

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.

RdV47 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
ARSL01	ARS Aleut Analytical, LLC	RdV
CDHS01	California Department of Public Health	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
IEMA01	Illinois Emergency Management Agency Radiochemistry Laboratory	RdV
ISUE01	ISU Environmental Monitoring Laboratory	RdV
ISUP01	ISU - Department of Physics/Health Physics/EAL	RdV
JAEC99	Research Laboratories and Information Directorate	RdV
LAWR01	LAWRENCE BERKELEY NATIONAL LABORATORY	RdV
LOCK03	Advanced Test Reactor (ATR) Complex Radioanalytical Laboratory	RdV
MDPH01	MDPH-Radiation Control Program	RdV
MSDH01	Mississippi State Dept of Health	RdV
NARL01	National Analytical Radiation Environmental Laboratory	RdV
NJDH01	New Jersey Dept. of Health, ECLS	RdV
NOCS99	National Oceanography Centre, Southampton	RdV
NRLL99	Environmental Radioactivity - National Centre for Radiation Science	RdV
ODHL01	Ohio Department of Health Laboratory	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	ATI Environmental, Inc., Midwest Lab	RdV
TMAO01	EBERLINE Analytical Corporation	RdV
UNTE01	UniTech-235	RdV
WIPH01	WI, DPH, Radiation Protection Section	RdV
WIPP01	WIPP Laboratories	RdV
WSHL01	Wisconsin State Laboratory of Hygiene	RdV
WSTP99	Cavendish Nuclear Limited	RdV

Laboratories Not Reporting

Lab Code	Lab Name	Matrix Code
ASUK99	AWE (Aldermaston)	RdV
HSSB99	HG SOLUTION SDN BHD	RdV
IAEA99	International Atomic Energy Agency	RdV
NSPH01	Nevada State Public Health Laboratory	RdV
OTLI01	Pace Analytical National Center for Testing & Innovation	RdV

Study Reference Values

MAPEP-22-RdV47

Radiological Reference Date: 08/01/2022

Analyte	Ref Value	Ref Unc
Inorganic	Units: (ug/sample)	
Uranium-235	0.076	0.004
Uranium-238	10.5	0.4
Uranium-Total	10.5	0.4
Uranium-Total (Lg Veg)	17.0	0.7

Analyte	Ref Value	Ref Unc
Radiological	Units: (Bq/sample)	
Americium-241	0.189	0.003
Cesium-137	1.083	0.017
Cobalt-60	4.62	0.09
Manganese-54	2.43	0.05
Plutonium-238	0.156	0.003
Plutonium-239/240	0.162	0.003
Strontium-90	1.60	0.03
Uranium-234	0.126	0.005
Uranium-238	0.130	0.006
Zinc-65	7.49	0.15

Sample Statistical Summary

MAPEP-22-RdV47

Radiological Reference Date: 08/01/2022

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Inorganic							Units: (ug/sample)
Uranium-235	2	2			0.076	0.004	0.053 - 0.099
Uranium-238	2	2			10.5	0.4	7.4 - 13.7
Uranium-Total	3	3			10.5	0.4	7.4 - 13.7

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Radiological							Units: (Bq/sample)
Americium-241	22	19	0.191	0.024	0.189	0.003	0.132 - 0.246
Cesium-134	37	34					False Positive Test
Cesium-137	41	38	1.129	0.115	1.083	0.017	0.758 - 1.408
Cobalt-57	37	35					False Positive Test
Cobalt-60	41	38	4.59	0.38	4.62	0.09	3.23 - 6.01
Manganese-54	41	38	2.49	0.22	2.43	0.05	1.70 - 3.16
Plutonium-238	17	17	0.155	0.009	0.156	0.003	0.109 - 0.203
Plutonium-239/240	17	17	0.159	0.013	0.162	0.003	0.113 - 0.211
Strontium-90	17	14	1.46	0.26	1.60	0.03	1.12 - 2.08
Uranium-234	16	15	0.126	0.013	0.126	0.005	0.088 - 0.164
Uranium-238	17	16	0.130	0.012	0.130	0.006	0.091 - 0.169
Zinc-65	41	39	7.58	0.76	7.49	0.15	5.24 - 9.74

- 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-22-RdV47

Inorganic

Analyte	A	W	RW	N
Uranium-Total	3			
Uranium-235	2			
Uranium-238	2			

Radiological

Analyte	A	W	RW	N
Americium-241	16	3		3
Cesium-134	34			4
Cesium-137	36	2		3
Cobalt-57	35			4
Cobalt-60	37	1		3
Manganese-54	37	1		3
Plutonium-238	17			
Plutonium-239/240	17			
Strontium-90	8	6		3
Uranium-234	14	1		1
Uranium-238	16			1
Zinc-65	38	1		2



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	NR					False Positive Test		
Cesium-137	1.1350	1.083	A		4.8	0.758 - 1.408	0.0824	A
Cobalt-57	NR		N	(11)		False Positive Test		
Cobalt-60	4.4800	4.62	A		-3.0	3.23 - 6.01	0.1195	A
Manganese-54	2.5650	2.43	A		5.6	1.70 - 3.16	0.1250	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.1350	7.49	A		-4.7	5.24 - 9.74	0.3320	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	0.01		A			False Positive Test	0.01	
Cesium-137	1.17	1.083	A		8.0	0.758 - 1.408	0.08	A
Cobalt-57	-0.001		A			False Positive Test	0.001	
Cobalt-60	5.49	4.62	A		18.8	3.23 - 6.01	0.96	W
Manganese-54	2.32	2.43	A		-4.5	1.70 - 3.16	0.18	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	8.27	7.49	A		10.4	5.24 - 9.74	1.30	W

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(ARSL01) ARS Aleut Analytical, LLC

2609 North River Road

Port Allen, LA 70767

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	-0.0633		A			False Positive Test	0.0642	
Cesium-137	1.3177	1.083	W		21.7	0.758 - 1.408	0.0613	A
Cobalt-57	-0.0221		A			False Positive Test	0.0234	
Cobalt-60	4.905	4.62	A		6.2	3.23 - 6.01	0.1138	A
Manganese-54	2.74	2.43	A		12.8	1.70 - 3.16	0.1208	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	8.3209	7.49	A		11.1	5.24 - 9.74	0.3379	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.197	0.189	A		4.2	0.132 - 0.246	0.00687	A
Cesium-134	0.0224		A			False Positive Test	0.0232	
Cesium-137	1.27	1.083	A		17.3	0.758 - 1.408	0.0557	A
Cobalt-57	0.0152		A			False Positive Test	0.0191	
Cobalt-60	4.82	4.62	A		4.3	3.23 - 6.01	0.0830	N
Manganese-54	2.68	2.43	A		10.3	1.70 - 3.16	0.0812	A
Plutonium-238	0.154	0.156	A		-1.3	0.109 - 0.203	0.00858	A
Plutonium-239/240	0.160	0.162	A		-1.2	0.113 - 0.211	0.00872	A
Strontium-90	1.55	1.60	A		-3.1	1.12 - 2.08	0.134	A
Uranium-234	0.117	0.126	A		-7.1	0.088 - 0.164	0.0108	A
Uranium-238	0.126	0.130	A		-3.1	0.091 - 0.169	0.0113	A
Zinc-65	8.02	7.49	A		7.1	5.24 - 9.74	0.189	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(CSSL99) Chemistry Support Services

Dounreay Site Restoration Limited

Dounreay, Caithness KW14 7TZ

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.183	0.189	A		-3.2	0.132 - 0.246	0.00803	A
Cesium-134	0.2326		N	(1)		False Positive Test	0.0404	
Cesium-137	0.936	1.083	A		-13.6	0.758 - 1.408	0.162	W
Cobalt-57	0.106		N	(1)		False Positive Test	0.0184	
Cobalt-60	4.42	4.62	A		-4.3	3.23 - 6.01	0.767	W
Manganese-54	2.28	2.43	A		-6.2	1.70 - 3.16	0.395	W
Plutonium-238	0.158	0.156	A		1.3	0.109 - 0.203	0.00384	A
Plutonium-239/240	0.164	0.162	A		1.2	0.113 - 0.211	0.00398	A
Strontium-90	1.38	1.60	A		-13.8	1.12 - 2.08	0.175	A
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	6.81	7.49	A		-9.1	5.24 - 9.74	1.18	W

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.168	0.189	A		-11.1	0.132 - 0.246	0.008	A
Cesium-134	2.63		A			False Positive Test	2.63	
Cesium-137	11.6	1.083	N		971.1	0.758 - 1.408	0.7	A
Cobalt-57	0.502		A			False Positive Test	0.502	
Cobalt-60	47.1	4.62	N		919.5	3.23 - 6.01	2.5	A
Manganese-54	26.0	2.43	N		970.0	1.70 - 3.16	1.5	A
Plutonium-238	0.160	0.156	A		2.6	0.109 - 0.203	0.008	A
Plutonium-239/240	0.153	0.162	A		-5.6	0.113 - 0.211	0.008	A
Strontium-90	1492	1.60	N		93150.0	1.12 - 2.08	67	A
Uranium-234	0.134	0.126	A		6.3	0.088 - 0.164	0.007	A
Uranium-238	0.127	0.130	A		-2.3	0.091 - 0.169	0.007	A
Zinc-65	77.3	7.49	N		932.0	5.24 - 9.74	4.3	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.0785	0.076	A		3.3	0.053 - 0.099	0.0028	A
Uranium-238	11.2	10.5	A		6.7	7.4 - 13.7	0.4	A
Uranium-Total	11.2	10.5	A		6.7	7.4 - 13.7	0.4	A

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.174	0.189	A		-7.9	0.132 - 0.246	0.015	A
Cesium-134	0.011		A			False Positive Test	0.043	
Cesium-137	1.02	1.083	A		-5.8	0.758 - 1.408	0.06	A
Cobalt-57	-0.032		A			False Positive Test	0.025	
Cobalt-60	4.44	4.62	A		-3.9	3.23 - 6.01	0.07	N
Manganese-54	2.40	2.43	A		-1.2	1.70 - 3.16	0.07	A
Plutonium-238	0.156	0.156	A		0.0	0.109 - 0.203	0.013	A
Plutonium-239/240	0.139	0.162	A		-14.2	0.113 - 0.211	0.013	A
Strontium-90	1.25	1.60	W		-21.9	1.12 - 2.08	0.11	A
Uranium-234	0.14	0.126	A		11.1	0.088 - 0.164	0.13	N
Uranium-238	0.137	0.130	A		5.4	0.091 - 0.169	0.013	A
Zinc-65	6.80	7.49	A		-9.2	5.24 - 9.74	0.18	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.190	0.189	A		0.5	0.132 - 0.246	0.004	A
Cesium-134	0.014			A		False Positive Test	0.038	
Cesium-137	0.934	1.083	A		-13.8	0.758 - 1.408	0.036	A
Cobalt-57	0.003			A		False Positive Test	0.008	
Cobalt-60	3.69	4.62	W		-20.1	3.23 - 6.01	0.37	A
Manganese-54	2.086	2.43	A		-14.2	1.70 - 3.16	0.074	A
Plutonium-238	0.170	0.156	A		9.0	0.109 - 0.203	0.004	A
Plutonium-239/240	0.184	0.162	A		13.6	0.113 - 0.211	0.004	A
Strontium-90	1.72	1.60	A		7.5	1.12 - 2.08	0.03	N
Uranium-234	0.126	0.126	A		0.0	0.088 - 0.164	0.004	A
Uranium-238	0.134	0.130	A		3.1	0.091 - 0.169	0.004	A
Zinc-65	6.32	7.49	A		-15.6	5.24 - 9.74	0.23	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(FDHE01) Florida Dept of Health Environmental Laboratory
 PO Box 680069
 Orlando, FL 32868-0069

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.23	0.189	W		21.7	0.132 - 0.246	0.048	W
Cesium-134	-0.02		A			False Positive Test	0.151	
Cesium-137	1.224	1.083	A		13.0	0.758 - 1.408	0.073	A
Cobalt-57	0.009		A			False Positive Test	0.123	
Cobalt-60	4.751	4.62	A		2.8	3.23 - 6.01	0.119	A
Manganese-54	2.565	2.43	A		5.6	1.70 - 3.16	0.114	A
Plutonium-238	0.136	0.156	A		-12.8	0.109 - 0.203	0.04	W
Plutonium-239/240	0.146	0.162	A		-9.9	0.113 - 0.211	0.04	W
Strontium-90	0.291	1.60	N		-81.8	1.12 - 2.08	0.06	W
Uranium-234	0.137	0.126	A		8.7	0.088 - 0.164	0.02	A
Uranium-238	0.137	0.130	A		5.4	0.091 - 0.169	0.02	A
Zinc-65	8.035	7.49	A		7.3	5.24 - 9.74	0.269	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(FDOH01) Florida Dept. of Health, Mobile Environmental Radiological Lab
 PO Box 680069
 Orlando, FL 32868-0069

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.245	0.189	W		29.6	0.132 - 0.246	0.05	W
Cesium-134	-0.005		A			False Positive Test	0.096	
Cesium-137	1.189	1.083	A		9.8	0.758 - 1.408	0.053	A
Cobalt-57	0.002		A			False Positive Test	0.071	
Cobalt-60	4.776	4.62	A		3.4	3.23 - 6.01	0.091	N
Manganese-54	2.613	2.43	A		7.5	1.70 - 3.16	0.082	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	0.155	0.130	A		19.2	0.091 - 0.169	0.466	N
Zinc-65	8.217	7.49	A		9.7	5.24 - 9.74	0.216	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.1890	0.189	A		0.0	0.132 - 0.246	0.00894	A
Cesium-134	-0.002		A			False Positive Test	0.0335	
Cesium-137	1.18	1.083	A		9.0	0.758 - 1.408	0.0899	A
Cobalt-57	0.0163		A			False Positive Test	0.0258	
Cobalt-60	4.84	4.62	A		4.8	3.23 - 6.01	0.251	A
Manganese-54	2.42	2.43	A		-0.4	1.70 - 3.16	0.149	A
Plutonium-238	0.1490	0.156	A		-4.5	0.109 - 0.203	0.00631	A
Plutonium-239/240	0.1490	0.162	A		-8.0	0.113 - 0.211	0.00629	A
Strontium-90	1.78	1.60	A		11.3	1.12 - 2.08	0.12	A
Uranium-234	0.133	0.126	A		5.6	0.088 - 0.164	0.00687	A
Uranium-238	0.135	0.130	A		3.8	0.091 - 0.169	0.00694	A
Zinc-65	8.21	7.49	A		9.6	5.24 - 9.74	0.427	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	-.01		A			False Positive Test	.19	
Cesium-137	1.2	1.083	A		10.8	0.758 - 1.408	.2	W
Cobalt-57	.04		A			False Positive Test	.13	
Cobalt-60	4.55	4.62	A		-1.5	3.23 - 6.01	.39	A
Manganese-54	2.56	2.43	A		5.4	1.70 - 3.16	.32	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.5	7.49	A		0.1	5.24 - 9.74	.84	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	0.001253		A			False Positive Test	0.1232	
Cesium-137	1.085	1.083	A		0.2	0.758 - 1.408	0.2071	W
Cobalt-57	-0.03198		A			False Positive Test	0.1078	
Cobalt-60	4.225	4.62	A		-8.6	3.23 - 6.01	0.3257	A
Manganese-54	2.558	2.43	A		5.3	1.70 - 3.16	0.3304	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.045	7.49	A		-5.9	5.24 - 9.74	0.7784	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.191	0.189	A		1.1	0.132 - 0.246	0.011	A
Cesium-134	0.28		A			False Positive Test	0.28	
Cesium-137	1.05	1.083	A		-3.0	0.758 - 1.408	0.09	A
Cobalt-57	0.22		A			False Positive Test	0.22	
Cobalt-60	4.70	4.62	A		1.7	3.23 - 6.01	0.32	A
Manganese-54	2.54	2.43	A		4.5	1.70 - 3.16	0.14	A
Plutonium-238	0.161	0.156	A		3.2	0.109 - 0.203	0.009	A
Plutonium-239/240	0.166	0.162	A		2.5	0.113 - 0.211	0.009	A
Strontium-90	1.13	1.60	W		-29.4	1.12 - 2.08	0.05	A
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.76	7.49	A		3.6	5.24 - 9.74	0.53	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.179	0.189	A		-5.3	0.132 - 0.246	0.014	A
Cesium-134	NR					False Positive Test		
Cesium-137	1.150	1.083	A		6.2	0.758 - 1.408	0.052	A
Cobalt-57	NR					False Positive Test		
Cobalt-60	4.68	4.62	A		1.3	3.23 - 6.01	0.20	A
Manganese-54	2.57	2.43	A		5.8	1.70 - 3.16	0.12	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.98	7.49	A		6.5	5.24 - 9.74	0.35	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.163	0.189	A		-13.8	0.132 - 0.246	.006	A
Cesium-134	-0.08			A		False Positive Test	0.042	
Cesium-137	1.14	1.083	A		5.3	0.758 - 1.408	0.065	A
Cobalt-57	-0.01			A		False Positive Test	0.02	
Cobalt-60	4.37	4.62	A		-5.4	3.23 - 6.01	0.085	N
Manganese-54	2.43	2.43	A		0.0	1.70 - 3.16	0.096	A
Plutonium-238	0.154	0.156	A		-1.3	0.109 - 0.203	0.006	A
Plutonium-239/240	0.155	0.162	A		-4.3	0.113 - 0.211	0.006	A
Strontium-90	1.665	1.60	A		4.1	1.12 - 2.08	0.051	A
Uranium-234	0.132	0.126	A		4.8	0.088 - 0.164	0.005	A
Uranium-238	0.135	0.130	A		3.8	0.091 - 0.169	0.005	A
Zinc-65	7.28	7.49	A		-2.8	5.24 - 9.74	0.25	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	0.01		A			False Positive Test	0.02	
Cesium-137	1.09	1.083	A		0.6	0.758 - 1.408	0.08	A
Cobalt-57	-0.13		A			False Positive Test	0.09	
Cobalt-60	4.33	4.62	A		-6.3	3.23 - 6.01	0.14	A
Manganese-54	2.30	2.43	A		-5.4	1.70 - 3.16	0.14	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	6.85	7.49	A		-8.5	5.24 - 9.74	0.33	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

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

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	0.143		A			False Positive Test	0.42	
Cesium-137	1.491	1.083	N		37.7	0.758 - 1.408	0.07	A
Cobalt-57	0.1876		N	(1)		False Positive Test	0.03	
Cobalt-60	6.881	4.62	N		48.9	3.23 - 6.01	0.06	N
Manganese-54	2.117	2.43	A		-12.9	1.70 - 3.16	0.05	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	8.705	7.49	A		16.2	5.24 - 9.74	0.17	N

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (JAEC99) Research Laboratories and Information Directorate
 Jordan Atomic Energy Commission
 Amman, Jordan 70 (11934)

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	NR					False Positive Test		
Cesium-137	1.4	1.083	W		29.3	0.758 - 1.408	0.1	A
Cobalt-57	NR					False Positive Test		
Cobalt-60	4.9	4.62	A		6.1	3.23 - 6.01	0.2	A
Manganese-54	2.8	2.43	A		15.2	1.70 - 3.16	0.1	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	0.104	0.126	A		-17.5	0.088 - 0.164	0.004	A
Uranium-238	0.112	0.130	A		-13.8	0.091 - 0.169	0.004	A
Zinc-65	8.2	7.49	A		9.5	5.24 - 9.74	0.4	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

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

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	-0.008451		A			False Positive Test	0.08451	
Cesium-137	1.074	1.083	A		-0.8	0.758 - 1.408	0.04506	A
Cobalt-57	-0.05734		A			False Positive Test	0.5734	
Cobalt-60	4.449	4.62	A		-3.7	3.23 - 6.01	0.126	A
Manganese-54	2.539	2.43	A		4.5	1.70 - 3.16	0.07784	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.875	7.49	A		5.1	5.24 - 9.74	0.2393	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	0.13		A			False Positive Test	0.1	
Cesium-137	1.25	1.083	A		15.4	0.758 - 1.408	0.16	A
Cobalt-57	0.05		A			False Positive Test	0.03	
Cobalt-60	5.29	4.62	A		14.5	3.23 - 6.01	0.18	A
Manganese-54	3.12	2.43	W		28.4	1.70 - 3.16	0.21	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	8.81	7.49	A		17.6	5.24 - 9.74	0.45	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (MDPH01) MDPH-Radiation Control Program
 MERL-Room 362
 Jamaica Plain, MA 02130-3597

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	NR		N	(11)		False Positive Test		
Cesium-137	1.05	1.083	A		-3.0	0.758 - 1.408	0.07	A
Cobalt-57	NR		N	(11)		False Positive Test		
Cobalt-60	4.15	4.62	A		-10.2	3.23 - 6.01	0.14	A
Manganese-54	2.26	2.43	A		-7.0	1.70 - 3.16	0.10	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.13	7.49	A		-4.8	5.24 - 9.74	0.24	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (MSDH01) Mississippi State Dept of Health
 Radiological Environmental Laboratory
 Jackson, MS 39216

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	6.2930e+4	0.189	N		3329619	0.132 - 0.246	4.322e+5	N
Cesium-134	-2.6330		A			False Positive Test	5.451e+4	
Cesium-137	1.9498e+5	1.083	N		1800359	0.758 - 1.408	5.901e+4	N
Cobalt-57	-1.9629		A			False Positive Test	4.959e+4	
Cobalt-60	8.2875e+5	4.62	N		1793821	3.23 - 6.01	5.948e+4	A
Manganese-54	5.2938e+5	2.43	N		2178508	1.70 - 3.16	7.701e+4	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	1.5839e+6	7.49	N		2114676	5.24 - 9.74	1.785e+5	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.172	0.189	A		-9.0	0.132 - 0.246	0.0127	A
Cesium-134	-0.0833			A		False Positive Test	0.0831	
Cesium-137	1.22	1.083	A		12.7	0.758 - 1.408	0.105	A
Cobalt-57	0.0252			A		False Positive Test	0.0448	
Cobalt-60	4.38	4.62	A		-5.2	3.23 - 6.01	0.255	A
Manganese-54	2.35	2.43	A		-3.3	1.70 - 3.16	0.161	A
Plutonium-238	0.160	0.156	A		2.6	0.109 - 0.203	0.0136	A
Plutonium-239/240	0.160	0.162	A		-1.2	0.113 - 0.211	0.0135	A
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	0.135	0.126	A		7.1	0.088 - 0.164	0.00945	A
Uranium-238	0.133	0.130	A		2.3	0.091 - 0.169	0.00937	A
Zinc-65	7.33	7.49	A		-2.1	5.24 - 9.74	0.459	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	-0.01		A			False Positive Test	0.03	
Cesium-137	1.12	1.083	A		3.4	0.758 - 1.408	0.07	A
Cobalt-57	-0.01		A			False Positive Test	0.02	
Cobalt-60	4.88	4.62	A		5.6	3.23 - 6.01	0.14	A
Manganese-54	2.65	2.43	A		9.1	1.70 - 3.16	0.11	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	8.31	7.49	A		10.9	5.24 - 9.74	0.24	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (NOCS99) National Oceanography Centre, Southampton
 GAU-Radioanalytical
 Southampton, Hampshire SO14 3ZH

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.18	0.189	A		-4.8	0.132 - 0.246	0.01	A
Cesium-134	0.2		A			False Positive Test	1	
Cesium-137	1.23	1.083	A		13.6	0.758 - 1.408	0.03	A
Cobalt-57	0.2		A			False Positive Test	1	
Cobalt-60	4.89	4.62	A		5.8	3.23 - 6.01	0.06	N
Manganese-54	2.73	2.43	A		12.3	1.70 - 3.16	0.05	N
Plutonium-238	0.143	0.156	A		-8.3	0.109 - 0.203	0.009	A
Plutonium-239/240	0.147	0.162	A		-9.3	0.113 - 0.211	0.009	A
Strontium-90	1.34	1.60	A		-16.3	1.12 - 2.08	0.09	A
Uranium-234	0.120	0.126	A		-4.8	0.088 - 0.164	0.008	A
Uranium-238	0.121	0.130	A		-6.9	0.091 - 0.169	0.008	A
Zinc-65	8.7	7.49	A		16.2	5.24 - 9.74	0.1	N

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(NRL99) 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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.193	0.189	A		2.1	0.132 - 0.246	0.019	A
Cesium-134	0.072		A			False Positive Test	0.035	
Cesium-137	1.176	1.083	A		8.6	0.758 - 1.408	0.081	A
Cobalt-57	0.024		A			False Positive Test	0.012	
Cobalt-60	4.78	4.62	A		3.5	3.23 - 6.01	0.32	A
Manganese-54	2.57	2.43	A		5.8	1.70 - 3.16	0.17	A
Plutonium-238	0.1596	0.156	A		2.3	0.109 - 0.203	0.0066	A
Plutonium-239/240	0.1638	0.162	A		1.1	0.113 - 0.211	0.0067	A
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	0.1176	0.126	A		-6.7	0.088 - 0.164	0.0042	A
Uranium-238	0.1242	0.130	A		-4.5	0.091 - 0.169	0.0043	A
Zinc-65	8.08	7.49	A		7.9	5.24 - 9.74	0.53	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	0.0128		N	(1)		False Positive Test	0.00237	
Cesium-137	0.908	1.083	A		-16.2	0.758 - 1.408	0.0949	A
Cobalt-57	0.0234		A			False Positive Test	0.0392	
Cobalt-60	3.7	4.62	A		-19.9	3.23 - 6.01	0.135	A
Manganese-54	1.7	2.43	N		-30.0	1.70 - 3.16	0.142	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	5.38	7.49	W		-28.2	5.24 - 9.74	0.303	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	13.62	17.0	A		-19.9	11.9 - 22.1	2.58	W

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189	N	(28)		0.132 - 0.246		
Cesium-134	0.17		A			False Positive Test	0.17	
Cesium-137	1.03	1.083	A		-4.9	0.758 - 1.408	0.08	A
Cobalt-57	0.13		A			False Positive Test	0.13	
Cobalt-60	4.87	4.62	A		5.4	3.23 - 6.01	0.17	A
Manganese-54	2.79	2.43	A		14.8	1.70 - 3.16	0.14	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60	N	(28)		1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	8.41	7.49	A		12.3	5.24 - 9.74	0.27	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.192	0.189	A		1.6	0.132 - 0.246	0.012	A
Cesium-134	-0.036			A		False Positive Test	0.021	
Cesium-137	1.14	1.083	A		5.3	0.758 - 1.408	0.05	A
Cobalt-57	0.026			A		False Positive Test	0.014	
Cobalt-60	4.56	4.62	A		-1.3	3.23 - 6.01	0.13	A
Manganese-54	2.62	2.43	A		7.8	1.70 - 3.16	0.08	A
Plutonium-238	0.164	0.156	A		5.1	0.109 - 0.203	0.024	A
Plutonium-239/240	0.161	0.162	A		-0.6	0.113 - 0.211	0.012	A
Strontium-90	1.387	1.60	A		-13.3	1.12 - 2.08	0.077	A
Uranium-234	0.1221	0.126	A		-3.1	0.088 - 0.164	0.0086	A
Uranium-238	0.1288	0.130	A		-0.9	0.091 - 0.169	0.0087	A
Zinc-65	8.20	7.49	A		9.5	5.24 - 9.74	0.24	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.0749	0.076	A		-1.4	0.053 - 0.099	0.0123	W
Uranium-238	9.98	10.5	A		-5.0	7.4 - 13.7	1.60	W
Uranium-Total	10.1	10.5	A		-3.8	7.4 - 13.7	1.62	W

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.199	0.189	A		5.3	0.132 - 0.246	0.0203	A
Cesium-134	0.0351		A			False Positive Test	0.0870	
Cesium-137	1.20	1.083	A		10.8	0.758 - 1.408	0.121	A
Cobalt-57	0.0164		A			False Positive Test	0.0381	
Cobalt-60	5.00	4.62	A		8.2	3.23 - 6.01	0.254	A
Manganese-54	2.48	2.43	A		2.1	1.70 - 3.16	0.177	A
Plutonium-238	0.156	0.156	A		0.0	0.109 - 0.203	0.0159	A
Plutonium-239/240	0.186	0.162	A		14.8	0.113 - 0.211	0.0179	A
Strontium-90	1.16	1.60	W		-27.5	1.12 - 2.08	0.100	A
Uranium-234	0.127	0.126	A		0.8	0.088 - 0.164	0.0130	A
Uranium-238	0.119	0.130	A		-8.5	0.091 - 0.169	0.0124	A
Zinc-65	7.48	7.49	A		-0.1	5.24 - 9.74	0.478	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	-2.39E-01		A			False Positive Test	1.54E-01	
Cesium-137	1.10E+00	1.083	A		1.6	0.758 - 1.408	1.22E-01	A
Cobalt-57	1.00E-01		A			False Positive Test	9.80E-02	
Cobalt-60	4.77E+00	4.62	A		3.2	3.23 - 6.01	2.66E-01	A
Manganese-54	2.55E+00	2.43	A		4.9	1.70 - 3.16	1.99E-01	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.61E+00	7.49	A		1.6	5.24 - 9.74	4.97E-01	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.154	0.189	A		-18.5	0.132 - 0.246	0.017	A
Cesium-134	-0.05		A			False Positive Test	0.31	
Cesium-137	1.14	1.083	A		5.3	0.758 - 1.408	0.12	A
Cobalt-57	-0.12		A			False Positive Test	0.14	
Cobalt-60	4.46	4.62	A		-3.5	3.23 - 6.01	0.13	A
Manganese-54	2.30	2.43	A		-5.4	1.70 - 3.16	0.12	A
Plutonium-238	0.150	0.156	A		-3.8	0.109 - 0.203	0.020	A
Plutonium-239/240	0.158	0.162	A		-2.5	0.113 - 0.211	0.021	A
Strontium-90	1.208	1.60	W		-24.5	1.12 - 2.08	0.032	A
Uranium-234	0.229	0.126	N		81.7	0.088 - 0.164	0.022	A
Uranium-238	0.223	0.130	N		71.5	0.091 - 0.169	0.022	A
Zinc-65	7.05	7.49	A		-5.9	5.24 - 9.74	0.36	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	.0321		A			False Positive Test	0.1058	
Cesium-137	0.891	1.083	A		-17.7	0.758 - 1.408	0.169	W
Cobalt-57	0.005817		A			False Positive Test	0.0543	
Cobalt-60	4.04	4.62	A		-12.6	3.23 - 6.01	0.189	A
Manganese-54	2.01	2.43	A		-17.3	1.70 - 3.16	0.245	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	1.25	1.60	W		-21.9	1.12 - 2.08	0.0413	A
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	6.16	7.49	A		-17.8	5.24 - 9.74	0.549	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (TELE02) ATI Environmental, Inc., Midwest Lab
 700 Landwehr Road
 Northbrook, IL 60062-

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	0.01		A			False Positive Test	0.06	
Cesium-137	1.15	1.083	A		6.2	0.758 - 1.408	0.12	A
Cobalt-57	-0.003		A			False Positive Test	0.035	
Cobalt-60	4.71	4.62	A		1.9	3.23 - 6.01	0.14	A
Manganese-54	2.67	2.43	A		9.9	1.70 - 3.16	0.19	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.73	7.49	A		3.2	5.24 - 9.74	0.39	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	-0.186		A			False Positive Test	0.502	
Cesium-137	1.294	1.083	A		19.5	0.758 - 1.408	0.626	N
Cobalt-57	0.005		A			False Positive Test	0.217	
Cobalt-60	4.156	4.62	A		-10.0	3.23 - 6.01	0.598	A
Manganese-54	2.227	2.43	A		-8.4	1.70 - 3.16	0.782	N
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	0.100	0.126	W		-20.6	0.088 - 0.164	0.023	W
Uranium-238	0.113	0.130	A		-13.1	0.091 - 0.169	0.024	W
Zinc-65	6.693	7.49	A		-10.6	5.24 - 9.74	1.946	W

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(UNTE01) UniTech-235

178 Aldo Drive

Barnwell, SC 29812

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	0.02		A			False Positive Test	0.01	
Cesium-137	0.96	1.083	A		-11.4	0.758 - 1.408	0.34	N
Cobalt-57	0.01		A			False Positive Test	0.01	
Cobalt-60	4.44	4.62	A		-3.9	3.23 - 6.01	0.47	A
Manganese-54	2.48	2.43	A		2.1	1.70 - 3.16	0.48	W
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.23	7.49	A		-3.5	5.24 - 9.74	1.26	W

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (WIPH01) WI, DPH, Radiation Protection Section
 1 West Wilson Street
 Madison, WI 53701

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.511	0.189	N		170.4	0.132 - 0.246	0.212	N
Cesium-134	0.059		N	(1)		False Positive Test	0.013	
Cesium-137	1.141	1.083	A		5.4	0.758 - 1.408	0.069	A
Cobalt-57	0.010		A			False Positive Test	0.026	
Cobalt-60	4.638	4.62	A		0.4	3.23 - 6.01	0.107	A
Manganese-54	2.487	2.43	A		2.3	1.70 - 3.16	0.112	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.692	7.49	A		2.7	5.24 - 9.74	0.309	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	2.03E-1	0.189	A		7.4	0.132 - 0.246	7.81E-3	A
Cesium-134	4.65E-2		A			False Positive Test	7.09E-2	
Cesium-137	1.17E0	1.083	A		8.0	0.758 - 1.408	1.50E-1	A
Cobalt-57	-2.99E-2		A			False Positive Test	6.02E-2	
Cobalt-60	5.05E0	4.62	A		9.3	3.23 - 6.01	1.84E-1	A
Manganese-54	2.38E0	2.43	A		-2.1	1.70 - 3.16	1.77E-1	A
Plutonium-238	1.59E-1	0.156	A		1.9	0.109 - 0.203	1.04E-2	A
Plutonium-239/240	1.64E-1	0.162	A		1.2	0.113 - 0.211	1.07E-2	A
Strontium-90	1.65E0	1.60	A		3.1	1.12 - 2.08	6.27E-2	A
Uranium-234	1.43E-1	0.126	A		13.5	0.088 - 0.164	1.27E-2	A
Uranium-238	1.49E-1	0.130	A		14.6	0.091 - 0.169	1.33E-2	A
Zinc-65	8.02E0	7.49	A		7.1	5.24 - 9.74	4.51E-1	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47
 (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	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.189				0.132 - 0.246		
Cesium-134	-0.0322		A			False Positive Test	0.025	
Cesium-137	1.018	1.083	A		-6.0	0.758 - 1.408	0.042	A
Cobalt-57	0.0185		A			False Positive Test	0.014	
Cobalt-60	4.134	4.62	A		-10.5	3.23 - 6.01	0.319	A
Manganese-54	2.332	2.43	A		-4.0	1.70 - 3.16	0.119	A
Plutonium-238	NR	0.156				0.109 - 0.203		
Plutonium-239/240	NR	0.162				0.113 - 0.211		
Strontium-90	NR	1.60				1.12 - 2.08		
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	6.876	7.49	A		-8.2	5.24 - 9.74	0.519	A

Radiological Reference Date: August 1, 2022

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

Notes:

(1) = False Positive

(11) = False Positive Test, Result Not Reported

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-22-RdV47

(WSTP99) Cavendish Nuclear Limited

Greson Court

Cumbria, UK CA24 3HZ

Inorganic						Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Uranium-235	NR	0.076				0.053 - 0.099		
Uranium-238	NR	10.5				7.4 - 13.7		
Uranium-Total	NR	10.5				7.4 - 13.7		

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.235	0.189	W		24.3	0.132 - 0.246	0.014	A
Cesium-134	0.002		A			False Positive Test	0.028	
Cesium-137	1.161	1.083	A		7.2	0.758 - 1.408	0.051	A
Cobalt-57	0.006		A			False Positive Test	0.016	
Cobalt-60	4.74	4.62	A		2.6	3.23 - 6.01	0.10	A
Manganese-54	2.429	2.43	A		0.0	1.70 - 3.16	0.093	A
Plutonium-238	0.1420	0.156	A		-9.0	0.109 - 0.203	0.0085	A
Plutonium-239/240	0.1388	0.162	A		-14.3	0.113 - 0.211	0.0083	A
Strontium-90	1.93	1.60	W		20.6	1.12 - 2.08	0.11	A
Uranium-234	NR	0.126				0.088 - 0.164		
Uranium-238	NR	0.130				0.091 - 0.169		
Zinc-65	7.46	7.49	A		-0.4	5.24 - 9.74	0.19	A

Radiological Reference Date: August 1, 2022

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%

Radiological Units: (Bq/sample)

Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
---------	--------	-----------	------	-------	----------	------------------	-----------	----------

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

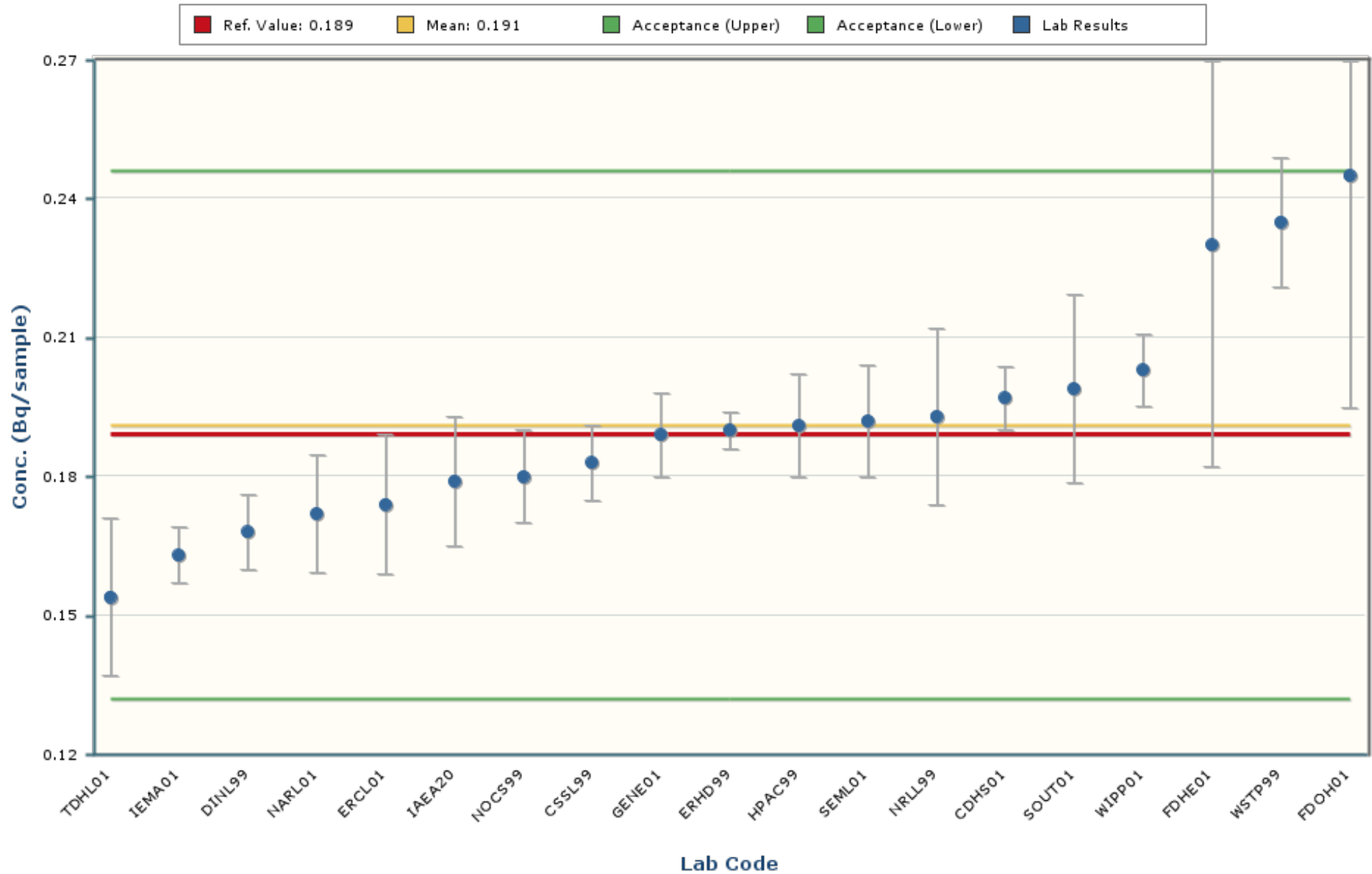
Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte

Americium-241

MAPEP-22-RdV47



Notes:

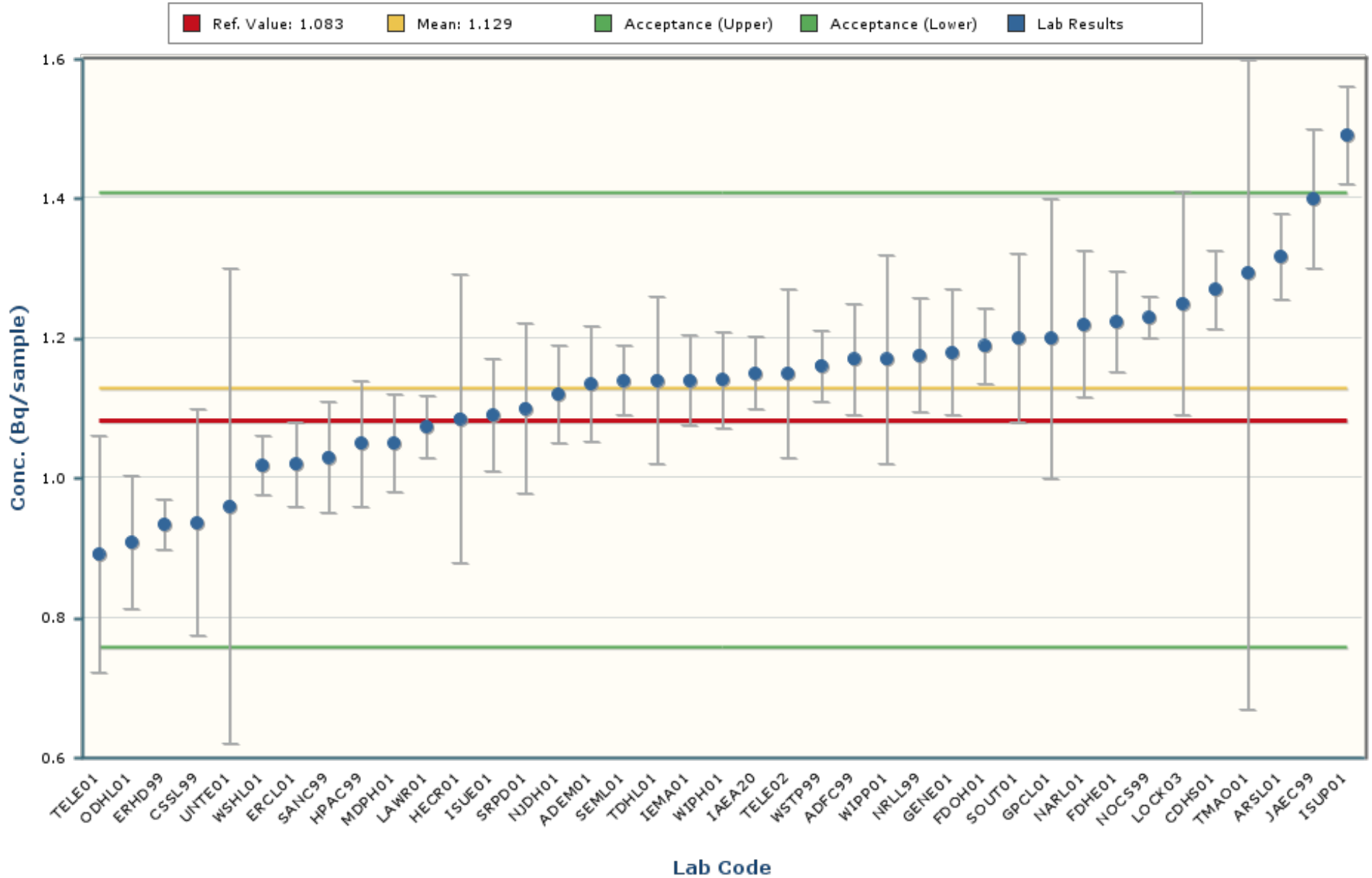
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.072 and 0.311 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at \pm one standard deviation.

Cesium-137

MAPEP-22-RdV47



Notes:

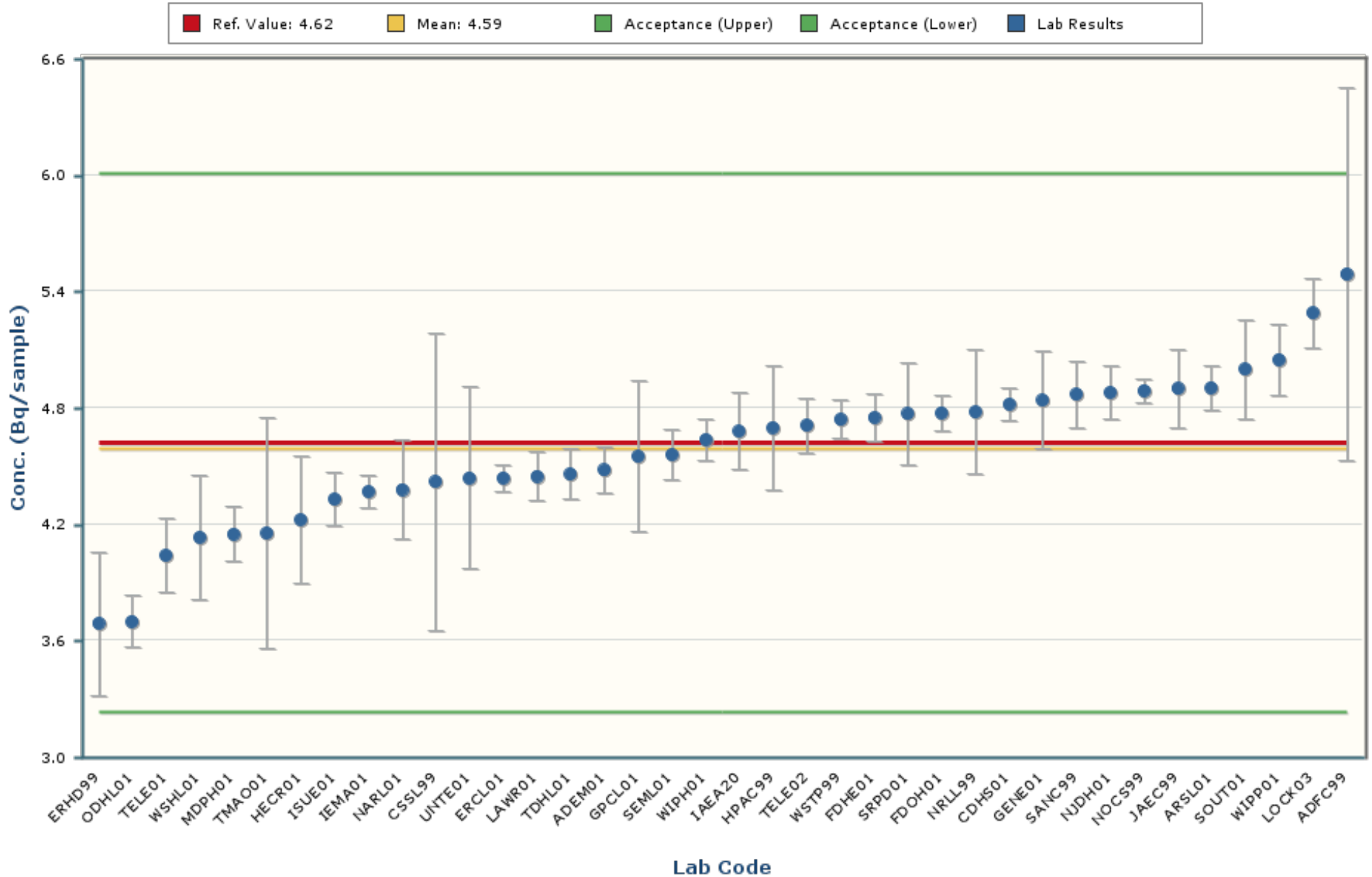
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.556 and 1.702 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at ± 1 standard deviation.

Cobalt-60

MAPEP-22-RdV47



Notes:

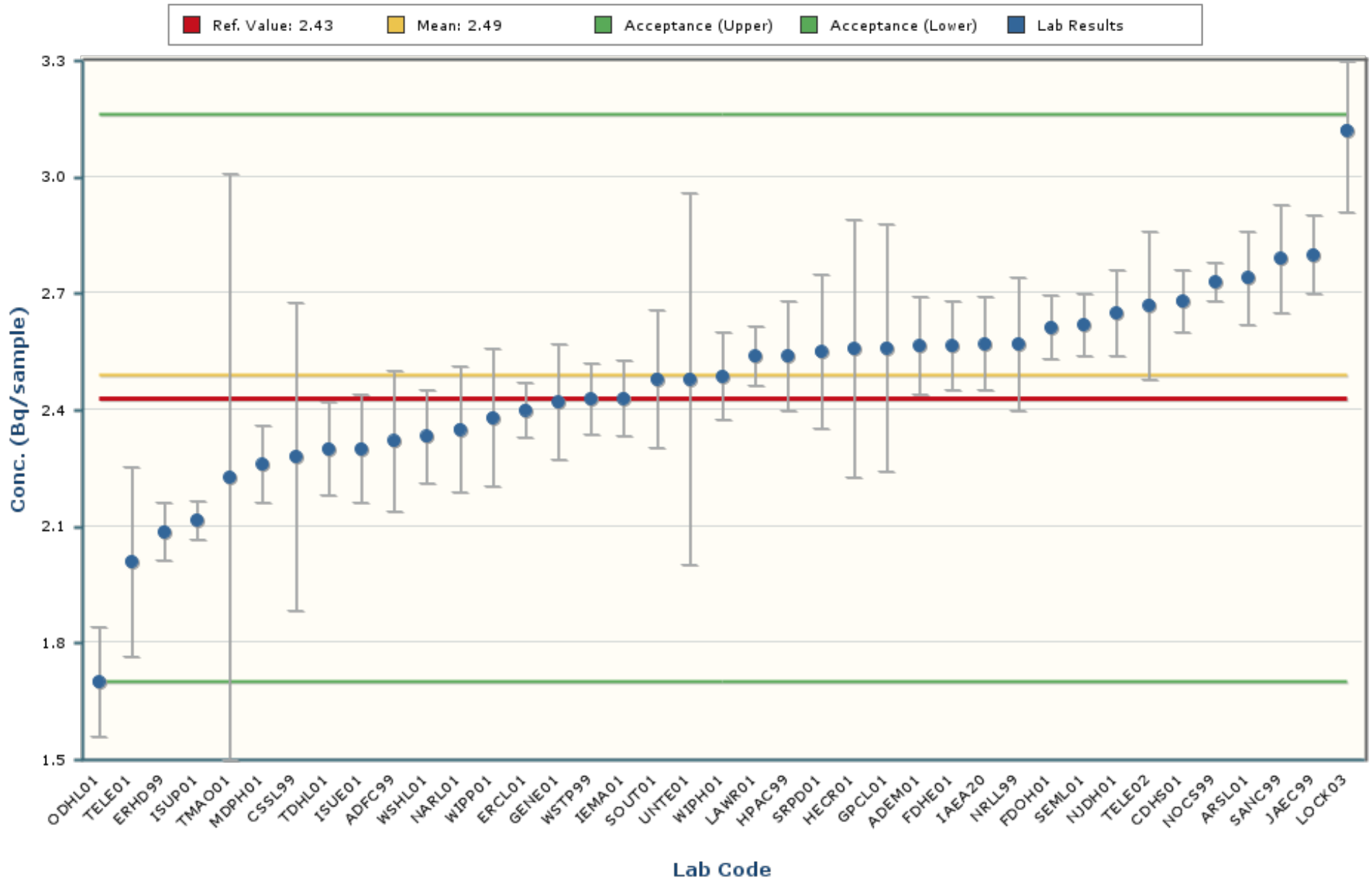
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 2.69 and 6.49 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at \pm one standard deviation.

Manganese-54

MAPEP-22-RdV47



Notes:

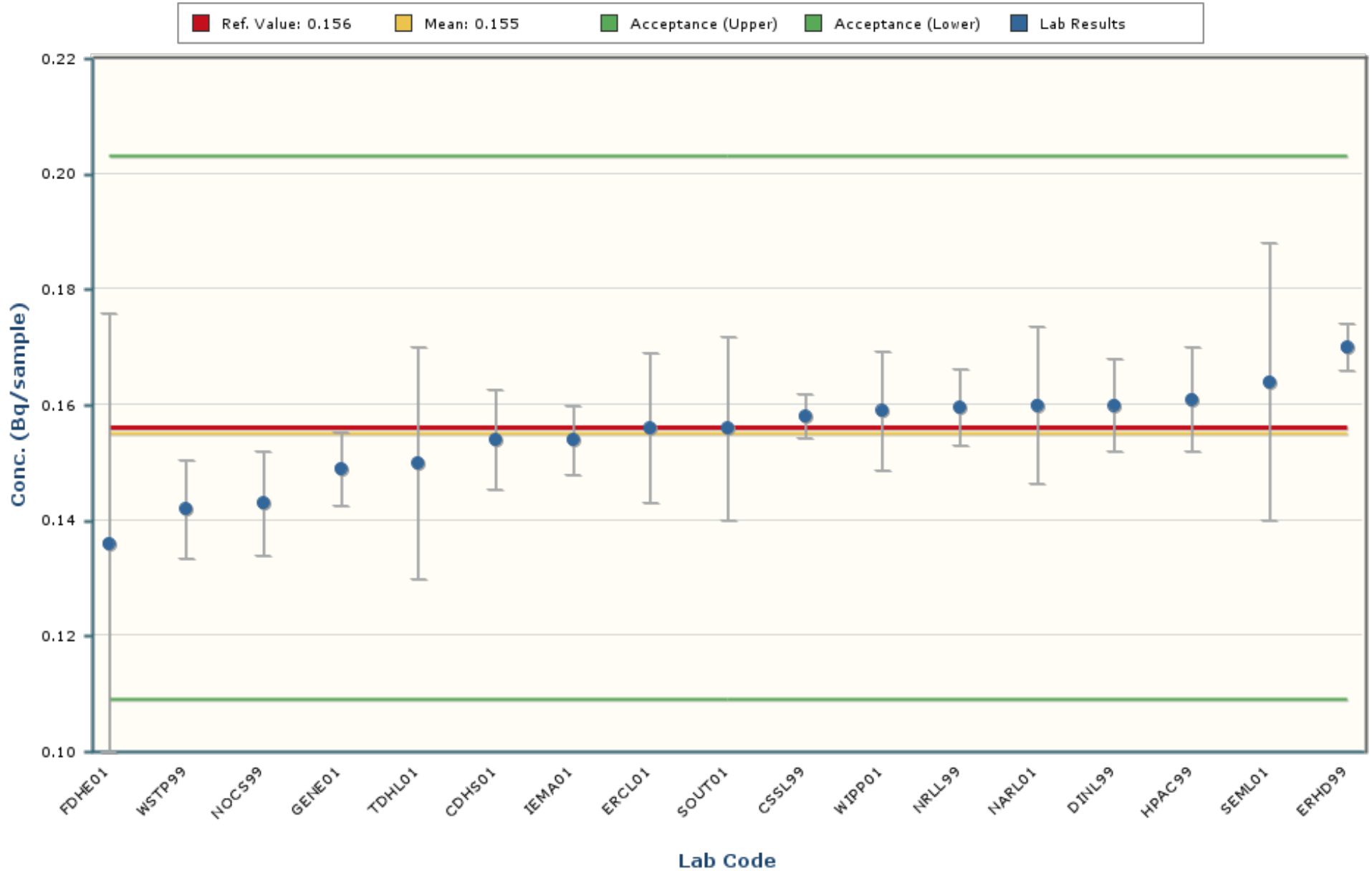
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 1.40 and 3.57 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at ± 1 standard deviation.

Plutonium-238

MAPEP-22-RdV47



Notes:

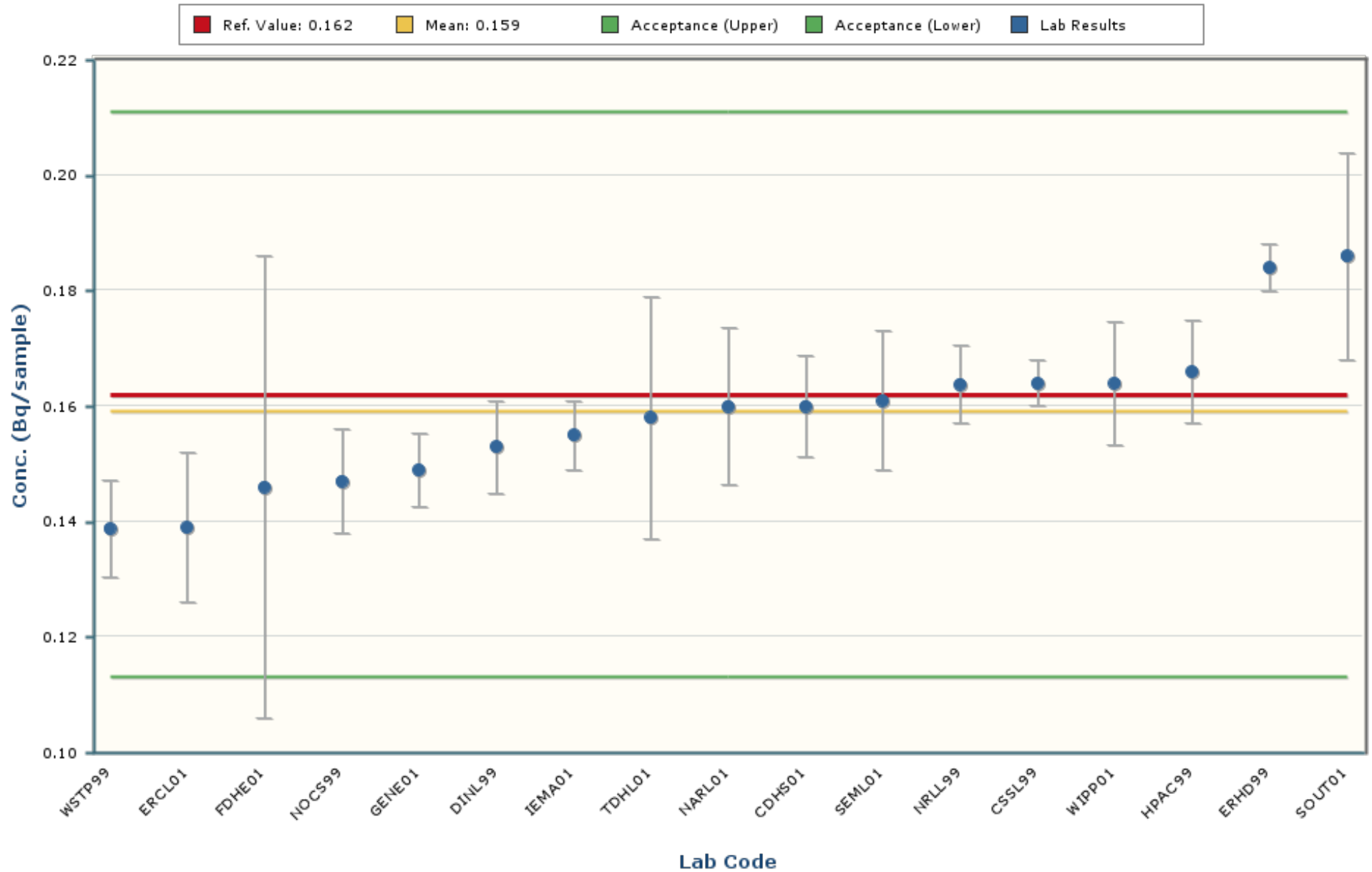
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.112 and 0.198 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at \pm one standard deviation.

Plutonium-239/240

MAPEP-22-RdV47



Notes:

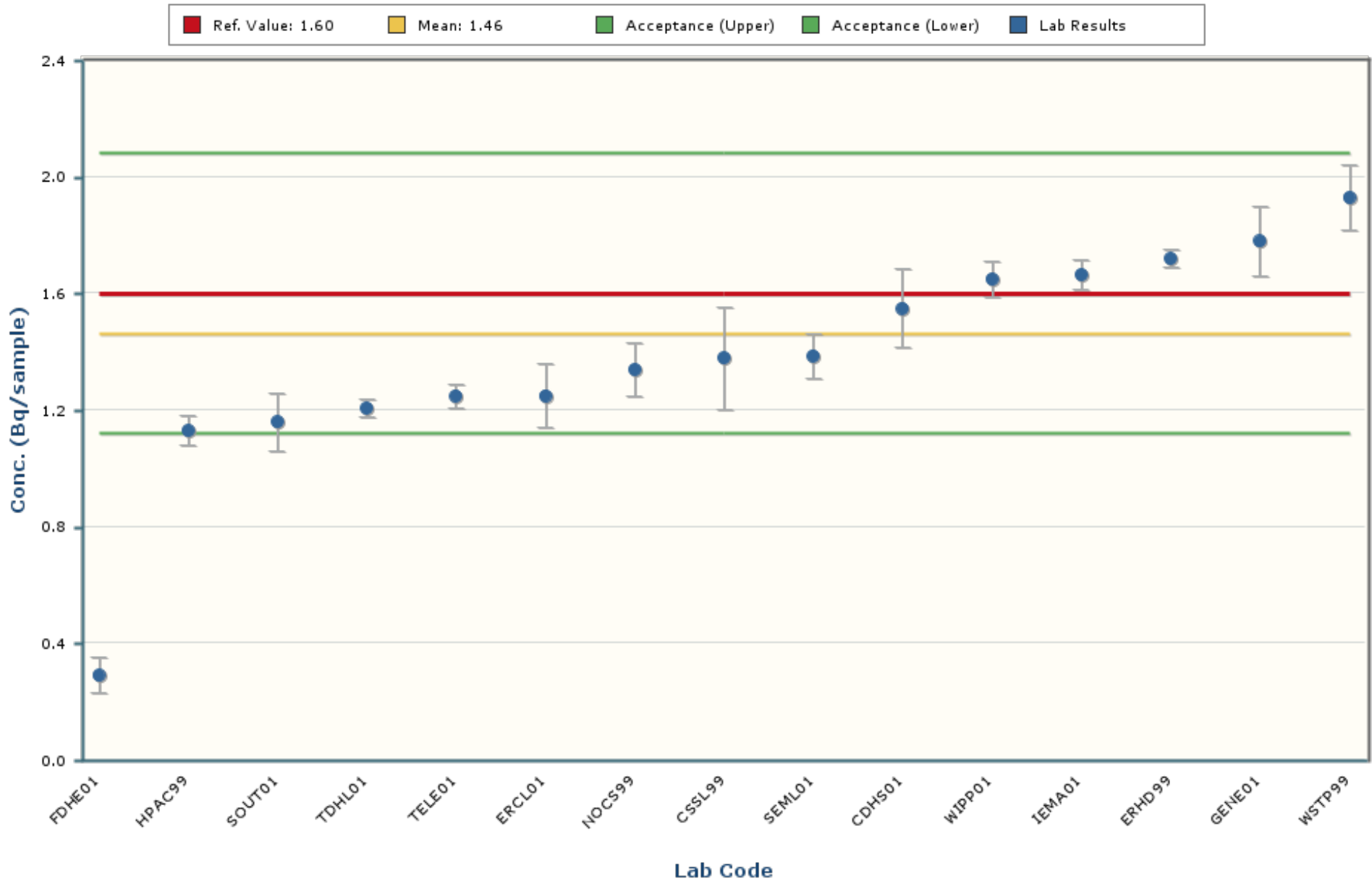
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.093 and 0.224 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at \pm one standard deviation.

Strontium-90

MAPEP-22-RdV47



Notes:

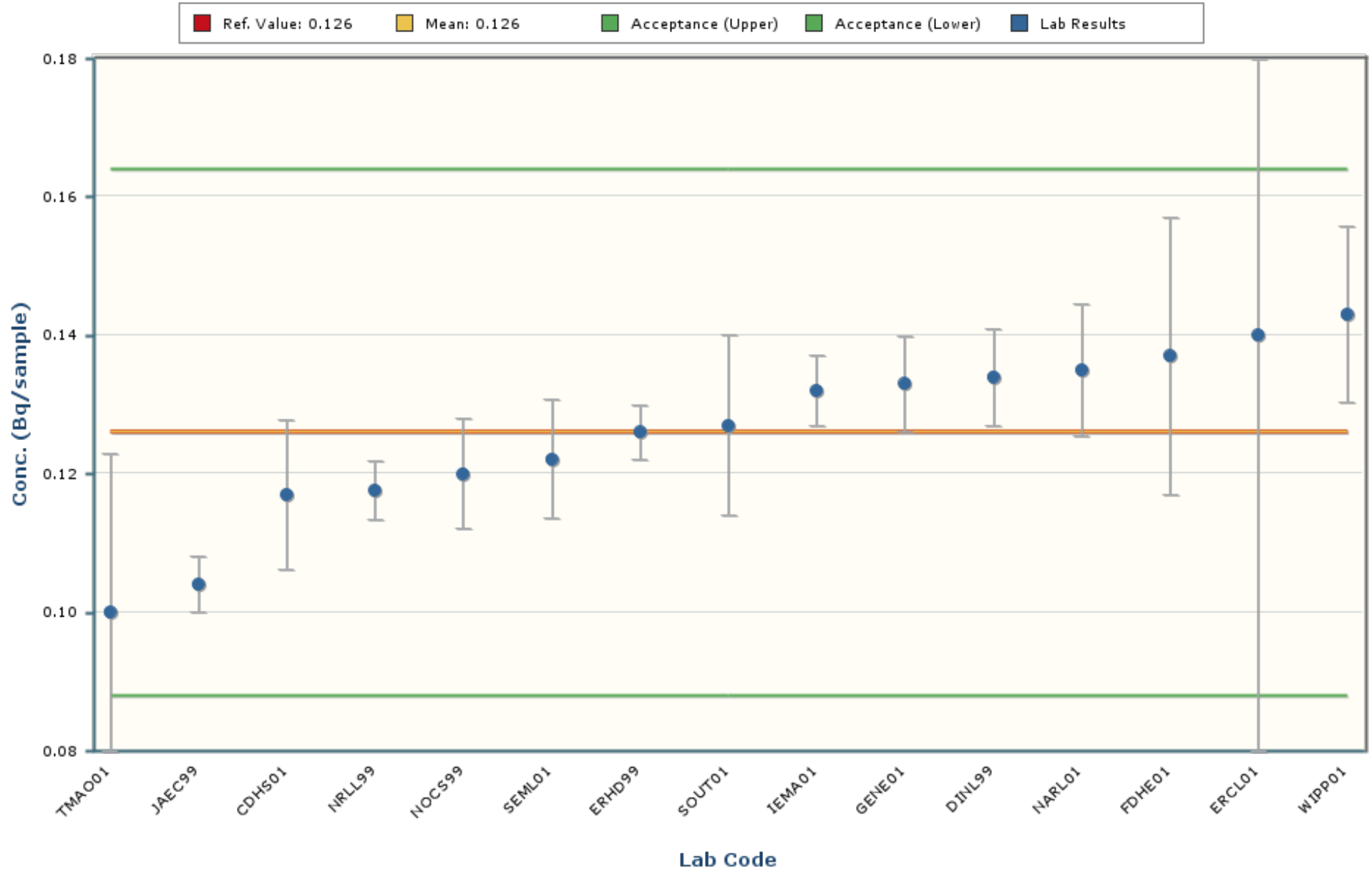
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.18 and 2.74 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at \pm one standard deviation.

Uranium-234

MAPEP-22-RdV47



Notes:

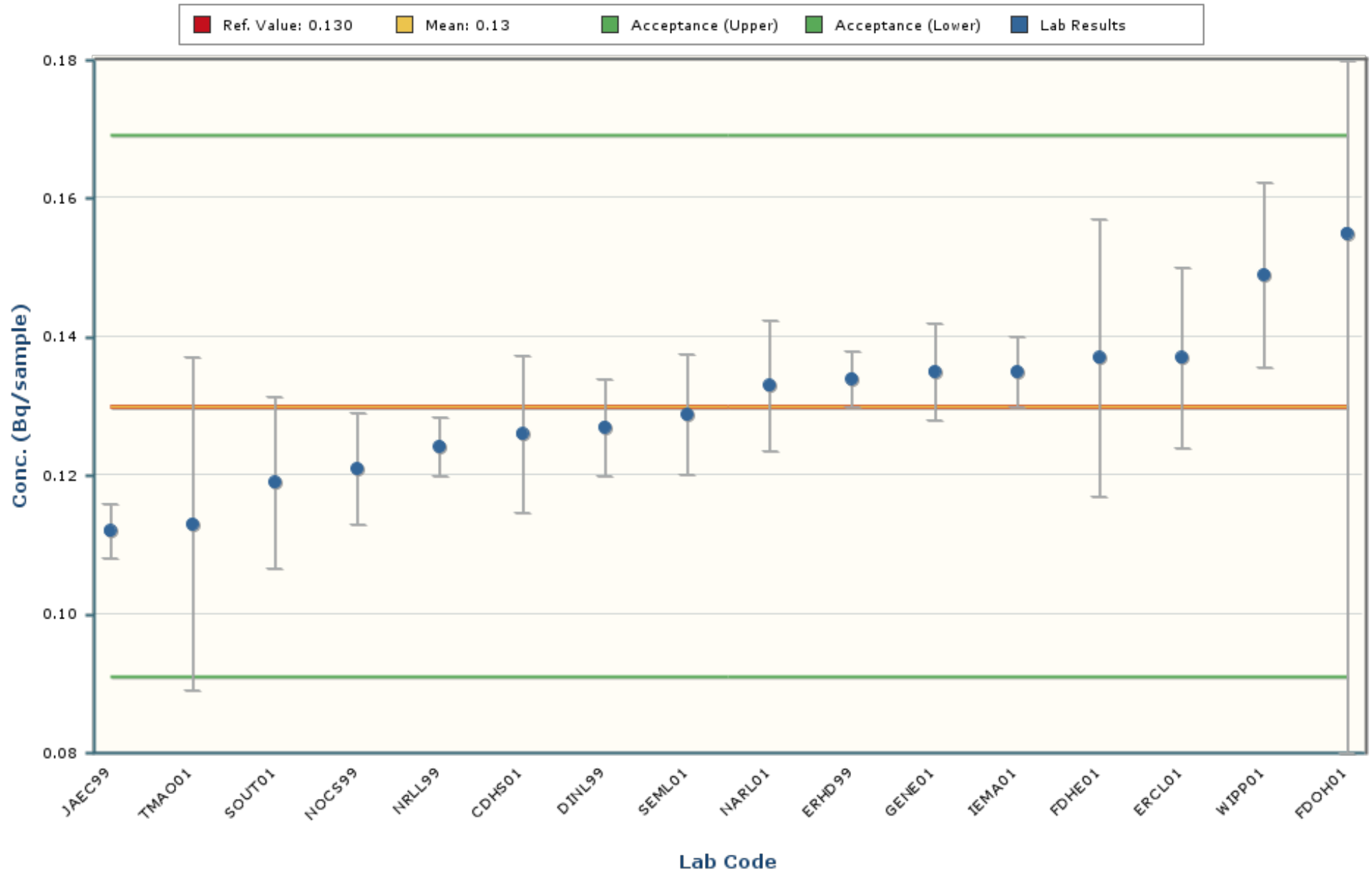
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.063 and 0.189 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at ± 1 standard deviation.

Uranium-238

MAPEP-22-RdV47



Notes:

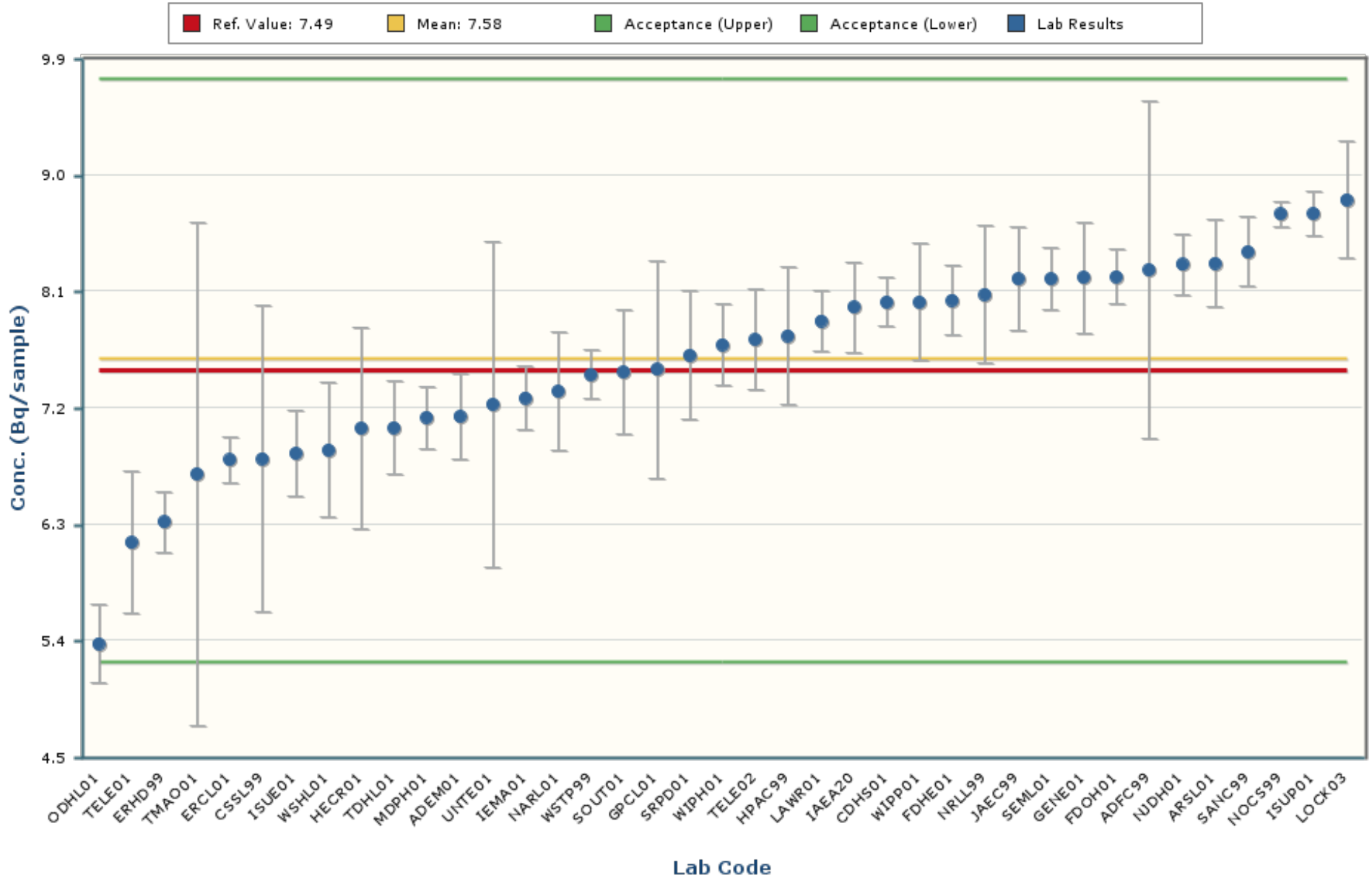
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.072 and 0.189 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at ± 1 standard deviation.

Zinc-65

MAPEP-22-RdV47



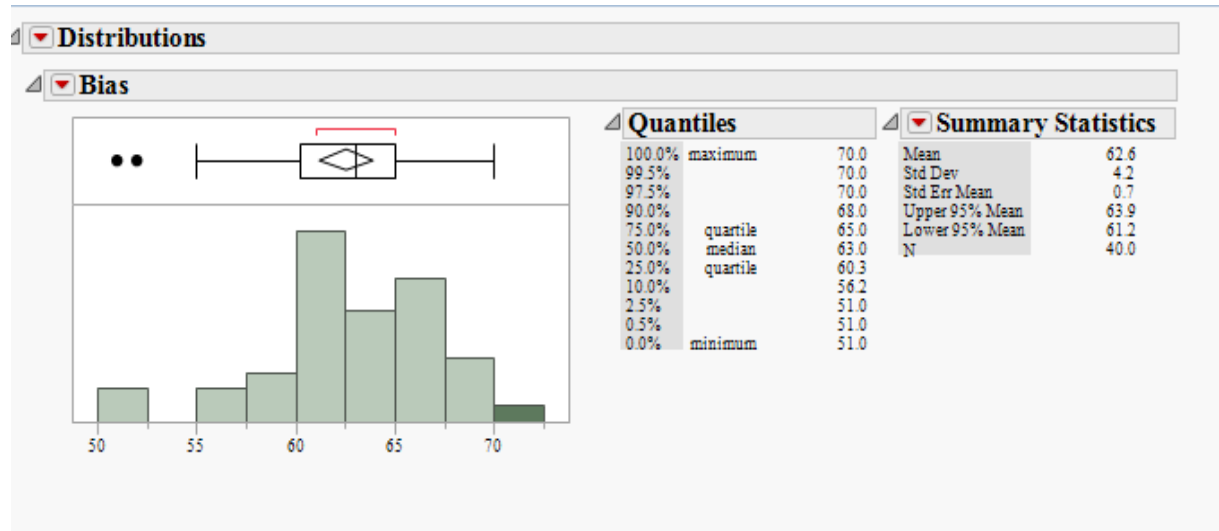
Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 3.80 and 11.36 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at ± 1 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.

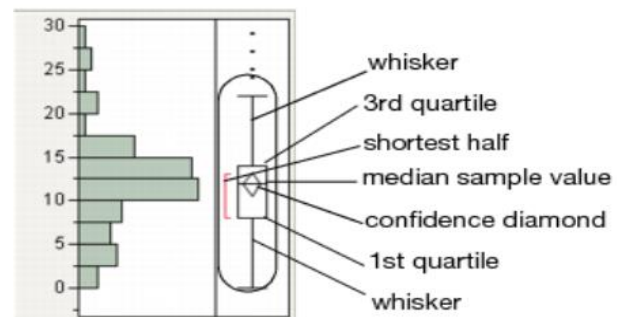


Outlier Box Plot

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)

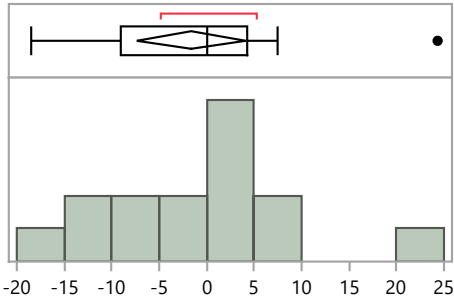


If the data points do not reach the computed ranges, then the whiskers are determined by the upper and lower data point values (not including outliers). The bracket outside of the box identifies the *shortest half*, which is the most dense 50% of the observations (Rousseuw and Leroy 1987).

RdV Distribution by Detection Method

Distributions Analyte_Detection=Americium-241 Alpha Spectrometry

Bias



Quantiles

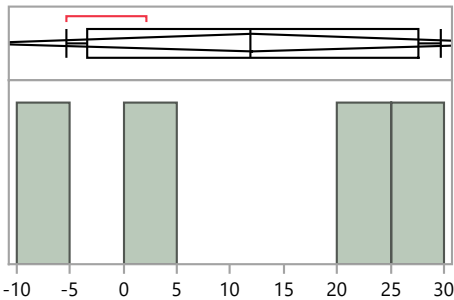
100.0%	maximum	24.3
99.5%		24.3
97.5%		24.3
90.0%		14.2
75.0%	quartile	4.2
50.0%	median	0.0
25.0%	quartile	-9.0
10.0%		-15.7
2.5%		-18.5
0.5%		-18.5
0.0%	minimum	-18.5

Summary Statistics

Mean	-1.6
Std Dev	10.3
Std Err Mean	2.7
Upper 95% Mean	4.1
Lower 95% Mean	-7.3
N	15.0

Distributions Analyte_Detection=Americium-241 Gamma Spectrometry

Bias



Quantiles

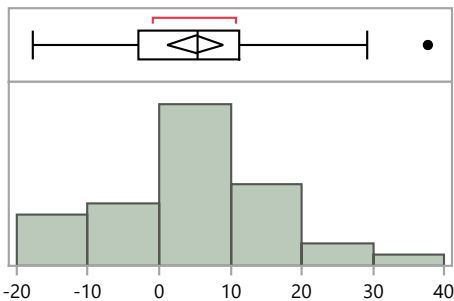
100.0%	maximum	29.6
99.5%		29.6
97.5%		29.6
90.0%		29.6
75.0%	quartile	27.6
50.0%	median	11.9
25.0%	quartile	-3.5
10.0%		-5.3
2.5%		-5.3
0.5%		-5.3
0.0%	minimum	-5.3

Summary Statistics

Mean	12.0
Std Dev	16.3
Std Err Mean	8.2
Upper 95% Mean	38.0
Lower 95% Mean	-14.0
N	4.0

Distributions Analyte_Detection=Cesium-137 Gamma Spectrometry

Bias



Quantiles

100.0%	maximum	37.7
99.5%		37.7
97.5%		37.7
90.0%		19.7
75.0%	quartile	11.3
50.0%	median	5.4
25.0%	quartile	-3.0
10.0%		-13.6
2.5%		-17.7
0.5%		-17.7
0.0%	minimum	-17.7

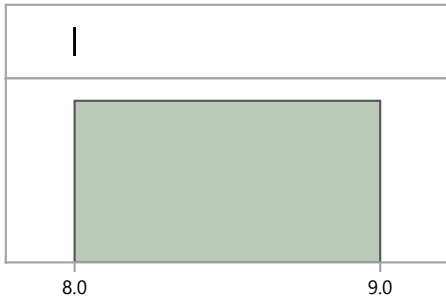
Summary Statistics

Mean	5.1
Std Dev	11.9
Std Err Mean	1.9
Upper 95% Mean	9.0
Lower 95% Mean	1.2
N	38.0

RdV Distribution by Detection Method

Distributions Analyte_Detection=Cesium-137 Gross Alpha/Beta - 2 pi gas flow proportional counter

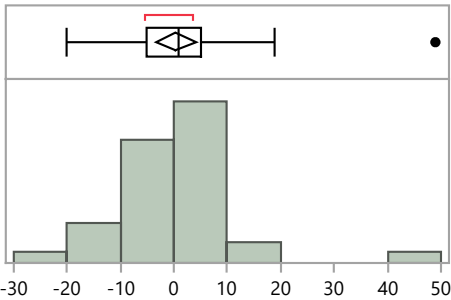
Bias



Quantiles			Summary Statistics	
100.0%	maximum	8.0	Mean	8.0
99.5%		8.0	Std Dev	.
97.5%		8.0	Std Err Mean	.
90.0%		8.0	Upper 95% Mean	.
75.0%	quartile	8.0	Lower 95% Mean	.
50.0%	median	8.0	N	1.0
25.0%	quartile	8.0		
10.0%		8.0		
2.5%		8.0		
0.5%		8.0		
0.0%	minimum	8.0		

Distributions Analyte_Detection=Cobalt-60 Gamma Spectrometry

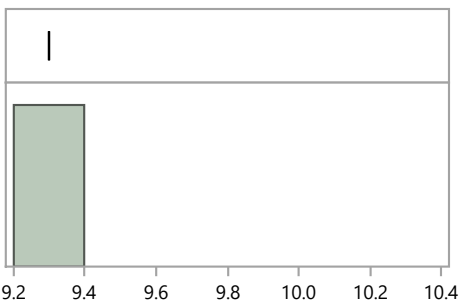
Bias



Quantiles			Summary Statistics	
100.0%	maximum	48.9	Mean	0.4
99.5%		48.9	Std Dev	11.4
97.5%		48.9	Std Err Mean	1.9
90.0%		8.8	Upper 95% Mean	4.2
75.0%	quartile	5.0	Lower 95% Mean	-3.3
50.0%	median	0.9	N	38.0
25.0%	quartile	-5.3		
10.0%		-10.7		
2.5%		-20.1		
0.5%		-20.1		
0.0%	minimum	-20.1		

Distributions Analyte_Detection=Cobalt-60 Gross Alpha/Beta - 2 pi gas flow proportional counter

Bias

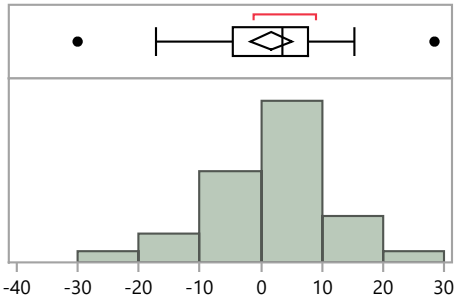


Quantiles			Summary Statistics	
100.0%	maximum	9.3	Mean	9.3
99.5%		9.3	Std Dev	.
97.5%		9.3	Std Err Mean	.
90.0%		9.3	Upper 95% Mean	.
75.0%	quartile	9.3	Lower 95% Mean	.
50.0%	median	9.3	N	1.0
25.0%	quartile	9.3		
10.0%		9.3		
2.5%		9.3		
0.5%		9.3		
0.0%	minimum	9.3		

RdV Distribution by Detection Method

Distributions Analyte_Detection=Manganese-54 Gamma Spectrometry

Bias



Quantiles

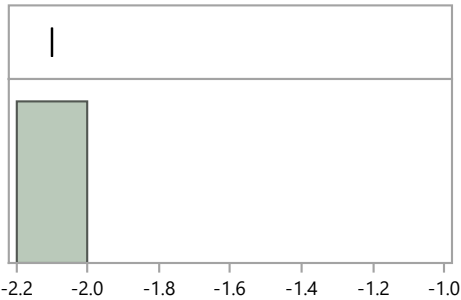
100.0%	maximum	28.4
99.5%		28.4
97.5%		28.4
90.0%		13.0
75.0%	quartile	7.6
50.0%	median	3.4
25.0%	quartile	-4.7
10.0%		-13.0
2.5%		-30.0
0.5%		-30.0
0.0%	minimum	-30.0

Summary Statistics

Mean	1.6
Std Dev	10.4
Std Err Mean	1.7
Upper 95% Mean	5.0
Lower 95% Mean	-1.8
N	38.0

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

Bias



Quantiles

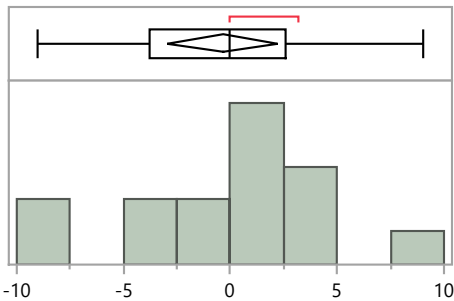
100.0%	maximum	-2.1
99.5%		-2.1
97.5%		-2.1
90.0%		-2.1
75.0%	quartile	-2.1
50.0%	median	-2.1
25.0%	quartile	-2.1
10.0%		-2.1
2.5%		-2.1
0.5%		-2.1
0.0%	minimum	-2.1

Summary Statistics

Mean	-2.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Plutonium-238 Alpha Spectrometry

Bias



Quantiles

100.0%	maximum	9.0
99.5%		9.0
97.5%		9.0
90.0%		5.5
75.0%	quartile	2.6
50.0%	median	0.0
25.0%	quartile	-3.8
10.0%		-8.6
2.5%		-9.0
0.5%		-9.0
0.0%	minimum	-9.0

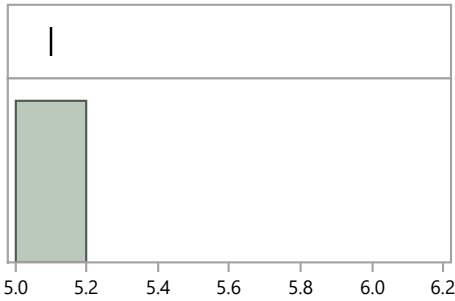
Summary Statistics

Mean	-0.4
Std Dev	4.6
Std Err Mean	1.2
Upper 95% Mean	2.2
Lower 95% Mean	-2.9
N	15.0

RdV Distribution by Detection Method

Distributions Analyte_Detection=Plutonium-238 Gamma Spectrometry

Bias



Quantiles

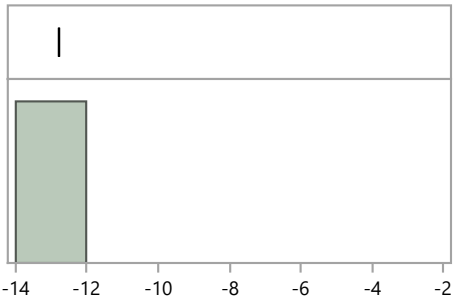
100.0%	maximum	5.1
99.5%		5.1
97.5%		5.1
90.0%		5.1
75.0%	quartile	5.1
50.0%	median	5.1
25.0%	quartile	5.1
10.0%		5.1
2.5%		5.1
0.5%		5.1
0.0%	minimum	5.1

Summary Statistics

Mean	5.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Plutonium-238 Gross Alpha/Beta - 2 pi gas flow proportional counter

Bias



Quantiles

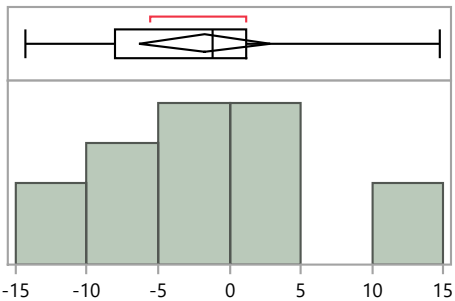
100.0%	maximum	-12.8
99.5%		-12.8
97.5%		-12.8
90.0%		-12.8
75.0%	quartile	-12.8
50.0%	median	-12.8
25.0%	quartile	-12.8
10.0%		-12.8
2.5%		-12.8
0.5%		-12.8
0.0%	minimum	-12.8

Summary Statistics

Mean	-12.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Plutonium-239/240 Alpha Spectrometry

Bias



Quantiles

100.0%	maximum	14.8
99.5%		14.8
97.5%		14.8
90.0%		14.1
75.0%	quartile	1.2
50.0%	median	-1.2
25.0%	quartile	-8.0
10.0%		-14.2
2.5%		-14.3
0.5%		-14.3
0.0%	minimum	-14.3

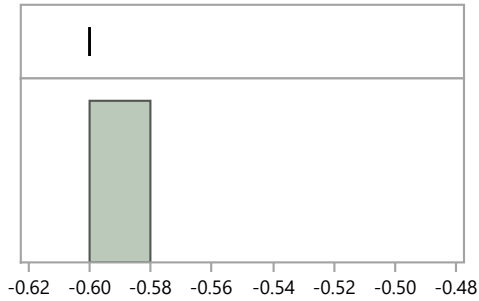
Summary Statistics

Mean	-1.7
Std Dev	8.4
Std Err Mean	2.2
Upper 95% Mean	2.9
Lower 95% Mean	-6.4
N	15.0

RdV Distribution by Detection Method

Distributions Analyte_Detection=Plutonium-239/240 Gamma Spectrometry

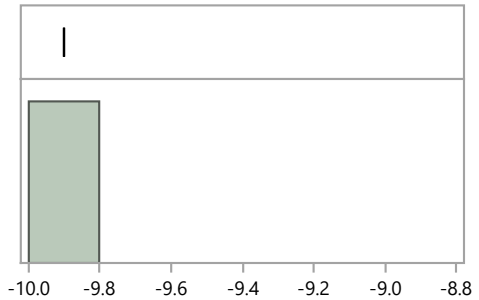
Bias



Quantiles			Summary Statistics	
100.0%	maximum	-0.6	Mean	-0.6
99.5%		-0.6	Std Dev	.
97.5%		-0.6	Std Err Mean	.
90.0%		-0.6	Upper 95% Mean	.
75.0%	quartile	-0.6	Lower 95% Mean	.
50.0%	median	-0.6	N	1.0
25.0%	quartile	-0.6		
10.0%		-0.6		
2.5%		-0.6		
0.5%		-0.6		
0.0%	minimum	-0.6		

Distributions Analyte_Detection=Plutonium-239/240 Gross Alpha/Beta - 2 pi gas flow proportional counter

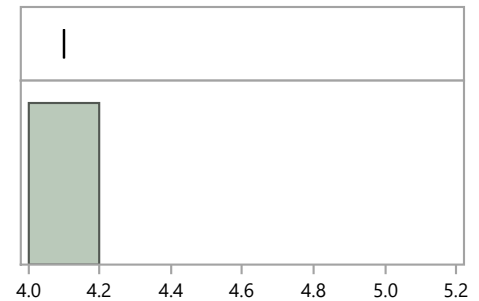
Bias



Quantiles			Summary Statistics	
100.0%	maximum	-9.9	Mean	-9.9
99.5%		-9.9	Std Dev	.
97.5%		-9.9	Std Err Mean	.
90.0%		-9.9	Upper 95% Mean	.
75.0%	quartile	-9.9	Lower 95% Mean	.
50.0%	median	-9.9	N	1.0
25.0%	quartile	-9.9		
10.0%		-9.9		
2.5%		-9.9		
0.5%		-9.9		
0.0%	minimum	-9.9		

Distributions Analyte_Detection=Strontium-90 Alpha Spectrometry

Bias

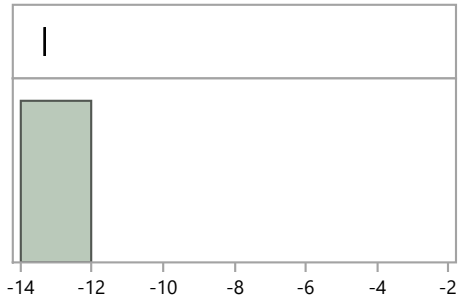


Quantiles			Summary Statistics	
100.0%	maximum	4.1	Mean	4.1
99.5%		4.1	Std Dev	.
97.5%		4.1	Std Err Mean	.
90.0%		4.1	Upper 95% Mean	.
75.0%	quartile	4.1	Lower 95% Mean	.
50.0%	median	4.1	N	1.0
25.0%	quartile	4.1		
10.0%		4.1		
2.5%		4.1		
0.5%		4.1		
0.0%	minimum	4.1		

RdV Distribution by Detection Method

Distributions Analyte_Detection=Strontium-90 Gamma Spectrometry

Bias



Quantiles

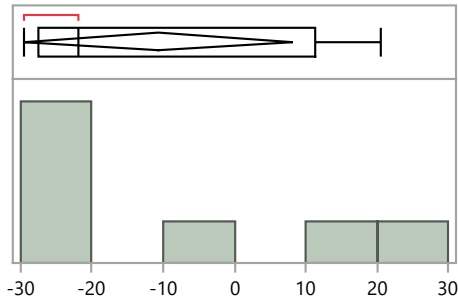
100.0%	maximum	-13.3
99.5%		-13.3
97.5%		-13.3
90.0%		-13.3
75.0%	quartile	-13.3
50.0%	median	-13.3
25.0%	quartile	-13.3
10.0%		-13.3
2.5%		-13.3
0.5%		-13.3
0.0%	minimum	-13.3

Summary Statistics

Mean	-13.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Strontium-90 Gas Flow Proportional Counter

Bias



Quantiles

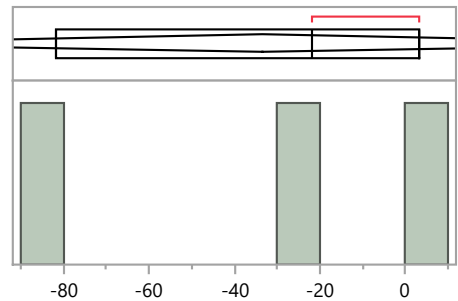
100.0%	maximum	20.6
99.5%		20.6
97.5%		20.6
90.0%		20.6
75.0%	quartile	11.3
50.0%	median	-21.9
25.0%	quartile	-27.5
10.0%		-29.4
2.5%		-29.4
0.5%		-29.4
0.0%	minimum	-29.4

Summary Statistics

Mean	-10.6
Std Dev	20.3
Std Err Mean	7.7
Upper 95% Mean	8.1
Lower 95% Mean	-29.4
N	7.0

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

Bias



Quantiles

100.0%	maximum	3.1
99.5%		3.1
97.5%		3.1
90.0%		3.1
75.0%	quartile	3.1
50.0%	median	-21.9
25.0%	quartile	-81.8
10.0%		-81.8
2.5%		-81.8
0.5%		-81.8
0.0%	minimum	-81.8

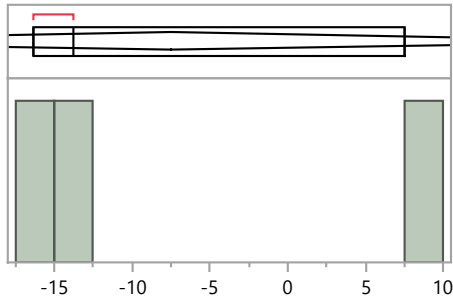
Summary Statistics

Mean	-33.5
Std Dev	43.6
Std Err Mean	25.2
Upper 95% Mean	74.8
Lower 95% Mean	-141.9
N	3.0

RdV Distribution by Detection Method

Distributions Analyte_Detection=Strontium-90 Liquid Scintillation Counter

Bias



Quantiles

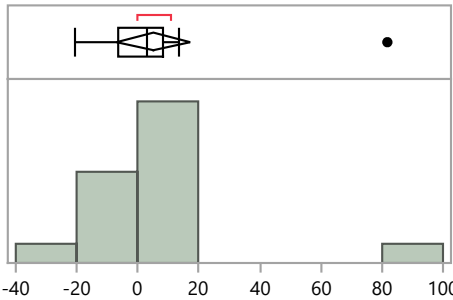
100.0%	maximum	7.5
99.5%		7.5
97.5%		7.5
90.0%		7.5
75.0%	quartile	7.5
50.0%	median	-13.8
25.0%	quartile	-16.3
10.0%		-16.3
2.5%		-16.3
0.5%		-16.3
0.0%	minimum	-16.3

Summary Statistics

Mean	-7.5
Std Dev	13.1
Std Err Mean	7.6
Upper 95% Mean	25.0
Lower 95% Mean	-40.0
N	3.0

Distributions Analyte_Detection=Uranium-234 Alpha Spectrometry

Bias



Quantiles

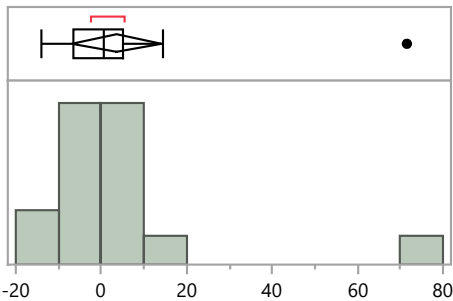
100.0%	maximum	81.7
99.5%		81.7
97.5%		81.7
90.0%		34.0
75.0%	quartile	8.3
50.0%	median	2.8
25.0%	quartile	-6.2
10.0%		-18.4
2.5%		-20.6
0.5%		-20.6
0.0%	minimum	-20.6

Summary Statistics

Mean	5.0
Std Dev	22.6
Std Err Mean	5.7
Upper 95% Mean	17.0
Lower 95% Mean	-7.1
N	16.0

Distributions Analyte_Detection=Uranium-238 Alpha Spectrometry

Bias



Quantiles

100.0%	maximum	71.5
99.5%		71.5
97.5%		71.5
90.0%		31.7
75.0%	quartile	5.0
50.0%	median	0.7
25.0%	quartile	-6.3
10.0%		-13.3
2.5%		-13.8
0.5%		-13.8
0.0%	minimum	-13.8

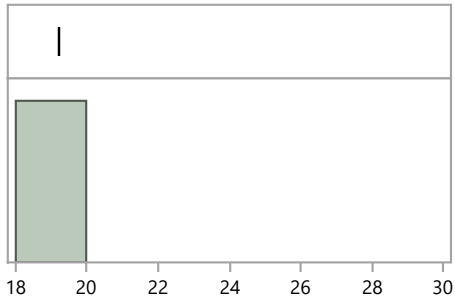
Summary Statistics

Mean	3.6
Std Dev	19.6
Std Err Mean	4.9
Upper 95% Mean	14.0
Lower 95% Mean	-6.9
N	16.0

RdV Distribution by Detection Method

Distributions Analyte_Detection=Uranium-238 Gamma Spectrometry

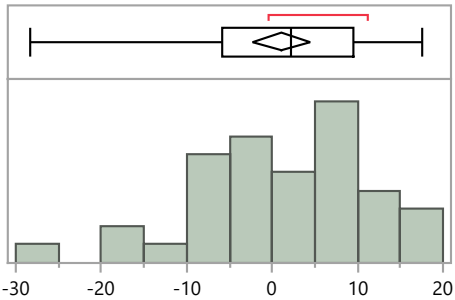
Bias



Quantiles			Summary Statistics	
100.0%	maximum	19.2	Mean	19.2
99.5%		19.2	Std Dev	.
97.5%		19.2	Std Err Mean	.
90.0%		19.2	Upper 95% Mean	.
75.0%	quartile	19.2	Lower 95% Mean	.
50.0%	median	19.2	N	1.0
25.0%	quartile	19.2		
10.0%		19.2		
2.5%		19.2		
0.5%		19.2		
0.0%	minimum	19.2		

Distributions Analyte_Detection=Zinc-65 Gamma Spectrometry

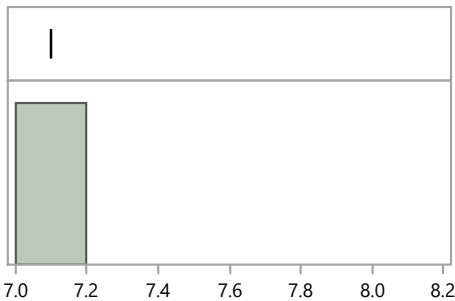
Bias



Quantiles			Summary Statistics	
100.0%	maximum	17.6	Mean	1.1
99.5%		17.6	Std Dev	10.2
97.5%		17.6	Std Err Mean	1.7
90.0%		12.7	Upper 95% Mean	4.4
75.0%	quartile	9.5	Lower 95% Mean	-2.3
50.0%	median	2.2	N	38.0
25.0%	quartile	-5.9		
10.0%		-11.1		
2.5%		-28.2		
0.5%		-28.2		
0.0%	minimum	-28.2		

Distributions Analyte_Detection=Zinc-65 Gross Alpha/Beta - 2 pi gas flow proportional counter

Bias

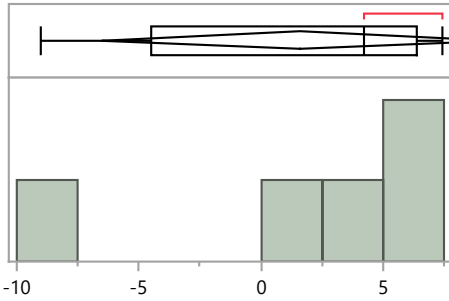


Quantiles			Summary Statistics	
100.0%	maximum	7.1	Mean	7.1
99.5%		7.1	Std Dev	.
97.5%		7.1	Std Err Mean	.
90.0%		7.1	Upper 95% Mean	.
75.0%	quartile	7.1	Lower 95% Mean	.
50.0%	median	7.1	N	1.0
25.0%	quartile	7.1		
10.0%		7.1		
2.5%		7.1		
0.5%		7.1		
0.0%	minimum	7.1		

RdV Distribution by Prep Method

Distributions Analyte_Method=Americium-241 Acid dissolution with hydrofluoric acid

Bias



Quantiles

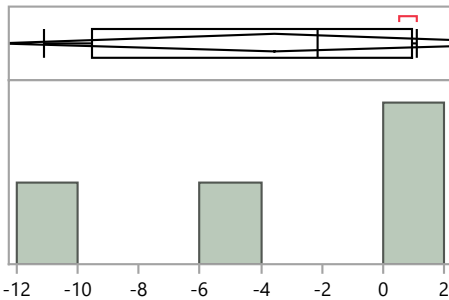
100.0%	maximum	7.4
99.5%		7.4
97.5%		7.4
90.0%		7.4
75.0%	quartile	6.4
50.0%	median	4.2
25.0%	quartile	-4.5
10.0%		-9.0
2.5%		-9.0
0.5%		-9.0
0.0%	minimum	-9.0

Summary Statistics

Mean	1.6
Std Dev	6.5
Std Err Mean	2.9
Upper 95% Mean	9.7
Lower 95% Mean	-6.5
N	5.0

Distributions Analyte_Method=Americium-241 Acid leaching without hydrofluoric acid

Bias



Quantiles

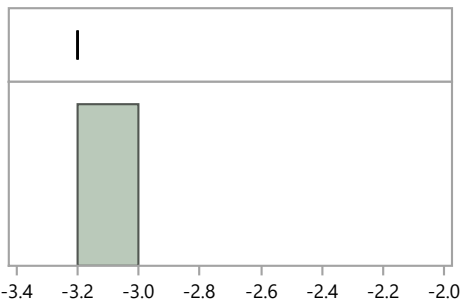
100.0%	maximum	1.1
99.5%		1.1
97.5%		1.1
90.0%		1.1
75.0%	quartile	1.0
50.0%	median	-2.2
25.0%	quartile	-9.5
10.0%		-11.1
2.5%		-11.1
0.5%		-11.1
0.0%	minimum	-11.1

Summary Statistics

Mean	-3.6
Std Dev	5.7
Std Err Mean	2.8
Upper 95% Mean	5.5
Lower 95% Mean	-12.6
N	4.0

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

Bias



Quantiles

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

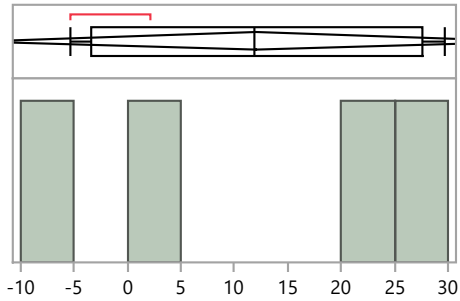
Summary Statistics

Mean	-3.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV Distribution by Prep Method

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

Bias



Quantiles

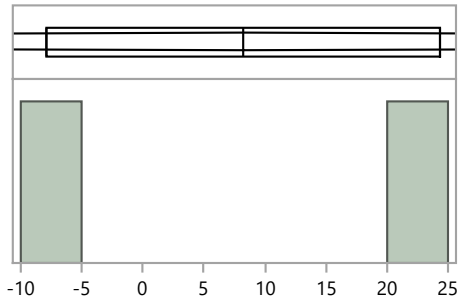
100.0%	maximum	29.6
99.5%		29.6
97.5%		29.6
90.0%		29.6
75.0%	quartile	27.6
50.0%	median	11.9
25.0%	quartile	-3.5
10.0%		-5.3
2.5%		-5.3
0.5%		-5.3
0.0%	minimum	-5.3

Summary Statistics

Mean	12.0
Std Dev	16.3
Std Err Mean	8.2
Upper 95% Mean	38.0
Lower 95% Mean	-14.0
N	4.0

Distributions Analyte_Method=Americium-241 Other

Bias



Quantiles

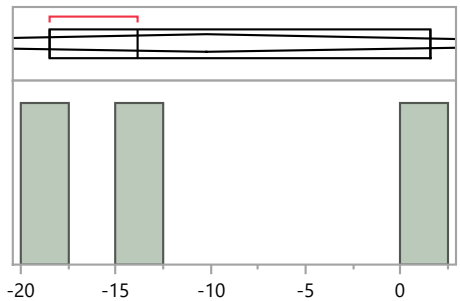
100.0%	maximum	24.3
99.5%		24.3
97.5%		24.3
90.0%		24.3
75.0%	quartile	24.3
50.0%	median	8.2
25.0%	quartile	-7.9
10.0%		-7.9
2.5%		-7.9
0.5%		-7.9
0.0%	minimum	-7.9

Summary Statistics

Mean	8.2
Std Dev	22.8
Std Err Mean	16.1
Upper 95% Mean	212.8
Lower 95% Mean	-196.4
N	2.0

Distributions Analyte_Method=Americium-241 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	1.6
99.5%		1.6
97.5%		1.6
90.0%		1.6
75.0%	quartile	1.6
50.0%	median	-13.8
25.0%	quartile	-18.5
10.0%		-18.5
2.5%		-18.5
0.5%		-18.5
0.0%	minimum	-18.5

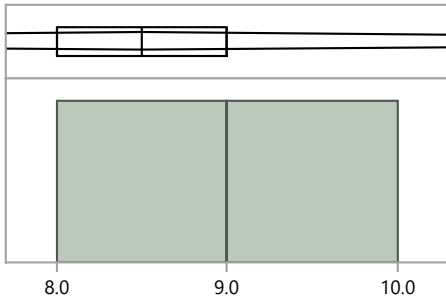
Summary Statistics

Mean	-10.2
Std Dev	10.5
Std Err Mean	6.1
Upper 95% Mean	15.9
Lower 95% Mean	-36.4
N	3.0

RdV Distribution by Prep Method

Distributions Analyte_Method=Cesium-137 Acid dissolution with hydrofluoric acid

Bias



Quantiles

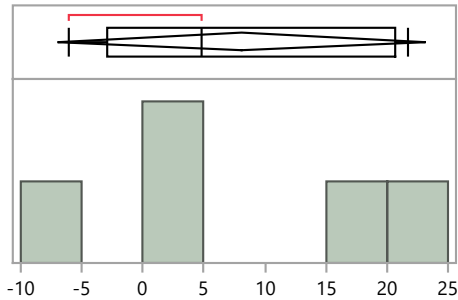
100.0%	maximum	9.0
99.5%		9.0
97.5%		9.0
90.0%		9.0
75.0%	quartile	9.0
50.0%	median	8.5
25.0%	quartile	8.0
10.0%		8.0
2.5%		8.0
0.5%		8.0
0.0%	minimum	8.0

Summary Statistics

Mean	8.5
Std Dev	0.7
Std Err Mean	0.5
Upper 95% Mean	14.9
Lower 95% Mean	2.1
N	2.0

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

Bias



Quantiles

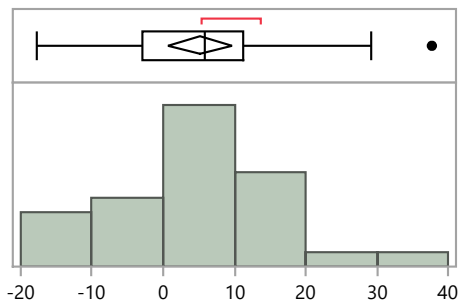
100.0%	maximum	21.7
99.5%		21.7
97.5%		21.7
90.0%		21.7
75.0%	quartile	20.6
50.0%	median	4.8
25.0%	quartile	-2.9
10.0%		-6.0
2.5%		-6.0
0.5%		-6.0
0.0%	minimum	-6.0

Summary Statistics

Mean	8.0
Std Dev	12.1
Std Err Mean	5.4
Upper 95% Mean	23.1
Lower 95% Mean	-7.0
N	5.0

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

Bias



Quantiles

100.0%	maximum	37.7
99.5%		37.7
97.5%		37.7
90.0%		17.1
75.0%	quartile	11.3
50.0%	median	5.8
25.0%	quartile	-3.0
10.0%		-13.4
2.5%		-17.7
0.5%		-17.7
0.0%	minimum	-17.7

Summary Statistics

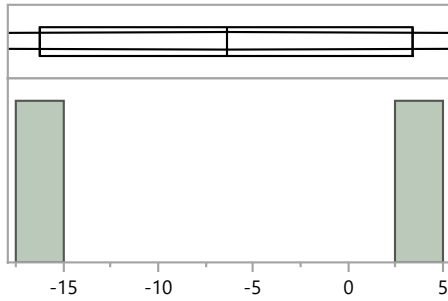
Mean	5.2
Std Dev	11.9
Std Err Mean	2.2
Upper 95% Mean	9.7
Lower 95% Mean	0.7
N	30.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

Distributions Analyte_Method=Cesium-137 Other

Bias



Quantiles

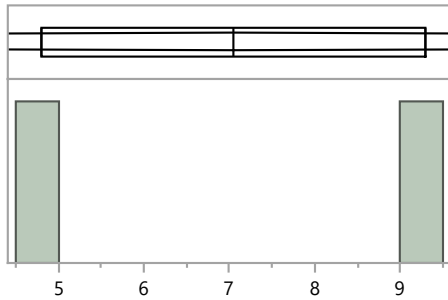
100.0%	maximum	3.4
99.5%		3.4
97.5%		3.4
90.0%		3.4
75.0%	quartile	3.4
50.0%	median	-6.4
25.0%	quartile	-16.2
10.0%		-16.2
2.5%		-16.2
0.5%		-16.2
0.0%	minimum	-16.2

Summary Statistics

Mean	-6.4
Std Dev	13.9
Std Err Mean	9.8
Upper 95% Mean	118.1
Lower 95% Mean	-130.9
N	2.0

Distributions Analyte_Method=Cobalt-60 Acid dissolution with hydrofluoric acid

Bias



Quantiles

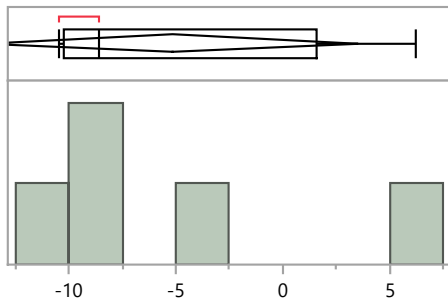
100.0%	maximum	9.3
99.5%		9.3
97.5%		9.3
90.0%		9.3
75.0%	quartile	9.3
50.0%	median	7.1
25.0%	quartile	4.8
10.0%		4.8
2.5%		4.8
0.5%		4.8
0.0%	minimum	4.8

Summary Statistics

Mean	7.1
Std Dev	3.2
Std Err Mean	2.3
Upper 95% Mean	35.6
Lower 95% Mean	-21.5
N	2.0

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

Bias



Quantiles

100.0%	maximum	6.2
99.5%		6.2
97.5%		6.2
90.0%		6.2
75.0%	quartile	1.6
50.0%	median	-8.6
25.0%	quartile	-10.3
10.0%		-10.5
2.5%		-10.5
0.5%		-10.5
0.0%	minimum	-10.5

Summary Statistics

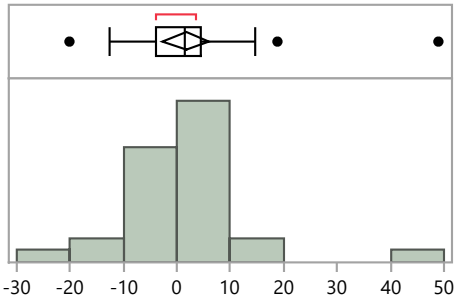
Mean	-5.2
Std Dev	7.0
Std Err Mean	3.1
Upper 95% Mean	3.5
Lower 95% Mean	-13.9
N	5.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

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

Bias



Quantiles

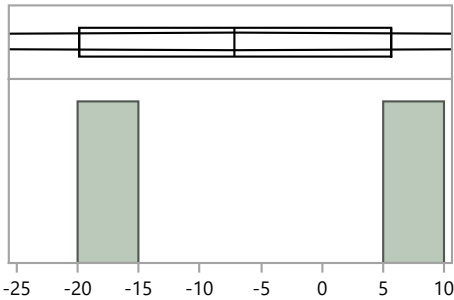
100.0%	maximum	48.9
99.5%		48.9
97.5%		48.9
90.0%		13.9
75.0%	quartile	4.6
50.0%	median	1.5
25.0%	quartile	-4.0
10.0%		-9.8
2.5%		-20.1
0.5%		-20.1
0.0%	minimum	-20.1

Summary Statistics

Mean	1.7
Std Dev	11.7
Std Err Mean	2.1
Upper 95% Mean	6.1
Lower 95% Mean	-2.7
N	30.0

Distributions Analyte_Method=Cobalt-60 Other

Bias



Quantiles

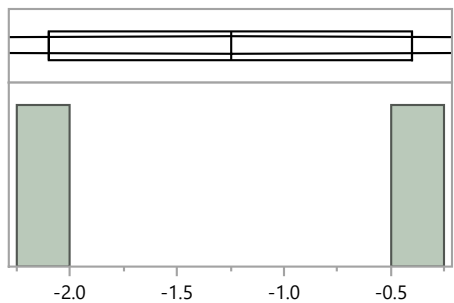
100.0%	maximum	5.6
99.5%		5.6
97.5%		5.6
90.0%		5.6
75.0%	quartile	5.6
50.0%	median	-7.2
25.0%	quartile	-19.9
10.0%		-19.9
2.5%		-19.9
0.5%		-19.9
0.0%	minimum	-19.9

Summary Statistics

Mean	-7.2
Std Dev	18.0
Std Err Mean	12.8
Upper 95% Mean	154.9
Lower 95% Mean	-169.2
N	2.0

Distributions Analyte_Method=Manganese-54 Acid dissolution with hydrofluoric acid

Bias



Quantiles

100.0%	maximum	-0.4
99.5%		-0.4
97.5%		-0.4
90.0%		-0.4
75.0%	quartile	-0.4
50.0%	median	-1.3
25.0%	quartile	-2.1
10.0%		-2.1
2.5%		-2.1
0.5%		-2.1
0.0%	minimum	-2.1

Summary Statistics

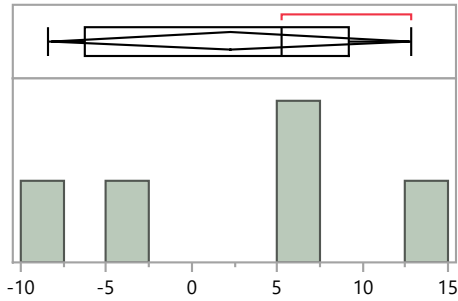
Mean	-1.3
Std Dev	1.2
Std Err Mean	0.9
Upper 95% Mean	9.6
Lower 95% Mean	-12.1
N	2.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

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

Bias



Quantiles

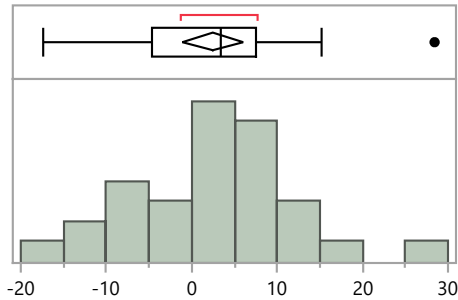
100.0%	maximum	12.8
99.5%		12.8
97.5%		12.8
90.0%		12.8
75.0%	quartile	9.2
50.0%	median	5.3
25.0%	quartile	-6.2
10.0%		-8.4
2.5%		-8.4
0.5%		-8.4
0.0%	minimum	-8.4

Summary Statistics

Mean	2.3
Std Dev	8.4
Std Err Mean	3.8
Upper 95% Mean	12.7
Lower 95% Mean	-8.2
N	5.0

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

Bias



Quantiles

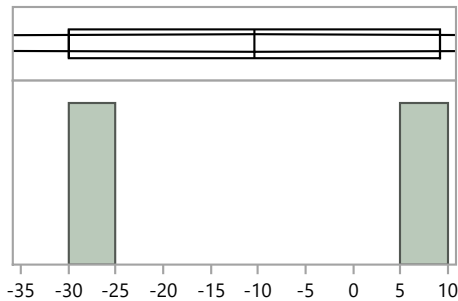
100.0%	maximum	28.4
99.5%		28.4
97.5%		28.4
90.0%		14.6
75.0%	quartile	7.6
50.0%	median	3.4
25.0%	quartile	-4.7
10.0%		-12.3
2.5%		-17.3
0.5%		-17.3
0.0%	minimum	-17.3

Summary Statistics

Mean	2.4
Std Dev	9.5
Std Err Mean	1.7
Upper 95% Mean	5.9
Lower 95% Mean	-1.1
N	30.0

Distributions Analyte_Method=Manganese-54 Other

Bias



Quantiles

100.0%	maximum	9.1
99.5%		9.1
97.5%		9.1
90.0%		9.1
75.0%	quartile	9.1
50.0%	median	-10.5
25.0%	quartile	-30.0
10.0%		-30.0
2.5%		-30.0
0.5%		-30.0
0.0%	minimum	-30.0

Summary Statistics

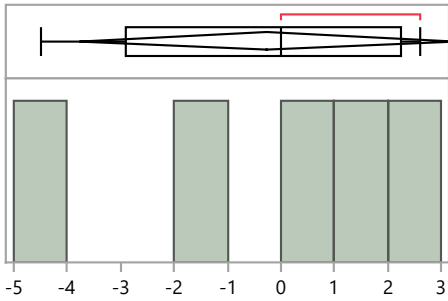
Mean	-10.5
Std Dev	27.6
Std Err Mean	19.6
Upper 95% Mean	238.0
Lower 95% Mean	-258.9
N	2.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

Distributions Analyte_Method=Plutonium-238 Acid dissolution with hydrofluoric acid

Bias



Quantiles

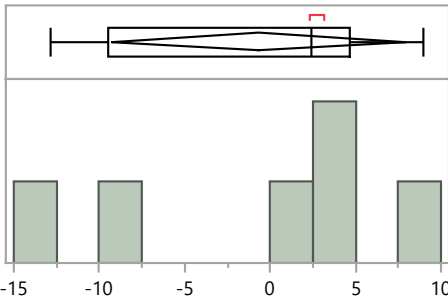
100.0%	maximum	2.6
99.5%		2.6
97.5%		2.6
90.0%		2.6
75.0%	quartile	2.3
50.0%	median	0.0
25.0%	quartile	-2.9
10.0%		-4.5
2.5%		-4.5
0.5%		-4.5
0.0%	minimum	-4.5

Summary Statistics

Mean	-0.3
Std Dev	2.8
Std Err Mean	1.3
Upper 95% Mean	3.3
Lower 95% Mean	-3.8
N	5.0

Distributions Analyte_Method=Plutonium-238 Acid leaching without hydrofluoric acid

Bias



Quantiles

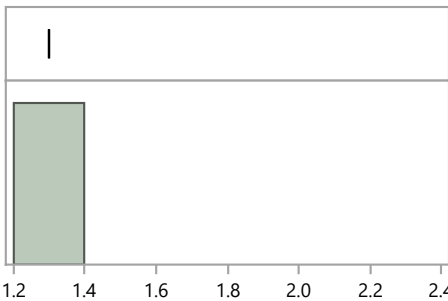
100.0%	maximum	9.0
99.5%		9.0
97.5%		9.0
90.0%		9.0
75.0%	quartile	4.7
50.0%	median	2.5
25.0%	quartile	-9.4
10.0%		-12.8
2.5%		-12.8
0.5%		-12.8
0.0%	minimum	-12.8

Summary Statistics

Mean	-0.7
Std Dev	8.2
Std Err Mean	3.3
Upper 95% Mean	7.9
Lower 95% Mean	-9.2
N	6.0

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

Bias



Quantiles

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

Summary Statistics

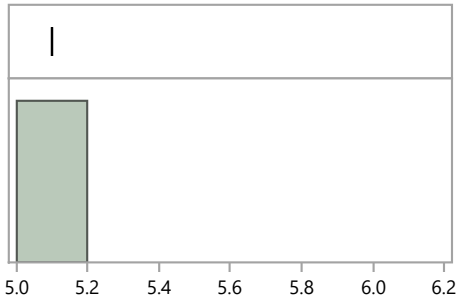
Mean	1.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

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

Bias



Quantiles

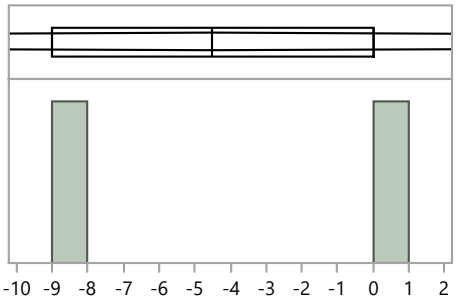
100.0%	maximum	5.1
99.5%		5.1
97.5%		5.1
90.0%		5.1
75.0%	quartile	5.1
50.0%	median	5.1
25.0%	quartile	5.1
10.0%		5.1
2.5%		5.1
0.5%		5.1
0.0%	minimum	5.1

Summary Statistics

Mean	5.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-238 Other

Bias



Quantiles

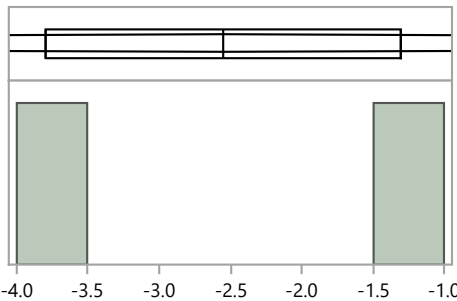
100.0%	maximum	0.0
99.5%		0.0
97.5%		0.0
90.0%		0.0
75.0%	quartile	0.0
50.0%	median	-4.5
25.0%	quartile	-9.0
10.0%		-9.0
2.5%		-9.0
0.5%		-9.0
0.0%	minimum	-9.0

Summary Statistics

Mean	-4.5
Std Dev	6.4
Std Err Mean	4.5
Upper 95% Mean	52.7
Lower 95% Mean	-61.7
N	2.0

Distributions Analyte_Method=Plutonium-238 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	-1.3
99.5%		-1.3
97.5%		-1.3
90.0%		-1.3
75.0%	quartile	-1.3
50.0%	median	-2.6
25.0%	quartile	-3.8
10.0%		-3.8
2.5%		-3.8
0.5%		-3.8
0.0%	minimum	-3.8

Summary Statistics

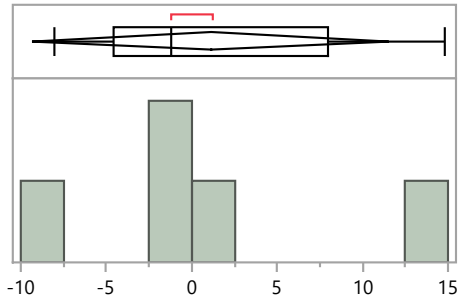
Mean	-2.6
Std Dev	1.8
Std Err Mean	1.3
Upper 95% Mean	13.3
Lower 95% Mean	-18.4
N	2.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

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

Bias



Quantiles

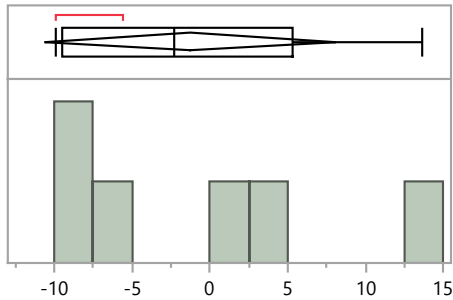
100.0%	maximum	14.8
99.5%		14.8
97.5%		14.8
90.0%		14.8
75.0%	quartile	8.0
50.0%	median	-1.2
25.0%	quartile	-4.6
10.0%		-8.0
2.5%		-8.0
0.5%		-8.0
0.0%	minimum	-8.0

Summary Statistics

Mean	1.1
Std Dev	8.4
Std Err Mean	3.7
Upper 95% Mean	11.5
Lower 95% Mean	-9.3
N	5.0

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

Bias



Quantiles

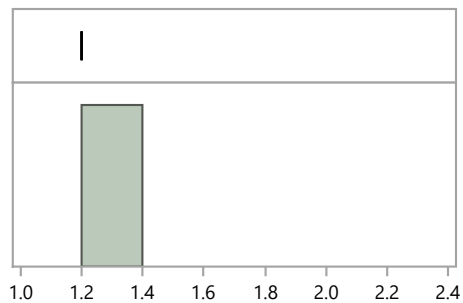
100.0%	maximum	13.6
99.5%		13.6
97.5%		13.6
90.0%		13.6
75.0%	quartile	5.3
50.0%	median	-2.3
25.0%	quartile	-9.5
10.0%		-9.9
2.5%		-9.9
0.5%		-9.9
0.0%	minimum	-9.9

Summary Statistics

Mean	-1.3
Std Dev	8.9
Std Err Mean	3.6
Upper 95% Mean	8.1
Lower 95% Mean	-10.6
N	6.0

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

Bias



Quantiles

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

Summary Statistics

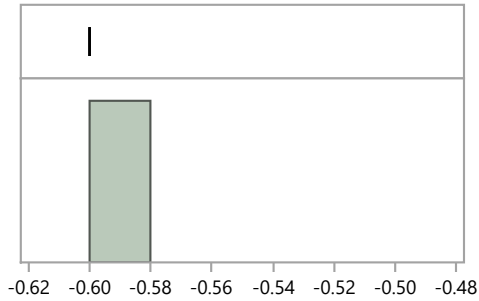
Mean	1.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

Distributions Analyte_Method=Plutonium-239/240 No preparation - analyzed as received

Bias



Quantiles

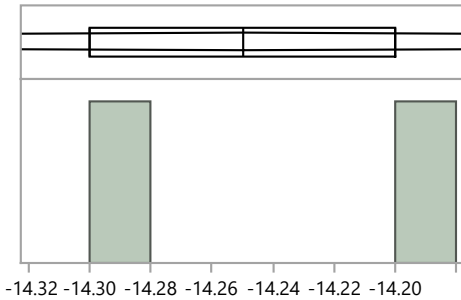
100.0%	maximum	-0.6
99.5%		-0.6
97.5%		-0.6
90.0%		-0.6
75.0%	quartile	-0.6
50.0%	median	-0.6
25.0%	quartile	-0.6
10.0%		-0.6
2.5%		-0.6
0.5%		-0.6
0.0%	minimum	-0.6

Summary Statistics

Mean	-0.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-239/240 Other

Bias



Quantiles

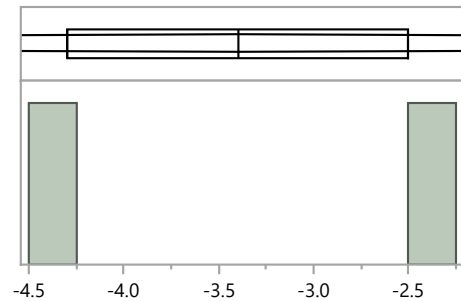
100.0%	maximum	-14.2
99.5%		-14.2
97.5%		-14.2
90.0%		-14.2
75.0%	quartile	-14.2
50.0%	median	-14.3
25.0%	quartile	-14.3
10.0%		-14.3
2.5%		-14.3
0.5%		-14.3
0.0%	minimum	-14.3

Summary Statistics

Mean	-14.3
Std Dev	0.1
Std Err Mean	0.1
Upper 95% Mean	-13.6
Lower 95% Mean	-14.9
N	2.0

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

Bias



Quantiles

100.0%	maximum	-2.5
99.5%		-2.5
97.5%		-2.5
90.0%		-2.5
75.0%	quartile	-2.5
50.0%	median	-3.4
25.0%	quartile	-4.3
10.0%		-4.3
2.5%		-4.3
0.5%		-4.3
0.0%	minimum	-4.3

Summary Statistics

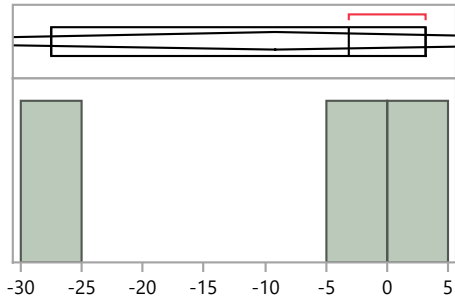
Mean	-3.4
Std Dev	1.3
Std Err Mean	0.9
Upper 95% Mean	8.0
Lower 95% Mean	-14.8
N	2.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

Distributions Analyte_Method=Strontium-90 Acid dissolution with hydrofluoric acid

Bias



Quantiles

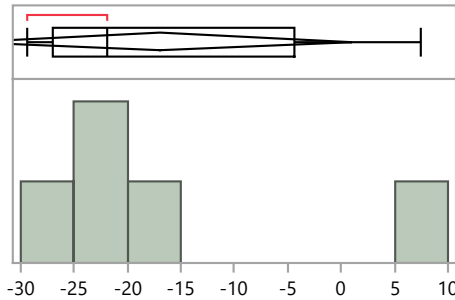
100.0%	maximum	3.1
99.5%		3.1
97.5%		3.1
90.0%		3.1
75.0%	quartile	3.1
50.0%	median	-3.1
25.0%	quartile	-27.5
10.0%		-27.5
2.5%		-27.5
0.5%		-27.5
0.0%	minimum	-27.5

Summary Statistics

Mean	-9.2
Std Dev	16.2
Std Err Mean	9.3
Upper 95% Mean	31.0
Lower 95% Mean	-49.4
N	3.0

Distributions Analyte_Method=Strontium-90 Acid leaching without hydrofluoric acid

Bias



Quantiles

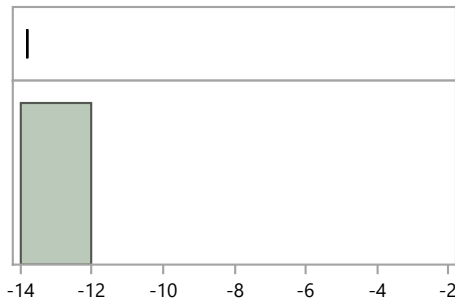
100.0%	maximum	7.5
99.5%		7.5
97.5%		7.5
90.0%		7.5
75.0%	quartile	-4.4
50.0%	median	-21.9
25.0%	quartile	-27.0
10.0%		-29.4
2.5%		-29.4
0.5%		-29.4
0.0%	minimum	-29.4

Summary Statistics

Mean	-16.9
Std Dev	14.4
Std Err Mean	6.5
Upper 95% Mean	1.0
Lower 95% Mean	-34.9
N	5.0

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

Bias



Quantiles

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

Summary Statistics

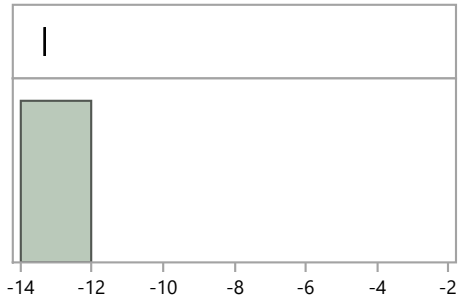
Mean	-13.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

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

Bias



Quantiles

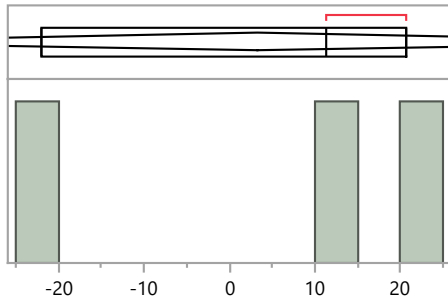
100.0%	maximum	-13.3
99.5%		-13.3
97.5%		-13.3
90.0%		-13.3
75.0%	quartile	-13.3
50.0%	median	-13.3
25.0%	quartile	-13.3
10.0%		-13.3
2.5%		-13.3
0.5%		-13.3
0.0%	minimum	-13.3

Summary Statistics

Mean	-13.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Strontium-90 Other

Bias



Quantiles

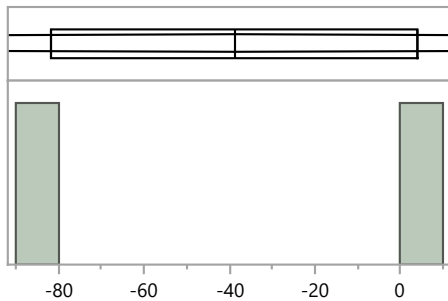
100.0%	maximum	20.6
99.5%		20.6
97.5%		20.6
90.0%		20.6
75.0%	quartile	20.6
50.0%	median	11.3
25.0%	quartile	-21.9
10.0%		-21.9
2.5%		-21.9
0.5%		-21.9
0.0%	minimum	-21.9

Summary Statistics

Mean	3.3
Std Dev	22.3
Std Err Mean	12.9
Upper 95% Mean	58.8
Lower 95% Mean	-52.2
N	3.0

Distributions Analyte_Method=Strontium-90 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	4.1
99.5%		4.1
97.5%		4.1
90.0%		4.1
75.0%	quartile	4.1
50.0%	median	-38.9
25.0%	quartile	-81.8
10.0%		-81.8
2.5%		-81.8
0.5%		-81.8
0.0%	minimum	-81.8

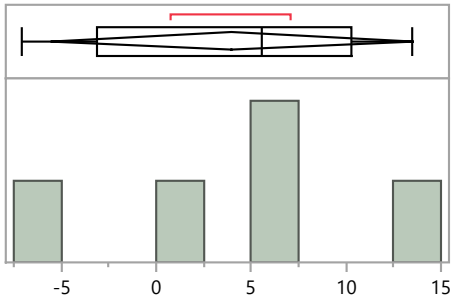
Summary Statistics

Mean	-38.9
Std Dev	60.7
Std Err Mean	43.0
Upper 95% Mean	506.9
Lower 95% Mean	-584.6
N	2.0

RdV Distribution by Prep Method

Distributions Analyte_Method=Uranium-234 Acid dissolution with hydrofluoric acid

Bias



Quantiles

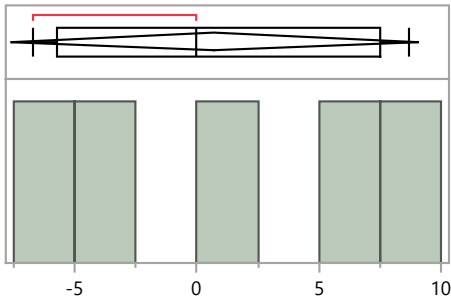
100.0%	maximum	13.5
99.5%		13.5
97.5%		13.5
90.0%		13.5
75.0%	quartile	10.3
50.0%	median	5.6
25.0%	quartile	-3.2
10.0%		-7.1
2.5%		-7.1
0.5%		-7.1
0.0%	minimum	-7.1

Summary Statistics

Mean	4.0
Std Dev	7.7
Std Err Mean	3.4
Upper 95% Mean	13.5
Lower 95% Mean	-5.6
N	5.0

Distributions Analyte_Method=Uranium-234 Acid leaching without hydrofluoric acid

Bias



Quantiles

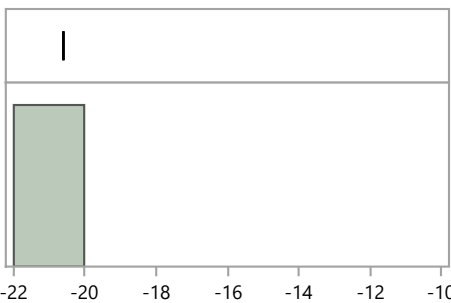
100.0%	maximum	8.7
99.5%		8.7
97.5%		8.7
90.0%		8.7
75.0%	quartile	7.5
50.0%	median	0.0
25.0%	quartile	-5.8
10.0%		-6.7
2.5%		-6.7
0.5%		-6.7
0.0%	minimum	-6.7

Summary Statistics

Mean	0.7
Std Dev	6.7
Std Err Mean	3.0
Upper 95% Mean	9.0
Lower 95% Mean	-7.6
N	5.0

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

Bias



Quantiles

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

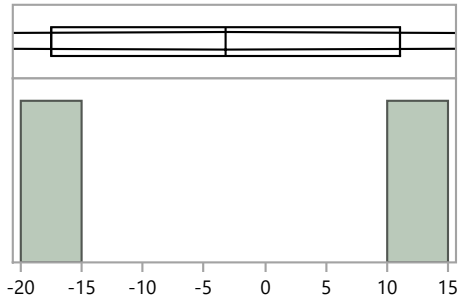
Summary Statistics

Mean	-20.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV Distribution by Prep Method

Distributions Analyte_Method=Uranium-234 Other

Bias



Quantiles

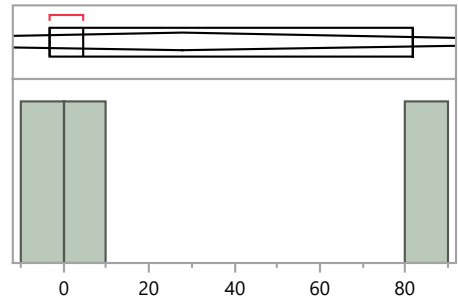
100.0%	maximum	11.1
99.5%		11.1
97.5%		11.1
90.0%		11.1
75.0%	quartile	11.1
50.0%	median	-3.2
25.0%	quartile	-17.5
10.0%		-17.5
2.5%		-17.5
0.5%		-17.5
0.0%	minimum	-17.5

Summary Statistics

Mean	-3.2
Std Dev	20.2
Std Err Mean	14.3
Upper 95% Mean	178.5
Lower 95% Mean	-184.9
N	2.0

Distributions Analyte_Method=Uranium-234 Total dissolution by fusion

Bias



Quantiles

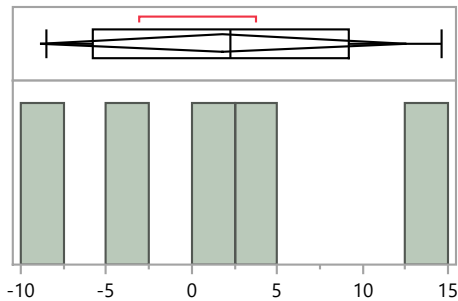
100.0%	maximum	81.7
99.5%		81.7
97.5%		81.7
90.0%		81.7
75.0%	quartile	81.7
50.0%	median	4.8
25.0%	quartile	-3.1
10.0%		-3.1
2.5%		-3.1
0.5%		-3.1
0.0%	minimum	-3.1

Summary Statistics

Mean	27.8
Std Dev	46.8
Std Err Mean	27.0
Upper 95% Mean	144.2
Lower 95% Mean	-88.6
N	3.0

Distributions Analyte_Method=Uranium-238 Acid dissolution with hydrofluoric acid

Bias



Quantiles

100.0%	maximum	14.6
99.5%		14.6
97.5%		14.6
90.0%		14.6
75.0%	quartile	9.2
50.0%	median	2.3
25.0%	quartile	-5.8
10.0%		-8.5
2.5%		-8.5
0.5%		-8.5
0.0%	minimum	-8.5

Summary Statistics

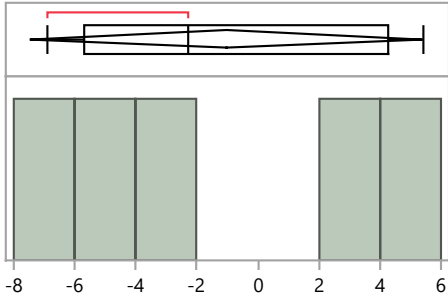
Mean	1.8
Std Dev	8.6
Std Err Mean	3.9
Upper 95% Mean	12.5
Lower 95% Mean	-8.9
N	5.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

Distributions Analyte_Method=Uranium-238 Acid leaching without hydrofluoric acid

Bias



Quantiles

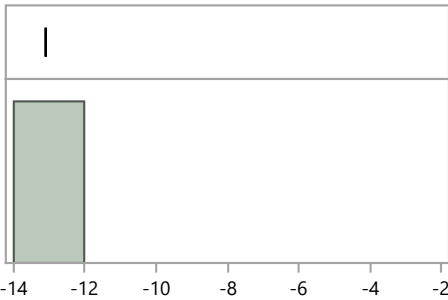
100.0%	maximum	5.4
99.5%		5.4
97.5%		5.4
90.0%		5.4
75.0%	quartile	4.3
50.0%	median	-2.3
25.0%	quartile	-5.7
10.0%		-6.9
2.5%		-6.9
0.5%		-6.9
0.0%	minimum	-6.9

Summary Statistics

Mean	-1.0
Std Dev	5.2
Std Err Mean	2.3
Upper 95% Mean	5.4
Lower 95% Mean	-7.4
N	5.0

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

Bias



Quantiles

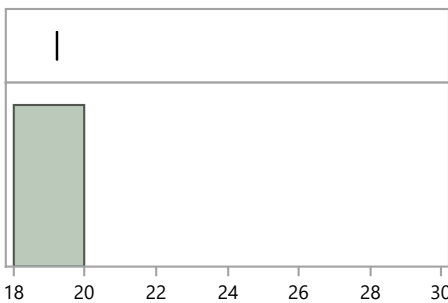
100.0%	maximum	-13.1
99.5%		-13.1
97.5%		-13.1
90.0%		-13.1
75.0%	quartile	-13.1
50.0%	median	-13.1
25.0%	quartile	-13.1
10.0%		-13.1
2.5%		-13.1
0.5%		-13.1
0.0%	minimum	-13.1

Summary Statistics

Mean	-13.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

100.0%	maximum	19.2
99.5%		19.2
97.5%		19.2
90.0%		19.2
75.0%	quartile	19.2
50.0%	median	19.2
25.0%	quartile	19.2
10.0%		19.2
2.5%		19.2
0.5%		19.2
0.0%	minimum	19.2

Summary Statistics

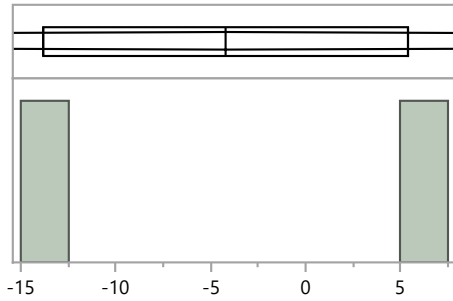
Mean	19.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

Distributions Analyte_Method=Uranium-238 Other

Bias



Quantiles

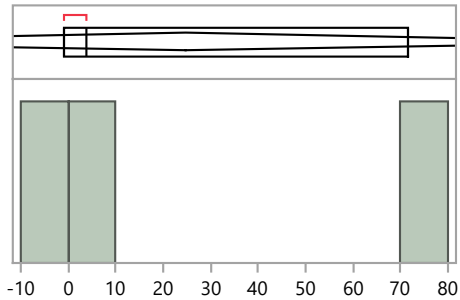
100.0%	maximum	5.4
99.5%		5.4
97.5%		5.4
90.0%		5.4
75.0%	quartile	5.4
50.0%	median	-4.2
25.0%	quartile	-13.8
10.0%		-13.8
2.5%		-13.8
0.5%		-13.8
0.0%	minimum	-13.8

Summary Statistics

Mean	-4.2
Std Dev	13.6
Std Err Mean	9.6
Upper 95% Mean	117.8
Lower 95% Mean	-126.2
N	2.0

Distributions Analyte_Method=Uranium-238 Total dissolution by fusion

Bias



Quantiles

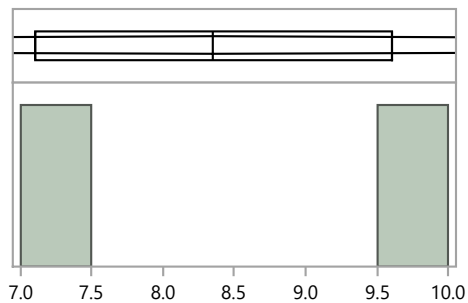
100.0%	maximum	71.5
99.5%		71.5
97.5%		71.5
90.0%		71.5
75.0%	quartile	71.5
50.0%	median	3.8
25.0%	quartile	-0.9
10.0%		-0.9
2.5%		-0.9
0.5%		-0.9
0.0%	minimum	-0.9

Summary Statistics

Mean	24.8
Std Dev	40.5
Std Err Mean	23.4
Upper 95% Mean	125.4
Lower 95% Mean	-75.8
N	3.0

Distributions Analyte_Method=Zinc-65 Acid dissolution with hydrofluoric acid

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	8.4
25.0%	quartile	7.1
10.0%		7.1
2.5%		7.1
0.5%		7.1
0.0%	minimum	7.1

Summary Statistics

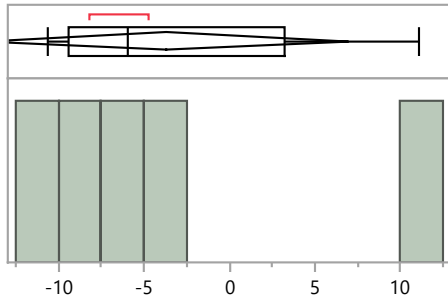
Mean	8.4
Std Dev	1.8
Std Err Mean	1.3
Upper 95% Mean	24.2
Lower 95% Mean	-7.5
N	2.0

RdV47 Distribution by Preparation Method

RdV Distribution by Prep Method

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

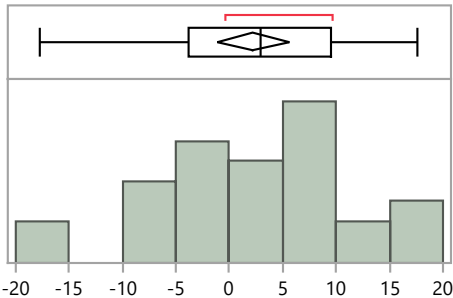
Bias



Quantiles			Summary Statistics	
100.0%	maximum	11.1	Mean	-3.7
99.5%		11.1	Std Dev	8.6
97.5%		11.1	Std Err Mean	3.8
90.0%		11.1	Upper 95% Mean	7.0
75.0%	quartile	3.2	Lower 95% Mean	-14.3
50.0%	median	-5.9	N	5.0
25.0%	quartile	-9.4		
10.0%		-10.6		
2.5%		-10.6		
0.5%		-10.6		
0.0%	minimum	-10.6		

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

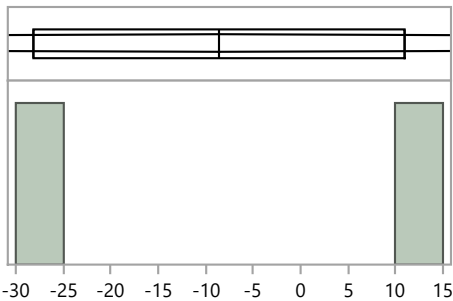
Bias



Quantiles			Summary Statistics	
100.0%	maximum	17.6	Mean	2.2
99.5%		17.6	Std Dev	9.0
97.5%		17.6	Std Err Mean	1.7
90.0%		15.8	Upper 95% Mean	5.6
75.0%	quartile	9.5	Lower 95% Mean	-1.2
50.0%	median	3.0	N	30.0
25.0%	quartile	-3.8		
10.0%		-9.2		
2.5%		-17.8		
0.5%		-17.8		
0.0%	minimum	-17.8		

Distributions Analyte_Method=Zinc-65 Other

Bias



Quantiles			Summary Statistics	
100.0%	maximum	10.9	Mean	-8.7
99.5%		10.9	Std Dev	27.6
97.5%		10.9	Std Err Mean	19.6
90.0%		10.9	Upper 95% Mean	239.8
75.0%	quartile	10.9	Lower 95% Mean	-257.1
50.0%	median	-8.7	N	2.0
25.0%	quartile	-28.2		
10.0%		-28.2		
2.5%		-28.2		
0.5%		-28.2		
0.0%	minimum	-28.2		