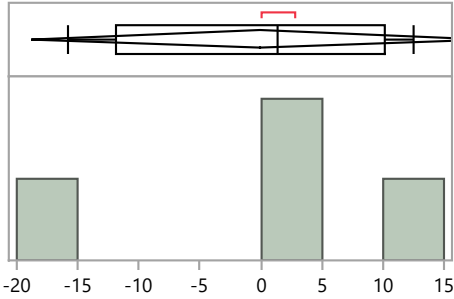
Summary Statistics

Mean	51.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV51 Distribution by Detection Method

Distributions Analyte_Detection=Uranium-235 Inductively Coupled Plasma Mass Spectrometry

Bias



Quantiles

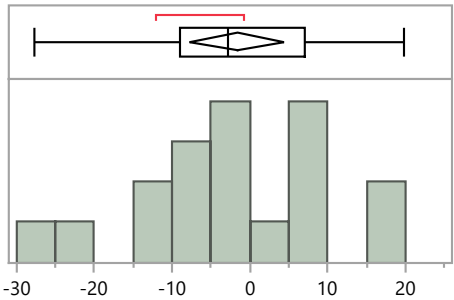
100.0%	maximum	12.5
99.5%		12.5
97.5%		12.5
90.0%		12.5
75.0%	quartile	10.1
50.0%	median	1.4
25.0%	quartile	-11.9
10.0%		-15.8
2.5%		-15.8
0.5%		-15.8
0.0%	minimum	-15.8

Summary Statistics

Mean	-0.1
Std Dev	11.7
Std Err Mean	5.9
Upper 95% Mean	18.6
Lower 95% Mean	-18.8
N	4.0

Distributions Analyte_Detection=Uranium-238 Alpha Spectrometry

Bias



Quantiles

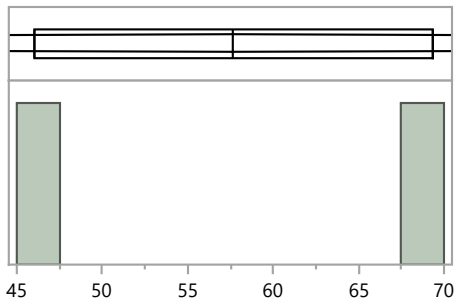
100.0%	maximum	19.9
99.5%		19.9
97.5%		19.9
90.0%		18.4
75.0%	quartile	7.0
50.0%	median	-2.9
25.0%	quartile	-8.9
10.0%		-21.7
2.5%		-27.6
0.5%		-27.6
0.0%	minimum	-27.6

Summary Statistics

Mean	-1.7
Std Dev	12.4
Std Err Mean	2.9
Upper 95% Mean	4.5
Lower 95% Mean	-7.8
N	18.0

Distributions Analyte_Detection=Uranium-238 Gamma Spectrometry

Bias



Quantiles

100.0%	maximum	69.3
99.5%		69.3
97.5%		69.3
90.0%		69.3
75.0%	quartile	69.3
50.0%	median	57.7
25.0%	quartile	46.0
10.0%		46.0
2.5%		46.0
0.5%		46.0
0.0%	minimum	46.0

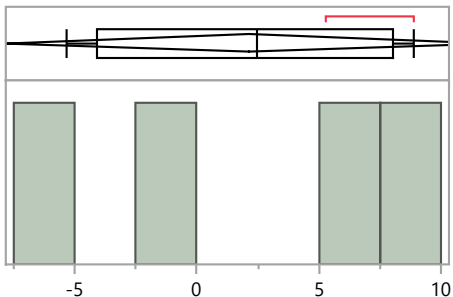
Summary Statistics

Mean	57.7
Std Dev	16.5
Std Err Mean	11.7
Upper 95% Mean	205.7
Lower 95% Mean	-90.4
N	2.0

RdV51 Distribution by Detection Method

Distributions Analyte_Detection=Uranium-238 Inductively Coupled Plasma Mass Spectrometry

Bias



Quantiles

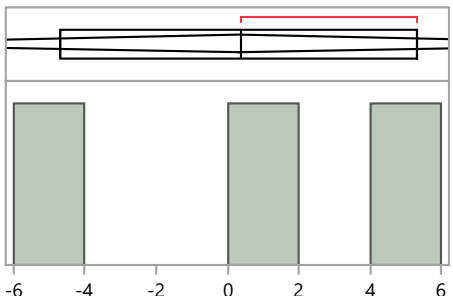
100.0%	maximum	8.9
99.5%		8.9
97.5%		8.9
90.0%		8.9
75.0%	quartile	8.0
50.0%	median	2.5
25.0%	quartile	-4.1
10.0%		-5.3
2.5%		-5.3
0.5%		-5.3
0.0%	minimum	-5.3

Summary Statistics

Mean	2.1
Std Dev	6.3
Std Err Mean	3.1
Upper 95% Mean	12.1
Lower 95% Mean	-7.8
N	4.0

Distributions Analyte_Detection=Uranium-Total Inductively Coupled Plasma Mass Spectrometry

Bias



Quantiles

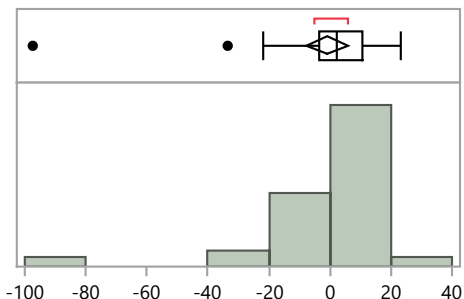
100.0%	maximum	5.3
99.5%		5.3
97.5%		5.3
90.0%		5.3
75.0%	quartile	5.3
50.0%	median	0.4
25.0%	quartile	-4.7
10.0%		-4.7
2.5%		-4.7
0.5%		-4.7
0.0%	minimum	-4.7

Summary Statistics

Mean	0.3
Std Dev	5.0
Std Err Mean	2.9
Upper 95% Mean	12.8
Lower 95% Mean	-12.1
N	3.0

Distributions Analyte_Detection=Zinc-65 Gamma Spectrometry

Bias



Quantiles

100.0%	maximum	23.1
99.5%		23.1
97.5%		23.1
90.0%		13.1
75.0%	quartile	10.5
50.0%	median	2.0
25.0%	quartile	-3.5
10.0%		-20.1
2.5%		-97.3
0.5%		-97.3
0.0%	minimum	-97.3

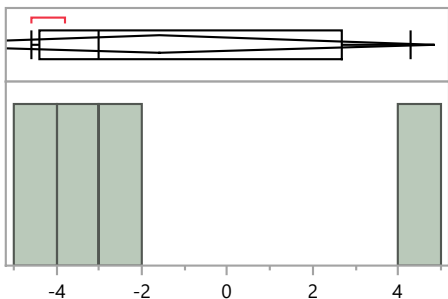
Summary Statistics

Mean	-1.0
Std Dev	19.9
Std Err Mean	3.3
Upper 95% Mean	5.7
Lower 95% Mean	-7.8
N	36.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Americium-241 Acid dissolution with hydrofluoric acid

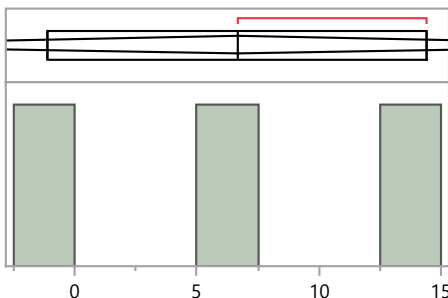
Bias



Quantiles			Summary Statistics	
100.0%	maximum	4.3	Mean	-1.6
99.5%		4.3	Std Dev	4.0
97.5%		4.3	Std Err Mean	2.0
90.0%		4.3	Upper 95% Mean	4.9
75.0%	quartile	2.7	Lower 95% Mean	-8.0
50.0%	median	-3.0	N	4.0
25.0%	quartile	-4.4		
10.0%		-4.6		
2.5%		-4.6		
0.5%		-4.6		
0.0%	minimum	-4.6		

Distributions Analyte_Method=Americium-241 Acid leaching without hydrofluoric acid

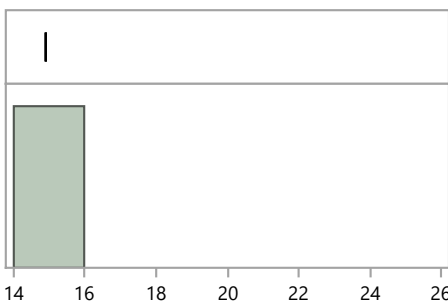
Bias



Quantiles			Summary Statistics	
100.0%	maximum	14.4	Mean	6.7
99.5%		14.4	Std Dev	7.8
97.5%		14.4	Std Err Mean	4.5
90.0%		14.4	Upper 95% Mean	25.9
75.0%	quartile	14.4	Lower 95% Mean	-12.6
50.0%	median	6.7	N	3.0
25.0%	quartile	-1.1		
10.0%		-1.1		
2.5%		-1.1		
0.5%		-1.1		
0.0%	minimum	-1.1		

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

Bias

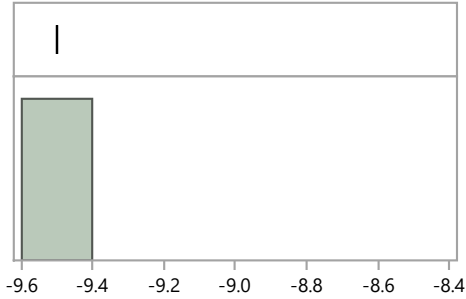


Quantiles			Summary Statistics	
100.0%	maximum	14.9	Mean	14.9
99.5%		14.9	Std Dev	.
97.5%		14.9	Std Err Mean	.
90.0%		14.9	Upper 95% Mean	.
75.0%	quartile	14.9	Lower 95% Mean	.
50.0%	median	14.9	N	1.0
25.0%	quartile	14.9		
10.0%		14.9		
2.5%		14.9		
0.5%		14.9		
0.0%	minimum	14.9		

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Americium-241 EPA 907, Actinide Elements, 600/4/80-032

Bias



Quantiles

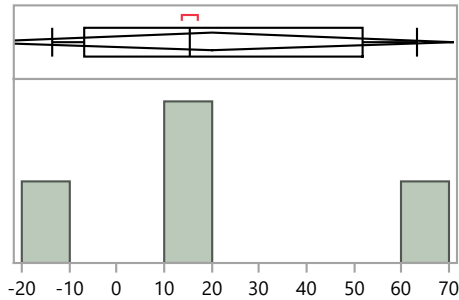
100.0%	maximum	-9.5
99.5%		-9.5
97.5%		-9.5
90.0%		-9.5
75.0%	quartile	-9.5
50.0%	median	-9.5
25.0%	quartile	-9.5
10.0%		-9.5
2.5%		-9.5
0.5%		-9.5
0.0%	minimum	-9.5

Summary Statistics

Mean	-9.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

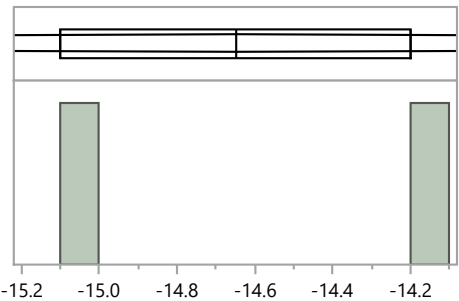
100.0%	maximum	63.2
99.5%		63.2
97.5%		63.2
90.0%		63.2
75.0%	quartile	51.7
50.0%	median	15.5
25.0%	quartile	-6.8
10.0%		-13.7
2.5%		-13.7
0.5%		-13.7
0.0%	minimum	-13.7

Summary Statistics

Mean	20.1
Std Dev	31.9
Std Err Mean	15.9
Upper 95% Mean	70.8
Lower 95% Mean	-30.6
N	4.0

Distributions Analyte_Method=Americium-241 Other

Bias



Quantiles

100.0%	maximum	-14.2
99.5%		-14.2
97.5%		-14.2
90.0%		-14.2
75.0%	quartile	-14.2
50.0%	median	-14.7
25.0%	quartile	-15.1
10.0%		-15.1
2.5%		-15.1
0.5%		-15.1
0.0%	minimum	-15.1

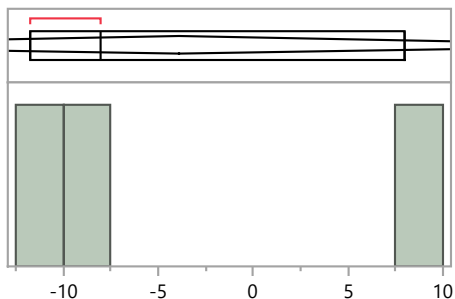
Summary Statistics

Mean	-14.7
Std Dev	0.6
Std Err Mean	0.5
Upper 95% Mean	-8.9
Lower 95% Mean	-20.4
N	2.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Americium-241 Total dissolution by fusion

Bias



Quantiles

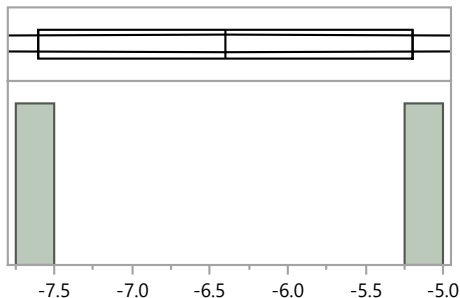
100.0%	maximum	8.0
99.5%		8.0
97.5%		8.0
90.0%		8.0
75.0%	quartile	8.0
50.0%	median	-8.0
25.0%	quartile	-11.7
10.0%		-11.7
2.5%		-11.7
0.5%		-11.7
0.0%	minimum	-11.7

Summary Statistics

Mean	-3.9
Std Dev	10.5
Std Err Mean	6.0
Upper 95% Mean	22.1
Lower 95% Mean	-29.9
N	3.0

Distributions Analyte_Method=Cesium-134 Acid dissolution with hydrofluoric acid

Bias



Quantiles

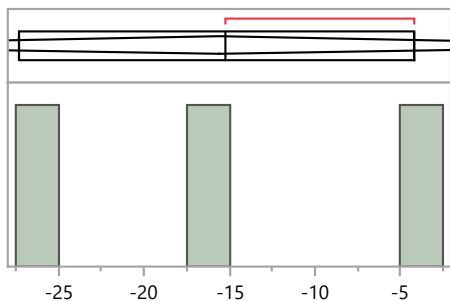
100.0%	maximum	-5.2
99.5%		-5.2
97.5%		-5.2
90.0%		-5.2
75.0%	quartile	-5.2
50.0%	median	-6.4
25.0%	quartile	-7.6
10.0%		-7.6
2.5%		-7.6
0.5%		-7.6
0.0%	minimum	-7.6

Summary Statistics

Mean	-6.4
Std Dev	1.7
Std Err Mean	1.2
Upper 95% Mean	8.8
Lower 95% Mean	-21.6
N	2.0

Distributions Analyte_Method=Cesium-134 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



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	-15.2
25.0%	quartile	-27.3
10.0%		-27.3
2.5%		-27.3
0.5%		-27.3
0.0%	minimum	-27.3

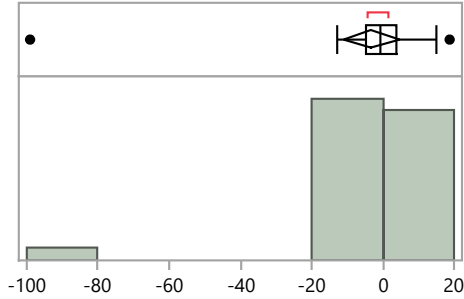
Summary Statistics

Mean	-15.6
Std Dev	11.6
Std Err Mean	6.7
Upper 95% Mean	13.1
Lower 95% Mean	-44.3
N	3.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Cesium-134 No preparation - analyzed as received

Bias



Quantiles

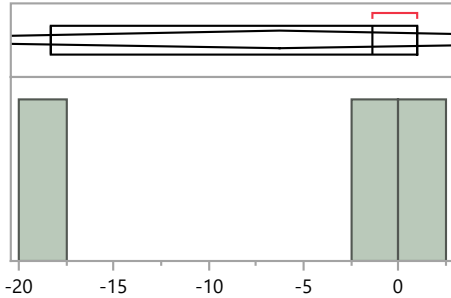
100.0%	maximum	18.7
99.5%		18.7
97.5%		18.7
90.0%		11.8
75.0%	quartile	3.7
50.0%	median	-0.6
25.0%	quartile	-4.7
10.0%		-9.5
2.5%		-99.0
0.5%		-99.0
0.0%	minimum	-99.0

Summary Statistics

Mean	-3.3
Std Dev	20.0
Std Err Mean	3.8
Upper 95% Mean	4.5
Lower 95% Mean	-11.0
N	28.0

Distributions Analyte_Method=Cesium-134 Other

Bias



Quantiles

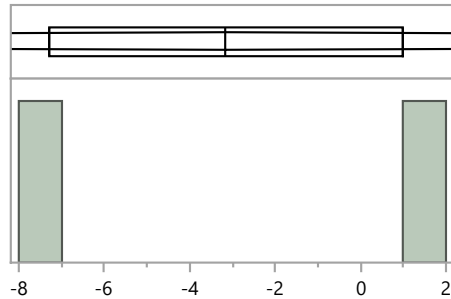
100.0%	maximum	1.0
99.5%		1.0
97.5%		1.0
90.0%		1.0
75.0%	quartile	1.0
50.0%	median	-1.4
25.0%	quartile	-18.3
10.0%		-18.3
2.5%		-18.3
0.5%		-18.3
0.0%	minimum	-18.3

Summary Statistics

Mean	-6.2
Std Dev	10.5
Std Err Mean	6.1
Upper 95% Mean	19.9
Lower 95% Mean	-32.4
N	3.0

Distributions Analyte_Method=Cesium-137 Acid dissolution with hydrofluoric acid

Bias



Quantiles

100.0%	maximum	1.0
99.5%		1.0
97.5%		1.0
90.0%		1.0
75.0%	quartile	1.0
50.0%	median	-3.2
25.0%	quartile	-7.3
10.0%		-7.3
2.5%		-7.3
0.5%		-7.3
0.0%	minimum	-7.3

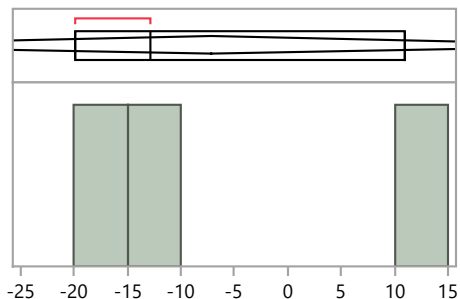
Summary Statistics

Mean	-3.2
Std Dev	5.9
Std Err Mean	4.2
Upper 95% Mean	49.6
Lower 95% Mean	-55.9
N	2.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Cesium-137 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

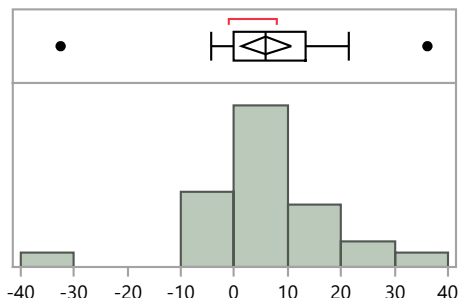
100.0%	maximum	11.0
99.5%		11.0
97.5%		11.0
90.0%		11.0
75.0%	quartile	11.0
50.0%	median	-12.8
25.0%	quartile	-19.9
10.0%		-19.9
2.5%		-19.9
0.5%		-19.9
0.0%	minimum	-19.9

Summary Statistics

Mean	-7.2
Std Dev	16.2
Std Err Mean	9.3
Upper 95% Mean	33.0
Lower 95% Mean	-47.4
N	3.0

Distributions Analyte_Method=Cesium-137 No preparation - analyzed as received

Bias



Quantiles

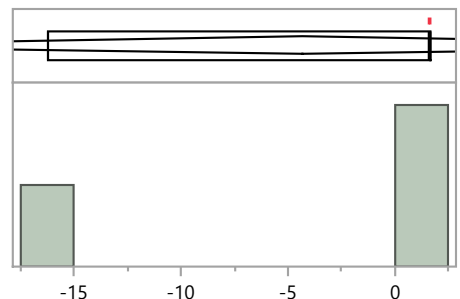
100.0%	maximum	36.1
99.5%		36.1
97.5%		36.1
90.0%		20.5
75.0%	quartile	13.5
50.0%	median	5.9
25.0%	quartile	-0.2
10.0%		-3.5
2.5%		-32.5
0.5%		-32.5
0.0%	minimum	-32.5

Summary Statistics

Mean	6.0
Std Dev	11.7
Std Err Mean	2.2
Upper 95% Mean	10.5
Lower 95% Mean	1.4
N	28.0

Distributions Analyte_Method=Cesium-137 Other

Bias



Quantiles

100.0%	maximum	1.7
99.5%		1.7
97.5%		1.7
90.0%		1.7
75.0%	quartile	1.7
50.0%	median	1.6
25.0%	quartile	-16.2
10.0%		-16.2
2.5%		-16.2
0.5%		-16.2
0.0%	minimum	-16.2

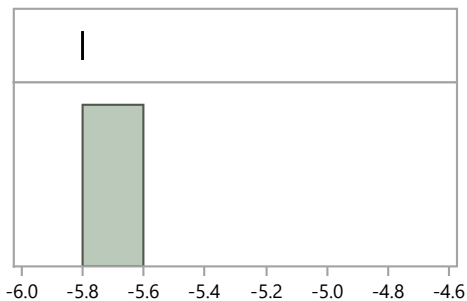
Summary Statistics

Mean	-4.3
Std Dev	10.3
Std Err Mean	6.0
Upper 95% Mean	21.3
Lower 95% Mean	-29.9
N	3.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Cesium-137 Total dissolution by fusion

Bias



Quantiles

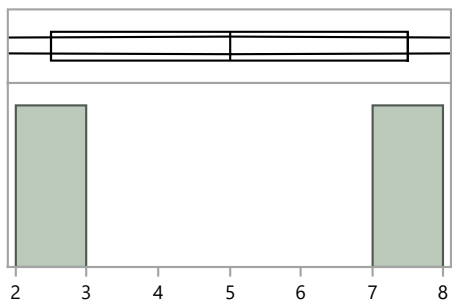
100.0%	maximum	-5.8
99.5%		-5.8
97.5%		-5.8
90.0%		-5.8
75.0%	quartile	-5.8
50.0%	median	-5.8
25.0%	quartile	-5.8
10.0%		-5.8
2.5%		-5.8
0.5%		-5.8
0.0%	minimum	-5.8

Summary Statistics

Mean	-5.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Cobalt-60 Acid dissolution with hydrofluoric acid

Bias



Quantiles

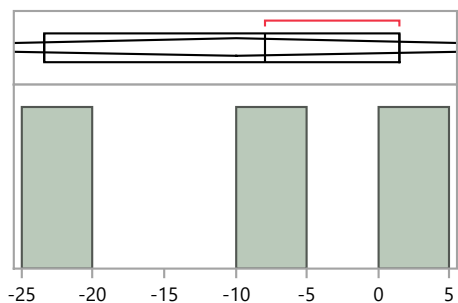
100.0%	maximum	7.5
99.5%		7.5
97.5%		7.5
90.0%		7.5
75.0%	quartile	7.5
50.0%	median	5.0
25.0%	quartile	2.5
10.0%		2.5
2.5%		2.5
0.5%		2.5
0.0%	minimum	2.5

Summary Statistics

Mean	5.0
Std Dev	3.5
Std Err Mean	2.5
Upper 95% Mean	36.8
Lower 95% Mean	-26.8
N	2.0

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

Bias



Quantiles

100.0%	maximum	1.5
99.5%		1.5
97.5%		1.5
90.0%		1.5
75.0%	quartile	1.5
50.0%	median	-7.9
25.0%	quartile	-23.4
10.0%		-23.4
2.5%		-23.4
0.5%		-23.4
0.0%	minimum	-23.4

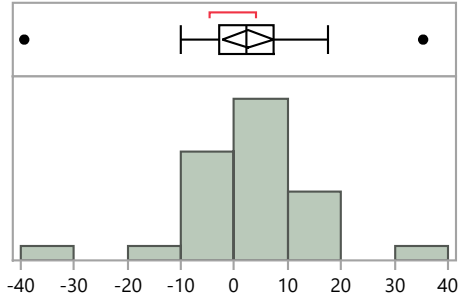
Summary Statistics

Mean	-9.9
Std Dev	12.6
Std Err Mean	7.3
Upper 95% Mean	21.3
Lower 95% Mean	-41.2
N	3.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Cobalt-60 No preparation - analyzed as received

Bias



Quantiles

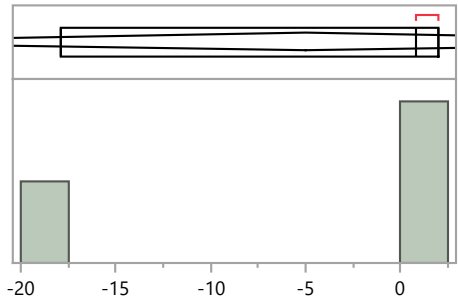
100.0%	maximum	35.3
99.5%		35.3
97.5%		35.3
90.0%		17.0
75.0%	quartile	7.3
50.0%	median	2.3
25.0%	quartile	-2.9
10.0%		-6.9
2.5%		-39.3
0.5%		-39.3
0.0%	minimum	-39.3

Summary Statistics

Mean	2.6
Std Dev	12.3
Std Err Mean	2.3
Upper 95% Mean	7.4
Lower 95% Mean	-2.1
N	28.0

Distributions Analyte_Method=Cobalt-60 Other

Bias



Quantiles

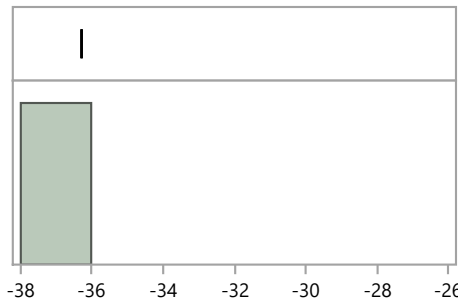
100.0%	maximum	2.0
99.5%		2.0
97.5%		2.0
90.0%		2.0
75.0%	quartile	2.0
50.0%	median	0.8
25.0%	quartile	-17.9
10.0%		-17.9
2.5%		-17.9
0.5%		-17.9
0.0%	minimum	-17.9

Summary Statistics

Mean	-5.0
Std Dev	11.2
Std Err Mean	6.4
Upper 95% Mean	22.7
Lower 95% Mean	-32.8
N	3.0

Distributions Analyte_Method=Cobalt-60 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	-36.3
99.5%		-36.3
97.5%		-36.3
90.0%		-36.3
75.0%	quartile	-36.3
50.0%	median	-36.3
25.0%	quartile	-36.3
10.0%		-36.3
2.5%		-36.3
0.5%		-36.3
0.0%	minimum	-36.3

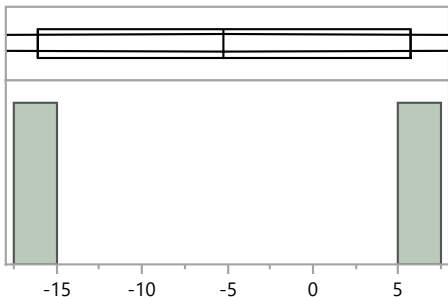
Summary Statistics

Mean	-36.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Manganese-54 Acid dissolution with hydrofluoric acid

Bias



Quantiles

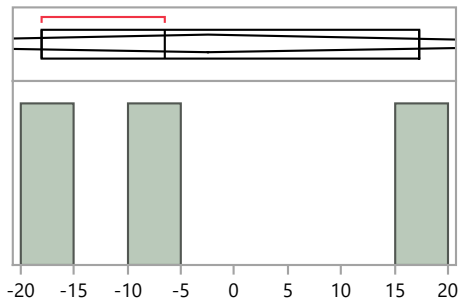
100.0%	maximum	5.7
99.5%		5.7
97.5%		5.7
90.0%		5.7
75.0%	quartile	5.7
50.0%	median	-5.2
25.0%	quartile	-16.1
10.0%		-16.1
2.5%		-16.1
0.5%		-16.1
0.0%	minimum	-16.1

Summary Statistics

Mean	-5.2
Std Dev	15.4
Std Err Mean	10.9
Upper 95% Mean	133.3
Lower 95% Mean	-143.7
N	2.0

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

Bias



Quantiles

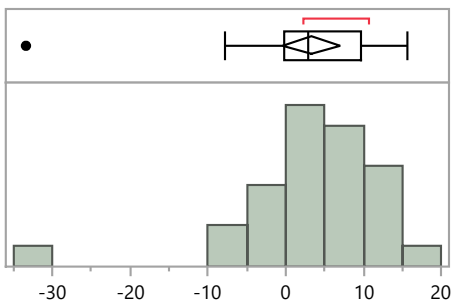
100.0%	maximum	17.3
99.5%		17.3
97.5%		17.3
90.0%		17.3
75.0%	quartile	17.3
50.0%	median	-6.5
25.0%	quartile	-18.1
10.0%		-18.1
2.5%		-18.1
0.5%		-18.1
0.0%	minimum	-18.1

Summary Statistics

Mean	-2.4
Std Dev	18.0
Std Err Mean	10.4
Upper 95% Mean	42.4
Lower 95% Mean	-47.3
N	3.0

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

Bias



Quantiles

100.0%	maximum	15.6
99.5%		15.6
97.5%		15.6
90.0%		12.2
75.0%	quartile	9.8
50.0%	median	2.9
25.0%	quartile	-0.2
10.0%		-5.4
2.5%		-33.4
0.5%		-33.4
0.0%	minimum	-33.4

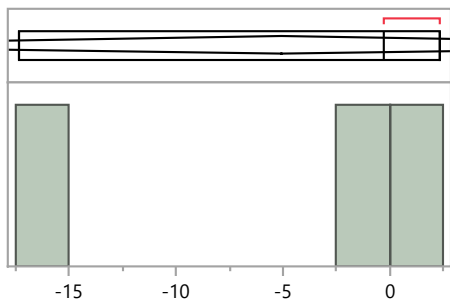
Summary Statistics

Mean	3.3
Std Dev	9.3
Std Err Mean	1.8
Upper 95% Mean	6.9
Lower 95% Mean	-0.3
N	28.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Manganese-54 Other

Bias



Quantiles

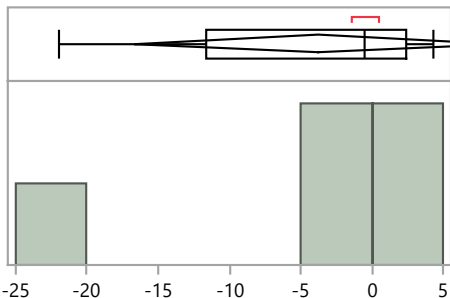
100.0%	maximum	2.3
99.5%		2.3
97.5%		2.3
90.0%		2.3
75.0%	quartile	2.3
50.0%	median	-0.3
25.0%	quartile	-17.3
10.0%		-17.3
2.5%		-17.3
0.5%		-17.3
0.0%	minimum	-17.3

Summary Statistics

Mean	-5.1
Std Dev	10.6
Std Err Mean	6.1
Upper 95% Mean	21.3
Lower 95% Mean	-31.5
N	3.0

Distributions Analyte_Method=Plutonium-238 Acid dissolution with hydrofluoric acid

Bias



Quantiles

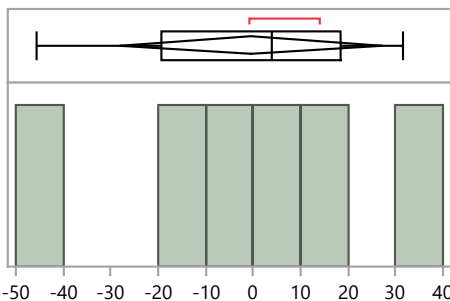
100.0%	maximum	4.3
99.5%		4.3
97.5%		4.3
90.0%		4.3
75.0%	quartile	2.4
50.0%	median	-0.5
25.0%	quartile	-11.7
10.0%		-21.9
2.5%		-21.9
0.5%		-21.9
0.0%	minimum	-21.9

Summary Statistics

Mean	-3.8
Std Dev	10.3
Std Err Mean	4.6
Upper 95% Mean	9.0
Lower 95% Mean	-16.6
N	5.0

Distributions Analyte_Method=Plutonium-238 Acid leaching without hydrofluoric acid

Bias



Quantiles

100.0%	maximum	31.4
99.5%		31.4
97.5%		31.4
90.0%		31.4
75.0%	quartile	18.4
50.0%	median	4.0
25.0%	quartile	-19.4
10.0%		-45.7
2.5%		-45.7
0.5%		-45.7
0.0%	minimum	-45.7

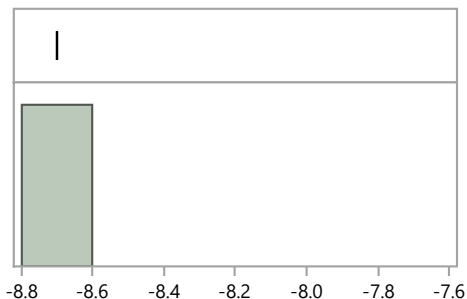
Summary Statistics

Mean	-0.5
Std Dev	26.3
Std Err Mean	10.7
Upper 95% Mean	27.1
Lower 95% Mean	-28.1
N	6.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Plutonium-238 EPA 907, Actinide Elements, 600/4/80-032

Bias



Quantiles

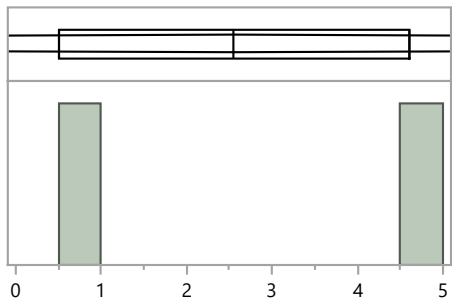
100.0%	maximum	-8.7
99.5%		-8.7
97.5%		-8.7
90.0%		-8.7
75.0%	quartile	-8.7
50.0%	median	-8.7
25.0%	quartile	-8.7
10.0%		-8.7
2.5%		-8.7
0.5%		-8.7
0.0%	minimum	-8.7

Summary Statistics

Mean	-8.7
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-238 Other

Bias



Quantiles

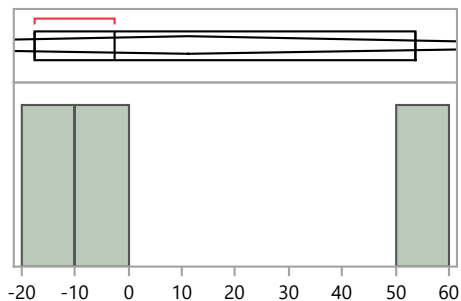
100.0%	maximum	4.6
99.5%		4.6
97.5%		4.6
90.0%		4.6
75.0%	quartile	4.6
50.0%	median	2.6
25.0%	quartile	0.5
10.0%		0.5
2.5%		0.5
0.5%		0.5
0.0%	minimum	0.5

Summary Statistics

Mean	2.6
Std Dev	2.9
Std Err Mean	2.1
Upper 95% Mean	28.6
Lower 95% Mean	-23.5
N	2.0

Distributions Analyte_Method=Plutonium-238 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	53.8
99.5%		53.8
97.5%		53.8
90.0%		53.8
75.0%	quartile	53.8
50.0%	median	-2.5
25.0%	quartile	-17.6
10.0%		-17.6
2.5%		-17.6
0.5%		-17.6
0.0%	minimum	-17.6

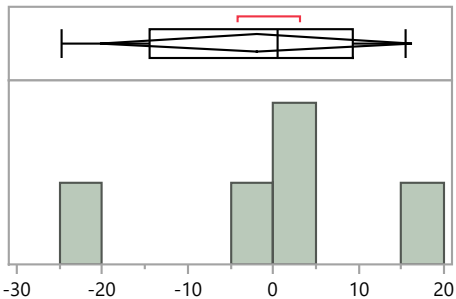
Summary Statistics

Mean	11.2
Std Dev	37.6
Std Err Mean	21.7
Upper 95% Mean	104.7
Lower 95% Mean	-82.2
N	3.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Plutonium-239/240 Acid dissolution with hydrofluoric acid

Bias



Quantiles

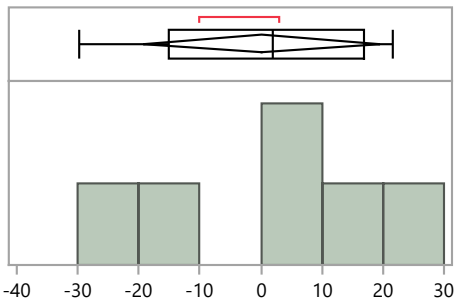
100.0%	maximum	15.4
99.5%		15.4
97.5%		15.4
90.0%		15.4
75.0%	quartile	9.3
50.0%	median	0.6
25.0%	quartile	-14.5
10.0%		-24.8
2.5%		-24.8
0.5%		-24.8
0.0%	minimum	-24.8

Summary Statistics

Mean	-2.0
Std Dev	14.7
Std Err Mean	6.6
Upper 95% Mean	16.2
Lower 95% Mean	-20.2
N	5.0

Distributions Analyte_Method=Plutonium-239/240 Acid leaching without hydrofluoric acid

Bias



Quantiles

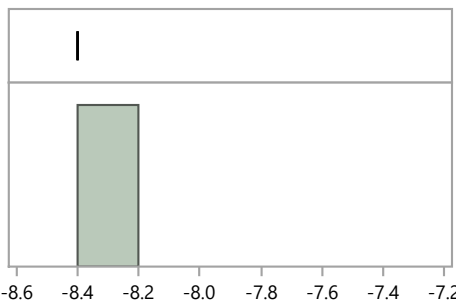
100.0%	maximum	21.6
99.5%		21.6
97.5%		21.6
90.0%		21.6
75.0%	quartile	16.8
50.0%	median	2.0
25.0%	quartile	-15.0
10.0%		-29.8
2.5%		-29.8
0.5%		-29.8
0.0%	minimum	-29.8

Summary Statistics

Mean	0.1
Std Dev	18.4
Std Err Mean	7.5
Upper 95% Mean	19.5
Lower 95% Mean	-19.2
N	6.0

Distributions Analyte_Method=Plutonium-239/240 EPA 907, Actinide Elements, 600/4/80-032

Bias



Quantiles

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

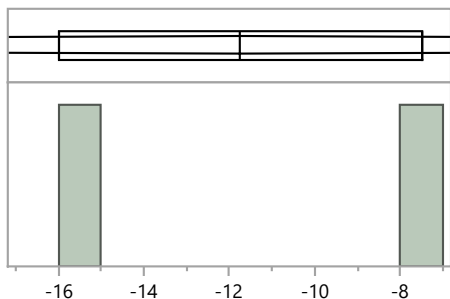
Summary Statistics

Mean	-8.4
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Plutonium-239/240 Other

Bias



Quantiles

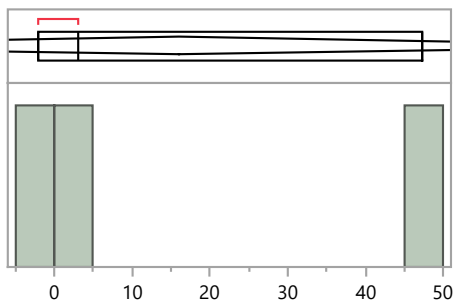
100.0%	maximum	-7.5
99.5%		-7.5
97.5%		-7.5
90.0%		-7.5
75.0%	quartile	-7.5
50.0%	median	-11.8
25.0%	quartile	-16.0
10.0%		-16.0
2.5%		-16.0
0.5%		-16.0
0.0%	minimum	-16.0

Summary Statistics

Mean	-11.8
Std Dev	6.0
Std Err Mean	4.3
Upper 95% Mean	42.3
Lower 95% Mean	-65.8
N	2.0

Distributions Analyte_Method=Plutonium-239/240 Total dissolution by fusion

Bias



Quantiles

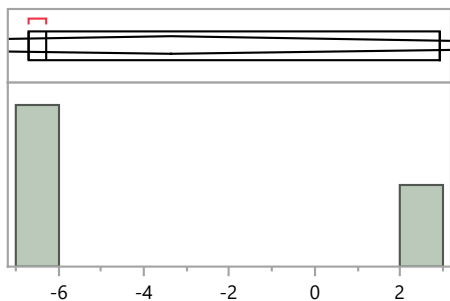
100.0%	maximum	47.2
99.5%		47.2
97.5%		47.2
90.0%		47.2
75.0%	quartile	47.2
50.0%	median	3.1
25.0%	quartile	-2.0
10.0%		-2.0
2.5%		-2.0
0.5%		-2.0
0.0%	minimum	-2.0

Summary Statistics

Mean	16.1
Std Dev	27.1
Std Err Mean	15.6
Upper 95% Mean	83.3
Lower 95% Mean	-51.1
N	3.0

Distributions Analyte_Method=Strontium-90 Acid dissolution with hydrofluoric acid

Bias



Quantiles

100.0%	maximum	2.9
99.5%		2.9
97.5%		2.9
90.0%		2.9
75.0%	quartile	2.9
50.0%	median	-6.3
25.0%	quartile	-6.7
10.0%		-6.7
2.5%		-6.7
0.5%		-6.7
0.0%	minimum	-6.7

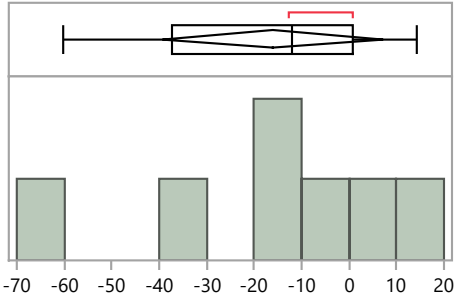
Summary Statistics

Mean	-3.4
Std Dev	5.4
Std Err Mean	3.1
Upper 95% Mean	10.1
Lower 95% Mean	-16.9
N	3.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Strontium-90 Acid leaching without hydrofluoric acid

Bias



Quantiles

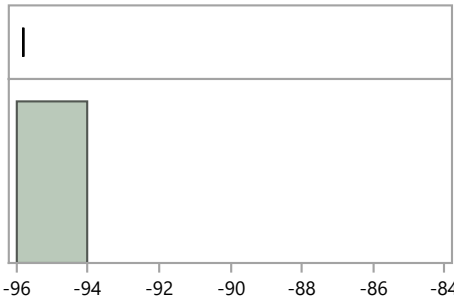
100.0%	maximum	14.2
99.5%		14.2
97.5%		14.2
90.0%		14.2
75.0%	quartile	0.8
50.0%	median	-12.1
25.0%	quartile	-37.2
10.0%		-60.3
2.5%		-60.3
0.5%		-60.3
0.0%	minimum	-60.3

Summary Statistics

Mean	-16.1
Std Dev	25.0
Std Err Mean	9.4
Upper 95% Mean	7.0
Lower 95% Mean	-39.2
N	7.0

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

Bias



Quantiles

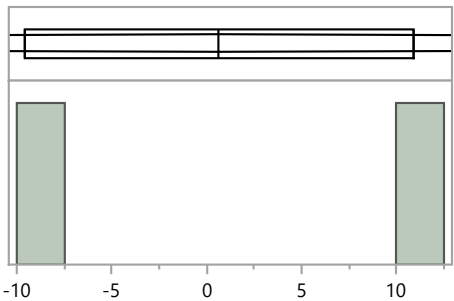
100.0%	maximum	-95.8
99.5%		-95.8
97.5%		-95.8
90.0%		-95.8
75.0%	quartile	-95.8
50.0%	median	-95.8
25.0%	quartile	-95.8
10.0%		-95.8
2.5%		-95.8
0.5%		-95.8
0.0%	minimum	-95.8

Summary Statistics

Mean	-95.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

100.0%	maximum	10.9
99.5%		10.9
97.5%		10.9
90.0%		10.9
75.0%	quartile	10.9
50.0%	median	0.7
25.0%	quartile	-9.6
10.0%		-9.6
2.5%		-9.6
0.5%		-9.6
0.0%	minimum	-9.6

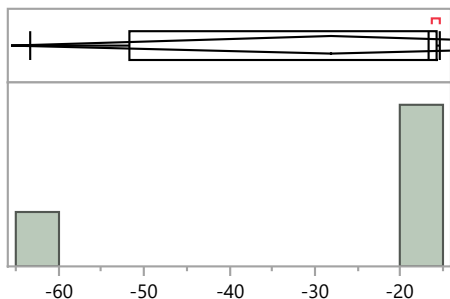
Summary Statistics

Mean	0.7
Std Dev	14.5
Std Err Mean	10.3
Upper 95% Mean	130.9
Lower 95% Mean	-129.6
N	2.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Strontium-90 Other

Bias



Quantiles

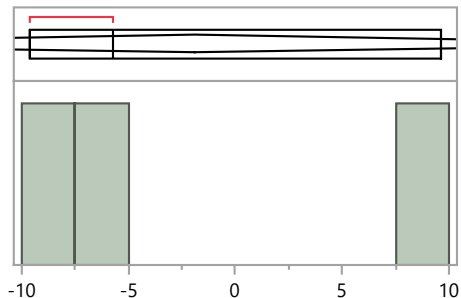
100.0%	maximum	-15.5
99.5%		-15.5
97.5%		-15.5
90.0%		-15.5
75.0%	quartile	-15.7
50.0%	median	-16.8
25.0%	quartile	-51.8
10.0%		-63.3
2.5%		-63.3
0.5%		-63.3
0.0%	minimum	-63.3

Summary Statistics

Mean	-28.1
Std Dev	23.5
Std Err Mean	11.7
Upper 95% Mean	9.3
Lower 95% Mean	-65.5
N	4.0

Distributions Analyte_Method=Strontium-90 Total dissolution by fusion

Bias



Quantiles

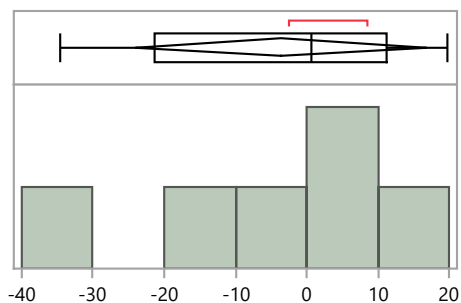
100.0%	maximum	9.6
99.5%		9.6
97.5%		9.6
90.0%		9.6
75.0%	quartile	9.6
50.0%	median	-5.7
25.0%	quartile	-9.6
10.0%		-9.6
2.5%		-9.6
0.5%		-9.6
0.0%	minimum	-9.6

Summary Statistics

Mean	-1.9
Std Dev	10.1
Std Err Mean	5.9
Upper 95% Mean	23.3
Lower 95% Mean	-27.1
N	3.0

Distributions Analyte_Method=Uranium-234 Acid dissolution with hydrofluoric acid

Bias



Quantiles

100.0%	maximum	19.7
99.5%		19.7
97.5%		19.7
90.0%		19.7
75.0%	quartile	11.3
50.0%	median	0.8
25.0%	quartile	-21.2
10.0%		-34.5
2.5%		-34.5
0.5%		-34.5
0.0%	minimum	-34.5

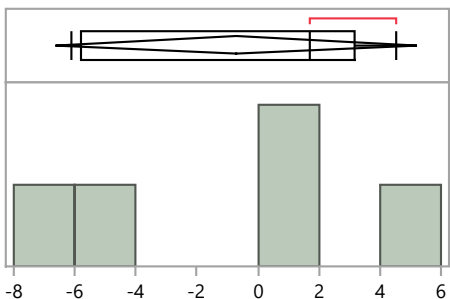
Summary Statistics

Mean	-3.6
Std Dev	19.4
Std Err Mean	7.9
Upper 95% Mean	16.7
Lower 95% Mean	-23.9
N	6.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-234 Acid leaching without hydrofluoric acid

Bias



Quantiles

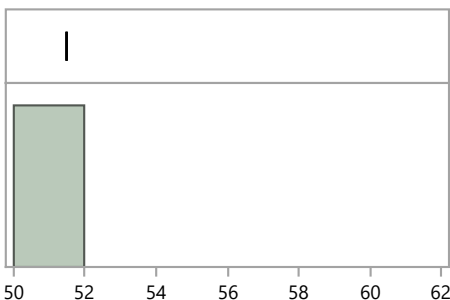
100.0%	maximum	4.5
99.5%		4.5
97.5%		4.5
90.0%		4.5
75.0%	quartile	3.2
50.0%	median	1.7
25.0%	quartile	-5.8
10.0%		-6.1
2.5%		-6.1
0.5%		-6.1
0.0%	minimum	-6.1

Summary Statistics

Mean	-0.7
Std Dev	4.8
Std Err Mean	2.1
Upper 95% Mean	5.2
Lower 95% Mean	-6.7
N	5.0

Distributions Analyte_Method=Uranium-234 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

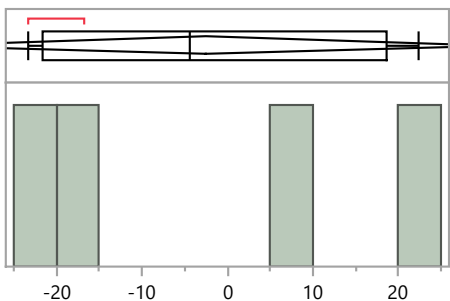
100.0%	maximum	51.5
99.5%		51.5
97.5%		51.5
90.0%		51.5
75.0%	quartile	51.5
50.0%	median	51.5
25.0%	quartile	51.5
10.0%		51.5
2.5%		51.5
0.5%		51.5
0.0%	minimum	51.5

Summary Statistics

Mean	51.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-234 Other

Bias



Quantiles

100.0%	maximum	22.3
99.5%		22.3
97.5%		22.3
90.0%		22.3
75.0%	quartile	18.7
50.0%	median	-4.5
25.0%	quartile	-21.6
10.0%		-23.2
2.5%		-23.2
0.5%		-23.2
0.0%	minimum	-23.2

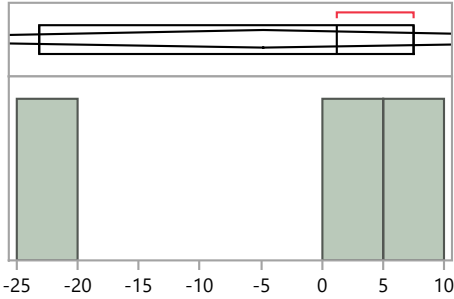
Summary Statistics

Mean	-2.4
Std Dev	21.2
Std Err Mean	10.6
Upper 95% Mean	31.3
Lower 95% Mean	-36.2
N	4.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-234 Total dissolution by fusion

Bias



Quantiles

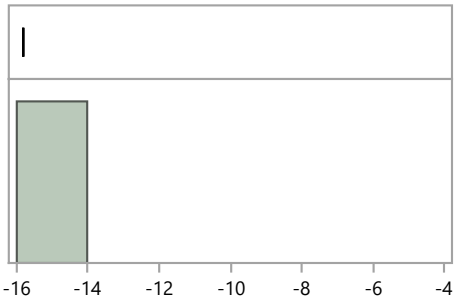
100.0%	maximum	7.5
99.5%		7.5
97.5%		7.5
90.0%		7.5
75.0%	quartile	7.5
50.0%	median	1.2
25.0%	quartile	-23.2
10.0%		-23.2
2.5%		-23.2
0.5%		-23.2
0.0%	minimum	-23.2

Summary Statistics

Mean	-4.8
Std Dev	16.2
Std Err Mean	9.4
Upper 95% Mean	35.4
Lower 95% Mean	-45.1
N	3.0

Distributions Analyte_Method=Uranium-235 EPA Method 200.8 Trace Metals in Waters & Wastes

Bias



Quantiles

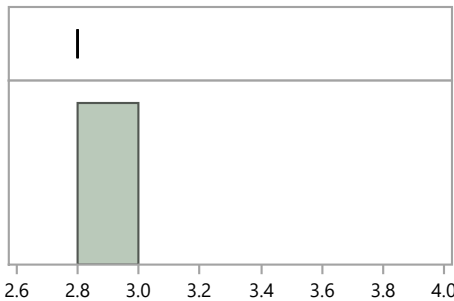
100.0%	maximum	-15.8
99.5%		-15.8
97.5%		-15.8
90.0%		-15.8
75.0%	quartile	-15.8
50.0%	median	-15.8
25.0%	quartile	-15.8
10.0%		-15.8
2.5%		-15.8
0.5%		-15.8
0.0%	minimum	-15.8

Summary Statistics

Mean	-15.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-235 Other

Bias



Quantiles

100.0%	maximum	2.8
99.5%		2.8
97.5%		2.8
90.0%		2.8
75.0%	quartile	2.8
50.0%	median	2.8
25.0%	quartile	2.8
10.0%		2.8
2.5%		2.8
0.5%		2.8
0.0%	minimum	2.8

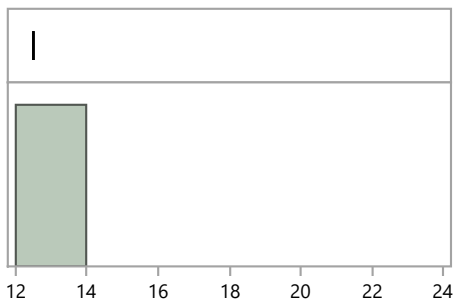
Summary Statistics

Mean	2.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-235 SW846 Methods 3052 (Microwave assisted Total Decomposition)

Bias



Quantiles

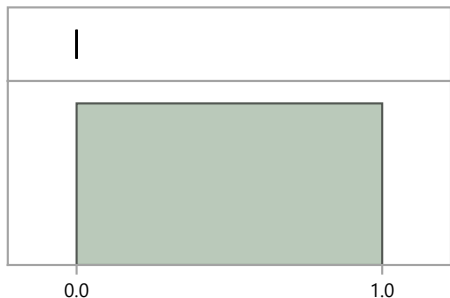
100.0%	maximum	12.5
99.5%		12.5
97.5%		12.5
90.0%		12.5
75.0%	quartile	12.5
50.0%	median	12.5
25.0%	quartile	12.5
10.0%		12.5
2.5%		12.5
0.5%		12.5
0.0%	minimum	12.5

Summary Statistics

Mean	12.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-235 Total Metals Analysis (i.e. XRF, Fusion, neutron activation)

Bias



Quantiles

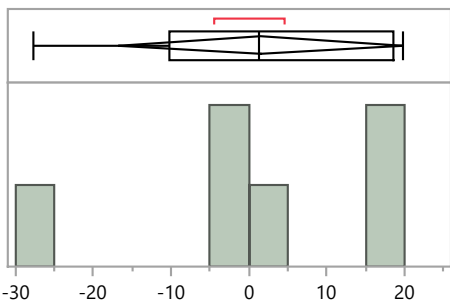
100.0%	maximum	0.0
99.5%		0.0
97.5%		0.0
90.0%		0.0
75.0%	quartile	0.0
50.0%	median	0.0
25.0%	quartile	0.0
10.0%		0.0
2.5%		0.0
0.5%		0.0
0.0%	minimum	0.0

Summary Statistics

Mean	0.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-238 Acid dissolution with hydrofluoric acid

Bias



Quantiles

100.0%	maximum	19.9
99.5%		19.9
97.5%		19.9
90.0%		19.9
75.0%	quartile	18.6
50.0%	median	1.4
25.0%	quartile	-10.2
10.0%		-27.6
2.5%		-27.6
0.5%		-27.6
0.0%	minimum	-27.6

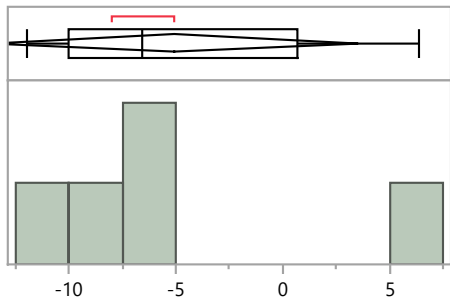
Summary Statistics

Mean	1.5
Std Dev	17.4
Std Err Mean	7.1
Upper 95% Mean	19.8
Lower 95% Mean	-16.8
N	6.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-238 Acid leaching without hydrofluoric acid

Bias



Quantiles

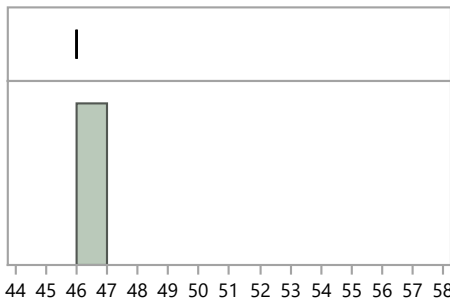
100.0%	maximum	6.4
99.5%		6.4
97.5%		6.4
90.0%		6.4
75.0%	quartile	0.7
50.0%	median	-6.6
25.0%	quartile	-10.0
10.0%		-12.0
2.5%		-12.0
0.5%		-12.0
0.0%	minimum	-12.0

Summary Statistics

Mean	-5.1
Std Dev	6.9
Std Err Mean	3.1
Upper 95% Mean	3.5
Lower 95% Mean	-13.6
N	5.0

Distributions Analyte_Method=Uranium-238 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

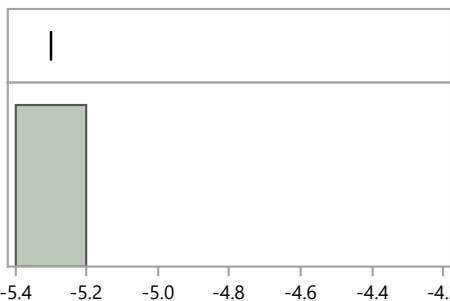
100.0%	maximum	46.0
99.5%		46.0
97.5%		46.0
90.0%		46.0
75.0%	quartile	46.0
50.0%	median	46.0
25.0%	quartile	46.0
10.0%		46.0
2.5%		46.0
0.5%		46.0
0.0%	minimum	46.0

Summary Statistics

Mean	46.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-238 EPA Method 200.8 Trace Metals in Waters & Wastes

Bias



Quantiles

100.0%	maximum	-5.3
99.5%		-5.3
97.5%		-5.3
90.0%		-5.3
75.0%	quartile	-5.3
50.0%	median	-5.3
25.0%	quartile	-5.3
10.0%		-5.3
2.5%		-5.3
0.5%		-5.3
0.0%	minimum	-5.3

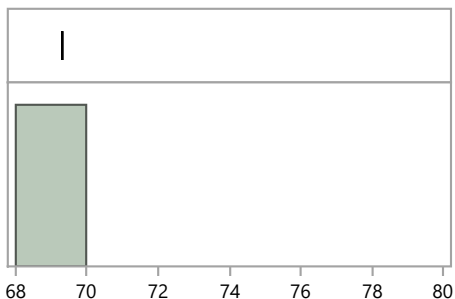
Summary Statistics

Mean	-5.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV51 Distribution by Preparation Method

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

Bias



Quantiles

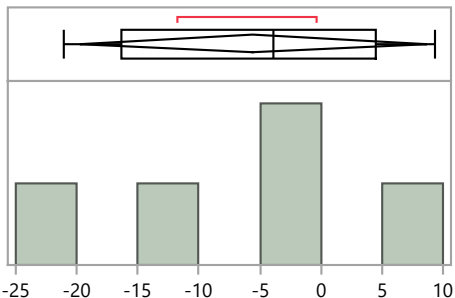
100.0%	maximum	69.3
99.5%		69.3
97.5%		69.3
90.0%		69.3
75.0%	quartile	69.3
50.0%	median	69.3
25.0%	quartile	69.3
10.0%		69.3
2.5%		69.3
0.5%		69.3
0.0%	minimum	69.3

Summary Statistics

Mean	69.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-238 Other

Bias



Quantiles

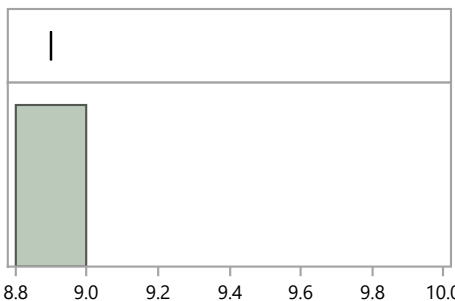
100.0%	maximum	9.3
99.5%		9.3
97.5%		9.3
90.0%		9.3
75.0%	quartile	4.5
50.0%	median	-3.9
25.0%	quartile	-16.4
10.0%		-21.0
2.5%		-21.0
0.5%		-21.0
0.0%	minimum	-21.0

Summary Statistics

Mean	-5.5
Std Dev	11.5
Std Err Mean	5.1
Upper 95% Mean	8.7
Lower 95% Mean	-19.8
N	5.0

Distributions Analyte_Method=Uranium-238 SW846 Methods 3052 (Microwave assisted Total Decomposition)

Bias



Quantiles

100.0%	maximum	8.9
99.5%		8.9
97.5%		8.9
90.0%		8.9
75.0%	quartile	8.9
50.0%	median	8.9
25.0%	quartile	8.9
10.0%		8.9
2.5%		8.9
0.5%		8.9
0.0%	minimum	8.9

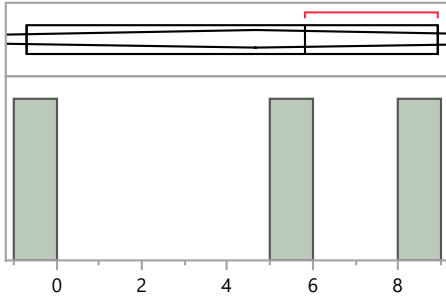
Summary Statistics

Mean	8.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-238 Total dissolution by fusion

Bias



Quantiles

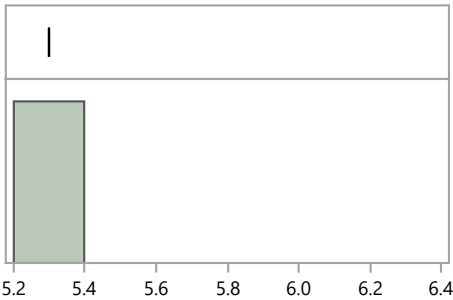
100.0%	maximum	8.9
99.5%		8.9
97.5%		8.9
90.0%		8.9
75.0%	quartile	8.9
50.0%	median	5.8
25.0%	quartile	-0.7
10.0%		-0.7
2.5%		-0.7
0.5%		-0.7
0.0%	minimum	-0.7

Summary Statistics

Mean	4.7
Std Dev	4.9
Std Err Mean	2.8
Upper 95% Mean	16.8
Lower 95% Mean	-7.5
N	3.0

Distributions Analyte_Method=Uranium-238 Total Metals Analysis (i.e. XRF, Fusion, neutron activation)

Bias



Quantiles

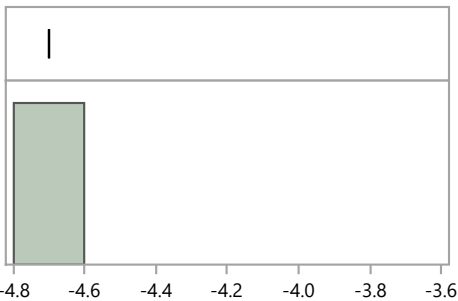
100.0%	maximum	5.3
99.5%		5.3
97.5%		5.3
90.0%		5.3
75.0%	quartile	5.3
50.0%	median	5.3
25.0%	quartile	5.3
10.0%		5.3
2.5%		5.3
0.5%		5.3
0.0%	minimum	5.3

Summary Statistics

Mean	5.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-Total EPA Method 200.8 Trace Metals in Waters & Wastes

Bias



Quantiles

100.0%	maximum	-4.7
99.5%		-4.7
97.5%		-4.7
90.0%		-4.7
75.0%	quartile	-4.7
50.0%	median	-4.7
25.0%	quartile	-4.7
10.0%		-4.7
2.5%		-4.7
0.5%		-4.7
0.0%	minimum	-4.7

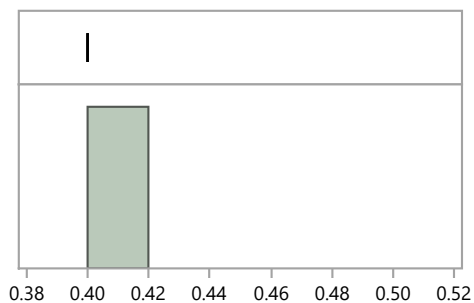
Summary Statistics

Mean	-4.7
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-Total Other

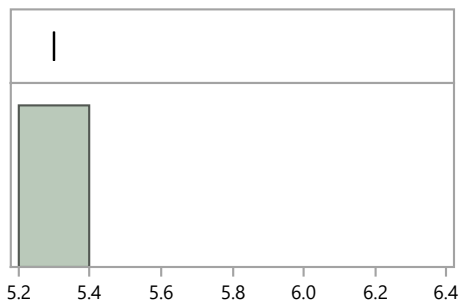
Bias



Quantiles			Summary Statistics	
100.0%	maximum	0.4	Mean	0.4
99.5%		0.4	Std Dev	.
97.5%		0.4	Std Err Mean	.
90.0%		0.4	Upper 95% Mean	.
75.0%	quartile	0.4	Lower 95% Mean	.
50.0%	median	0.4	N	1.0
25.0%	quartile	0.4		
10.0%		0.4		
2.5%		0.4		
0.5%		0.4		
0.0%	minimum	0.4		

Distributions Analyte_Method=Uranium-Total Total Metals Analysis (i.e. XRF, Fusion, neutron activation)

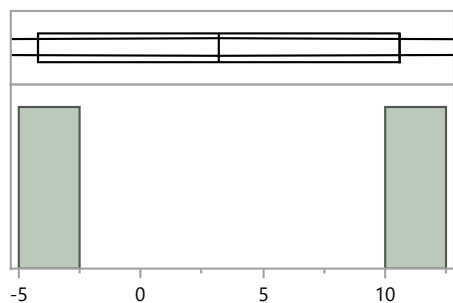
Bias



Quantiles			Summary Statistics	
100.0%	maximum	5.3	Mean	5.3
99.5%		5.3	Std Dev	.
97.5%		5.3	Std Err Mean	.
90.0%		5.3	Upper 95% Mean	.
75.0%	quartile	5.3	Lower 95% Mean	.
50.0%	median	5.3	N	1.0
25.0%	quartile	5.3		
10.0%		5.3		
2.5%		5.3		
0.5%		5.3		
0.0%	minimum	5.3		

Distributions Analyte_Method=Zinc-65 Acid dissolution with hydrofluoric acid

Bias

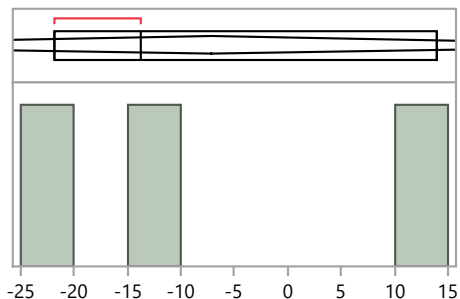


Quantiles			Summary Statistics	
100.0%	maximum	10.6	Mean	3.2
99.5%		10.6	Std Dev	10.5
97.5%		10.6	Std Err Mean	7.4
90.0%		10.6	Upper 95% Mean	97.2
75.0%	quartile	10.6	Lower 95% Mean	-90.8
50.0%	median	3.2	N	2.0
25.0%	quartile	-4.2		
10.0%		-4.2		
2.5%		-4.2		
0.5%		-4.2		
0.0%	minimum	-4.2		

RdV51 Distribution by Preparation Method

Distributions Analyte_Method=Zinc-65 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

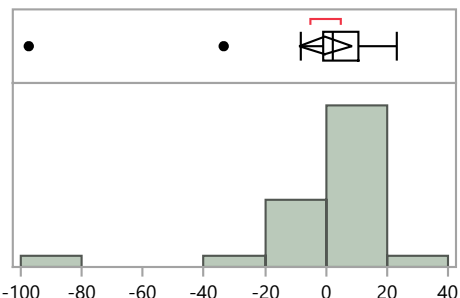
100.0%	maximum	13.9
99.5%		13.9
97.5%		13.9
90.0%		13.9
75.0%	quartile	13.9
50.0%	median	-13.8
25.0%	quartile	-21.8
10.0%		-21.8
2.5%		-21.8
0.5%		-21.8
0.0%	minimum	-21.8

Summary Statistics

Mean	-7.2
Std Dev	18.7
Std Err Mean	10.8
Upper 95% Mean	39.3
Lower 95% Mean	-53.8
N	3.0

Distributions Analyte_Method=Zinc-65 No preparation - analyzed as received

Bias



Quantiles

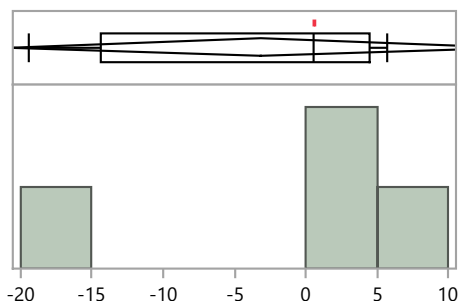
100.0%	maximum	23.1
99.5%		23.1
97.5%		23.1
90.0%		13.2
75.0%	quartile	10.6
50.0%	median	2.4
25.0%	quartile	-1.1
10.0%		-13.2
2.5%		-97.3
0.5%		-97.3
0.0%	minimum	-97.3

Summary Statistics

Mean	-0.4
Std Dev	21.9
Std Err Mean	4.2
Upper 95% Mean	8.3
Lower 95% Mean	-9.0
N	27.0

Distributions Analyte_Method=Zinc-65 Other

Bias



Quantiles

100.0%	maximum	5.7
99.5%		5.7
97.5%		5.7
90.0%		5.7
75.0%	quartile	4.5
50.0%	median	0.6
25.0%	quartile	-14.4
10.0%		-19.4
2.5%		-19.4
0.5%		-19.4
0.0%	minimum	-19.4

Summary Statistics

Mean	-3.1
Std Dev	11.1
Std Err Mean	5.6
Upper 95% Mean	14.6
Lower 95% Mean	-20.8
N	4.0