

The order of this data package is as follows:

1. Chain-of-Custody/Lab Request
2. Copies of field COCs
3. Validation Report
4. Laboratory analysis

Comments:

Validation report not required for University of Illinois samples.

[illegible]

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 11097

EVENT NAME: Mortandad/Sandia (Cr Inv) MY2017 Q2

SAMPLE ID: CAMO-17-129290

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY):	2/8/17	OK	FIELD MATRIX:	WG	OK
TIME COLLECTED (HH:MM):	1300		MEDIA:	UA	
PRS ID:	OK		SAMPLE TECH CODE:	GSP	
LOCATION ID:	MCOI-6		FIELD PREP:	F	
LOCATION TYPE:	Mon		FIELD QC TYPE:	REG	
TOP DEPTH:	OK		SAMPLE USAGE:	INV	
BOTTOM DEPTH:			EXCAVATED:		YES / NO / <u>NA</u>

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NA	WSP-All Metals	1 LITER POLY	1	HNO3 ICE	Y	NA
	WSP-CR52/53	1 LITER POLY	1	ICE		
	WSP- GENINORG+PerChlorat e	1 LITER POLY	1	ICE		
	WSP- NH3+NO3/NO2	500 ML AMBER GLASS	1	H2SO4		

SAMPLE COMMENTS: Sampled 40 ft. from running diesel generator

LOCATION COMMENTS: Windy while sampling

FIELD PARAMETERS:

Dissolved Oxygen	6.90	mg/L	Flow (in gpm)	1.02	GPM	Oxidation-Reduction Potential	147.0	mV
pH	7.08	SU	Specific Conductance	561	uS/cm	Temperature	15.0	deg C
Turbidity	0.3	NTU						

COLLECTED BY (PRINT): A. Vigil, D. Jaramillo

RELINQUISHED BY (Printed Name) Allison Stanford (Signature) <i>[Signature]</i>	Date/Time 2/8/17 1400	RECEIVED BY (Printed Name) <i>[Signature]</i> (Signature) <i>[Signature]</i>	Date/Time 2/8/17 1400
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 11097

EVENT NAME: Mortandad/Sandia (Cr Inv) MY2017 Q2

SAMPLE ID: CASA-17-129340

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY):	02/13/2017	OK	FIELD MATRIX:	WG	OK
TIME COLLECTED (HH:MM):	1248	OK	MEDIA:	UA	↓
PRS ID:	NA	↓	SAMPLE TECH CODE:	OK	6 SP
LOCATION ID:	R-43 S1	↓	FIELD PREP:	F	OK
LOCATION TYPE:	NA	↓	FIELD QC TYPE:	REG	↓
TOP DEPTH:	↓	↓	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	↓	↓	EXCAVATED:		YES / NO NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NA	WSP-All Metals	1 LITER POLY	1	HNO3 ICE	Y	NA
↓	WSP-CR52/53	1 LITER POLY	1	ICE	↓	↓
↓	WSP- GENINORG+PerChlorat e	1 LITER POLY	1	ICE	↓	↓
↓	WSP- NH3+NO3/NO2	500 ML AMBER GLASS	1	H2SO4	↓	↓


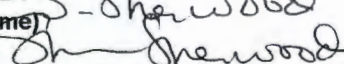
SAMPLE COMMENTS:

LOCATION COMMENTS:

FIELD PARAMETERS:

Dissolved Oxygen _____ mg/L Flow (in gpm) _____ GPM Oxidation-Reduction Potential _____ mV
 pH _____ SU Specific Conductance _____ uS/cm Temperature _____ deg C
 Turbidity _____ NTU

COLLECTED BY (PRINT): A. Stanfield

RELINQUISHED BY (Printed Name) Daniel Jarama (Signature) 	Date/Time 2/13/17 1620	RECEIVED BY (Printed Name) S. Sherwood (Signature) 	Date/Time 2/13/17 1620
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 11097

EVENT NAME: Mortandad/Sandia (Cr Inv) MY2017 Q2

SAMPLE ID: CASA-17-129341

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY):	2/16/2017	ok	FIELD MATRIX:	WG	ok
TIME COLLECTED (HH:MM):	1139		MEDIA:		
PRS ID:	ok		SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-67		FIELD PREP:	F	
LOCATION TYPE:	ok		FIELD QC TYPE:	REG	
TOP DEPTH:	J		SAMPLE USAGE:	INV	J
BOTTOM DEPTH:			EXCAVATED:		YES / NO / NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
MA	WSP-All Metals	1 LITER POLY	1	HNO3 ICE	Y	MA
	WSP-CR52/53	1 LITER POLY	1	ICE		
	WSP- GENINORG+PerChlorat e	1 LITER POLY	1	ICE		
	WSP- NH3+NO3/NO2	500 ML AMBER GLASS	1	H2SO4		

SAMPLE COMMENTS:

LOCATION COMMENTS:

FIELD PARAMETERS:

Dissolved Oxygen _____ mg/L Flow (in gpm) _____ GPM Oxidation-Reduction Potential _____ mV
 pH _____ SU Specific Conductance _____ uS/cm Temperature _____ deg C
 Turbidity _____ NTU

COLLECTED BY (PRINT):

RELINQUISHED BY (Printed Name) (Signature)	Date/Time 2/16/17 1250	RECEIVED BY (Printed Name) (Signature)	Date/Time 2/16/17 1250
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date: 01/18/2017

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 11097

EVENT NAME: Mortandad/Sandia (Cr Inv) MY2017 Q2

SAMPLE ID: CAMO-17-129411

WORK ORDER:

	<u>AS PLANNED</u>	<u>AS COLLECTED</u>		<u>AS PLANNED</u>	<u>AS COLLECTED</u>
Date Collected (MM/DD/YYYY):	12/07/2017	OK	FIELD MATRIX:	WG	OK
TIME COLLECTED (HH:MM):	1218	OK	MEDIA:	UA	↓
PRS ID:	NR	↓	SAMPLE TECH CODE:	OK	CSP
LOCATION ID:	R-45 S1	↓	FIELD PREP:	F	OK
LOCATION TYPE:	NR	↓	FIELD QC TYPE:	REG	↓
TOP DEPTH:	↓	↓	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	↓	↓	EXCAVATED:		YES / NO / <u>NA</u>

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NR	WSP-All Metals	1 LITER POLY	1	HNO3 ICE	Y	NR
↓	WSP-CR52/53	1 LITER POLY	1	ICE	↓	↓
↓	WSP- GENINORG+PerChlorate	1 LITER POLY	1	ICE	↓	↓
↓	WSP- NH3+NO3/NO2	500 ML AMBER GLASS	1	H2SO4	↓	↓

SAMPLE COMMENTS:

LOCATION COMMENTS:

FIELD PARAMETERS:

Dissolved Oxygen _____ mg/L
 pH _____ SU
 Turbidity _____ NTU

Daniel Scrub 2/7/17
 Flow (in gpm) _____ GPM
 Specific Conductance _____ uS/cm
 Oxidation-Reduction Potential _____ mV
 Temperature _____ deg C

COLLECTED BY (PRINT): D. Hughes

RELINQUISHED BY (Printed Name) Daniel Scrub (Signature) <i>[Signature]</i>	Date/Time 2/7/17 1506	RECEIVED BY (Printed Name) M. Mark (Signature) <i>[Signature]</i>	Date/Time 2/7/17 1506
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date: 01/18/2017

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 11097

EVENT NAME: Mortandad/Sandia (Cr Inv) MY2017 Q2

SAMPLE ID: CAMO-17-129412

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY):	02/07/2017	ck	FIELD MATRIX:	WG	ck
TIME COLLECTED (HH:MM):	1419	ck	MEDIA:	UA	↓
PRS ID:	ND	↓	SAMPLE TECH CODE:	ck	GSP
LOCATION ID:	R-45 S2	↓	FIELD PREP:	F	ck
LOCATION TYPE:	MA	↓	FIELD QC TYPE:	REG	↓
TOP DEPTH:	↓	↓	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	↓	↓	EXCAVATED:		YES / NO / NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1st	WSP-All Metals	1 LITER POLY	1	HNO3-ICE	Y	MA
↓	WSP-CR52/53	1 LITER POLY	1	ICE	↓	↓
↓	WSP- GENINORG+PerChlorat e	1 LITER POLY	1	ICE	↓	↓
↓	WSP- NH3+NO3/NO2	500 ML AMBER GLASS	1	H2SO4	↓	↓

SAMPLE COMMENTS:

LOCATION COMMENTS:

FIELD PARAMETERS:

Dissolved Oxygen _____ mg/L
 pH _____ SU
 Turbidity _____ NTU
 Flow (in gpm) _____ GPM
 Specific Conductance _____ uS/cm
 Oxidation-Reduction Potential _____ mV
 Temperature _____ deg C

COLLECTED BY (PRINT): D. Hughes

RELINQUISHED BY (Printed Name) Daniel Smith (Signature) <i>[Signature]</i>	Date/Time 2/7/17 1508	RECEIVED BY (Printed Name) M. Montoya (Signature) <i>[Signature]</i>	Date/Time 2/7/17 1508
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date: 01/18/2017

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 11097

EVENT NAME: Mortandad/Sandia (Cr Inv) MY2017 Q2

SAMPLE ID: CAMO-17-129413

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY):	NA	02/21/2017	FIELD MATRIX:	WG	OK
TIME COLLECTED (HH:MM):	↓	1220	MEDIA:	UA	↓
PRS ID:	↓	OK	SAMPLE TECH CODE:	GSP	↓
LOCATION ID:	R-50 S1	↓	FIELD PREP:	F	↓
LOCATION TYPE:	NA	↓	FIELD QC TYPE:	REG	↓
TOP DEPTH:	↓	↓	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	↓	↓	EXCAVATED:		YES / NO / <input checked="" type="radio"/> NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NA	WSP-All Metals	1 LITER POLY	1	HNO3 ICE	Y	NA
↓	WSP-CR52/53	1 LITER POLY	1	ICE	↓	↓
	WSP- GENINORG+PerChlorat e	1 LITER POLY	1	ICE	↓	↓
↓	WSP- NH3+NO3/NO2	500 ML AMBER GLASS	1	H2SO4	↓	↓

SAMPLE COMMENTS:

LOCATION COMMENTS:

FIELD PARAMETERS:

Dissolved Oxygen _____ mg/L Flow (in gpm) _____ GPM Oxidation-Reduction Potential _____ mV
 pH _____ SU Specific Conductance _____ uS/cm Temperature _____ deg C
 Turbidity _____ NTU

COLLECTED BY (PRINT): W. Sanchez

RELINQUISHED BY (Printed Name) Austin Tash (Signature) <i>Austin Tash</i>	Date/Time 2/21/17 1330	RECEIVED BY (Printed Name) S. Sherwood (Signature) <i>S. Sherwood</i>	Date/Time 2/21/17 13:30
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date: 01/18/2017

[illegible]

UNIVERSITY OF ILLINOIS
AT URBANA - CHAMPAIGN

Department of Geology
School of Earth, Society, & Environment
156 Computing Applications Building
605 E. Springfield Avenue
Champaign, IL 61820



21 July, 2017

Ms. Susan Leese
ARS International, LLC
2609 North River Road
Port Allen, LA 70767-3469
225.381.2991 sleese@amrad.com

Subject: Cr stable isotope results

Dear Susan:

Please find below tabulated results from Cr stable isotope analysis of water samples from Los Alamos National Laboratory (LANL). The samples were analyzed on July 19th and 20th, 2017 and results were reported via EDD, on July 21st.

COC #	Sample ID	$\delta^{53}\text{Cr}^1$ (per mil)	Duplicate $\delta^{53}\text{Cr}^1$ (per mil)
2017-1391	CrCH1-17-129984	0.80	
2017-1391	CrCH1-17-129981	0.88	
2017-1391	CrCH1-17-129732	0.90	
2017-1391	CrCH1-17-129980	0.83	
2017-1391	CrCH1-17-129735	0.86	
2017-1392	CASA-17-129340	0.75	0.92
2017-1392	CASA-17-129341	1.84	
2017-1392	CAMO-17-129411	1.01	
2017-1392	CAMO-17-129290	1.25	
2017-1392	CAMO-17-129413	0.85	
2017-1392	CAMO-17-129412	1.20	
2017-1393	CrEX3-17-127067	0.89	
2017-1393	CrEX3-17-126943	1.33	
2017-1393	Cr-EX3-16-123292	1.03	
2017-1393	CrCH2-16-123335	1.34	
2017-1393	CrCH2-16-123328+123329	1.80	
2017-1393	CrCH2-16-123324-123326	2.84	
2017-1393	CrCH2-16-123342	1.25	1.25
2017-1393	CrCH2-16-123510	1.69	
2017-1393	CrCH2-16-123557	1.31	
2017-1393	CrCH2-16-123560	0.99	
2017-1393	CrCH2-16-123566	1.04	
2017-1393	CrCH2-17-129559	1.17	
2017-1393	CrCH2-17-129562	1.25	
2017-1396	TRR-42-16-123764	0.88	
2017-1396	TRR-42-16-123769	0.79	
2017-1396	TRR-28-16-123657	1.07	
2017-1396	TRR-42-16-123759	0.90	
2017-1396	TRR-28-16-123688	1.23	
2017-1396	TRR-28-16-123667	1.23	
2017-1396	TRR-28-16-123651	1.11	

2017-1396	TRR-42-16-123756	0.97	
2017-1396	TRR-28-16-123677	1.26	
2017-1396	TRR-42-17-126877	0.95	
2017-1396	TRR-42-17-126884	0.89	
2017-1396	TRR-28-17-127645	1.13	
2017-1396	TRR-28-17-129043	1.19	
2017-1396	TRR-42-17-126870	0.86	
2017-1396	TRR-28-17-127650	1.03	0.95
2017-1396	TRR-28-17-127668	0.97	
2017-1398	CrCH2-16-123532	1.05	
2017-1398	CrCH2-16-123582	1.28	
2017-1398	CrCH2-16-123578	1.25	
2017-1398	CrCH2-17-128860	1.20	1.22
2017-1398	CrCH2-17-128857	1.19	
2017-1398	CrCH2-17-128859	1.18	
2017-1398	CrCH2-17-128856	1.35	
2017-1398	CrCH2-17-128862	1.14	
2017-650-1	CAMO-17-127252	1.05	
2017-649	CASA-17-127292	1.13	

¹Parts per thousand deviation of the measured ⁵³Cr/⁵²Cr ratio from that of the NIST SRM-979 standard.

²Not analyzed; insufficient Cr(VI) was present in the sample to allow accurate isotope ratio analysis.

³Reanalysis in progress; sample must be prepared again.

The analytical methods used for these samples are identical to those used for LANL water analyses for the past several years, and are described in the article: Reinhard, C.T., et al., 2014. The isotopic composition of authigenic chromium in anoxic marine sediments: A case study from the Cariaco Basin. *Earth and Planetary Science Letters* vol. **407**, pp. 9-18. Nominal precision is ±0.2 per mil, though actual reproducibility is generally better than that.

A raw data table is attached. Analyses identified as “979” are NIST SRM-979. Analyses identified as “3112a” are NIST SRM-3112a, which has a published value of -0.07 per mil. The SRM-3112a standard solutions were processed through the sample preparation procedure with the reported samples. Sample results are normalized to the mean value of SRM-979 for the analytical session.

Chain of Custody (COC) forms are also attached. Some samples may not have been analyzed, as indicated above. Where indicated, very little Cr was recovered by our sample preparation method. Other possible causes are: 1) The samples were acidified or 2) Other dissolved components in the sample (e.g., organic compounds) interfered with our anion exchange process. In some cases, sufficient Cr is present but samples must be prepared a second time to attain an acceptable ratio of double spike to sample Cr.

Sincerely,



Thomas M. Johnson
Professor of Geology

Sample	52 Int (V)		Raw 50/52		Raw 53/52		Raw 54/52	
979_125ppb'	2.45E+00	{ 2.29E-03	6.17E-01	{ 1.04E-05	1.17E-01	{ 2.12E-06	5.16E-01	{ 9.20E-06
979_125ppb'	2.38E+00	{ 1.24E-02	6.16E-01	{ 1.32E-05	1.17E-01	{ 2.10E-06	5.16E-01	{ 9.67E-06
3112a_125ppb'	3.21E+00	{ 1.76E-03	6.62E-01	{ 6.54E-06	1.17E-01	{ 1.76E-06	5.55E-01	{ 5.04E-06
3112a_125ppb'	3.18E+00	{ 2.37E-03	6.62E-01	{ 1.01E-05	1.17E-01	{ 1.57E-06	5.55E-01	{ 5.49E-06
979_75ppb'	1.14E+00	{ 6.52E-04	6.16E-01	{ 1.06E-05	1.17E-01	{ 2.97E-06	5.16E-01	{ 1.07E-05
979_75ppb'	1.14E+00	{ 5.83E-04	6.16E-01	{ 7.94E-06	1.17E-01	{ 2.68E-06	5.16E-01	{ 6.90E-06
979_125ppb'	2.42E+00	{ 1.51E-03	6.16E-01	{ 1.20E-05	1.17E-01	{ 1.80E-06	5.17E-01	{ 7.75E-06
979_125ppb'	2.41E+00	{ 1.11E-03	6.16E-01	{ 7.60E-06	1.17E-01	{ 1.98E-06	5.17E-01	{ 6.41E-06
979_125ppb'	2.42E+00	{ 1.35E-03	6.16E-01	{ 9.07E-06	1.17E-01	{ 2.07E-06	5.17E-01	{ 7.22E-06
979_125ppb'	2.42E+00	{ 2.36E-03	6.16E-01	{ 9.05E-06	1.17E-01	{ 2.32E-06	5.16E-01	{ 7.88E-06
Proc_3112a_1'	2.31E+00	{ 1.14E-03	1.95E+00	{ 4.15E-05	1.19E-01	{ 2.14E-06	1.66E+00	{ 1.82E-05
Proc_3112a_2'	2.33E+00	{ 2.07E-03	1.95E+00	{ 3.21E-05	1.19E-01	{ 1.58E-06	1.66E+00	{ 2.91E-05
Proc_3112a_3'	2.15E+00	{ 1.60E-03	1.95E+00	{ 2.51E-05	1.19E-01	{ 1.98E-06	1.66E+00	{ 1.79E-05
979_125ppb'	2.34E+00	{ 1.55E-03	6.16E-01	{ 7.06E-06	1.17E-01	{ 2.16E-06	5.17E-01	{ 5.81E-06
127650'	2.46E+00	{ 8.87E-04	1.96E+00	{ 5.61E-05	1.19E-01	{ 2.04E-06	1.67E+00	{ 4.21E-05
123342'	2.36E+00	{ 1.38E-03	6.02E-01	{ 9.56E-06	1.17E-01	{ 1.93E-06	5.06E-01	{ 7.01E-06
129412'	2.38E+00	{ 1.20E-03	1.74E+00	{ 2.67E-05	1.19E-01	{ 2.16E-06	1.49E+00	{ 2.13E-05
127292'	2.12E+00	{ 1.64E-03	5.90E-01	{ 1.23E-05	1.17E-01	{ 2.58E-06	4.95E-01	{ 2.10E-05
123328+123329'	1.43E+00	{ 6.45E-04	1.78E+00	{ 5.47E-05	1.19E-01	{ 2.67E-06	1.53E+00	{ 8.43E-05
979_125ppb'	2.48E+00	{ 1.45E-03	6.16E-01	{ 1.30E-05	1.17E-01	{ 1.57E-06	5.16E-01	{ 1.15E-05
129341'	3.00E+00	{ 1.59E-03	1.35E+00	{ 2.29E-05	1.18E-01	{ 1.89E-06	1.15E+00	{ 1.21E-05
126877'	2.89E+00	{ 1.51E-03	1.75E+00	{ 3.76E-05	1.19E-01	{ 1.87E-06	1.49E+00	{ 2.58E-05
123510'	2.37E+00	{ 1.01E-03	6.37E-01	{ 9.73E-06	1.17E-01	{ 2.00E-06	5.34E-01	{ 8.41E-06
126884'	3.22E+00	{ 1.82E-03	1.70E+00	{ 2.25E-05	1.18E-01	{ 1.49E-06	1.44E+00	{ 1.58E-05
123764'	2.99E+00	{ 2.78E-03	1.92E+00	{ 6.41E-05	1.19E-01	{ 1.73E-06	1.64E+00	{ 5.20E-05
125ppb_979'	2.52E+00	{ 1.59E-03	6.17E-01	{ 8.98E-06	1.17E-01	{ 1.84E-06	5.16E-01	{ 5.02E-06
123688'	4.86E+00	{ 3.02E-03	1.99E+00	{ 4.28E-05	1.19E-01	{ 1.63E-06	1.68E+00	{ 3.29E-05
123759'	2.56E+00	{ 1.15E-03	1.97E+00	{ 3.50E-05	1.19E-01	{ 2.09E-06	1.67E+00	{ 2.86E-05
127252'	2.33E+00	{ 1.30E-03	5.94E-01	{ 1.73E-05	1.17E-01	{ 2.12E-06	4.98E-01	{ 1.40E-05
129735'	2.94E+00	{ 3.38E-03	1.98E+00	{ 3.68E-05	1.19E-01	{ 2.20E-06	1.69E+00	{ 3.62E-05
129411'	2.23E+00	{ 1.53E-03	2.08E+00	{ 1.76E-05	1.19E-01	{ 1.87E-06	1.77E+00	{ 1.93E-05
979_125ppb'	2.58E+00	{ 1.72E-03	6.17E-01	{ 1.70E-05	1.17E-01	{ 2.27E-06	5.16E-01	{ 1.54E-05
126870'	3.07E+00	{ 2.72E-03	1.78E+00	{ 2.41E-05	1.19E-01	{ 1.82E-06	1.52E+00	{ 1.83E-05
129732'	2.73E+00	{ 1.33E-03	1.97E+00	{ 1.83E-05	1.19E-01	{ 1.63E-06	1.68E+00	{ 1.66E-05
129980'	4.56E+00	{ 1.49E-03	1.95E+00	{ 3.34E-05	1.19E-01	{ 1.20E-06	1.66E+00	{ 2.42E-05
129984'	4.19E+00	{ 2.17E-03	2.01E+00	{ 1.73E-05	1.19E-01	{ 1.95E-06	1.71E+00	{ 1.60E-05
129981'	2.70E+00	{ 1.42E-03	1.99E+00	{ 2.49E-05	1.19E-01	{ 1.43E-06	1.69E+00	{ 1.75E-05
979_125ppb'	2.52E+00	{ 2.28E-03	6.16E-01	{ 1.58E-05	1.17E-01	{ 1.94E-06	5.17E-01	{ 1.15E-05
123324-123326'	1.17E+00	{ 8.37E-04	1.65E+00	{ 3.02E-05	1.19E-01	{ 3.01E-06	1.43E+00	{ 2.35E-05
123560'	2.40E+00	{ 2.35E-03	2.00E+00	{ 3.95E-05	1.19E-01	{ 1.85E-06	1.71E+00	{ 2.16E-05
123651'	2.62E+00	{ 1.63E-03	2.00E+00	{ 1.95E-05	1.19E-01	{ 1.86E-06	1.71E+00	{ 1.95E-05
123657'	2.38E+00	{ 1.58E-03	2.11E+00	{ 3.82E-05	1.19E-01	{ 1.96E-06	1.80E+00	{ 2.67E-05
127067'	2.29E+00	{ 8.59E-04	2.15E+00	{ 2.05E-05	1.19E-01	{ 1.92E-06	1.84E+00	{ 1.48E-05
979_125ppb'	2.56E+00	{ 1.98E-03	6.15E-01	{ 7.90E-06	1.17E-01	{ 1.86E-06	5.17E-01	{ 7.40E-06
126943'	2.57E+00	{ 1.65E-03	2.09E+00	{ 1.95E-05	1.19E-01	{ 1.82E-06	1.79E+00	{ 1.42E-05
123769'	2.84E+00	{ 4.54E-03	1.81E+00	{ 2.27E-05	1.19E-01	{ 1.76E-06	1.54E+00	{ 2.07E-05

127668'	2.71E+00	{ 2.03E-03	1.99E+00	{ 2.50E-05	1.19E-01	{ 1.49E-06	1.70E+00	{ 2.37E-05
127650-2'	2.37E+00	{ 2.00E-03	1.98E+00	{ 1.77E-05	1.19E-01	{ 2.05E-06	1.69E+00	{ 1.90E-05
123342-2'	2.49E+00	{ 1.08E-03	6.14E-01	{ 1.18E-05	1.17E-01	{ 2.12E-06	5.18E-01	{ 7.87E-06
979_125ppb'	2.56E+00	{ 2.09E-03	6.15E-01	{ 7.17E-06	1.17E-01	{ 2.38E-06	5.17E-01	{ 7.12E-06
Proc_3112a_1'	2.39E+00	{ 1.09E-03	1.94E+00	{ 2.57E-05	1.19E-01	{ 1.80E-06	1.66E+00	{ 2.05E-05
Proc_3112a_2'	2.42E+00	{ 1.62E-03	1.94E+00	{ 3.03E-05	1.19E-01	{ 1.65E-06	1.66E+00	{ 1.66E-05
Proc_3112a_3'	2.24E+00	{ 1.34E-03	1.94E+00	{ 2.80E-05	1.19E-01	{ 2.31E-06	1.66E+00	{ 1.82E-05
979_125ppb'	2.54E+00	{ 2.37E-03	6.15E-01	{ 1.29E-05	1.17E-01	{ 1.84E-06	5.17E-01	{ 6.20E-06
979_125ppb'	2.54E+00	{ 3.02E-03	6.14E-01	{ 8.56E-06	1.17E-01	{ 2.58E-06	5.17E-01	{ 6.80E-06
979_125ppb'	2.48E+00	{ 1.29E-03	6.12E-01	{ 7.31E-06	1.18E-01	{ 2.07E-06	5.19E-01	{ 4.72E-06
979_125ppb'	2.45E+00	{ 1.29E-03	6.12E-01	{ 7.70E-06	1.18E-01	{ 1.65E-06	5.19E-01	{ 5.63E-06
Proc_3112a_1'	2.45E+00	{ 4.20E-03	1.94E+00	{ 1.86E-05	1.19E-01	{ 2.17E-06	1.67E+00	{ 2.06E-05
Proc_3112a_2'	2.52E+00	{ 1.89E-03	1.93E+00	{ 1.86E-05	1.19E-01	{ 1.96E-06	1.67E+00	{ 1.58E-05
Proc_3112a_3'	2.36E+00	{ 9.02E-04	1.94E+00	{ 2.45E-05	1.19E-01	{ 1.93E-06	1.67E+00	{ 1.83E-05
979_125ppb'	2.55E+00	{ 1.39E-03	6.12E-01	{ 8.31E-06	1.18E-01	{ 2.10E-06	5.19E-01	{ 1.03E-05
129340'	2.58E+00	{ 1.12E-03	2.06E+00	{ 1.91E-05	1.19E-01	{ 1.97E-06	1.77E+00	{ 1.83E-05
128860'	2.41E+00	{ 1.09E-03	2.04E+00	{ 8.13E-05	1.19E-01	{ 3.12E-06	1.76E+00	{ 6.66E-05
127645'	2.96E+00	{ 1.03E-03	2.04E+00	{ 2.47E-05	1.19E-01	{ 1.49E-06	1.76E+00	{ 1.89E-05
123756'	2.55E+00	{ 1.63E-03	2.07E+00	{ 2.24E-05	1.19E-01	{ 2.04E-06	1.77E+00	{ 1.64E-05
123335'	1.78E+00	{ 9.85E-04	1.93E+00	{ 3.45E-05	1.19E-01	{ 2.21E-06	1.67E+00	{ 2.77E-05
979_125ppb'	2.69E+00	{ 8.36E-04	6.13E-01	{ 8.89E-06	1.18E-01	{ 1.64E-06	5.19E-01	{ 8.66E-06
123667'	3.08E+00	{ 1.39E-03	2.18E+00	{ 2.69E-05	1.19E-01	{ 1.83E-06	1.88E+00	{ 1.93E-05
129043'	2.79E+00	{ 1.58E-03	1.88E+00	{ 2.06E-05	1.19E-01	{ 1.76E-06	1.61E+00	{ 1.63E-05
129413'	2.57E+00	{ 9.70E-04	2.05E+00	{ 2.78E-05	1.19E-01	{ 2.19E-06	1.76E+00	{ 2.15E-05
129562'	2.58E+00	{ 1.93E-03	6.26E-01	{ 1.18E-05	1.18E-01	{ 1.61E-06	5.32E-01	{ 1.00E-05
128862'	2.51E+00	{ 1.29E-03	2.03E+00	{ 3.12E-05	1.19E-01	{ 1.57E-06	1.75E+00	{ 2.28E-05
979_125ppb'	2.73E+00	{ 2.20E-03	6.13E-01	{ 6.91E-06	1.18E-01	{ 1.81E-06	5.19E-01	{ 9.73E-06
123578'	2.59E+00	{ 1.19E-03	5.62E-01	{ 5.37E-06	1.18E-01	{ 1.88E-06	4.75E-01	{ 4.07E-06
123532'	2.38E+00	{ 2.38E-03	2.02E+00	{ 2.88E-05	1.19E-01	{ 1.81E-06	1.75E+00	{ 1.64E-05
123566'	2.59E+00	{ 1.22E-03	1.99E+00	{ 1.61E-05	1.19E-01	{ 1.96E-06	1.72E+00	{ 1.28E-05
129559'	2.60E+00	{ 2.84E-03	6.03E-01	{ 2.18E-05	1.18E-01	{ 1.62E-06	5.11E-01	{ 1.55E-05
123582'	2.65E+00	{ 1.43E-03	5.94E-01	{ 9.20E-06	1.18E-01	{ 1.49E-06	5.03E-01	{ 6.38E-06
979_125ppb'	2.76E+00	{ 1.45E-03	6.13E-01	{ 7.19E-06	1.18E-01	{ 1.45E-06	5.19E-01	{ 6.43E-06
129340'	2.70E+00	{ 1.25E-03	2.06E+00	{ 2.41E-05	1.19E-01	{ 1.54E-06	1.77E+00	{ 1.91E-05
128860'	2.45E+00	{ 1.92E-03	2.04E+00	{ 3.55E-05	1.19E-01	{ 2.34E-06	1.76E+00	{ 2.72E-05
127645'	3.01E+00	{ 2.07E-03	2.04E+00	{ 2.12E-05	1.19E-01	{ 2.26E-06	1.76E+00	{ 1.70E-05
123756'	2.60E+00	{ 2.23E-03	2.07E+00	{ 1.98E-05	1.19E-01	{ 1.83E-06	1.77E+00	{ 1.52E-05
123335'	1.78E+00	{ 1.02E-03	1.93E+00	{ 1.99E-05	1.19E-01	{ 2.66E-06	1.67E+00	{ 1.27E-05
979_125ppb'	2.75E+00	{ 2.91E-03	6.13E-01	{ 1.13E-05	1.18E-01	{ 2.14E-06	5.19E-01	{ 8.41E-06
128856'	2.18E+00	{ 6.84E-04	6.11E-01	{ 1.28E-05	1.18E-01	{ 1.88E-06	5.26E-01	{ 1.04E-05
129290'	1.88E+00	{ 5.88E-04	2.08E+00	{ 3.76E-05	1.19E-01	{ 2.25E-06	1.79E+00	{ 2.40E-05
123677'	2.12E+00	{ 1.47E-03	2.21E+00	{ 2.97E-05	1.19E-01	{ 2.27E-06	1.91E+00	{ 2.14E-05
128859'	2.20E+00	{ 9.40E-04	2.09E+00	{ 3.14E-05	1.19E-01	{ 2.22E-06	1.80E+00	{ 2.84E-05
123292'	1.92E+00	{ 6.18E-04	2.18E+00	{ 2.32E-05	1.19E-01	{ 2.31E-06	1.88E+00	{ 1.75E-05
979_125ppb'	2.75E+00	{ 1.83E-03	6.14E-01	{ 2.98E-05	1.18E-01	{ 1.86E-06	5.20E-01	{ 2.24E-05
123557'	2.26E+00	{ 1.03E-03	6.16E-01	{ 9.40E-06	1.18E-01	{ 2.01E-06	5.24E-01	{ 1.10E-05
128857'	2.22E+00	{ 1.45E-03	6.09E-01	{ 9.03E-06	1.18E-01	{ 1.99E-06	5.16E-01	{ 7.56E-06

129340-2'	2.42E+00	{ 9.87E-04	2.12E+00	{ 2.06E-05	1.19E-01	{ 1.91E-06	1.82E+00	{ 1.67E-05
128860-2'	2.73E+00	{ 1.94E-03	1.86E+00	{ 1.35E-05	1.19E-01	{ 1.78E-06	1.60E+00	{ 1.51E-05
127067'	2.52E+00	{ 2.52E-03	2.14E+00	{ 1.59E-05	1.19E-01	{ 1.64E-06	1.84E+00	{ 1.36E-05
979_125ppb'	2.68E+00	{ 1.70E-03	6.12E-01	{ 9.20E-06	1.18E-01	{ 2.09E-06	5.19E-01	{ 8.69E-06
126943'	2.73E+00	{ 1.30E-03	2.09E+00	{ 2.69E-05	1.19E-01	{ 1.66E-06	1.80E+00	{ 1.46E-05
123769'	3.00E+00	{ 3.47E-03	1.80E+00	{ 3.24E-05	1.19E-01	{ 1.63E-06	1.55E+00	{ 1.65E-05
127668'	2.85E+00	{ 2.90E-03	1.98E+00	{ 1.64E-05	1.19E-01	{ 1.85E-06	1.70E+00	{ 1.48E-05
127650-2'	2.48E+00	{ 1.30E-03	1.97E+00	{ 1.47E-05	1.19E-01	{ 2.27E-06	1.70E+00	{ 1.89E-05
123342-2'	1.77E+00	{ 6.95E-04	6.11E-01	{ 3.60E-05	1.18E-01	{ 1.95E-06	5.20E-01	{ 3.05E-05
979_125ppb'	2.58E+00	{ 2.66E-03	6.12E-01	{ 9.64E-06	1.18E-01	{ 1.66E-06	5.19E-01	{ 7.81E-06
Proc_3112a_1'	2.42E+00	{ 1.39E-03	1.92E+00	{ 1.52E-05	1.19E-01	{ 2.26E-06	1.66E+00	{ 1.35E-05
Proc_3112a_2'	2.43E+00	{ 2.31E-03	1.93E+00	{ 2.30E-05	1.19E-01	{ 2.19E-06	1.67E+00	{ 1.60E-05
Proc_3112a_3'	2.28E+00	{ 1.87E-03	1.94E+00	{ 1.96E-05	1.19E-01	{ 2.44E-06	1.67E+00	{ 1.31E-05
979_125ppb'	2.53E+00	{ 2.69E-03	6.12E-01	{ 9.26E-06	1.18E-01	{ 2.08E-06	5.19E-01	{ 7.67E-06
979_125ppb'	2.54E+00	{ 2.49E-03	6.12E-01	{ 1.40E-05	1.18E-01	{ 1.99E-06	5.19E-01	{ 9.89E-06

Raw 56/54	Raw 51/52	Raw 49/50	Conv Err	FeCorrEst
2.80E-03 { 1.56E-11	1.10E-05 { 7.58E-07	9.72E-06 { 6.77E-14	-1.43E-05 { 5.77E-06	5.63E-02
2.99E-03 { 0.00E+00	1.17E-05 { 8.31E-07	6.00E-06 { 0.00E+00	-1.29E-05 { 6.03E-06	6.03E-02
1.60E-02 { 6.40E-11	5.73E-04 { 7.55E-07	3.36E-05 { 0.00E+00	-3.07E-05 { 3.85E-06	3.23E-01
1.59E-02 { 0.00E+00	5.73E-04 { 6.91E-07	3.33E-05 { 0.00E+00	-3.23E-05 { 3.67E-06	3.20E-01
6.57E-03 { 3.65E-11	1.33E-05 { 1.96E-06	1.56E-05 { 1.03E-13	-2.31E-05 { 8.79E-06	1.32E-01
5.99E-03 { 0.00E+00	1.57E-05 { 1.85E-06	1.28E-05 { 0.00E+00	2.01E-06 { 7.72E-06	1.20E-01
2.22E-03 { 0.00E+00	1.08E-05 { 9.89E-07	6.50E-06 { 0.00E+00	-1.70E-05 { 4.71E-06	4.46E-02
1.75E-03 { 1.29E-11	1.19E-05 { 9.23E-07	5.42E-06 { 1.28E-14	-4.10E-05 { 5.19E-06	3.52E-02
4.28E-03 { 1.76E-11	1.32E-05 { 7.66E-07	9.06E-06 { 7.02E-14	-1.06E-05 { 6.02E-06	8.61E-02
3.95E-03 { 0.00E+00	1.34E-05 { 9.74E-07	8.72E-06 { 5.46E-14	-3.45E-05 { 6.28E-06	7.96E-02
1.96E-02 { 0.00E+00	6.76E-05 { 1.04E-06	3.17E-05 { 0.00E+00	-2.83E-07 { 1.55E-07	3.94E-01
9.26E-03 { 0.00E+00	5.97E-05 { 1.15E-06	7.59E-05 { 0.00E+00	-1.26E-06 { 1.36E-07	1.86E-01
9.34E-03 { 0.00E+00	4.18E-05 { 1.11E-06	3.80E-05 { 0.00E+00	-1.44E-06 { 2.00E-07	1.88E-01
2.51E-03 { 1.36E-11	7.44E-06 { 7.15E-07	6.90E-06 { 1.96E-14	-3.44E-05 { 6.53E-06	5.06E-02
1.05E-02 { 0.00E+00	3.93E-04 { 9.21E-07	1.83E-05 { 0.00E+00	1.08E-05 { 1.78E-07	2.12E-01
7.34E-02 { 4.49E-10	3.61E-03 { 1.06E-06	4.43E-04 { 1.98E-12	4.78E-04 { 6.65E-06	1.48E+00
3.66E-02 { 2.94E-10	2.46E-03 { 1.11E-06	7.64E-05 { 6.20E-13	2.14E-05 { 2.98E-07	7.36E-01
5.45E-02 { 0.00E+00	2.67E-03 { 1.07E-06	2.88E-04 { 0.00E+00	4.30E-04 { 8.28E-06	1.10E+00
2.42E-02 { 0.00E+00	3.34E-03 { 1.17E-06	1.80E-04 { 0.00E+00	2.58E-05 { 3.22E-07	4.86E-01
2.78E-03 { 0.00E+00	1.25E-05 { 8.18E-07	7.44E-06 { 0.00E+00	-1.26E-05 { 4.47E-06	5.60E-02
1.59E-02 { 7.63E-11	1.75E-03 { 7.85E-07	7.73E-05 { 0.00E+00	5.72E-05 { 5.15E-07	3.19E-01
9.04E-03 { 4.53E-11	5.22E-04 { 6.53E-07	2.10E-05 { 9.63E-14	1.34E-05 { 2.26E-07	1.82E-01
5.43E-02 { 0.00E+00	3.46E-03 { 9.46E-07	1.36E-04 { 0.00E+00	5.19E-04 { 5.73E-06	1.10E+00
9.36E-03 { 0.00E+00	4.17E-04 { 5.59E-07	1.90E-05 { 1.07E-13	1.38E-05 { 2.12E-07	1.89E-01
8.99E-03 { 0.00E+00	1.28E-03 { 6.94E-07	4.35E-05 { 1.22E-13	9.51E-06 { 1.72E-07	1.81E-01
2.63E-03 { 1.05E-11	8.30E-06 { 7.79E-07	7.22E-06 { 3.89E-14	-2.26E-05 { 5.38E-06	5.30E-02
7.07E-03 { 4.30E-11	1.31E-03 { 3.49E-07	3.94E-05 { 0.00E+00	1.20E-05 { 1.21E-07	1.43E-01
8.00E-03 { 0.00E+00	4.99E-04 { 9.73E-07	2.46E-05 { 1.46E-13	9.12E-06 { 1.57E-07	1.62E-01
6.52E-02 { 5.38E-10	2.94E-03 { 8.56E-07	2.28E-04 { 0.00E+00	4.11E-04 { 7.08E-06	1.31E+00
8.56E-03 { 3.04E-11	3.11E-04 { 7.56E-07	5.48E-05 { 0.00E+00	8.43E-06 { 2.04E-07	1.72E-01
1.79E-02 { 0.00E+00	1.79E-03 { 1.19E-06	5.29E-05 { 2.21E-13	9.64E-06 { 1.42E-07	3.60E-01
2.38E-03 { 0.00E+00	1.21E-05 { 9.40E-07	7.46E-06 { 0.00E+00	-2.37E-05 { 4.92E-06	4.80E-02
1.14E-02 { 0.00E+00	2.09E-04 { 6.10E-07	3.20E-05 { 0.00E+00	1.16E-05 { 1.93E-07	2.29E-01
1.06E-02 { 0.00E+00	3.73E-04 { 7.26E-07	4.91E-05 { 1.57E-13	9.07E-06 { 1.61E-07	2.14E-01
1.05E-02 { 5.64E-11	4.14E-04 { 5.76E-07	4.64E-05 { 0.00E+00	8.64E-06 { 1.17E-07	2.11E-01
6.77E-03 { 0.00E+00	4.28E-04 { 5.09E-07	4.33E-05 { 1.08E-13	7.26E-06 { 1.46E-07	1.36E-01
7.92E-03 { 3.75E-11	4.53E-04 { 7.19E-07	5.13E-05 { 0.00E+00	8.34E-06 { 1.13E-07	1.59E-01
2.83E-03 { 1.15E-11	8.77E-06 { 8.88E-07	7.89E-06 { 3.98E-14	-2.81E-05 { 5.63E-06	5.68E-02
4.59E-02 { 1.96E-10	6.50E-03 { 2.23E-06	2.55E-04 { 2.19E-12	5.16E-05 { 4.92E-07	9.17E-01
1.67E-02 { 0.00E+00	1.13E-03 { 1.04E-06	9.94E-05 { 3.06E-13	1.01E-05 { 1.80E-07	3.36E-01
9.44E-03 { 5.40E-11	6.34E-04 { 8.17E-07	6.51E-05 { 3.73E-13	1.05E-05 { 1.42E-07	1.90E-01
2.73E-02 { 0.00E+00	2.61E-03 { 9.64E-07	1.01E-04 { 0.00E+00	1.03E-05 { 1.41E-07	5.48E-01
1.22E-02 { 6.14E-11	2.94E-04 { 8.57E-07	5.52E-05 { 4.04E-13	6.37E-06 { 1.32E-07	2.45E-01
2.57E-03 { 1.17E-11	9.29E-06 { 7.10E-07	7.50E-06 { 4.15E-14	-4.20E-05 { 5.26E-06	5.16E-02
8.10E-03 { 0.00E+00	1.04E-03 { 8.09E-07	4.81E-05 { 1.54E-13	1.05E-05 { 1.45E-07	1.63E-01
8.96E-03 { 3.86E-11	5.39E-04 { 7.42E-07	5.38E-05 { 2.20E-13	7.98E-06 { 1.80E-07	1.80E-01

8.63E-03	{ 0.00E+00	5.88E-04	{ 6.51E-07	5.13E-05	{ 3.26E-13	7.94E-06	{ 1.46E-07	1.74E-01
1.11E-02	{ 4.20E-11	3.03E-04	{ 8.99E-07	2.93E-05	{ 0.00E+00	7.74E-06	{ 1.68E-07	2.22E-01
9.19E-02	{ 0.00E+00	2.48E-03	{ 8.01E-07	7.20E-04	{ 0.00E+00	4.25E-04	{ 6.23E-06	1.85E+00
2.66E-03	{ 0.00E+00	1.18E-05	{ 7.87E-07	7.49E-06	{ 0.00E+00	-9.74E-05	{ 7.17E-06	5.34E-02
1.93E-02	{ 0.00E+00	6.63E-05	{ 7.87E-07	3.08E-05	{ 0.00E+00	-2.15E-06	{ 1.69E-07	3.88E-01
8.83E-03	{ 0.00E+00	5.69E-05	{ 7.95E-07	6.76E-05	{ 0.00E+00	-4.42E-06	{ 1.54E-07	1.77E-01
9.22E-03	{ 2.58E-11	4.00E-05	{ 8.15E-07	3.39E-05	{ 2.93E-13	-4.31E-06	{ 2.10E-07	1.85E-01
2.48E-03	{ 0.00E+00	9.65E-06	{ 7.93E-07	6.89E-06	{ 0.00E+00	-1.32E-04	{ 5.67E-06	4.98E-02
2.26E-03	{ 1.52E-11	9.43E-06	{ 8.71E-07	6.00E-06	{ 4.00E-14	-1.18E-04	{ 7.60E-06	4.53E-02
2.91E-03	{ 0.00E+00	1.16E-05	{ 9.67E-07	7.51E-06	{ 3.61E-14	-4.89E-05	{ 6.31E-06	5.82E-02
2.50E-03	{ 0.00E+00	1.14E-05	{ 7.58E-07	5.79E-06	{ 1.29E-14	-5.88E-05	{ 4.88E-06	5.01E-02
1.92E-02	{ 0.00E+00	6.75E-05	{ 8.25E-07	3.22E-05	{ 1.84E-13	-1.36E-06	{ 2.05E-07	3.85E-01
8.87E-03	{ 4.61E-11	5.54E-05	{ 8.86E-07	6.88E-05	{ 4.03E-13	-2.70E-06	{ 1.77E-07	1.78E-01
9.17E-03	{ 0.00E+00	3.97E-05	{ 7.22E-07	3.39E-05	{ 0.00E+00	-3.09E-06	{ 1.62E-07	1.84E-01
2.55E-03	{ 0.00E+00	1.13E-05	{ 7.73E-07	6.72E-06	{ 0.00E+00	-5.24E-05	{ 5.74E-06	5.10E-02
8.43E-03	{ 5.69E-11	4.14E-04	{ 8.74E-07	5.08E-05	{ 2.98E-13	5.39E-06	{ 1.53E-07	1.69E-01
1.87E-02	{ 0.00E+00	2.15E-03	{ 8.81E-07	4.51E-05	{ 0.00E+00	1.12E-05	{ 1.68E-07	3.75E-01
1.17E-02	{ 4.64E-11	4.15E-04	{ 6.02E-07	4.76E-05	{ 1.78E-13	9.89E-06	{ 1.26E-07	2.33E-01
1.37E-02	{ 9.35E-11	7.07E-04	{ 1.03E-06	5.09E-05	{ 0.00E+00	8.83E-06	{ 1.55E-07	2.75E-01
2.37E-02	{ 0.00E+00	1.86E-03	{ 1.35E-06	1.13E-04	{ 6.93E-13	1.46E-05	{ 2.30E-07	4.73E-01
2.66E-03	{ 7.50E-12	8.98E-06	{ 8.02E-07	8.81E-06	{ 0.00E+00	-2.12E-05	{ 4.70E-06	5.32E-02
8.43E-03	{ 1.91E-12	2.54E-03	{ 7.84E-07	6.60E-05	{ 0.00E+00	8.92E-06	{ 1.22E-07	1.69E-01
6.98E-03	{ 5.62E-11	1.14E-03	{ 8.43E-07	2.11E-05	{ 3.95E-14	1.32E-05	{ 1.79E-07	1.40E-01
1.40E-02	{ 0.00E+00	1.16E-03	{ 7.76E-07	3.72E-05	{ 1.23E-13	7.72E-06	{ 1.73E-07	2.80E-01
5.54E-02	{ 3.56E-11	1.80E-03	{ 8.44E-07	3.65E-04	{ 1.74E-12	3.85E-04	{ 4.76E-06	1.11E+00
1.91E-02	{ 0.00E+00	1.86E-03	{ 9.80E-07	1.00E-04	{ 2.73E-13	1.11E-05	{ 1.35E-07	3.84E-01
2.72E-03	{ 1.51E-11	1.01E-05	{ 8.52E-07	1.10E-05	{ 1.92E-14	-2.38E-05	{ 4.80E-06	5.45E-02
4.63E-02	{ 0.00E+00	1.72E-03	{ 7.23E-07	1.38E-04	{ 5.43E-13	5.17E-04	{ 7.09E-06	9.28E-01
1.76E-01	{ 3.81E-10	8.49E-04	{ 9.34E-07	3.17E-05	{ 1.95E-13	2.79E-05	{ 2.41E-07	3.53E+00
1.72E-02	{ 8.33E-11	1.19E-03	{ 8.24E-07	3.27E-05	{ 2.58E-14	1.05E-05	{ 1.71E-07	3.44E-01
4.11E-02	{ 0.00E+00	9.80E-04	{ 6.05E-07	1.52E-04	{ 0.00E+00	3.92E-04	{ 5.04E-06	8.23E-01
4.70E-02	{ 0.00E+00	8.50E-04	{ 1.05E-06	1.51E-04	{ 0.00E+00	4.54E-04	{ 4.95E-06	9.42E-01
2.58E-03	{ 0.00E+00	1.03E-05	{ 8.33E-07	1.08E-05	{ 0.00E+00	-1.59E-05	{ 3.85E-06	5.17E-02
8.34E-03	{ 0.00E+00	4.17E-04	{ 7.21E-07	4.15E-05	{ 3.67E-14	6.72E-06	{ 1.21E-07	1.67E-01
1.89E-02	{ 0.00E+00	2.16E-03	{ 7.87E-07	4.40E-05	{ 2.41E-13	1.13E-05	{ 1.62E-07	3.79E-01
1.17E-02	{ 6.95E-11	4.17E-04	{ 5.91E-07	4.74E-05	{ 0.00E+00	1.02E-05	{ 1.76E-07	2.34E-01
1.36E-02	{ 1.03E-10	7.02E-04	{ 8.53E-07	5.01E-05	{ 0.00E+00	8.70E-06	{ 1.51E-07	2.74E-01
2.37E-02	{ 8.58E-11	1.87E-03	{ 1.24E-06	1.13E-04	{ 3.75E-13	1.49E-05	{ 2.59E-07	4.73E-01
2.56E-03	{ 0.00E+00	8.79E-06	{ 7.54E-07	9.22E-06	{ 3.70E-14	-2.03E-05	{ 6.24E-06	5.12E-02
3.20E-01	{ 0.00E+00	8.37E-03	{ 2.69E-06	1.74E-03	{ 2.75E-13	7.26E-04	{ 7.89E-06	6.42E+00
3.79E-02	{ 0.00E+00	5.40E-03	{ 5.59E-06	3.15E-04	{ 1.28E-12	1.35E-05	{ 1.92E-07	7.60E-01
4.92E-03	{ 3.06E-11	9.24E-04	{ 7.89E-07	6.25E-05	{ 0.00E+00	8.71E-06	{ 1.36E-07	9.85E-02
3.99E-02	{ 0.00E+00	6.10E-03	{ 3.36E-06	2.30E-04	{ 1.59E-12	1.28E-05	{ 1.85E-07	8.01E-01
2.40E-02	{ 1.89E-10	1.82E-03	{ 1.55E-06	5.92E-05	{ 3.66E-13	8.74E-06	{ 1.59E-07	4.80E-01
2.72E-03	{ 0.00E+00	1.18E-05	{ 9.55E-07	8.49E-06	{ 0.00E+00	-1.12E-05	{ 4.99E-06	5.46E-02
9.01E-02	{ 5.20E-10	4.42E-03	{ 1.13E-06	4.72E-04	{ 0.00E+00	4.49E-04	{ 6.44E-06	1.81E+00
5.35E-02	{ 0.00E+00	1.13E-03	{ 9.26E-07	1.79E-03	{ 0.00E+00	3.98E-04	{ 5.29E-06	1.07E+00

7.46E-03	{ 3.98E-11	6.03E-04	{ 1.07E-06	1.71E-05	{ 8.97E-14	6.70E-06	{ 1.34E-07	1.49E-01
2.19E-02	{ 0.00E+00	2.27E-03	{ 8.85E-07	3.74E-05	{ 2.80E-13	1.44E-05	{ 1.99E-07	4.39E-01
1.23E-02	{ 4.96E-11	2.92E-04	{ 7.95E-07	5.87E-05	{ 0.00E+00	6.80E-06	{ 1.13E-07	2.46E-01
2.81E-03	{ 1.05E-11	9.14E-06	{ 8.18E-07	8.29E-06	{ 5.62E-14	-8.35E-05	{ 5.97E-06	5.63E-02
8.74E-03	{ 6.75E-11	1.04E-03	{ 7.36E-07	5.10E-05	{ 2.56E-13	9.52E-06	{ 1.19E-07	1.75E-01
8.96E-03	{ 0.00E+00	5.41E-04	{ 7.96E-07	5.58E-05	{ 3.95E-13	7.87E-06	{ 1.88E-07	1.79E-01
8.62E-03	{ 0.00E+00	5.89E-04	{ 6.87E-07	5.49E-05	{ 9.26E-14	7.40E-06	{ 1.61E-07	1.73E-01
1.10E-02	{ 0.00E+00	3.06E-04	{ 8.91E-07	3.04E-05	{ 1.09E-13	6.88E-06	{ 2.04E-07	2.19E-01
9.34E-02	{ 0.00E+00	2.52E-03	{ 1.03E-06	7.73E-04	{ 3.59E-12	3.29E-04	{ 6.67E-06	1.87E+00
2.58E-03	{ 0.00E+00	1.14E-05	{ 7.64E-07	8.26E-06	{ 0.00E+00	-9.21E-05	{ 4.70E-06	5.16E-02
6.11E-02	{ 0.00E+00	7.72E-05	{ 8.83E-07	3.26E-05	{ 1.26E-13	-3.15E-06	{ 2.53E-07	1.22E+00
8.85E-03	{ 0.00E+00	5.31E-05	{ 8.04E-07	6.76E-05	{ 0.00E+00	-5.09E-06	{ 2.09E-07	1.77E-01
9.24E-03	{ 0.00E+00	3.90E-05	{ 8.92E-07	3.38E-05	{ 2.36E-13	-5.95E-06	{ 2.31E-07	1.85E-01
2.63E-03	{ 1.59E-11	1.20E-05	{ 7.98E-07	7.01E-06	{ 4.32E-14	-1.46E-04	{ 5.93E-06	5.27E-02
2.59E-03	{ 0.00E+00	9.62E-06	{ 7.61E-07	6.88E-06	{ 0.00E+00	-1.58E-04	{ 5.27E-06	5.19E-02

VCorrEst			TiCorrEst			Mass Bias			54Spk/52Nat		
{ 9.29E-07	1.02E-05	{ 7.06E-07	2.40E-03	{ 2.20E-08	2.82E+01	{ 8.91E-03	4.61E-01	{ 4.21E-06			
{ 5.17E-07	1.09E-05	{ 7.74E-07	1.48E-03	{ 7.05E-09	2.84E+01	{ 4.64E-03	4.61E-01	{ 9.23E-06			
{ 2.00E-06	4.97E-04	{ 6.56E-07	8.30E-03	{ 2.85E-08	2.77E+01	{ 3.34E-03	4.98E-01	{ 3.86E-06			
{ 3.10E-06	4.98E-04	{ 6.00E-07	8.21E-03	{ 4.41E-08	2.77E+01	{ 5.23E-03	4.98E-01	{ 3.61E-06			
{ 1.71E-06	1.24E-05	{ 1.82E-06	3.86E-03	{ 2.76E-08	2.85E+01	{ 6.98E-03	4.61E-01	{ 7.13E-06			
{ 1.03E-06	1.46E-05	{ 1.73E-06	3.17E-03	{ 1.50E-08	2.85E+01	{ 4.61E-03	4.61E-01	{ 4.89E-06			
{ 5.86E-07	1.01E-05	{ 9.21E-07	1.61E-03	{ 1.17E-08	2.87E+01	{ 7.10E-03	4.61E-01	{ 4.46E-06			
{ 3.06E-07	1.10E-05	{ 8.60E-07	1.34E-03	{ 6.47E-09	2.88E+01	{ 4.70E-03	4.61E-01	{ 4.21E-06			
{ 1.04E-06	1.23E-05	{ 7.13E-07	2.24E-03	{ 1.50E-08	2.88E+01	{ 6.53E-03	4.61E-01	{ 3.20E-06			
{ 9.68E-07	1.25E-05	{ 9.07E-07	2.15E-03	{ 1.45E-08	2.85E+01	{ 6.57E-03	4.61E-01	{ 3.83E-06			
{ 4.69E-06	1.99E-05	{ 3.08E-07	7.83E-03	{ 5.17E-08	2.78E+01	{ 6.42E-03	1.55E+00	{ 1.38E-05			
{ 1.88E-06	1.76E-05	{ 3.39E-07	1.87E-02	{ 1.05E-07	2.84E+01	{ 5.44E-03	1.55E+00	{ 1.31E-05			
{ 1.61E-06	1.23E-05	{ 3.26E-07	9.38E-03	{ 4.45E-08	2.84E+01	{ 4.62E-03	1.55E+00	{ 1.11E-05			
{ 4.51E-07	6.92E-06	{ 6.65E-07	1.70E-03	{ 8.43E-09	2.88E+01	{ 4.82E-03	4.61E-01	{ 4.67E-06			
{ 4.95E-06	1.15E-04	{ 2.70E-07	4.52E-03	{ 5.86E-08	2.82E+01	{ 1.26E-02	1.56E+00	{ 1.13E-05			
{ 1.09E-05	3.45E-03	{ 9.98E-07	1.09E-01	{ 4.47E-07	2.82E+01	{ 3.99E-03	4.49E-01	{ 6.30E-06			
{ 4.47E-06	8.09E-04	{ 3.79E-07	1.89E-02	{ 6.36E-08	2.86E+01	{ 3.28E-03	1.38E+00	{ 1.96E-05			
{ 1.13E-05	2.60E-03	{ 1.06E-06	7.11E-02	{ 4.08E-07	2.84E+01	{ 5.58E-03	4.39E-01	{ 1.18E-05			
{ 2.14E-06	1.07E-03	{ 3.54E-07	4.44E-02	{ 1.08E-07	3.02E+01	{ 2.38E-03	1.42E+00	{ 4.37E-05			
{ 7.17E-07	1.17E-05	{ 7.62E-07	1.84E-03	{ 1.30E-08	2.85E+01	{ 6.91E-03	4.61E-01	{ 7.55E-06			
{ 2.14E-06	7.44E-04	{ 3.34E-07	1.91E-02	{ 7.10E-08	2.85E+01	{ 3.62E-03	1.06E+00	{ 9.46E-06			
{ 2.72E-06	1.71E-04	{ 2.16E-07	5.18E-03	{ 4.30E-08	2.81E+01	{ 8.06E-03	1.39E+00	{ 1.62E-05			
{ 9.33E-06	3.13E-03	{ 9.42E-07	3.36E-02	{ 1.59E-07	2.76E+01	{ 4.60E-03	4.77E-01	{ 6.72E-06			
{ 1.46E-06	1.41E-04	{ 1.89E-07	4.69E-03	{ 2.02E-08	2.78E+01	{ 4.19E-03	1.34E+00	{ 1.17E-05			
{ 2.77E-06	3.83E-04	{ 2.05E-07	1.07E-02	{ 9.12E-08	2.81E+01	{ 8.27E-03	1.53E+00	{ 3.98E-05			
{ 5.09E-07	7.73E-06	{ 7.26E-07	1.78E-03	{ 9.50E-09	2.83E+01	{ 5.19E-03	4.61E-01	{ 4.56E-06			
{ 1.84E-06	3.79E-04	{ 1.02E-07	9.71E-03	{ 6.95E-08	2.73E+01	{ 6.95E-03	1.57E+00	{ 2.47E-05			
{ 2.14E-06	1.46E-04	{ 2.92E-07	6.07E-03	{ 4.46E-08	2.66E+01	{ 7.13E-03	1.56E+00	{ 9.09E-06			
{ 9.53E-06	2.85E-03	{ 8.47E-07	5.63E-02	{ 2.27E-07	2.78E+01	{ 3.92E-03	4.42E-01	{ 1.28E-05			
{ 2.87E-06	9.02E-05	{ 2.19E-07	1.35E-02	{ 1.25E-07	2.80E+01	{ 8.97E-03	1.58E+00	{ 1.41E-05			
{ 2.13E-06	4.93E-04	{ 3.28E-07	1.30E-02	{ 4.28E-08	2.79E+01	{ 3.19E-03	1.66E+00	{ 1.19E-05			
{ 8.80E-07	1.12E-05	{ 8.75E-07	1.84E-03	{ 1.87E-08	2.82E+01	{ 9.89E-03	4.61E-01	{ 9.63E-06			
{ 2.07E-06	6.75E-05	{ 1.96E-07	7.91E-03	{ 3.96E-08	2.86E+01	{ 4.87E-03	1.41E+00	{ 1.13E-05			
{ 1.46E-06	1.09E-04	{ 2.12E-07	1.21E-02	{ 4.61E-08	2.85E+01	{ 3.70E-03	1.57E+00	{ 9.40E-06			
{ 2.97E-06	1.22E-04	{ 1.70E-07	1.15E-02	{ 8.93E-08	2.79E+01	{ 7.57E-03	1.55E+00	{ 7.34E-06			
{ 9.06E-07	1.22E-04	{ 1.45E-07	1.07E-02	{ 3.94E-08	2.78E+01	{ 3.59E-03	1.60E+00	{ 8.33E-06			
{ 9.34E-07	1.31E-04	{ 2.07E-07	1.27E-02	{ 4.12E-08	2.86E+01	{ 3.17E-03	1.58E+00	{ 9.37E-06			
{ 4.14E-07	8.16E-06	{ 8.26E-07	1.95E-03	{ 7.89E-09	2.89E+01	{ 3.94E-03	4.61E-01	{ 1.11E-05			
{ 9.29E-06	2.23E-03	{ 7.63E-07	6.31E-02	{ 3.55E-07	3.26E+01	{ 5.49E-03	1.31E+00	{ 1.95E-05			
{ 4.81E-06	3.23E-04	{ 2.99E-07	2.46E-02	{ 1.95E-07	2.91E+01	{ 7.72E-03	1.59E+00	{ 1.28E-05			
{ 1.43E-06	1.81E-04	{ 2.34E-07	1.61E-02	{ 6.73E-08	2.88E+01	{ 4.07E-03	1.59E+00	{ 9.06E-06			
{ 7.73E-06	7.10E-04	{ 2.62E-07	2.49E-02	{ 1.95E-07	2.93E+01	{ 7.62E-03	1.68E+00	{ 1.27E-05			
{ 1.32E-06	7.85E-05	{ 2.29E-07	1.36E-02	{ 4.08E-08	2.94E+01	{ 2.91E-03	1.71E+00	{ 1.09E-05			
{ 3.15E-07	8.64E-06	{ 6.61E-07	1.85E-03	{ 6.28E-09	2.95E+01	{ 3.30E-03	4.61E-01	{ 5.93E-06			
{ 8.52E-07	2.83E-04	{ 2.22E-07	1.19E-02	{ 3.45E-08	2.91E+01	{ 2.83E-03	1.67E+00	{ 1.04E-05			
{ 1.57E-06	1.71E-04	{ 2.34E-07	1.33E-02	{ 6.44E-08	2.89E+01	{ 4.72E-03	1.44E+00	{ 1.38E-05			

{ 6.75E-07	1.69E-04	{ 1.87E-07	1.27E-02	{ 2.73E-08	2.86E+01	{ 2.10E-03	1.58E+00	{ 2.04E-05
{ 1.09E-06	8.77E-05	{ 2.60E-07	7.25E-03	{ 1.98E-08	2.96E+01	{ 2.66E-03	1.58E+00	{ 1.26E-05
{ 1.58E-05	2.32E-03	{ 7.61E-07	1.78E-01	{ 8.45E-07	2.91E+01	{ 4.63E-03	4.59E-01	{ 5.95E-06
{ 3.45E-07	1.09E-05	{ 7.32E-07	1.85E-03	{ 6.65E-09	2.95E+01	{ 3.50E-03	4.61E-01	{ 5.73E-06
{ 1.88E-06	1.95E-05	{ 2.32E-07	7.62E-03	{ 2.05E-08	2.90E+01	{ 2.62E-03	1.55E+00	{ 1.81E-05
{ 1.04E-06	1.68E-05	{ 2.34E-07	1.67E-02	{ 5.43E-08	2.93E+01	{ 3.17E-03	1.54E+00	{ 1.88E-05
{ 1.93E-06	1.18E-05	{ 2.40E-07	8.38E-03	{ 4.86E-08	2.93E+01	{ 5.64E-03	1.55E+00	{ 1.20E-05
{ 4.10E-07	8.98E-06	{ 7.38E-07	1.70E-03	{ 7.78E-09	2.97E+01	{ 4.45E-03	4.61E-01	{ 7.20E-06
{ 3.16E-07	8.77E-06	{ 8.10E-07	1.48E-03	{ 5.74E-09	2.97E+01	{ 3.78E-03	4.61E-01	{ 5.83E-06
{ 4.15E-07	1.08E-05	{ 8.98E-07	1.86E-03	{ 7.38E-09	3.15E+01	{ 3.87E-03	4.61E-01	{ 3.82E-06
{ 3.00E-07	1.06E-05	{ 7.04E-07	1.43E-03	{ 4.76E-09	3.15E+01	{ 3.25E-03	4.61E-01	{ 5.04E-06
{ 1.66E-06	1.99E-05	{ 2.43E-07	7.97E-03	{ 1.91E-08	3.10E+01	{ 2.34E-03	1.55E+00	{ 1.69E-05
{ 8.63E-07	1.63E-05	{ 2.61E-07	1.70E-02	{ 4.60E-08	3.13E+01	{ 2.63E-03	1.54E+00	{ 1.15E-05
{ 1.29E-06	1.17E-05	{ 2.12E-07	8.39E-03	{ 3.27E-08	3.11E+01	{ 3.80E-03	1.55E+00	{ 1.20E-05
{ 4.13E-07	1.05E-05	{ 7.17E-07	1.66E-03	{ 7.48E-09	3.16E+01	{ 4.39E-03	4.61E-01	{ 6.85E-06
{ 7.28E-07	1.14E-04	{ 2.42E-07	1.26E-02	{ 3.02E-08	3.15E+01	{ 2.34E-03	1.65E+00	{ 1.45E-05
{ 1.34E-05	6.01E-04	{ 2.48E-07	1.12E-02	{ 2.22E-07	3.06E+01	{ 1.94E-02	1.63E+00	{ 1.33E-05
{ 2.21E-06	1.16E-04	{ 1.68E-07	1.18E-02	{ 6.19E-08	3.10E+01	{ 5.12E-03	1.63E+00	{ 9.25E-06
{ 1.82E-06	1.95E-04	{ 2.85E-07	1.26E-02	{ 4.62E-08	2.96E+01	{ 3.57E-03	1.65E+00	{ 1.30E-05
{ 7.23E-06	5.47E-04	{ 3.98E-07	2.80E-02	{ 2.38E-07	3.23E+01	{ 8.29E-03	1.54E+00	{ 1.11E-05
{ 3.94E-07	8.34E-06	{ 7.45E-07	2.18E-03	{ 8.95E-09	3.12E+01	{ 4.01E-03	4.61E-01	{ 6.50E-06
{ 6.86E-07	6.63E-04	{ 2.03E-07	1.63E-02	{ 3.68E-08	3.09E+01	{ 2.20E-03	1.75E+00	{ 1.86E-05
{ 1.27E-06	3.46E-04	{ 2.55E-07	5.22E-03	{ 2.63E-08	3.05E+01	{ 4.91E-03	1.50E+00	{ 7.99E-06
{ 2.77E-06	3.23E-04	{ 2.16E-07	9.21E-03	{ 5.06E-08	3.09E+01	{ 5.36E-03	1.64E+00	{ 1.12E-05
{ 6.31E-06	1.64E-03	{ 7.64E-07	9.03E-02	{ 2.85E-07	3.09E+01	{ 3.08E-03	4.71E-01	{ 9.06E-06
{ 2.29E-06	5.23E-04	{ 2.69E-07	2.48E-02	{ 8.21E-08	3.08E+01	{ 3.23E-03	1.62E+00	{ 1.80E-05
{ 6.45E-07	9.35E-06	{ 7.91E-07	2.71E-03	{ 1.78E-08	3.12E+01	{ 6.41E-03	4.61E-01	{ 4.59E-06
{ 5.67E-06	1.74E-03	{ 7.39E-07	3.42E-02	{ 1.16E-07	3.05E+01	{ 3.31E-03	4.19E-01	{ 3.21E-06
{ 2.56E-05	2.40E-04	{ 2.63E-07	7.85E-03	{ 3.16E-08	3.07E+01	{ 3.93E-03	1.61E+00	{ 1.32E-05
{ 1.44E-06	3.39E-04	{ 2.36E-07	8.10E-03	{ 1.88E-08	3.11E+01	{ 2.26E-03	1.59E+00	{ 1.14E-05
{ 5.41E-06	9.26E-04	{ 5.62E-07	3.77E-02	{ 1.37E-07	3.08E+01	{ 3.56E-03	4.53E-01	{ 1.47E-05
{ 5.20E-06	8.16E-04	{ 1.03E-06	3.74E-02	{ 1.15E-07	3.07E+01	{ 2.99E-03	4.45E-01	{ 5.99E-06
{ 3.80E-07	9.59E-06	{ 7.73E-07	2.68E-03	{ 1.09E-08	3.13E+01	{ 3.98E-03	4.61E-01	{ 4.45E-06
{ 1.13E-06	1.15E-04	{ 2.00E-07	1.03E-02	{ 3.86E-08	3.13E+01	{ 3.66E-03	1.65E+00	{ 1.38E-05
{ 4.85E-06	6.02E-04	{ 2.22E-07	1.09E-02	{ 7.73E-08	3.06E+01	{ 6.92E-03	1.63E+00	{ 1.45E-05
{ 1.47E-06	1.16E-04	{ 1.65E-07	1.17E-02	{ 4.09E-08	3.11E+01	{ 3.40E-03	1.63E+00	{ 1.13E-05
{ 1.29E-06	1.94E-04	{ 2.35E-07	1.24E-02	{ 3.24E-08	3.00E+01	{ 2.55E-03	1.65E+00	{ 1.24E-05
{ 2.32E-06	5.50E-04	{ 3.64E-07	2.81E-02	{ 7.66E-08	3.26E+01	{ 2.66E-03	1.54E+00	{ 1.22E-05
{ 4.33E-07	8.16E-06	{ 7.00E-07	2.28E-03	{ 1.07E-08	3.14E+01	{ 4.59E-03	4.61E-01	{ 7.55E-06
{ 5.62E-05	7.82E-03	{ 2.51E-06	4.31E-01	{ 2.09E-06	3.09E+01	{ 4.75E-03	4.58E-01	{ 9.48E-06
{ 5.19E-06	1.49E-03	{ 1.54E-06	7.80E-02	{ 2.96E-07	3.06E+01	{ 3.70E-03	1.66E+00	{ 2.68E-05
{ 8.29E-07	2.38E-04	{ 2.02E-07	1.55E-02	{ 7.23E-08	3.12E+01	{ 4.56E-03	1.77E+00	{ 1.47E-05
{ 1.03E-05	1.66E-03	{ 9.12E-07	5.70E-02	{ 4.07E-07	3.04E+01	{ 6.97E-03	1.67E+00	{ 1.24E-05
{ 2.48E-06	4.75E-04	{ 4.07E-07	1.46E-02	{ 4.19E-08	3.08E+01	{ 2.79E-03	1.75E+00	{ 1.46E-05
{ 2.98E-07	1.09E-05	{ 8.86E-07	2.10E-03	{ 6.36E-09	3.12E+01	{ 2.95E-03	4.62E-01	{ 2.27E-05
{ 1.63E-05	4.09E-03	{ 9.71E-07	1.17E-01	{ 5.84E-07	3.08E+01	{ 4.88E-03	4.63E-01	{ 7.74E-06
{ 1.13E-05	1.06E-03	{ 8.68E-07	4.43E-01	{ 2.58E-06	3.07E+01	{ 5.68E-03	4.56E-01	{ 5.26E-06

{ 8.33E-07	1.62E-04	{ 2.88E-07	4.24E-03	{ 1.31E-08	3.12E+01	{ 3.02E-03	1.69E+00	{ 1.35E-05
{ 2.30E-06	6.97E-04	{ 2.71E-07	9.25E-03	{ 2.68E-08	3.09E+01	{ 2.83E-03	1.48E+00	{ 9.70E-06
{ 1.02E-06	7.78E-05	{ 2.12E-07	1.45E-02	{ 3.37E-08	3.13E+01	{ 2.26E-03	1.71E+00	{ 1.12E-05
{ 3.57E-07	8.49E-06	{ 7.59E-07	2.05E-03	{ 7.21E-09	3.15E+01	{ 3.43E-03	4.61E-01	{ 6.78E-06
{ 6.58E-07	2.85E-04	{ 1.99E-07	1.26E-02	{ 2.64E-08	3.12E+01	{ 2.04E-03	1.67E+00	{ 1.75E-05
{ 2.03E-06	1.71E-04	{ 2.52E-07	1.38E-02	{ 8.68E-08	3.10E+01	{ 6.13E-03	1.44E+00	{ 1.24E-05
{ 6.88E-07	1.69E-04	{ 1.97E-07	1.36E-02	{ 3.00E-08	3.07E+01	{ 2.15E-03	1.58E+00	{ 1.22E-05
{ 1.22E-06	8.82E-05	{ 2.57E-07	7.53E-03	{ 2.33E-08	3.16E+01	{ 3.01E-03	1.58E+00	{ 1.30E-05
{ 1.26E-05	2.35E-03	{ 9.98E-07	1.91E-01	{ 7.17E-07	3.12E+01	{ 3.66E-03	4.59E-01	{ 2.75E-05
{ 6.22E-07	1.06E-05	{ 7.09E-07	2.05E-03	{ 1.37E-08	3.17E+01	{ 6.53E-03	4.61E-01	{ 5.64E-06
{ 5.82E-06	2.29E-05	{ 2.62E-07	8.07E-03	{ 2.13E-08	3.12E+01	{ 2.57E-03	1.53E+00	{ 1.11E-05
{ 1.39E-06	1.56E-05	{ 2.37E-07	1.67E-02	{ 7.30E-08	3.14E+01	{ 4.26E-03	1.54E+00	{ 1.14E-05
{ 7.08E-07	1.15E-05	{ 2.62E-07	8.36E-03	{ 1.77E-08	3.13E+01	{ 2.07E-03	1.55E+00	{ 1.21E-05
{ 2.60E-07	1.12E-05	{ 7.41E-07	1.74E-03	{ 4.76E-09	3.18E+01	{ 2.68E-03	4.61E-01	{ 6.89E-06
{ 4.51E-07	8.93E-06	{ 7.06E-07	1.71E-03	{ 8.23E-09	3.18E+01	{ 4.72E-03	4.61E-01	{ 9.74E-06

Delta 53Cr

Average 97 Final d53 Replicate d

-0.05	{ 1.87E-02 979_125pp	19-Jul	16:20	-6.89E-02	0.02
-0.05	{ 1.95E-02 979_125pp	19-Jul	16:30	-6.95E-02	0.02
-0.17	{ 1.51E-02 3112a_125	19-Jul	16:45	-7.05E-02	-0.10
-0.18	{ 1.45E-02 3112a_125	19-Jul	16:54	-7.11E-02	-0.10
-0.09	{ 2.83E-02 979_75ppb	19-Jul	17:09	-7.20E-02	-0.02
-0.01	{ 2.49E-02 979_75ppb	19-Jul	17:19	-7.27E-02	0.06
-0.06	{ 1.52E-02 979_125pp	19-Jul	17:34	-7.37E-02	0.01
-0.14	{ 1.68E-02 979_125pp	19-Jul	17:44	-7.43E-02	-0.06
-0.04	{ 1.94E-02 979_125pp	19-Jul	18:07	-7.58E-02	0.03
-0.12	{ 2.03E-02 979_125pp	19-Jul	19:14	-8.01E-02	-0.04
-0.21	{ 1.44E-02 Proc_3112i	19-Jul	19:29	-8.11E-02	-0.13
-0.20	{ 1.29E-02 Proc_3112i	19-Jul	19:44	-8.21E-02	-0.12
-0.22	{ 1.90E-02 Proc_3112i	19-Jul	19:59	-8.31E-02	-0.14
-0.12	{ 2.11E-02 979_125pp	19-Jul	20:14	-8.40E-02	-0.03
0.94	{ 1.71E-02 127650'	19-Jul	20:29	-8.50E-02	1.03
1.17	{ 1.89E-02 123342'	19-Jul	20:44	-8.60E-02	1.25
1.11	{ 1.92E-02 129412'	19-Jul	20:59	-8.69E-02	1.20
1.04	{ 2.27E-02 127292'	19-Jul	21:14	-8.79E-02	1.13
1.71	{ 2.32E-02 123328+12	19-Jul	21:29	-8.89E-02	1.80
-0.05	{ 1.45E-02 979_125pp	19-Jul	21:44	-8.99E-02	0.04
1.74	{ 1.66E-02 129341'	19-Jul	21:59	-9.08E-02	1.84
0.86	{ 1.58E-02 126877'	19-Jul	22:14	-9.18E-02	0.95
1.60	{ 1.89E-02 123510'	19-Jul	22:29	-9.28E-02	1.69
0.80	{ 1.34E-02 126884'	19-Jul	22:44	-9.37E-02	0.89
0.79	{ 1.57E-02 123764'	19-Jul	22:59	-9.47E-02	0.88
-0.08	{ 1.74E-02 125ppb_97	19-Jul	23:14	-9.57E-02	0.02
1.13	{ 1.22E-02 123688'	19-Jul	23:29	-9.67E-02	1.23
0.80	{ 1.54E-02 123759'	19-Jul	23:44	-9.76E-02	0.90
0.95	{ 1.95E-02 127252'	19-Jul	23:59	-9.86E-02	1.05
0.76	{ 2.04E-02 129735'	20-Jul	0:14	-9.96E-02	0.86
0.91	{ 1.59E-02 129411'	20-Jul	0:29	-1.01E-01	1.01
-0.08	{ 1.59E-02 979_125pp	20-Jul	0:44	-1.02E-01	0.02
0.76	{ 1.41E-02 126870'	20-Jul	0:59	-1.02E-01	0.86
0.80	{ 1.58E-02 129732'	20-Jul	1:14	-1.03E-01	0.90
0.72	{ 1.11E-02 129980'	20-Jul	1:29	-1.04E-01	0.83
0.69	{ 1.53E-02 129984'	20-Jul	1:44	-1.05E-01	0.80
0.77	{ 1.14E-02 129981'	20-Jul	1:59	-1.06E-01	0.88
-0.10	{ 1.82E-02 979_125pp	20-Jul	2:14	-1.07E-01	0.01
2.73	{ 2.71E-02 123324-12'	20-Jul	2:29	-1.08E-01	2.84
0.88	{ 1.81E-02 123560'	20-Jul	2:44	-1.09E-01	0.99
1.00	{ 1.46E-02 123651'	20-Jul	2:58	-1.10E-01	1.11
0.96	{ 1.60E-02 123657'	20-Jul	3:13	-1.11E-01	1.07
0.70	{ 1.66E-02 127067'	20-Jul	3:28	-1.12E-01	0.81
-0.14	{ 1.70E-02 979_125pp	20-Jul	3:43	-1.13E-01	-0.03
1.17	{ 1.72E-02 126943'	20-Jul	3:58	-1.78E-01	1.35
0.55	{ 1.39E-02 123769'	20-Jul	4:13	-2.02E-01	0.75

0.73 { 1.48E-02 127668'	20-Jul	4:28	-2.27E-01	0.96	
0.69 { 1.68E-02 127650-2'	20-Jul	4:43	-2.51E-01	0.95	-0.08
1.04 { 1.78E-02 123342-2'	20-Jul	4:58	-2.75E-01	1.31	0.06
-0.32 { 2.32E-02 979_125pp	20-Jul	5:13	-2.99E-01	-0.02	
-0.35 { 1.55E-02 Proc_3112i	20-Jul	5:32	-3.30E-01	-0.02	
-0.48 { 1.45E-02 Proc_3112i	20-Jul	5:47	-3.54E-01	-0.13	
-0.48 { 1.99E-02 Proc_3112i	20-Jul	6:02	-3.78E-01	-0.10	
-0.43 { 1.83E-02 979_125pp	20-Jul	6:17	-4.02E-01	-0.03	
-0.39 { 2.45E-02 979_125pp	20-Jul	6:32	-4.26E-01	0.04	
-0.16 { 2.04E-02 979_125pp	20-Jul	10:41	-1.89E-01	0.03	
-0.19 { 1.58E-02 979_125pp	20-Jul	10:52	-1.82E-01	-0.01	
-0.22 { 1.89E-02 Proc_3112i	20-Jul	11:07	-1.72E-01	-0.05	
-0.30 { 1.67E-02 Proc_3112i	20-Jul	11:22	-1.63E-01	-0.14	
-0.34 { 1.54E-02 Proc_3112i	20-Jul	11:37	-1.53E-01	-0.19	
-0.17 { 1.85E-02 979_125pp	20-Jul	11:52	-1.43E-01	-0.03	
0.57 { 1.75E-02 129340'	20-Jul	12:07	-1.34E-01	0.71	
1.10 { 1.82E-02 128860'	20-Jul	12:22	-1.24E-01	1.22	
1.02 { 1.39E-02 127645'	20-Jul	12:37	-1.15E-01	1.14	
0.90 { 1.75E-02 123756'	20-Jul	12:52	-1.05E-01	1.00	
1.24 { 2.16E-02 123335'	20-Jul	13:07	-9.56E-02	1.33	
-0.07 { 1.52E-02 979_125pp	20-Jul	13:22	-8.61E-02	0.01	
1.15 { 1.65E-02 123667'	20-Jul	13:37	-7.75E-02	1.23	
1.11 { 1.56E-02 129043'	20-Jul	13:52	-7.62E-02	1.19	
0.78 { 1.91E-02 129413'	20-Jul	14:07	-7.49E-02	0.85	
1.17 { 1.57E-02 129562'	20-Jul	14:22	-7.37E-02	1.25	
1.07 { 1.43E-02 128862'	20-Jul	14:37	-7.24E-02	1.14	
-0.08 { 1.55E-02 979_125pp	20-Jul	14:52	-7.12E-02	-0.01	
1.18 { 1.72E-02 123578'	20-Jul	15:07	-6.99E-02	1.25	
0.98 { 1.68E-02 123532'	20-Jul	15:22	-6.86E-02	1.05	
0.98 { 1.73E-02 123566'	20-Jul	15:37	-6.74E-02	1.04	
1.11 { 1.52E-02 129559'	20-Jul	15:52	-6.61E-02	1.17	
1.22 { 1.41E-02 123582'	20-Jul	16:07	-6.48E-02	1.28	
-0.06 { 1.25E-02 979_125pp	20-Jul	16:22	-6.36E-02	0.01	
0.72 { 1.37E-02 129340'	20-Jul	16:37	-6.23E-02	0.78	
1.11 { 1.76E-02 128860'	20-Jul	16:52	-6.10E-02	1.17	
1.06 { 1.94E-02 127645'	20-Jul	17:07	-5.98E-02	1.12	
0.89 { 1.71E-02 123756'	20-Jul	17:22	-5.85E-02	0.95	
1.29 { 2.36E-02 123335'	20-Jul	17:37	-5.73E-02	1.35	
-0.07 { 2.02E-02 979_125pp	20-Jul	17:52	-5.60E-02	-0.01	
1.29 { 1.93E-02 128856'	20-Jul	18:07	-5.47E-02	1.35	
1.20 { 2.04E-02 129290'	20-Jul	18:22	-5.35E-02	1.25	
1.21 { 1.93E-02 123677'	20-Jul	18:37	-5.22E-02	1.26	
1.13 { 2.00E-02 128859'	20-Jul	18:52	-5.09E-02	1.18	
0.98 { 2.04E-02 123292'	20-Jul	19:07	-4.97E-02	1.03	
-0.04 { 1.62E-02 979_125pp	20-Jul	19:22	-4.84E-02	0.01	
1.22 { 1.96E-02 123557'	20-Jul	19:37	-8.65E-02	1.31	
1.08 { 1.59E-02 128857'	20-Jul	19:52	-1.12E-01	1.19	

0.79 { 1.66E-02 129340-2'	20-Jul	20:07	-1.37E-01	0.92	0.14
1.06 { 1.61E-02 128860-2'	20-Jul	20:22	-1.62E-01	1.22	0.00
0.79 { 1.42E-02 127067'	20-Jul	20:37	-1.87E-01	0.98	
-0.27 { 1.93E-02 979_125pp	20-Jul	20:52	-2.12E-01	-0.06	
1.08 { 1.41E-02 126943'	20-Jul	21:07	-2.37E-01	1.31	-0.03
0.56 { 1.45E-02 123769'	20-Jul	21:22	-2.63E-01	0.82	0.08
0.70 { 1.63E-02 127668'	20-Jul	21:37	-2.88E-01	0.99	0.03
0.64 { 2.04E-02 127650-2'	20-Jul	21:52	-3.13E-01	0.95	-0.08
0.84 { 1.98E-02 123342-2'	20-Jul	22:07	-3.38E-01	1.18	-0.08
-0.30 { 1.52E-02 979_125pp	20-Jul	22:22	-3.63E-01	0.06	
-0.54 { 2.04E-02 Proc_3112i	20-Jul	22:41	-3.95E-01	-0.15	
-0.52 { 1.97E-02 Proc_3112i	20-Jul	22:56	-4.20E-01	-0.10	
-0.61 { 2.18E-02 Proc_3112i	20-Jul	23:11	-4.45E-01	-0.16	
-0.47 { 1.91E-02 979_125pp	20-Jul	23:26	-4.71E-01	0.00	
-0.51 { 1.70E-02 979_125pp	20-Jul	23:41	-4.96E-01	-0.02	

ifference