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.

MaSF53 Participating Laboratories

Lab Code	Lab Name	Matrix Code
AFOH01	USAFSAM/OEA	MaF
FDHE01	Florida Dept of Health Environmental Laboratory	MaF
FDOH01	Florida Dept. of Health, Mobile Environmental Radiological Lab	MaF
ODHL01	Ohio Department of Health Laboratory	MaF
WSHL01	Wisconsin State Laboratory of Hygiene	MaF

Laboratories Not Reporting

Lab Code	Lab Name	Matrix Code
HCAL01	Lawrence Livermore National Laboratory	MaF
LANL01	Los Alamos National Laboratory	MaF

Study Reference Values

MAPEP-25-MaSF53

Radiological Reference Date: 08/01/2025

Analyte	Ref Value	Ref Unc	Units
Radiological			
Americium-241	0.0183	0.0003	(Bq/sample)
Cesium-134	0.760	0.016	(Bq/sample)
Cesium-137	0.849	0.014	(Bq/sample)
Cobalt-57	4.98	0.10	(Bq/sample)
Cobalt-60	0.846	0.018	(Bq/sample)
Manganese-54	4.88	0.10	(Bq/sample)
Plutonium-238			(Bq/sample)
Plutonium-239/240			(Bq/sample)
Zinc-65	4.91	0.10	(Bq/sample)

Sample Statistical Summary

MAPEP-25-MaSF53

Radiological Reference Date: 08/01/2025

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range	Units
Radiological								
Americium-241	4	2			0.0183	0.0003	0.0128 - 0.0238	(Bq/sample)
Cesium-134	4	4			0.760	0.016	0.532 - 0.988	(Bq/sample)
Cesium-137	4	4			0.849	0.014	0.594 - 1.104	(Bq/sample)
Cobalt-57	4	4			4.98	0.10	3.49 - 6.47	(Bq/sample)
Cobalt-60	4	4			0.846	0.018	0.592 - 1.100	(Bq/sample)
Manganese-54	4	4			4.88	0.10	3.42 - 6.34	(Bq/sample)
Plutonium-238	2							(Bq/sample)
Plutonium-239/240	2							(Bq/sample)
Strontium-90	2	2					False Positive Test	(Bq/sample)
Uranium-234	2	2					False Positive Test	(Bq/sample)
Uranium-238	2	2					False Positive Test	(Bq/sample)
Zinc-65	4	4			4.91	0.10	3.44 - 6.38	(Bq/sample)

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

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:

N = NOT ACCEPTABLE.....RP < 2%

A = ACCEPTABLE.....2% <= RP <= 15%

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

N = NOT ACCEPTABLE.....RP > 30%

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

There are trace levels of minor plutonium isotopes present that are below 'normal' alpha spectrometry limits.

RESL did not add a Uranium-234/238 spike to the MaSF53 Sample Matrix.

Flag Summary Report

MAPEP-25-MaSF53

Radiological				
Analyte	**A**	**W**	**RW**	**N**
Americium-241	2			2
Cesium-134	4			
Cesium-137	4			
Cobalt-57	3	1		
Cobalt-60	3	1		
Manganese-54	4			
Strontium-90	2			
Uranium-234	2			
Uranium-238	2			
Zinc-65	4			

Mixed Analyte Performance Evaluation Program
Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-25-MaSF53
(AFOH01) USAFSAM/OEA
2510 Fifth Street, Area B
Wright-Patterson AFB, OH 45433-7913

Radiological								Units: (Bq/sample)
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0152	0.0183	A		-16.9	0.0128 - 0.0238	0.0024	W
Cesium-134	NR	0.760				0.532 - 0.988		
Cesium-137	NR	0.849				0.594 - 1.104		
Cobalt-57	NR	4.98				3.49 - 6.47		
Cobalt-60	NR	0.846				0.592 - 1.100		
Manganese-54	NR	4.88				3.42 - 6.34		
Plutonium-238	0.0001						0.0004	N
Plutonium-239/240	0.0008						0.0005	N
Strontium-90	0.01		A			False Positive Test	0.01	
Uranium-234	0.012		A			False Positive Test	0.006	
Uranium-238	-0.004		A			False Positive Test	0.006	
Zinc-65	NR	4.91				3.44 - 6.38		

Radiological Reference Date: August 1, 2025

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:

N = NOT ACCEPTABLE.....RP < 2%

A = ACCEPTABLE.....2% <= RP <= 15%

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

N = NOT ACCEPTABLE.....RP > 30%

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

There are trace levels of minor plutonium isotopes present that are below 'normal' alpha spectrometry limits.

RESL did not add a Uranium-234/238 spike to the MaSF53 Sample Matrix.

MAPEP Mixed Analyte Performance Evaluation Program

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

Laboratory Results For MAPEP-25-MaSF53

(FDHE01) Florida Dept of Health Environmental Laboratory
2100 All Childrens Way
Orlando, FL 32818-5271

Radiological								Units: (Bq/sample)
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.02	0.0183	A		9.3	0.0128 - 0.0238	0.126	N
Cesium-134	0.805	0.760	A		5.9	0.532 - 0.988	0.032	A
Cesium-137	0.899	0.849	A		5.9	0.594 - 1.104	0.052	A
Cobalt-57	4.993	4.98	A		0.3	3.49 - 6.47	0.145	A
Cobalt-60	0.853	0.846	A		0.8	0.592 - 1.100	0.037	A
Manganese-54	5.165	4.88	A		5.8	3.42 - 6.34	0.146	A
Plutonium-238	0.038						0.04	N
Plutonium-239/240	0.06						0.04	N
Strontium-90	0.01		A			False Positive Test	0.02	
Uranium-234	0.041		A			False Positive Test	0.04	
Uranium-238	0.034		A			False Positive Test	0.04	
Zinc-65	5.29	4.91	A		7.7	3.44 - 6.38	0.186	A

Radiological Reference Date: August 1, 2025

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:

N = NOT ACCEPTABLE.....RP < 2%

A = ACCEPTABLE.....2% <= RP <= 15%

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

N = NOT ACCEPTABLE.....RP > 30%

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

There are trace levels of minor plutonium isotopes present that are below 'normal' alpha spectrometry limits.

RESL did not add a Uranium-234/238 spike to the MaSF53 Sample Matrix.

Laboratory Results For MAPEP-25-MaSF53
(FDOH01) Florida Dept. of Health, Mobile Environmental Radiological Lab
2100 All Childrens Way
Orlando, FL 32818-5271

Radiological								Units: (Bq/sample)
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	-0.04	0.0183	N		-318.6	0.0128 - 0.0238	0.04	N
Cesium-134	0.8	0.760	A		5.3	0.532 - 0.988	0.07	A
Cesium-137	0.842	0.849	A		-0.8	0.594 - 1.104	0.081	A
Cobalt-57	4.53	4.98	A		-9.0	3.49 - 6.47	0.15	A
Cobalt-60	0.81	0.846	A		-4.3	0.592 - 1.100	0.06	A
Manganese-54	4.82	4.88	A		-1.2	3.42 - 6.34	0.19	A
Strontium-90	NR					False Positive Test		
Uranium-234	NR					False Positive Test		
Uranium-238	NR					False Positive Test		
Zinc-65	5.21	4.91	A		6.1	3.44 - 6.38	0.29	A

Radiological Reference Date: August 1, 2025

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:

N = NOT ACCEPTABLE.....RP < 2%

A = ACCEPTABLE.....2% <= RP <= 15%

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

N = NOT ACCEPTABLE.....RP > 30%

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

There are trace levels of minor plutonium isotopes present that are below 'normal' alpha spectrometry limits.

RESL did not add a Uranium-234/238 spike to the MaSF53 Sample Matrix.

MAPEP Mixed Analyte Performance Evaluation Program

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

Laboratory Results For MAPEP-25-MaSF53

(ODHL01) Ohio Department of Health Laboratory
8995 E Main Street
Reynoldsburg, OH 43068

Radiological								Units: (Bq/sample)
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.0183				0.0128 - 0.0238		
Cesium-134	0.665	0.760	A		-12.5	0.532 - 0.988	0.0546	A
Cesium-137	0.730	0.849	A		-14.0	0.594 - 1.104	0.116	W
Cobalt-57	3.78	4.98	W		-24.1	3.49 - 6.47	0.320	A
Cobalt-60	0.661	0.846	W		-21.9	0.592 - 1.100	0.0563	A
Manganese-54	4.04	4.88	A		-17.2	3.42 - 6.34	0.282	A
Strontium-90	NR					False Positive Test		
Uranium-234	NR					False Positive Test		
Uranium-238	NR					False Positive Test		
Zinc-65	4.06	4.91	A		-17.3	3.44 - 6.38	0.3	A

Radiological Reference Date: August 1, 2025

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:

N = NOT ACCEPTABLE.....RP < 2%

A = ACCEPTABLE.....2% <= RP <= 15%

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

N = NOT ACCEPTABLE.....RP > 30%

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

There are trace levels of minor plutonium isotopes present that are below 'normal' alpha spectrometry limits.

RESL did not add a Uranium-234/238 spike to the MaSF53 Sample Matrix.

Laboratory Results For MAPEP-25-MaSF53
(WSHL01) Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive
Madison, WI 53718

Radiological								Units: (Bq/sample)
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.334	0.0183	N		1725.1	0.0128 - 0.0238	0.193	N
Cesium-134	0.737	0.760	A		-3.0	0.532 - 0.988	0.0346	A
Cesium-137	0.815	0.849	A		-4.0	0.594 - 1.104	0.0463	A
Cobalt-57	4.59	4.98	A		-7.8	3.49 - 6.47	0.129	A
Cobalt-60	0.739	0.846	A		-12.6	0.592 - 1.100	0.0576	A
Manganese-54	4.693	4.88	A		-3.8	3.42 - 6.34	0.268	A
Strontium-90	NR					False Positive Test		
Uranium-234	NR					False Positive Test		
Uranium-238	NR					False Positive Test		
Zinc-65	4.624	4.91	A		-5.8	3.44 - 6.38	0.446	A

Radiological Reference Date: August 1, 2025

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:

N = NOT ACCEPTABLE.....RP < 2%

A = ACCEPTABLE.....2% <= RP <= 15%

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

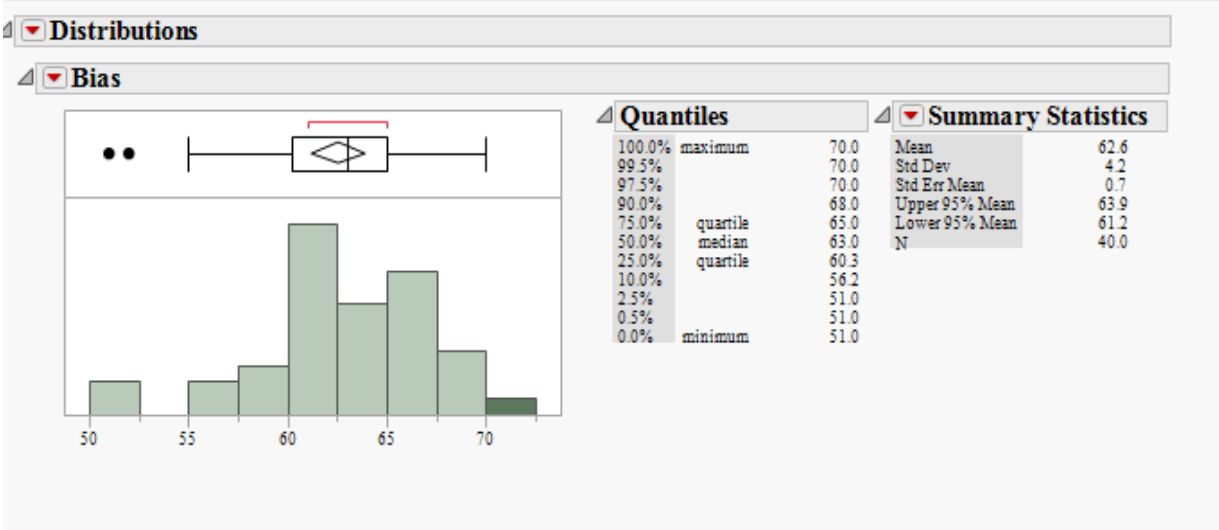
N = NOT ACCEPTABLE.....RP > 30%

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

There are trace levels of minor plutonium isotopes present that are below 'normal' alpha spectrometry limits.

RESL did not add a Uranium-234/238 spike to the MaSF53 Sample Matrix.

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.

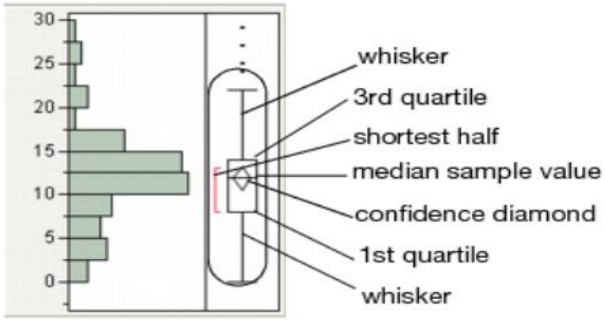


Outlier Box Plot

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)



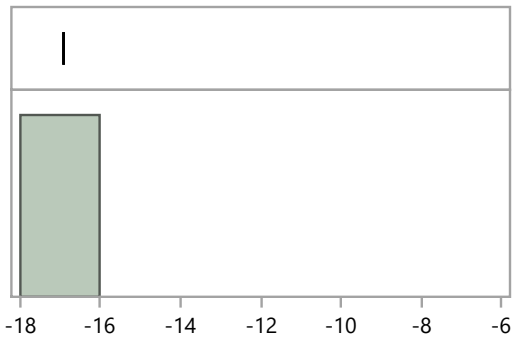
If the data points do not reach the computed ranges, then the whiskers are determined by the upper and lower data point values (not including outliers). The bracket outside of the box identifies the *shortest half*, which is the most dense 50% of the observations (Rousseuw and Leroy 1987).

Ref. "SAS Institute Inc. 2016. JMP® 13 Basic Analysis. Cary, NC: SAS Institute Inc."

MaF53 Distribution by Detection Method

Distributions Analyte_Detection=Americium-241 Alpha Spectrometry

Bias

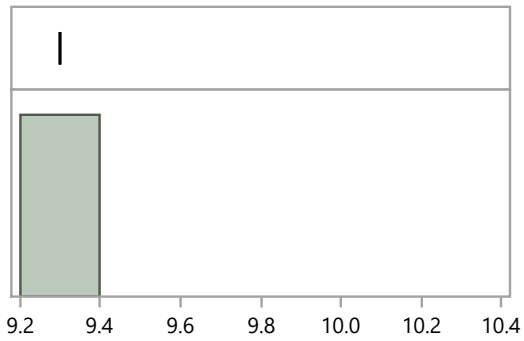


Quantiles		
100.0%	maximum	-16.9
99.5%		-16.9
97.5%		-16.9
90.0%		-16.9
75.0%	quartile	-16.9
50.0%	median	-16.9
25.0%	quartile	-16.9
10.0%		-16.9
2.5%		-16.9
0.5%		-16.9
0.0%	minimum	-16.9

Summary Statistics	
Mean	-16.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Americium-241 Gamma Spectrometry

Bias

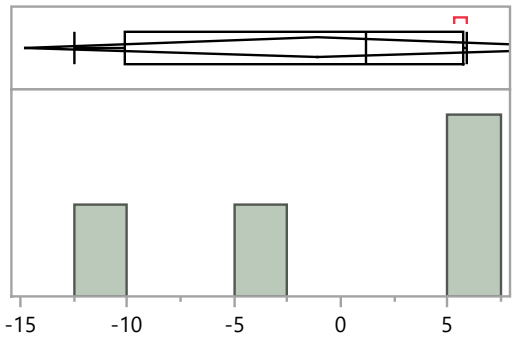


Quantiles		
100.0%	maximum	9.3
99.5%		9.3
97.5%		9.3
90.0%		9.3
75.0%	quartile	9.3
50.0%	median	9.3
25.0%	quartile	9.3
10.0%		9.3
2.5%		9.3
0.5%		9.3
0.0%	minimum	9.3

Summary Statistics	
Mean	9.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Cesium-134 Gamma Spectrometry

Bias



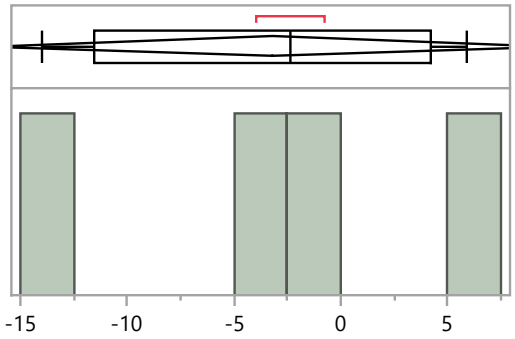
Quantiles		
100.0%	maximum	5.9
99.5%		5.9
97.5%		5.9
90.0%		5.9
75.0%	quartile	5.8
50.0%	median	1.2
25.0%	quartile	-10.1
10.0%		-12.5
2.5%		-12.5
0.5%		-12.5
0.0%	minimum	-12.5

Summary Statistics	
Mean	-1.1
Std Dev	8.6
Std Err Mean	4.3
Upper 95% Mean	12.7
Lower 95% Mean	-14.8
N	4.0

MaF53 Distribution by Detection Method

Distributions Analyte_Detection=Cesium-137 Gamma Spectrometry

Bias

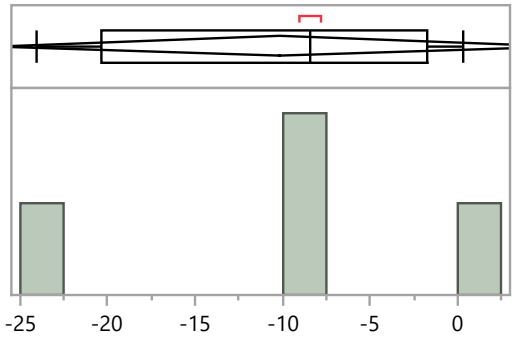


Quantiles		
100.0%	maximum	5.9
99.5%		5.9
97.5%		5.9
90.0%		5.9
75.0%	quartile	4.2
50.0%	median	-2.4
25.0%	quartile	-11.5
10.0%		-14.0
2.5%		-14.0
0.5%		-14.0
0.0%	minimum	-14.0

Summary Statistics	
Mean	-3.2
Std Dev	8.3
Std Err Mean	4.1
Upper 95% Mean	10.0
Lower 95% Mean	-16.4
N	4.0

Distributions Analyte_Detection=Cobalt-57 Gamma Spectrometry

Bias

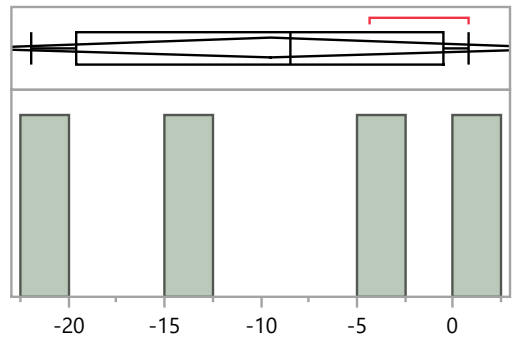


Quantiles		
100.0%	maximum	0.3
99.5%		0.3
97.5%		0.3
90.0%		0.3
75.0%	quartile	-1.7
50.0%	median	-8.4
25.0%	quartile	-20.3
10.0%		-24.1
2.5%		-24.1
0.5%		-24.1
0.0%	minimum	-24.1

Summary Statistics	
Mean	-10.2
Std Dev	10.2
Std Err Mean	5.1
Upper 95% Mean	6.0
Lower 95% Mean	-26.3
N	4.0

Distributions Analyte_Detection=Cobalt-60 Gamma Spectrometry

Bias



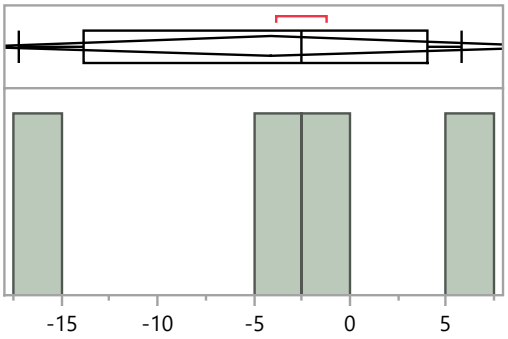
Quantiles		
100.0%	maximum	0.8
99.5%		0.8
97.5%		0.8
90.0%		0.8
75.0%	quartile	-0.5
50.0%	median	-8.5
25.0%	quartile	-19.6
10.0%		-21.9
2.5%		-21.9
0.5%		-21.9
0.0%	minimum	-21.9

Summary Statistics	
Mean	-9.5
Std Dev	9.9
Std Err Mean	5.0
Upper 95% Mean	6.3
Lower 95% Mean	-25.3
N	4.0

MaF53 Distribution by Detection Method

Distributions Analyte_Detection=Manganese-54 Gamma Spectrometry

Bias

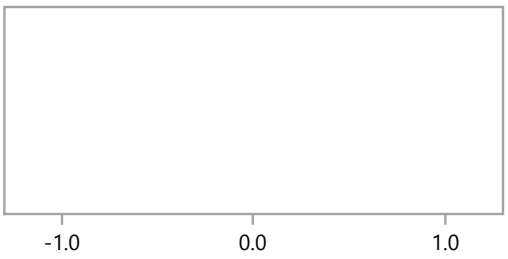


Quantiles		
100.0%	maximum	5.8
99.5%		5.8
97.5%		5.8
90.0%		5.8
75.0%	quartile	4.1
50.0%	median	-2.5
25.0%	quartile	-13.9
10.0%		-17.2
2.5%		-17.2
0.5%		-17.2
0.0%	minimum	-17.2

Summary Statistics	
Mean	-4.1
Std Dev	9.6
Std Err Mean	4.8
Upper 95% Mean	11.2
Lower 95% Mean	-19.4
N	4.0

Distributions Analyte_Detection=Plutonium-238 Alpha Spectrometry

Bias

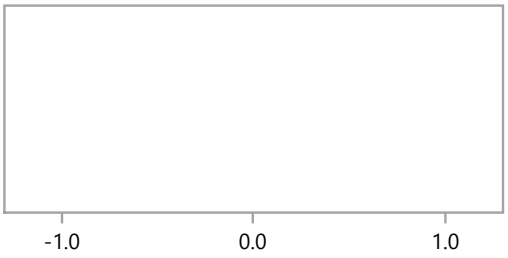


Quantiles		

Summary Statistics	
Mean	.
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	0.0

Distributions Analyte_Detection=Plutonium-239/240 Alpha Spectrometry

Bias



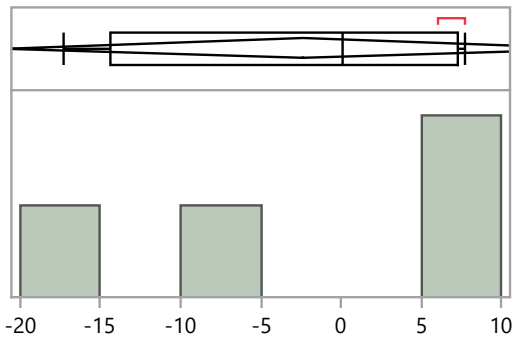
Quantiles		

Summary Statistics	
Mean	.
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	0.0

MaF53 Distribution by Detection Method

Distributions Analyte_Detection=Zinc-65 Gamma Spectrometry

Bias



Quantiles

100.0%	maximum	7.7
99.5%		7.7
97.5%		7.7
90.0%		7.7
75.0%	quartile	7.3
50.0%	median	0.1
25.0%	quartile	-14.4
10.0%		-17.3
2.5%		-17.3
0.5%		-17.3
0.0%	minimum	-17.3

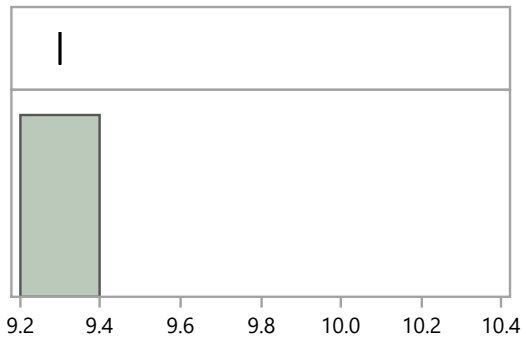
Summary Statistics

Mean	-2.3
Std Dev	11.7
Std Err Mean	5.8
Upper 95% Mean	16.2
Lower 95% Mean	-20.9
N	4.0

MaF53 Distribution by Preparation Method

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

Bias

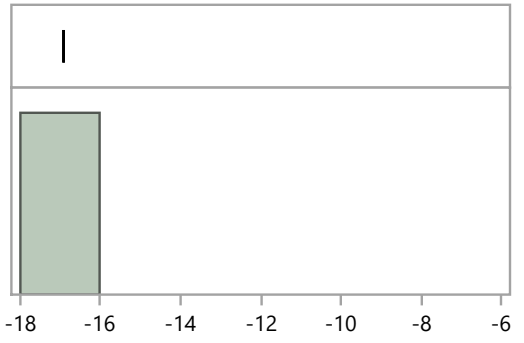


Quantiles		
100.0%	maximum	9.3
99.5%		9.3
97.5%		9.3
90.0%		9.3
75.0%	quartile	9.3
50.0%	median	9.3
25.0%	quartile	9.3
10.0%		9.3
2.5%		9.3
0.5%		9.3
0.0%	minimum	9.3

Summary Statistics	
Mean	9.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Americium-241 Total dissolution by fusion

Bias

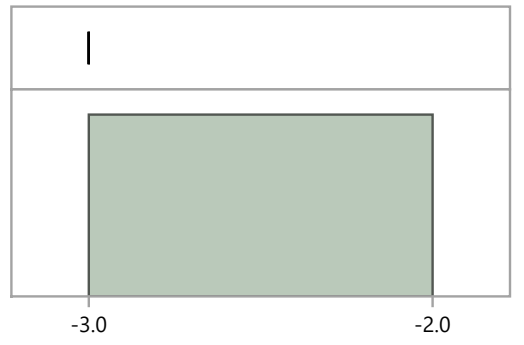


Quantiles		
100.0%	maximum	-16.9
99.5%		-16.9
97.5%		-16.9
90.0%		-16.9
75.0%	quartile	-16.9
50.0%	median	-16.9
25.0%	quartile	-16.9
10.0%		-16.9
2.5%		-16.9
0.5%		-16.9
0.0%	minimum	-16.9

Summary Statistics	
Mean	-16.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



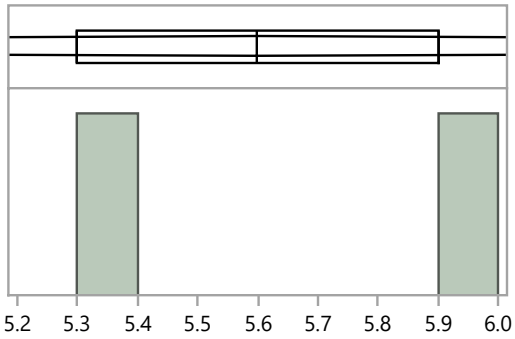
Quantiles		
100.0%	maximum	-3.0
99.5%		-3.0
97.5%		-3.0
90.0%		-3.0
75.0%	quartile	-3.0
50.0%	median	-3.0
25.0%	quartile	-3.0
10.0%		-3.0
2.5%		-3.0
0.5%		-3.0
0.0%	minimum	-3.0

Summary Statistics	
Mean	-3.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaF53 Distribution by Preparation Method

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

Bias

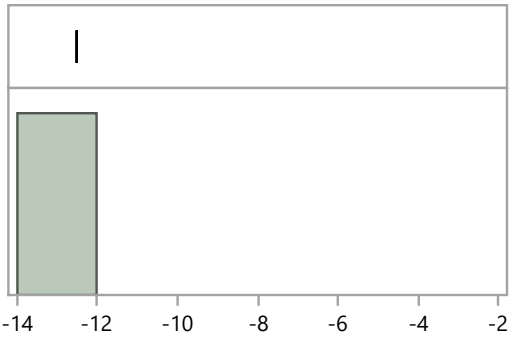


Quantiles		
100.0%	maximum	5.9
99.5%		5.9
97.5%		5.9
90.0%		5.9
75.0%	quartile	5.9
50.0%	median	5.6
25.0%	quartile	5.3
10.0%		5.3
2.5%		5.3
0.5%		5.3
0.0%	minimum	5.3

Summary Statistics	
Mean	5.6
Std Dev	0.4
Std Err Mean	0.3
Upper 95% Mean	9.4
Lower 95% Mean	1.8
N	2.0

Distributions Analyte_Method=Cesium-134 Other

Bias

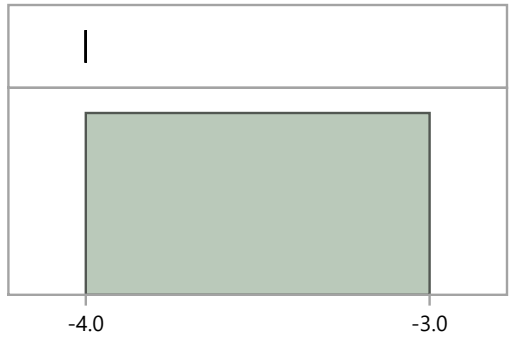


Quantiles		
100.0%	maximum	-12.5
99.5%		-12.5
97.5%		-12.5
90.0%		-12.5
75.0%	quartile	-12.5
50.0%	median	-12.5
25.0%	quartile	-12.5
10.0%		-12.5
2.5%		-12.5
0.5%		-12.5
0.0%	minimum	-12.5

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

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

Bias



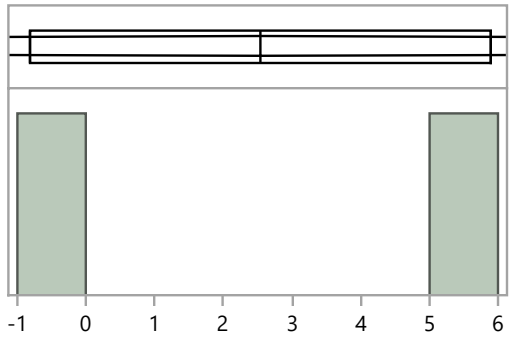
Quantiles		
100.0%	maximum	-4.0
99.5%		-4.0
97.5%		-4.0
90.0%		-4.0
75.0%	quartile	-4.0
50.0%	median	-4.0
25.0%	quartile	-4.0
10.0%		-4.0
2.5%		-4.0
0.5%		-4.0
0.0%	minimum	-4.0

Summary Statistics	
Mean	-4.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaF53 Distribution by Preparation Method

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

Bias

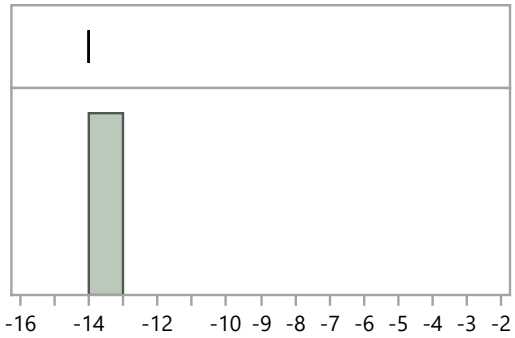


Quantiles		
100.0%	maximum	5.9
99.5%		5.9
97.5%		5.9
90.0%		5.9
75.0%	quartile	5.9
50.0%	median	2.6
25.0%	quartile	-0.8
10.0%		-0.8
2.5%		-0.8
0.5%		-0.8
0.0%	minimum	-0.8

Summary Statistics	
Mean	2.6
Std Dev	4.7
Std Err Mean	3.4
Upper 95% Mean	45.1
Lower 95% Mean	-40.0
N	2.0

Distributions Analyte_Method=Cesium-137 Other

Bias

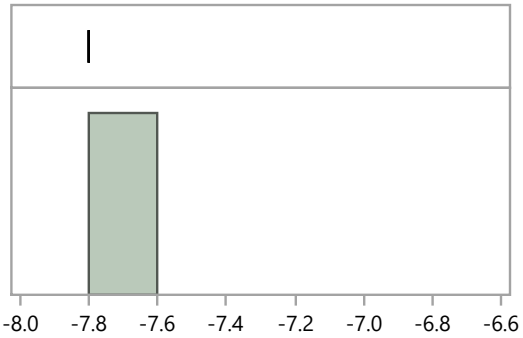


Quantiles		
100.0%	maximum	-14.0
99.5%		-14.0
97.5%		-14.0
90.0%		-14.0
75.0%	quartile	-14.0
50.0%	median	-14.0
25.0%	quartile	-14.0
10.0%		-14.0
2.5%		-14.0
0.5%		-14.0
0.0%	minimum	-14.0

Summary Statistics	
Mean	-14.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Cobalt-57 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



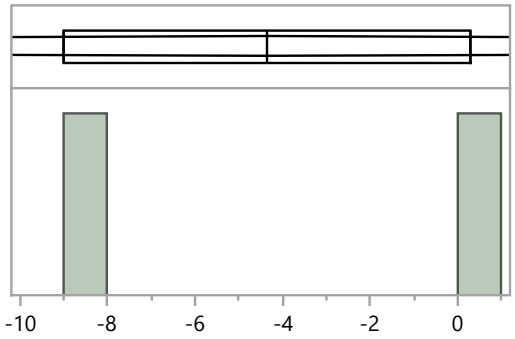
Quantiles		
100.0%	maximum	-7.8
99.5%		-7.8
97.5%		-7.8
90.0%		-7.8
75.0%	quartile	-7.8
50.0%	median	-7.8
25.0%	quartile	-7.8
10.0%		-7.8
2.5%		-7.8
0.5%		-7.8
0.0%	minimum	-7.8

Summary Statistics	
Mean	-7.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaF53 Distribution by Preparation Method

Distributions Analyte_Method=Cobalt-57 No preparation - analyzed as received

Bias

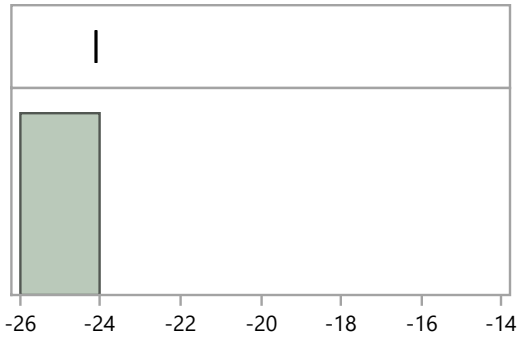


Quantiles		
100.0%	maximum	0.3
99.5%		0.3
97.5%		0.3
90.0%		0.3
75.0%	quartile	0.3
50.0%	median	-4.4
25.0%	quartile	-9.0
10.0%		-9.0
2.5%		-9.0
0.5%		-9.0
0.0%	minimum	-9.0

Summary Statistics	
Mean	-4.4
Std Dev	6.6
Std Err Mean	4.7
Upper 95% Mean	54.7
Lower 95% Mean	-63.4
N	2.0

Distributions Analyte_Method=Cobalt-57 Other

Bias

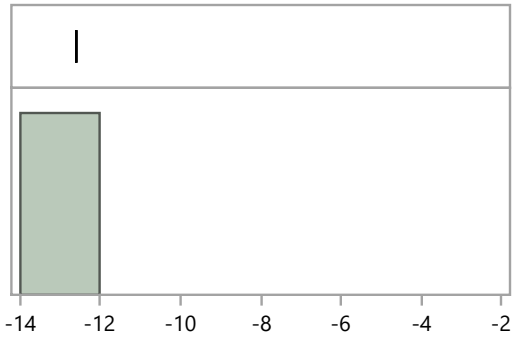


Quantiles		
100.0%	maximum	-24.1
99.5%		-24.1
97.5%		-24.1
90.0%		-24.1
75.0%	quartile	-24.1
50.0%	median	-24.1
25.0%	quartile	-24.1
10.0%		-24.1
2.5%		-24.1
0.5%		-24.1
0.0%	minimum	-24.1

Summary Statistics	
Mean	-24.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



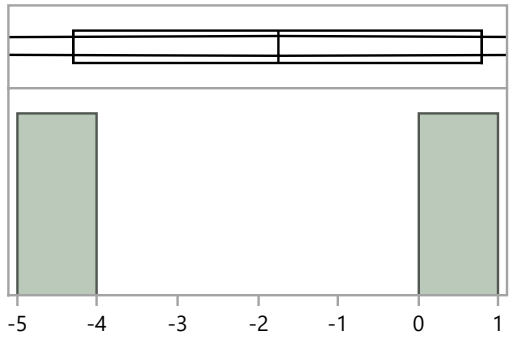
Quantiles		
100.0%	maximum	-12.6
99.5%		-12.6
97.5%		-12.6
90.0%		-12.6
75.0%	quartile	-12.6
50.0%	median	-12.6
25.0%	quartile	-12.6
10.0%		-12.6
2.5%		-12.6
0.5%		-12.6
0.0%	minimum	-12.6

Summary Statistics	
Mean	-12.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaF53 Distribution by Preparation Method

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

Bias

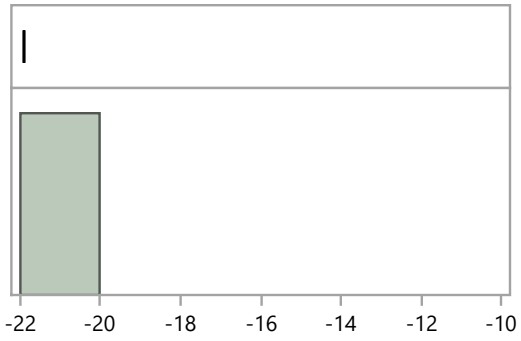


Quantiles		
100.0%	maximum	0.8
99.5%		0.8
97.5%		0.8
90.0%		0.8
75.0%	quartile	0.8
50.0%	median	-1.8
25.0%	quartile	-4.3
10.0%		-4.3
2.5%		-4.3
0.5%		-4.3
0.0%	minimum	-4.3

Summary Statistics	
Mean	-1.8
Std Dev	3.6
Std Err Mean	2.6
Upper 95% Mean	30.7
Lower 95% Mean	-34.2
N	2.0

Distributions Analyte_Method=Cobalt-60 Other

Bias

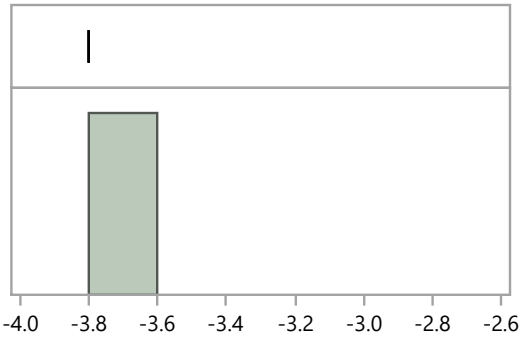


Quantiles		
100.0%	maximum	-21.9
99.5%		-21.9
97.5%		-21.9
90.0%		-21.9
75.0%	quartile	-21.9
50.0%	median	-21.9
25.0%	quartile	-21.9
10.0%		-21.9
2.5%		-21.9
0.5%		-21.9
0.0%	minimum	-21.9

Summary Statistics	
Mean	-21.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



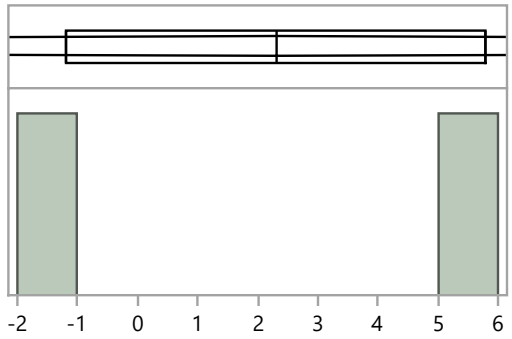
Quantiles		
100.0%	maximum	-3.8
99.5%		-3.8
97.5%		-3.8
90.0%		-3.8
75.0%	quartile	-3.8
50.0%	median	-3.8
25.0%	quartile	-3.8
10.0%		-3.8
2.5%		-3.8
0.5%		-3.8
0.0%	minimum	-3.8

Summary Statistics	
Mean	-3.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaF53 Distribution by Preparation Method

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

Bias

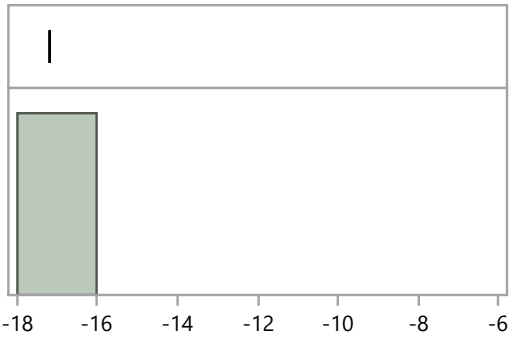


Quantiles		
100.0%	maximum	5.8
99.5%		5.8
97.5%		5.8
90.0%		5.8
75.0%	quartile	5.8
50.0%	median	2.3
25.0%	quartile	-1.2
10.0%		-1.2
2.5%		-1.2
0.5%		-1.2
0.0%	minimum	-1.2

Summary Statistics	
Mean	2.3
Std Dev	4.9
Std Err Mean	3.5
Upper 95% Mean	46.8
Lower 95% Mean	-42.2
N	2.0

Distributions Analyte_Method=Manganese-54 Other

Bias

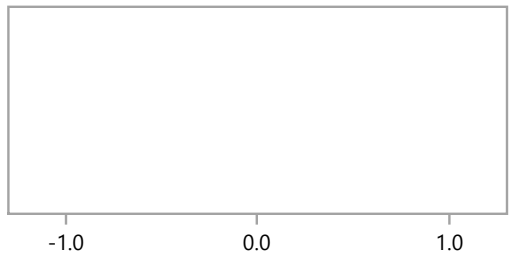


Quantiles		
100.0%	maximum	-17.2
99.5%		-17.2
97.5%		-17.2
90.0%		-17.2
75.0%	quartile	-17.2
50.0%	median	-17.2
25.0%	quartile	-17.2
10.0%		-17.2
2.5%		-17.2
0.5%		-17.2
0.0%	minimum	-17.2

Summary Statistics	
Mean	-17.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-238 Acid leaching without hydrofluoric acid

Bias



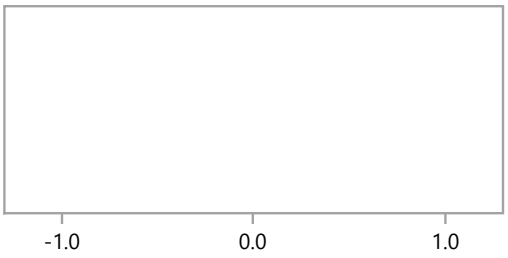
Quantiles

Summary Statistics	
Mean	.
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	0.0

MaF53 Distribution by Preparation Method

Distributions Analyte_Method=Plutonium-238 Total dissolution by fusion

Bias



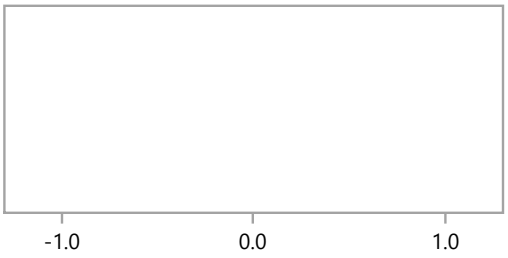
Quantiles

Summary Statistics

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

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

Bias



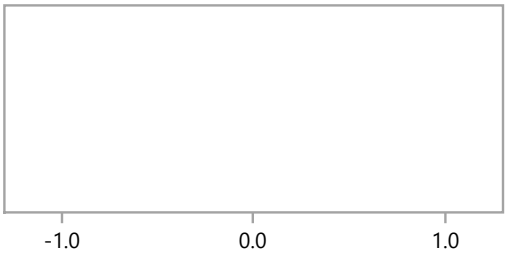
Quantiles

Summary Statistics

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

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

Bias



Quantiles

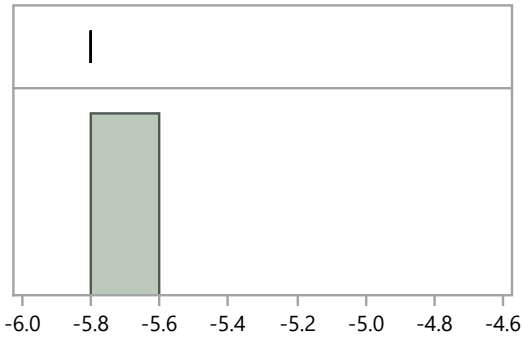
Summary Statistics

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

MaF53 Distribution by Preparation Method

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

Bias

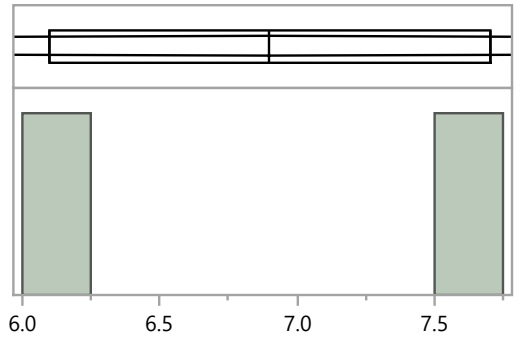


Quantiles		
100.0%	maximum	-5.8
99.5%		-5.8
97.5%		-5.8
90.0%		-5.8
75.0%	quartile	-5.8
50.0%	median	-5.8
25.0%	quartile	-5.8
10.0%		-5.8
2.5%		-5.8
0.5%		-5.8
0.0%	minimum	-5.8

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

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

Bias

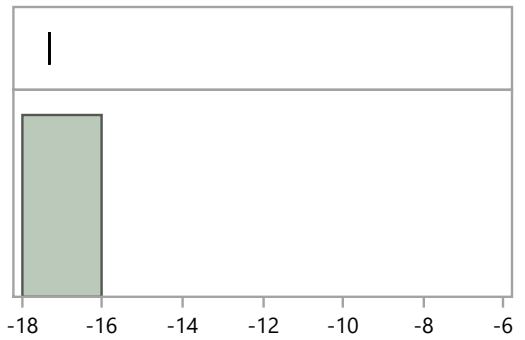


Quantiles		
100.0%	maximum	7.7
99.5%		7.7
97.5%		7.7
90.0%		7.7
75.0%	quartile	7.7
50.0%	median	6.9
25.0%	quartile	6.1
10.0%		6.1
2.5%		6.1
0.5%		6.1
0.0%	minimum	6.1

Summary Statistics	
Mean	6.9
Std Dev	1.1
Std Err Mean	0.8
Upper 95% Mean	17.1
Lower 95% Mean	-3.3
N	2.0

Distributions Analyte_Method=Zinc-65 Other

Bias



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

Summary Statistics	
Mean	-17.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0