

GrF23 Samples Shipped

Lab Code	Lab Name	GrF
1	ADEM01 Alabama Department of Environmental Management	1
2	AFOH01 USAFSAM/OEHHL	2
3	ANTE01 ALS Group USA, Corp	1
4	ARPL01 Analytical Support Operations - Radiochemical Processing Lab	1
5	ARSL01 American Radiation Services Inc.	1
6	AY1201 B&W Y-12, Analytical Chemistry Organization Laboratory	1
7	CDHS01 California Department of Public Health	1
8	CEEA99 Laboratorio de Vigilancia Ambiental Radiactiva	1
9	CESL01 Lawrence Livermore National Laboratory - EMRL	1
10	CHMH01 222-S Laboratory	1
11	CHPR01 CHPRC Central Count Room	1
12	CMRC01 Carlsbad Environmental Monitoring and Research Center	1
13	DEHS01 Department of Environmental Health & Safety	1
14	DPHE01 Colorado Dept. of Public Health & Env. / Laboratory Services Div.	1
15	DRMG01 B&W Pantex - D&RMG	1
16	EPAL01 U. S. EPA Office of Radiation and Indoor Air	1
17	ERCL01 Washington State Public Health Laboratories	1
18	ERLG01 Environmental Radiation Laboratory	1
19	ERPD99 Ministry Of Health,Radiation Protection Department Lab	1
20	EULC01 EnergySolutions, LLC	1
21	FDHE01 Florida Dept of Health Environmental Laboratory	1
22	FDOH01 Florida Dept. of Health, Mobile Environmental Radiological Lab	1
23	FMEC99 Foods and Water Laboratories Center	1
24	GENE01 GEL Laboratories, LLC	1
25	HCAL01 Hazards Control Analytical Lab	1
26	HECR01 SC Dept. Health and Environmental Control Radiological Laboratory	1
27	HERR01 Washington Closure Hanford	1
28	HPAC99 HPA, CRCE Scotland	1
29	ISUP01 ISU - Department of Physics/Health Physics/EAL	1
30	JAEC99 Radiation Measurements Laboratory	2
31	KDHE01 Kansas Dept. of Health & Environment	1
32	KSCF01 Kennedy Space Center, HP Laboratory	1
33	KUFS99 Center for Research in Environmental Radiation	1
34	LAEC99 Lebanese Atomic Energy Commission - Environmental Radiation	1
35	LOCK01 ICP Analytical Laboratory	1
36	LOCK03 Advanced Test Reactor (ATR) Complex Radioanalytical Laboratory	1
37	MART02 United States Enrichment Corporation	1
38	MART03 Radioactive Material Analysis Laboratory	1
39	MKME01 PIKA International	1
40	MSCL01 MSC	1
41	NARL01 National Air and Radiation Environmental Laboratory	1
42	NARL02 USEPA - NAREL - MERL	1
43	NESI01 B&W Technical Services-Radioisotope & Analytical Chemistry Laboratory	1
44	NTSI01 Nuclear Technology Services, Inc.	1
45	OBGL01 Life Science Laboratories, Inc.	1
46	ODHL01 Ohio Department of Health Laboratory	1
47	ORIS01 ORISE/IEAV	1
48	OTLI01 Outreach Technologies, Inc.	1

49	QUAN01	TestAmerica St. Louis	1
50	QUAN03	TestAmerica	1
51	RMCL99	Royal Scientific Society - Radiation Protection Lab	1
52	RPSC01	Radiation Protection Service	1
53	RSAL01	RSA Laboratories, Inc.	1
54	SEML01	SRS Environmental Monitoring Laboratory	1
55	SOUT01	Southwest Research Institute	1
56	SRPD01	Sandia National Laboratories, Radiation Protection Sample Diagnostics	2
57	TDHL01	Texas Department of State Health Services Laboratory	1
58	TELE01	TELEDYNE BROWN ENGINEERING - ENVIRONMENTAL SERVICES	1
59	TELE02	Environmental, Inc., Midwest Lab	1
60	TMAO01	EBERLINE SERVICES OAK RIDGE LABORATORY	1
61	TMAR01	Eberline Analytical Corp. Richmond CA Lab	1
62	TNUT01	FUSRAP	1
63	URSL01	UNLV Radioanalytical Services Laboratory	1
64	USED99	National Center for Nuclear Energy, Sciences and Techniques	1
65	WEST03	Waste Sampling and Characterization Facility, MSA/RJLG	1
66	WEST04	PACE ANALYTICAL SERVICES, PITTSBURGH	1
67	WIPP01	WIPP Laboratories	1
68	WSHL01	Wisconsin State Laboratory of Hygiene	1
69	WSTI01	Waste Stream Technology Inc.	1
70	WVDP01	WVDP Environmental Laboratory	1
71	WVPL01	WVDP Radiation Protection Lab	1
72	XXDBC1	Durateck, Inc. - Bear Creek Lab	1
73	XXPNL1	Pacific Northwest National Laboratory	1

Total:

76

9 of 64 labs who received GrF23 samples have not entered data.

Lab Code	Lab Name	Standard
1 CHPR01	CHPRC Central Count Room	GrF
2 EPAL01	U. S. EPA Office of Radiation and Indoor Air	GrF
3 FDOH01	Florida Dept. of Health, Mobile Environmental Radiological Lab	GrF
4 LOCK01	ICP Analytical Laboratory	GrF
5 NTSI01	Nuclear Technology Services, Inc.	GrF
6 OBGL01	Life Science Laboratories, Inc.	GrF
7 RPCR01	WRPS RadCon Program Count Room	GrF
8 RSAL01	RSA Laboratories, Inc.	GrF
9 SCAL01	Centauri Labs	GrF

Setup and Process Data

MAPEP-10-GrF23

Analyte	Ref. Value	Total Ref.	Uncertainty	F.P.	S.E.
Radiological					
Gross alpha				✓	
Gross beta	0.50		0.01		

Sample Statistical Summary

MAPEP-10-GrF23

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Radiological							Units: (Bq/sample)
Gross alpha	56	42					False Positive Test
Gross beta	58	53	0.51	0.06	0.50	0.01	0.25 - 0.75

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".

Gross Alpha Flags:

A = Result acceptable, Bias 2, i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias > +/- 70% or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:

A = Result acceptable, Bias 2, i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias > +/- 50% or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

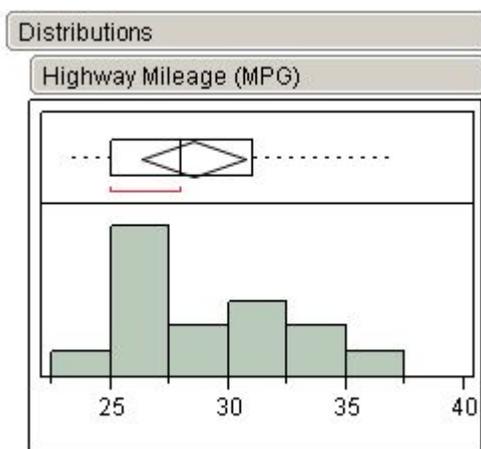
Flag Summary Report

Generated January 3, 2011

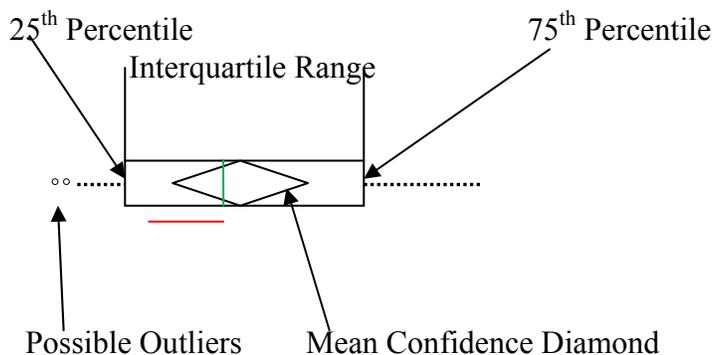
MAPEP-10-GrF23

Radiological				
Analyte	A	W	RW	N
Gross alpha	42		3	11
Gross beta	53			5

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



Moments	
Mean	28.466667
Std Dev	3.9797104
Std Err Mean	1.0275568
Upper 95% Mean	30.670557
Lower 95% Mean	26.262776
N	15
Sum Wgt	15
Sum	427
Variance	15.838095
Skewness	0.7309964
Kurtosis	-0.165153
CV	13.980247
N Missing	0



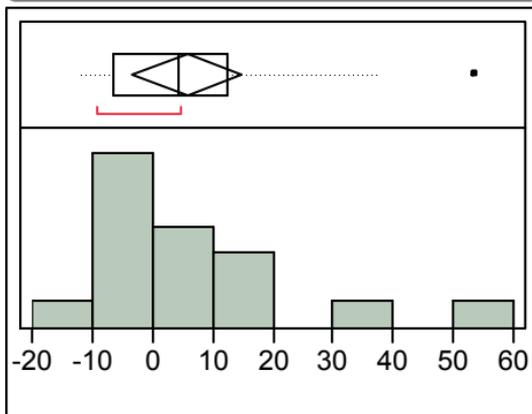
The box plots summarize the distribution of points for each analyte. The ends of the box are the 25th and 75th quantiles. The difference between the quartiles is the interquartile range. The line across the middle of the box identifies the median bias value. Each box has lines, sometimes called whiskers,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

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

GrF Distribution by Detection Method

Distributions Analyte Name=Gross beta, Detection
Method=Beta Counting - 2 pi gas flow proportional counter

Bias

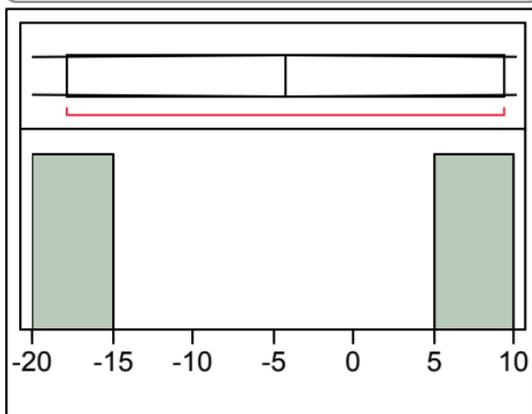


Moments

Mean	5.8647059
Std Dev	17.645288
Std Err Mean	4.2796109
Upper 95% Mean	14.937076
Lower 95% Mean	-3.207664
N	17
Sum Wgt	17
Sum	99.7
Variance	311.35618
Skewness	1.5481992
Kurtosis	2.3802608
CV	300.87251
N Missing	0

Distributions Analyte Name=Gross beta, Detection
Method=Beta Counting - liquid scintillation counter

Bias



Moments

Mean	-4.2
Std Dev	19.233304
Std Err Mean	13.6
Upper 95% Mean	168.60438
Lower 95% Mean	-177.0044
N	2
Sum Wgt	2
Sum	-8.4
Variance	369.92
Skewness	.
Kurtosis	.
CV	-457.9358
N Missing	0

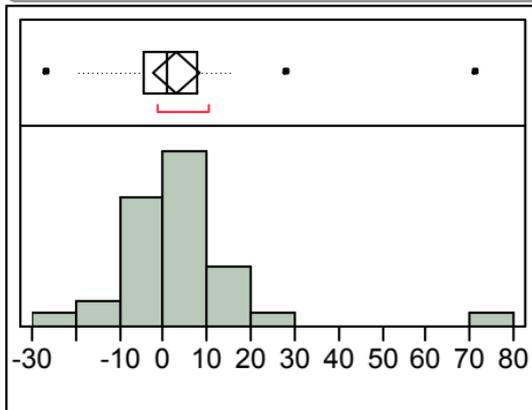
Distributions Analyte Name=Gross beta, Detection
Method=Gross Alpha/Beta - 2 pi gas flow proportional counter

Bias

GrF Distribution by Detection Method

Distributions Analyte Name=Gross beta, Detection Method=Gross Alpha/Beta - 2 pi gas flow proportional counter

Bias

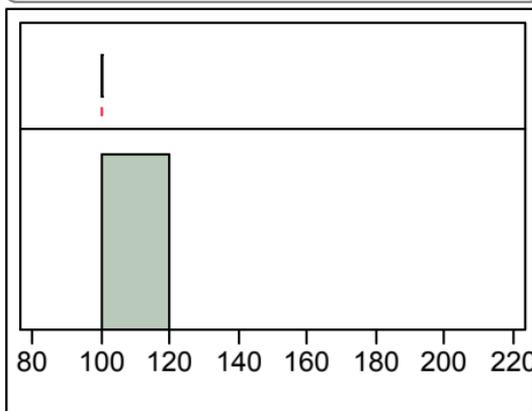


Moments

Mean	2.8888889
Std Dev	15.558788
Std Err Mean	2.5931313
Upper 95% Mean	8.1532252
Lower 95% Mean	-2.375447
N	36
Sum Wgt	36
Sum	104
Variance	242.07587
Skewness	2.319923
Kurtosis	10.311267
CV	538.57342
N Missing	0

Distributions Analyte Name=Gross beta, Detection Method=Other

Bias



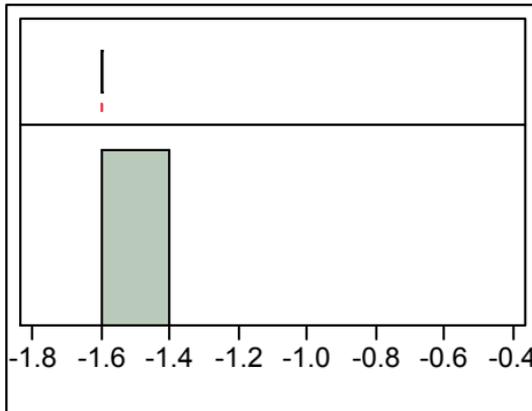
Moments

Mean	100
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1
Sum Wgt	1
Sum	100
Variance	.
Skewness	.
Kurtosis	.
CV	.
N Missing	0

GrF Distribution by Prep Method

Distributions Analyte Name=Gross beta, Preparation Method=Acid dissolution by strong Aqua Regia, hydrofluoric acid, etc.

Bias

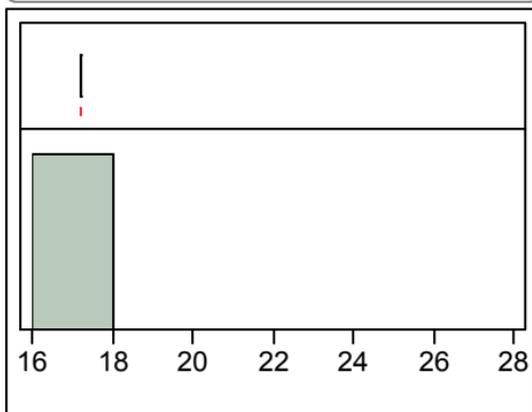


Moments

Mean	-1.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1
Sum Wgt	1
Sum	-1.6
Variance	.
Skewness	.
Kurtosis	.
CV	.
N Missing	0

Distributions Analyte Name=Gross beta, Preparation Method=Acid leaching without hydrofluoric acid

Bias



Moments

Mean	17.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1
Sum Wgt	1
Sum	17.2
Variance	.
Skewness	.
Kurtosis	.
CV	.
N Missing	0

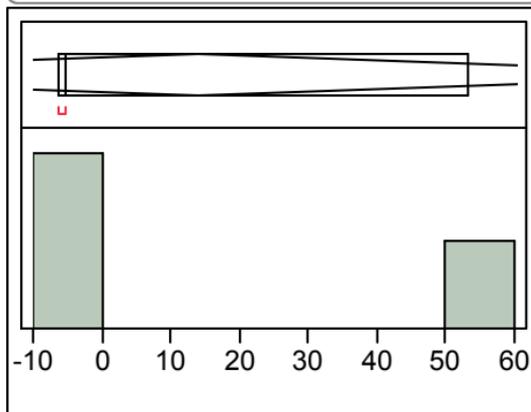
Distributions Analyte Name=Gross beta, Preparation Method=EPA 900, Radioactivity, Gross Alpha/Beta Screening, 600/4-80-032

Bias

GrF Distribution by Prep Method

Distributions Analyte Name=Gross beta, Preparation Method=EPA
900, Radioactivity, Gross Alpha/Beta Screening, 600/4-80-032

Bias

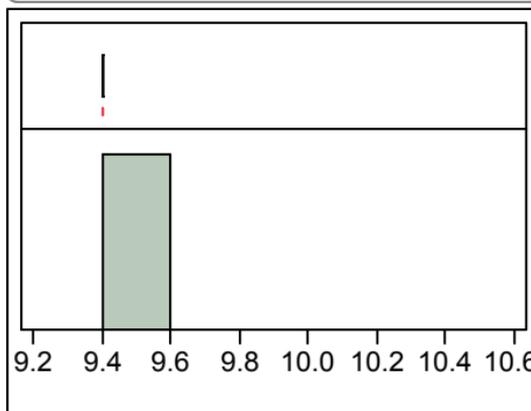


Moments

Mean	13.9
Std Dev	34.210963
Std Err Mean	19.751709
Upper 95% Mean	98.884744
Lower 95% Mean	-71.08474
N	3
Sum Wgt	3
Sum	41.7
Variance	1170.39
Skewness	1.7307024
Kurtosis	.
CV	246.12204
N Missing	0

Distributions Analyte Name=Gross beta,
Preparation Method=Evaporation, straight

Bias



Moments

Mean	9.4
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1
Sum Wgt	1
Sum	9.4
Variance	.
Skewness	.
Kurtosis	.
CV	.
N Missing	0

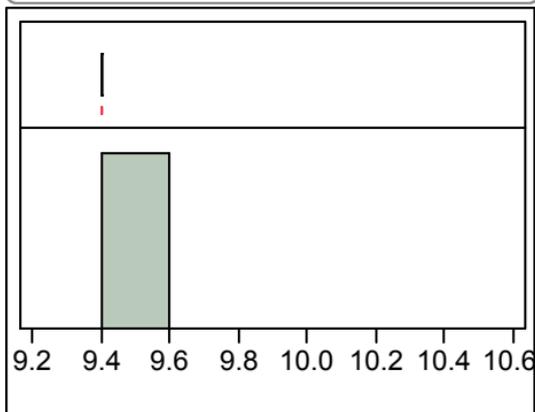
Distributions Analyte Name=Gross beta, Preparation
Method=Ion Exchange Chromatography / Ion Chromatography

Bias

GrF Distribution by Prep Method

Distributions Analyte Name=Gross beta, Preparation
Method=Ion Exchange Chromatography / Ion Chromatography

Bias

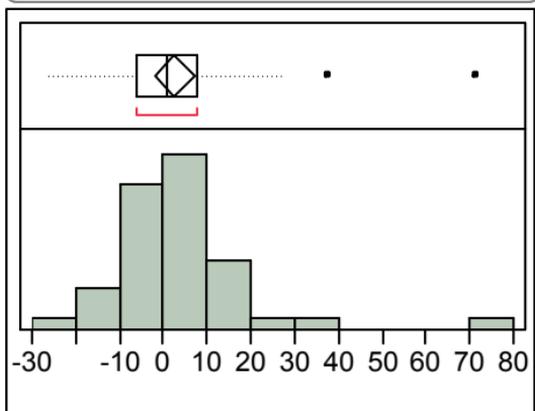


Moments

Mean	9.4
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1
Sum Wgt	1
Sum	9.4
Variance	.
Skewness	.
Kurtosis	.
CV	.
N Missing	0

Distributions Analyte Name=Gross beta, Preparation
Method=No preparation - analyzed as received

Bias



Moments

Mean	2.4833333
Std Dev	15.335376
Std Err Mean	2.2134709
Upper 95% Mean	6.9362624
Lower 95% Mean	-1.969596
N	48
Sum Wgt	48
Sum	119.2
Variance	235.17376
Skewness	2.0178738
Kurtosis	8.0470577
CV	617.53192
N Missing	0

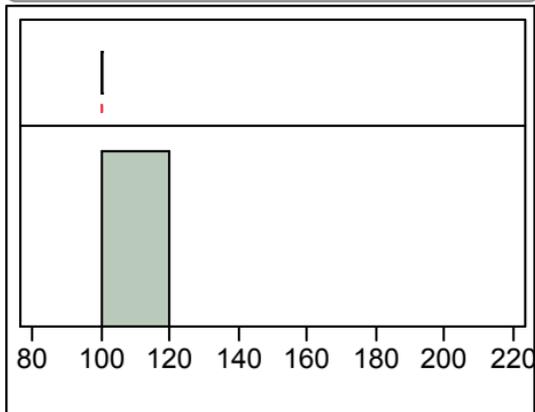
Distributions Analyte Name=Gross
beta, Preparation Method=Other

Bias

GrF Distribution by Prep Method

Distributions Analyte Name=Gross
beta, Preparation Method=Other

Bias



Moments

Mean	100
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1
Sum Wgt	1
Sum	100
Variance	.
Skewness	.
Kurtosis	.
CV	.
N Missing	0



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

Laboratory Results For MAPEP-10-GrF23
 (ADEM01) Alabama Department of Environmental Management
 Montgomery Laboratory
 Montgomery, AL 36110

Radiological							Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0250		N	(1)			0.0001	
Gross beta	0.4938	0.50	A		-1.2	0.25 - 0.75	0.0001	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Notes:

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



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

Laboratory Results For MAPEP-10-GrF23

(AFOH01) USAFSAM/OEHHL

2350 Gillingham Dr

Brooks City-Base, TX 78235-5103

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	.009		A				0.012	
Gross beta	0.492	0.50	A		-1.6	0.25 - 0.75	0.078	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

(1) = False Positive

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



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

Laboratory Results For MAPEP-10-GrF23

(ANTE01) ALS Group USA, Corp
 225 Commerce Drive
 Fort Collins, CO 80524-1416

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.001		A				0.001	
Gross beta	0.559	0.50	A		11.8	0.25 - 0.75	0.045	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23

(ARPL01) Analytical Support Operations - Radiochemical Processing Lab

PO Box 999

Richland, WA 99354

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.002		A				0.002	
Gross beta	0.471	0.50	A		-5.8	0.25 - 0.75	0.024	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

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



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

Laboratory Results For MAPEP-10-GrF23
 (ARSL01) American Radiation Services Inc.
 2609 North River Road
 Port Allen, LA 70767

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.00587		A				0.00333	
Gross beta	0.523	0.50	A		4.6	0.25 - 0.75	0.0649	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

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



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

Laboratory Results For MAPEP-10-GrF23

(AY1201) B&W Y-12, Analytical Chemistry Organization Laboratory

Y12, NSC, Bldg. 9995, Rm 142

Oak Ridge, TN 37831-8189

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-0.013		A				0.010	
Gross beta	0.537	0.50	A		7.4	0.25 - 0.75	0.037	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

(1) = False Positive

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



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

Laboratory Results For MAPEP-10-GrF23
 (CDHS01) California Department of Public Health
 Sanitation & Radiation Lab.
 Richmond, CA 94804-6403

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0023		A				0.0029	
Gross beta	0.574	0.50	A		14.8	0.25 - 0.75	0.012	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

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



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

Laboratory Results For MAPEP-10-GrF23

(CEEA99) Laboratorio de Vigilancia Ambiental Radiactiva
 JUAN LARREA N15-36 Renewable RUC1768135980001
 Quito, EC170130

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

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



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

Laboratory Results For MAPEP-10-GrF23

(CESL01) Lawrence Livermore National Laboratory - EMRL

7000 East Avenue

Livermore, CA 94551

Radiological							Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-2.19E-03		A				1.01E-03	
Gross beta	6.87E-01	0.50	A		37.4	0.25 - 0.75	7.55E-03	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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Notes:

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



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

Laboratory Results For MAPEP-10-GrF23

(CHMH01) 222-S Laboratory

P.O. Box 250, MS T6-10

Richland, WA 99352

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0126		A				0.0077	
Gross beta	0.501	0.50	A		0.2	0.25 - 0.75	0.032	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (CHPR01) CHPRC Central Count Room
 2420 Stevens Center Place
 Richland, WA 99352

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (CMRC01) Carlsbad Environmental Monitoring and Research Center
 1400 University Dr.
 Carlsbad, NM 88220

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	.002		N	(1)			.0004	
Gross beta	.521	0.50	A		4.2	0.25 - 0.75	.008	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (DEHS01) Department of Environmental Health & Safety
 North Carolina State Univ.
 Raleigh, NC 27695-8007

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.008		A				0.007	
Gross beta	0.471	0.50	A		-5.8	0.25 - 0.75	0.015	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

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

8100 Lowry Blvd
Denver, CO 80230

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.001		A				0.008	
Gross beta	0.47	0.50	A		-6.0	0.25 - 0.75	0.02	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23

(DRMG01) B&W Pantex - D&RMG

Bldg 12-122

Amarillo, TX 79120-0020

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-5.75E-03		A				4.70E-03	
Gross beta	5.03E-01	0.50	A		0.6	0.25 - 0.75	1.30E-02	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23
 (EPAL01) U. S. EPA Office of Radiation and Indoor Air
 944 E. Harmon Ave.
 Las Vegas, NV 89119-6721

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (ERCL01) Washington State Public Health Laboratories
 1610 N.E. 150 th Srteet
 Shoreline, WA 98155-9701

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-0.0012		A				0.0023	
Gross beta	0.470	0.50	A		-6.0	0.25 - 0.75	0.016	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (ERLG01) Environmental Radiation Laboratory
 Georgia Institute of Tech.
 Atlanta, GA 30332

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	.01		A				.05	
Gross beta	.4	0.50	A		-20.0	0.25 - 0.75	.1	H

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (ERPD99) Ministry Of Health, Radiation Protection Department Lab
 Al-Awqaf Complex-Tower#12
 Sharq, Kuwait 656

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(EULC01) EnergySolutions, LLC

I-80, Exit 46

Clive, UT 84029

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-.0193		A				.007	
Gross beta	.52917	0.50	A		5.8	0.25 - 0.75	.156	H

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

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

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.002		A				0.004	
Gross beta	0.498	0.50	A		-0.4	0.25 - 0.75	0.021	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

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

Radiological					Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR						
Gross beta	NR	0.50			0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (FMEC99) Foods and Water Laboratories Center
 Ministry of Regional Municipalities and Water Resources
 Muscat, B.O.Box. 3094 111

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0145		N	(1)			0.004	
Gross beta	0.454	0.50	A		-9.2	0.25 - 0.75	0.022	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(GENE01) GEL Laboratories, LLC

2040 Savage Road

Charleston, SC 29407

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.003		A				0.002	
Gross beta	0.525	0.50	A		5.0	0.25 - 0.75	0.006	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-10-GrF23
 (HCAL01) Hazards Control Analytical Lab
 Lawrence Livermore National
 Livermore, CA 94551

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	.003		A				.013	
Gross beta	0.64	0.50	A		28.0	0.25 - 0.75	.07	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-10-GrF23

(HECR01) SC Dept. Health and Environmental Control Radiological Laboratory
 2600 Bull St.
 Columbia, SC 29201

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.006		A				0.017	
Gross beta	0.539	0.50	A		7.8	0.25 - 0.75	0.043	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

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

Laboratory Results For MAPEP-10-GrF23
 (HERR01) Washington Closure Hanford
 Radiological Counting Facility
 Richland, WA 99352

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	.008		A				.004	
Gross beta	.53	0.50	A		6.0	0.25 - 0.75	0.4	H

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(HPAC99) HPA, CRCE Scotland

155 Hardgate Road

Glasgow, Scotland G514LS

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(ISUP01) ISU - Department of Physics/Health Physics/EAL

785 S. 8th Ave, Rm 120

Pocatello, ID 83209-8106

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-0.0001		A				0.0024	
Gross beta	0.480	0.50	A		-4.0	0.25 - 0.75	0.013	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (JAEC99) Radiation Measurements Laboratory
 Jordan Atomic Energy Commission
 Amman, Jordan 00962 6

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	.0065		N	(1)			.0007	
Gross beta	.547	0.50	A		9.4	0.25 - 0.75	.024	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (KDHE01) Kansas Dept. of Health & Environment
 Forbes Bldg. 740
 Topeka, KS 66620

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.008		A				0.011	
Gross beta	0.465	0.50	A		-7.0	0.25 - 0.75	0.019	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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



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

Laboratory Results For MAPEP-10-GrF23
 (KSCF01) Kennedy Space Center, HP Laboratory
 IHA-022
 Kennedy Space Center, FL 32899

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-0.001		RW	(29)			.0001	
Gross beta	0.4781	0.50	A		-4.4	0.25 - 0.75	.01701	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

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

Laboratory Results For MAPEP-10-GrF23
 (KUFS99) Center for Research in Environmental Radiation
 Kuwait University - Faculty of Science
 Khaldia, Kuwait 13060

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.1		N	(1)			0.011	
Gross beta	1	0.50	N		100.0	0.25 - 0.75	0.1	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Notes:

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

Laboratory Results For MAPEP-10-GrF23
 (LAEC99) Lebanese Atomic Energy Commission - Environmental Radiation
 National Council for Scientific Research
 Beirut, Beirut 1107 2260

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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Notes:

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

Laboratory Results For MAPEP-10-GrF23

(LOCK01) ICP Analytical Laboratory

CH2M-WG Idaho, LLC

Idaho Falls, ID 83415-4210

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23

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

INL/Battelle Energy Alliance, LLC

Idaho Falls, ID 83415-7111

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-0.006		A				0.003	
Gross beta	0.55	0.50	A		10.0	0.25 - 0.75	0.07	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (MART02) United States Enrichment Corporation
 PO Box 1410
 Paducah, KY 42002

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-0.00724		RW	(29)			0.00241	
Gross beta	0.502	0.50	A		0.4	0.25 - 0.75	0.013	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (MART03) Radioactive Material Analysis Laboratory
 ORNL
 Oak Ridge, TN 37831-6223

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.00082		A				0.0052	
Gross beta	0.45	0.50	A		-10.0	0.25 - 0.75	0.05	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(MKME01) PIKA International

5025 Arnold Ave

McClellan, CA 95652

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	.006		N	(1)			.001	
Gross beta	4.99	0.50	N		898.0	0.25 - 0.75	.99	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(MSCL01) MSC
804 S. Illinois Ave
Oak Ridge, TN 37830

Radiological					Units: (Bq/sample)			
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.006		N	(1)			.001	
Gross beta	0.856	0.50	N		71.2	0.25 - 0.75	0.010	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (NARL01) National Air and Radiation Environmental Laboratory
 540 S. Morris Ave.
 Montgomery, AL 36115-2601

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0006		A				0.0049	
Gross beta	0.529	0.50	A		5.8	0.25 - 0.75	0.031	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

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

Lynchburg Technology Center

Lynchburg, VA 24504-5447

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.041		N	(1)			0.006	
Gross beta	0.767	0.50	N		53.4	0.25 - 0.75	0.013	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (NTSI01) Nuclear Technology Services, Inc.
 635 Hembree Parkway
 Roswell, GA 30076

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (OBGL01) Life Science Laboratories, Inc.
 5854 Butternut Drive
 East Syracuse, NY 13057

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (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
Gross alpha	-0.005		RW	(29)			0.001	
Gross beta	1.166	0.50	N		133.2	0.25 - 0.75	0.028	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(ORIS01) ORISE/IEAV

PO Box 117

Oak Ridge, TN 37831-0117

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.006		A				0.002	
Gross beta	0.46	0.50	A		-8.0	0.25 - 0.75	0.02	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(OTLI01) Outreach Technologies, Inc.

311 N. Aspen

Broken Arrow, OK 74012-

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-0.001		A				0.008	
Gross beta	0.366	0.50	A		-26.8	0.25 - 0.75	0.057	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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Notes:

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

Laboratory Results For MAPEP-10-GrF23

(QUAN01) TestAmerica St. Louis

13715 Rider Trail North

Earth City, MO 63045-

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.00180		A				0.00108	
Gross beta	0.586	0.50	A		17.2	0.25 - 0.75	0.0231	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(QUAN03) TestAmerica
 2800 GEORGE WASHINGTON WAY
 RICHLAND, WA 99354-

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.006		A				0.002	
Gross beta	0.577	0.50	A		15.4	0.25 - 0.75	0.046	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (RMCL99) Royal Scientific Society - Radiation Protection Lab
 70 Ahmad Al-Tarawneh Str.
 Al-Jubaiha, Amman 11941

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (RPCR01) WRPS RadCon Program Count Room
 2440 Steven Drive
 Richland, WA 99352

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(RPSC01) Radiation Protection Service

Ontario Ministry of Labour

Weston, Ontario M9P 3T1

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	.002		A				.01	
Gross beta	.58	0.50	A		16.0	0.25 - 0.75	.06	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(RSAL01) RSA Laboratories, Inc.

PO Box 61

Hebron, CT 06248

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23

(SCAL01) Centauri Labs
 1000 Monticello Court
 Montgomery, AL 36117-

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	NR	0.50				0.25 - 0.75		

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Notes:

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



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

Laboratory Results For MAPEP-10-GrF23
 (SEML01) SRS Environmental Monitoring Laboratory
 Bldg 735-B
 Aiken, SC 29808

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0017		A				0.004	
Gross beta	0.52	0.50	A		4.0	0.25 - 0.75	0.033	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23
 (SOUT01) Southwest Research Institute
 6220 Culebra Rd.
 San Antonio, TX 78228-0510

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0239		N	(1)			0.000637	
Gross beta	0.437	0.50	A		-12.6	0.25 - 0.75	0.0259	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Notes:

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

Laboratory Results For MAPEP-10-GrF23

(SRPD01) Sandia National Laboratories, Radiation Protection Sample Diagnostics

PO Box 5800, MS1103

Albuquerque, NM 87185-1103

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.035		A				0.050	
Gross beta	0.411	0.50	A		-17.8	0.25 - 0.75	0.090	H

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23
 (TDHL01) Texas Department of State Health Services Laboratory
 1100 W 49th Street
 Austin, TX 78756

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.007		A				0.007	
Gross beta	0.551	0.50	A		10.2	0.25 - 0.75	0.033	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

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

Laboratory Results For MAPEP-10-GrF23

(TELE01) TELEDYNE BROWN ENGINEERING - ENVIRONMENTAL SERVICES

2508 Quality Lane

Knoxville, TN 37931-6819

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.004		A				0.010	
Gross beta	0.473	0.50	A		-5.4	0.25 - 0.75	0.050	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23
 (TELE02) Environmental, Inc., Midwest Lab
 700 Landwehr Road
 Northbrook, IL 60062-

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.01		A				0.01	
Gross beta	0.54	0.50	A		8.0	0.25 - 0.75	0.05	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23
 (TMAO01) EBERLINE SERVICES OAK RIDGE LABORATORY
 601 SCARBORO RD
 OAK RIDGE, TN 37830-

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.003		A				0.004	
Gross beta	0.55	0.50	A		10.0	0.25 - 0.75	0.027	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23
 (TMAR01) Eberline Analytical Corp. Richmond CA Lab
 2030 Wright Ave
 Richmond, CA 94804-3849

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.014		A				0.018	
Gross beta	0.522	0.50	A		4.4	0.25 - 0.75	0.068	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23

(TNUT01) FUSRAP
8945 LATTY AVE
BERKELEY, MO 63134-

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	0.5037	0.50	A		0.7	0.25 - 0.75	0.0069	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (URSL01) UNLV Radioanalytical Services Laboratory
 Campus Mail Stop 453037
 Las Vegas, NV 89154-3037

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	NR							
Gross beta	0.45	0.50	A		-10.0	0.25 - 0.75	0.02	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23

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

CNESTEN BP 1382

RABAT, RABAT RP 10001

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0025		A				0.0013	
Gross beta	0.547	0.50	A		9.4	0.25 - 0.75	0.037	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

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

Laboratory Results For MAPEP-10-GrF23

(WEST03) Waste Sampling and Characterization Facility, MSA/RJLG

PO Box 650, S3-30

Richland, WA 99352

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0003		A				0.0019	
Gross beta	0.452	0.50	A		-9.6	0.25 - 0.75	0.010	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (WEST04) PACE ANALYTICAL SERVICES, PITTSBURGH
 1638 Roseytown Road
 Greensburg, PA 15601

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0009		A				0.0023	
Gross beta	0.4684	0.50	A		-6.3	0.25 - 0.75	0.0868	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

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

Laboratory Results For MAPEP-10-GrF23

(WIPP01) WIPP Laboratories

1400 University Drive

Carlsbad, NM 88220

Radiological							Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	3.86E-02		N	(1)			4.57E-03	
Gross beta	4.80E-01	0.50	A		-4.0	0.25 - 0.75	1.32E-02	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
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Laboratory Results For MAPEP-10-GrF23
 (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
Gross alpha	0.02		A				0.03	
Gross beta	0.43	0.50	A		-14.0	0.25 - 0.75	0.04	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

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

Laboratory Results For MAPEP-10-GrF23

(WSTI01) Waste Stream Technology Inc.

302 Grote Ave
Buffalo, NY 14207

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	.011		N	(1)			.003	
Gross beta	.544	0.50	A		8.8	0.25 - 0.75	.010	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty

Gross Beta Flags:
A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

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

Laboratory Results For MAPEP-10-GrF23
 (WVDP01) WVDP Environmental Laboratory
 10282 Rock Springs Road
 West Valley, NY 14171

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	-0.000817		A				0.00112	
Gross beta	0.515	0.50	A		3.0	0.25 - 0.75	0.00943	L

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

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



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

Laboratory Results For MAPEP-10-GrF23
 (WVPL01) WVDP Radiation Protection Lab
 10282 Rock Springs Rd
 West Valley, NY 14171

Radiological						Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Gross alpha	0.0039		A				0.0046	
Gross beta	0.5016	0.50	A		0.3	0.25 - 0.75	0.0206	

Radiological Reference Date: August 1, 2010

Gross Alpha Flags:

A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero). N = Result not acceptable, Bias $> \pm 70\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Gross Beta Flags:
 A = Result acceptable, Bias ≤ 2 , i.e., the range encompassing the result, plus or minus the total uncertainty at two standard deviations, does not include zero).

N = Result not acceptable, Bias $> \pm 50\%$ or the reported result is not statistically positive at two standard deviations (Result/Uncertainty)

Notes:

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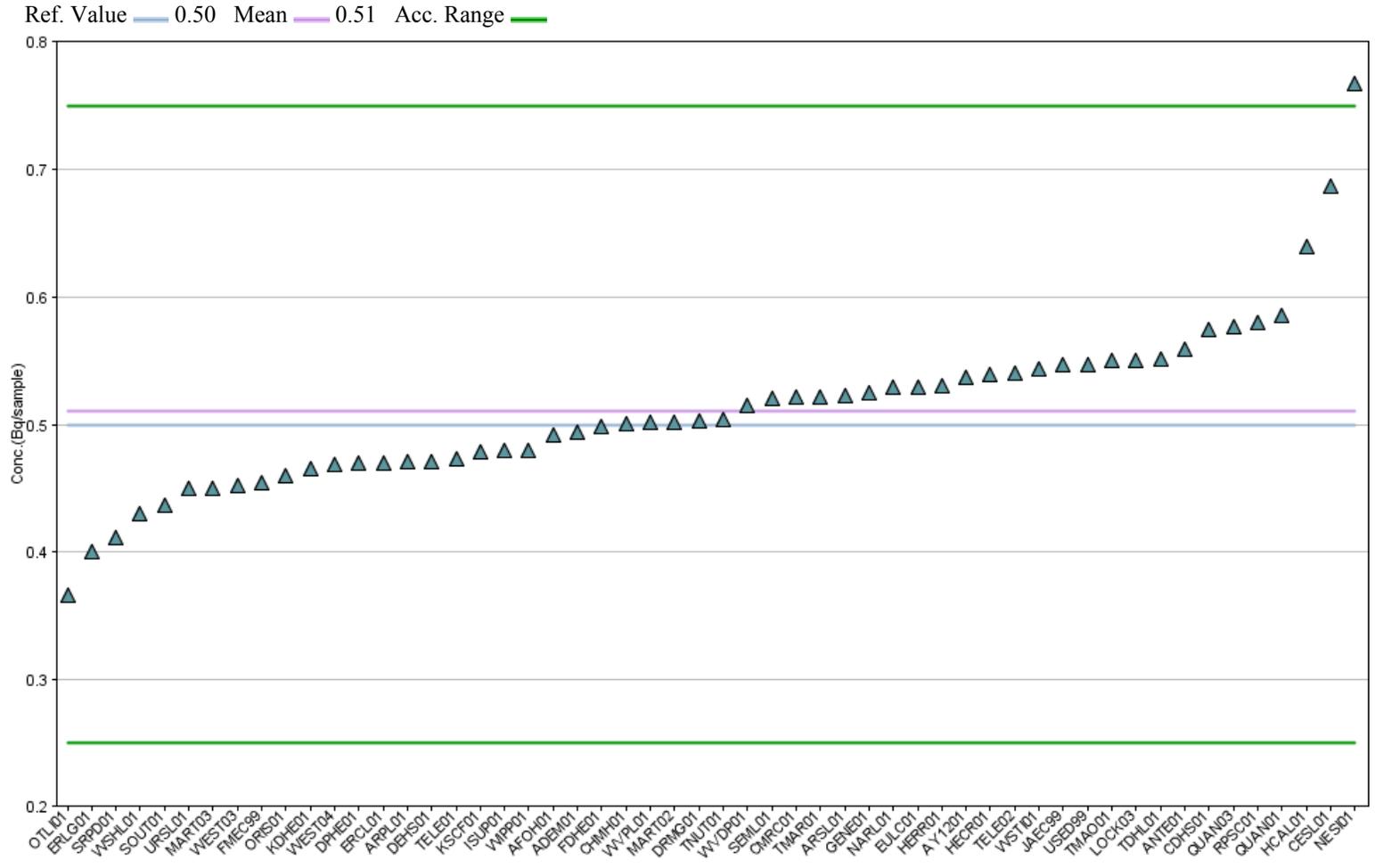
MAPEP-10-GrF23

Gross alpha/beta air filter

July 20, 2010 - November 17, 2010

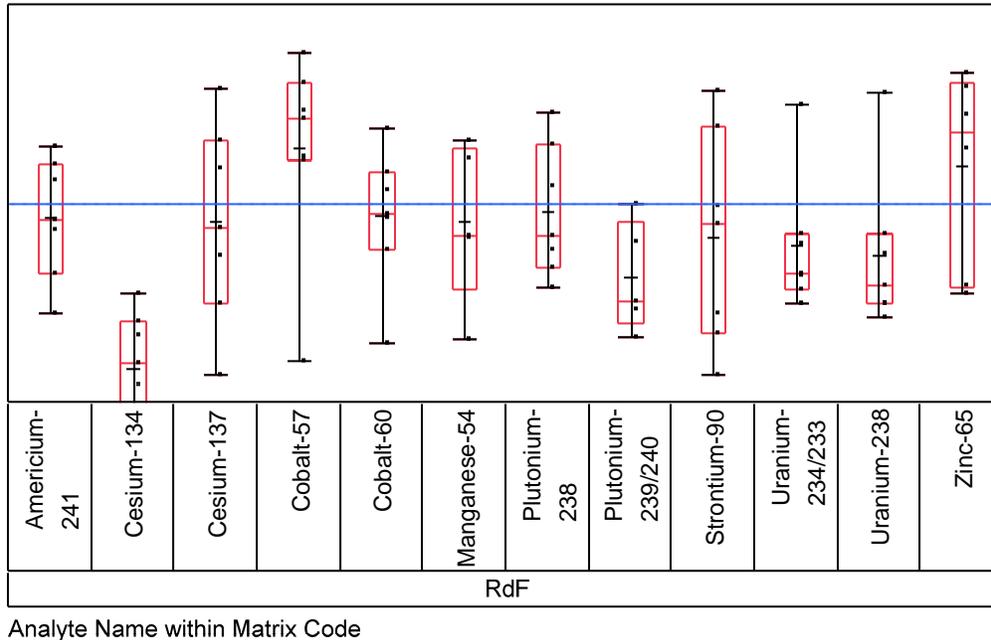
Gross beta

MAPEP-10-GrF23



Note: This chart shows only data points with values between 0.21 and 0.81 (± 5 Standard Deviations)

The intent of the historical graphs contained within this report is to graphically illustrate how laboratories are historically performing within the MAPEP program. The data points (small 'dots') plot the bias (or z-score for organic constituents) of each of the analytes in each of the matrices for each of the studies for MAPEP since Series 12. The BLACK small horizontal line is the mean of the population of the bias shown for that analyte in the matrix. The red box is a typical "box plot" of the data.



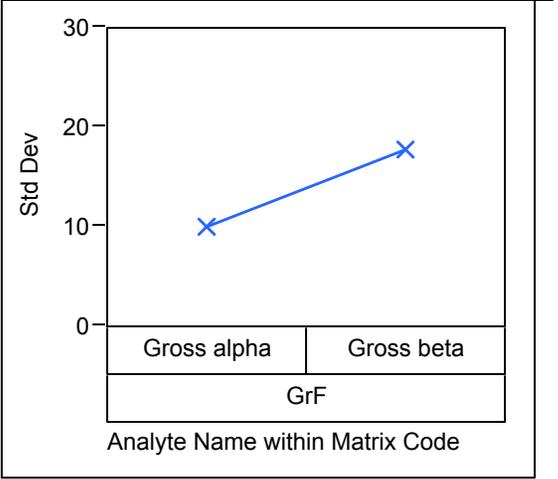
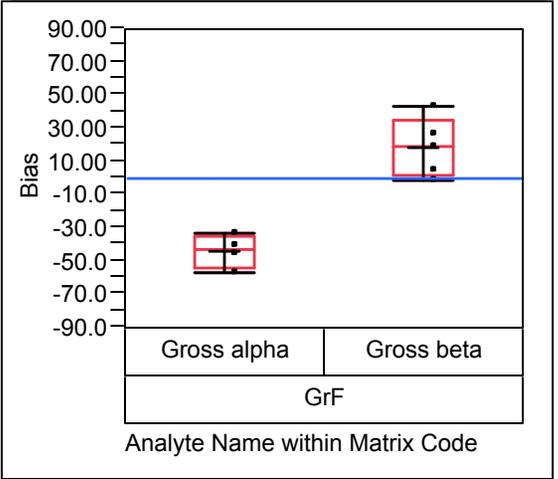
The box plots summarize the distribution of points for each analyte. The ends of the box are the 25th and 75th quantiles. The difference between the quartiles is the interquartile range. The line across the middle of the box identifies the median sample value. Each box has lines, sometimes called whiskers,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

The box plot along with the laboratory bias data points and the mean visually illustrate the breadth of the distribution and where any potential outliers in the distribution might lie. The ideal visual representation would be to have a very small box plot on top of a very small distribution of data thus indicating very good precision. Accuracy would be reflected by having the mean bias very close to zero (i.e. the box plot overlaps zero at some point).

The Standard Deviation plot below the Bias plot is just that, the standard deviation of the % bias shown above. The ideal plot would be to have the standard deviation as small as possible.

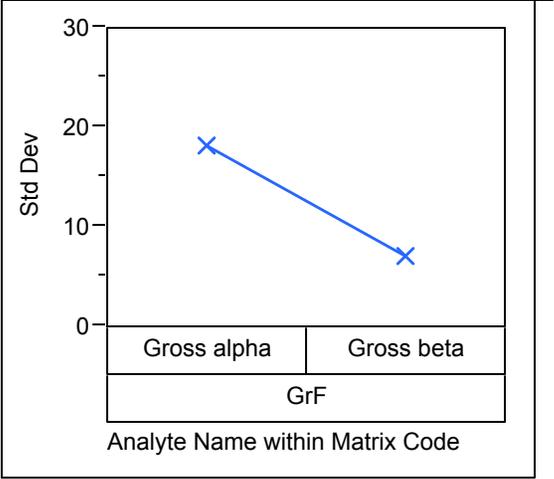
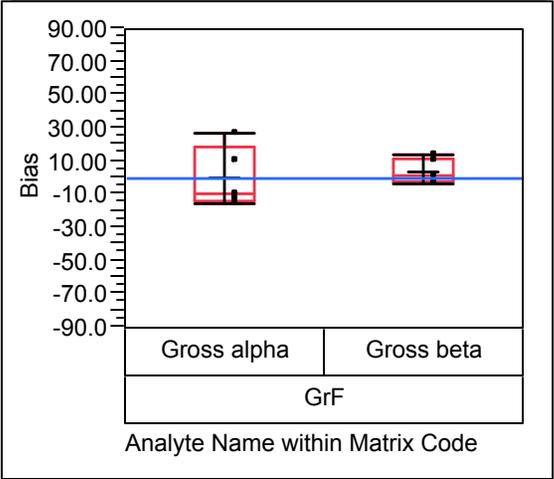
Variability Gauge Lab Code=ADEM01

Variability Chart for Bias



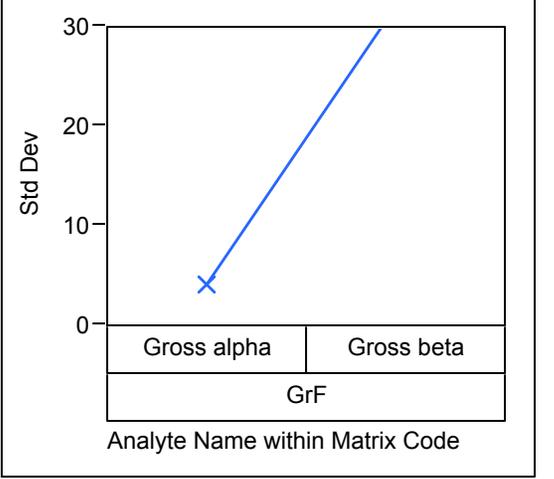
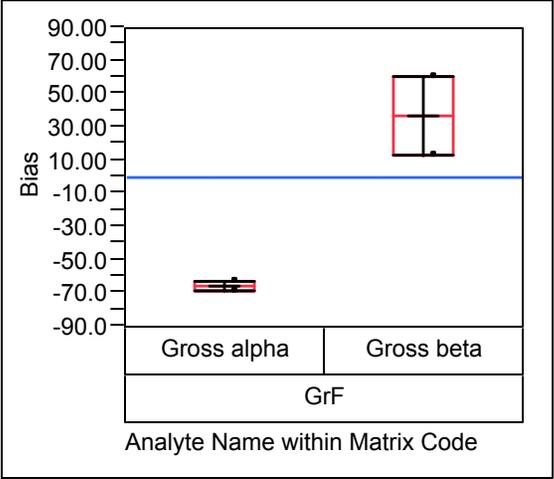
Variability Gauge Lab Code=AFOH01

Variability Chart for Bias



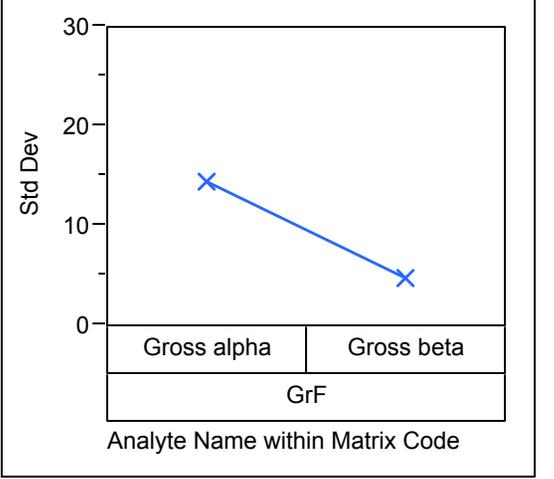
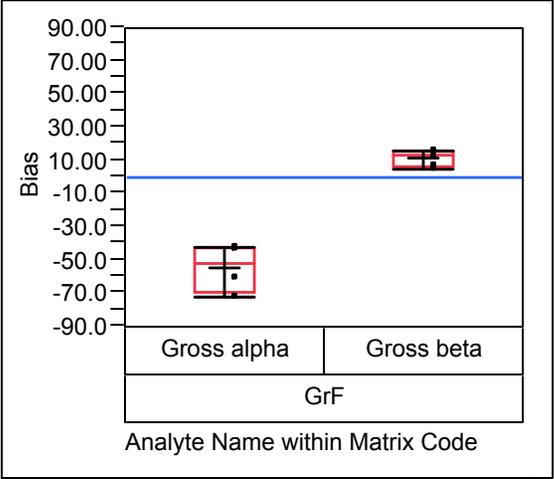
Variability Gauge Lab Code=ANLA01

Variability Chart for Bias



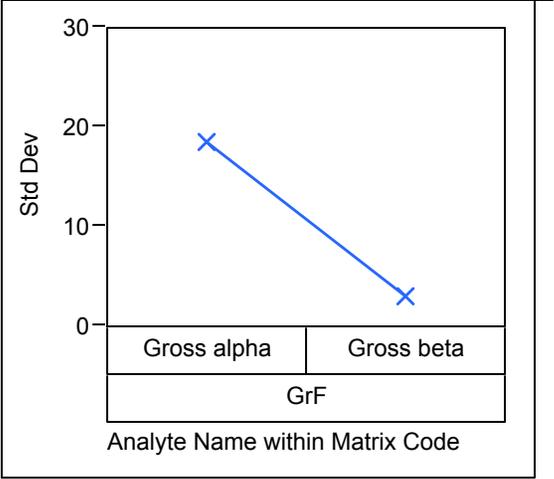
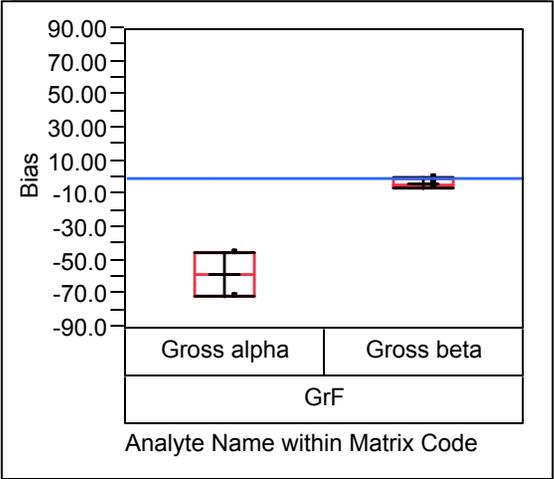
Variability Gauge Lab Code=ANTE01

Variability Chart for Bias



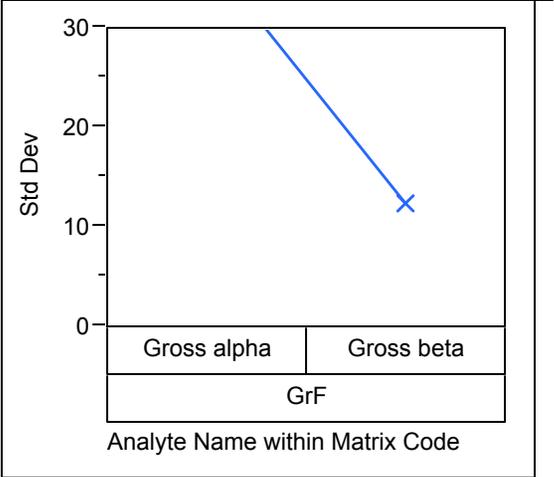
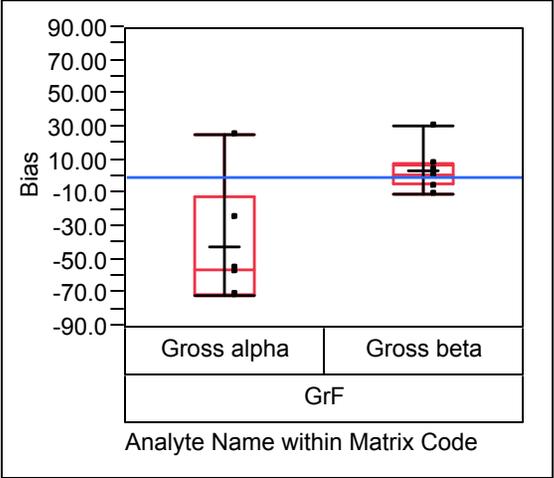
Variability Gauge Lab Code=ARPL01

Variability Chart for Bias



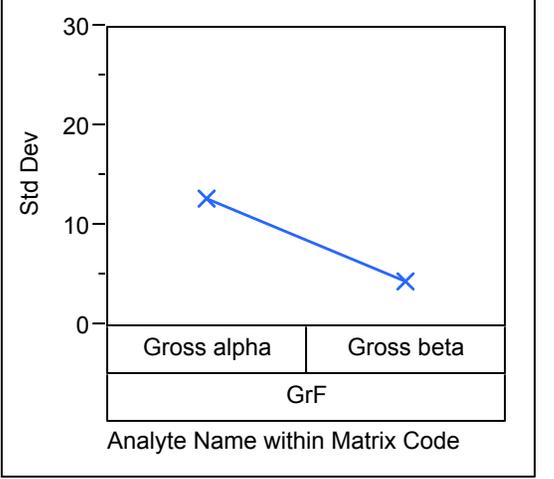
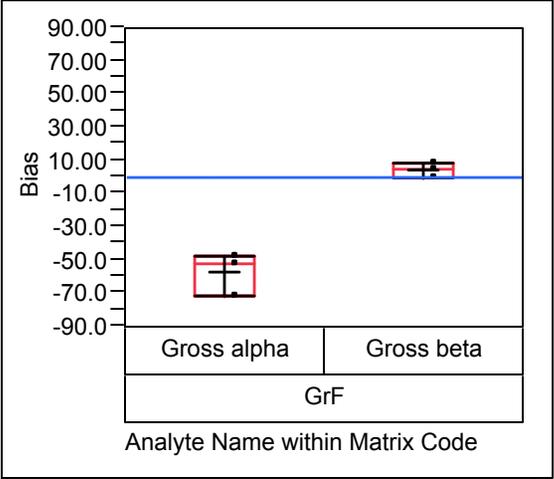
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Variability Chart for Bias



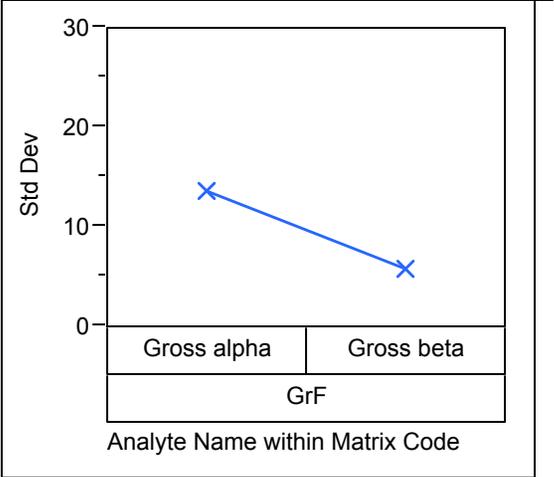
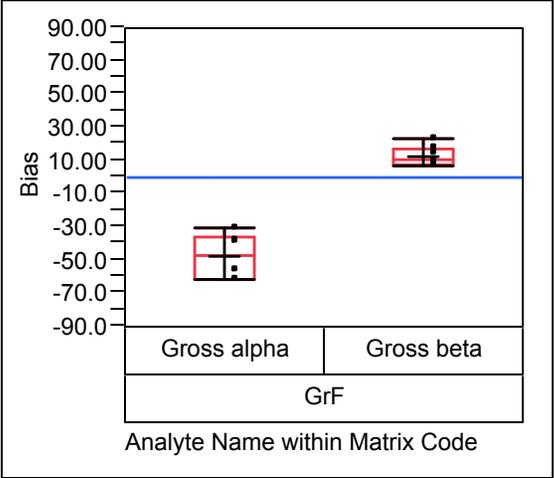
Variability Gauge Lab Code=ATLI01

Variability Chart for Bias



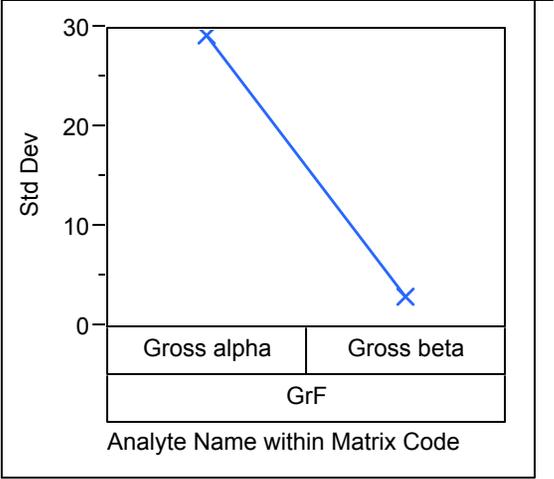
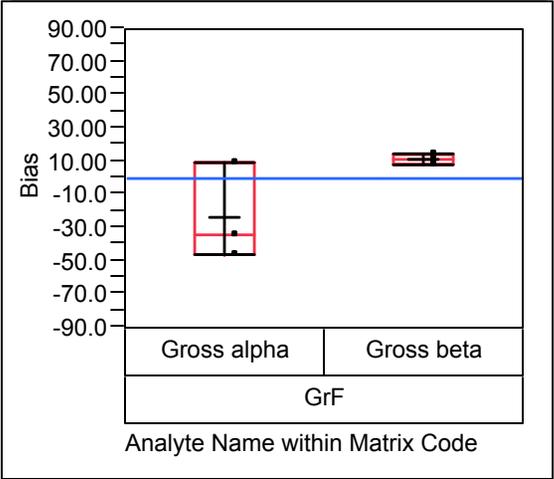
Variability Gauge Lab Code=AY1201

Variability Chart for Bias



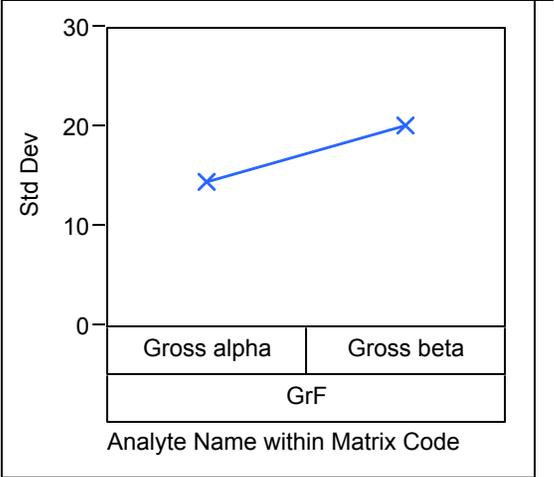
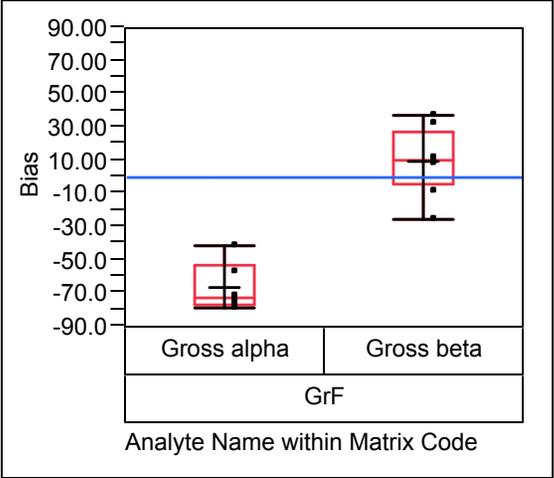
Variability Gauge Lab Code=CDHS01

Variability Chart for Bias



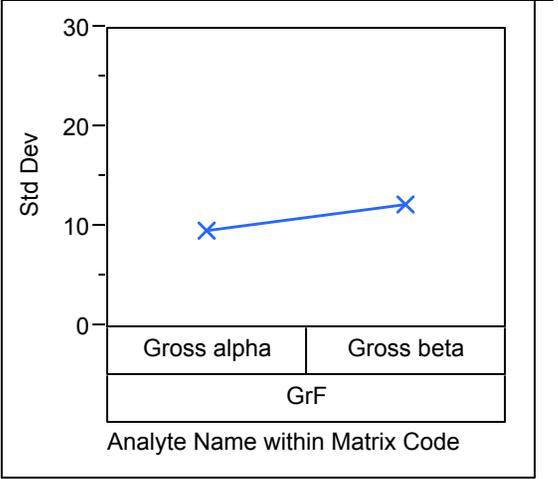
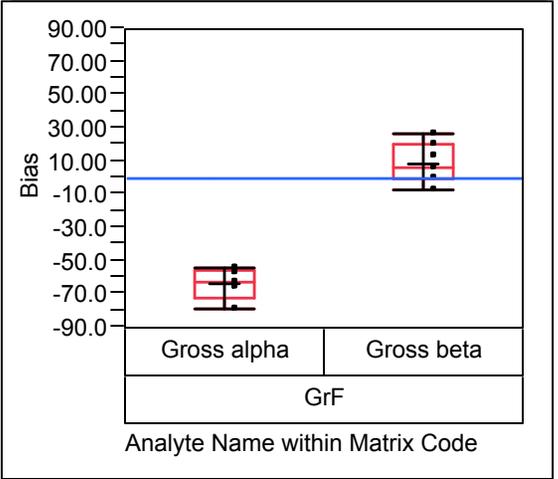
Variability Gauge Lab Code=CESL01

Variability Chart for Bias



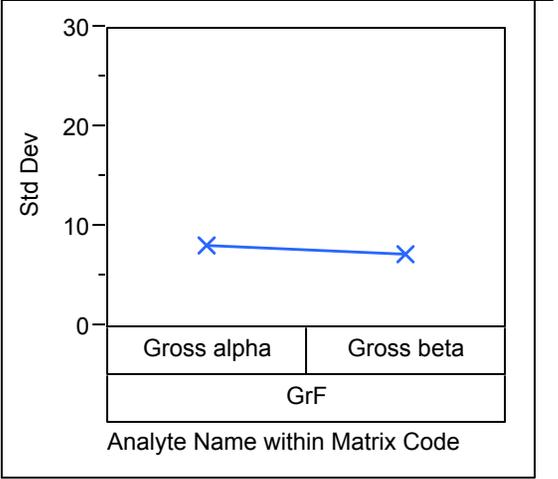
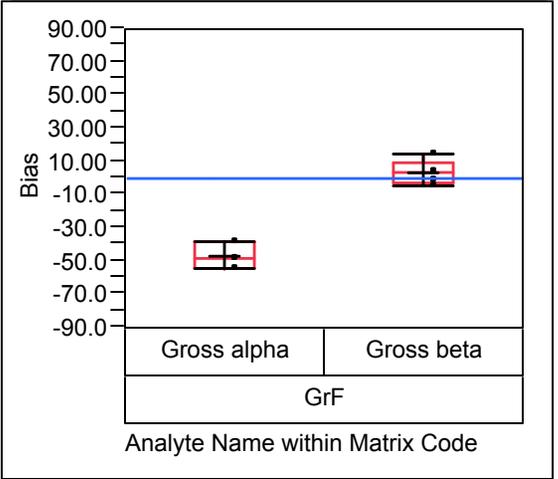
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Variability Chart for Bias



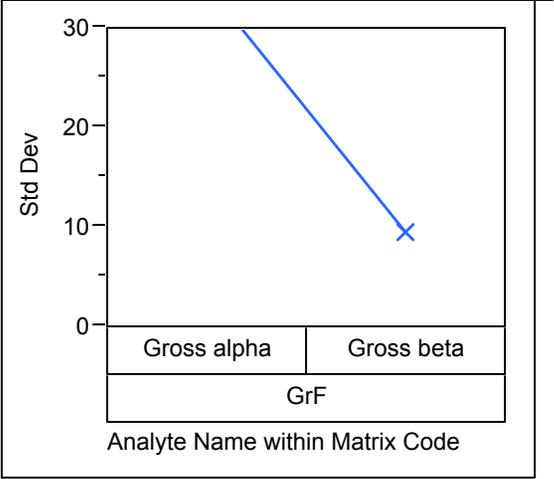
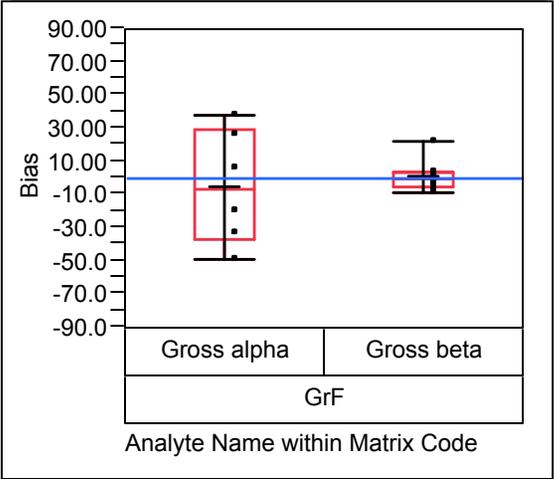
Variability Gauge Lab Code=CMRC01

Variability Chart for Bias



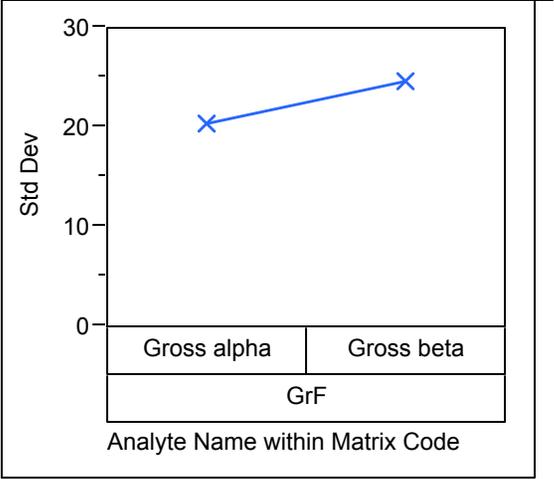
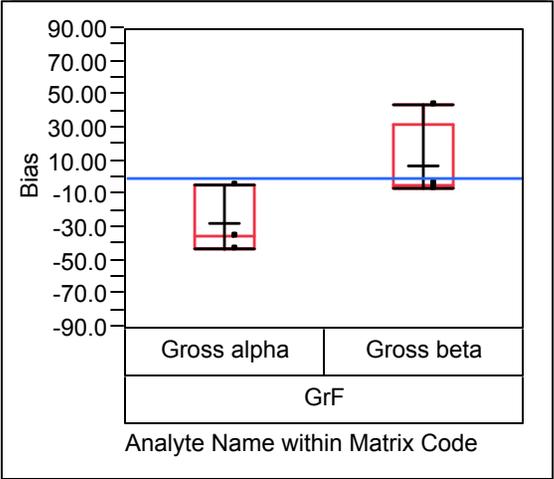
Variability Gauge Lab Code=DEHS01

Variability Chart for Bias



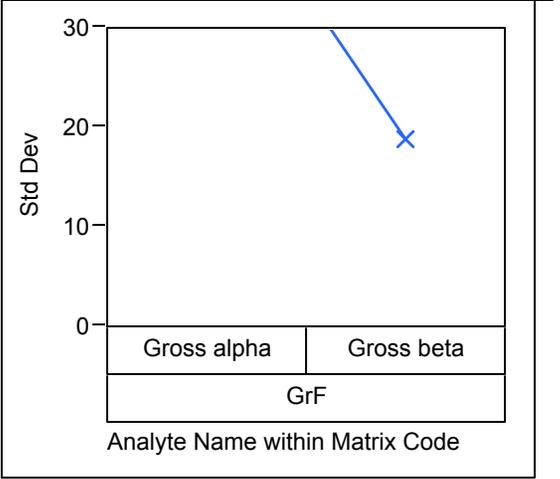
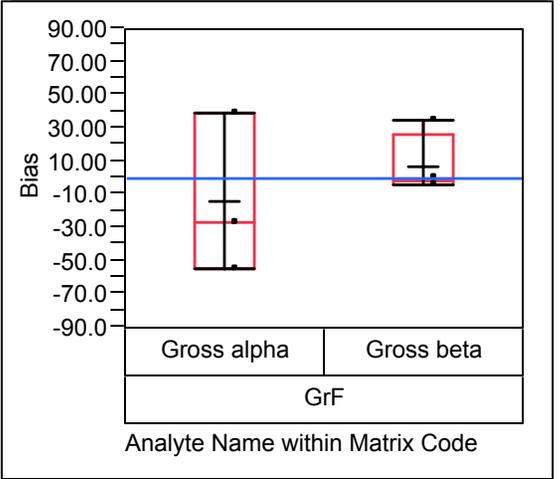
Variability Gauge Lab Code=DPHE01

Variability Chart for Bias



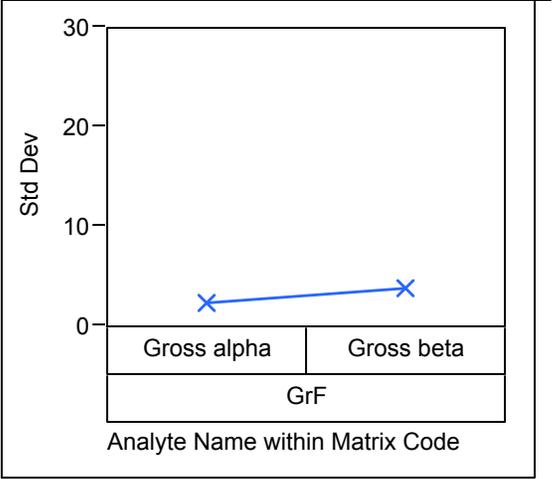
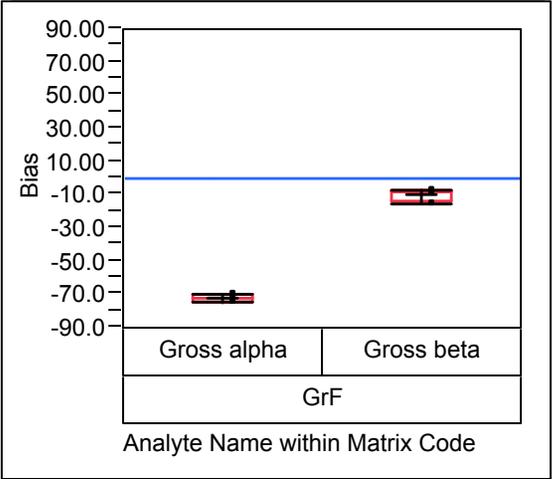
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Variability Chart for Bias



Variability Gauge Lab Code=ENES01

Variability Chart for Bias

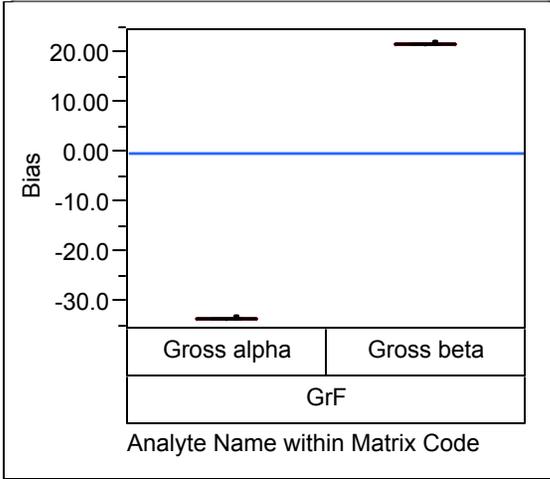


Variability Gauge Lab Code=EPAL01

Variability Chart for Bias

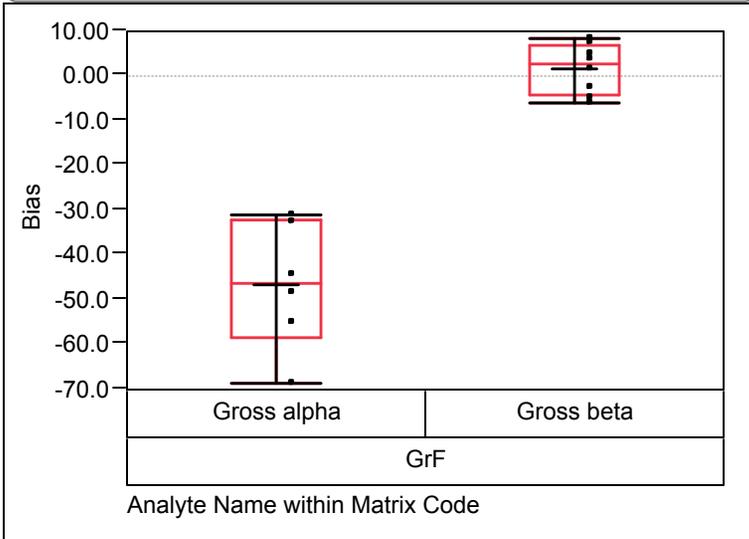
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Variability Chart for Bias



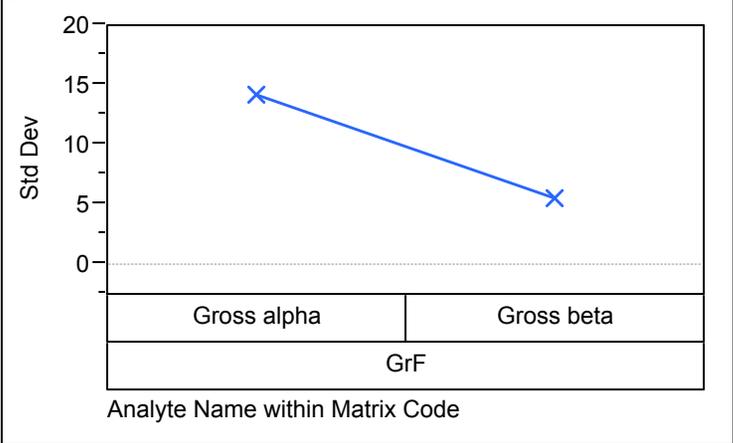
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Variability Chart for Bias



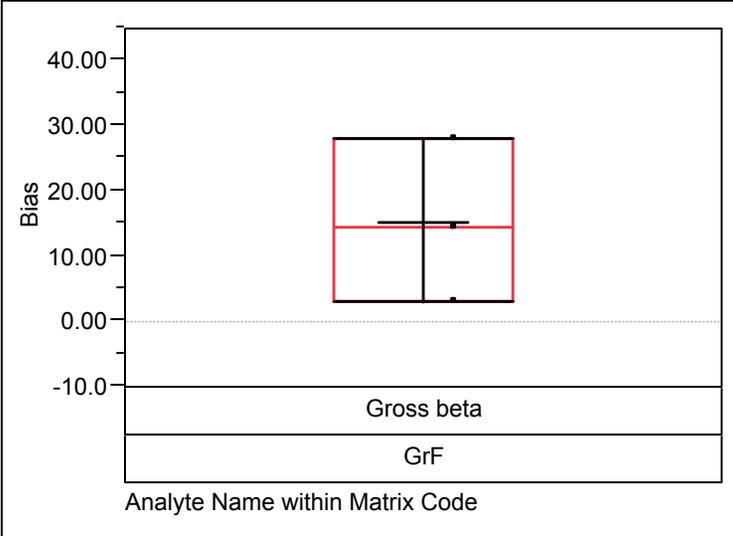
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Variability Chart for Bias



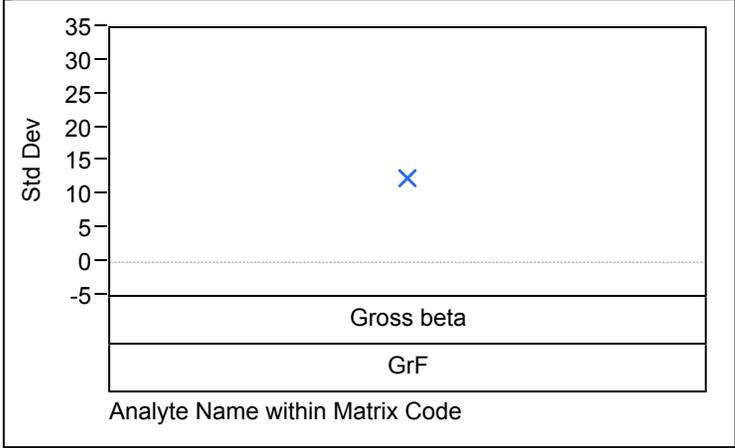
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Variability Chart for Bias



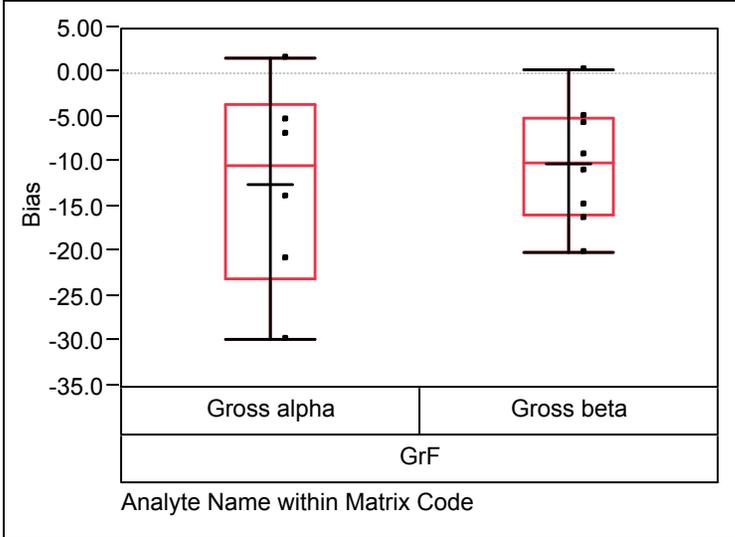
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Variability Chart for Bias



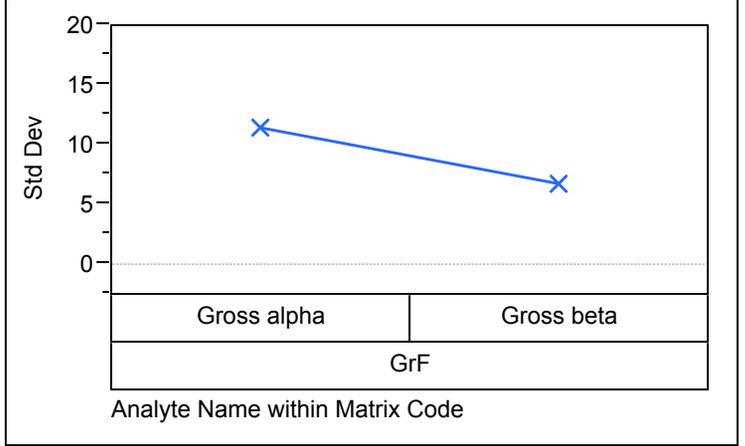
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Variability Chart for Bias



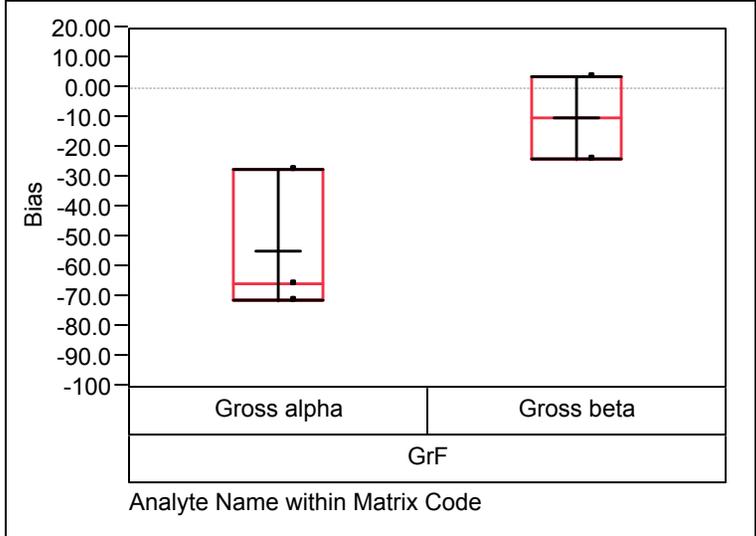
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Variability Chart for Bias



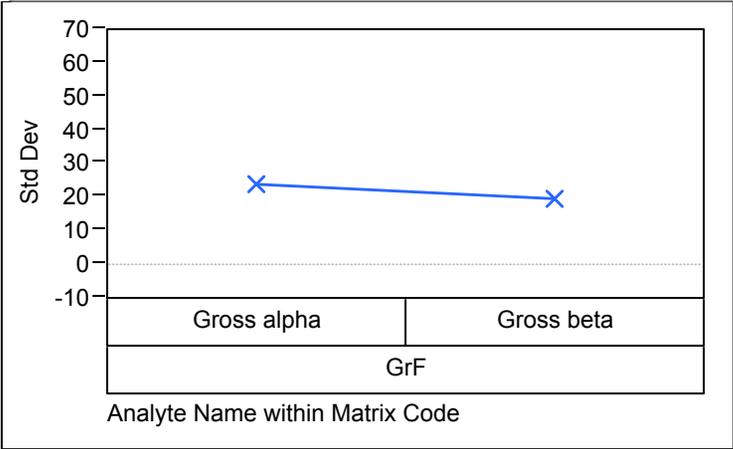
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Variability Chart for Bias



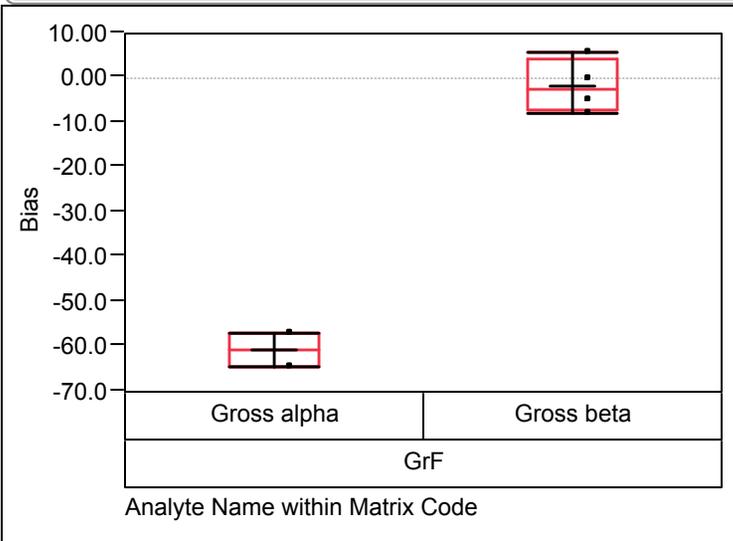
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Variability Chart for Bias



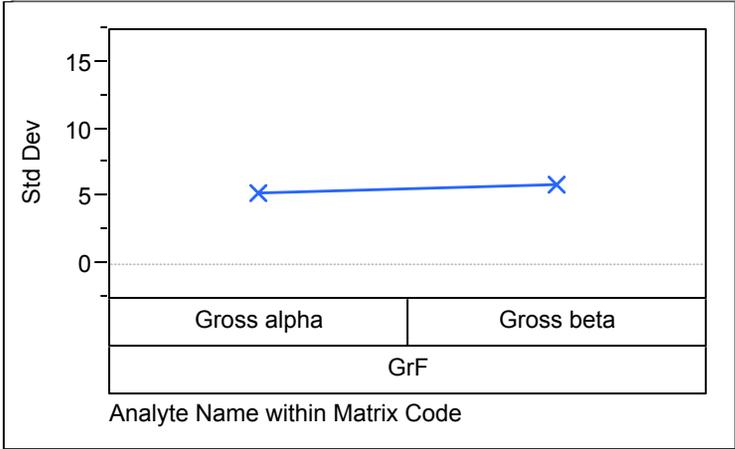
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Variability Chart for Bias



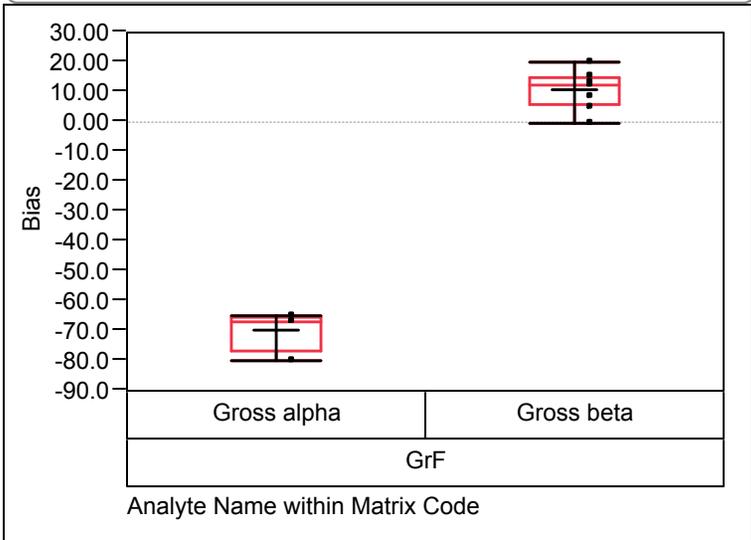
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Variability Chart for Bias



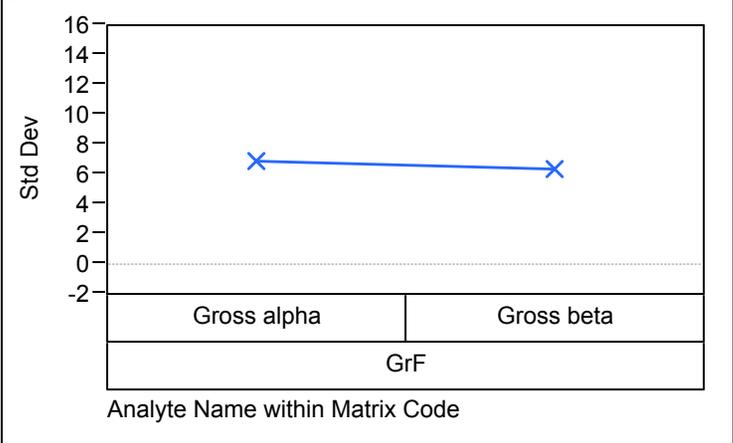
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Variability Chart for Bias



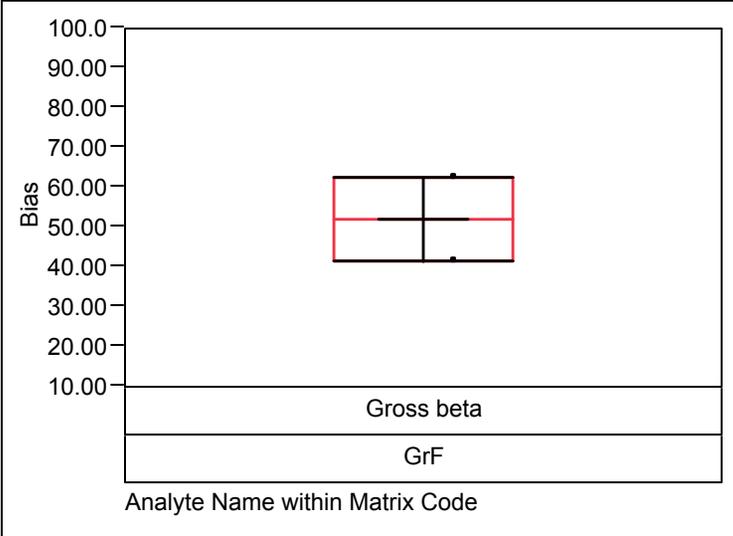
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Variability Chart for Bias



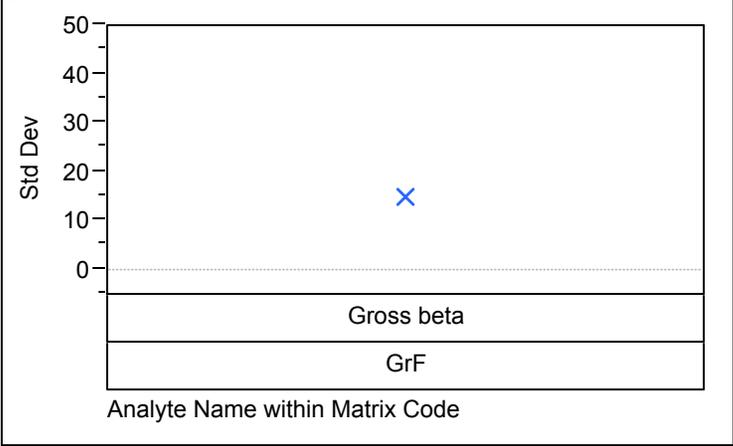
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Variability Chart for Bias



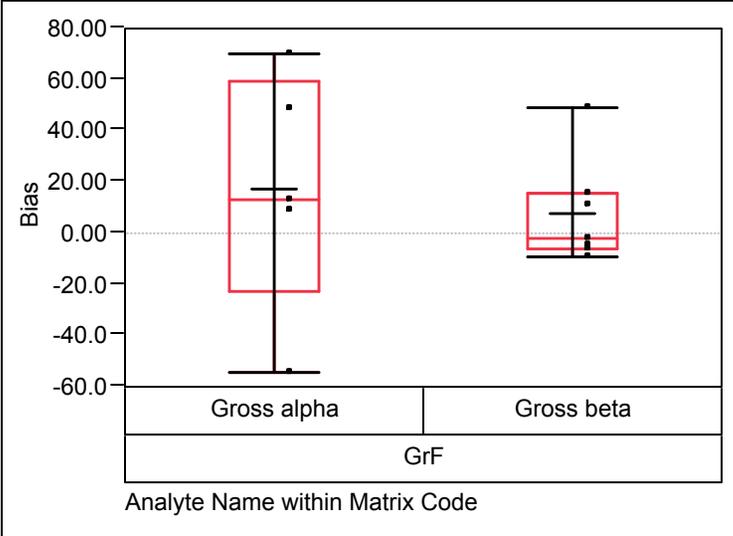
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Variability Chart for Bias



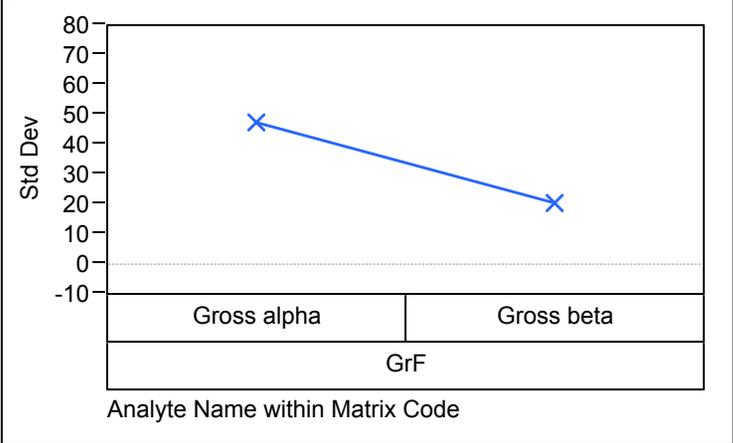
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Variability Chart for Bias



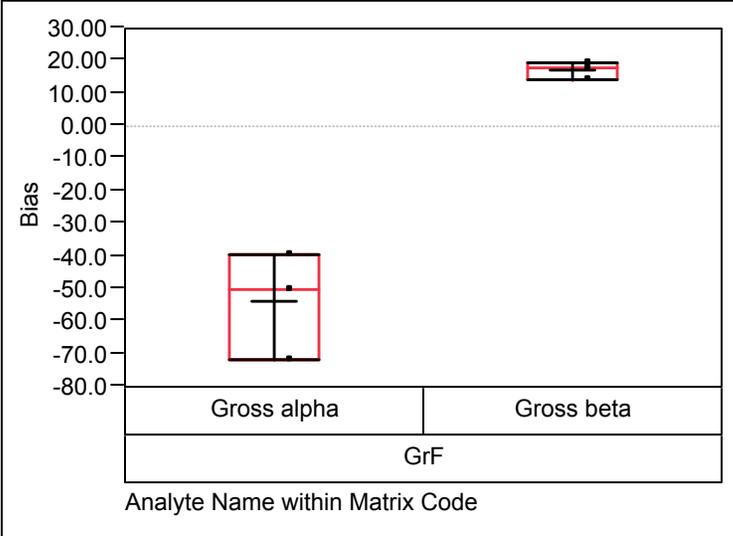
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Variability Chart for Bias



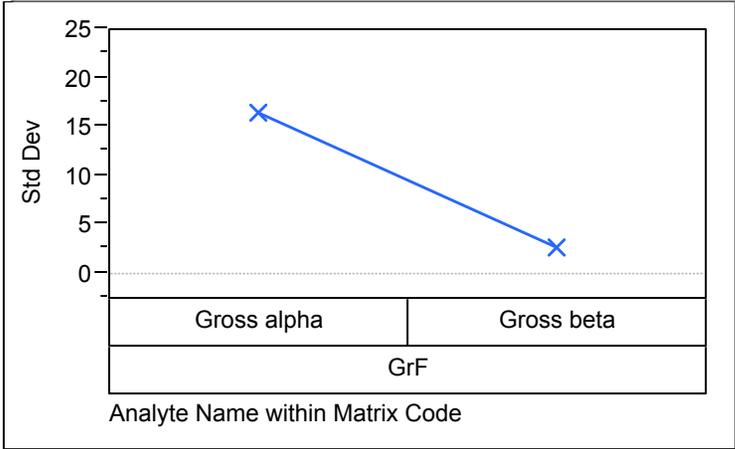
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Variability Chart for Bias



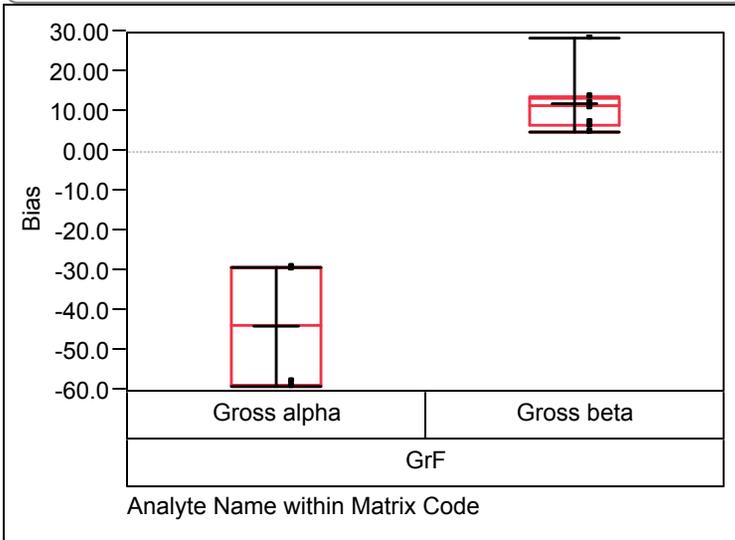
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Variability Chart for Bias



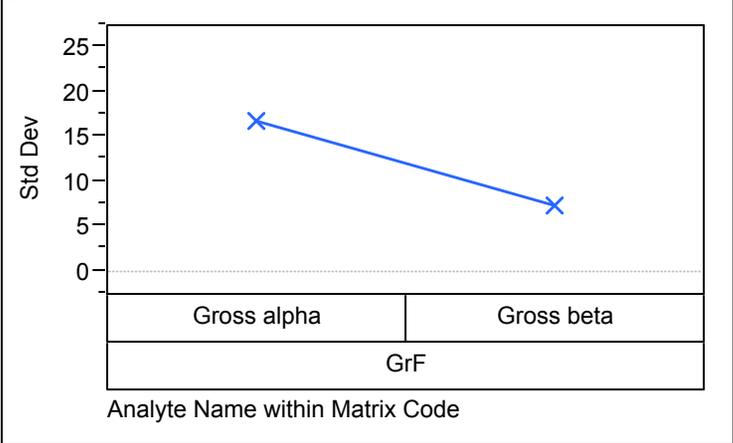
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Variability Chart for Bias



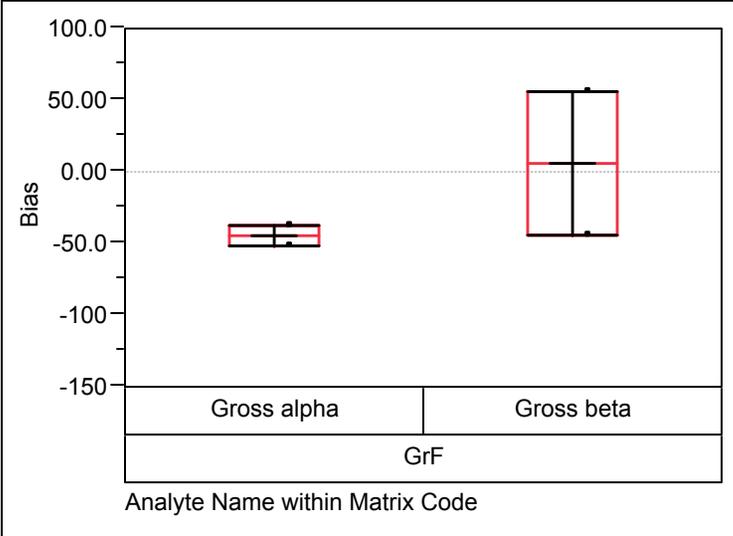
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Variability Chart for Bias



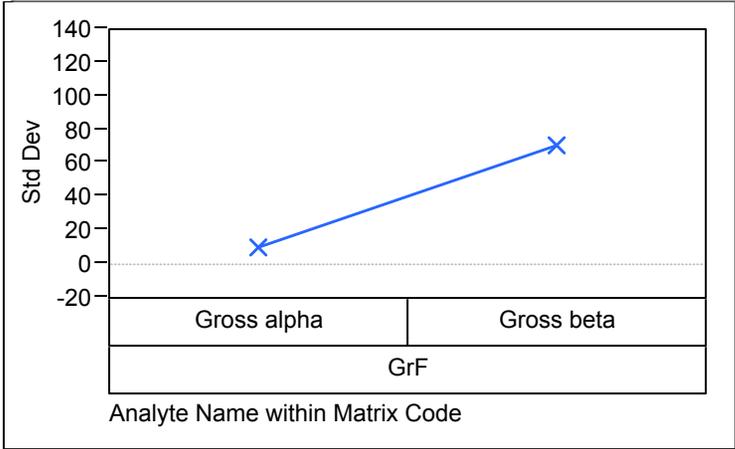
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Variability Chart for Bias



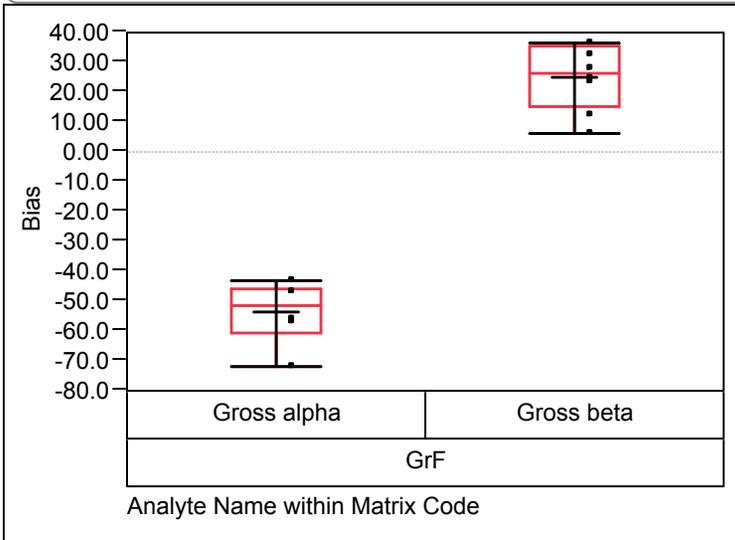
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Variability Chart for Bias



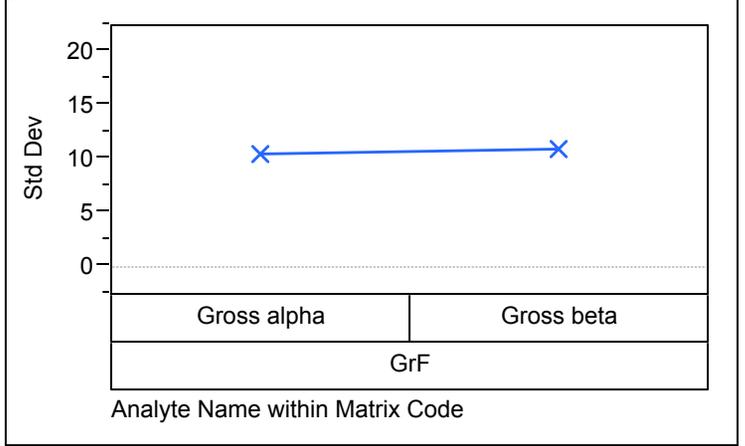
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Variability Chart for Bias



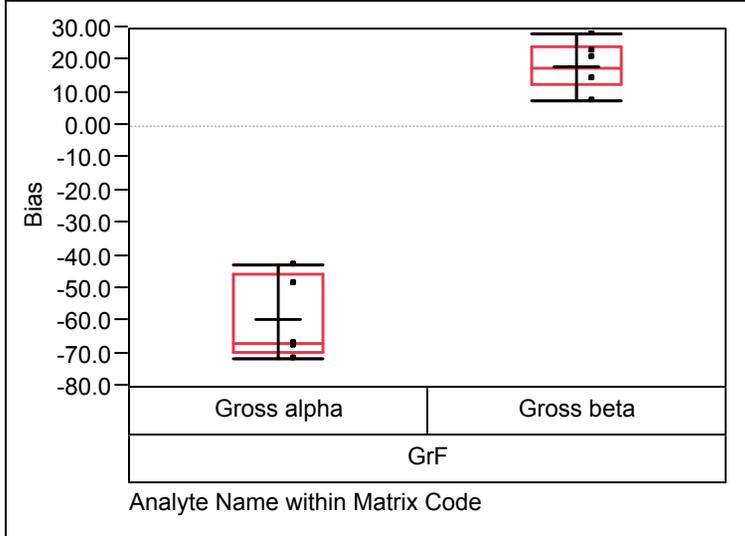
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Variability Chart for Bias



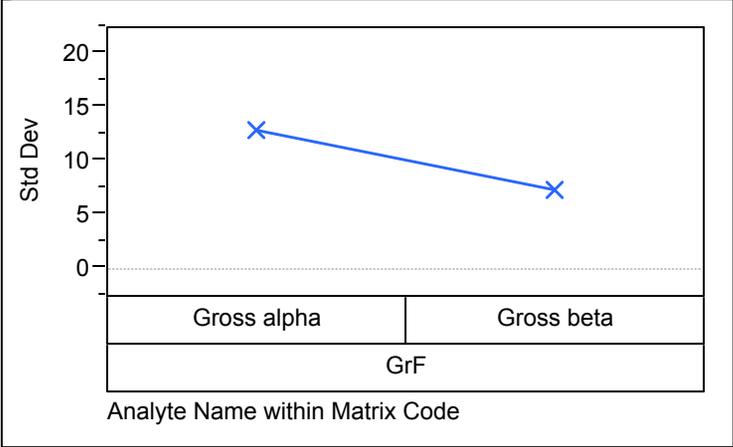
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Variability Chart for Bias



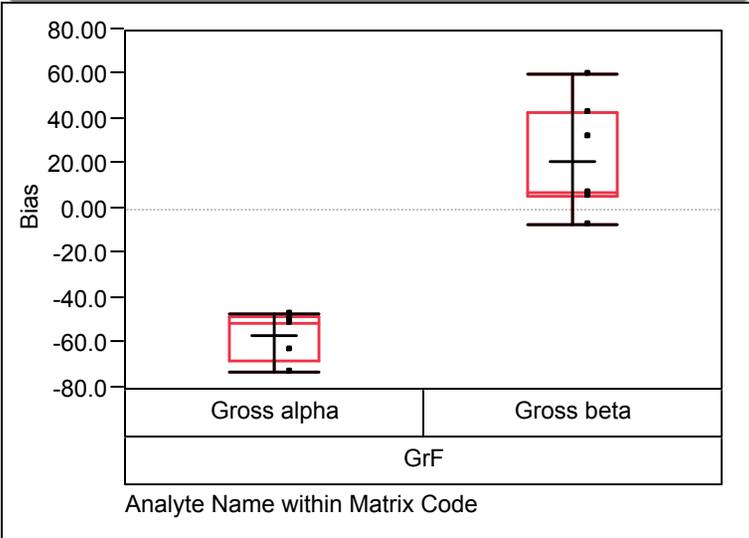
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Variability Chart for Bias



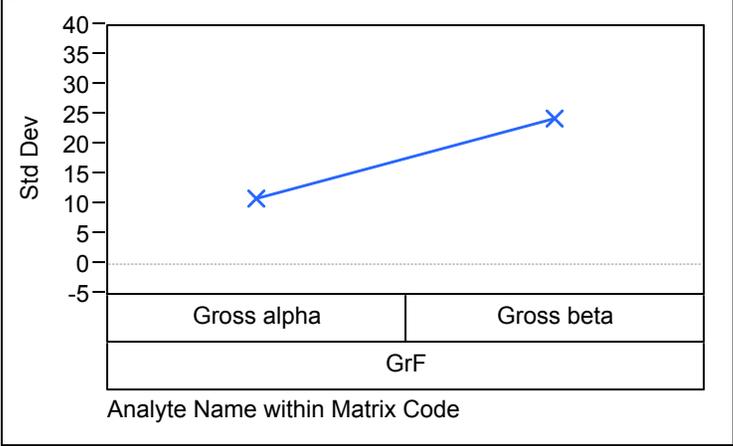
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Variability Chart for Bias



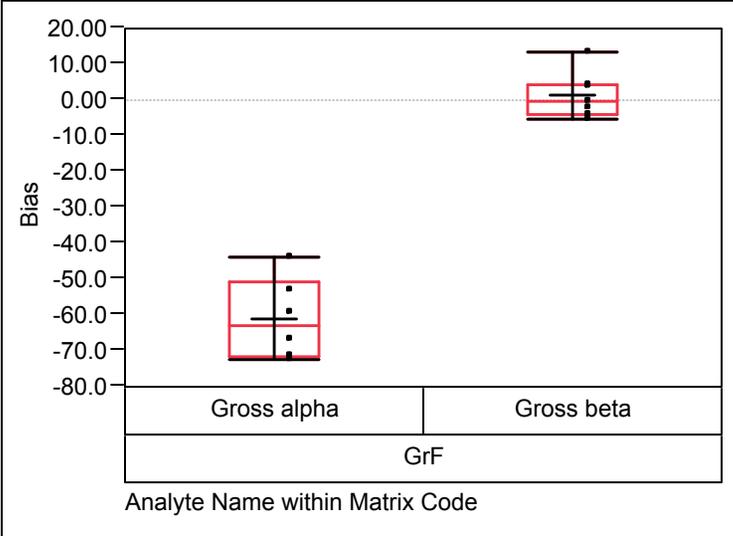
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Variability Chart for Bias



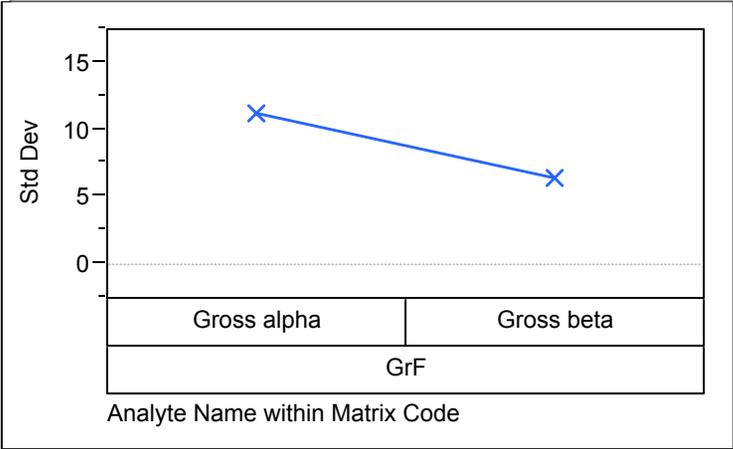
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Variability Chart for Bias



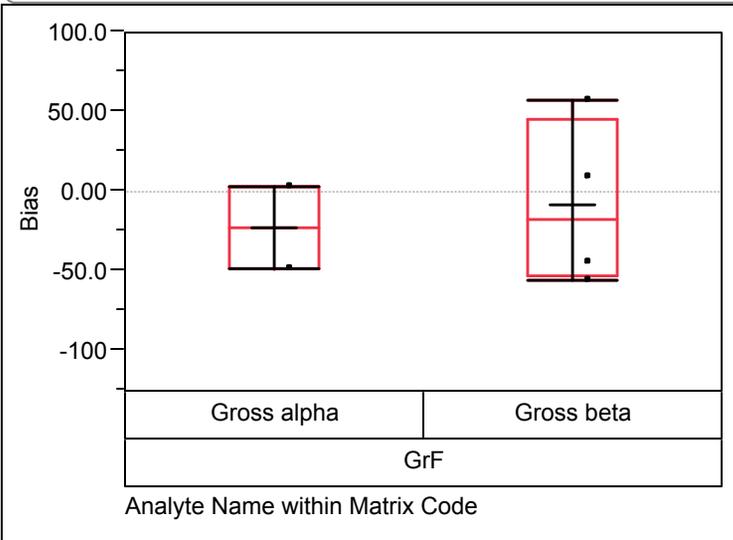
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Variability Chart for Bias



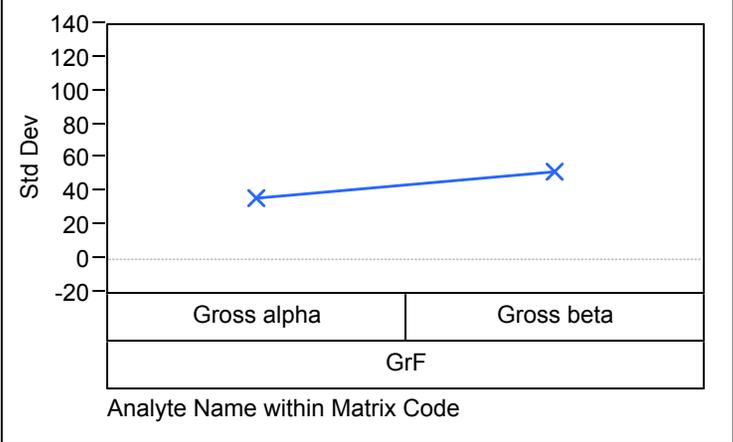
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Variability Chart for Bias



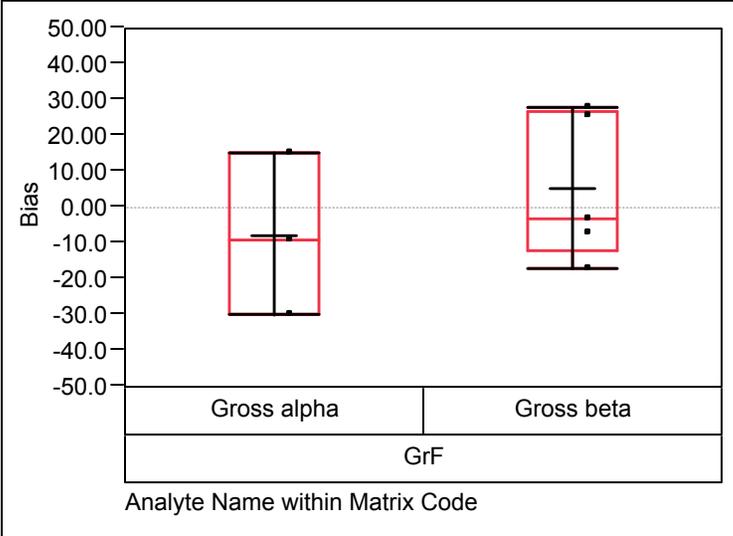
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Variability Chart for Bias



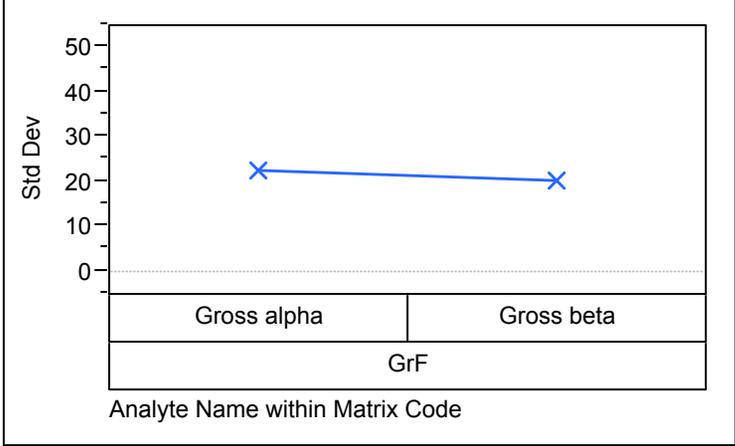
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Variability Chart for Bias



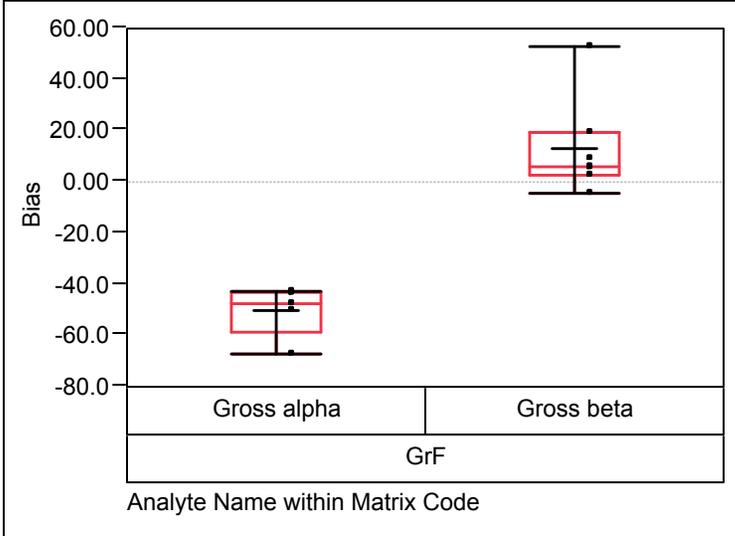
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Variability Chart for Bias



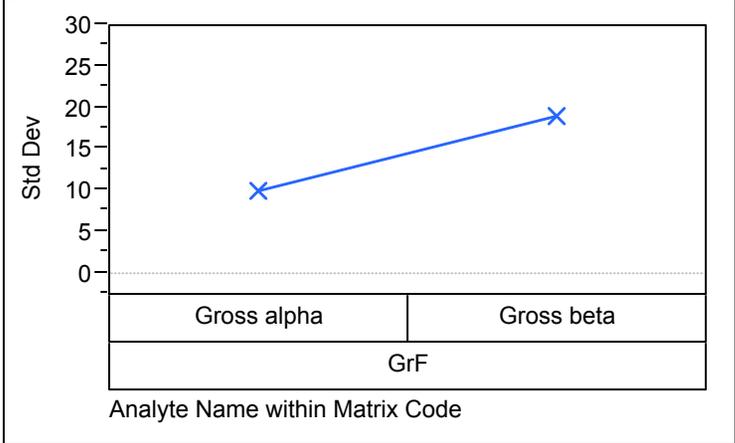
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Variability Chart for Bias



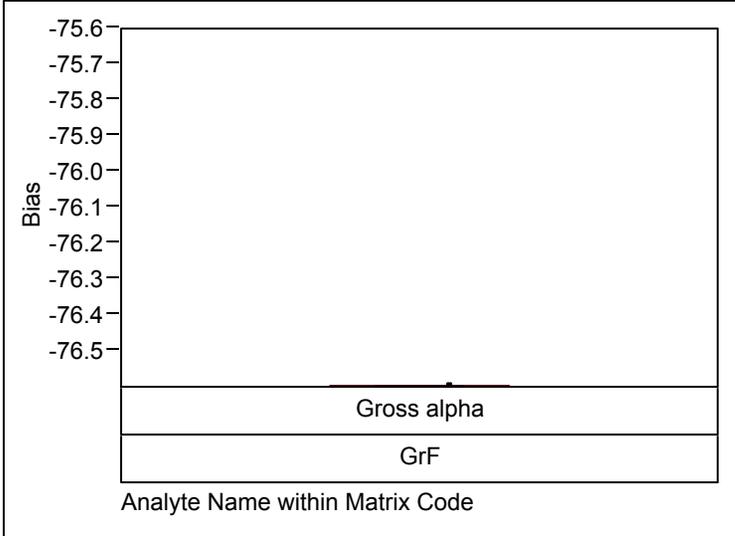
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Variability Chart for Bias



Variability Gauge Lab Code=KUFS99

Variability Chart for Bias

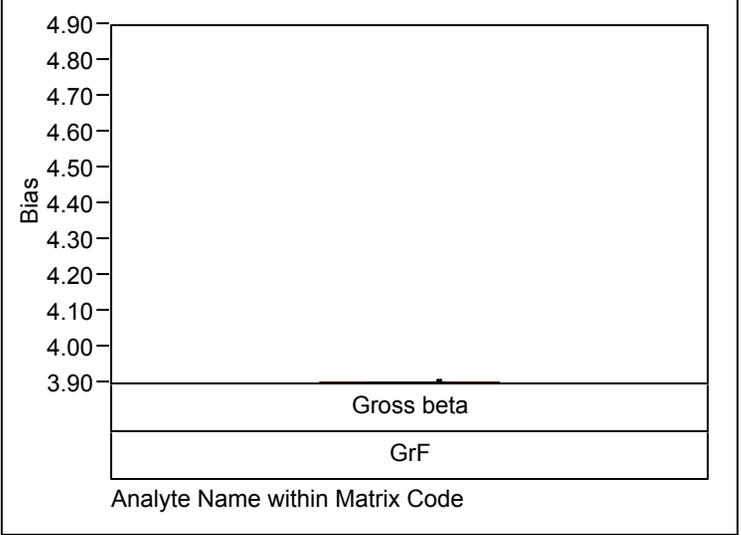


Variability Gauge Lab Code=LDRA99

Variability Chart for Bias

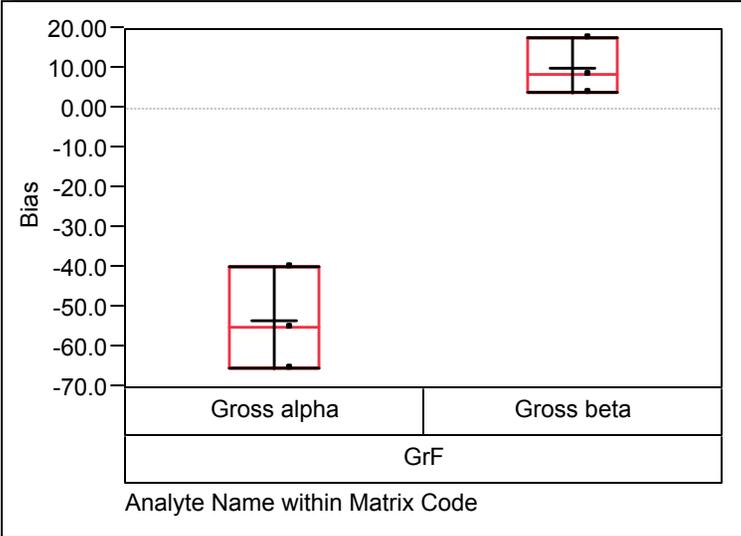
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Variability Chart for Bias



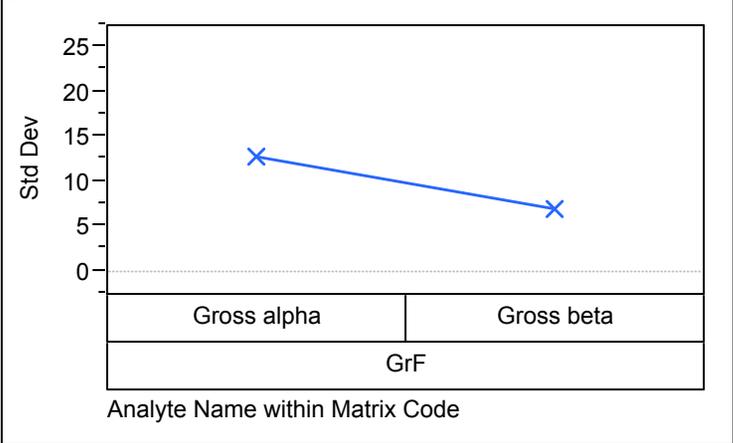
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Variability Chart for Bias



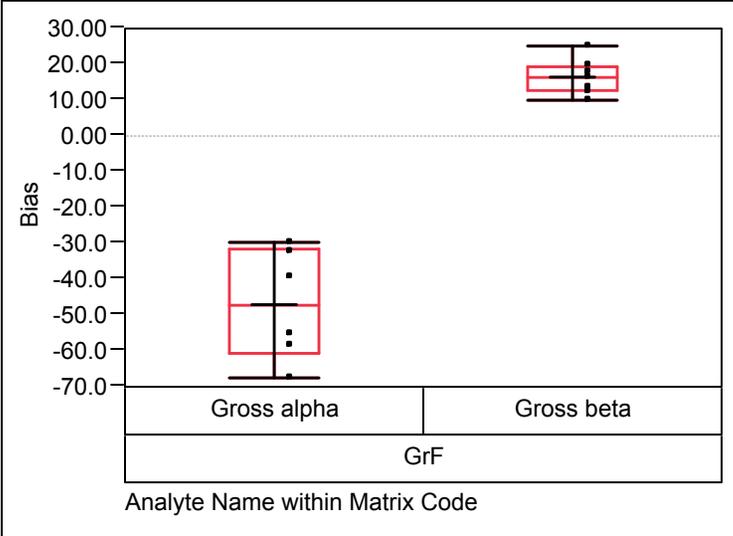
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Variability Chart for Bias



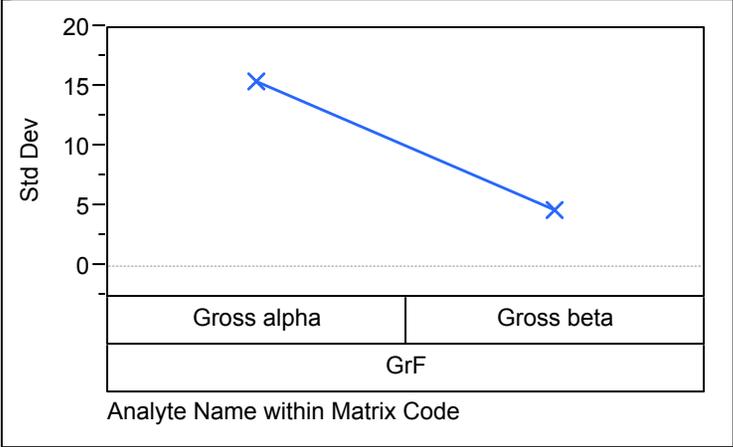
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Variability Chart for Bias



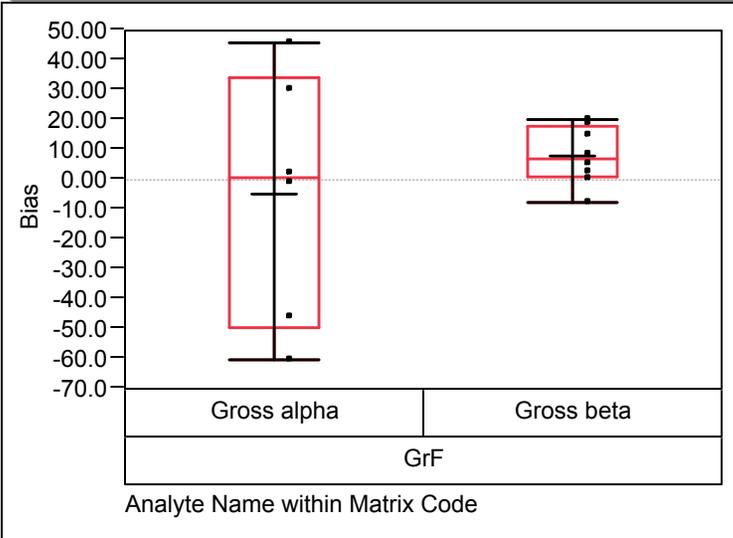
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Variability Chart for Bias



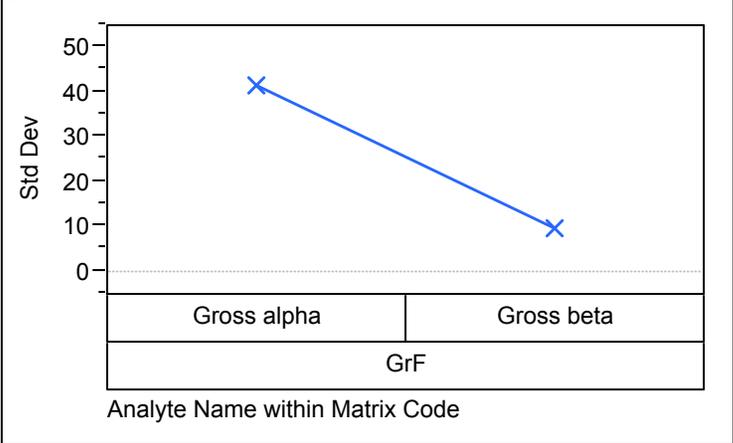
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Variability Chart for Bias



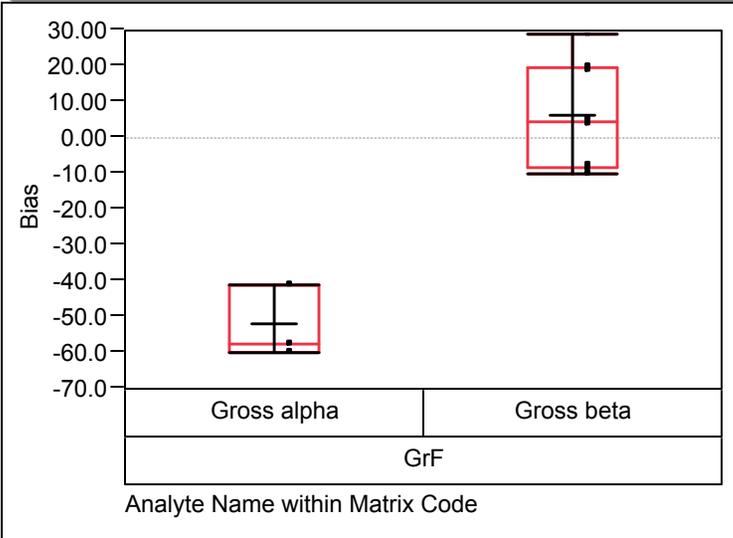
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Variability Chart for Bias



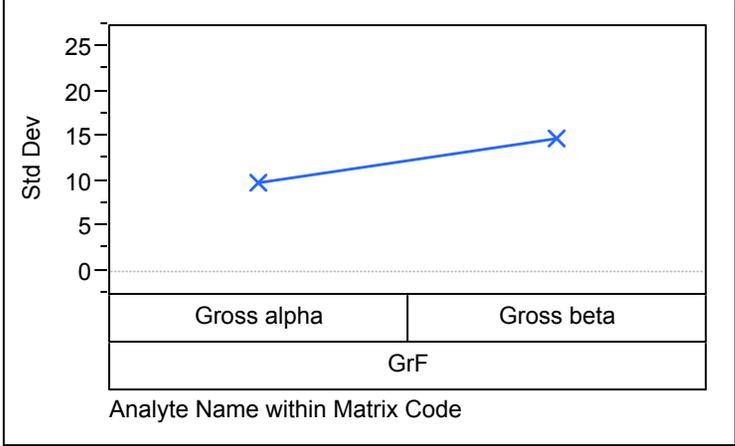
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Variability Chart for Bias



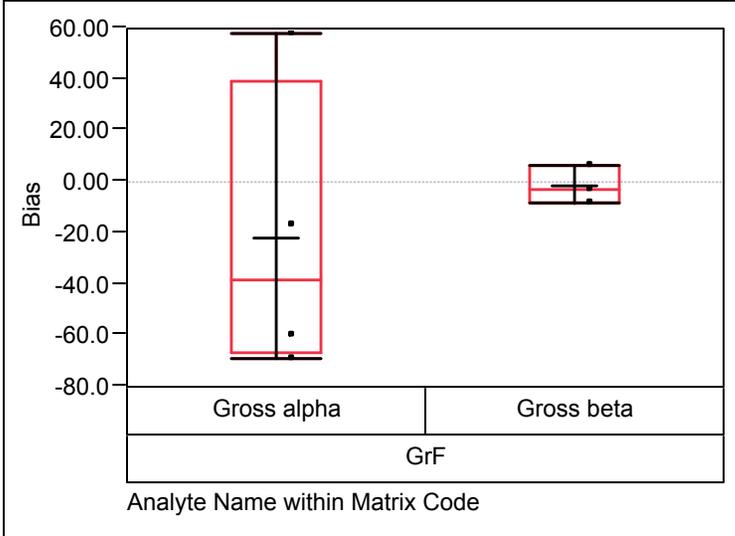
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Variability Chart for Bias



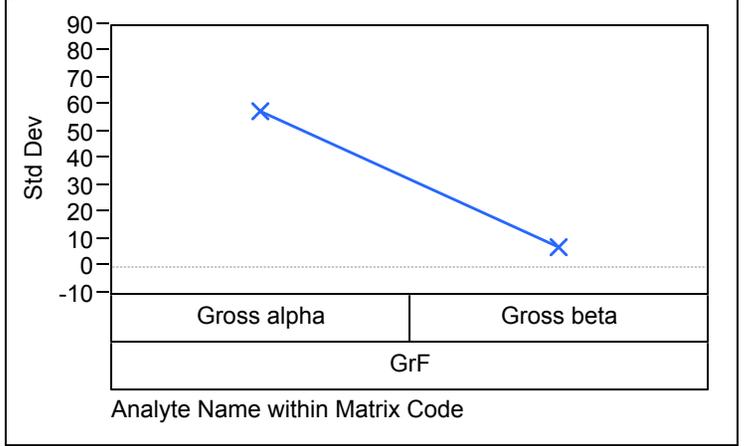
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Variability Chart for Bias



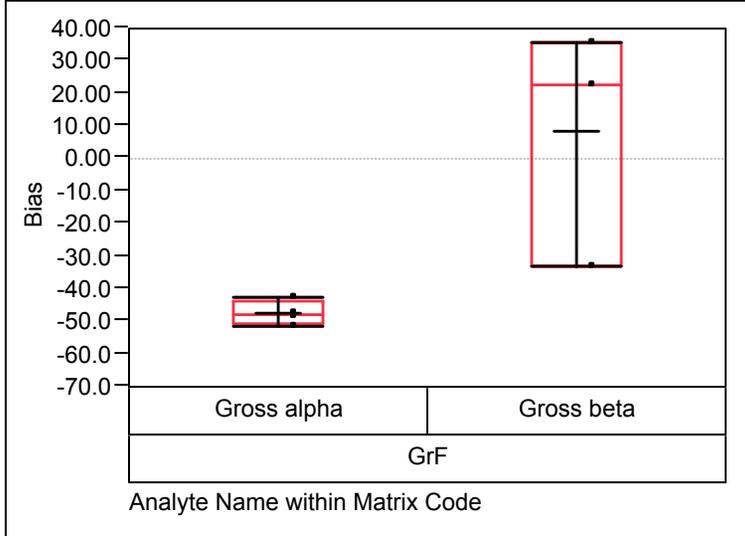
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Variability Chart for Bias



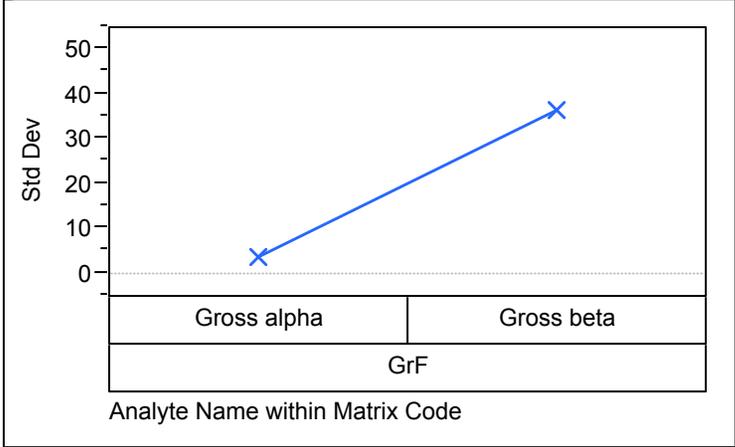
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Variability Chart for Bias



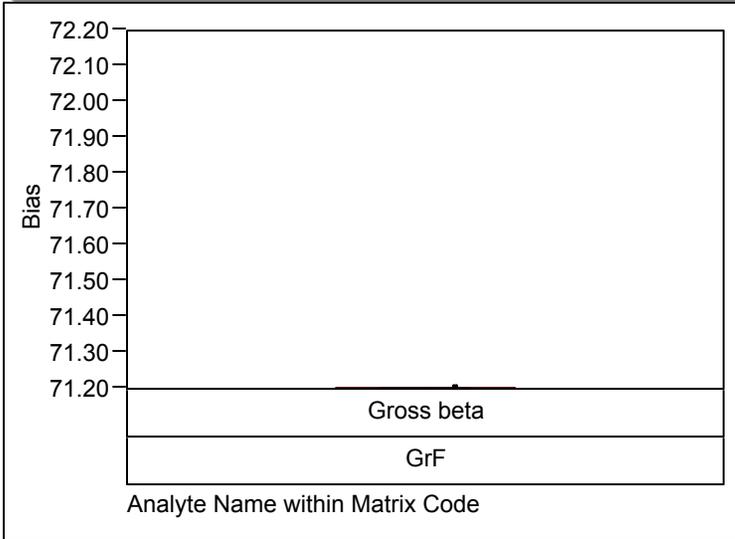
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Variability Chart for Bias



Variability Gauge Lab Code=MSCL01

Variability Chart for Bias

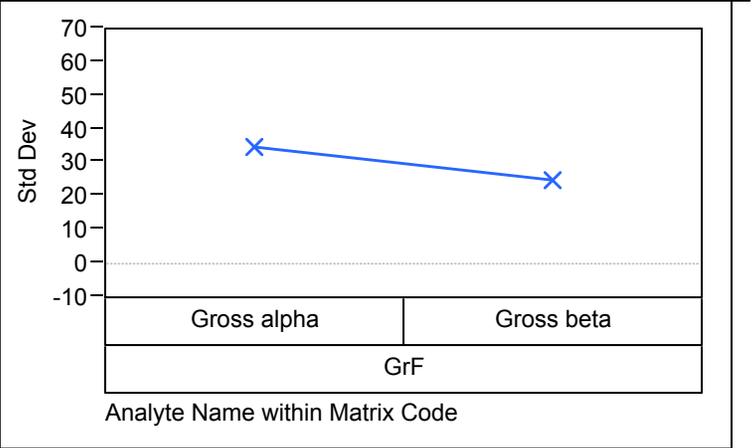
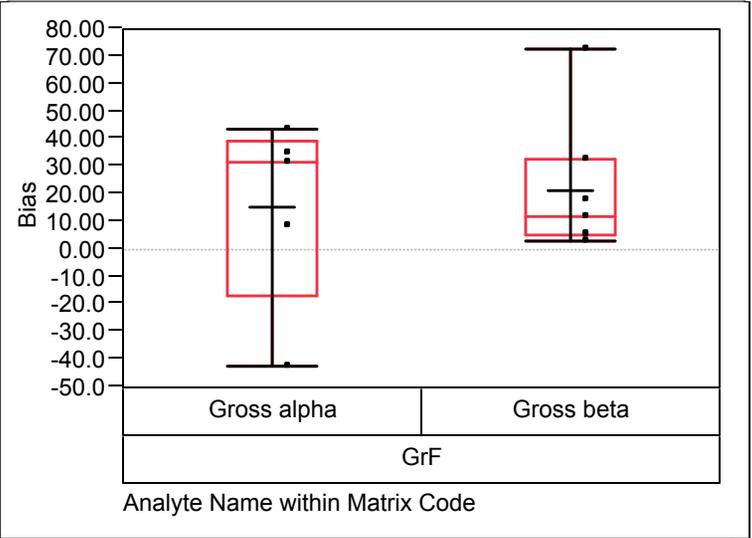


Variability Gauge Lab Code=NARL01

Variability Chart for Bias

Variability Gauge Lab Code=NARL01

Variability Chart for Bias

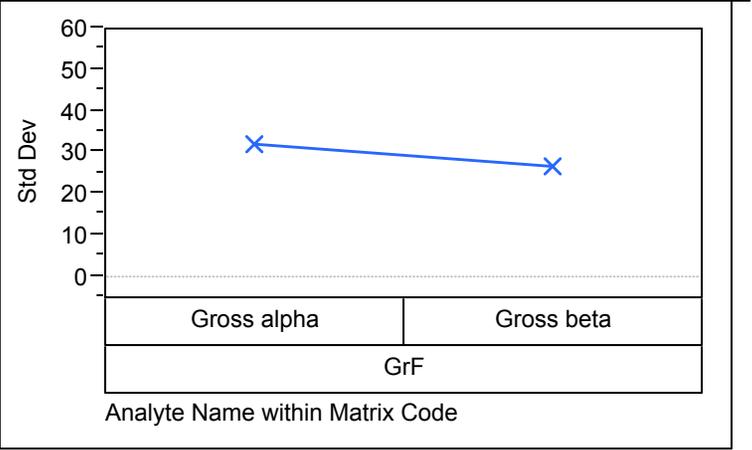
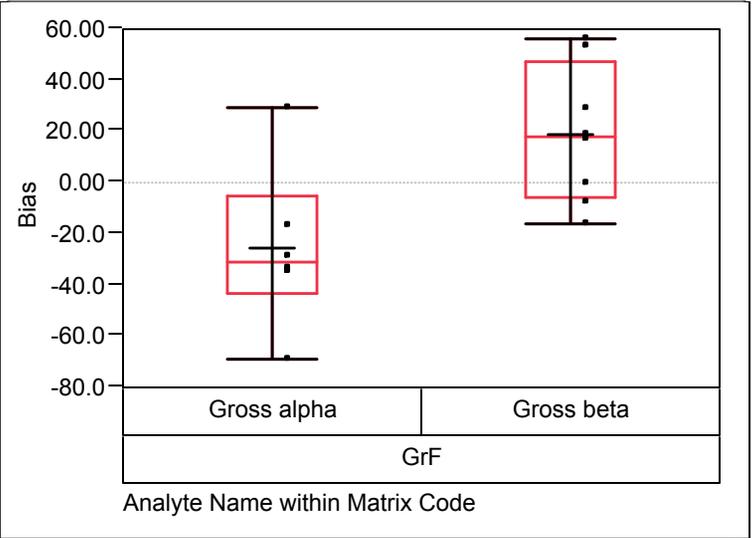


Variability Gauge Lab Code=NESI01

Variability Chart for Bias

Variability Gauge Lab Code=NESI01

Variability Chart for Bias

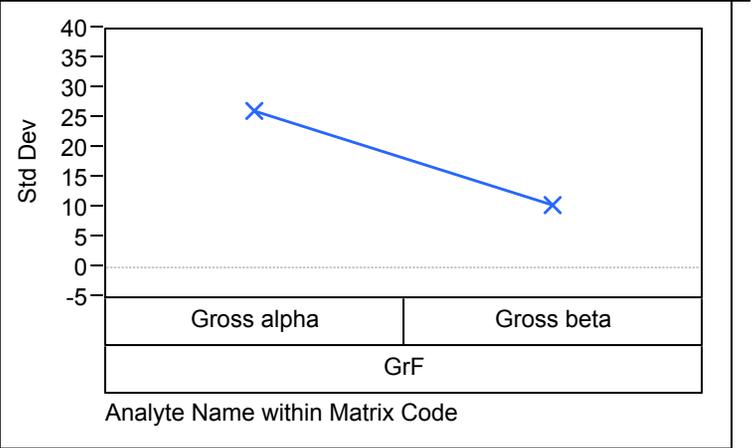
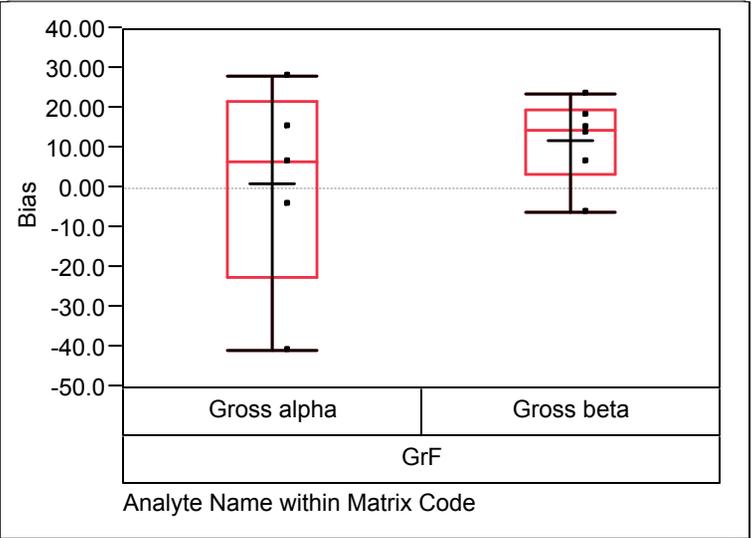


Variability Gauge Lab Code=NJDH01

Variability Chart for Bias

Variability Gauge Lab Code=NJDH01

Variability Chart for Bias

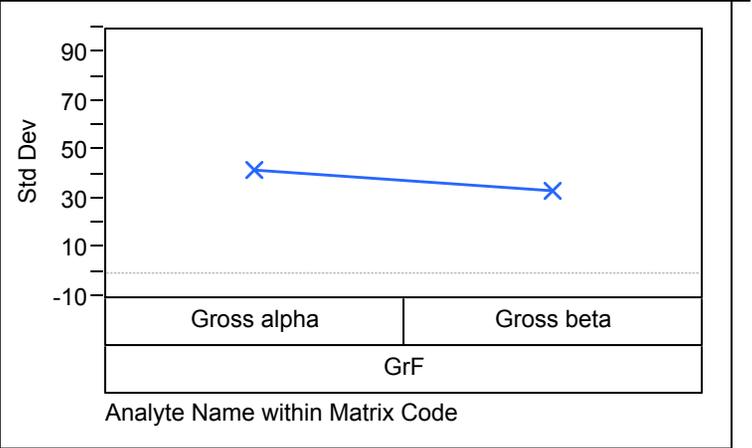
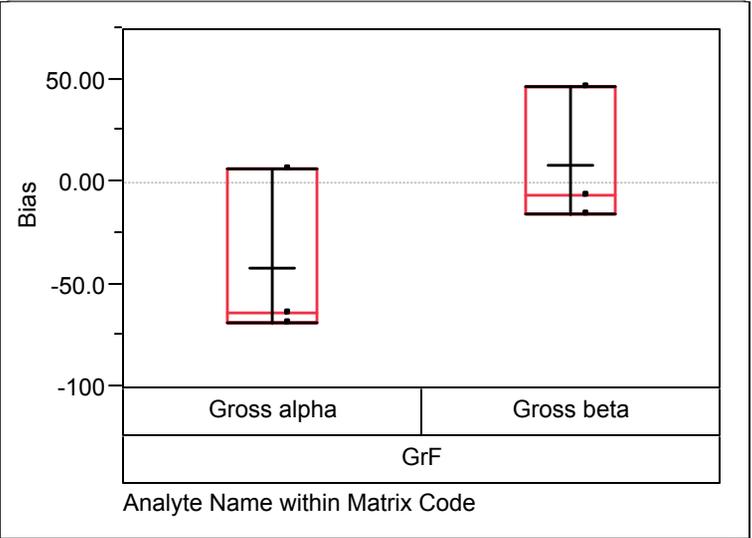


Variability Gauge Lab Code=NTSI01

Variability Chart for Bias

Variability Gauge Lab Code=NTSI01

Variability Chart for Bias

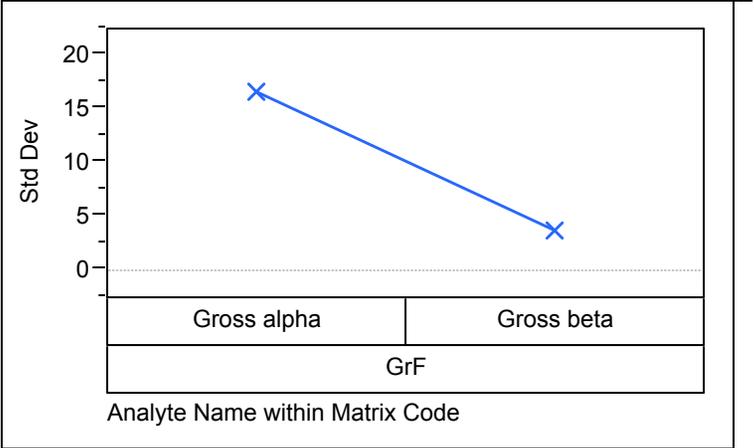
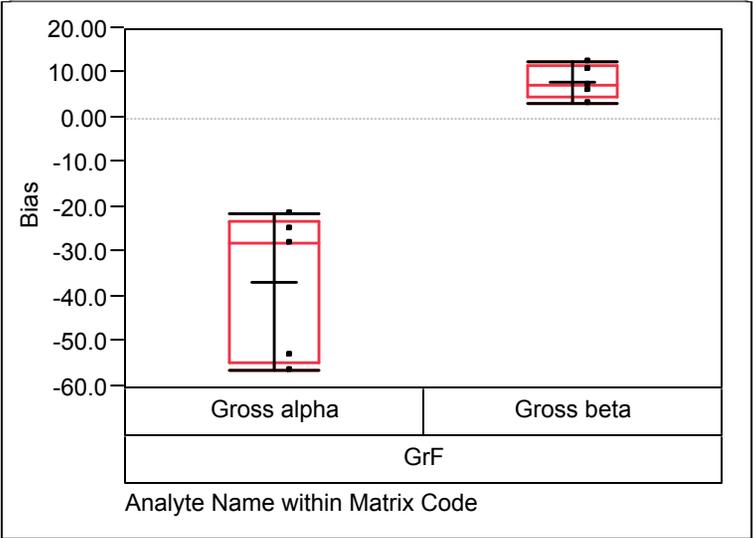


Variability Gauge Lab Code=OBGL01

Variability Chart for Bias

Variability Gauge Lab Code=OBGL01

Variability Chart for Bias

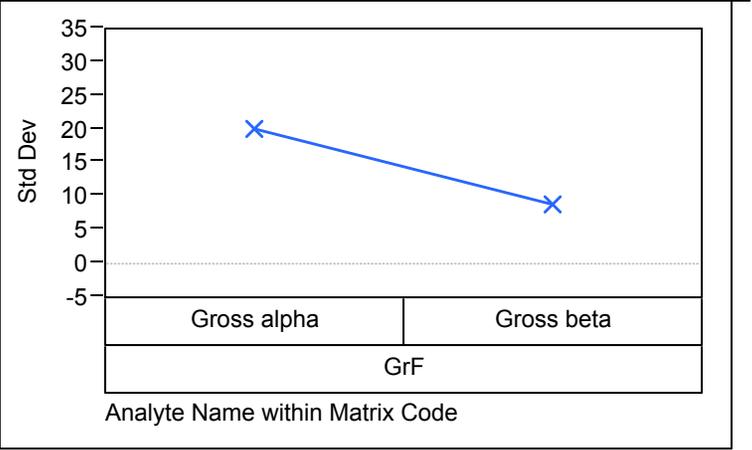
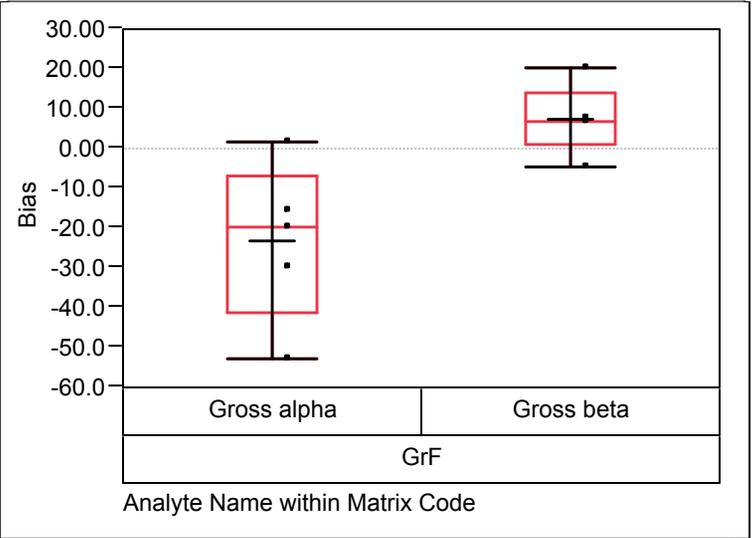


Variability Gauge Lab Code=ODHL01

Variability Chart for Bias

Variability Gauge Lab Code=ODHL01

Variability Chart for Bias

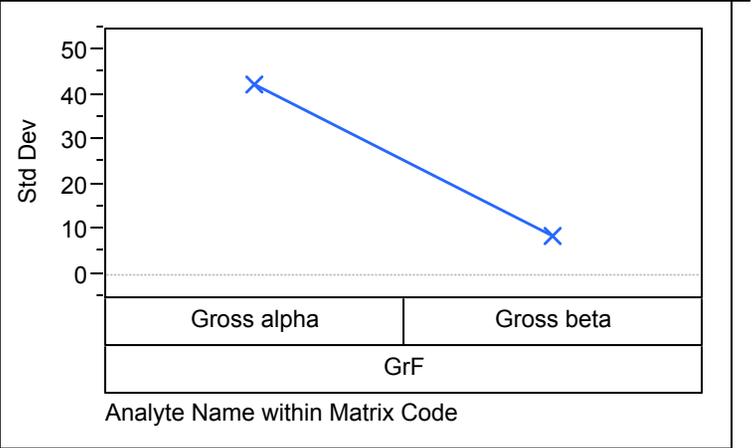
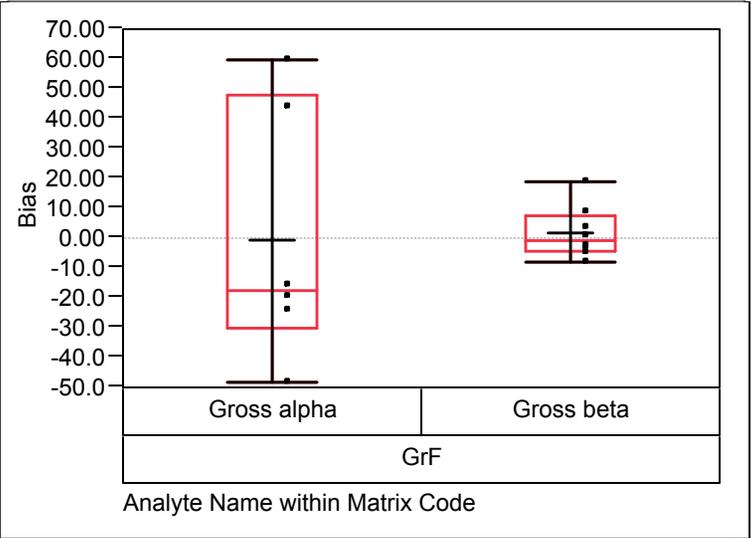


Variability Gauge Lab Code=ORIS01

Variability Chart for Bias

Variability Gauge Lab Code=ORIS01

Variability Chart for Bias

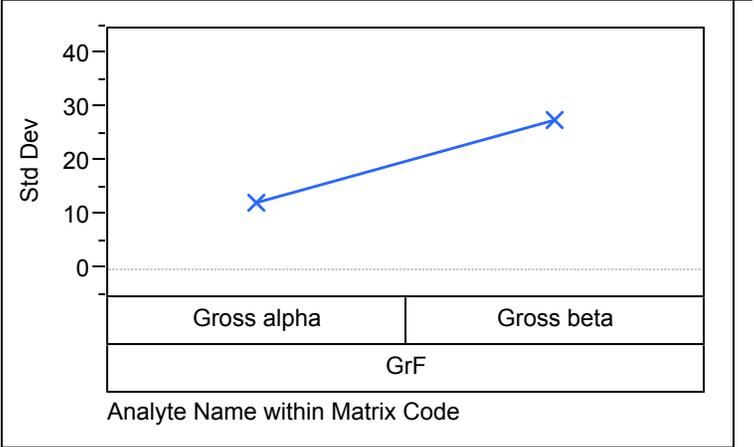
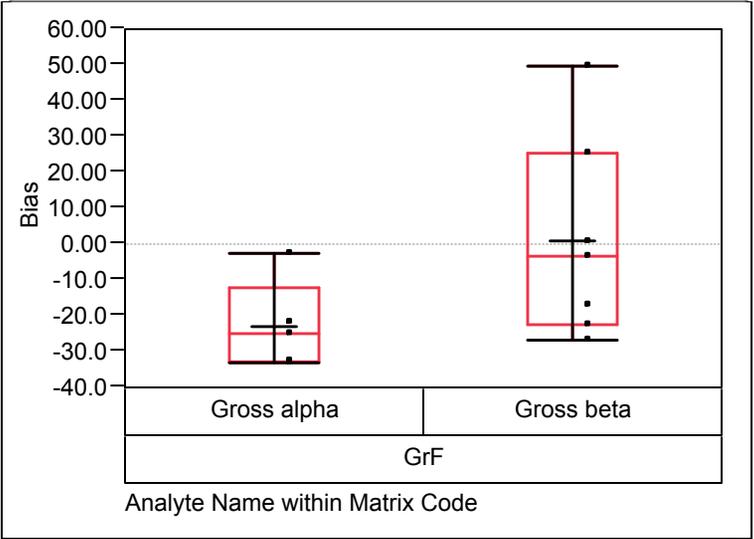


Variability Gauge Lab Code=OTLI01

Variability Chart for Bias

Variability Gauge Lab Code=OTLI01

Variability Chart for Bias

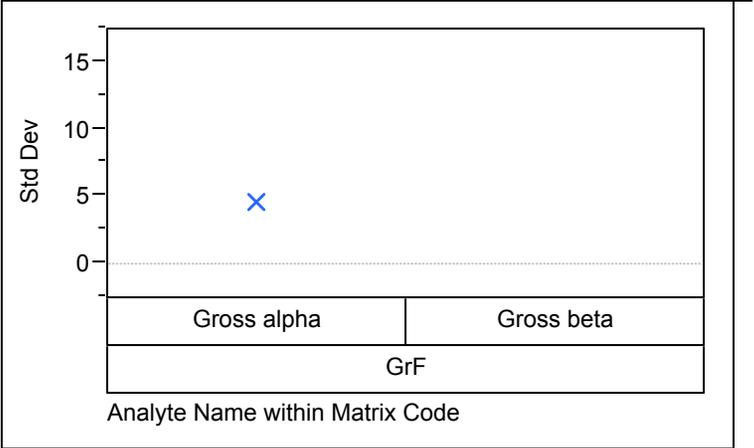
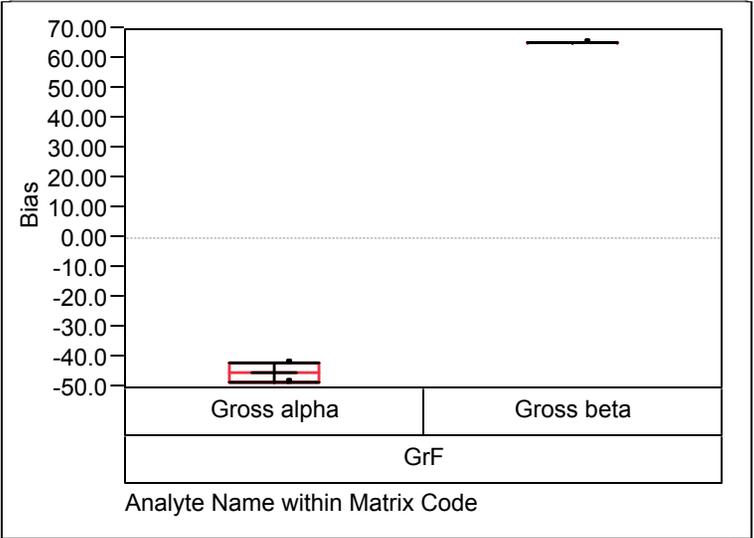


Variability Gauge Lab Code=PBRF01

Variability Chart for Bias

Variability Gauge Lab Code=PBRF01

Variability Chart for Bias

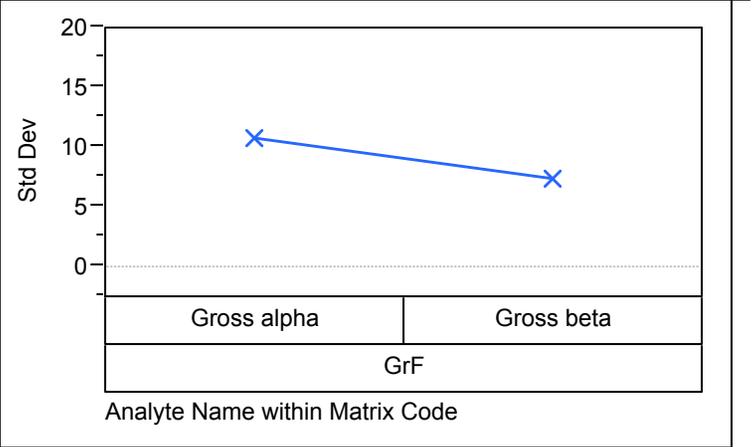
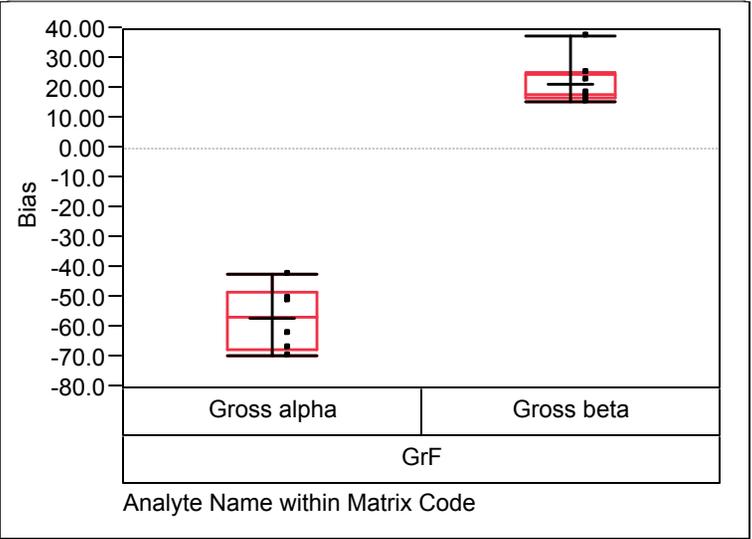


Variability Gauge Lab Code=QUAN01

Variability Chart for Bias

Variability Gauge Lab Code=QUAN01

Variability Chart for Bias

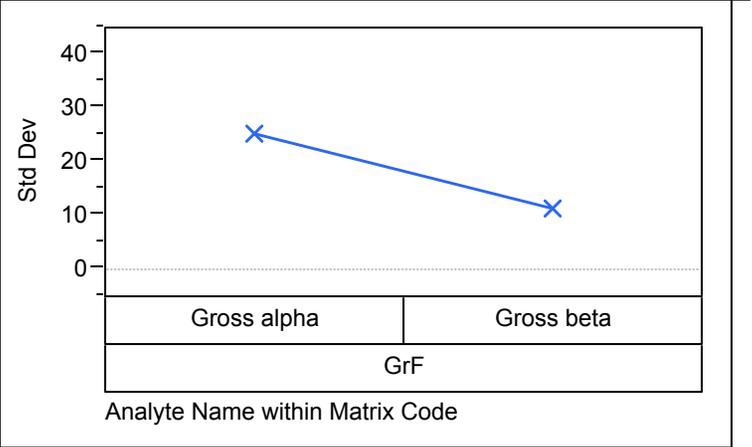
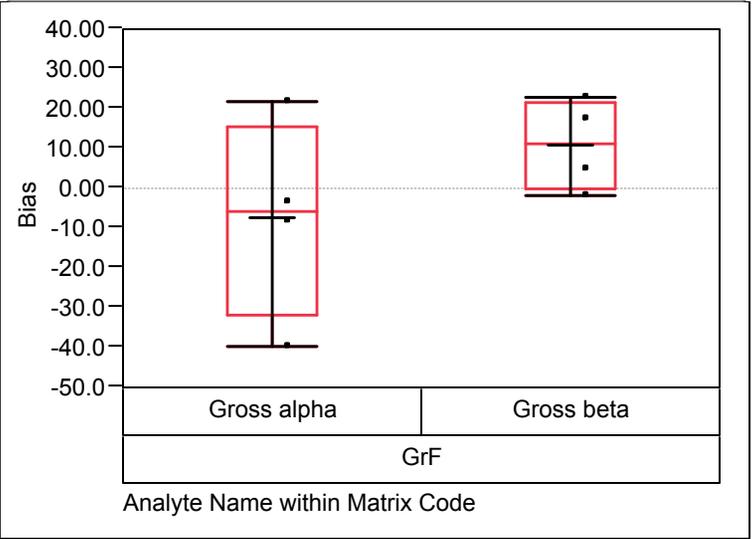


Variability Gauge Lab Code=QUAN03

Variability Chart for Bias

Variability Gauge Lab Code=RMCL99

Variability Chart for Bias

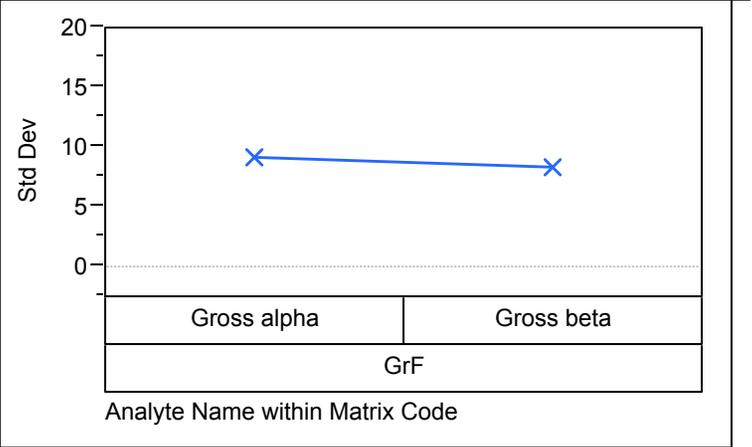
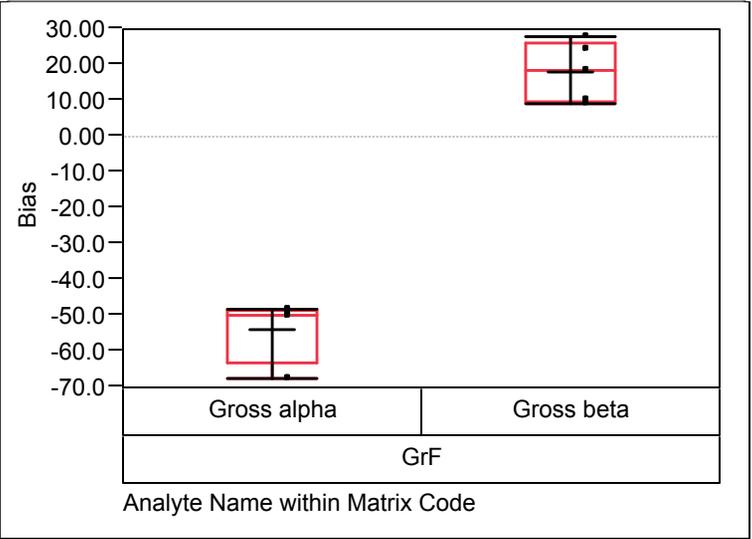


Variability Gauge Lab Code=RPCR01

Variability Chart for Bias

Variability Gauge Lab Code=RPCR01

Variability Chart for Bias

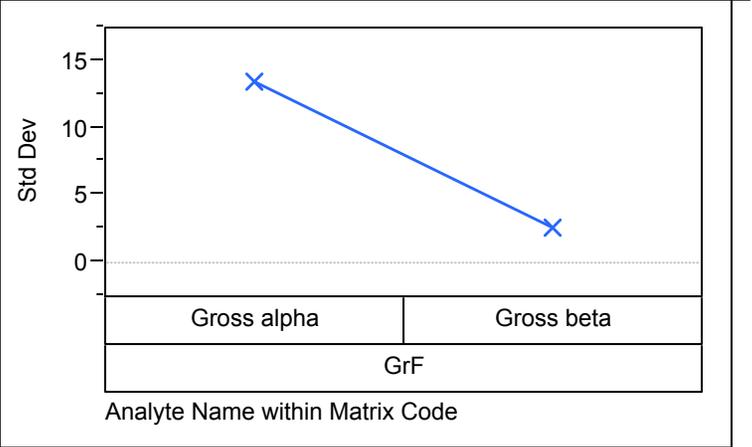
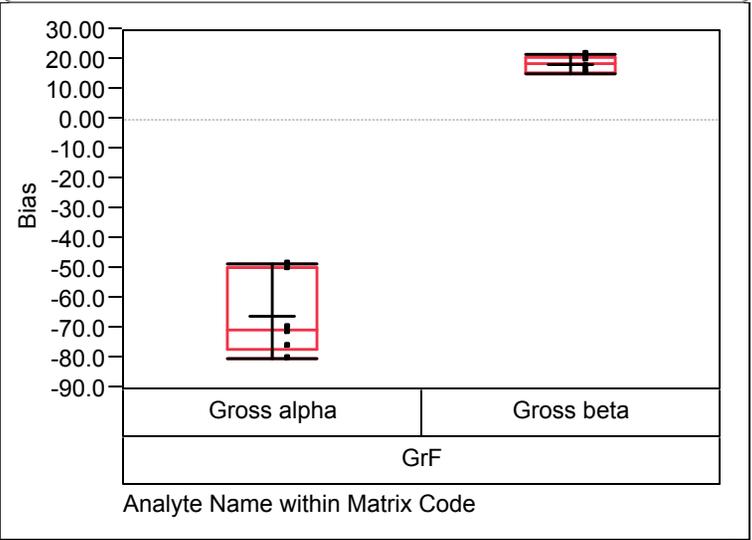


Variability Gauge Lab Code=RPSC01

Variability Chart for Bias

Variability Gauge Lab Code=RPSC01

Variability Chart for Bias

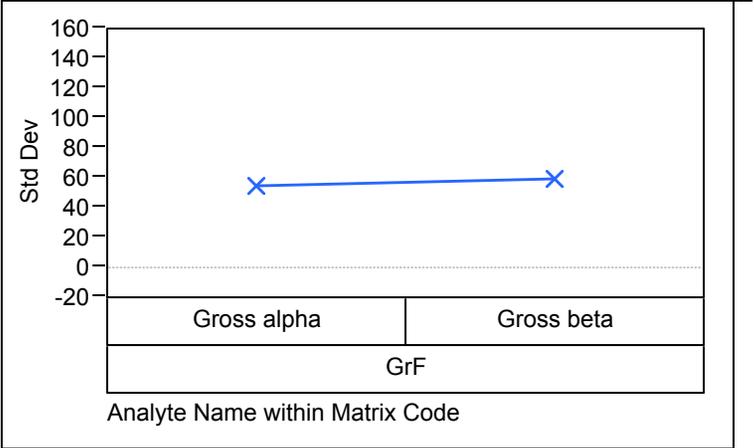
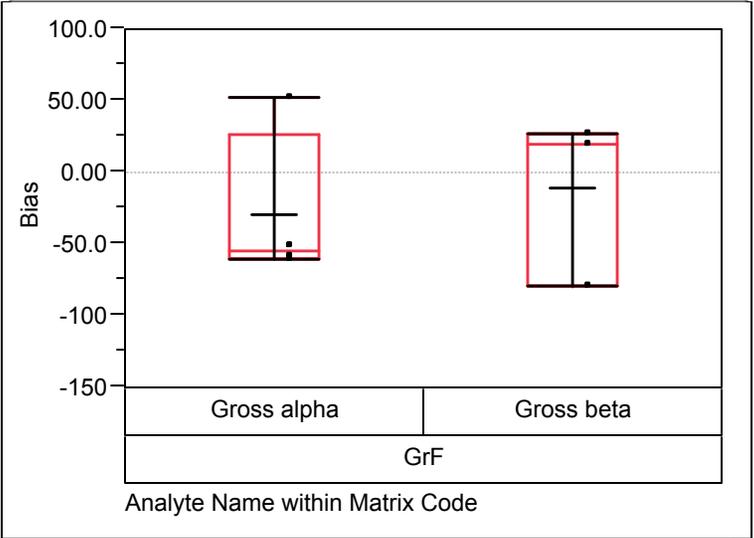


Variability Gauge Lab Code=RSAL01

Variability Chart for Bias

Variability Gauge Lab Code=RSAL01

Variability Chart for Bias

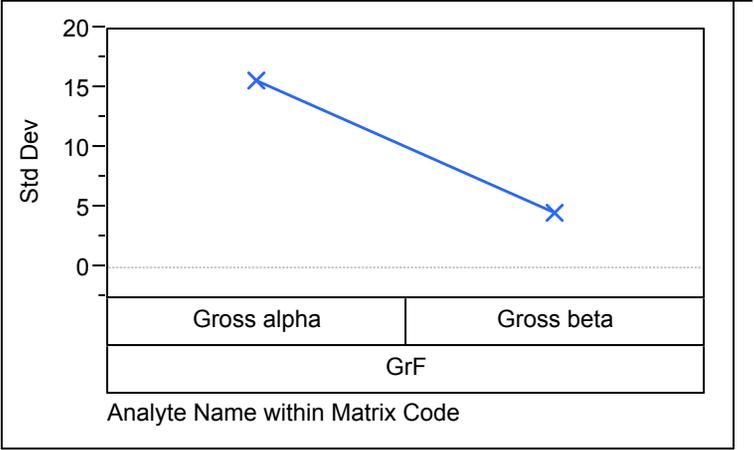
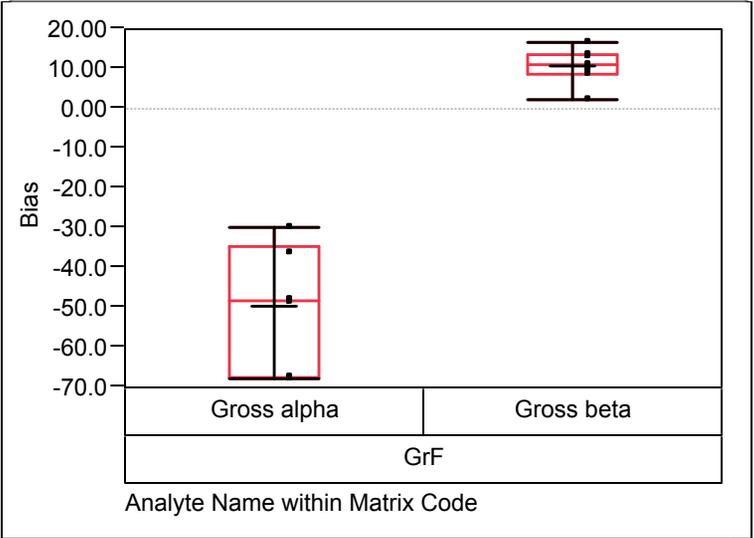


Variability Gauge Lab Code=SCAL01

Variability Chart for Bias

Variability Gauge Lab Code=SCAL01

Variability Chart for Bias

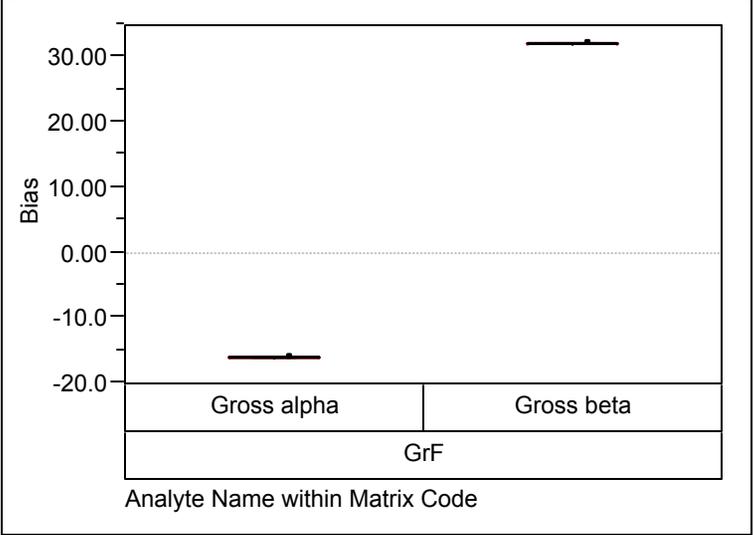


Variability Gauge Lab Code=SECR01

Variability Chart for Bias

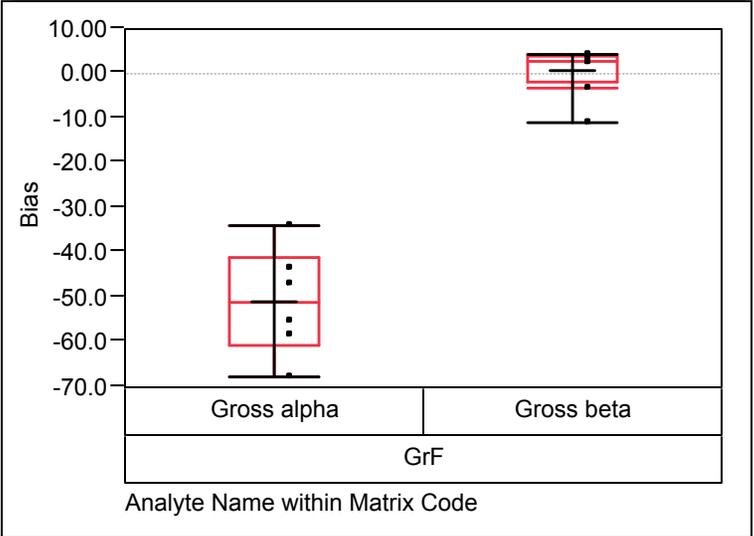
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Variability Chart for Bias



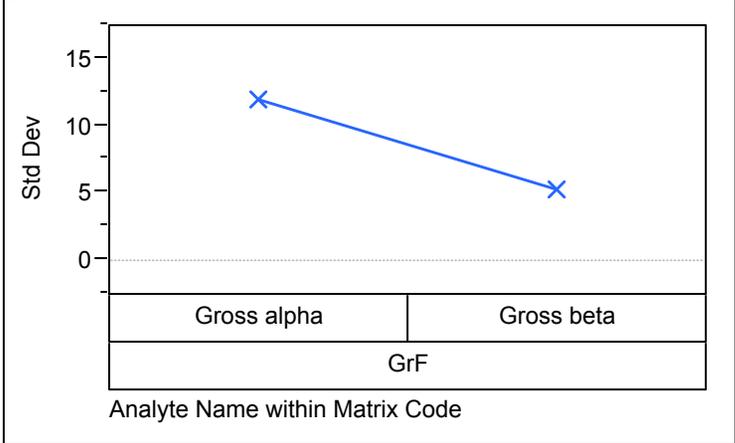
Variability Gauge Lab Code=SEML01

Variability Chart for Bias



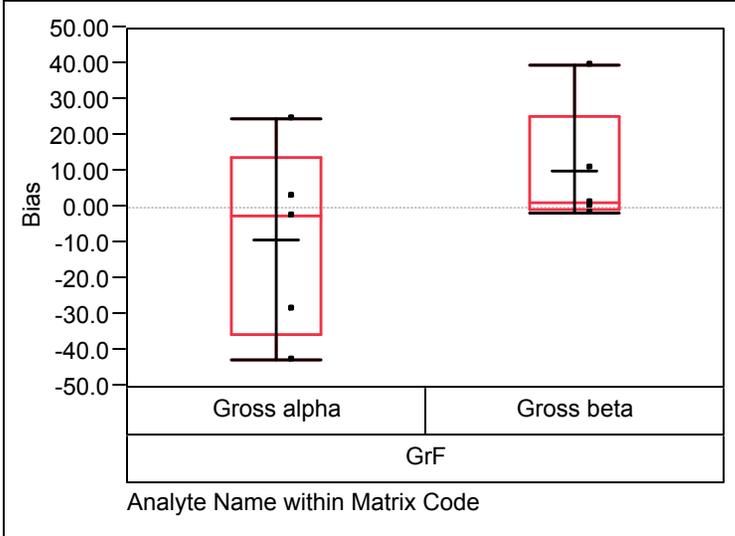
Variability Gauge Lab Code=SEML01

Variability Chart for Bias



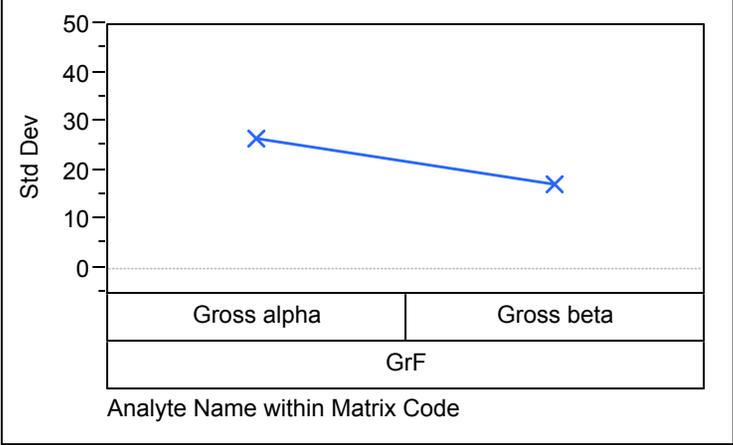
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Variability Chart for Bias



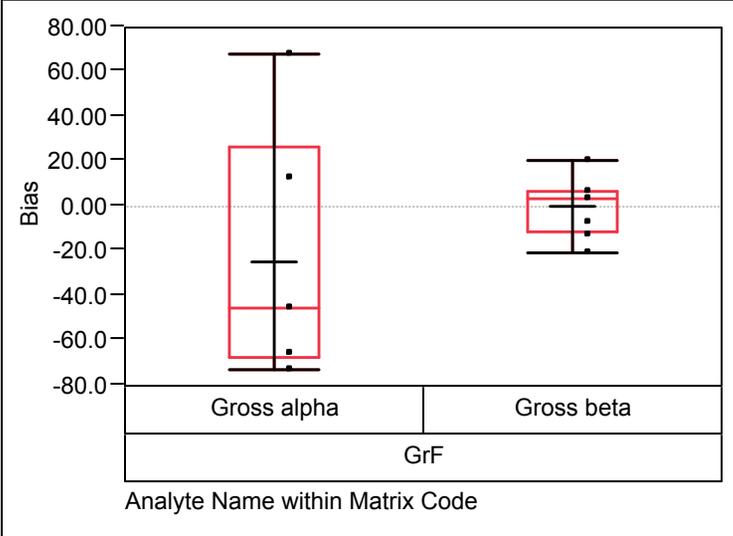
Variability Gauge Lab Code=SLDL01

Variability Chart for Bias



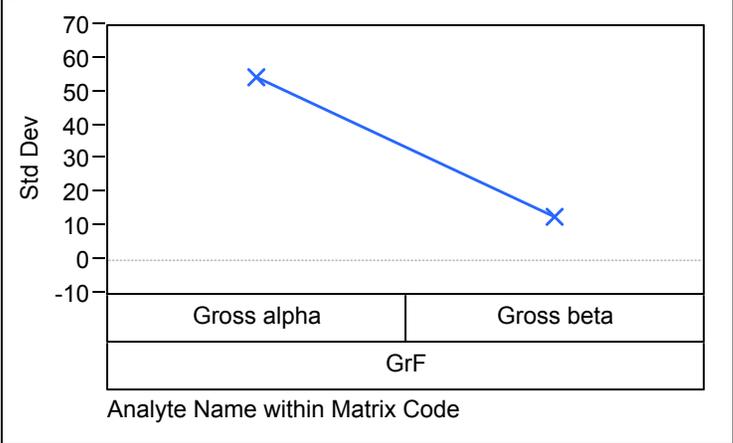
Variability Gauge Lab Code=SOUT01

Variability Chart for Bias



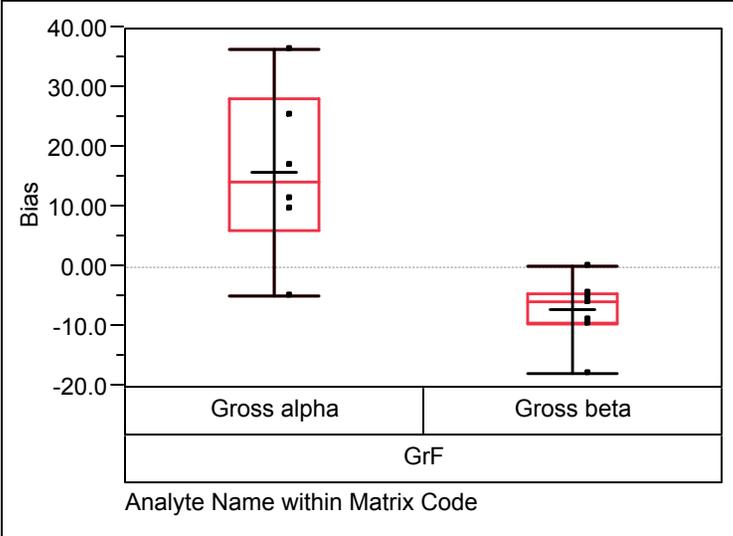
Variability Gauge Lab Code=SOUT01

Variability Chart for Bias



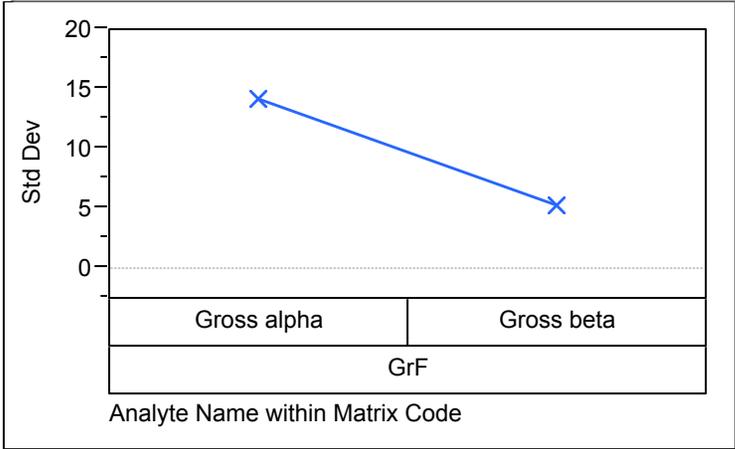
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Variability Chart for Bias



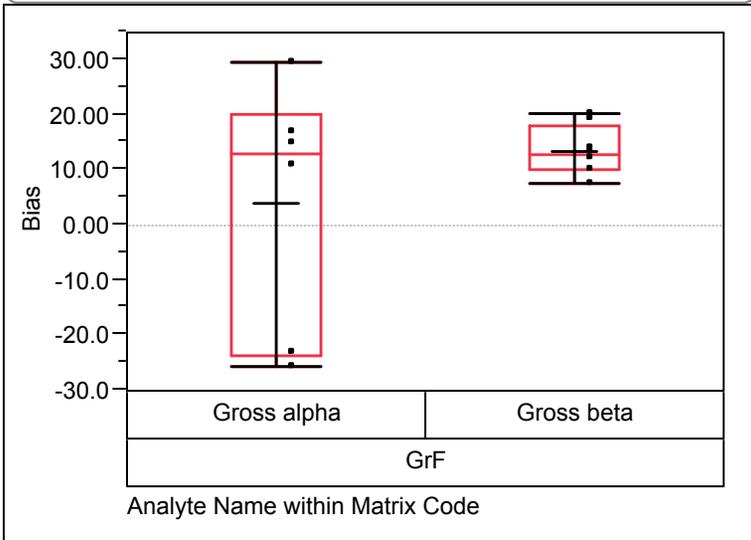
Variability Gauge Lab Code=SRPD01

Variability Chart for Bias



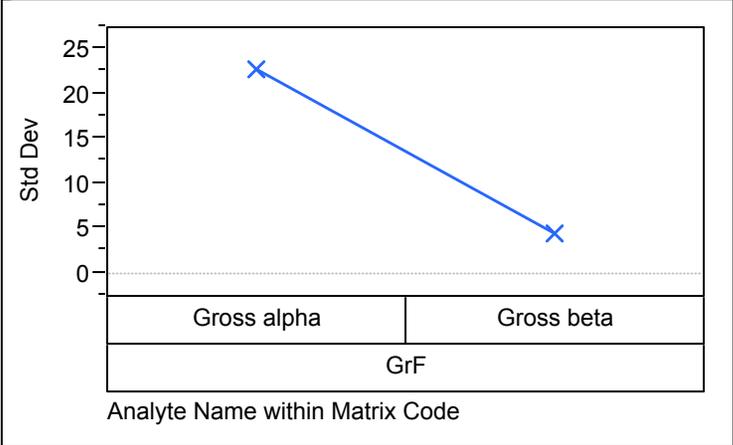
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Variability Chart for Bias



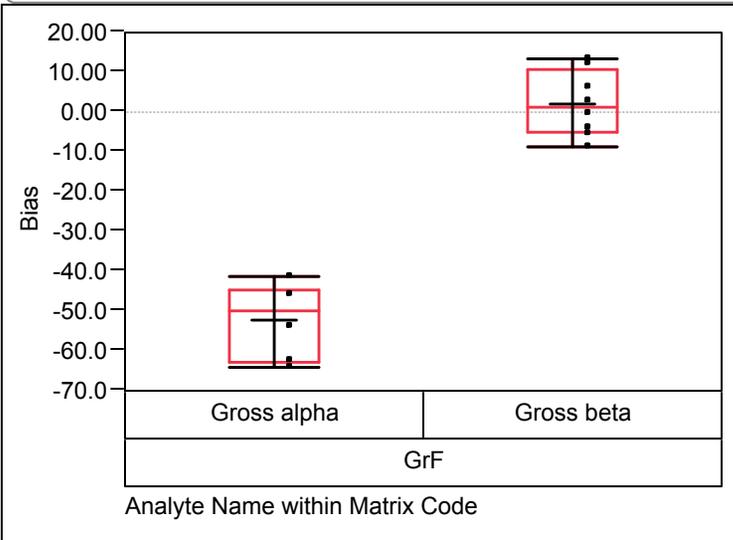
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Variability Chart for Bias



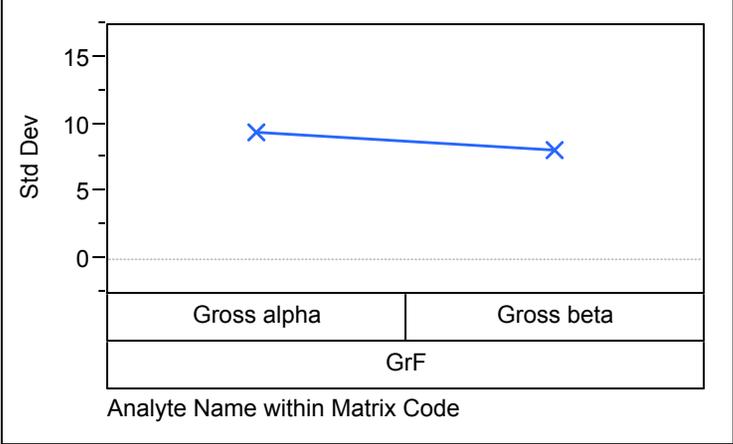
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Variability Chart for Bias



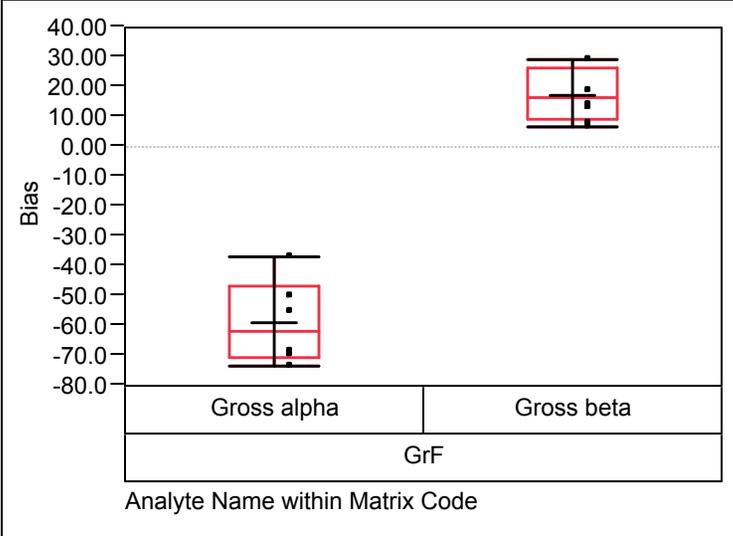
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Variability Chart for Bias



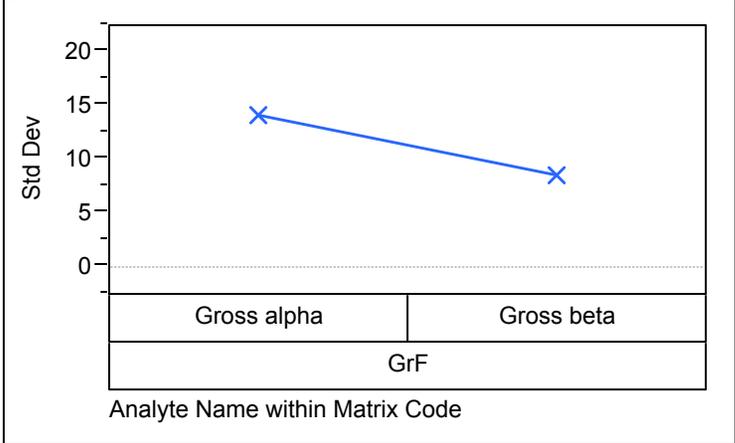
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Variability Chart for Bias



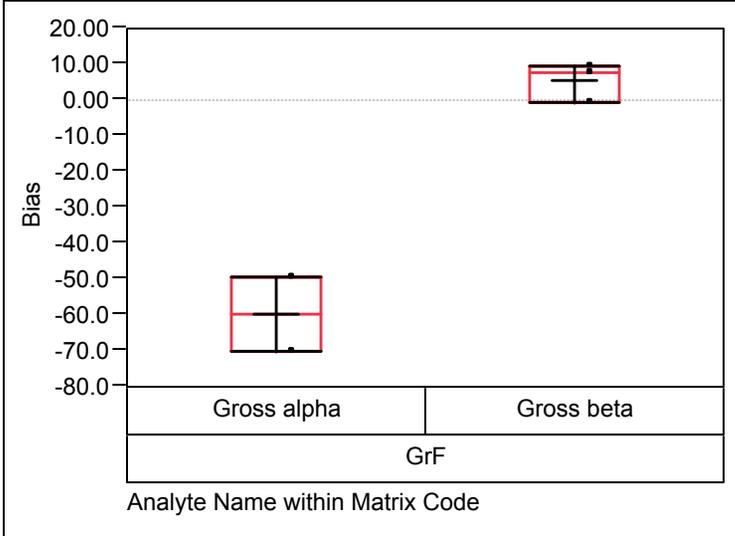
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Variability Chart for Bias



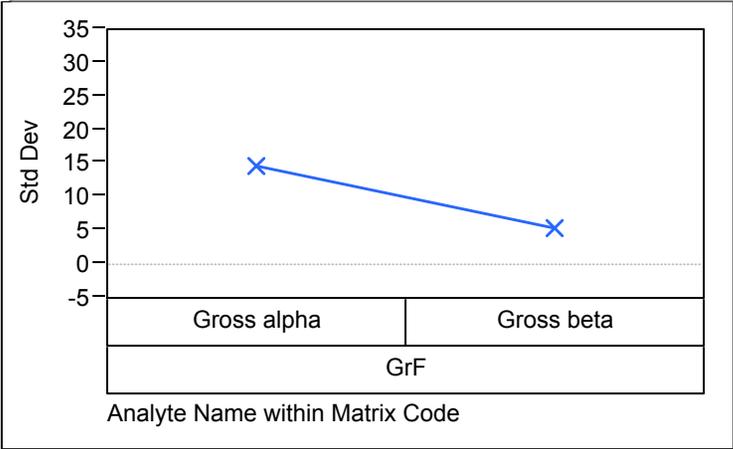
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Variability Chart for Bias



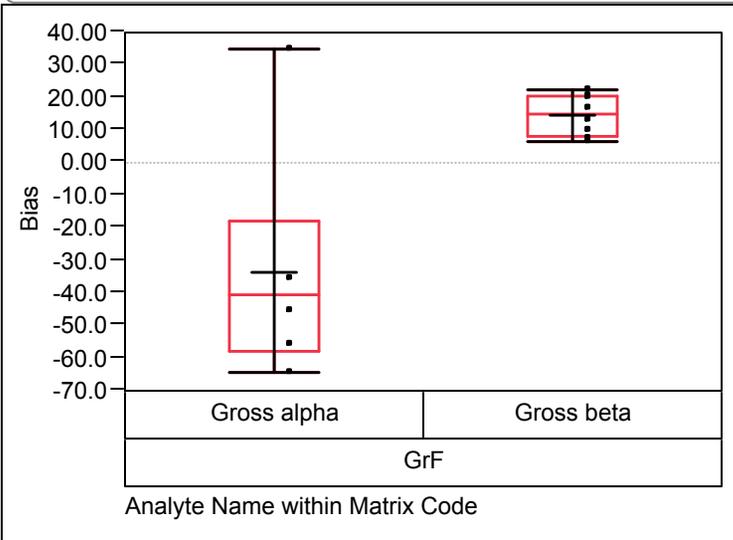
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Variability Chart for Bias



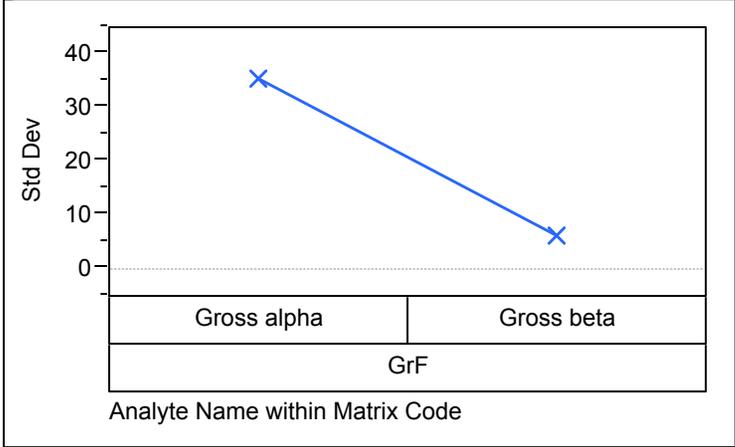
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Variability Chart for Bias



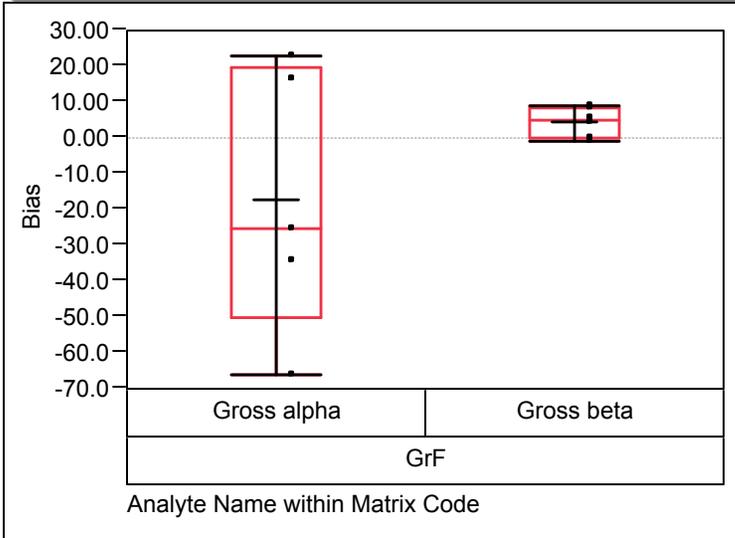
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Variability Chart for Bias



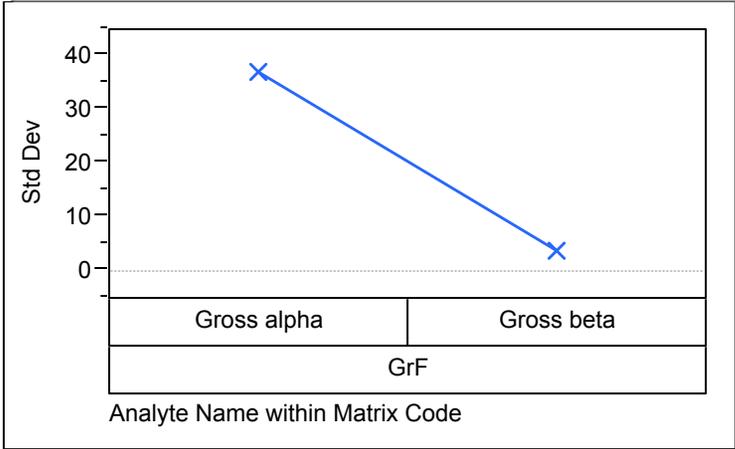
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Variability Chart for Bias



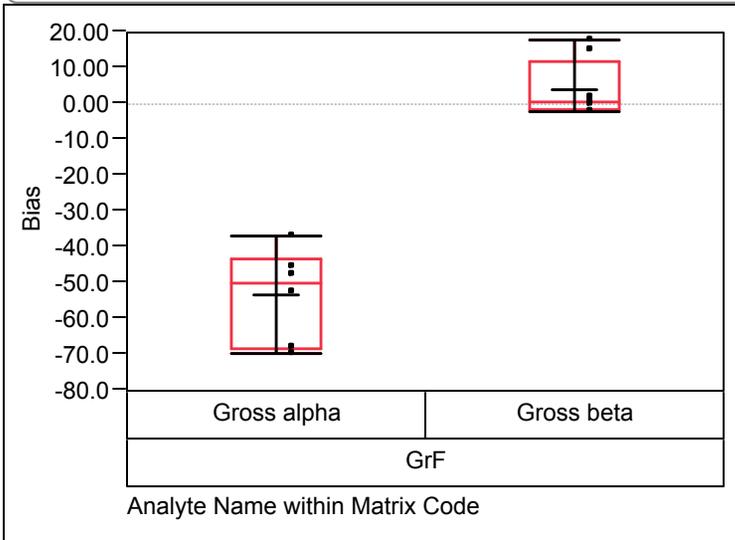
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Variability Chart for Bias



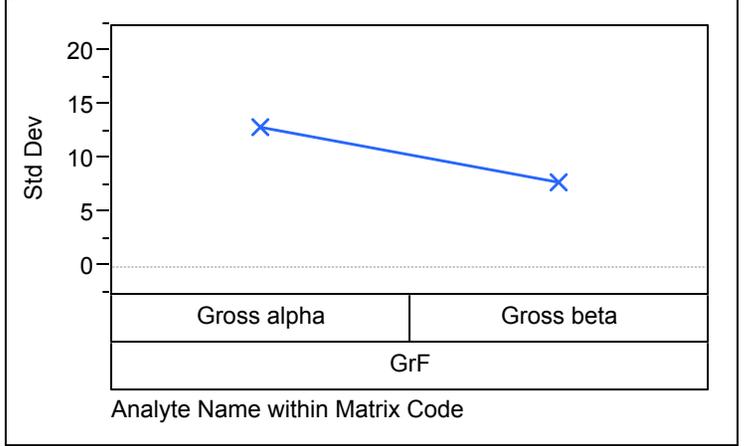
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Variability Chart for Bias



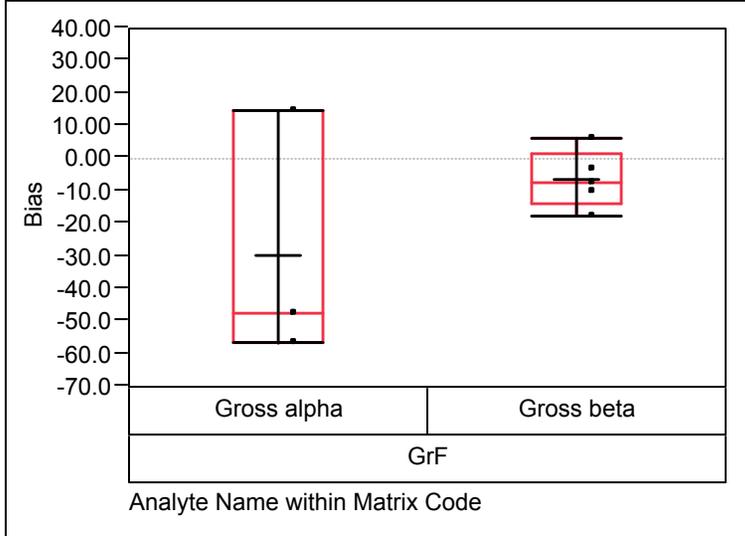
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Variability Chart for Bias



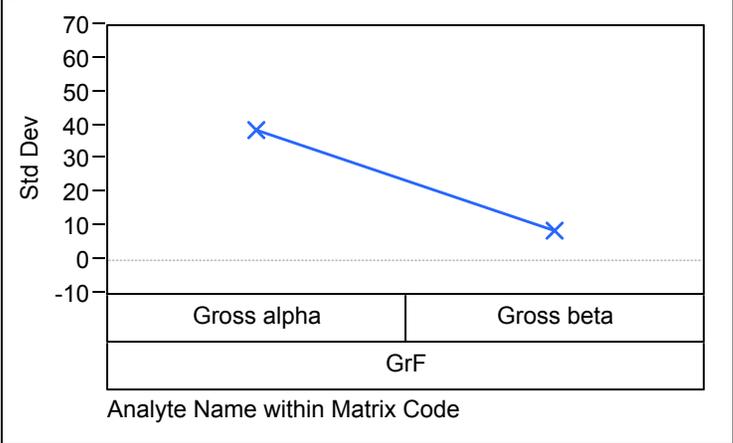
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Variability Chart for Bias



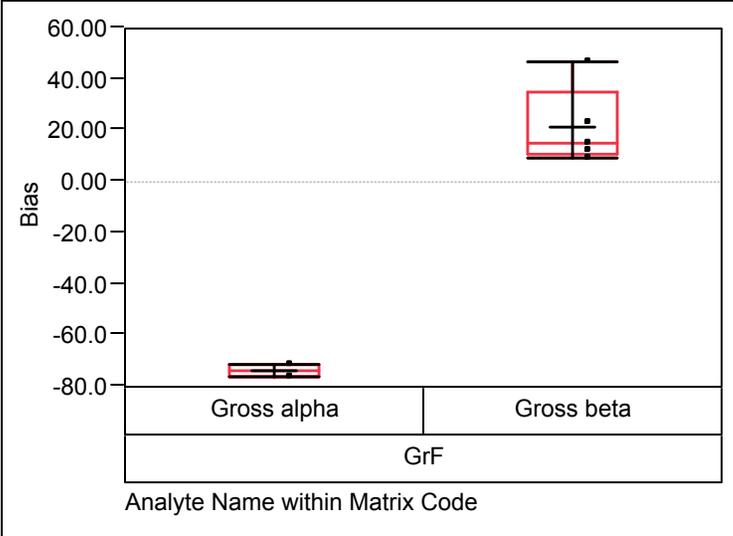
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Variability Chart for Bias



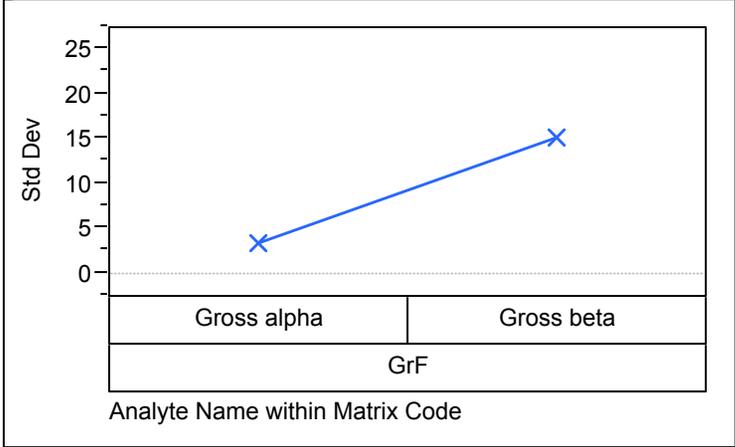
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Variability Chart for Bias



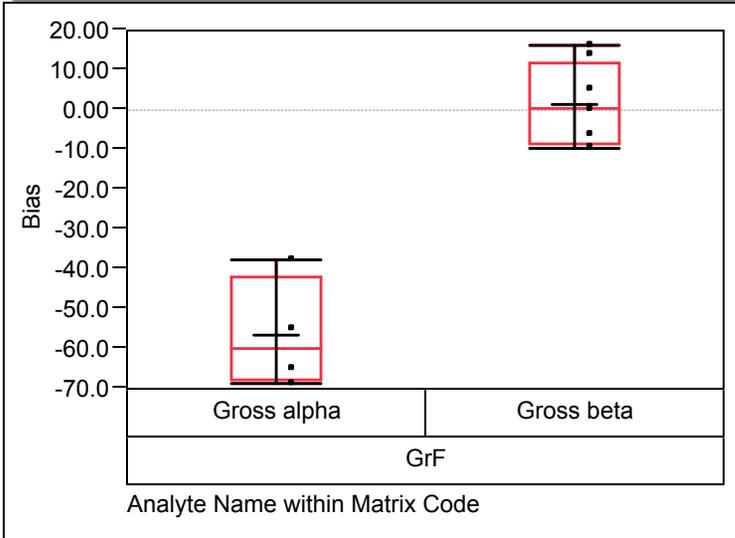
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Variability Chart for Bias



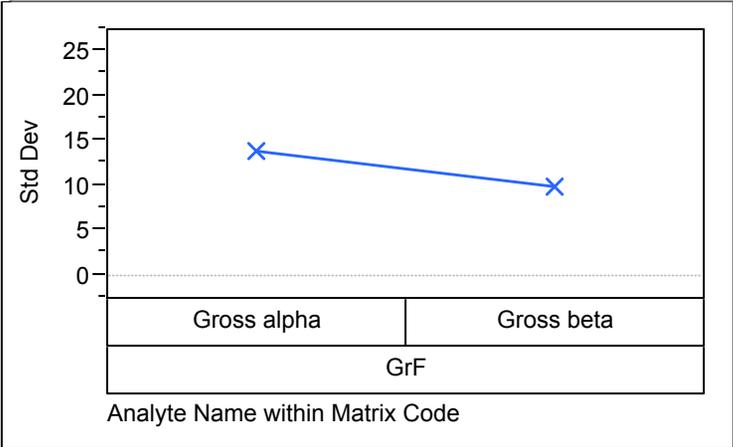
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Variability Chart for Bias



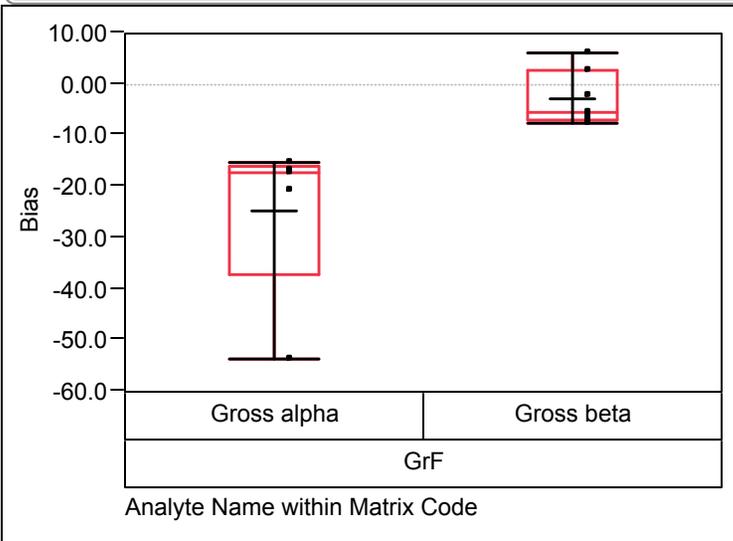
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Variability Chart for Bias



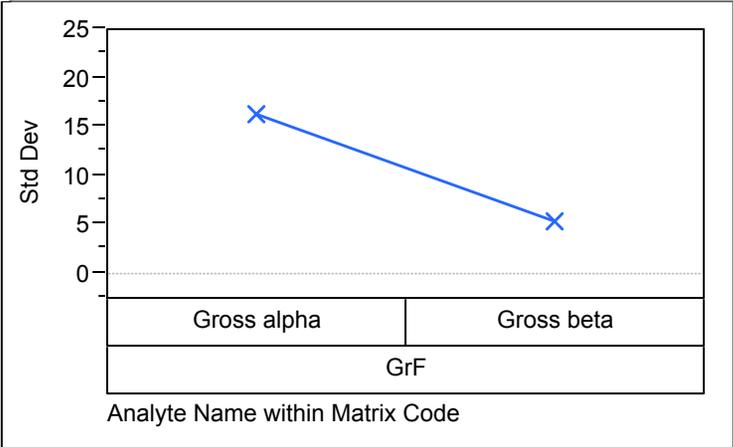
Variability Gauge Lab Code=WEST04

Variability Chart for Bias



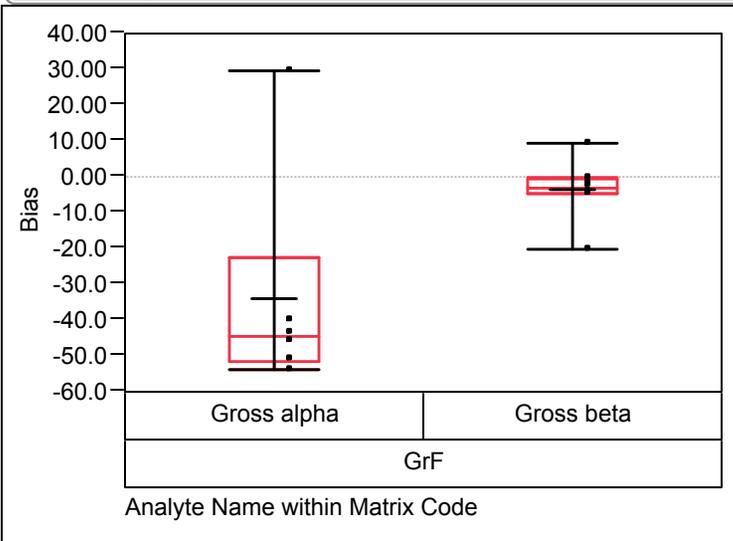
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Variability Chart for Bias



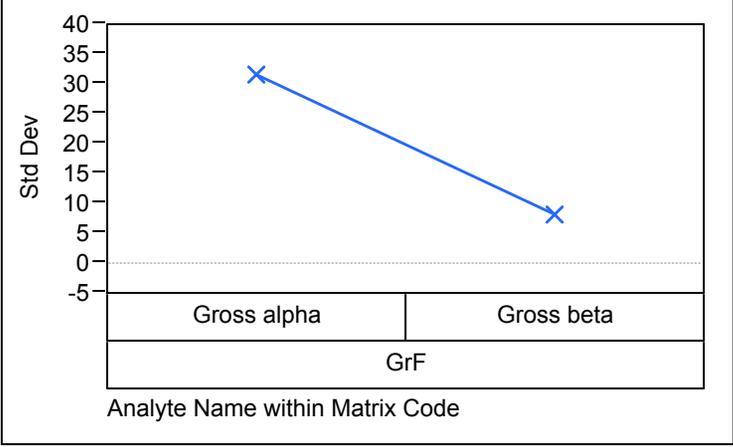
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Variability Chart for Bias



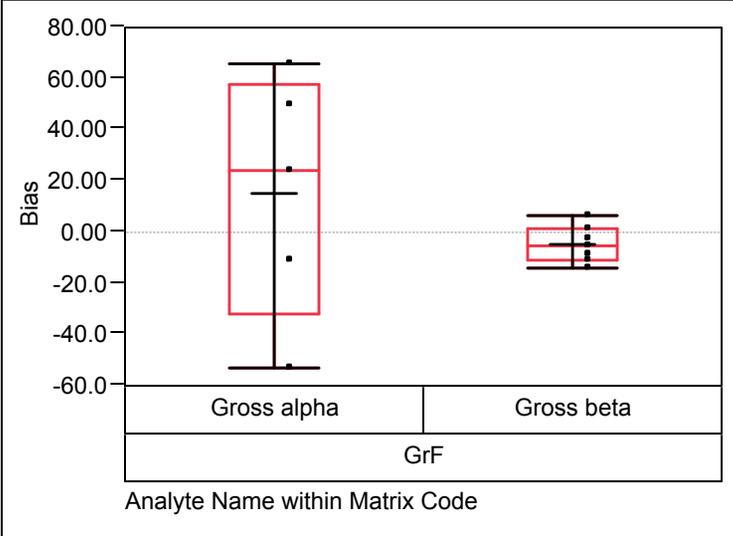
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Variability Chart for Bias



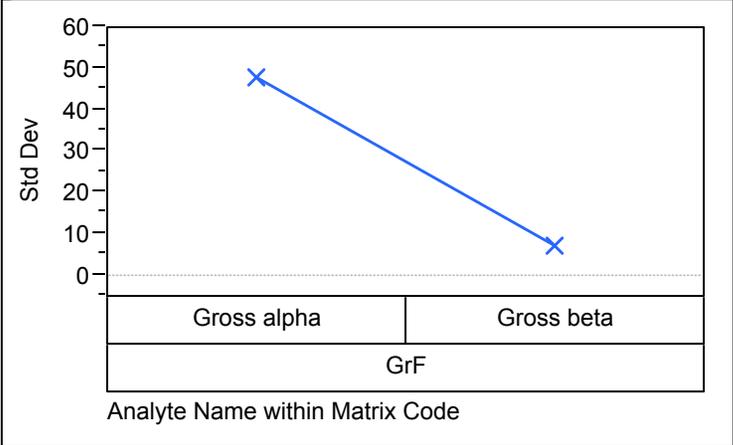
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Variability Chart for Bias



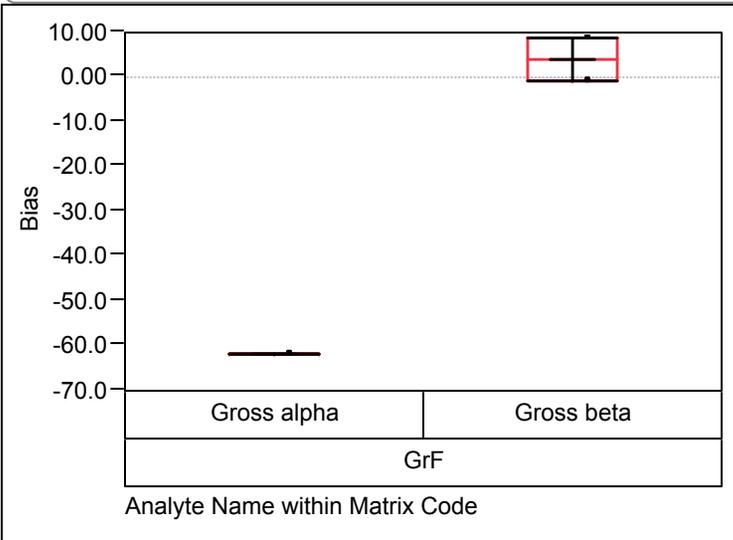
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Variability Chart for Bias



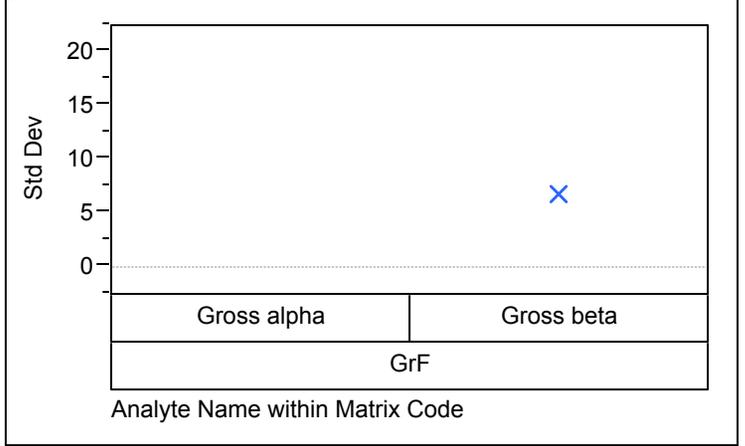
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Variability Chart for Bias



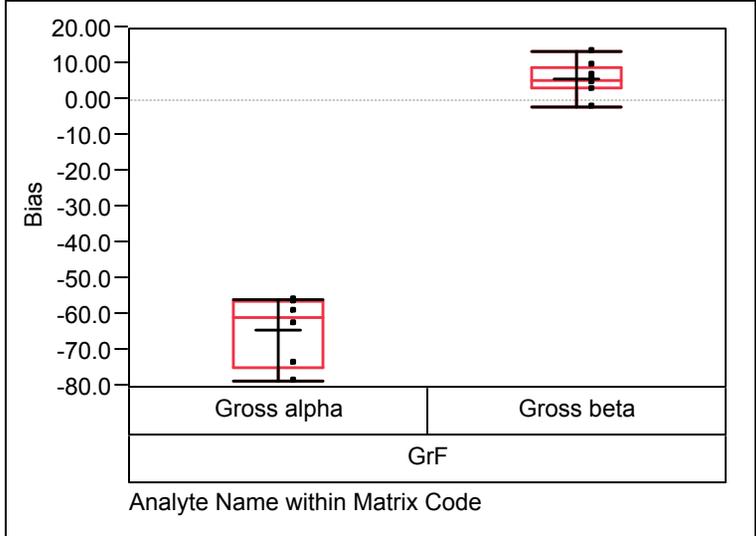
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Variability Chart for Bias



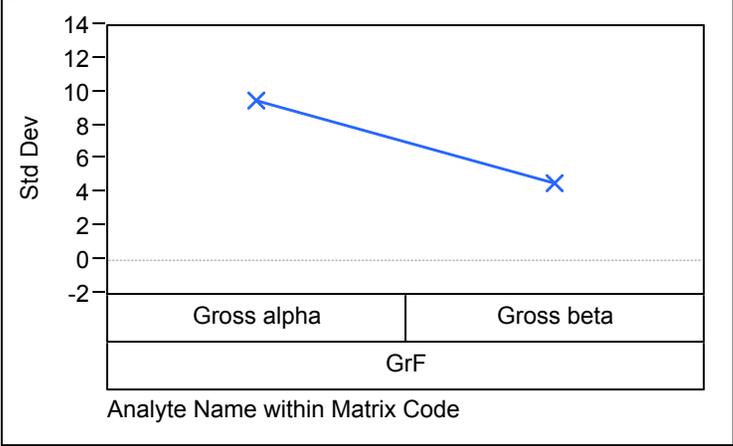
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Variability Chart for Bias



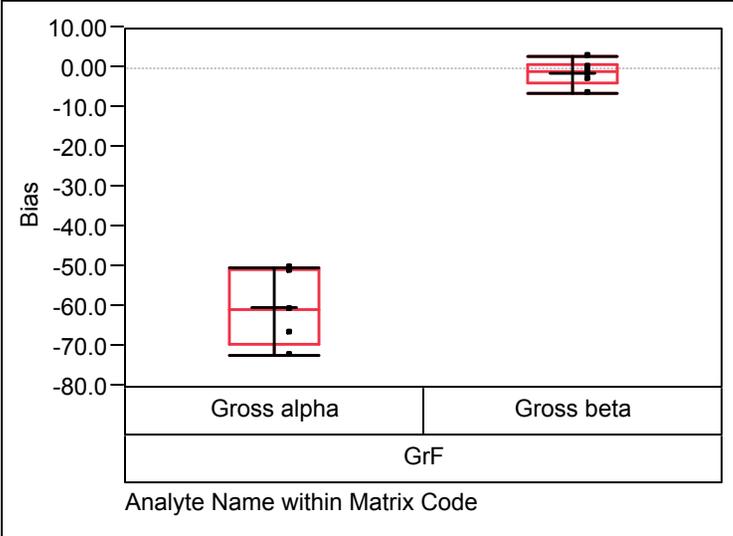
Variability Gauge Lab Code=WVDP01

Variability Chart for Bias



Variability Gauge Lab Code=WVPL01

Variability Chart for Bias



Variability Gauge Lab Code=WVPL01

Variability Chart for Bias

