APPENDIX G

Section 6

Outfall 009 – March 25 & 26, 2012

Test America Analytical Laboratory Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-6513-1
Client Project/Site: Boeing SSFL outfalls

For:
MWH Americas Inc
618 Michillinda Avenue, Suite 200
Arcadia, California 91007

Attn: Bronwyn Kelly

Debby Wilson

Authorized for release by:
4/27/2012 10:49:14 AM

Debby Wilson
Project Manager I
debby.wilson@testamericainc.com

LINKS

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Have a Question? Ask The Expert

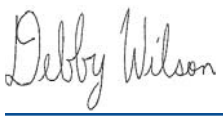
Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.



Debby Wilson
Project Manager I
4/27/2012 10:49:14 AM

Table of Contents

Cover Page 1
Table of Contents 3
Sample Summary 4
Case Narrative 5
Client Sample Results 6
Chronicle 9
QC Sample Results 11
QC Association 23
Definitions 27
Certification Summary 28
Subcontract Data 29
Chain of Custody 70
Receipt Checklists 72

Sample Summary

Client: MWH Americas Inc
Project/Site: Boeing SSFL outfalls

TestAmerica Job ID: 440-6513-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-6513-1	Outfall 009 Grab	Water	03/25/12 12:05	03/26/12 08:30
440-6603-1	Outfall 009 Composite	Water	03/25/12 17:48	03/26/12 16:50
440-6603-2	Trip Blank	Water	03/26/12 13:15	03/26/12 16:50

Job ID: 440-6513-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-6513-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

HPLC
Method(s) 300.0: Results exceeded the linear range for chloride and sulfate in the MS/MSD for batch 15487 and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

WATER, 1613B, Dioxins/Furans with Totals
Sample: 1
Some analytes in the associated method blank (MB) have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

Some analytes in the MB are reported at a concentration below the estimated detection limit (EDL). The data is reported as a positive detection because the peaks elute at the correct retention time for both characteristic ions and have a signal to noise ratio greater than the method required 2.5:1.

Client: MWH Americas Inc
Project/Site: Boeing SSFL outfalls

TestAmerica Job ID: 440-6513-1

Client Sample ID: Outfall 009 Grab

Lab Sample ID: 440-6513-1

Date Collected: 03/25/12 12:05
Matrix: Water
Date Received: 03/26/12 08:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		4.7	1.3	mg/L		04/02/12 06:52	04/02/12 07:28	1

Client Sample ID: Outfall 009 Composite

Lab Sample ID: 440-6603-1

Date Collected: 03/25/12 17:48
Matrix: Water
Date Received: 03/26/12 16:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		0.50	0.40	mg/L			03/27/12 01:57	1
Nitrate Nitrite as N	0.27		0.26	0.19	mg/L			03/27/12 01:57	1
Sulfate	3.0		0.50	0.40	mg/L			03/27/12 01:57	1

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B)

Analyte	Result	Qualifier	ML	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.000010	0.0000037	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
Total TCDD	ND		0.000010	0.0000037	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,7,8-PeCDD	ND		0.000050	0.0000067	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
Total PeCDD	ND		0.000050	0.0000067	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,4,7,8-HxCDD	ND		0.000050	0.0000033	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,6,7,8-HxCDD	0.0000050	J	0.000050	0.0000028	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,7,8,9-HxCDD	0.0000047	J	0.000050	0.0000027	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
Total HxCDD	0.000030	J	0.000050	0.0000029	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,4,6,7,8-HpCDD	0.00011	B	0.000050	0.0000036	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
Total HpCDD	0.00029	B	0.000050	0.0000036	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
OCDD	0.0012	B	0.00010	0.000013	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
2,3,7,8-TCDF	ND		0.000010	0.0000063	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
Total TCDF	ND		0.000010	0.0000063	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,7,8-PeCDF	ND		0.000050	0.0000070	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
2,3,4,7,8-PeCDF	ND		0.000050	0.0000070	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
Total PeCDF	ND		0.000050	0.0000070	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,4,7,8-HxCDF	ND		0.000050	0.0000046	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,6,7,8-HxCDF	ND		0.000050	0.0000042	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
2,3,4,6,7,8-HxCDF	ND		0.000050	0.0000043	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,7,8,9-HxCDF	ND		0.000050	0.0000061	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
Total HxCDF	0.000019	J	0.000050	0.0000047	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,4,6,7,8-HpCDF	0.000028	J	0.000050	0.0000038	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
1,2,3,4,7,8,9-HpCDF	ND		0.000050	0.0000056	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
Total HpCDF	0.000070	J	0.000050	0.0000046	ug/L		04/02/12 10:00	04/03/12 21:47	0.97
OCDF	0.000073	J B	0.00010	0.0000044	ug/L		04/02/12 10:00	04/03/12 21:47	0.97

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*94*		*35 - 197*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*

Internal Standard	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*82*		*25 - 164*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-1,2,3,7,8-PeCDD	*78*		*25 - 181*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-1,2,3,4,7,8-HxCDD	*75*		*32 - 141*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-1,2,3,6,7,8-HxCDD	*96*		*28 - 130*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-1,2,3,4,6,7,8-HpCDD	*86*		*23 - 140*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-OCDD	*98*		*17 - 157*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-2,3,7,8-TCDF	*91*		*24 - 169*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*

Client Sample ID: Outfall 009 Composite
Date Collected: 03/25/12 17:48
Date Received: 03/26/12 16:50

Lab Sample ID: 440-6603-1
Matrix: Water

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Internal Standard	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,7,8-PeCDF	*88*		*24 - 185*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-2,3,4,7,8-PeCDF	*96*		*21 - 178*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-1,2,3,6,7,8-HxCDF	*117*		*26 - 123*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-2,3,4,6,7,8-HxCDF	*116*		*28 - 136*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-1,2,3,7,8,9-HxCDF	*99*		*29 - 147*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-1,2,3,4,6,7,8-HpCDF	*102*		*28 - 143*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-1,2,3,4,7,8,9-HpCDF	*97*		*26 - 138*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*
13C-1,2,3,4,7,8-HxCDF	*94*		*26 - 152*	*04/02/12 10:00*	*04/03/12 21:47*	*0.97*

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	**0.12**	**J,DX**	1.0	0.10	ug/L		03/29/12 13:39	03/29/12 23:30	1
Copper	**5.1**		2.0	0.50	ug/L		03/29/12 13:39	03/29/12 23:30	1
Lead	**7.2**		1.0	0.20	ug/L		03/29/12 13:39	03/29/12 23:30	1
Antimony	**0.51**	**J,DX**	2.0	0.30	ug/L		03/29/12 13:39	03/29/12 23:30	1
Thallium	ND		1.0	0.20	ug/L		03/29/12 13:39	03/29/12 23:30	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/29/12 13:59	03/29/12 20:54	1
Copper	**3.2**		2.0	0.50	ug/L		03/29/12 13:59	03/29/12 20:54	1
Lead	**0.76**	**J,DX**	1.0	0.20	ug/L		03/29/12 13:59	03/29/12 20:54	1
Antimony	**0.39**	**J,DX**	2.0	0.30	ug/L		03/29/12 13:59	03/29/12 20:54	1
Thallium	ND		1.0	0.20	ug/L		03/29/12 13:59	03/29/12 20:54	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		03/27/12 15:45	03/28/12 09:34	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		03/27/12 16:44	03/28/12 11:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**47**		10	10	mg/L			03/29/12 08:49	1
Total Suspended Solids	**33**		10	10	mg/L			03/27/12 15:57	1
Cyanide, Total	ND		0.0050	0.0030	mg/L		03/30/12 11:21	03/30/12 13:52	1

Method: Gamma Spec K-40 CS-137 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cesium-137	-0.34	0	pCi/L		U		03/29/12 00:00	03/30/12 00:00	1
Potassium-40	7.55	0	pCi/L		U		03/29/12 00:00	03/30/12 00:00	1

Method: Gross Alpha and Beta - Gross Alpha/Beta

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Alpha	2.31	0	pCi/L		J		04/11/12 00:00	04/13/12 09:12	1
Gross Beta	2.88	0	pCi/L		J		04/11/12 00:00	04/13/12 09:12	1

Method: Radium 226 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-226	0.026	0	pCi/L		U		04/12/12 00:00	04/12/12 13:19	1

Client: MWH Americas Inc
Project/Site: Boeing SSFL outfalls

TestAmerica Job ID: 440-6513-1

Client Sample ID: Outfall 009 Composite

Lab Sample ID: 440-6603-1

Date Collected: 03/25/12 17:48
Matrix: Water
Date Received: 03/26/12 16:50

Method: Radium 228 - RAD-226-228 combined

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-228	0.114	0	pCi/L		U		04/06/12 00:00	04/06/12 13:23	1

Method: Strontium 90 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium-90	-0.094	0	pCi/L		U		04/06/12 00:00	04/06/12 07:23	1

Method: Tritium - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tritium	9.52	0	pCi/L		U		04/13/12 00:00	04/14/12 09:59	1

Method: Uranium, Combined - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium, Total	0.137	0	pCi/L		J		04/02/12 00:00	04/02/12 01:43	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-6603-2

Date Collected: 03/26/12 13:15
Matrix: Water
Date Received: 03/26/12 16:50

Method: Gamma Spec K-40 CS-137 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cesium-137	0.208	0	pCi/L		U		03/29/12 00:00	03/30/12 00:00	1
Potassium-40	5.5	0	pCi/L		U		03/29/12 00:00	03/30/12 00:00	1

Method: Gross Alpha and Beta - Gross Alpha/Beta

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Alpha	0.096	0	pCi/L		U		04/11/12 00:00	04/13/12 09:12	1
Gross Beta	0.1	0	pCi/L		U		04/11/12 00:00	04/13/12 09:12	1

Method: Radium 226 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-226	0.033	0	pCi/L		U		04/12/12 00:00	04/12/12 13:19	1

Method: Radium 228 - RAD-226-228 combined

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-228	-0.115	0	pCi/L		U		04/06/12 00:00	04/06/12 13:23	1

Method: Strontium 90 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium-90	0.114	0	pCi/L		U		04/06/12 00:00	04/06/12 07:23	1

Method: Uranium, Combined - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium, Total	0	0	pCi/L		U		04/02/12 00:00	04/02/12 01:51	1

Client Sample ID: Outfall 009 Grab

Lab Sample ID: 440-6513-1

Date Collected: 03/25/12 12:05

Matrix: Water

Date Received: 03/26/12 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			1055 mL	1000 mL	16822	04/02/12 06:52	DA	TAL IRV
Total/NA	Analysis	1664A		1			16825	04/02/12 07:28	DA	TAL IRV

Client Sample ID: Outfall 009 Composite

Lab Sample ID: 440-6603-1

Date Collected: 03/25/12 17:48

Matrix: Water

Date Received: 03/26/12 16:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	15486	03/27/12 01:57	NN	TAL IRV
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	15487	03/27/12 01:57	NN	TAL IRV
Total	Prep	3542			1030.6 mL	20 uL	2093092_P	04/02/12 10:00	TL	TAL WSC
Total	Analysis	1613B		0.97			2093092	04/03/12 21:47	GSV	TAL WSC
Total/NA	Prep	245.1			20 mL	20 mL	15846	03/27/12 15:45	DB	TAL IRV
Total/NA	Analysis	245.1		1			16071	03/28/12 09:34	DB	TAL IRV
Dissolved	Prep	245.1			20 mL	20 mL	15817	03/27/12 16:44	DB	TAL IRV
Dissolved	Analysis	245.1		1			16071	03/28/12 11:12	DB	TAL IRV
Dissolved	Prep	200.2			50 mL	50 mL	16348	03/29/12 13:59	SC	TAL IRV
Dissolved	Analysis	200.8		1			16526	03/29/12 20:54	RC	TAL IRV
Total Recoverable	Prep	200.2			50 mL	50 mL	16339	03/29/12 13:39	SC	TAL IRV
Total Recoverable	Analysis	200.8		1			16526	03/29/12 23:30	RC	TAL IRV
Total/NA	Analysis	SM 2540D		1	100 mL	100 mL	15851	03/27/12 15:57	DK	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	16272	03/29/12 08:49	XL	TAL IRV
Total/NA	Prep	Distill/CN			50 mL	50 mL	16584	03/30/12 11:21	PQI	TAL IRV
Total/NA	Analysis	SM 4500 CN E		1			16619	03/30/12 13:52	PQI	TAL IRV
Total/NA	Prep	General Prep		1			8603_P	03/29/12 00:00		Eber-Rich
Total/NA	Analysis	Gamma Spec K-40 CS-137		1			8603	03/30/12 00:00	LS	Eber-Rich
Total/NA	Prep	General Prep		1			8603_P	04/11/12 00:00		Eber-Rich
Total/NA	Analysis	Gross Alpha and Beta		1			8603	04/13/12 09:12	DVP	Eber-Rich
Total/NA	Prep	General Prep		1			8603_P	04/12/12 00:00		Eber-Rich
Total/NA	Analysis	Radium 226		1			8603	04/12/12 13:19	TM	Eber-Rich
Total/NA	Prep	General Prep		1			8603_P	04/06/12 00:00		Eber-Rich
Total/NA	Analysis	Radium 228		1			8603	04/06/12 13:23	ASM	Eber-Rich
Total/NA	Analysis	Strontium 90		1			8603	04/06/12 07:23	SK	Eber-Rich
Total/NA	Prep	General Prep		1			8603_P	04/13/12 00:00		Eber-Rich
Total/NA	Analysis	Tritium		1			8603	04/14/12 09:59	WL	Eber-Rich
Total/NA	Prep	General Prep		1			8603_P	04/02/12 00:00		Eber-Rich
Total/NA	Analysis	Uranium, Combined		1			8603	04/02/12 01:43	LS	Eber-Rich

Lab Chronicle

Client: MWH Americas Inc
Project/Site: Boeing SSFL outfalls

TestAmerica Job ID: 440-6513-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-6603-2

Date Collected: 03/26/12 13:15

Matrix: Water

Date Received: 03/26/12 16:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	General Prep		1			8603_P	03/29/12 00:00		Eber-Rich
Total/NA	Analysis	Gamma Spec K-40 CS-137		1			8603	03/30/12 00:00	LS	Eber-Rich
Total/NA	Prep	General Prep		1			8603_P	04/11/12 00:00		Eber-Rich
Total/NA	Analysis	Gross Alpha and Beta		1			8603	04/13/12 09:12	DVP	Eber-Rich
Total/NA	Prep	General Prep		1			8603_P	04/12/12 00:00		Eber-Rich
Total/NA	Analysis	Radium 226		1			8603	04/12/12 13:19	TM	Eber-Rich
Total/NA	Prep	General Prep		1			8603_P	04/06/12 00:00		Eber-Rich
Total/NA	Analysis	Radium 228		1			8603	04/06/12 13:23	ASM	Eber-Rich
Total/NA	Analysis	Strontium 90		1			8603	04/06/12 07:23	SK	Eber-Rich
Total/NA	Prep	General Prep		1			8603_P	04/02/12 00:00		Eber-Rich
Total/NA	Analysis	Uranium, Combined		1			8603	04/02/12 01:51	LS	Eber-Rich

Laboratory References:

Eber-Rich = Eberline - Richmond, 2030 Wright Avenue, Richmond, CA 94804

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL WSC = TestAmerica West Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-15486/3
Matrix: Water
Analysis Batch: 15486

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.26	0.19	mg/L			03/26/12 11:36	1

Lab Sample ID: LCS 440-15486/2
Matrix: Water
Analysis Batch: 15486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	2.65	2.56		mg/L		97	90 - 110

Lab Sample ID: 440-6574-J-11 MS
Matrix: Water
Analysis Batch: 15486

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	4.3		265	35.2	LN	mg/L		12	80 - 120

Lab Sample ID: 440-6574-J-11 MSD
Matrix: Water
Analysis Batch: 15486

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	4.3		26.5	35.8		mg/L		119	80 - 120	2	20

Lab Sample ID: MB 440-15487/3
Matrix: Water
Analysis Batch: 15487

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.40	mg/L			03/26/12 11:36	1
Sulfate	ND		0.50	0.40	mg/L			03/26/12 11:36	1

Lab Sample ID: LCS 440-15487/2
Matrix: Water
Analysis Batch: 15487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.75		mg/L		95	90 - 110
Sulfate	10.0	9.50		mg/L		95	90 - 110

Lab Sample ID: MB 440-15723/3
Matrix: Water
Analysis Batch: 15723

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.26	0.19	mg/L			03/27/12 10:40	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-15723/10
Matrix: Water
Analysis Batch: 15723

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	2.65	2.67		mg/L		101	90 - 110

Lab Sample ID: 440-6603-1 MS
Matrix: Water
Analysis Batch: 15723

Client Sample ID: Outfall 009 Composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	ND		2.65	2.82		mg/L		106	80 - 120

Lab Sample ID: 440-6603-1 MSD
Matrix: Water
Analysis Batch: 15723

Client Sample ID: Outfall 009 Composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		2.65	2.79		mg/L		105	80 - 120	1	20

Lab Sample ID: MB 440-15724/3
Matrix: Water
Analysis Batch: 15724

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.40	mg/L			03/27/12 10:40	1
Sulfate	ND		0.50	0.40	mg/L			03/27/12 10:40	1

Lab Sample ID: LCS 440-15724/10
Matrix: Water
Analysis Batch: 15724

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.95		mg/L		99	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

Lab Sample ID: 440-6603-1 MS
Matrix: Water
Analysis Batch: 15724

Client Sample ID: Outfall 009 Composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.5		5.00	6.20		mg/L		93	80 - 120
Sulfate	4.1		10.0	13.7		mg/L		97	80 - 120

Lab Sample ID: 440-6603-1 MSD
Matrix: Water
Analysis Batch: 15724

Client Sample ID: Outfall 009 Composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.5		5.00	6.14		mg/L		92	80 - 120	1	20
Sulfate	4.1		10.0	13.8		mg/L		97	80 - 120	0	20

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B)

Lab Sample ID: G2D020000092B
Matrix: Water
Analysis Batch: 2093092

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 2093092_P

Analyte	MB Result	MB Qualifier	ML	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.000010	0.0000078	ug/L		04/02/12 10:00	04/03/12 20:21	1
Total TCDD	ND		0.000010	0.0000078	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,7,8-PeCDD	ND		0.000050	0.0000096	ug/L		04/02/12 10:00	04/03/12 20:21	1
Total PeCDD	ND		0.000050	0.0000096	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,4,7,8-HxCDD	ND		0.000050	0.0000073	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,6,7,8-HxCDD	ND		0.000050	0.0000059	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,7,8,9-HxCDD	ND		0.000050	0.0000058	ug/L		04/02/12 10:00	04/03/12 20:21	1
Total HxCDD	ND		0.000050	0.0000058	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,4,6,7,8-HpCDD	0.0000038	J	0.000050	0.0000033	ug/L		04/02/12 10:00	04/03/12 20:21	1
Total HpCDD	0.0000066	J	0.000050	0.0000033	ug/L		04/02/12 10:00	04/03/12 20:21	1
OCDD	0.000016	J Q	0.00010	0.000013	ug/L		04/02/12 10:00	04/03/12 20:21	1
2,3,7,8-TCDF	ND		0.000010	0.0000032	ug/L		04/02/12 10:00	04/03/12 20:21	1
Total TCDF	ND		0.000010	0.0000032	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,7,8-PeCDF	ND		0.000050	0.000013	ug/L		04/02/12 10:00	04/03/12 20:21	1
2,3,4,7,8-PeCDF	ND		0.000050	0.000014	ug/L		04/02/12 10:00	04/03/12 20:21	1
Total PeCDF	ND		0.000050	0.000013	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,4,7,8-HxCDF	ND		0.000050	0.0000070	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,6,7,8-HxCDF	ND		0.000050	0.0000068	ug/L		04/02/12 10:00	04/03/12 20:21	1
2,3,4,6,7,8-HxCDF	ND		0.000050	0.0000064	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,7,8,9-HxCDF	ND		0.000050	0.0000091	ug/L		04/02/12 10:00	04/03/12 20:21	1
Total HxCDF	ND		0.000050	0.0000064	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,4,6,7,8-HpCDF	ND		0.000050	0.0000053	ug/L		04/02/12 10:00	04/03/12 20:21	1
1,2,3,4,7,8,9-HpCDF	ND		0.000050	0.0000076	ug/L		04/02/12 10:00	04/03/12 20:21	1
Total HpCDF	ND		0.000050	0.0000053	ug/L		04/02/12 10:00	04/03/12 20:21	1
OCDF	0.0000032	J Q	0.00010	0.0000075	ug/L		04/02/12 10:00	04/03/12 20:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*97*		*35 - 197*	*04/02/12 10:00*	*04/03/12 20:21*	*1*

Internal Standard	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*64*		*25 - 164*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-1,2,3,7,8-PeCDD	*67*		*25 - 181*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-1,2,3,4,7,8-HxCDD	*56*		*32 - 141*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-1,2,3,6,7,8-HxCDD	*85*		*28 - 130*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*78*		*23 - 140*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-OCDD	*83*		*17 - 157*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-2,3,7,8-TCDF	*66*		*24 - 169*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-1,2,3,7,8-PeCDF	*72*		*24 - 185*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-2,3,4,7,8-PeCDF	*75*		*21 - 178*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-1,2,3,6,7,8-HxCDF	*95*		*26 - 123*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-2,3,4,6,7,8-HxCDF	*101*		*28 - 136*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-1,2,3,7,8,9-HxCDF	*93*		*29 - 147*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*86*		*28 - 143*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*86*		*26 - 138*	*04/02/12 10:00*	*04/03/12 20:21*	*1*
13C-1,2,3,4,7,8-HxCDF	*82*		*26 - 152*	*04/02/12 10:00*	*04/03/12 20:21*	*1*

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Lab Sample ID: G2D020000092C
Matrix: Water
Analysis Batch: 2093092

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 2093092_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	0.000200	0.000229		ug/L		114	67 - 158
1,2,3,7,8-PeCDD	0.00100	0.00123		ug/L		123	70 - 142
1,2,3,4,7,8-HxCDD	0.00100	0.00118		ug/L		118	70 - 164
1,2,3,6,7,8-HxCDD	0.00100	0.00120		ug/L		120	76 - 134
1,2,3,7,8,9-HxCDD	0.00100	0.00138		ug/L		138	64 - 162
1,2,3,4,6,7,8-HpCDD	0.00100	0.00127	B	ug/L		127	70 - 140
OCDD	0.00200	0.00244	B	ug/L		122	78 - 144
2,3,7,8-TCDF	0.000200	0.000226		ug/L		113	75 - 158
1,2,3,7,8-PeCDF	0.00100	0.00116		ug/L		116	80 - 134
2,3,4,7,8-PeCDF	0.00100	0.00108		ug/L		108	68 - 160
1,2,3,4,7,8-HxCDF	0.00100	0.00112		ug/L		112	72 - 134
1,2,3,6,7,8-HxCDF	0.00100	0.00121		ug/L		121	84 - 130
2,3,4,6,7,8-HxCDF	0.00100	0.00117		ug/L		117	70 - 156
1,2,3,7,8,9-HxCDF	0.00100	0.00121		ug/L		121	78 - 130
1,2,3,4,6,7,8-HpCDF	0.00100	0.00118		ug/L		118	82 - 122
1,2,3,4,7,8,9-HpCDF	0.00100	0.00117		ug/L		117	78 - 138
OCDF	0.00200	0.00250	B	ug/L		125	63 - 170

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*94*		*31 - 191*

Internal Standard	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*71*		*20 - 175*
13C-1,2,3,7,8-PeCDD	*70*		*21 - 227*
13C-1,2,3,4,7,8-HxCDD	*70*		*21 - 193*
13C-1,2,3,6,7,8-HxCDD	*82*		*25 - 163*
13C-1,2,3,4,6,7,8-HpCDD	*78*		*26 - 166*
13C-OCDD	*89*		*13 - 199*
13C-2,3,7,8-TCDF	*76*		*22 - 152*
13C-1,2,3,7,8-PeCDF	*74*		*21 - 192*
13C-2,3,4,7,8-PeCDF	*82*		*13 - 328*
13C-1,2,3,6,7,8-HxCDF	*107*		*21 - 159*
13C-2,3,4,6,7,8-HxCDF	*104*		*22 - 176*
13C-1,2,3,7,8,9-HxCDF	*89*		*17 - 205*
13C-1,2,3,4,6,7,8-HpCDF	*92*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*91*		*20 - 186*
13C-1,2,3,4,7,8-HxCDF	*88*		*19 - 202*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-16339/1-A
Matrix: Water
Analysis Batch: 16526

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 16339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/29/12 13:39	03/29/12 23:25	1
Copper	ND		2.0	0.50	ug/L		03/29/12 13:39	03/29/12 23:25	1
Lead	ND		1.0	0.20	ug/L		03/29/12 13:39	03/29/12 23:25	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 440-16339/1-A
Matrix: Water
Analysis Batch: 16526

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 16339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.30	ug/L		03/29/12 13:39	03/29/12 23:25	1
Thallium	ND		1.0	0.20	ug/L		03/29/12 13:39	03/29/12 23:25	1

Lab Sample ID: LCS 440-16339/2-A
Matrix: Water
Analysis Batch: 16526

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 16339

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	78.3		ug/L		98	85 - 115
Copper	80.0	80.7		ug/L		101	85 - 115
Lead	80.0	83.9		ug/L		105	85 - 115
Antimony	80.0	80.4		ug/L		100	85 - 115
Thallium	80.0	84.1		ug/L		105	85 - 115

Lab Sample ID: 440-6603-1 MS
Matrix: Water
Analysis Batch: 16526

Client Sample ID: Outfall 009 Composite
Prep Type: Total Recoverable
Prep Batch: 16339

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.12	J,DX	80.0	77.5		ug/L		97	70 - 130
Copper	5.1		80.0	84.1		ug/L		99	70 - 130
Lead	7.2		80.0	90.9		ug/L		105	70 - 130
Antimony	0.51	J,DX	80.0	76.7		ug/L		95	70 - 130
Thallium	ND		80.0	83.2		ug/L		104	70 - 130

Lab Sample ID: 440-6603-1 MSD
Matrix: Water
Analysis Batch: 16526

Client Sample ID: Outfall 009 Composite
Prep Type: Total Recoverable
Prep Batch: 16339

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.12	J,DX	80.0	76.5		ug/L		96	70 - 130	1	20
Copper	5.1		80.0	81.5		ug/L		95	70 - 130	3	20
Lead	7.2		80.0	89.1		ug/L		102	70 - 130	2	20
Antimony	0.51	J,DX	80.0	76.0		ug/L		94	70 - 130	1	20
Thallium	ND		80.0	82.3		ug/L		103	70 - 130	1	20

Lab Sample ID: MB 440-15847/1-B
Matrix: Water
Analysis Batch: 16526

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 16348

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/29/12 13:59	03/29/12 20:49	1
Copper	ND		2.0	0.50	ug/L		03/29/12 13:59	03/29/12 20:49	1
Lead	ND		1.0	0.20	ug/L		03/29/12 13:59	03/29/12 20:49	1
Antimony	ND		2.0	0.30	ug/L		03/29/12 13:59	03/29/12 20:49	1
Thallium	ND		1.0	0.20	ug/L		03/29/12 13:59	03/29/12 20:49	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 440-15847/2-B
Matrix: Water
Analysis Batch: 16526

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 16348

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	76.9		ug/L		96	85 - 115
Copper	80.0	81.0		ug/L		101	85 - 115
Lead	80.0	80.5		ug/L		101	85 - 115
Antimony	80.0	78.5		ug/L		98	85 - 115
Thallium	80.0	81.2		ug/L		101	85 - 115

Lab Sample ID: 440-6603-1 MS
Matrix: Water
Analysis Batch: 16526

Client Sample ID: Outfall 009 Composite
Prep Type: Dissolved
Prep Batch: 16348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		80.0	76.0		ug/L		95	70 - 130
Copper	3.2		80.0	82.9		ug/L		100	70 - 130
Lead	0.76	J,DX	80.0	80.4		ug/L		100	70 - 130
Antimony	0.39	J,DX	80.0	78.7		ug/L		98	70 - 130
Thallium	ND		80.0	79.7		ug/L		100	70 - 130

Lab Sample ID: 440-6603-1 MSD
Matrix: Water
Analysis Batch: 16526

Client Sample ID: Outfall 009 Composite
Prep Type: Dissolved
Prep Batch: 16348

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		80.0	77.0		ug/L		96	70 - 130	1	20
Copper	3.2		80.0	82.3		ug/L		99	70 - 130	1	20
Lead	0.76	J,DX	80.0	80.8		ug/L		100	70 - 130	1	20
Antimony	0.39	J,DX	80.0	78.9		ug/L		98	70 - 130	0	20
Thallium	ND		80.0	80.9		ug/L		101	70 - 130	2	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-15846/1-A
Matrix: Water
Analysis Batch: 16071

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15846

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		03/27/12 15:45	03/28/12 09:04	1

Lab Sample ID: LCS 440-15846/2-A
Matrix: Water
Analysis Batch: 16071

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15846

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	7.23		ug/L		90	85 - 115

Lab Sample ID: 440-6289-H-1-C MS
Matrix: Water
Analysis Batch: 16071

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15846

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.11	J,DX	8.00	6.99		ug/L		86	70 - 130

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 440-6289-H-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16071 — **Prep Batch: 15846**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.11	J,DX	8.00	7.15		ug/L		88	70 - 130	2	20

Lab Sample ID: MB 440-15609/1-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 16071 — **Prep Batch: 15817**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		03/27/12 14:04	03/28/12 10:13	1

Lab Sample ID: LCS 440-15609/2-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 16071 — **Prep Batch: 15817**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	7.24		ug/L		91	85 - 115

Lab Sample ID: 440-6518-C-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 16071 — **Prep Batch: 15817**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.11	J,DX	8.00	7.06		ug/L		87	70 - 130

Lab Sample ID: 440-6518-C-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 16071 — **Prep Batch: 15817**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.11	J,DX	8.00	7.28		ug/L		90	70 - 130	3	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-16822/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16825 — **Prep Batch: 16822**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		04/02/12 06:52	04/02/12 07:28	1

Lab Sample ID: LCS 440-16822/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16825 — **Prep Batch: 16822**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	20.0	18.4		mg/L		92	78 - 114

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 440-16822/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16825 — **Prep Batch: 16822**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM			20.0	18.4		mg/L		92	78 - 114	0	11

Lab Sample ID: 440-6449-A-7-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16825 — **Prep Batch: 16822**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
HEM	100		20.0	119	BB	mg/L		85	78 - 114		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-16272/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16272

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			03/29/12 08:49	1

Lab Sample ID: LCS 440-16272/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16272

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	1020		mg/L		102	90 - 110		

Lab Sample ID: 440-6685-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16272

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1100			1100		mg/L				1	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-15851/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 15851

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		10	10	mg/L			03/27/12 15:57	1

Lab Sample ID: LCS 440-15851/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 15851

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			1000	990		mg/L		99	85 - 115		

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: 440-6406-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 15851

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	18		18.0		mg/L		0	10

Method: SM 4500 CN E - Cyanide, Total (Low Level)

Lab Sample ID: MB 440-16584/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16619 — **Prep Batch: 16584**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.0050	0.0030	mg/L		03/30/12 11:21	03/30/12 13:51	1

Lab Sample ID: LCS 440-16584/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16619 — **Prep Batch: 16584**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.104		mg/L		104	90 - 110

Lab Sample ID: 440-6261-A-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16619 — **Prep Batch: 16584**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		0.100	0.0787		mg/L		79	70 - 115

Lab Sample ID: 440-6261-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16619 — **Prep Batch: 16584**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		0.100	0.0821		mg/L		82	70 - 115	4	15

Method: Gross Alpha and Beta - Gross Alpha/Beta

Lab Sample ID: S203085-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cesium-137	0.856	0	pCi/L		U		03/29/12 00:00	03/30/12 00:00	1
Potassium-40	-5.14	0	pCi/L		U		03/29/12 00:00	03/30/12 00:00	1

Lab Sample ID: S203085-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium, Total	0	0	pCi/L		U		04/02/12 00:00	04/02/12 02:04	1

Method: Gross Alpha and Beta - Gross Alpha/Beta (Continued)

Lab Sample ID: S203085-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium-90	0.023	0	pCi/L		U		04/06/12 00:00	04/06/12 07:23	1

Lab Sample ID: S203085-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-228	-0.071	0	pCi/L		U		04/06/12 00:00	04/06/12 13:23	1

Lab Sample ID: S203085-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-226	-0.017	0	pCi/L		U		04/12/12 00:00	04/12/12 13:19	1

Lab Sample ID: S203085-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Alpha	0.133	0	pCi/L		U		04/11/12 00:00	04/13/12 09:12	1
Gross Beta	0.016	0	pCi/L		U		04/11/12 00:00	04/13/12 09:12	1

Lab Sample ID: S203085-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tritium	1.03	0	pCi/L		U		04/13/12 00:00	04/14/12 09:59	1

Lab Sample ID: S203085-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cesium-137	83	101	122			80	120 - 0
Cobalt-60	83	90.2	109			80	120 - 0

Lab Sample ID: S203085-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Uranium, Total	107	60.5	56.5			80	120 - 0

Method: Gross Alpha and Beta - Gross Alpha/Beta (Continued)

Lab Sample ID: S203085-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Strontium-90	102	8.54	8.36			80	120 - 0

Lab Sample ID: S203085-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Radium-228	109	4.82	4.44			60	140 - 0

Lab Sample ID: S203085-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Radium-226	99	55	55.7			80	120 - 0

Lab Sample ID: S203085-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gross Alpha	115	38.9	33.7			70	130 - 0
Gross Beta	100	28.4	28.3			70	130 - 0

Lab Sample ID: S203085-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tritium	91	334	367	J		80	120 - 0

Lab Sample ID: S203085-05 — **Client Sample ID: OUTFALL 009 (440-6603-1) DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Cesium-137	-0.34	0	-0.36	0	U			
Potassium-40	7.55	0	13.4	0	U			

Lab Sample ID: S203085-05 — **Client Sample ID: OUTFALL 009 (440-6603-1) DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Uranium, Total	0.137	0	0.134	0	J			

Method: Gross Alpha and Beta - Gross Alpha/Beta (Continued)

Lab Sample ID: S203085-05 — **Client Sample ID: OUTFALL 009 (440-6603-1) DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Strontium-90	-0.094	0		0.159	0	U					

Lab Sample ID: S203085-05 — **Client Sample ID: OUTFALL 009 (440-6603-1) DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Radium-228	0.114	0		0.063	0	U					

Lab Sample ID: S203085-05 — **Client Sample ID: OUTFALL 009 (440-6603-1) DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Radium-226	0.026	0		-0.157	0	U					

Lab Sample ID: S203085-05 — **Client Sample ID: OUTFALL 009 (440-6603-1) DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Tritium	9.52	0		23.2	0	U					

Lab Sample ID: S203085-05 — **Client Sample ID: OUTFALL 009 (440-6603-1) DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8603 — **Prep Batch: 8603_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gross Alpha	2.31	0		2.15	0	J					
Gross Beta	2.88	0		2.67	0	J					

HPLC/IC

Analysis Batch: 15486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6574-J-11 MS	Matrix Spike	Total/NA	Water	300.0	
440-6574-J-11 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
440-6603-1	Outfall 009 Composite	Total/NA	Water	300.0	
LCS 440-15486/2	Lab Control Sample	Total/NA	Water	300.0	
MB 440-15486/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 15487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1	Outfall 009 Composite	Total/NA	Water	300.0	
LCS 440-15487/2	Lab Control Sample	Total/NA	Water	300.0	
MB 440-15487/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 15723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1 MS	Outfall 009 Composite	Total/NA	Water	300.0	
440-6603-1 MSD	Outfall 009 Composite	Total/NA	Water	300.0	
LCS 440-15723/10	Lab Control Sample	Total/NA	Water	300.0	
MB 440-15723/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 15724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1 MS	Outfall 009 Composite	Total/NA	Water	300.0	
440-6603-1 MSD	Outfall 009 Composite	Total/NA	Water	300.0	
LCS 440-15724/10	Lab Control Sample	Total/NA	Water	300.0	
MB 440-15724/3	Method Blank	Total/NA	Water	300.0	

Specialty Organics

Analysis Batch: 2093092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1	Outfall 009 Composite	Total	Water	1613B	
G2D020000092B	Method Blank	Total	Water	1613B	
G2D020000092C	Lab Control Sample	Total	Water	1613B	

Prep Batch: 2093092_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1	Outfall 009 Composite	Total	Water	3542	
G2D020000092B	Method Blank	Total	Water	3542	
G2D020000092C	Lab Control Sample	Total	Water	3542	

Metals

Prep Batch: 15817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6518-C-1-C MS	Matrix Spike	Dissolved	Water	245.1	
440-6518-C-1-D MSD	Matrix Spike Duplicate	Dissolved	Water	245.1	
440-6603-1	Outfall 009 Composite	Dissolved	Water	245.1	
LCS 440-15609/2-B	Lab Control Sample	Dissolved	Water	245.1	
MB 440-15609/1-B	Method Blank	Dissolved	Water	245.1	

Metals (Continued)

Prep Batch: 15846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6289-H-1-C MS	Matrix Spike	Total/NA	Water	245.1	
440-6289-H-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
440-6603-1	Outfall 009 Composite	Total/NA	Water	245.1	
LCS 440-15846/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 440-15846/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 16071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6289-H-1-C MS	Matrix Spike	Total/NA	Water	245.1	15846
440-6289-H-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	15846
440-6518-C-1-C MS	Matrix Spike	Dissolved	Water	245.1	15817
440-6518-C-1-D MSD	Matrix Spike Duplicate	Dissolved	Water	245.1	15817
440-6603-1	Outfall 009 Composite	Total/NA	Water	245.1	15846
440-6603-1	Outfall 009 Composite	Dissolved	Water	245.1	15817
LCS 440-15609/2-B	Lab Control Sample	Dissolved	Water	245.1	15817
LCS 440-15846/2-A	Lab Control Sample	Total/NA	Water	245.1	15846
MB 440-15609/1-B	Method Blank	Dissolved	Water	245.1	15817
MB 440-15846/1-A	Method Blank	Total/NA	Water	245.1	15846

Prep Batch: 16339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1	Outfall 009 Composite	Total Recoverable	Water	200.2	
440-6603-1 MS	Outfall 009 Composite	Total Recoverable	Water	200.2	
440-6603-1 MSD	Outfall 009 Composite	Total Recoverable	Water	200.2	
LCS 440-16339/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
MB 440-16339/1-A	Method Blank	Total Recoverable	Water	200.2	

Prep Batch: 16348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1	Outfall 009 Composite	Dissolved	Water	200.2	
440-6603-1 MS	Outfall 009 Composite	Dissolved	Water	200.2	
440-6603-1 MSD	Outfall 009 Composite	Dissolved	Water	200.2	
LCS 440-15847/2-B	Lab Control Sample	Dissolved	Water	200.2	
MB 440-15847/1-B	Method Blank	Dissolved	Water	200.2	

Analysis Batch: 16526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1	Outfall 009 Composite	Dissolved	Water	200.8	16348
440-6603-1	Outfall 009 Composite	Total Recoverable	Water	200.8	16339
440-6603-1 MS	Outfall 009 Composite	Total Recoverable	Water	200.8	16339
440-6603-1 MS	Outfall 009 Composite	Dissolved	Water	200.8	16348
440-6603-1 MSD	Outfall 009 Composite	Total Recoverable	Water	200.8	16339
440-6603-1 MSD	Outfall 009 Composite	Dissolved	Water	200.8	16348
LCS 440-15847/2-B	Lab Control Sample	Dissolved	Water	200.8	16348
LCS 440-16339/2-A	Lab Control Sample	Total Recoverable	Water	200.8	16339
MB 440-15847/1-B	Method Blank	Dissolved	Water	200.8	16348
MB 440-16339/1-A	Method Blank	Total Recoverable	Water	200.8	16339

General Chemistry

Analysis Batch: 15851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6406-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
440-6603-1	Outfall 009 Composite	Total/NA	Water	SM 2540D	
LCS 440-15851/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-15851/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 16272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1	Outfall 009 Composite	Total/NA	Water	SM 2540C	
440-6685-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
LCS 440-16272/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 440-16272/1	Method Blank	Total/NA	Water	SM 2540C	

Prep Batch: 16584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6261-A-1-A MS	Matrix Spike	Total/NA	Water	Distill/CN	
440-6261-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	Distill/CN	
440-6603-1	Outfall 009 Composite	Total/NA	Water	Distill/CN	
LCS 440-16584/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 440-16584/1-A	Method Blank	Total/NA	Water	Distill/CN	

Analysis Batch: 16619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6261-A-1-A MS	Matrix Spike	Total/NA	Water	SM 4500 CN E	16584
440-6261-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CN E	16584
440-6603-1	Outfall 009 Composite	Total/NA	Water	SM 4500 CN E	16584
LCS 440-16584/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	16584
MB 440-16584/1-A	Method Blank	Total/NA	Water	SM 4500 CN E	16584

Prep Batch: 16822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6449-A-7-A MS	Matrix Spike	Total/NA	Water	1664A	
440-6513-1	Outfall 009 Grab	Total/NA	Water	1664A	
LCS 440-16822/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-16822/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-16822/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 16825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6449-A-7-A MS	Matrix Spike	Total/NA	Water	1664A	16822
440-6513-1	Outfall 009 Grab	Total/NA	Water	1664A	16822
LCS 440-16822/2-A	Lab Control Sample	Total/NA	Water	1664A	16822
LCSD 440-16822/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	16822
MB 440-16822/1-A	Method Blank	Total/NA	Water	1664A	16822

Subcontract

Analysis Batch: 8603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1	Outfall 009 Composite	Total/NA	Water	Gamma Spec	8603_P
440-6603-1	Outfall 009 Composite	Total/NA	Water	K-40 CS-137 Gross Alpha and Beta	8603_P

Subcontract (Continued)

Analysis Batch: 8603 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1	Outfall 009 Composite	Total/NA	Water	Radium 226	8603_P
440-6603-1	Outfall 009 Composite	Total/NA	Water	Radium 228	8603_P
440-6603-1	Outfall 009 Composite	Total/NA	Water	Strontium 90	8603_P
440-6603-1	Outfall 009 Composite	Total/NA	Water	Tritium	8603_P
440-6603-1	Outfall 009 Composite	Total/NA	Water	Uranium, Combined	8603_P
440-6603-2	Trip Blank	Total/NA	Water	Gamma Spec K-40 CS-137	8603_P
440-6603-2	Trip Blank	Total/NA	Water	Gross Alpha and Beta	8603_P
440-6603-2	Trip Blank	Total/NA	Water	Radium 226	8603_P
440-6603-2	Trip Blank	Total/NA	Water	Radium 228	8603_P
440-6603-2	Trip Blank	Total/NA	Water	Strontium 90	8603_P
440-6603-2	Trip Blank	Total/NA	Water	Uranium, Combined	8603_P
S203085-03	Lab Control Sample	Total/NA	WATER	Gross Alpha and Beta	8603_P
S203085-04	Method Blank	Total/NA	WATER	Gross Alpha and Beta	8603_P
S203085-05	OUTFALL 009 (440-6603-1) DU	Total/NA	WATER	Gross Alpha and Beta	8603_P

Prep Batch: 8603_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6603-1	Outfall 009 Composite	Total/NA	Water	General Prep	
440-6603-2	Trip Blank	Total/NA	Water	General Prep	
S203085-03	Lab Control Sample	Total/NA	WATER	General Prep	
S203085-04	Method Blank	Total/NA	WATER	General Prep	
S203085-05	OUTFALL 009 (440-6603-1) DU	Total/NA	WATER	General Prep	

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
LN	MS and/or MSD below acceptance limits. See Blank Spike (LCS)

DIOXIN

Qualifier	Qualifier Description
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
Q	Estimated maximum possible concentration (EMPC).

Metals

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL

General Chemistry

Qualifier	Qualifier Description
BB	Sample > 4X spike concentration

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: MWH Americas Inc
Project/Site: Boeing SSFL outfalls

TestAmerica Job ID: 440-6513-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	LA Cty Sanitation Districts	9	10256
TestAmerica Irvine	California	NELAC	9	1108CA
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Guam	State Program	9	Cert. No. 12.002r
TestAmerica Irvine	Hawaii	State Program	9	N/A
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	New Mexico	State Program	6	N/A
TestAmerica Irvine	Northern Mariana Islands	State Program	9	MP0002
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	Federal		P330-09-00080
TestAmerica West Sacramento	A2LA	DoD ELAP		2928-01
TestAmerica West Sacramento	Alaska (UST)	State Program	10	UST-055
TestAmerica West Sacramento	Arizona	State Program	9	AZ0708
TestAmerica West Sacramento	Arkansas DEQ	State Program	6	88-0691
TestAmerica West Sacramento	California	NELAC	9	1119CA
TestAmerica West Sacramento	California	NELAC Primary AB	9	MP0007
TestAmerica West Sacramento	Colorado	State Program	8	N/A
TestAmerica West Sacramento	Connecticut	State Program	1	PH-0691
TestAmerica West Sacramento	Florida	NELAC	4	E87570
TestAmerica West Sacramento	Georgia	State Program	4	960
TestAmerica West Sacramento	Guam	State Program	9	N/A
TestAmerica West Sacramento	Hawaii	State Program	9	N/A
TestAmerica West Sacramento	Illinois	NELAC	5	200060
TestAmerica West Sacramento	Kansas	NELAC	7	E-10375
TestAmerica West Sacramento	Louisiana	NELAC	6	30612
TestAmerica West Sacramento	Michigan	State Program	5	9947
TestAmerica West Sacramento	Nevada	State Program	9	CA44
TestAmerica West Sacramento	New Jersey	NELAC	2	CA005
TestAmerica West Sacramento	New Mexico	State Program	6	N/A
TestAmerica West Sacramento	New York	NELAC	2	11666
TestAmerica West Sacramento	Northern Mariana Islands	State Program	9	MP0007
TestAmerica West Sacramento	Oregon	NELAC	10	CA200005
TestAmerica West Sacramento	Pennsylvania	NELAC	3	68-01272
TestAmerica West Sacramento	South Carolina	State Program	4	87014
TestAmerica West Sacramento	Texas	NELAC	6	T104704399-08-TX
TestAmerica West Sacramento	US Fish & Wildlife	Federal		LE148388-0
TestAmerica West Sacramento	USDA	Federal		P330-09-00055
TestAmerica West Sacramento	Utah	NELAC	8	QUAN1
TestAmerica West Sacramento	Virginia	State Program	3	178
TestAmerica West Sacramento	Washington	State Program	10	C581
TestAmerica West Sacramento	West Virginia	State Program	3	9930C
TestAmerica West Sacramento	West Virginia DEP	State Program	3	334
TestAmerica West Sacramento	Wisconsin	State Program	5	998204680
TestAmerica West Sacramento	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

EBERLINE SERVICES

EBERLINE ANALYTICAL CORPORATION
2030 Wright Avenue
Richmond, California 94804-3849
Phone (510) 235-2633 Fax (510) 235-0438
Toll Free (800) 841-5487
www.eberlineservices.com

April 18, 2012

Ms. Debby Wilson
Test America Irvine
17461 Derian Ave., Ste. 100
Irvine, CA 92614

Reference: **Test America-Irvine 44002624**
Eberline Analytical Report S203085-8603
Sample Delivery Group 8603

Dear Ms. Wilson:

Enclosed is a Level IV CLP-like data package (on CD) for two water samples received under Test America Project No. 44002624. The samples were received on March 28, 2012.

Please call me, if you have any questions concerning the enclosed report.

Sincerely,

Joseph Verville
Client Services Manager

NJV/mw

Enclosure: Level IV CLP-like Data Package CD

1.0 General Comments

Sample delivery group 8603 consists of the analytical results and supporting documentation for two water samples. Sample ID's and reference dates/times are given in the Sample Summary section of the Summary Data report. The samples were received as stated on the chain-of-custody document. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist. No holding times were exceeded.

Tritium and gamma analyses were performed on the samples as received i.e. the samples were not filtered. The analytical volumes for all other analyses were subjected to a full nitric acid/hydrofluoric acid dissolution, and analyses were performed on the dissolution volumes.

2.0 Quality Control

Quality Control Samples consisted of laboratory control samples (LCS), method blanks, and duplicate analyses. Included in the data package are copies of the Eberline Analytical radiometrics data sheets. The radiometrics data sheets for the QC LCS and QC blank samples indicate Eberline Analytical's standard QC aliquot of 1.0 sample; results for those QC types are calculated as pCi/sample. The QC LCS and QC blank sample results reported in the Summary Data Section have been divided by the appropriate method specific aliquot (see the Lab Method Summaries for specific aliquots) in order to make the results comparable to the field sample results. All QC sample results were within required control limits.

3.0 Method Errors

The error for each result is an estimate of the significant random uncertainties incurred in the measurement process. These are propagated to each final result. They include the counting (Poisson) uncertainty, as well as those intrinsic errors due to carrier or tracer standardization, aliquoting, counter efficiencies, weights, or volumes. The following method errors were propagated to the count error to calculate the 2σ error (Total):

Analysis	Method Error
Gross alpha	20.6%
Gross beta	11.0%
Tritium	10.0%
Sr-90	10.4%
Ra-226	16.4%
Ra-228	10.4%
Uranium,Total	
Gamma Spec.	7.0%

4.0 Analysis Notes

4.1 Gross Alpha/Gross Beta Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.2 Tritium Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.3 Strontium-90 Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.4 Radium-226 Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.5 Radium-228 Analysis - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits

4.6 Total Uranium Analysis - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.7 Gamma Spectroscopy – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

5.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."

Joseph Verville
Client Services Manager

Date

SDG 8603	Client Test America, Inc.
Contact Joseph Verville	Contract 44002624

S U M M A R Y D A T A S E C T I O N

T A B L E O F C O N T E N T S

About this section	1
Sample Summaries	3
Prep Batch Summary	5
Work Summary	6
Method Blanks	8
Lab Control Samples	9
Duplicates	10
Data Sheets	11
Method Summaries	13
Report Guides	21
End of Section	35

Prepared by

Reviewed by

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-TOC
Version	3.06
Report date	04/18/12

SDG 8603
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

ABOUT THE DATA SUMMARY SECTION

The Data Summary Section of a Data Package has all data, in several useful orders, necessary for first level, routine review of the data package for a Sample Delivery Group (SDG). This section follows the Data Package Narrative, which has an overview of the data package and a discussion of special problems. It is followed by the Raw Data Section, which has full details.

The Data Summary Section has several groups of reports:

SAMPLE SUMMARIES

The Sample and QC Summary Reports show all samples, including QC samples, reported in one SDG. These reports cross-reference client and lab sample identifiers.

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches (lab groupings reflecting how work was organized) relevant to the reported SDG with information necessary to check the completeness and consistency of the SDG.

WORK SUMMARY

The Work Summary Report shows all samples and work done on them relevant to the reported SDG.

METHOD BLANKS

The Method Blank Reports, one for each Method Blank relevant to the SDG, show all results and primary supporting information for the blanks.

LAB CONTROL SAMPLES

The Lab Control Sample Reports, one for each Lab Control Sample relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DUPLICATES

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/18/12

SDG 8603
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

ABOUT THE DATA SUMMARY SECTION

The Duplicate Reports, one for each Duplicate and Original sample pair relevant to the SDG, show all results, differences and primary supporting information for these QC samples.

MATRIX SPIKES

The Matrix Spike Reports, one for each Spiked and Original sample pair relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DATA SHEETS

The Data Sheet Reports, one for each client sample in the SDG, show all results and primary supporting information for these samples.

METHOD SUMMARIES

The Method Summary Reports, one for each test used in the SDG, show all results, QC and method performance data for one analyte on one or two pages. (A test is a short code for the method used to do certain work to the client's specification.)

REPORT GUIDES

The Report Guides, one for each of the above groups of reports, have documentation on how to read the associated reports.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

LAB SAMPLE SUMMARY

SDG 8603
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

LAB SAMPLE ID	CLIENT SAMPLE ID	LOCATION	MATRIX	LEVEL	SAS NO	CHAIN OF CUSTODY	COLLECTED
S203085-01	OUTFALL 009 (440-6603-1)	BOEING-SSFL	WATER			440-6603-1	03/25/12 17:48
S203085-02	TRIP-BLANK (440-6603-2)	BOEING-SSFL	WATER			440-6603-1	03/27/12 13:45
S203085-03	Lab Control Sample		WATER				
S203085-04	Method Blank		WATER				
S203085-05	Duplicate (S203085-01)	BOEING-SSFL	WATER				03/25/12 17:48

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LS
Version 3.06
Report date 04/18/12

SDG 8603
Contact Joseph Verville

QC SUMMARY

Client Test America, Inc.
Contract 44002624

QC BATCH	CHAIN OF CUSTODY	CLIENT SAMPLE ID	MATRIX	% MOIST	SAMPLE AMOUNT	BASIS AMOUNT	DAYS SINCE RECEIVED	DAYS SINCE COLL	LAB SAMPLE ID	DEPARTMENT SAMPLE ID
8603	440-6603-1	OUTFALL 009 (440-6603-1)	WATER		10.0 L		03/28/12	3	S203085-01	8603-001
		TRIP-BLANK (440-6603-2)	WATER		10.0 L		03/28/12	1	S203085-02	8603-002
		Method Blank	WATER						S203085-04	8603-004
		Lab Control Sample	WATER						S203085-03	8603-003
		Duplicate (S203085-01)	WATER		10.0 L		03/28/12	3	S203085-05	8603-005

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-QS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

PREP BATCH SUMMARY

SDG 8603
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

TEST	MATRIX	METHOD	PREPARATION BATCH	ERROR 2σ %	PLANCHETS ANALYZED CLIENT	MORE	RE	BLANK	LCS	DUP/ORIG	MS/ORIG	QUALIFIERS
Beta Counting												
AC	WATER	Radium-228 in Water	7271-130	10.4	2			1	1	1/1		
SR	WATER	Strontium-90 in Water	7271-130	10.4	2			1	1	1/1		
Gas Proportional Counting												
80A	WATER	Gross Alpha in Water	7271-130	20.6	2			1	1	1/1		
80B	WATER	Gross Beta in Water	7271-130	11.0	2			1	1	1/1		
Gamma Spectroscopy												
GAM	WATER	Gamma Emitters in Water	7271-130	7.0	2			1	1	1/1		
Kinetic Phosphorimetry												
U_T	WATER	Uranium, Total	7271-130		2			1	1	1/1		
Liquid Scintillation Counting												
H	WATER	Tritium in Water	7271-130	10.0	1			1	1	1/1		
Radon Counting												
RA	WATER	Radium-226 in Water	7271-130	16.4	2			1	1	1/1		

Blank, LCS, Duplicate and Spike planchets are those in the same preparation batch as some Client sample.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-PBS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

SDG 8603
Contact Joseph Verville

LAB WORK SUMMARY

Client Test America, Inc.
Contract 44002624

LAB SAMPLE / COLLECTED / RECEIVED	CLIENT SAMPLE ID / LOCATION / CUSTODY / SAS no	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
S203085-01	OUTFALL 009 (440-6603-1)		8603-001	80A/80		04/13/12	04/13/12	BW	Gross Alpha in Water
03/25/12	BOEING-SSFL	WATER	8603-001	80B/80		04/13/12	04/13/12	BW	Gross Beta in Water
03/28/12	440-6603-1		8603-001	AC		04/06/12	04/09/12	BW	Radium-228 in Water
			8603-001	GAM		03/30/12	04/03/12	MWT	Gamma Emitters in Water
			8603-001	H		04/14/12	04/17/12	BW	Tritium in Water
			8603-001	RA		04/12/12	04/12/12	BW	Radium-226 in Water
			8603-001	SR		04/06/12	04/11/12	BW	Strontium-90 in Water
			8603-001	U_T		04/02/12	04/02/12	BW	Uranium, Total
S203085-02	TRIP-BLANK (440-6603-2)		8603-002	80A/80		04/13/12	04/13/12	BW	Gross Alpha in Water
03/27/12	BOEING-SSFL	WATER	8603-002	80B/80		04/13/12	04/13/12	BW	Gross Beta in Water
03/28/12	440-6603-1		8603-002	AC		04/06/12	04/09/12	BW	Radium-228 in Water
			8603-002	GAM		03/30/12	04/03/12	MWT	Gamma Emitters in Water
			8603-002	RA		04/12/12	04/12/12	BW	Radium-226 in Water
			8603-002	SR		04/06/12	04/11/12	BW	Strontium-90 in Water
			8603-002	U_T		04/02/12	04/02/12	BW	Uranium, Total
S203085-03	Lab Control Sample		8603-003	80A/80		04/13/12	04/13/12	BW	Gross Alpha in Water
		WATER	8603-003	80B/80		04/13/12	04/13/12	BW	Gross Beta in Water
			8603-003	AC		04/06/12	04/09/12	BW	Radium-228 in Water
			8603-003	GAM		03/30/12	04/03/12	MWT	Gamma Emitters in Water
			8603-003	H		04/14/12	04/17/12	BW	Tritium in Water
			8603-003	RA		04/12/12	04/12/12	BW	Radium-226 in Water
			8603-003	SR		04/06/12	04/11/12	BW	Strontium-90 in Water
			8603-003	U_T		04/02/12	04/02/12	BW	Uranium, Total
S203085-04	Method Blank		8603-004	80A/80		04/13/12	04/13/12	BW	Gross Alpha in Water
		WATER	8603-004	80B/80		04/13/12	04/13/12	BW	Gross Beta in Water
			8603-004	AC		04/06/12	04/09/12	BW	Radium-228 in Water
			8603-004	GAM		03/30/12	04/03/12	MWT	Gamma Emitters in Water
			8603-004	H		04/14/12	04/17/12	BW	Tritium in Water
			8603-004	RA		04/12/12	04/12/12	BW	Radium-226 in Water
			8603-004	SR		04/06/12	04/11/12	BW	Strontium-90 in Water
			8603-004	U_T		04/02/12	04/02/12	BW	Uranium, Total

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LWS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

SDG 8603
Contact Joseph Verville

WORK SUMMARY, cont.

Client Test America, Inc.
Contract 44002624

LAB SAMPLE / COLLECTED / RECEIVED	CLIENT SAMPLE ID / LOCATION / CUSTODY	SAS no	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
S203085-05	Duplicate (S203085-01)			8603-005	80A/80		04/14/12	04/14/12	BW	Gross Alpha in Water
03/25/12	BOEING-SSFL		WATER	8603-005	80B/80		04/14/12	04/14/12	BW	Gross Beta in Water
03/28/12				8603-005	AC		04/06/12	04/09/12	BW	Radium-228 in Water
				8603-005	GAM		04/02/12	04/03/12	MWT	Gamma Emitters in Water
				8603-005	H		04/14/12	04/17/12	BW	Tritium in Water
				8603-005	RA		04/12/12	04/12/12	BW	Radium-226 in Water
				8603-005	SR		04/06/12	04/11/12	BW	Strontium-90 in Water
				8603-005	U_T		04/02/12	04/02/12	BW	Uranium, Total

COUNTS OF TESTS BY SAMPLE TYPE

TEST	SAS no	METHOD	REFERENCE	CLIENT	MORE	RE	BLANK	LCS	DUP SPIKE	TOTAL
80A/80		Gross Alpha in Water	900.0	2			1	1	1	5
80B/80		Gross Beta in Water	900.0	2			1	1	1	5
AC		Radium-228 in Water	904.0	2			1	1	1	5
GAM		Gamma Emitters in Water	901.1	2			1	1	1	5
H		Tritium in Water	906.0	1			1	1	1	4
RA		Radium-226 in Water	903.1	2			1	1	1	5
SR		Strontium-90 in Water	905.0	2			1	1	1	5
U_T		Uranium, Total	D5174	2			1	1	1	5
TOTALS				15			8	8	8	39

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LWS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

8603-004 Method Blank

METHOD BLANK

SDG 8603 Client Test America, Inc.
Contact Joseph Verville Contract 44002624

Lab sample id S203085-04 Client sample id Method Blank
Dept sample id 8603-004 Material/Matrix WATER

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	0.133	0.30	0.496	3.00	U	80A
Gross Beta	12587472	0.016	0.49	0.821	4.00	U	80B
Tritium	10028178	1.03	15	26.0	500	U	H
Radium-226	13982633	-0.017	0.27	0.496	1.00	U	RA
Radium-228	15262201	-0.071	0.17	0.382	1.00	U	AC
Strontium-90	10098972	0.023	0.20	0.370	2.00	U	SR
Uranium, Total		0	0.007	0.017	1.00	U	U_T
Potassium-40	13966002	-5.14	19	35.1	25.0	U	GAM
Cesium-137	10045973	0.856	1.2	1.98	20.0	U	GAM

QC-BLANK #81443

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

8603-003

Lab Control Sample

LAB CONTROL SAMPLE

SDG 8603
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

Lab sample id S203085-03
Dept sample id 8603-003

Client sample id Lab Control Sample
Material/Matrix WATER

ANALYTE	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST	ADDED pCi/L	2σ ERR pCi/L	REC %	2σ LMTS (TOTAL)	PROTOCOL LIMITS
Gross Alpha	38.9	2.0	0.577	3.00		80A	33.7	1.3	115	75-125	70-130
Gross Beta	28.4	1.2	0.803	4.00		80B	28.3	1.1	100	88-112	70-130
Tritium	334	25	27.2	500	J	H	367	15	91	88-112	80-120
Radium-226	55.0	2.1	0.749	1.00		RA	55.7	2.2	99	83-117	80-120
Radium-228	4.82	0.46	0.360	1.00		AC	4.44	0.18	109	84-116	60-140
Strontium-90	8.54	0.55	0.236	2.00		SR	8.36	0.33	102	87-113	80-120
Uranium, Total	60.5	6.9	0.172	1.00		U_T	56.5	2.3	107	87-113	80-120
Cobalt-60	90.2	8.7	2.89	10.0		GAM	109	4.4	83	89-111	80-120
Cesium-137	101	3.3	2.73	20.0		GAM	122	4.9	83	92-108	80-120

QC-LCS #81442

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

8603-005

OUTFALL 009 (440-6603-1)

DUPLICATE

SDG 8603
Contact Joseph Verville
Client Test America, Inc.
Contract 44002624

DUPLICATE
Lab sample id S203085-05
Dept sample id 8603-005

ORIGINAL
Lab sample id S203085-01
Dept sample id 8603-001
Received 03/28/12

Client sample id OUTFALL 009 (440-6603-1)
Location/Matrix BOEING-SSFL WATER
Collected/Volume 03/25/12 17:48 10.0 L
Chain of custody id 440-6603-1

ANALYTE	DUPLICATE pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST	ORIGINAL pCi/L	2σ ERR (COUNT)	MDA pCi/L	QUALI-FIERS	RPD %	3σ TOT	DER σ
Gross Alpha	2.15	0.44	0.320	3.00	J	80A	2.31	0.45	0.328	J	7	61	0.4
Gross Beta	2.67	0.57	0.807	4.00	J	80B	2.88	0.62	0.885	J	8	51	0.4
Tritium	23.2	94	157	500	U	H	9.52	95	161	U	-		0.2
Radium-226	-0.157	0.27	0.536	1.00	U	RA	0.026	0.27	0.492	U	-		1.0
Radium-228	0.063	0.14	0.371	1.00	U	AC	0.114	0.15	0.367	U	-		0.5
Strontium-90	0.159	0.34	0.726	2.00	U	SR	-0.094	0.43	1.02	U	-		0.9
Uranium, Total	0.134	0.016	0.017	1.00	J	U_T	0.137	0.016	0.017	J	2	25	0.3
Potassium-40	13.4	15	26.0	25.0	U	GAM	7.55	16	27.8	U	-		0.5
Cesium-137	-0.360	70	1.76	20.0	U	GAM	-0.340	1.7	3.06	U	-		0

QC-DUP#1 81444

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-DUP
Version 3.06
Report date 04/18/12

DUPLICATES
Page 1
SUMMARY DATA SECTION
Page 10

4/27/2012

EBERLINE ANALYTICAL

SDG 8603

8603-001 OUTFALL 009 (440-6603-1)

DATA SHEET

SDG	8603	Client	Test America, Inc.
Contact	Joseph Verville	Contract	44002624
Lab sample id	S203085-01	Client sample id	OUTFALL 009 (440-6603-1)
Dept sample id	8603-001	Location/Matrix	BOEING-SSFL WATER
Received	03/28/12	Collected/Volume	03/25/12 17:48 10.0 L
		Chain of custody id	440-6603-1

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	2.31	0.45	0.328	3.00	J	80A
Gross Beta	12587472	2.88	0.62	0.885	4.00	J	80B
Tritium	10028178	9.52	95	161	500	U	H
Radium-226	13982633	0.026	0.27	0.492	1.00	U	RA
Radium-228	15262201	0.114	0.15	0.367	1.00	U	AC
Strontium-90	10098972	-0.094	0.43	1.02	2.00	U	SR
Uranium, Total		0.137	0.016	0.017	1.00	J	U_T
Potassium-40	13966002	7.55	16	27.8	25.0	U	GAM
Cesium-137	10045973	-0.340	1.7	3.06	20.0	U	GAM

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/18/12

DATA SHEETS
Page 1
SUMMARY DATA SECTION
Page 11

EBERLINE ANALYTICAL

SDG 8603

8603-002 TRIP-BLANK (440-6603-2)

DATA SHEET

SDG	8603	Client	Test America, Inc.
Contact	Joseph Verville	Contract	44002624
Lab sample id	S203085-02	Client sample id	TRIP-BLANK (440-6603-2)
Dept sample id	8603-002	Location/Matrix	BOEING-SSFL WATER
Received	03/28/12	Collected/Volume	03/27/12 13:45 10.0 L
		Chain of custody id	440-6603-1

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	0.096	0.13	0.221	3.00	U	80A
Gross Beta	12587472	0.100	0.56	0.932	4.00	U	80B
Radium-226	13982633	0.033	0.32	0.563	1.00	U	RA
Radium-228	15262201	-0.115	0.14	0.391	1.00	U	AC
Strontium-90	10098972	0.114	0.49	1.07	2.00	U	SR
Uranium, Total		0	0.007	0.017	1.00	U	U_T
Potassium-40	13966002	5.50	20	35.2	25.0	U	GAM
Cesium-137	10045973	0.208	1.7	2.98	20.0	U	GAM

EBERLINE ANALYTICAL

SDG 8603

LAB METHOD SUMMARY

RADIUM-228 IN WATER

BETA COUNTING

Test AC Matrix WATER
SDG 8603
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Radium-228	
Preparation batch 7271-130						
S203085-01			8603-001	OUTFALL 009 (440-6603-1)	U	
S203085-02			8603-002	TRIP-BLANK (440-6603-2)	U	
S203085-03			8603-003	Lab Control Sample	ok	
S203085-04			8603-004	Method Blank	U	
S203085-05			8603-005	Duplicate (S203085-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	1.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-130			2σ prep error 10.4 %	Reference Lab Notebook No. 7271 pg.024												
S203085-01			OUTFALL 009 (440-6603-1)	0.367	1.80			80		150			12	04/06/12	04/06	GRB-230
S203085-02			TRIP-BLANK (440-6603-2)	0.391	1.80			81		150			10	04/06/12	04/06	GRB-231
S203085-03			Lab Control Sample	0.360	1.80			82		150				04/06/12	04/06	GRB-232
S203085-04			Method Blank	0.382	1.80			83		150				04/06/12	04/06	GRB-225
S203085-05			Duplicate (S203085-01)	0.371	1.80			82		150			12	04/06/12	04/06	GRB-227
Nominal values and limits from method				1.00	1.80			30-105		50			180			

PROCEDURES REFERENCE 904.0
DWP-894 Sequential Separation of Actinium-228 and Radium-226 in Drinking Water (>1 Liter Aliquot), rev 5

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.374 ± 0.025
YIELD 82 ± 2

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/18/12

METHOD SUMMARIES
Page 1
SUMMARY DATA SECTION
Page 13

EBERLINE ANALYTICAL

SDG 8603

LAB METHOD SUMMARY

STRONTIUM-90 IN WATER

BETA COUNTING

Test SR Matrix WATER
SDG 8603
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Strontium-90	
Preparation batch 7271-130						
S203085-01			8603-001	OUTFALL 009 (440-6603-1)	U	
S203085-02			8603-002	TRIP-BLANK (440-6603-2)	U	
S203085-03			8603-003	Lab Control Sample	ok	
S203085-04			8603-004	Method Blank	U	
S203085-05			8603-005	Duplicate (S203085-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	2.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-130			2σ prep error 10.4 %	Reference Lab Notebook No. 7271 pg.024												
S203085-01			OUTFALL 009 (440-6603-1)	1.02	0.500			78	50				12	04/06/12	04/06	GRB-225
S203085-02			TRIP-BLANK (440-6603-2)	1.07	0.500			71	50				10	04/06/12	04/06	GRB-227
S203085-03			Lab Control Sample	0.236	1.00			83	72					04/06/12	04/06	GRB-228
S203085-04			Method Blank	0.370	1.00			80	100					04/06/12	04/06	GRB-207
S203085-05			Duplicate (S203085-01)	0.726	0.500			75	50				12	04/06/12	04/06	GRB-228
Nominal values and limits from method				2.00	1.00			30-105	50				180			

PROCEDURES REFERENCE 905.0
CP-380 Strontium in Water Samples, rev 5

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.684 ± 0.750
YIELD 77 ± 9

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

Test 80A Matrix WATER
SDG 8603
Contact Joseph Verville

LAB METHOD SUMMARY

GROSS ALPHA IN WATER
GAS PROPORTIONAL COUNTING

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Gross Alpha	
Preparation batch 7271-130						
S203085-01	80		8603-001	OUTFALL 009 (440-6603-1)	2.31	J
S203085-02	80		8603-002	TRIP-BLANK (440-6603-2)	U	
S203085-03	80		8603-003	Lab Control Sample	ok	
S203085-04	80		8603-004	Method Blank	U	
S203085-05	80		8603-005	Duplicate (S203085-01)	ok	J
Nominal values and limits from method				RDLs (pCi/L)	3.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU-TION	RESID mg	EFF %	COUNT min	FWHM keV	DRIFT keV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7271-130			2σ prep error 20.6 %	Reference Lab Notebook No. 7271 pg.024												
S203085-01	80		OUTFALL 009 (440-6603-1)	0.328	0.300			14		400			19	04/11/12	04/13	GRB-101
S203085-02	80		TRIP-BLANK (440-6603-2)	0.221	0.300			0		400			17	04/11/12	04/13	GRB-103
S203085-03	80		Lab Control Sample	0.577	0.300			62		400				04/11/12	04/13	GRB-104
S203085-04	80		Method Blank	0.496	0.300			62		400				04/11/12	04/13	GRB-109
S203085-05	80		Duplicate (S203085-01)	0.320	0.300			13		400			20	04/11/12	04/14	GRB-111
Nominal values and limits from method				3.00	0.300			0-250		100			180			

PROCEDURES REFERENCE 900.0
DWP-121 Gross Alpha and Gross Beta in Drinking Water, rev 10

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.388 ± 0.289
RESIDUE 30 ± 59

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

Test 80B Matrix WATER
SDG 8603
Contact Joseph Verville

LAB METHOD SUMMARY

GROSS BETA IN WATER

GAS PROPORTIONAL COUNTING

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Gross Beta	
Preparation batch 7271-130						
S203085-01	80		8603-001	OUTFALL 009 (440-6603-1)	2.88	J
S203085-02	80		8603-002	TRIP-BLANK (440-6603-2)	U	
S203085-03	80		8603-003	Lab Control Sample	ok	
S203085-04	80		8603-004	Method Blank	U	
S203085-05	80		8603-005	Duplicate (S203085-01)	ok	J
Nominal values and limits from method				RDLs (pCi/L)	4.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	RESID mg	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-130			2σ prep error 11.0 %	Reference Lab Notebook No. 7271 pg.024												
S203085-01	80		OUTFALL 009 (440-6603-1)	0.885	0.300			14		400			19	04/11/12	04/13	GRB-101
S203085-02	80		TRIP-BLANK (440-6603-2)	0.932	0.300			0		400			17	04/11/12	04/13	GRB-103
S203085-03	80		Lab Control Sample	0.803	0.300			62		400				04/11/12	04/13	GRB-104
S203085-04	80		Method Blank	0.821	0.300			62		400				04/11/12	04/13	GRB-109
S203085-05	80		Duplicate (S203085-01)	0.807	0.300			13		400			20	04/11/12	04/14	GRB-111
Nominal values and limits from method				4.00	0.300			0-250		100			180			

PROCEDURES REFERENCE 900.0
DWP-121 Gross Alpha and Gross Beta in Drinking Water, rev 10

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.850 ± 0.113
RESIDUE 30 ± 59

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

Test GAM Matrix WATER
SDG 8603
Contact Joseph Verville

LAB METHOD SUMMARY

GAMMA EMITTERS IN WATER

GAMMA SPECTROSCOPY

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Cobalt-60	Cesium-137	
Preparation batch 7271-130							
S203085-01			8603-001	OUTFALL 009 (440-6603-1)		U	
S203085-02			8603-002	TRIP-BLANK (440-6603-2)		U	
S203085-03			8603-003	Lab Control Sample	ok	ok	
S203085-04			8603-004	Method Blank		U	
S203085-05			8603-005	Duplicate (S203085-01)		-	U
Nominal values and limits from method				RDLs (pCi/L)	10.0	20.0	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7271-130			2σ prep error 7.0 %	Reference Lab Notebook No. 7271 pg.024												
S203085-01			OUTFALL 009 (440-6603-1)		2.00					400			5	03/29/12	03/30	MB,G1,0
S203085-02			TRIP-BLANK (440-6603-2)		2.00					400			3	03/29/12	03/30	MB,G2,0
S203085-03			Lab Control Sample		2.00					400				03/29/12	03/30	MB,G3,0
S203085-04			Method Blank		2.00					400				03/29/12	03/30	MB,G4,0
S203085-05			Duplicate (S203085-01)		2.00					400			8	03/29/12	04/02	MB,G8,0
Nominal values and limits from method				6.00	2.00					400			180			

PROCEDURES REFERENCE 901.1
DWP-100 Preparation of Drinking Water Samples for Gamma Spectroscopy, rev 5

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

LAB METHOD SUMMARY

URANIUM, TOTAL

KINETIC PHOSPHORIMETRY

Test U T Matrix WATER
SDG 8603
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Uranium, Total
Preparation batch 7271-130					
S203085-01			8603-001	OUTFALL 009 (440-6603-1)	0.137 J
S203085-02			8603-002	TRIP-BLANK (440-6603-2)	U
S203085-03			8603-003	Lab Control Sample	ok
S203085-04			8603-004	Method Blank	U
S203085-05			8603-005	Duplicate (S203085-01)	ok J
Nominal values and limits from method				RDLs (pCi/L)	1.00

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-130			2σ prep error		Reference Lab Notebook No. 7271 pg.024											
S203085-01			OUTFALL 009 (440-6603-1)	0.017	0.0200								8	04/02/12	04/02	KPA-001
S203085-02			TRIP-BLANK (440-6603-2)	0.017	0.0200								6	04/02/12	04/02	KPA-001
S203085-03			Lab Control Sample	0.172	0.0200									04/02/12	04/02	KPA-001
S203085-04			Method Blank	0.017	0.0200									04/02/12	04/02	KPA-001
S203085-05			Duplicate (S203085-01)	0.017	0.0200								8	04/02/12	04/02	KPA-001
Nominal values and limits from method				1.00	0.0200								180			

PROCEDURES REFERENCE D5174

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.048 ± 0.139
YIELD ____ ± ____

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

LAB METHOD SUMMARY

TRITIUM IN WATER

LIQUID SCINTILLATION COUNTING

Test H Matrix WATER
SDG 8603
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Tritium	
Preparation batch 7271-130						
S203085-01			8603-001	OUTFALL 009 (440-6603-1)	U	
S203085-03			8603-003	Lab Control Sample	ok	J
S203085-04			8603-004	Method Blank	U	
S203085-05			8603-005	Duplicate (S203085-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	500	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7271-130			2σ prep error 10.0 %	Reference Lab Notebook No. 7271 pg.024												
S203085-01			OUTFALL 009 (440-6603-1)	161	0.0100			100		150			20	04/13/12	04/14	LSC-004
S203085-03			Lab Control Sample	27.2	0.605			10		150				04/13/12	04/14	LSC-004
S203085-04			Method Blank	26.0	0.605			10		150				04/13/12	04/14	LSC-004
S203085-05			Duplicate (S203085-01)	157	0.0100			100		150			20	04/13/12	04/14	LSC-004
Nominal values and limits from method				500	0.605					100			180			

PROCEDURES REFERENCE 906.0
DWP-212 Tritium in Drinking Water by Distillation, rev 8

AVERAGES ± 2 SD FOR 4 SAMPLES
MDA 92.8 ± 153
YIELD 55 ± 104

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/18/12

EBERLINE ANALYTICAL

SDG 8603

LAB METHOD SUMMARY

RADIUM-226 IN WATER

RADON COUNTING

Test RA Matrix WATER
SDG 8603
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Radium-226	
Preparation batch 7271-130						
S203085-01			8603-001	OUTFALL 009 (440-6603-1)	U	
S203085-02			8603-002	TRIP-BLANK (440-6603-2)	U	
S203085-03			8603-003	Lab Control Sample	ok	
S203085-04			8603-004	Method Blank	U	
S203085-05			8603-005	Duplicate (S203085-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	1.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7271-130			2σ prep error 16.4 %	Reference Lab Notebook No. 7271 pg.024												
S203085-01			OUTFALL 009 (440-6603-1)	0.492	0.100			100		136			18	04/12/12	04/12	RN-010
S203085-02			TRIP-BLANK (440-6603-2)	0.563	0.100			100		136			16	04/12/12	04/12	RN-016
S203085-03			Lab Control Sample	0.749	0.100			100		136				04/12/12	04/12	RN-009
S203085-04			Method Blank	0.496	0.100			100		136				04/12/12	04/12	RN-013
S203085-05			Duplicate (S203085-01)	0.536	0.100			100		136			18	04/12/12	04/12	RN-015
Nominal values and limits from method				1.00	0.100					100			180			

PROCEDURES REFERENCE 903.1
DWP-881A Ra-226 Screening in Drinking Water, rev 6

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.567 ± 0.212
YIELD 100 ± 0

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/18/12

SDG 8603
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

SAMPLE SUMMARY

The Sample and QC Summary Reports show all samples, including QC samples, reported in one Sample Delivery Group (SDG).

The Sample Summary Report fully identifies client samples and gives the corresponding lab sample identification. The QC Summary Report shows at the sample level how the lab organized the samples into batches and generated QC samples. The Preparation Batch and Method Summary Reports show this at the analysis level.

The following notes apply to these reports:

* LAB SAMPLE ID is the lab's primary identification for a sample.

* DEPARTMENT SAMPLE ID is an alternate lab id, for example one assigned by a radiochemistry department in a lab.

* CLIENT SAMPLE ID is the client's primary identification for a sample. It includes any sample preparation done by the client that is necessary to identify the sample.

* QC BATCH is a lab assigned code that groups samples to be processed and QCed together. These samples should have similar matrices.

  QC BATCH is not necessarily the same as SDG, which reflects samples received and reported together.

* All Lab Control Samples, Method Blanks, Duplicates and Matrix Spikes are shown that QC any of the samples. Due to possible reanalyses, not all results for all these QC samples may be relevant to the SDG. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

SDG 8603
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches in one Sample Delivery Group (SDG) with information necessary to check the completeness and consistency of the SDG.

The following notes apply to this report:

* The preparation batches are shown in the same order as the Method Summary Reports are printed.

* Only analyses of planchets relevant to the SDG are included.

* Each preparation batch should have at least one Method Blank and LCS in it to validate client sample results.

* The QUALIFIERS shown are all qualifiers other than U, J, B, L and H that occur on any analysis in the preparation batch. The Method Summary Report has these qualifiers on a per sample basis.

  These qualifiers should be reviewed as follows:

  X Some data has been manually entered or modified. Transcription errors are possible.

  P One or more results are 'preliminary'. The data is not ready for final reporting.

  2 There were two or more results for one analyte on one planchet imported at one time. The results in DVD may not be the same as on the raw data sheets.

  Other lab defined qualifiers may occur. In general, these should be addressed in the SDG narrative.

SDG 8603
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

WORK SUMMARY

The Work Summary Report shows all samples, including QC samples, and all relevant analyses in one Sample Delivery Group (SDG). This report is often useful as supporting documentation for an invoice.

The following notes apply to this report:

* TEST is a code for the method used to measure associated analytes. Results and related information for each analyte are on the Data Sheet Report. In special cases, a test code used in the summary data section is not the same as in associated raw data. In this case, both codes are shown on the Work Summary.

* SUFFIX is the lab's code to distinguish multiple analyses (recounts, reworks, reanalyses) of a fraction of the sample. The suffix indicates which result is being reported. An empty suffix normally identifies the first attempt to analyze the sample.

* The LAB SAMPLE ID, TEST and SUFFIX uniquely identify all supporting data for a result. The Method Summary Report for each TEST has method performance data, such as yield, for each lab sample id and suffix and procedures used in the method.

* PLANCHET is an alternate lab identifier for work done for one test. It, combined with the TEST and SUFFIX, may be the best link to raw data.

* For QC samples, only analyses that directly QC some regular sample are shown. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

* The SAS (Special Analytical Services) Number is a client or lab assigned code that reflects special processing for samples, such as rapid turn around. Counts of tests done are lists by SAS number since it is likely to affect prices.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/18/12

SDG 8603
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

DATA SHEET

The Data Sheet Report shows all results and primary supporting information for one client sample or Method Blank. This report corresponds to both the CLP Inorganics and Organics Data Sheet.

The following notes apply to this report:

* TEST is a code for the method used to measure an analyte. If the TEST is empty, no data is available; the analyte was not analyzed for.

* The LAB SAMPLE ID and TEST uniquely identify work within the Summary Data Section of a Data Package. The Work Summary and Method Summary Reports further identify raw data that underlies this work.

  The Method Summary Report for each TEST has method performance data, such as yield, for each Lab Sample ID and a list of procedures used in the method.

* ERRORs can be labeled TOTAL or COUNT. TOTAL implies a preparation (non-counting method) error has been added, as square root of sum of squares, to the counting error denoted by COUNT. The preparation errors, which may vary by preparation batch, are shown on the Method Summary Report.

* A RESULT can be 'N.R.' (Not Reported). This means the lab did this work but chooses not to report it now, possibly because it was reported at another time.

* When reporting a Method Blank, a RESULT can be 'N.A.' (Not Applicable). This means there is no reported client sample work in the same preparation batch as the Blank's result. This is likely to occur when the Method Blank is associated with reanalyses of selected work for a few samples in the SDG.

The following qualifiers are defined by the DVD system:

U The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/18/12

SDG 8603
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

DATA SHEET

J The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.

B A Method Blank associated with this sample had a result without a U flag and, after correcting for possibly different aliquots, that result is greater than or equal to the MDA for this sample.

Normally, B is not assigned if U is. When method blank subtraction is shown on this report, B flags are assigned based on the unsubtracted values while U's are assigned based on the subtracted ones. Both flags can be assigned in this case.

For each sample result, all Method Blank results in the same preparation batch are compared. The Method Summary Report documents this and other QC relationships.

L Some Lab Control Sample that QC's this sample had a low recovery. The lab can disable assignment of this qualifier.

H Similar to 'L' except the recovery was high.

P The RESULT is 'preliminary'.

X Some data necessary to compute the RESULT, ERROR or MDA was manually entered or modified.

2 There were two or more results available for this analyte. The reported result may not be the same as in the raw data.

Other qualifiers are lab defined. Definitions should be in the SDG narrative.

The following values are underlined to indicate possible problems:

* An MDA is underlined if it is bigger than its RDL.

* An ERROR is underlined if the 1.645 sigma counting error is bigger than both the MDA and the RESULT, implying that the MDA

SDG 8603
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

DATA SHEET

may not be a good estimate of the 'real' minimum detectable activity.

* A negative RESULT is underlined if it is less than the negative of its 2 sigma counting ERROR.

* When reporting a Method Blank, a RESULT is underlined if greater than its MDA. If the MDA is blank, the 2 sigma counting error is used in the comparison.

SDG 8603
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REPORT GUIDE

Client Test America, Inc.
Contract 44002624

LAB CONTROL SAMPLE

The Lab Control Sample Report shows all results, recoveries and primary supporting information for one Lab Control Sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. Refer to its Report Guide for details.

* An amount ADDED is the lab's value for the actual amount spiked into this sample with its ERROR an estimate of the error of this amount.

  An amount added is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

* REC (Recovery) is RESULT divided by ADDED expressed as a percent.

* The first, computed limits for the recovery reflect:

  1. The error of RESULT, including that introduced by rounding the result prior to printing.

     If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

  2. The error of ADDED.

  3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

* The second limits are protocol defined upper and lower QC limits for the recovery.

* The recovery is underlined if it is outside either of these ranges.

SDG 8603
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REPORT GUIDE

Client Test America, Inc.
Contract 44002624

DUPLICATE

The Duplicate Report shows all results, differences and primary supporting information for one Duplicate and associated Original sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. This applies both to the Duplicate and Original sample data. Refer to the Data Sheet Report Guide for details.

  If the Duplicate has data for a TEST and the lab did not do this test to the Original, the Original's RESULTs are underlined.

* The RPD (Relative Percent Difference) is the absolute value of the difference of the RESULTs divided by their average expressed as a percent.

  If both RESULTs are less than their MDAs, no RPD is computed and a '-' is printed.

  For an analyte, if the lab did work for both samples but has data for only one, the MDA from the sample with data is used as the other's result in the RPD.

* The first, computed limit is the sum, as square root of sum of squares, of the errors of the results divided by the average result as a percent, hence the relative error of the difference rather than the error of the relative difference. The errors include those introduced by rounding the RESULTs prior to printing.

  If this limit is labeled TOT, it includes the preparation error in the RESULTs. If labeled CNT, it does not.

  This value reported for this limit is at most 999.

* The second limit for the RPD is the larger of:

  1. A fixed percentage specified in the protocol.

SDG 8603
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

DUPLICATE

2. A protocol factor (typically 2) times the average MDA as a percent of the average result. This limit applies when the results are close to the MDAs.

* The RPD is underlined if it is greater than either limit.

* If specified by the lab, the second limit column is replaced by the Difference Error Ratio (DER), which is the absolute value of the difference of the results divided by the quadratic sum of their one sigma errors, the same errors as used in the first limit.

  Except for differences due to rounding, the DER is the same as the RPD divided by the first RPD limit with the limit scaled to 1 sigma.

* The DER is underlined if it is greater than the sigma factor, typically 2 or 3, shown in the header for the first RPD limit.

SDG 8603
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REPORT GUIDE

Client Test America, Inc.
Contract 44002624

MATRIX SPIKE

The Matrix Spike Report shows all results, recoveries and primary supporting information for one Matrix Spike and associated Original sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. This applies both to the Spiked and Original sample data. Refer to the Data Sheet Report Guide for details.

  If the Spike has data for a TEST and the lab did not do this test to the Original, the Original's RESULTs are underlined.

* An amount ADDED is the lab's value for the actual amount spiked into the Spike sample with its ERROR an estimate of the error of this amount.

  An amount is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

* REC (Recovery) is the Spike RESULT minus the Original RESULT divided by ADDED expressed as a percent.

* The first, computed limits for the recovery reflect:

  1. The errors of the two RESULTs, including those introduced by rounding them prior to printing.

     If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

  2. The error of ADDED.

  3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

* The second limits are protocol defined upper and lower QC limits for the recovery.

SDG 8603
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

MATRIX SPIKE

These limits are left blank if the Original RESULT is more than a protocol defined factor (typically 4) times ADDED. This is a way of accounting for that when the spike is small compared to the amount in the original sample, the recovery is unreliable.

* The recovery is underlined (out of spec) if it is outside either of these ranges.

SDG 8603
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

METHOD SUMMARY

The Method Summary Report has two tables. One shows up to five results measured using one method. The other has performance data for the method. There is one report for each TEST, as used on the Data Sheet Report.

The following notes apply to this report:

* Each table is subdivided into sections, one for each preparation batch. A preparation batch is a group of aliquots prepared at roughly the same time in one work area of the lab using the same method.

  There should be Lab Control Sample and Method Blank results in each preparation batch since this close correspondence makes the QC meaningful. Depending on lab policy, Duplicates need not occur in each batch since they QC sample dependencies such as matrix effects.

* The RAW TEST column shows the test code used in the raw data to identify a particular analysis if it is different than the test code in the header of the report. This occurs in special cases due to method specific details about how the lab labels work.

  The Lab Sample or Planchet ID combined with the (Raw) Test Code and Suffix uniquely identify the raw data for each analysis.

* If a result is less than both its MDA and RDL, it is replaced by just 'U' on this report. If it is greater than or equal to the RDL but less than the MDA, the result is shown with a 'U' flag.

  The J and X flags are as on the data sheet.

* Non-U results for Method Blanks are underlined to indicate possible contamination of other samples in the preparation batch. The Method Blank Report has supporting data.

* Lab Control Sample and Matrix Spike results are shown as: ok, No data, LOW or HIGH, with the last two underlined. 'No data' means no amount ADDED was specified. 'LOW' and 'HIGH'

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/18/12

METHOD SUMMARY

correspond to when the recovery is underlined on the Lab Control Sample or Matrix Spike Report. See these reports for supporting data.

* Duplicate sample results are shown as: ok, No data, or OUT, with the last two underlined. 'No data' means there was no original sample data found for this duplicate. 'OUT' corresponds to when the RPD is underlined on the Duplicate Report. See this report for supporting data.

* If the MDA column is labeled 'MAX MDA', there was more than one result measured by the reported method and the MDA shown is the largest MDA. If not all these results have the same RDL, the MAX MDA reflects only those results with RDL equal to the smallest one.

  MDAs are underlined if greater than the printed RDL.

* Aliquots are underlined if less than the nominal value specified for the method.

* Prepareation factors are underlined if greater than the nominal value specified for the method.

* Dilution factors are underlined if greater than the nominal value specified for the method.

* Residues are underlined if outside the range specified for the method. Residues are not printed if yields are.

* Yields, which may be gravimetric, radiometric or some type of recovery depending on the method, are underlined if outside the range specified for the method.

* Efficiencies are underlined if outside the range specified for the method. Efficiencies are detector and geometry dependent so this test is only approximate.

* Count times are underlined if less than the nominal value

METHOD SUMMARY

specified for the method.

* Resolutions (as FWHM; Full Width at Half Max) are underlined if greater than the method specified limit.

* Tracer drifts are underlined if their absolute values are greater than the method specified limit. Tracer drifts are not printed if percent moistures are.

* Days Held are underlined if greater than the holding time specified in the protocol.

* Analysis dates are underlined if before their planchet's preparation date or, if a limit is specified, too far after it.

For some methods, ratios as percentages and error estimates for them are computed for pairs of results. A ratio column header like '1÷3' means the ratio of the first result column and the third result column.

Ratios are not computed for Lab Control Sample, Method Blank or Matrix Spike results since their matrices are not necessarily similar to client samples'.

The error estimate for a ratio of results from one planchet reflects only counting errors since other errors should be correlated. For a ratio involving different planchets, if QC limits are computed based on total errors, the error for the ratio allows for the preparation errors for the planchets.

The ratio is underlined (out of spec) if the absolute value of its difference from the nominal value is greater than its error estimate. If no nominal value is specified, this test is not done.

For Gross Alpha or Gross Beta results, there may be a column showing the sum of other Alpha or Beta emitters. This sum includes all relevant results in the DVD database, whether reported or not. Results in the sum are weighted by a particles/decay value specified by the lab for each relevant analyte. Results less than their MDA are not included.

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GUIDE, cont.

Client Test America, Inc.
Contract 44002624

METHOD SUMMARY

No sums are computed for Lab Control, Method Blank or Matrix Spike samples since their various planchets may not be physically related.

If a ratio of total isotopic to Gross Alpha or Beta is shown, the error for the ratio reflects both the error in the Gross result and the sum, as square root of sum of squares, of the errors in the isotopic results.

For total elemental uranium or thorium results, there may be a column showing the total weight computed from associated isotopic results. Ignoring results less than their MDAs, this is a weighted sum of the isotopic results. The weights depend on the molecular weight and half-life of each isotope so as to convert activities (decays) to weight (atoms).

If a ratio of total computed to measured elemental uranium or thorium is shown, the error for the ratio reflects the errors in all the measurements.

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

8603 - 92409-085

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4/27/2012

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby	Carrier Tracking No(s):	COC No: 440-3172.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: Eberline Services		Analysis Requested		Job #: 440-6603-1
Address: 2030 Wright Avenue, ,	Due Date Requested: 4/2/2012			Preservation Codes:
City: Richmond	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: CA, 94804				
Phone:	PO #:			Other:
Email:	WO #:			
Project Name: Boeing SSFL outfalls	Project #: 44002624			
Site: Boeing SSFL	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ Gross Alpha	SUBCONTRACT/ Gross Beta	SUBCONTRACT/ Radium Combined	SUBCONTRACT/ Strontium 90	SUBCONTRACT/ Tritium	SUBCONTRACT/ Uranium, Combined	SUBCONTRACT/ Gamma Spec K-40 CS-137	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Outfall 009 (440-6603-1)	3/25/12	17:48 Pacific		Water			X	X	X	X	X	X	X		
Trip Blank (440-6603-2)	3/27/12	13:45 Pacific		Water			X	X	X	X	X	X	X		

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	3/27/12 17:00	TAI	Fedex	3/27/12 17:00	
Relinquished by: FED EX	Date/Time: 3/28/12 0930	Company	Received by: [signature]	Date/Time: 3/28/12 0930	Company EBERLINE
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

EBERLINE SERVICES

RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA

Date/Time received 03/28/12 0930 CoC No. 440 ~~6603~~ 3172.1

Container I.D. No. ICE CHEST Requested TAT (Days) _____ P.O. Received Yes [ ] No [ ]

INSPECTION

1. Custody seals on shipping container intact? Yes [X] No [ ] N/A [ ]
2. Custody seals on shipping container dated & signed? Yes [X] No [ ] N/A [ ]
3. Custody seals on sample containers intact? Yes [ ] No [ ] N/A [X]
4. Custody seals on sample containers dated & signed? Yes [ ] No [ ] N/A [X]
5. Packing material is: Wet [ ] Dry [X]
6. Number of samples in shipping container: 2 Sample Matrix W
7. Number of containers per sample: _____ (Or see CoC X)
8. Samples are in correct container Yes [X] No [ ]
9. Paperwork agrees with samples? Yes [X] No [ ]
10. Samples have: Tape [ ] Hazard labels [ ] Rad labels [ ] Appropriate sample labels [X]
11. Samples are: In good condition [X] Leaking [ ] Broken Container [ ] Missing [ ]
12. Samples are: Preserved [X] Not preserved [X] pH <2/N/A Preservative HNO3
13. Describe any anomalies:

14. Was P.M. notified of any anomalies? Yes [ ] No [ ] Date _____
15. Inspected by _____ Date: 03/28/12 Time: 1060

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
Au Staples	280						

Ion Chamber Ser. No. _____ Calibration date _____

Alpha Meter Ser. No. _____ Calibration date _____

Beta/Gamma Meter Ser. No. 150485 Calibration date 06 DEC 11

Form SCP-02, 07-30-07

"over 55 years of quality nuclear services"

Test America Version 7/19/2010

CHAIN OF CUSTODY FORM

440-6513

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Routine Outfall 009** **GRAB** Stormwater at SW-13
Project Manager: Bronwyn Kelly Sampler: Rick Bañaga	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	ANALYSIS REQUIRED: Oil & Grease (1664-HEM)	Field readings: (Log in and include in report Temp and pH) / Comments
Outfall 009	W	1L Amber	2	3-25-2012 12:05	HCl	1A, 1B	X	Temp °F = 46 pH = 7.0 Time of readings = 12:05

These Samples are the Grab Portion of Outfall 009 for this storm event. Composite samples will follow and are to be added to this work order.

Relinquished By	Date/Time:	Received By	Date/Time:
Rick Bañaga	3-25-2012		3-25-12 1448
Relinquished By	Date/Time:	Received By	Date/Time:
	3-25-12 1850	Rec Fridge	3/25/12 18:00
Relinquished By	Date/Time:	Received By	Date/Time:
Rec fridge	3/26/12 8:30		3/26/12 8:30

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: _____
48 Hour: _____ 5 Day: _____ Normal: X

Sample Integrity: (Check)
Intact: _____ On Ice: _____ 3.7

Data Requirements: (Check)
No Level IV: X All Level IV: _____ NPDES Level IV: X

CHAIN OF CUSTODY FORM

440 - 6603

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Routine Outfall 009** **COMPOSITE - HIGH** Stormwater at SW-13
Project Manager: Bronwyn Kelly Sampler: RICK BANAGA ANDREW PAYNE	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, Tl	TCDD (and all congeners)	Cl, SO_4, NO_3+NO_2-N	TDS, TSS	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, Tl	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	Chronic Toxicity	Cyanide	Comments
Outfall 009	W	1L Poly	1	3-25-2012 17:48	HNO_3	2A	X								
Outfall 009 Dup	W	1L Poly	1		HNO_3	2B	X								
Outfall 009	W	1L Amber	2		None	3A, 3B		X							
Outfall 009	W	500 mL Poly	2		None	4A, 4B			X						
Outfall 009	W	500 mL Poly	1		None	5				X					
Outfall 009	W	1L Poly	1		None	6					X				Filter w/in 24hrs of receipt at lab
Outfall 009	W	2.5 Gal Cube	1		None	7A						X			Unfiltered and unpreserved analysis
		500 mL Amber	1		None	7B									
~~Outfall 009~~	~~W~~	~~1 Gal Poly~~	~~1~~		~~None~~	~~8~~							X		**Only test if first or second rain events of the year**
Outfall 009	W	500 mL Poly	1	3-25-2012 17:48	NaOH	9								X	

COC Page 2 of 2 list the Composite Samples for Outfall 009 for this storm event.

These must be added to the same work order for COC Page 1 of 2 for Outfall 009 for the same event.

Relinquished By	Date/Time	Received By	Date/Time
	3-26-2012 13:15		3-26-12 13:15
	3-26-12 16:50		1650 3-26-12

Turn-around time: (Check)
24 Hour: ____ 72 Hour: ____ 10 Day: ____
48 Hour: ____ 5 Day: X Normal: ____

Sample Integrity: (Check)
Intact: ____ On Ice: ✓

Data Requirements: (Check)
No Level IV: ____ All Level IV: ____ NPDES Level IV: X

2.9

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 440-6513-1

Login Number: 6513

List Number: 1

Creator: Kim, Will

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Rick Banaga
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 440-6513-1

Login Number: 6603
List Number: 1
Creator: Kim, Will

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Rick Banaga
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX G

Section 7

Outfall 009 – March 27, 2012

Test America Analytical Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-6740-1
Client Project/Site: Boeing SSFL NPDES-Outfall 009

For:
MWH Americas Inc
618 Michillinda Avenue, Suite 200
Arcadia, California 91007

Attn: Bronwyn Kelly

Debby Wilson

Authorized for release by:
4/11/2012 3:26:42 PM

Debby Wilson
Project Manager I
debby.wilson@testamericainc.com

LINKS

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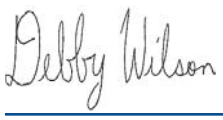
The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.



Debby Wilson
Project Manager I
4/11/2012 3:26:42 PM

Table of Contents

Cover Page 1
Table of Contents 3
Sample Summary 4
Client Sample Results 5
Chronicle 6
QC Association 7
Definitions 8
Certification Summary 9
Subcontract Data 10
Chain of Custody 11
Receipt Checklists 12

Sample Summary

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES-Outfall 009

TestAmerica Job ID: 440-6740-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-6740-1	Outfall 009	Water	03/27/12 13:55	03/27/12 18:45

Client Sample Results

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES-Outfall 009

TestAmerica Job ID: 440-6740-1

Client Sample ID: Outfall 009
Date Collected: 03/27/12 13:55
Date Received: 03/27/12 18:45

Lab Sample ID: 440-6740-1
Matrix: Water

Method: SM 9221E - Coliforms, Fecal (Multiple-Tube Fermentation)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	50				MPN/100mL			03/27/12 19:05	1

Method: SM 9221F - E.Coli (Multiple-Tube Fermentation; EC-MUG)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	9.0		2.0	2.0	MPN/100mL			03/27/12 19:05	1

Lab Chronicle

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES-Outfall 009

TestAmerica Job ID: 440-6740-1

Client Sample ID: Outfall 009
Date Collected: 03/27/12 13:55
Date Received: 03/27/12 18:45

Lab Sample ID: 440-6740-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 9221E		1	100 mL	100 mL	16102		AK	TAL IRV
								(Start) 03/27/12 19:05		
								(End) 03/30/12 15:52		
Total/NA	Analysis	SM 9221F		1	100 mL	100 mL	16104		AK	TAL IRV
								(Start) 03/27/12 19:05		
								(End) 03/30/12 15:52		

Laboratory References:

EMSL = EMSL Analytical, Inc., 200 Rt 130 North, Cinnaminson, NJ 08077

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Association Summary

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES-Outfall 009

TestAmerica Job ID: 440-6740-1

Biology

Analysis Batch: 16102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6740-1	Outfall 009	Total/NA	Water	SM 9221E	

Analysis Batch: 16104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-6740-1	Outfall 009	Total/NA	Water	SM 9221F	

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES-Outfall 009

TestAmerica Job ID: 440-6740-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	LA Cty Sanitation Districts	9	10256
TestAmerica Irvine	California	NELAC	9	1108CA
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Guam	State Program	9	Cert. No. 12.002r
TestAmerica Irvine	Hawaii	State Program	9	N/A
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	New Mexico	State Program	6	N/A
TestAmerica Irvine	Northern Mariana Islands	State Program	9	MP0002
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	Federal		P330-09-00080

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675/ 786-0262

http://www.emsl.com E-mail: MicrobiologyLab@emsl.com

Client:	TestAmerica Irvine 17461 Derian Avenue Suite 100 Irvine , CA 92614	**EMSL Order ID:**	371204889
		Date Received:	3/29/2012
		Date Analyzed:	3/30/2012
Attn.		**Date Reported:**	4/2/2012
Project:	**44002624/Boeing SSFL NPDES-Outfall 009**	**Date Amended:**	

Real-Time PCR Analysis for Human *Bacteroides*

(Based on a published method SAM: 348 - 357, 2010), EMSL Test Code: M199, Revision No. 3, 04/18/2011)

Lab Sample Number	Client Sample ID	Location	Amount Received	Amount Sampled	CEs /100 mL
4889-1	Outfall 009 (440-6740-1)		Water 250 ml	Water 250 ml	None Detected

EMSL maintains liability limited to cost of analysis. Interpretation of the data contained in this report is the responsibility of the client. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. The above test report relates only to the items tested. EMSL bears no responsibility for sample collection activities or analytical method limitations.

Note: The PCR primer is HF183 and the qPCR probe and primer was evaluated in 2010 by EPA scientists. The real-time PCR based on HF183 detects human specific total bacteroides predominantly with minor cross-detections on chicken and dog fecal materials. CEs: Cell Equivalents, measured by PCR using genomic DNA standards.

USEPA License No: 0240-02

Quanyi "Charlie" Li, Ph.D.

Director, PCR and DNA Analysis Lab

Test America Version 3/18/2011

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Outfall 009** Stormwater at SW-13
Project Manager: Bronwyn Kelly Sampler: Rick Banach	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Fecal coliform (SM9221)	E. coli (SM9221)	MST-Bateriodales, Human											Comments
Outfall 009	W	125 mL Poly	1	3-27-2012 13:55	Na2S2O3	1	X													
Outfall 009	W	125 mL Poly	1	3-27-2012 13:55	Na2S2O3	2		X												
Outfall 009	W	125 mL Poly	1	3-27-2012 14:50	None	3			X											Deliver to lab ASAP

ANALYSIS REQUIRED

Field readings:
(Log in and include in report Temp and pH)

Temp °F =

pH =

Time of readings =

Relinquished By	Date/Time:	Received By	Date/Time:
Rick Banach	3-27-2012 15:30		3-27-12 15:30
Relinquished By	Date/Time:	Received By	Date/Time:
	3-27-12 18:45		3/27/12 18:45
Relinquished By	Date/Time:	Received By	Date/Time:

Turn-around time: (Check)

24 Hour: _____ 72 Hour: _____ 10 Day: X

48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)

Intact: _____ On Ice: _____

Data Requirements: (Check)

No Level IV: _____ All Level IV: _____ NPDES Level IV: X

40

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 440-6740-1

Login Number: 6740

List Source: TestAmerica Irvine

List Number: 1

Creator: Perez, Angel

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

APPENDIX G

Section 8

Outfall 019 – February 28 & 29, 2012
MEC^X Data Validation Reports

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: 440-3913-1

Prepared by

MEC^X, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title:	Boeing SSFL NPDES
Contract Task Order:	1261.100D.00
Sample Delivery Group:	440-3913-1
Project Manager:	B. Kelly
Matrix:	Water
QC Level:	IV
No. of Samples:	2
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 019 Composite	440-4065-1	800279-01, G2C020438-001, S203010-01	Water	2/29/2012 11:30:00 AM	180.1, 314.0, 900. 901.1, 903.1, 904, 905, 906, 245.1, 245.1 Diss, 1613B, 8315M, SM 2340B, SM5310B, ASTM D-5174
Outfall 019 Grab	440-3913-9	N/A	Water	2/28/2012 12:10:00 PM	120.1

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact (except as noted below), on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact upon receipt at Eberline and TestAmerica-West Sacramento. As the samples were couriered to TestAmerica-Irvine and Truesdail, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

According to the Case Narrative, the Composite sample was originally received at Eberline on March 13, 2012; however, the sample had leaked into the shipping cooler and a replacement sample was received on March 7, 2012. Review of the COC indicated the sample was received at Eberline on March 7, but a notation on the Sample Receipt Checklist indicated the replacement was received on March 3.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin
Date Reviewed: April 10, 2012

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review* (8/02).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.

- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.

    - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed prior to the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.

    - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.

- Calibration: Calibration criteria were met.

    - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq$20% for the 15 native compounds (calibration by isotope dilution) and $\leq$35% for the two native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.

    - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.

- Blanks: The method blank had a detect reported below the EDL for 1,2,3,6,7,8-HxCDF, and detects above the EDL for 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,7,8-HxCDF, 1,2,3,7,8,,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, and 1,2,3,4,7,8,9-HpCDF and their totals. OCDD and OCDF were also reported above the EDL. Some method blank results were reported as EMPCs; however, due to the extent of the method blank contamination, the reviewer

deemed it appropriate to use all method blank results to qualify sample results. Any sample results for method blank contaminants were qualified as nondetected, "U," at the EDL if reported below the EDL, or at the level of contamination. All detected total results associated with method blank contamination were also qualified as nondetected, "U," as the peaks comprising the totals in the sample were present at comparable concentrations in the method blank.

- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: This SDG had no identified field duplicate samples.

- Internal Standards Performance: The labeled internal standard recoveries for the sample were within the acceptance criteria listed in Table 7 of Method 1613.

- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.

- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of blank spike concentrations. The laboratory calculated and reported compound-specific detection limits. Any detects below the laboratory lower calibration level were qualified as estimated, "J." Any detects reported between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the EDL.

  Individual isomer EMPCs qualified as nondetected for method blank contamination were not further qualified as EMPCs.

B. EPA METHOD 8315M—Hydrazines

Reviewed By: P. Meeks
Date Reviewed: April 10, 2012

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 8315M*, and the *National Functional Guidelines for Organic Data Review* (10/99).

- Holding Times: The hydrazine sample was originally derivitized within three days of collection; however, according to the case narrative, the associated LCS failed. The sample was re-derivitized two days beyond the holding time, with acceptable LCS results. As the sample was derivitized beyond the holding time, the hydrazine results (all nondetects) were qualified as estimated, "UJ." The sample was analyzed within three days of derivitization.

- Calibration: Calibration criteria were met. The initial calibration r^2 values were $\geq$0.995. The ICV, CCV and QCS recoveries were within 85-115%.

- Blanks: Hydrazine was not detected in the method blank.

- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs were within laboratory-established QC limits.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG. Recoveries and RPDs were within the laboratory-established control limits.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

- Compound Identification: Compound identification was verified. Review of the sample, LCS, and LCSD chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibrations and the laboratory MDLs. Any results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.

C. EPA METHODS 200.7 and 245.1—Metals and Mercury

Reviewed By: P. Meeks
Date Reviewed: April 9, 2012

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 200.7 and 245.1*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: Analytical holding times, six months for ICP metals and 28 days for mercury, were met.

- Calibration: Calibration criteria were met. Mercury initial calibration r^2 values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP metals and 85-115% for mercury. One magnesium CRDL recovery exceeded the control limit at 148%; however, as the sample result was >3× the reporting limit, no qualifications were required. The remaining CRDL/CRI recoveries were within the control limits of 70-130%.

- Blanks: Total and dissolved zinc were detected with the method blanks at 10.4 and 21.3 µg/L; respectively; therefore, total and dissolved zinc in the sample were qualified as nondetected, "U." Dissolved boron was detected in the method blank and total arsenic was detected in a bracketing CCB at 37.1 and 8.4 µg/L, respectively, therefore, dissolved boron and total arsenic in the sample were qualified as nondetected, "U." Method blanks and CCBs had no other applicable detects.

- Interference Check Samples: Recoveries were within the method-established control limits. There were no target compounds present in the ICSA solution at concentrations above the MDLs; however, the most common interferent, iron, was not detected in the site sample.

- Blank Spikes and Laboratory Control Samples: Dissolved calcium was detected above the control limit at 129%; therefore, dissolved calcium in the sample was qualified as estimated, "J." The remaining recoveries were within laboratory-established QC limits.

- Laboratory Duplicates: No laboratory duplicate analyses were performed.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG for the total analytes. Recoveries and RPDs were within laboratory-established QC limits.

- Serial Dilution: No serial dilution analyses were performed.

- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer

was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

D. EPA METHOD 314.0—Perchlorate

Reviewed By: P. Meeks
Date Reviewed: April 9, 2012

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-20, Rev. 0), EPA Method 314.0*, and the *National Functional Guidelines for Inorganic Data Review* (10/04).

- Holding Times: The analytical holding time, 28 days, was met.

- Calibration: Calibration criteria were met. The initial calibration r^2 values were $\geq$0.995 and the initial calibration recovery was within 90-110%. Both continuing calibration recoveries were nominally below the control limit at 88% and 89%; therefore, nondetected perchlorate in the sample was qualified as estimated, "UJ." The IPC recovery was within the method-established control limit of 80-120% and the ICCS recovery was within the method control limits of 75-125%.

- Blanks: Method blanks and CCBs had no detects.

- Blank Spikes and Laboratory Control Samples: The recovery was within the method-established QC limits of 85-115%.

- Laboratory Duplicates: No laboratory duplicate analyses were performed.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on the LCS results.

- Sample Result Verification: Calculations were verified and the sample results reported on

the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. Reported nondetects are valid to the reporting limit.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

E. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks
Date Reviewed: April 10, 2012

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174,* and the *National Functional Guidelines for Inorganic Data Review* (10/04).

- Holding Times: The tritium sample was analyzed within 180 days of collection. All remaining aliquots were preserved within the five-day holding time.

- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

  The gross alpha detector efficiency was less than 20%; therefore, nondetected gross alpha in the sample was qualified as estimated, "UJ." The remaining detector efficiencies were greater than 20%.

  The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. All chemical yields were at least 40% and were considered acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

- Blanks: There were no analytes detected in the method blanks or the KPA CCBs.

- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established control limits.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on the sample in this SDG for all analytes. All RPDs were within the laboratory-established control limits.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed for the sample in this SDG. Method accuracy was evaluated based on the LCS results.

- Sample Result Verification: An EPA Level IV review was performed for the sample in this data package. The sample results and MDAs reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Any detects between the MDA and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDA. Total uranium, normally reported in aqueous units, was converted to pCi/L using the conversion factor of 0.67 for naturally occurring uranium.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

F. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks
Date Reviewed: April 9, 2012

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Methods 120.1, 180.1, and SM5310B*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: Analytical holding times, 48 hours for turbidity and 28 days for conductivity and TOC, were met.

- Calibration: Calibration criteria were met. Initial calibration r^2 values were $\geq$0.995 and all initial and continuing calibration recoveries were within 90-110%.

- Blanks: TOC was reported in the method blank and bracketing CCB at -0.9 mg/L; therefore, TOC detected in the sample was qualified as estimated, "J." Method blanks and CCBs had no other detects.

- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.

- Laboratory Duplicates: A laboratory duplicate analysis was performed on the sample in this SDG for conductivity. The RPD was within the laboratory-established control limits.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG for the validated analyses. Method accuracy was evaluated based on the LCS results.

- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms 440-3913-1

Analysis Method 120.1

Sample Name Outfall 019 Grab **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-3913-9 **Sample Date:** 2/28/2012 12:10:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Specific Conductance	STL00244	830	1.0	1.0	umhos/c			

Analysis Method 1613B

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822-46-9	ND	0.000050	0.0000017	ug/L		U	B
1,2,3,4,6,7,8-HpCDF	67562-39-4	ND	0.000050	0.0000009	ug/L		U	B
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	0.000050	0.0000015	ug/L		U	
1,2,3,4,7,8-HxCDD	39227-28-6	ND	0.000050	0.0000006	ug/L		U	
1,2,3,4,7,8-HxCDF	70648-26-9	ND	0.000050	0.0000005	ug/L		U	B
1,2,3,6,7,8-HxCDD	57653-85-7	ND	0.000050	0.0000005	ug/L		U	
1,2,3,6,7,8-HxCDF	57117-44-9	ND	0.000050	0.0000005	ug/L		U	
1,2,3,7,8,9-HxCDD	19408-74-3	ND	0.000050	0.0000005	ug/L		U	
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.000050	0.0000007	ug/L		U	
1,2,3,7,8-PeCDD	40321-76-4	ND	0.000050	0.0000017	ug/L		U	
1,2,3,7,8-PeCDF	57117-41-6	ND	0.000050	0.0000013	ug/L		U	
2,3,4,6,7,8-HxCDF	60851-34-5	ND	0.000050	0.0000005	ug/L		U	
2,3,4,7,8-PeCDF	57117-31-4	ND	0.000050	0.0000014	ug/L		U	
2,3,7,8-TCDD	1746-01-6	ND	0.000010	0.0000012	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.000010	0.0000006	ug/L		U	
OCDD	3268-87-9	ND	0.00010	0.0000020	ug/L		U	B
OCDF	39001-02-0	ND	0.00010	0.0000029	ug/L		U	B
Total HpCDD	37871-00-4	ND	0.000050	0.0000017	ug/L		U	B
Total HpCDF	38998-75-3	ND	0.000050	0.0000009	ug/L		U	B
Total HxCDD	34465-46-8	ND	0.000050	0.0000005	ug/L		U	
Total HxCDF	55684-94-1	ND	0.000050	0.0000005	ug/L		U	B
Total PeCDD	36088-22-9	ND	0.000050	0.0000017	ug/L		U	
Total PeCDF	30402-15-4	ND	0.000050	0.0000013	ug/L		U	
Total TCDD	41903-57-5	ND	0.000010	0.0000012	ug/L		U	
Total TCDF	55722-27-5	ND	0.000010	0.0000006	ug/L		U	

Analysis Method 180.1

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Turbidity	STL00189	0.090	0.10	0.040	NTU		J	DNQ

Analysis Method 200.7 Rev 4.4

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440-38-2	ND	10	7.0	ug/L		U	B
Arsenic, Dissolved	7440-38-2	ND	10	7.0	ug/L		U	
Barium	7440-39-3	0.026	0.010	0.0060	mg/L			
Barium, Dissolved	7440-39-3	0.025	0.010	0.0060	mg/L			
Beryllium	7440-41-7	ND	2.0	0.90	ug/L		U	
Beryllium, Dissolved	7440-41-7	ND	2.0	0.90	ug/L		U	
Boron	7440-42-8	ND	0.050	0.020	mg/L		U	
Boron, Dissolved	7440-42-8	ND	0.050	0.020	mg/L		U	B
Calcium	7440-70-2	100	0.10	0.050	mg/L			
Calcium, Dissolved	7440-70-2	94	0.10	0.050	mg/L		J	L
Chromium	7440-47-3	2.3	5.0	2.0	ug/L		J	DNQ
Chromium, Dissolved	7440-47-3	ND	5.0	2.0	ug/L		U	
Cobalt	7440-48-4	ND	10	2.0	ug/L		U	
Cobalt, Dissolved	7440-48-4	ND	10	2.0	ug/L		U	
Iron	7439-89-6	ND	0.040	0.015	mg/L		U	
Iron, Dissolved	7439-89-6	ND	0.040	0.015	mg/L		U	
Magnesium	7439-95-4	24	0.020	0.012	mg/L			
Magnesium, Dissolved	7439-95-4	24	0.020	0.012	mg/L			
Manganese	7439-96-5	ND	20	7.0	ug/L		U	
Manganese, Dissolved	7439-96-5	ND	20	7.0	ug/L		U	
Nickel	7440-02-0	ND	10	2.0	ug/L		U	
Nickel, Dissolved	7440-02-0	2.1	10	2.0	ug/L		J	DNQ
Silver	7440-22-4	ND	10	6.0	ug/L		U	
Silver, Dissolved	7440-22-4	ND	10	6.0	ug/L		U	
Vanadium	7440-62-2	ND	10	3.0	ug/L		U	
Vanadium, Dissolved	7440-62-2	ND	10	3.0	ug/L		U	
Zinc	7440-66-6	ND	20	6.0	ug/L		U	B
Zinc, Dissolved	7440-66-6	ND	20	6.0	ug/L		U	B

Analysis Method 245.1

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.20	0.10	ug/L		U	
Mercury, Dissolved	7439-97-6	0.23	0.20	0.10	ug/L			

Analysis Method 314.0

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Perchlorate	14797-73-0	ND	4.0	0.95	ug/L		UJ	C

Analysis Method Gamma Spec K-40 CS-137

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium-137	10045973	0.622	20.0	1.54	pCi/L		U	
Potassium-40	13966002	1.26	25.0	30.0	pCi/L		U	

Analysis Method Gross Alpha and Beta

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587461	0.091	3.00	2.13	pCi/L		UJ	C
Gross Beta	12587472	2.6	4.00	2.09	pCi/L		J	DNQ

Analysis Method Radium-226

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-226	13982633	0.1	1.00	0.616	pCi/L		U	

Analysis Method Radium-228

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-228	15262201	0.022	1.00	0.329	pCi/L		U	

Analysis Method SM 2340B

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness, as CaCO3	STL00009	350	0.33	0.17	mg/L			
Hardness, as CaCO3, Dissolved	STL00009	330	0.33	0.17	mg/L			

Analysis Method SM 5310B

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Organic Carbon	7440-44-0	1.5	1.0	0.75	mg/L		J	B

Analysis Method Strontium 90

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium-90	10098972	0.242	2.00	0.958	pCi/L		U	

Analysis Method Tritium

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028178	-57.9	500	151	pCi/L		U	

Analysis Method Uranium, Combined

Sample Name Outfall 019 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-4065-1 **Sample Date:** 2/29/2012 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Uranium, Total	NA	1.22	1.00	0.018	pCi/L			

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REPORT

Client: **TestAmerica Analytical - Irvine**
17461 Derian Avenue, Suite 100
Irvine, CA 92614
Attention: Debby Wilson
Project Name: Boeing SSFL
Project Number: 44002624
P.O. Number: 440-4065-1
Release Number: 440-4065-1

Laboratory No. 800279

Printed 3/20/2012

Samples Received on 3/2/2012 10:00:00 AM

Field ID	Lab ID	Collected	Matrix
Outfall 019 Composite Outfall 019 Composite	800279-001	02/29/2012 11:30	Water

EPA 8315 M-Hydrazines (water) Batch 709811

Parameter	Unit	Analyzed	DF	MDL	RL	Result
800279-001 Hydrazine	ug/L	03/06/2012 20:08	1	0.439	1.00	0.439 UJ/H
Monomethyl Hydrazine	ug/L	03/06/2012 20:08	1	1.77	5.00	1.77 ↓
Unsymmetrical Dimethyl Hydrazine	ug/L	03/06/2012 20:08	1	1.13	5.00	1.13 ↓

Method Blank

Parameter	Unit	DF		Result
Hydrazine	ug/L	1	*	ND
Monomethyl Hydrazine	ug/L	1		ND
Unsymmetrical Dimethyl Hydr	ug/L	1		ND

Lab Control Sample

Parameter	Unit	DF	Result	Expected	Recovery	Acceptance Range
Hydrazine	ug/L	1	9.99	10.0	99.9	50 - 150
Monomethyl Hydrazine	ug/L	1	46.8	50.0	93.6	50 - 150
Unsymmetrical Dimethyl Hydr	ug/L	1	45.8	50.0	91.6	50 - 150

Lab Control Sample Duplicate

Parameter	Unit	DF	Result	Expected	Recovery	Acceptance Range
Hydrazine	ug/L	1	8.50	10.0	85.0	50 - 150
Monomethyl Hydrazine	ug/L	1	49.7	50.0	99.4	50 - 150
Unsymmetrical Dimethyl Hydr	ug/L	1	47.2	50.0	94.4	50 - 150

* Analysis not validated

LEVEL IV

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar

APPENDIX G

Section 9

Outfall 019 – February 28 & 29, 2012

Test America Analytical Laboratory Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-3913-1
Client Project/Site: Boeing SSFL
Revision: 2

For:
MWH Americas Inc
618 Michillinda Avenue, Suite 200
Arcadia, California 91007

Attn: Bronwyn Kelly

Debby Wilson

Authorized for release by:
4/27/2012 7:02:10 AM

Debby Wilson
Project Manager I
debby.wilson@testamericainc.com

LINKS

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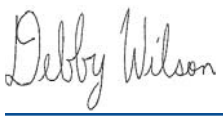
The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.



Debby Wilson
Project Manager I
4/27/2012 7:02:10 AM

Table of Contents

Cover Page 1
Table of Contents 3
Sample Summary 4
Case Narrative 5
Client Sample Results 7
Chronicle 16
QC Sample Results 19
QC Association 55
Definitions 64
Certification Summary 66
Subcontract Data 67
Chain of Custody 119
Receipt Checklists 122

Sample Summary

Client: MWH Americas Inc
Project/Site: Boeing SSFL

TestAmerica Job ID: 440-3913-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-3913-9	Outfall 019 Grab	Water	02/28/12 12:10	02/28/12 17:05
440-3913-11	Trip Blanks	Water	02/28/12 12:10	02/28/12 17:05
440-4065-1	Outfall 019 Composite	Water	02/29/12 11:30	02/29/12 17:55
440-4065-3	Trip Blank	Water	02/29/12 10:33	02/29/12 17:55

Job ID: 440-3913-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-3913-1

Comments
Revised report to include nitrobenzene.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
Method(s) 624: The continuing calibration verification (CCV) for Acrolein associated with batch 10368 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: The continuing calibration verification (CCV) for benzidine associated with batch 11972 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 625, 8015, 608 : There was no MS/MSD analyzed with this batch due to insufficient sample volume. See LCS/LCSD.

Method(s) 625: The continuing calibration verification (CCV) for 4-chlorophenyl phenyl ether and indeno (1,2,3-cd)pyrene associated with batch 11433 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 625: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 11972 exceeded control limits for the following analytes: Benzidine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 625: The following sample(s) was diluted due to the nature of the sample matrix: Outfall 019 Composite (440-4065-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

HPLC
Method(s) 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 10205 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

GC VOA
Method(s) 8015B: Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) sample(s): (440-4070-8 MS), (440-4070-8 MSD). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Job ID: 440-3913-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

Metals
No analytical or quality issues were noted.

General Chemistry
Method(s) 1664A: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 12658. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No other analytical or quality issues were noted.

Biology
No analytical or quality issues were noted.

WATER, 1613B, Dioxins/Furans with Totals
Sample: 1
Some analytes in this sample and the associated method blank (MB) have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

Some analytes in this sample and the MB are reported at a concentration below the estimated detection limit (EDL). The data is reported as a positive detection because the peaks elute at the correct retention time for both characteristic ions and have a signal to noise ratio greater than the method required 2.5:1.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client: MWH Americas Inc
Project/Site: Boeing SSFL

TestAmerica Job ID: 440-3913-1

Client Sample ID: Outfall 019 Grab
Date Collected: 02/28/12 12:10
Date Received: 02/28/12 17:05

Lab Sample ID: 440-3913-9
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			03/11/12 21:38	1
2-Chloroethyl vinyl ether	ND		2.0	1.8	ug/L			02/29/12 23:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			03/11/12 21:38	1
Acrolein	ND		5.0	4.0	ug/L			02/29/12 23:47	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			03/11/12 21:38	1
Acrylonitrile	ND		2.0	1.2	ug/L			02/29/12 23:47	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			03/11/12 21:38	1
Trichlorotrifluoroethane(F-113)	ND		2.0	0.50	ug/L			03/11/12 21:38	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			03/11/12 21:38	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			03/11/12 21:38	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			03/11/12 21:38	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			03/11/12 21:38	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			03/11/12 21:38	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			03/11/12 21:38	1
Benzene	ND		0.50	0.28	ug/L			03/11/12 21:38	1
Bromoform	ND		0.50	0.40	ug/L			03/11/12 21:38	1
1,2-Dichloro-1,1,2-trifluoroethane	ND		2.0	1.1	ug/L			03/11/12 21:38	1
Bromomethane	ND		0.50	0.42	ug/L			03/11/12 21:38	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			03/11/12 21:38	1
Chlorobenzene	ND		0.50	0.36	ug/L			03/11/12 21:38	1
Dibromochloromethane	ND		0.50	0.40	ug/L			03/11/12 21:38	1
Chloroethane	ND		0.50	0.40	ug/L			03/11/12 21:38	1
Chloroform	ND		0.50	0.33	ug/L			03/11/12 21:38	1
Chloromethane	ND		0.50	0.40	ug/L			03/11/12 21:38	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			03/11/12 21:38	1
Bromodichloromethane	ND		0.50	0.30	ug/L			03/11/12 21:38	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/11/12 21:38	1
Methylene Chloride	ND		1.0	0.95	ug/L			03/11/12 21:38	1
Tetrachloroethene	ND		0.50	0.32	ug/L			03/11/12 21:38	1
Toluene	ND		0.50	0.36	ug/L			03/11/12 21:38	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/11/12 21:38	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			03/11/12 21:38	1
Trichlorofluoromethane	ND		0.50	0.34	ug/L			03/11/12 21:38	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/11/12 21:38	1
Trichloroethene	ND		0.50	0.26	ug/L			03/11/12 21:38	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			03/11/12 21:38	1
Cyclohexane	ND		2.0	0.40	ug/L			03/11/12 21:38	1
Xylenes, Total	ND		1.0	0.90	ug/L			03/11/12 21:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*80 - 120*		*02/29/12 23:47*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*02/29/12 23:47*	*1*
4-Bromofluorobenzene (Surr)	*114*		*80 - 120*		*03/11/12 21:38*	*1*
Dibromofluoromethane (Surr)	*117*		*80 - 120*		*03/11/12 21:38*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/11/12 21:38*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.050	0.025	mg/L			03/10/12 13:52	1

Client Sample ID: Outfall 019 Grab

Lab Sample ID: 440-3913-9

Date Collected: 02/28/12 12:10

Matrix: Water

Date Received: 02/28/12 17:05

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*65 - 140*		*03/10/12 13:52*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C28	ND		0.48	0.096	mg/L		03/05/12 09:35	03/06/12 04:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*85*		*45 - 120*	*03/05/12 09:35*	*03/06/12 04:41*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		4.7	1.3	mg/L		03/12/12 09:31	03/12/12 14:19	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**830**		1.0	1.0	umhos/cm			03/12/12 09:15	1
Settleable Solids	ND		0.10	0.10	mL/L/Hr			02/29/12 08:53	1

Method: SM 9221E - Coliforms, Fecal (Multiple-Tube Fermentation)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	**0.00**				MPN/100mL			02/28/12 18:02	1

Method: SM 9221F - E.Coli (Multiple-Tube Fermentation; EC-MUG)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	ND		2.0	2.0	MPN/100mL			02/28/12 18:02	1

Client Sample ID: Trip Blanks

Lab Sample ID: 440-3913-11

Date Collected: 02/28/12 12:10

Matrix: Water

Date Received: 02/28/12 17:05

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			03/11/12 17:26	1
2-Chloroethyl vinyl ether	ND		2.0	1.8	ug/L			03/01/12 01:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			03/11/12 17:26	1
Acrolein	ND		5.0	4.0	ug/L			03/01/12 01:42	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			03/11/12 17:26	1
Acrylonitrile	ND		2.0	1.2	ug/L			03/01/12 01:42	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			03/11/12 17:26	1
Trichlorotrifluoroethane(F-113)	ND		2.0	0.50	ug/L			03/11/12 17:26	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			03/11/12 17:26	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			03/11/12 17:26	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			03/11/12 17:26	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			03/11/12 17:26	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			03/11/12 17:26	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			03/11/12 17:26	1
Benzene	ND		0.50	0.28	ug/L			03/11/12 17:26	1
Bromoform	ND		0.50	0.40	ug/L			03/11/12 17:26	1
1,2-Dichloro-1,1,2-trifluoroethane	ND		2.0	1.1	ug/L			03/11/12 17:26	1
Bromomethane	ND		0.50	0.42	ug/L			03/11/12 17:26	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			03/11/12 17:26	1
Chlorobenzene	ND		0.50	0.36	ug/L			03/11/12 17:26	1
Dibromochloromethane	ND		0.50	0.40	ug/L			03/11/12 17:26	1
Chloroethane	ND		0.50	0.40	ug/L			03/11/12 17:26	1
Chloroform	ND		0.50	0.33	ug/L			03/11/12 17:26	1

Client Sample ID: Trip Blanks

Lab Sample ID: 440-3913-11

Date Collected: 02/28/12 12:10

Matrix: Water

Date Received: 02/28/12 17:05

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		0.50	0.40	ug/L			03/11/12 17:26	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			03/11/12 17:26	1
Bromodichloromethane	ND		0.50	0.30	ug/L			03/11/12 17:26	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/11/12 17:26	1
Methylene Chloride	ND		1.0	0.95	ug/L			03/11/12 17:26	1
Tetrachloroethene	ND		0.50	0.32	ug/L			03/11/12 17:26	1
Toluene	ND		0.50	0.36	ug/L			03/11/12 17:26	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/11/12 17:26	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			03/11/12 17:26	1
Trichlorofluoromethane	ND		0.50	0.34	ug/L			03/11/12 17:26	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/11/12 17:26	1
Trichloroethene	ND		0.50	0.26	ug/L			03/11/12 17:26	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			03/11/12 17:26	1
Cyclohexane	ND		2.0	0.40	ug/L			03/11/12 17:26	1
Xylenes, Total	ND		1.0	0.90	ug/L			03/11/12 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/01/12 01:42*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/01/12 01:42*	*1*
4-Bromofluorobenzene (Surr)	*115*		*80 - 120*		*03/11/12 17:26*	*1*
Dibromofluoromethane (Surr)	*115*		*80 - 120*		*03/11/12 17:26*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/11/12 17:26*	*1*

Client Sample ID: Outfall 019 Composite

Lab Sample ID: 440-4065-1

Date Collected: 02/29/12 11:30

Matrix: Water

Date Received: 02/29/12 17:55

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		2.0	1.0	ug/L			03/01/12 23:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*80 - 120*		*03/01/12 23:34*	*1*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
Acenaphthylene	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
Anthracene	ND		47.4	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5
Benzidine	ND	LQ	94.8	47.4	ug/L		03/04/12 18:28	03/08/12 18:10	5
Benzo[a]anthracene	ND		47.4	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5
Benzo[a]pyrene	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
Benzo[b]fluoranthene	ND		47.4	9.48	ug/L		03/04/12 18:28	03/08/12 18:10	5
Benzo[g,h,i]perylene	ND		47.4	19.0	ug/L		03/04/12 18:28	03/08/12 18:10	5
Benzo[k]fluoranthene	ND		47.4	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5
Bis(2-chloroethoxy)methane	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
Bis(2-chloroethyl)ether	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
bis (2-chloroisopropyl) ether	ND		47.4	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5
Bis(2-ethylhexyl) phthalate	ND		237	19.0	ug/L		03/04/12 18:28	03/08/12 18:10	5
4-Bromophenyl phenyl ether	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
Butyl benzyl phthalate	ND		94.8	19.0	ug/L		03/04/12 18:28	03/08/12 18:10	5
4-Chloro-3-methylphenol	ND		94.8	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5

Client: MWH Americas Inc
Project/Site: Boeing SSFL

TestAmerica Job ID: 440-3913-1

Client Sample ID: Outfall 019 Composite
Date Collected: 02/29/12 11:30
Date Received: 02/29/12 17:55

Lab Sample ID: 440-4065-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
2-Chlorophenol	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
4-Chlorophenyl phenyl ether	ND		47.4	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5
Chrysene	ND		47.4	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5
Dibenz(a,h)anthracene	ND		94.8	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
1,2-Dichlorobenzene	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
1,3-Dichlorobenzene	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
1,4-Dichlorobenzene	ND		47.4	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5
3,3'-Dichlorobenzidine	ND		94.8	35.5	ug/L		03/04/12 18:28	03/08/12 18:10	5
2,4-Dichlorophenol	ND		47.4	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
Diethyl phthalate	ND		47.4	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
2,4-Dimethylphenol	ND		94.8	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
Dimethyl phthalate	ND		47.4	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5
Di-n-butyl phthalate	ND		94.8	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
4,6-Dinitro-2-methylphenol	ND		94.8	19.0	ug/L		03/04/12 18:28	03/08/12 18:10	5
2,4-Dinitrophenol	ND		94.8	37.9	ug/L		03/04/12 18:28	03/08/12 18:10	5
2,4-Dinitrotoluene	ND		47.4	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
2,6-Dinitrotoluene	ND		47.4	9.48	ug/L		03/04/12 18:28	03/08/12 18:10	5
Di-n-octyl phthalate	ND		94.8	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
1,2-Diphenylhydrazine(as Azobenzene)	ND		94.8	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5
Fluoranthene	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
Fluorene	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
Hexachlorobenzene	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
Hexachlorobutadiene	ND		47.4	19.0	ug/L		03/04/12 18:28	03/08/12 18:10	5
Hexachlorocyclopentadiene	ND		94.8	23.7	ug/L		03/04/12 18:28	03/08/12 18:10	5
Hexachloroethane	ND		47.4	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
Indeno[1,2,3-cd]pyrene	ND		94.8	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
Isophorone	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
Naphthalene	ND		47.4	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
Nitrobenzene	ND		94.8	14.2	ug/L		03/04/12 18:28	03/08/12 18:10	5
2-Nitrophenol	ND		47.4	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
4-Nitrophenol	ND		94.8	26.1	ug/L		03/04/12 18:28	03/08/12 18:10	5
N-Nitrosodimethylamine	ND		94.8	11.8	ug/L		03/04/12 18:28	03/09/12 18:25	5
N-Nitrosodi-n-propylamine	ND		47.4	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
N-Nitrosodiphenylamine	ND		47.4	9.48	ug/L		03/04/12 18:28	03/08/12 18:10	5
Pentachlorophenol	ND		94.8	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
Phenanthrene	ND		47.4	16.6	ug/L		03/04/12 18:28	03/08/12 18:10	5
Phenol	ND		47.4	9.48	ug/L		03/04/12 18:28	03/08/12 18:10	5
Pyrene	ND		47.4	19.0	ug/L		03/04/12 18:28	03/08/12 18:10	5
1,2,4-Trichlorobenzene	ND		47.4	11.8	ug/L		03/04/12 18:28	03/08/12 18:10	5
2,4,6-Trichlorophenol	ND		94.8	21.3	ug/L		03/04/12 18:28	03/08/12 18:10	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*50 - 120*	*03/04/12 18:28*	*03/08/12 18:10*	*5*
2-Fluorobiphenyl	*57*		*50 - 120*	*03/04/12 18:28*	*03/09/12 18:25*	*5*
2-Fluorophenol	*62*		*30 - 120*	*03/04/12 18:28*	*03/08/12 18:10*	*5*
2-Fluorophenol	*64*		*30 - 120*	*03/04/12 18:28*	*03/09/12 18:25*	*5*
2,4,6-Tribromophenol	*80*		*40 - 120*	*03/04/12 18:28*	*03/08/12 18:10*	*5*
2,4,6-Tribromophenol	*77*		*40 - 120*	*03/04/12 18:28*	*03/09/12 18:25*	*5*
Nitrobenzene-d5	*73*		*45 - 120*	*03/04/12 18:28*	*03/08/12 18:10*	*5*

Client Sample ID: Outfall 019 Composite
Date Collected: 02/29/12 11:30
Date Received: 02/29/12 17:55

Lab Sample ID: 440-4065-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*85*		*45 - 120*	*03/04/12 18:28*	*03/09/12 18:25*	*5*
Terphenyl-d14	*61*		*50 - 125*	*03/04/12 18:28*	*03/08/12 18:10*	*5*
Terphenyl-d14	*47*	*AZ*	*50 - 125*	*03/04/12 18:28*	*03/09/12 18:25*	*5*
Phenol-d6	*67*		*35 - 120*	*03/04/12 18:28*	*03/08/12 18:10*	*5*
Phenol-d6	*66*		*35 - 120*	*03/04/12 18:28*	*03/09/12 18:25*	*5*

Method: 608 PCB LL - Polychlorinated Biphenyls (PCBs) Low level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.47	0.24	ug/L		03/04/12 12:36	03/05/12 15:06	1
Aroclor 1221	ND		0.47	0.24	ug/L		03/04/12 12:36	03/05/12 15:06	1
Aroclor 1232	ND		0.47	0.24	ug/L		03/04/12 12:36	03/05/12 15:06	1
Aroclor 1242	ND		0.47	0.24	ug/L		03/04/12 12:36	03/05/12 15:06	1
Aroclor 1248	ND		0.47	0.24	ug/L		03/04/12 12:36	03/05/12 15:06	1
Aroclor 1254	ND		0.47	0.24	ug/L		03/04/12 12:36	03/05/12 15:06	1
Aroclor 1260	ND		0.47	0.24	ug/L		03/04/12 12:36	03/05/12 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	*90*		*45 - 120*	*03/04/12 12:36*	*03/05/12 15:06*	*1*

Method: 608 Pesticides - Organochlorine Pesticides Low level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0047	0.0038	ug/L		03/04/12 12:36	03/05/12 13:27	1
4,4'-DDE	ND		0.0047	0.0028	ug/L		03/04/12 12:36	03/05/12 13:27	1
4,4'-DDT	ND		0.0094	0.0038	ug/L		03/04/12 12:36	03/05/12 13:27	1
Aldrin	ND		0.0047	0.0014	ug/L		03/04/12 12:36	03/05/12 13:27	1
alpha-BHC	ND		0.0047	0.0024	ug/L		03/04/12 12:36	03/05/12 13:27	1
beta-BHC	ND		0.0094	0.0038	ug/L		03/04/12 12:36	03/05/12 13:27	1
Chlordane (technical)	ND		0.094	0.0075	ug/L		03/04/12 12:36	03/05/12 13:27	1
delta-BHC	ND		0.0047	0.0033	ug/L		03/04/12 12:36	03/05/12 13:27	1
Dieldrin	ND		0.0047	0.0019	ug/L		03/04/12 12:36	03/05/12 13:27	1
Endosulfan I	ND		0.0047	0.0028	ug/L		03/04/12 12:36	03/05/12 13:27	1
Endosulfan II	ND		0.0047	0.0019	ug/L		03/04/12 12:36	03/05/12 13:27	1
Endosulfan sulfate	ND		0.0094	0.0028	ug/L		03/04/12 12:36	03/05/12 13:27	1
Endrin	ND		0.0047	0.0019	ug/L		03/04/12 12:36	03/05/12 13:27	1
Endrin aldehyde	ND		0.0094	0.0019	ug/L		03/04/12 12:36	03/05/12 13:27	1
gamma-BHC (Lindane)	ND		0.0094	0.0028	ug/L		03/04/12 12:36	03/05/12 13:27	1
Heptachlor	ND		0.0094	0.0028	ug/L		03/04/12 12:36	03/05/12 13:27	1
Heptachlor epoxide	ND		0.0047	0.0024	ug/L		03/04/12 12:36	03/05/12 13:27	1
Toxaphene	ND		0.47	0.24	ug/L		03/04/12 12:36	03/05/12 13:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*70*		*35 - 115*	*03/04/12 12:36*	*03/05/12 13:27*	*1*

Method: 218.6 - Chromium, Hexavalent (Ion Chromatography)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		1.0	0.25	ug/L			02/29/12 21:21	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**44**		25	20	mg/L			02/29/12 23:09	50
Nitrate as N	**0.13**		0.11	0.080	mg/L			02/29/12 22:56	1
Nitrate Nitrite as N	ND		0.26	0.19	mg/L			02/29/12 22:56	1

Client: MWH Americas Inc
Project/Site: Boeing SSFL

TestAmerica Job ID: 440-3913-1

Client Sample ID: Outfall 019 Composite
Date Collected: 02/29/12 11:30
Date Received: 02/29/12 17:55

Lab Sample ID: 440-4065-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**160**		25	20	mg/L			02/29/12 23:09	50
Nitrite as N	ND		0.15	0.11	mg/L			02/29/12 22:56	1

Method: 314.0 - Perchlorate (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	0.95	ug/L			03/01/12 14:37	1

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B)

Analyte	Result	Qualifier	ML	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.000010	0.0000012	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
Total TCDD	ND		0.000010	0.0000012	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,7,8-PeCDD	ND		0.000050	0.0000017	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
Total PeCDD	ND		0.000050	0.0000017	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,4,7,8-HxCDD	ND		0.000050	0.00000065	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,6,7,8-HxCDD	ND		0.000050	0.00000059	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,7,8,9-HxCDD	ND		0.000050	0.00000054	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
Total HxCDD	ND		0.000050	0.00000054	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,4,6,7,8-HpCDD	**0.0000015**	**J Q B**	0.000050	0.0000017	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
Total HpCDD	**0.0000029**	**J Q B**	0.000050	0.0000017	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
OCDD	**0.000016**	**J B**	0.00010	0.0000020	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
2,3,7,8-TCDF	ND		0.000010	0.00000069	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
Total TCDF	ND		0.000010	0.00000069	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,7,8-PeCDF	ND		0.000050	0.0000013	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
2,3,4,7,8-PeCDF	ND		0.000050	0.0000014	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
Total PeCDF	ND		0.000050	0.0000013	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,4,7,8-HxCDF	**0.0000013**	**J B**	0.000050	0.00000055	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,6,7,8-HxCDF	ND		0.000050	0.00000051	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
2,3,4,6,7,8-HxCDF	ND		0.000050	0.00000054	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,7,8,9-HxCDF	ND		0.000050	0.00000072	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
Total HxCDF	**0.0000027**	**J B**	0.000050	0.00000051	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,4,6,7,8-HpCDF	**0.00000061**	**J Q B**	0.000050	0.00000096	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
1,2,3,4,7,8,9-HpCDF	ND		0.000050	0.0000015	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
Total HpCDF	**0.0000019**	**J Q B**	0.000050	0.00000096	ug/L		03/02/12 09:00	03/06/12 00:06	1.01
OCDF	**0.0000021**	**J Q B**	0.00010	0.0000029	ug/L		03/02/12 09:00	03/06/12 00:06	1.01

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*90*		*35 - 197*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*

Internal Standard	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*59*		*25 - 164*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-1,2,3,7,8-PeCDD	*61*		*25 - 181*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-1,2,3,4,7,8-HxCDD	*66*		*32 - 141*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-1,2,3,6,7,8-HxCDD	*65*		*28 - 130*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-1,2,3,4,6,7,8-HpCDD	*61*		*23 - 140*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-OCDD	*53*		*17 - 157*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-2,3,7,8-TCDF	*54*		*24 - 169*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-1,2,3,7,8-PeCDF	*58*		*24 - 185*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-2,3,4,7,8-PeCDF	*63*		*21 - 178*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-1,2,3,6,7,8-HxCDF	*68*		*26 - 123*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-2,3,4,6,7,8-HxCDF	*69*		*28 - 136*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-1,2,3,7,8,9-HxCDF	*64*		*29 - 147*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*

Client Sample ID: Outfall 019 Composite
Date Collected: 02/29/12 11:30
Date Received: 02/29/12 17:55

Lab Sample ID: 440-4065-1
Matrix: Water

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Internal Standard	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDF	*60*		*28 - 143*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-1,2,3,4,7,8,9-HpCDF	*56*		*26 - 138*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*
13C-1,2,3,4,7,8-HxCDF	*67*		*26 - 152*	*03/02/12 09:00*	*03/06/12 00:06*	*1.01*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**7.4**	**J,DX**	10	7.0	ug/L		03/06/12 08:54	03/13/12 23:31	1
Boron	ND		0.050	0.020	mg/L		03/06/12 08:54	03/14/12 17:08	1
Barium	**0.026**		0.010	0.0060	mg/L		03/06/12 08:54	03/13/12 23:31	1
Beryllium	ND		2.0	0.90	ug/L		03/06/12 08:54	03/13/12 23:31	1
Calcium	**100**		0.10	0.050	mg/L		03/06/12 08:54	03/14/12 17:08	1
Cobalt	ND		10	2.0	ug/L		03/06/12 08:54	03/13/12 23:31	1
Chromium	**2.3**	**J,DX**	5.0	2.0	ug/L		03/06/12 08:54	03/13/12 23:31	1
Iron	ND		0.040	0.015	mg/L		03/06/12 08:54	03/13/12 23:31	1
Magnesium	**24**		0.020	0.012	mg/L		03/06/12 08:54	03/13/12 23:31	1
Manganese	ND		20	7.0	ug/L		03/06/12 08:54	03/13/12 23:31	1
Nickel	ND		10	2.0	ug/L		03/06/12 08:54	03/13/12 23:31	1
Vanadium	ND		10	3.0	ug/L		03/06/12 08:54	03/13/12 23:31	1
Zinc	**10**	**J,DX**	20	6.0	ug/L		03/06/12 08:54	03/13/12 23:31	1
Silver	ND		10	6.0	ug/L		03/06/12 08:54	03/13/12 23:31	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10	7.0	ug/L		03/06/12 11:52	03/08/12 12:09	1
Boron	**0.022**	**J,DX MB**	0.050	0.020	mg/L		03/06/12 11:52	03/08/12 12:09	1
Barium	**0.025**		0.010	0.0060	mg/L		03/06/12 11:52	03/08/12 12:09	1
Beryllium	ND		2.0	0.90	ug/L		03/06/12 11:52	03/08/12 12:09	1
Calcium	**94**	**MB LQ**	0.10	0.050	mg/L		03/06/12 11:52	03/08/12 12:09	1
Cobalt	ND		10	2.0	ug/L		03/06/12 11:52	03/08/12 12:09	1
Chromium	ND		5.0	2.0	ug/L		03/06/12 11:52	03/08/12 12:09	1
Iron	ND		0.040	0.015	mg/L		03/06/12 11:52	03/08/12 12:09	1
Magnesium	**24**	**MB**	0.020	0.012	mg/L		03/06/12 11:52	03/08/12 12:09	1
Manganese	ND	LQ	20	7.0	ug/L		03/06/12 11:52	03/08/12 12:09	1
Nickel	**2.1**	**J,DX**	10	2.0	ug/L		03/06/12 11:52	03/08/12 12:09	1
Vanadium	ND		10	3.0	ug/L		03/06/12 11:52	03/08/12 12:09	1
Zinc	**7.7**	**J,DX MB**	20	6.0	ug/L		03/06/12 11:52	03/08/12 12:09	1
Silver	ND		10	6.0	ug/L		03/06/12 11:52	03/08/12 12:09	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/05/12 14:20	03/06/12 15:13	1
Copper	**1.0**	**J,DX**	2.0	0.50	ug/L		03/05/12 14:20	03/06/12 15:13	1
Lead	ND		1.0	0.20	ug/L		03/05/12 14:20	03/06/12 15:13	1
Antimony	ND		2.0	0.30	ug/L		03/05/12 14:20	03/06/12 15:13	1
Selenium	ND		2.0	0.50	ug/L		03/05/12 14:20	03/06/12 15:13	1
Thallium	ND		1.0	0.20	ug/L		03/05/12 14:20	03/06/12 15:13	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/06/12 11:26	03/06/12 23:24	1
Copper	**1.4**	**J,DX**	2.0	0.50	ug/L		03/06/12 11:26	03/06/12 23:24	1

Client Sample ID: Outfall 019 Composite
Date Collected: 02/29/12 11:30
Date Received: 02/29/12 17:55

Lab Sample ID: 440-4065-1
Matrix: Water

Method: 200.8 - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.20	ug/L		03/06/12 11:26	03/06/12 23:24	1
Antimony	ND		2.0	0.30	ug/L		03/06/12 11:26	03/06/12 23:24	1
Selenium	ND		2.0	0.50	ug/L		03/06/12 11:26	03/06/12 23:24	1
Thallium	ND		1.0	0.20	ug/L		03/06/12 11:26	03/06/12 23:24	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		03/01/12 17:42	03/02/12 20:11	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.23**		0.20	0.10	ug/L		03/06/12 15:05	03/07/12 13:30	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness, as CaCO3	**350**		0.33	0.17	mg/L			03/16/12 16:07	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness, as CaCO3	**330**		0.33	0.17	mg/L			03/16/12 16:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	**0.090**	**J,DX**	0.10	0.040	NTU			03/01/12 11:50	1
Total Dissolved Solids	**570**		10	10	mg/L			03/05/12 10:41	1
Total Suspended Solids	ND		10	10	mg/L			03/05/12 19:15	1
Cyanide, Total	ND		5.0	3.0	ug/L		03/02/12 19:45	03/02/12 21:48	1
Ammonia (as N)	**0.280**	**J,DX**	0.400	0.157	mg/L		03/01/12 15:53	03/01/12 20:05	1
Total Organic Carbon	**1.5**		1.0	0.75	mg/L			03/06/12 11:17	1
Methylene Blue Active Substances	ND		0.10	0.050	mg/L			03/01/12 20:02	1
Biochemical Oxygen Demand	ND		2.0	0.50	mg/L			03/02/12 10:43	1

Method: Gamma Spec K-40 CS-137 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cesium-137	0.622	U	0.66		pCi/L		03/14/12 00:00	03/17/12 00:00	1
Potassium-40	1.26	U	17		pCi/L		03/14/12 00:00	03/17/12 00:00	1

Method: Gross Alpha and Beta - Gross Alpha/Beta

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Alpha	0.091	U	1.2		pCi/L		03/15/12 00:00	03/19/12 16:41	1
Gross Beta	2.6	J	1.3		pCi/L		03/15/12 00:00	03/19/12 16:41	1

Method: Radium-226 - RAD-226-228 combined

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-226	0.1	U	0.35		pCi/L		03/21/12 00:00	03/21/12 13:09	1

Method: Radium-228 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-228	0.022	U	0.12		pCi/L		03/19/12 00:00	03/19/12 12:43	1

Method: Strontium 90 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium-90	0.242	U	0.45		pCi/L		03/16/12 00:00	03/16/12 09:46	1

Client: MWH Americas Inc
Project/Site: Boeing SSFL

TestAmerica Job ID: 440-3913-1

Client Sample ID: Outfall 019 Composite

Lab Sample ID: 440-4065-1

Date Collected: 02/29/12 11:30
Matrix: Water
Date Received: 02/29/12 17:55

Method: Tritium - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tritium	-57.9	U	87		pCi/L		03/13/12 00:00	03/13/12 19:51	1

Method: Uranium, Combined - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium, Total	1.22		0.13		pCi/L		03/19/12 00:00	03/19/12 09:38	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-4065-3

Date Collected: 02/29/12 10:33
Matrix: Water
Date Received: 02/29/12 17:55

Method: Gamma Spec K-40 CS-137 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cesium-137	-0.323	U	0.93		pCi/L		03/14/12 00:00	03/17/12 00:00	1
Potassium-40	19.9	U	32		pCi/L		03/14/12 00:00	03/17/12 00:00	1

Method: Gross Alpha and Beta - Gross Alpha/Beta

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.054	U	0.19		pCi/L		03/15/12 00:00	03/19/12 16:41	1
Gross Beta	0.221	U	0.66		pCi/L		03/15/12 00:00	03/19/12 16:41	1

Method: Radium 226 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-226	0.022	U	0.25		pCi/L		03/21/12 00:00	03/21/12 13:09	1

Method: Radium 228 - RAD-226-228 combined

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-228	-0.108	U	0.099		pCi/L		03/19/12 00:00	03/19/12 12:43	1

Method: Strontium 90 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium-90	-0.166	U	0.26		pCi/L		03/16/12 00:00	03/16/12 09:46	1

Method: Uranium, Combined - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium, Total	0	U	0.008		pCi/L		03/19/12 00:00	03/19/12 09:54	1

Client Sample ID: Outfall 019 Grab

Lab Sample ID: 440-3913-9

Date Collected: 02/28/12 12:10

Matrix: Water

Date Received: 02/28/12 17:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	10 mL	10 mL	10368	02/29/12 23:47	MR	TAL IRV
Total/NA	Analysis	624		1	10 mL	10 mL	12466	03/11/12 21:38	RM	TAL IRV
Total/NA	Analysis	8015B		1	10 mL	10 mL	12427	03/10/12 13:52	TN	TAL IRV
Total/NA	Prep	3510C			1040 mL	1 mL	11076	03/05/12 09:35		TAL IRV
Total/NA	Analysis	8015B		1			11254	03/06/12 04:41	ES	TAL IRV
Total/NA	Analysis	SM 2540F		1	1000 mL	1000 mL	10176	02/29/12 08:53	RR	TAL IRV
Total/NA	Analysis	120.1		1			12569	03/12/12 09:15	XL	TAL IRV
Total/NA	Prep	1664A			1055 mL	1000 mL	12574	03/12/12 09:31	DA	TAL IRV
Total/NA	Analysis	1664A		1			12658	03/12/12 14:19	DA	TAL IRV
Total/NA	Analysis	SM 9221E		1	100 mL	100 mL	10219		PP	TAL IRV
								(Start) 02/28/12 18:02		
								(End) 03/02/12 15:40		
Total/NA	Analysis	SM 9221F		1	100 mL	100 mL	10220		AK	TAL IRV
								(Start) 02/28/12 18:02		
								(End) 03/02/12 15:40		

Client Sample ID: Trip Blanks

Lab Sample ID: 440-3913-11

Date Collected: 02/28/12 12:10

Matrix: Water

Date Received: 02/28/12 17:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	10 mL	10 mL	10368	03/01/12 01:42	MR	TAL IRV
Total/NA	Analysis	624		1	10 mL	10 mL	12466	03/11/12 17:26	RM	TAL IRV

Client Sample ID: Outfall 019 Composite

Lab Sample ID: 440-4065-1

Date Collected: 02/29/12 11:30

Matrix: Water

Date Received: 02/29/12 17:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	10 mL	10 mL	10469	03/01/12 23:34	GK	TAL IRV
Total/NA	Prep	625			1055 mL	2 mL	11009	03/04/12 18:28	DM	TAL IRV
Total/NA	Analysis	625		5			11972	03/08/12 18:10	AI	TAL IRV
Total/NA	Analysis	625		5			12240	03/09/12 18:25	UP	TAL IRV
Total/NA	Prep	608			1060 mL	2 mL	10989	03/04/12 12:36	AB	TAL IRV
Total/NA	Analysis	608 Pesticides		1			11073	03/05/12 13:27	DD	TAL IRV
Total/NA	Analysis	608 PCB LL		1			11085	03/05/12 15:06	DD	TAL IRV
Total/NA	Analysis	300.0		1	1 mL	1.0	10204	02/29/12 22:56	NN	TAL IRV
Total/NA	Analysis	300.0		50	1 mL	1.0 mL	10205	02/29/12 23:09	NN	TAL IRV
Total/NA	Analysis	218.6		1	10 mL	10 mL	10382	02/29/12 21:21	SL	TAL IRV
Total/NA	Analysis	314.0		1	5 mL	1.0 mL	10437	03/01/12 14:37	MN	TAL IRV
Total	Prep	3542			985.3 mL	20 uL	2062105_P	03/02/12 09:00	TL	TAL WSC
Total	Analysis	1613B		1.01			2062105	03/06/12 00:06	LLH	TAL WSC
Total/NA	Prep	245.1			20 mL	20 mL	10633	03/01/12 17:42	SN	TAL IRV

Client Sample ID: Outfall 019 Composite

Lab Sample ID: 440-4065-1

Date Collected: 02/29/12 11:30

Matrix: Water

Date Received: 02/29/12 17:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	245.1		1			10858	03/02/12 20:11	DB	TAL IRV
Total Recoverable	Prep	200.2			50 mL	50 mL	11154	03/05/12 14:20	YS	TAL IRV
Total Recoverable	Analysis	200.8		1			11472	03/06/12 15:13	NH	TAL IRV
Dissolved	Prep	200.2			50 mL	50 mL	11400	03/06/12 11:26	EN	TAL IRV
Dissolved	Analysis	200.8		1			11615	03/06/12 23:24	NH	TAL IRV
Dissolved	Prep	245.1			20 mL	20 mL	11466	03/06/12 15:05	SN	TAL IRV
Dissolved	Analysis	245.1		1			11794	03/07/12 13:30	DB	TAL IRV
Dissolved	Prep	200.2			50 mL	50 mL	11406	03/06/12 11:52	EN	TAL IRV
Dissolved	Analysis	200.7 Rev 4.4		1			12020	03/08/12 12:09	VS	TAL IRV
Total Recoverable	Prep	200.2			50 mL	50 mL	11339	03/06/12 08:54	EN	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			13069	03/13/12 23:31	DP	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			13269	03/14/12 17:08	TK	TAL IRV
Total/NA	Analysis	SM 2340B		1			13789	03/16/12 16:07	DT	TAL IRV
Dissolved	Analysis	SM 2340B		1			13799	03/16/12 16:13	DT	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	18451	04/09/12 15:50	SN	TAL IRV
Total/NA	Analysis	245.1		1			18539	04/09/12 17:48	DB	TAL IRV
Dissolved	Prep	245.1			20 mL	20 mL	18443	04/09/12 14:51	SN	TAL IRV
Dissolved	Analysis	245.1		1			18539	04/09/12 18:00	DB	TAL IRV
Total/NA	Analysis	180.1		1			10520	03/01/12 11:50	RR	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	10656	03/01/12 20:02	NP	TAL IRV
Total/NA	Prep	SM 4500 NH3 B			50 mL	50 mL	10587	03/01/12 15:53	NP	TAL IRV
Total/NA	Analysis	SM 4500 NH3 C		1			10665	03/01/12 20:05	NP	TAL IRV
Total/NA	Analysis	SM5210B		1			10741	03/02/12 10:43	QPD	TAL IRV
Total/NA	Prep	Distill/CN			50 mL	50 mL	10790	03/02/12 19:45	PQI	TAL IRV
Total/NA	Analysis	SM 4500 CN E		1			10872	03/02/12 21:48	PQI	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	11105	03/05/12 10:41	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	100 mL	100 mL	11241	03/05/12 19:15	DK	TAL IRV
Total/NA	Analysis	SM 5310B		1	1.0 mL	1.0 mL	11428	03/06/12 11:17	FZ	TAL IRV
Total/NA	Prep	General Prep		1			8600_P	03/14/12 00:00		Eberline
Total/NA	Analysis	Gamma Spec K-40 CS-137		1			8600	03/17/12 00:00	RFM	Eberline
Total/NA	Prep	General Prep		1			8600_P	03/15/12 00:00		Eberline
Total/NA	Analysis	Gross Alpha and Beta		1			8600	03/19/12 16:41	DVP	Eberline
Total/NA	Prep	General Prep		1			8600_P	03/21/12 00:00		Eberline
Total/NA	Analysis	Radium-226		1			8600	03/21/12 13:09	ASM	Eberline
Total/NA	Prep	General Prep		1			8600_P	03/19/12 00:00		Eberline
Total/NA	Analysis	Radium-228		1			8600	03/19/12 12:43	ASM	Eberline
Total/NA	Prep	General Prep		1			8600_P	03/16/12 00:00		Eberline
Total/NA	Analysis	Strontium 90		1			8600	03/16/12 09:46	WL	Eberline
Total/NA	Prep	General Prep		1			8600_P	03/13/12 00:00		Eberline
Total/NA	Analysis	Tritium		1			8600	03/13/12 19:51	WL	Eberline
Total/NA	Analysis	Uranium, Combined		1			8600	03/19/12 09:38	LS	Eberline

Client: MWH Americas Inc
Project/Site: Boeing SSFL

TestAmerica Job ID: 440-3913-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-4065-3

Date Collected: 02/29/12 10:33

Matrix: Water

Date Received: 02/29/12 17:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	General Prep		1			8600_P	03/14/12 00:00		Eberline
Total/NA	Analysis	Gamma Spec K-40 CS-137		1			8600	03/17/12 00:00	RFM	Eberline
Total/NA	Prep	General Prep		1			8600_P	03/15/12 00:00		Eberline
Total/NA	Analysis	Gross Alpha and Beta		1			8600	03/19/12 16:41	DVP	Eberline
Total/NA	Prep	General Prep		1			8600_P	03/21/12 00:00		Eberline
Total/NA	Analysis	Radium 226		1			8600	03/21/12 13:09	ASM	Eberline
Total/NA	Prep	General Prep		1			8600_P	03/19/12 00:00		Eberline
Total/NA	Analysis	Radium 228		1			8600	03/19/12 12:43	ASM	Eberline
Total/NA	Prep	General Prep		1			8600_P	03/16/12 00:00		Eberline
Total/NA	Analysis	Strontium 90		1			8600	03/16/12 09:46	WL	Eberline
Total/NA	Analysis	Uranium, Combined		1			8600	03/19/12 09:54	LS	Eberline

Laboratory References:

= Truesdail Laboratories Inc, 14201 Franklin Ave, Tustin, CA 92780

Eberline = Eberline Services, 7021 Pan American Fwy NE, Albuquerque, NM 87109

SC0127 = Aquatic Testing Laboratories, 4350 Transport #107, Ventura, CA 93003

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL WSC = TestAmerica West Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-10368/5
Matrix: Water
Analysis Batch: 10368

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		2.0	1.8	ug/L			02/29/12 22:04	1
Acrolein	ND		5.0	4.0	ug/L			02/29/12 22:04	1
Acrylonitrile	ND		2.0	1.2	ug/L			02/29/12 22:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*107*		*80 - 120*		*02/29/12 22:04*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*02/29/12 22:04*	*1*

Lab Sample ID: LCS 440-10368/6
Matrix: Water
Analysis Batch: 10368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether			25.0	29.7		ug/L		119	25 - 170		
Acrylonitrile			25.0	23.8		ug/L		95	40 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*

Lab Sample ID: 440-3913-9 MS
Matrix: Water
Analysis Batch: 10368

Client Sample ID: Outfall 019 Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether	ND		25.0	31.4		ug/L		126	25 - 170		
Acrylonitrile	ND		25.0	24.5		ug/L		98	40 - 160		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*

Lab Sample ID: 440-3913-9 MSD
Matrix: Water
Analysis Batch: 10368

Client Sample ID: Outfall 019 Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether	ND		25.0	26.2		ug/L		105	25 - 170	18	25
Acrylonitrile	ND		25.0	19.0		ug/L		76	40 - 160	25	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-12466/4
Matrix: Water
Analysis Batch: 12466

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			03/11/12 11:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			03/11/12 11:39	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			03/11/12 11:39	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			03/11/12 11:39	1
Trichlorotrifluoroethane(F-113)	ND		2.0	0.50	ug/L			03/11/12 11:39	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			03/11/12 11:39	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			03/11/12 11:39	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			03/11/12 11:39	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			03/11/12 11:39	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			03/11/12 11:39	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			03/11/12 11:39	1
Benzene	ND		0.50	0.28	ug/L			03/11/12 11:39	1
Bromoform	ND		0.50	0.40	ug/L			03/11/12 11:39	1
1,2-Dichloro-1,1,2-trifluoroethane	ND		2.0	1.1	ug/L			03/11/12 11:39	1
Bromomethane	ND		0.50	0.42	ug/L			03/11/12 11:39	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			03/11/12 11:39	1
Chlorobenzene	ND		0.50	0.36	ug/L			03/11/12 11:39	1
Dibromochloromethane	ND		0.50	0.40	ug/L			03/11/12 11:39	1
Chloroethane	ND		0.50	0.40	ug/L			03/11/12 11:39	1
Chloroform	ND		0.50	0.33	ug/L			03/11/12 11:39	1
Chloromethane	ND		0.50	0.40	ug/L			03/11/12 11:39	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			03/11/12 11:39	1
Bromodichloromethane	ND		0.50	0.30	ug/L			03/11/12 11:39	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/11/12 11:39	1
Methylene Chloride	ND		1.0	0.95	ug/L			03/11/12 11:39	1
Tetrachloroethene	ND		0.50	0.32	ug/L			03/11/12 11:39	1
Toluene	ND		0.50	0.36	ug/L			03/11/12 11:39	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/11/12 11:39	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			03/11/12 11:39	1
Trichlorofluoromethane	ND		0.50	0.34	ug/L			03/11/12 11:39	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/11/12 11:39	1
Trichloroethene	ND		0.50	0.26	ug/L			03/11/12 11:39	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			03/11/12 11:39	1
Cyclohexane	ND		2.0	0.40	ug/L			03/11/12 11:39	1
Xylenes, Total	ND		1.0	0.90	ug/L			03/11/12 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*80 - 120*		*03/11/12 11:39*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*03/11/12 11:39*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/11/12 11:39*	*1*

Lab Sample ID: LCS 440-12466/5
Matrix: Water
Analysis Batch: 12466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	24.4		ug/L		98	65 - 135
1,1,2,2-Tetrachloroethane	25.0	23.6		ug/L		94	55 - 130
1,1,2-Trichloroethane	25.0	22.5		ug/L		90	70 - 125

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-12466/5
Matrix: Water
Analysis Batch: 12466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	24.3		ug/L		97	70 - 125
1,1-Dichloroethene	25.0	28.8		ug/L		115	70 - 125
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	75 - 120
1,2-Dichloroethane	25.0	21.4		ug/L		86	60 - 140
1,2-Dichloropropane	25.0	23.5		ug/L		94	70 - 125
1,3-Dichlorobenzene	25.0	26.3		ug/L		105	75 - 120
1,4-Dichlorobenzene	25.0	26.1		ug/L		104	75 - 120
Benzene	25.0	24.1		ug/L		96	70 - 120
Bromoform	25.0	24.0		ug/L		96	55 - 130
Bromomethane	25.0	19.7		ug/L		79	65 - 140
Carbon tetrachloride	25.0	24.5		ug/L		98	65 - 140
Chlorobenzene	25.0	26.9		ug/L		108	75 - 120
Dibromochloromethane	25.0	24.5		ug/L		98	70 - 140
Chloroethane	25.0	17.5		ug/L		70	60 - 140
Chloroform	25.0	23.7		ug/L		95	70 - 130
Chloromethane	25.0	17.8		ug/L		71	50 - 140
cis-1,3-Dichloropropene	25.0	23.4		ug/L		94	75 - 125
Bromodichloromethane	25.0	23.3		ug/L		93	70 - 135
Ethylbenzene	25.0	27.2		ug/L		109	75 - 125
Methylene Chloride	25.0	22.5		ug/L		90	55 - 130
Tetrachloroethene	25.0	27.5		ug/L		110	70 - 125
Toluene	25.0	24.7		ug/L		99	70 - 120
trans-1,2-Dichloroethene	25.0	26.4		ug/L		106	70 - 125
trans-1,3-Dichloropropene	25.0	23.3		ug/L		93	70 - 125
Trichlorofluoromethane	25.0	27.7		ug/L		111	65 - 145
Vinyl chloride	25.0	18.8		ug/L		75	55 - 135
Trichloroethene	25.0	26.1		ug/L		104	70 - 125
cis-1,2-Dichloroethene	25.0	26.0		ug/L		104	70 - 125
Xylenes, Total	75.0	79.7		ug/L		106	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: 440-4348-C-1 MS
Matrix: Water
Analysis Batch: 12466

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		25.0	24.5		ug/L		98	65 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	23.2		ug/L		93	55 - 135
1,1,2-Trichloroethane	ND		25.0	25.4		ug/L		102	65 - 130
1,1-Dichloroethane	ND		25.0	25.7		ug/L		103	65 - 130
1,1-Dichloroethene	3.4		25.0	31.0		ug/L		110	60 - 130
1,2-Dichlorobenzene	ND		25.0	26.6		ug/L		106	75 - 125
1,2-Dichloroethane	ND		25.0	24.2		ug/L		97	60 - 140
1,2-Dichloropropane	ND		25.0	25.7		ug/L		103	65 - 130
1,3-Dichlorobenzene	ND		25.0	26.8		ug/L		107	75 - 125

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-4348-C-1 MS
Matrix: Water
Analysis Batch: 12466

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	ND		25.0	26.1		ug/L		104	75 - 125
Benzene	ND		25.0	24.6		ug/L		98	65 - 125
Bromoform	ND		25.0	25.4		ug/L		102	55 - 135
Bromomethane	ND		25.0	24.0		ug/L		96	55 - 145
Carbon tetrachloride	ND		25.0	24.0		ug/L		96	65 - 140
Chlorobenzene	ND		25.0	26.6		ug/L		106	75 - 125
Dibromochloromethane	ND		25.0	26.6		ug/L		106	65 - 140
Chloroethane	ND		25.0	20.7		ug/L		83	55 - 140
Chloroform	0.68		25.0	26.7		ug/L		104	65 - 135
Chloromethane	ND		25.0	18.8		ug/L		75	45 - 145
cis-1,3-Dichloropropene	ND		25.0	25.8		ug/L		103	70 - 130
Bromodichloromethane	ND		25.0	25.6		ug/L		102	70 - 135
Ethylbenzene	ND		25.0	25.9		ug/L		104	65 - 130
Methylene Chloride	ND		25.0	25.0		ug/L		100	50 - 135
Tetrachloroethene	29		25.0	51.4		ug/L		91	65 - 130
Toluene	ND		25.0	25.2		ug/L		101	70 - 125
trans-1,2-Dichloroethene	ND		25.0	26.6		ug/L		106	65 - 130
trans-1,3-Dichloropropene	ND		25.0	26.6		ug/L		106	65 - 135
Trichlorofluoromethane	ND		25.0	27.2		ug/L		109	60 - 145
Vinyl chloride	ND		25.0	20.7		ug/L		83	45 - 140
Trichloroethene	29		25.0	53.5		ug/L		98	65 - 125
cis-1,2-Dichloroethene	ND		25.0	28.3		ug/L		113	65 - 130
Xylenes, Total	ND		75.0	77.5		ug/L		103	60 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: 440-4348-C-1 MSD
Matrix: Water
Analysis Batch: 12466

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	24.4		ug/L		98	65 - 140	0	20
1,1,2,2-Tetrachloroethane	ND		25.0	23.0		ug/L		92	55 - 135	1	30
1,1,2-Trichloroethane	ND		25.0	25.3		ug/L		101	65 - 130	0	25
1,1-Dichloroethane	ND		25.0	25.7		ug/L		103	65 - 130	0	20
1,1-Dichloroethene	3.4		25.0	31.1		ug/L		111	60 - 130	0	20
1,2-Dichlorobenzene	ND		25.0	26.2		ug/L		105	75 - 125	2	20
1,2-Dichloroethane	ND		25.0	24.0		ug/L		96	60 - 140	1	20
1,2-Dichloropropane	ND		25.0	25.3		ug/L		101	65 - 130	2	20
1,3-Dichlorobenzene	ND		25.0	26.2		ug/L		105	75 - 125	2	20
1,4-Dichlorobenzene	ND		25.0	25.7		ug/L		103	75 - 125	2	20
Benzene	ND		25.0	24.3		ug/L		97	65 - 125	1	20
Bromoform	ND		25.0	26.0		ug/L		104	55 - 135	2	25
Bromomethane	ND		25.0	23.4		ug/L		94	55 - 145	3	25
Carbon tetrachloride	ND		25.0	24.3		ug/L		97	65 - 140	1	25
Chlorobenzene	ND		25.0	26.6		ug/L		106	75 - 125	0	20

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-4348-C-1 MSD
Matrix: Water
Analysis Batch: 12466

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromochloromethane	ND		25.0	26.9		ug/L		108	65 - 140	1	25
Chloroethane	ND		25.0	20.4		ug/L		82	55 - 140	1	25
Chloroform	0.68		25.0	26.5		ug/L		103	65 - 135	1	20
Chloromethane	ND		25.0	18.4		ug/L		74	45 - 145	2	25
cis-1,3-Dichloropropene	ND		25.0	26.0		ug/L		104	70 - 130	1	20
Bromodichloromethane	ND		25.0	25.7		ug/L		103	70 - 135	0	20
Ethylbenzene	ND		25.0	26.0		ug/L		104	65 - 130	0	20
Methylene Chloride	ND		25.0	25.1		ug/L		100	50 - 135	0	20
Tetrachloroethene	29		25.0	50.5		ug/L		87	65 - 130	2	20
Toluene	ND		25.0	25.0		ug/L		100	70 - 125	1	20
trans-1,2-Dichloroethene	ND		25.0	26.3		ug/L		105	65 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	26.5		ug/L		106	65 - 135	0	25
Trichlorofluoromethane	ND		25.0	26.9		ug/L		108	60 - 145	1	25
Vinyl chloride	ND		25.0	20.2		ug/L		81	45 - 140	2	30
Trichloroethene	29		25.0	52.4		ug/L		94	65 - 125	2	20
cis-1,2-Dichloroethene	ND		25.0	28.1		ug/L		112	65 - 130	1	20
Xylenes, Total	ND		75.0	78.0		ug/L		104	60 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-10469/3
Matrix: Water
Analysis Batch: 10469

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		2.0	1.0	ug/L			03/01/12 12:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/01/12 12:56*	*1*

Lab Sample ID: LCS 440-10469/4
Matrix: Water
Analysis Batch: 10469

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			10.0	10.2		ug/L		102	70 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*80 - 120*

Method: 8260B SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-3827-B-3 MS
Matrix: Water
Analysis Batch: 10469

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	ND		10.0	11.5		ug/L		115	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*107*		*80 - 120*

Lab Sample ID: 440-3827-B-3 MSD
Matrix: Water
Analysis Batch: 10469

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	ND		10.0	11.8		ug/L		118	70 - 130	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*108*		*80 - 120*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-11009/1-A
Matrix: Water
Analysis Batch: 11972

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Acenaphthylene	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Anthracene	ND		10.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Benzidine	ND		20.0	10.0	ug/L		03/04/12 18:28	03/08/12 15:46	1
Benzo[a]anthracene	ND		10.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Benzo[a]pyrene	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Benzo[b]fluoranthene	ND		10.0	2.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Benzo[g,h,i]perylene	ND		10.0	4.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Benzo[k]fluoranthene	ND		10.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Bis(2-chloroethoxy)methane	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Bis(2-chloroethyl)ether	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
bis (2-chloroisopropyl) ether	ND		10.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Bis(2-ethylhexyl) phthalate	ND		50.0	4.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
4-Bromophenyl phenyl ether	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Butyl benzyl phthalate	ND		20.0	4.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
4-Chloro-3-methylphenol	ND		20.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
2-Chloronaphthalene	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
2-Chlorophenol	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
4-Chlorophenyl phenyl ether	ND		10.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Chrysene	ND		10.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Dibenz(a,h)anthracene	ND		20.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
1,2-Dichlorobenzene	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
1,3-Dichlorobenzene	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
1,4-Dichlorobenzene	ND		10.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
3,3'-Dichlorobenzidine	ND		20.0	7.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
2,4-Dichlorophenol	ND		10.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Diethyl phthalate	ND		10.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-11009/1-A
Matrix: Water
Analysis Batch: 11972

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		20.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Dimethyl phthalate	ND		10.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Di-n-butyl phthalate	ND		20.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
4,6-Dinitro-2-methylphenol	ND		20.0	4.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
2,4-Dinitrophenol	ND		20.0	8.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
2,4-Dinitrotoluene	ND		10.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
2,6-Dinitrotoluene	ND		10.0	2.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Di-n-octyl phthalate	ND		20.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Fluoranthene	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Fluorene	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Hexachlorobenzene	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Hexachlorobutadiene	ND		10.0	4.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Hexachlorocyclopentadiene	ND		20.0	5.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Hexachloroethane	ND		10.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Indeno[1,2,3-cd]pyrene	ND		20.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Isophorone	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Naphthalene	ND		10.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Nitrobenzene	ND		20.0	3.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
2-Nitrophenol	ND		10.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
4-Nitrophenol	ND		20.0	5.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
N-Nitrosodi-n-propylamine	ND		10.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
N-Nitrosodiphenylamine	ND		10.0	2.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Pentachlorophenol	ND		20.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Phenanthrene	ND		10.0	3.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
Phenol	ND		10.0	2.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
Pyrene	ND		10.0	4.00	ug/L		03/04/12 18:28	03/08/12 15:46	1
1,2,4-Trichlorobenzene	ND		10.0	2.50	ug/L		03/04/12 18:28	03/08/12 15:46	1
2,4,6-Trichlorophenol	ND		20.0	4.50	ug/L		03/04/12 18:28	03/08/12 15:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*50 - 120*	*03/04/12 18:28*	*03/08/12 15:46*	*1*
2-Fluorophenol	*70*		*30 - 120*	*03/04/12 18:28*	*03/08/12 15:46*	*1*
2,4,6-Tribromophenol	*101*		*40 - 120*	*03/04/12 18:28*	*03/08/12 15:46*	*1*
Nitrobenzene-d5	*75*		*45 - 120*	*03/04/12 18:28*	*03/08/12 15:46*	*1*
Terphenyl-d14	*106*		*50 - 125*	*03/04/12 18:28*	*03/08/12 15:46*	*1*
Phenol-d6	*70*		*35 - 120*	*03/04/12 18:28*	*03/08/12 15:46*	*1*

Lab Sample ID: MB 440-11009/1-A
Matrix: Water
Analysis Batch: 12240

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		20.0	2.50	ug/L		03/04/12 18:28	03/09/12 17:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*50 - 120*	*03/04/12 18:28*	*03/09/12 17:22*	*1*
2-Fluorophenol	*57*		*30 - 120*	*03/04/12 18:28*	*03/09/12 17:22*	*1*

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-11009/1-A
Matrix: Water
Analysis Batch: 12240

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11009

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	111		40 - 120	03/04/12 18:28	03/09/12 17:22	1
Nitrobenzene-d5	89		45 - 120	03/04/12 18:28	03/09/12 17:22	1
Terphenyl-d14	89		50 - 125	03/04/12 18:28	03/09/12 17:22	1
Phenol-d6	67		35 - 120	03/04/12 18:28	03/09/12 17:22	1

Lab Sample ID: LCS 440-11009/2-A
Matrix: Water
Analysis Batch: 11972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	100	93.00		ug/L		93	60 - 120
Acenaphthylene	100	105.0		ug/L		105	60 - 120
Anthracene	100	101.2		ug/L		101	65 - 120
Benzidine	100	172.6	LQ	ug/L		173	30 - 160
Benzo[a]anthracene	100	101.6		ug/L		102	65 - 120
Benzo[a]pyrene	100	106.2		ug/L		106	55 - 130
Benzo[b]fluoranthene	100	103.0		ug/L		103	55 - 125
Benzo[g,h,i]perylene	100	108.4		ug/L		108	45 - 135
Benzo[k]fluoranthene	100	104.4		ug/L		104	50 - 125
Bis(2-chloroethoxy)methane	100	83.80		ug/L		84	55 - 120
Bis(2-chloroethyl)ether	100	82.20		ug/L		82	50 - 120
bis (2-chloroisopropyl) ether	100	77.80		ug/L		78	45 - 120
Bis(2-ethylhexyl) phthalate	100	110.8		ug/L		111	65 - 130
4-Bromophenyl phenyl ether	100	96.00		ug/L		96	60 - 120
Butyl benzyl phthalate	100	114.2		ug/L		114	55 - 130
4-Chloro-3-methylphenol	100	90.20		ug/L		90	60 - 120
2-Chloronaphthalene	100	91.40		ug/L		91	60 - 120
2-Chlorophenol	100	79.60		ug/L		80	45 - 120
4-Chlorophenyl phenyl ether	100	98.20		ug/L		98	65 - 120
Chrysene	100	104.0		ug/L		104	65 - 120
Dibenz(a,h)anthracene	100	109.4		ug/L		109	50 - 135
1,2-Dichlorobenzene	100	70.60		ug/L		71	40 - 120
1,3-Dichlorobenzene	100	66.60		ug/L		67	35 - 120
1,4-Dichlorobenzene	100	69.80		ug/L		70	35 - 120
3,3'-Dichlorobenzidine	100	82.00		ug/L		82	45 - 135
2,4-Dichlorophenol	100	89.40		ug/L		89	55 - 120
Diethyl phthalate	100	97.80		ug/L		98	55 - 120
2,4-Dimethylphenol	100	81.80		ug/L		82	40 - 120
Dimethyl phthalate	100	98.20		ug/L		98	30 - 120
Di-n-butyl phthalate	100	102.4		ug/L		102	60 - 125
4,6-Dinitro-2-methylphenol	100	116.6		ug/L		117	45 - 120
2,4-Dinitrophenol	100	97.00		ug/L		97	40 - 120
2,4-Dinitrotoluene	100	107.8		ug/L		108	65 - 120
2,6-Dinitrotoluene	100	102.4		ug/L		102	65 - 120
Di-n-octyl phthalate	100	117.0		ug/L		117	65 - 135
1,2-Diphenylhydrazine(as Azobenzene)	100	82.60		ug/L		83	60 - 120
Fluoranthene	100	104.0		ug/L		104	60 - 120
Fluorene	100	97.60		ug/L		98	65 - 120
Hexachlorobenzene	100	98.00		ug/L		98	60 - 120

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-11009/2-A
Matrix: Water
Analysis Batch: 11972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene	100	70.40		ug/L		70	40 - 120
Hexachlorocyclopentadiene	100	64.40		ug/L		64	25 - 120
Hexachloroethane	100	61.00		ug/L		61	35 - 120
Indeno[1,2,3-cd]pyrene	100	110.2		ug/L		110	45 - 135
Isophorone	100	85.80		ug/L		86	50 - 120
Naphthalene	100	84.60		ug/L		85	55 - 120
2-Nitrophenol	100	86.40		ug/L		86	50 - 120
4-Nitrophenol	100	87.00		ug/L		87	45 - 120
N-Nitrosodi-n-propylamine	100	88.60		ug/L		89	45 - 120
N-Nitrosodiphenylamine	100	90.80		ug/L		91	60 - 120
Pentachlorophenol	100	91.40		ug/L		91	24 - 121
Phenanthrene	100	97.80		ug/L		98	65 - 120
Phenol	100	67.20		ug/L		67	40 - 120
Pyrene	100	110.6		ug/L		111	55 - 125
1,2,4-Trichlorobenzene	100	74.00		ug/L		74	45 - 120
2,4,6-Trichlorophenol	100	94.80		ug/L		95	55 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*96*		*50 - 120*
2-Fluorophenol	*73*		*30 - 120*
2,4,6-Tribromophenol	*108*		*40 - 120*
Nitrobenzene-d5	*81*		*45 - 120*
Terphenyl-d14	*117*		*50 - 125*
Phenol-d6	*75*		*35 - 120*

Lab Sample ID: LCS 440-11009/2-A
Matrix: Water
Analysis Batch: 12240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Nitrosodimethylamine	100	81.40		ug/L		81	45 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*50 - 120*
2-Fluorophenol	*62*		*30 - 120*
2,4,6-Tribromophenol	*117*		*40 - 120*
Nitrobenzene-d5	*98*		*45 - 120*
Terphenyl-d14	*91*		*50 - 125*
Phenol-d6	*74*		*35 - 120*

Lab Sample ID: LCSD 440-11009/3-A
Matrix: Water
Analysis Batch: 11972

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11009

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	100	91.40		ug/L		91	60 - 120	2	20
Acenaphthylene	100	102.2		ug/L		102	60 - 120	3	20
Anthracene	100	96.40		ug/L		96	65 - 120	5	20
Benzidine	100	165.2	LQ	ug/L		165	30 - 160	4	35

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-11009/3-A
Matrix: Water
Analysis Batch: 11972

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11009

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]anthracene	100	96.20		ug/L		96	65 - 120	5	20
Benzo[a]pyrene	100	101.0		ug/L		101	55 - 130	5	25
Benzo[b]fluoranthene	100	100.2		ug/L		100	55 - 125	3	25
Benzo[g,h,i]perylene	100	103.2		ug/L		103	45 - 135	5	25
Benzo[k]fluoranthene	100	99.80		ug/L		100	50 - 125	5	20
Bis(2-chloroethoxy)methane	100	81.60		ug/L		82	55 - 120	3	20
Bis(2-chloroethyl)ether	100	79.00		ug/L		79	50 - 120	4	20
bis (2-chloroisopropyl) ether	100	78.00		ug/L		78	45 - 120	0	20
Bis(2-ethylhexyl) phthalate	100	107.8		ug/L		108	65 - 130	3	20
4-Bromophenyl phenyl ether	100	94.80		ug/L		95	60 - 120	1	25
Butyl benzyl phthalate	100	106.2		ug/L		106	55 - 130	7	20
4-Chloro-3-methylphenol	100	89.40		ug/L		89	60 - 120	1	25
2-Chloronaphthalene	100	90.00		ug/L		90	60 - 120	2	20
2-Chlorophenol	100	79.20		ug/L		79	45 - 120	1	25
4-Chlorophenyl phenyl ether	100	93.40		ug/L		93	65 - 120	5	20
Chrysene	100	98.80		ug/L		99	65 - 120	5	20
Dibenz(a,h)anthracene	100	101.4		ug/L		101	50 - 135	8	25
1,2-Dichlorobenzene	100	68.80		ug/L		69	40 - 120	3	25
1,3-Dichlorobenzene	100	64.80		ug/L		65	35 - 120	3	25
1,4-Dichlorobenzene	100	67.00		ug/L		67	35 - 120	4	25
3,3'-Dichlorobenzidine	100	82.60		ug/L		83	45 - 135	1	25
2,4-Dichlorophenol	100	86.60		ug/L		87	55 - 120	3	20
Diethyl phthalate	100	93.80		ug/L		94	55 - 120	4	30
2,4-Dimethylphenol	100	78.60		ug/L		79	40 - 120	4	25
Dimethyl phthalate	100	95.20		ug/L		95	30 - 120	3	30
Di-n-butyl phthalate	100	99.20		ug/L		99	60 - 125	3	20
4,6-Dinitro-2-methylphenol	100	111.4		ug/L		111	45 - 120	5	25
2,4-Dinitrophenol	100	95.20		ug/L		95	40 - 120	2	25
2,4-Dinitrotoluene	100	100.8		ug/L		101	65 - 120	7	20
2,6-Dinitrotoluene	100	98.20		ug/L		98	65 - 120	4	20
Di-n-octyl phthalate	100	111.4		ug/L		111	65 - 135	5	20
1,2-Diphenylhydrazine(as Azobenzene)	100	79.00		ug/L		79	60 - 120	4	25
Fluoranthene	100	97.80		ug/L		98	60 - 120	6	20
Fluorene	100	91.60		ug/L		92	65 - 120	6	20
Hexachlorobenzene	100	97.40		ug/L		97	60 - 120	1	20
Hexachlorobutadiene	100	66.40		ug/L		66	40 - 120	6	25
Hexachlorocyclopentadiene	100	66.00		ug/L		66	25 - 120	2	30
Hexachloroethane	100	58.80		ug/L		59	35 - 120	4	25
Indeno[1,2,3-cd]pyrene	100	107.6		ug/L		108	45 - 135	2	25
Isophorone	100	82.20		ug/L		82	50 - 120	4	20
Naphthalene	100	81.60		ug/L		82	55 - 120	4	20
2-Nitrophenol	100	85.00		ug/L		85	50 - 120	2	25
4-Nitrophenol	100	86.00		ug/L		86	45 - 120	1	30
N-Nitrosodi-n-propylamine	100	85.00		ug/L		85	45 - 120	4	20
N-Nitrosodiphenylamine	100	88.80		ug/L		89	60 - 120	2	20
Pentachlorophenol	100	87.60		ug/L		88	24 - 121	4	25
Phenanthrene	100	94.00		ug/L		94	65 - 120	4	20
Phenol	100	66.00		ug/L		66	40 - 120	2	25
Pyrene	100	102.6		ug/L		103	55 - 125	8	25

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-11009/3-A
Matrix: Water
Analysis Batch: 11972

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11009

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			100	71.00		ug/L		71	45 - 120	4	20
2,4,6-Trichlorophenol			100	95.00		ug/L		95	55 - 120	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*95*		*50 - 120*
2-Fluorophenol	*70*		*30 - 120*
2,4,6-Tribromophenol	*107*		*40 - 120*
Nitrobenzene-d5	*82*		*45 - 120*
Terphenyl-d14	*108*		*50 - 125*
Phenol-d6	*72*		*35 - 120*

Lab Sample ID: LCSD 440-11009/3-A
Matrix: Water
Analysis Batch: 12240

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11009

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodimethylamine			100	82.00		ug/L		82	45 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*90*		*50 - 120*
2-Fluorophenol	*55*		*30 - 120*
2,4,6-Tribromophenol	*115*		*40 - 120*
Nitrobenzene-d5	*100*		*45 - 120*
Terphenyl-d14	*87*		*50 - 125*
Phenol-d6	*70*		*35 - 120*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-12427/3
Matrix: Water
Analysis Batch: 12427

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.050	0.025	mg/L			03/10/12 13:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*65 - 140*		*03/10/12 13:19*	*1*

Lab Sample ID: LCS 440-12427/2
Matrix: Water
Analysis Batch: 12427

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			0.800	0.698		mg/L		87	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*65 - 140*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 440-4070-A-8 MS
Matrix: Water
Analysis Batch: 12427

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	0.051		0.800	0.662		mg/L		76	65 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*147*	*AY*	*65 - 140*

Lab Sample ID: 440-4070-A-8 MSD
Matrix: Water
Analysis Batch: 12427

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	0.051		0.800	0.687		mg/L		79	65 - 140	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*144*	*AY*	*65 - 140*

Method: 608 PCB LL - Polychlorinated Biphenyls (PCBs) Low level

Lab Sample ID: MB 440-10989/1-A
Matrix: Water
Analysis Batch: 11085

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10989

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.50	0.25	ug/L		03/04/12 12:36	03/05/12 11:37	1
Aroclor 1221	ND		0.50	0.25	ug/L		03/04/12 12:36	03/05/12 11:37	1
Aroclor 1232	ND		0.50	0.25	ug/L		03/04/12 12:36	03/05/12 11:37	1
Aroclor 1242	ND		0.50	0.25	ug/L		03/04/12 12:36	03/05/12 11:37	1
Aroclor 1248	ND		0.50	0.25	ug/L		03/04/12 12:36	03/05/12 11:37	1
Aroclor 1254	ND		0.50	0.25	ug/L		03/04/12 12:36	03/05/12 11:37	1
Aroclor 1260	ND		0.50	0.25	ug/L		03/04/12 12:36	03/05/12 11:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*77*		*45 - 120*	*03/04/12 12:36*	*03/05/12 11:37*	*1*

Lab Sample ID: LCS 440-10989/5-A
Matrix: Water
Analysis Batch: 11085

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10989

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016			4.00	2.71		ug/L		68	50 - 115
Aroclor 1260			4.00	3.11		ug/L		78	60 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*75*		*45 - 120*

Method: 608 PCB LL - Polychlorinated Biphenyls (PCBs) Low level (Continued)

Lab Sample ID: 440-3893-L-5-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 11085 — **Prep Batch: 10989**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		3.81	2.54		ug/L		67	45 - 120
Aroclor 1260	ND		3.81	2.97		ug/L		78	55 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*72*		*45 - 120*

Lab Sample ID: 440-3893-L-5-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 11085 — **Prep Batch: 10989**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		3.81	3.06		ug/L		80	45 - 120	18	30
Aroclor 1260	ND		3.81	3.52		ug/L		92	55 - 125	17	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*87*		*45 - 120*

Method: 608 Pesticides - Organochlorine Pesticides Low level

Lab Sample ID: MB 440-10989/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 11073 — **Prep Batch: 10989**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0050	0.0040	ug/L		03/04/12 12:36	03/05/12 12:18	1
4,4'-DDE	ND		0.0050	0.0030	ug/L		03/04/12 12:36	03/05/12 12:18	1
4,4'-DDT	ND		0.010	0.0040	ug/L		03/04/12 12:36	03/05/12 12:18	1
Aldrin	ND		0.0050	0.0015	ug/L		03/04/12 12:36	03/05/12 12:18	1
alpha-BHC	ND		0.0050	0.0025	ug/L		03/04/12 12:36	03/05/12 12:18	1
beta-BHC	ND		0.010	0.0040	ug/L		03/04/12 12:36	03/05/12 12:18	1
Chlordane (technical)	ND		0.10	0.0080	ug/L		03/04/12 12:36	03/05/12 12:18	1
delta-BHC	ND		0.0050	0.0035	ug/L		03/04/12 12:36	03/05/12 12:18	1
Dieldrin	ND		0.0050	0.0020	ug/L		03/04/12 12:36	03/05/12 12:18	1
Endosulfan I	ND		0.0050	0.0030	ug/L		03/04/12 12:36	03/05/12 12:18	1
Endosulfan II	ND		0.0050	0.0020	ug/L		03/04/12 12:36	03/05/12 12:18	1
Endosulfan sulfate	ND		0.010	0.0030	ug/L		03/04/12 12:36	03/05/12 12:18	1
Endrin	ND		0.0050	0.0020	ug/L		03/04/12 12:36	03/05/12 12:18	1
Endrin aldehyde	ND		0.010	0.0020	ug/L		03/04/12 12:36	03/05/12 12:18	1
gamma-BHC (Lindane)	ND		0.010	0.0030	ug/L		03/04/12 12:36	03/05/12 12:18	1
Heptachlor	ND		0.010	0.0030	ug/L		03/04/12 12:36	03/05/12 12:18	1
Heptachlor epoxide	ND		0.0050	0.0025	ug/L		03/04/12 12:36	03/05/12 12:18	1
Toxaphene	ND		0.50	0.25	ug/L		03/04/12 12:36	03/05/12 12:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*128*	*PI AY*	*35 - 115*	*03/04/12 12:36*	*03/05/12 12:18*	*1*

Method: 608 Pesticides - Organochlorine Pesticides Low level (Continued)

Lab Sample ID: LCS 440-10989/2-A
Matrix: Water
Analysis Batch: 11073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10989

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.500	0.426		ug/L		85	55 - 120
4,4'-DDE	0.500	0.408		ug/L		82	50 - 120
4,4'-DDT	0.500	0.385		ug/L		77	55 - 120
Aldrin	0.500	0.398		ug/L		80	40 - 115
alpha-BHC	0.500	0.423		ug/L		85	45 - 115
beta-BHC	0.500	0.413		ug/L		83	55 - 115
delta-BHC	0.500	0.448		ug/L		90	55 - 115
Dieldrin	0.500	0.397		ug/L		79	55 - 115
Endosulfan I	0.500	0.380		ug/L		76	55 - 115
Endosulfan II	0.500	0.384		ug/L		77	55 - 120
Endosulfan sulfate	0.500	0.384		ug/L		77	60 - 120
Endrin	0.500	0.375		ug/L		75	55 - 115
Endrin aldehyde	0.500	0.385		ug/L		77	50 - 120
gamma-BHC (Lindane)	0.500	0.424		ug/L		85	45 - 115
Heptachlor	0.500	0.395		ug/L		79	45 - 115
Heptachlor epoxide	0.500	0.393		ug/L		79	55 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*76*		*35 - 115*

Lab Sample ID: 440-3893-J-5-A MS
Matrix: Water
Analysis Batch: 11073

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 10989

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	ND		0.481	0.405		ug/L		84	50 - 125
4,4'-DDE	ND		0.481	0.387		ug/L		80	45 - 125
4,4'-DDT	ND		0.481	0.378		ug/L		79	50 - 125
Aldrin	ND		0.481	0.390		ug/L		81	35 - 120
alpha-BHC	ND		0.481	0.410		ug/L		85	40 - 120
beta-BHC	ND		0.481	0.406		ug/L		84	50 - 120
delta-BHC	ND		0.481	0.436		ug/L		91	50 - 120
Dieldrin	ND		0.481	0.384		ug/L		80	50 - 120
Endosulfan I	ND		0.481	0.360		ug/L		75	50 - 120
Endosulfan II	ND		0.481	0.370		ug/L		77	50 - 125
Endosulfan sulfate	ND		0.481	0.374		ug/L		78	55 - 125
Endrin	ND		0.481	0.384		ug/L		80	50 - 120
Endrin aldehyde	ND		0.481	0.352		ug/L		73	45 - 125
gamma-BHC (Lindane)	ND		0.481	0.414		ug/L		86	40 - 120
Heptachlor	ND		0.481	0.397		ug/L		83	40 - 120
Heptachlor epoxide	ND		0.481	0.382		ug/L		79	50 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*76*		*35 - 115*

Method: 608 Pesticides - Organochlorine Pesticides Low level (Continued)

Lab Sample ID: 440-3893-J-5-B MSD
Matrix: Water
Analysis Batch: 11073

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 10989

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	ND		0.476	0.395		ug/L		83	50 - 125	3	30
4,4'-DDE	ND		0.476	0.372		ug/L		78	45 - 125	4	30
4,4'-DDT	ND		0.476	0.362		ug/L		76	50 - 125	4	30
Aldrin	ND		0.476	0.358		ug/L		75	35 - 120	8	30
alpha-BHC	ND		0.476	0.377		ug/L		79	40 - 120	8	30
beta-BHC	ND		0.476	0.379		ug/L		80	50 - 120	7	30
delta-BHC	ND		0.476	0.412		ug/L		87	50 - 120	6	30
Dieldrin	ND		0.476	0.369		ug/L		77	50 - 120	4	30
Endosulfan I	ND		0.476	0.344		ug/L		72	50 - 120	5	30
Endosulfan II	ND		0.476	0.359		ug/L		75	50 - 125	3	30
Endosulfan sulfate	ND		0.476	0.361		ug/L		76	55 - 125	3	30
Endrin	ND		0.476	0.367		ug/L		77	50 - 120	5	30
Endrin aldehyde	ND		0.476	0.338		ug/L		71	45 - 125	4	30
gamma-BHC (Lindane)	ND		0.476	0.385		ug/L		81	40 - 120	7	30
Heptachlor	ND		0.476	0.364		ug/L		76	40 - 120	9	30
Heptachlor epoxide	ND		0.476	0.363		ug/L		76	50 - 120	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*71*		*35 - 115*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-11076/1-A
Matrix: Water
Analysis Batch: 11254

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11076

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C28	ND		0.50	0.10	mg/L		03/05/12 09:35	03/05/12 23:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*84*		*45 - 120*	*03/05/12 09:35*	*03/05/12 23:29*	*1*

Lab Sample ID: LCS 440-11076/2-A
Matrix: Water
Analysis Batch: 11254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11076

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C10-C28	1.00	0.762		mg/L		76	40 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*82*		*45 - 120*

Lab Sample ID: LCSD 440-11076/3-A
Matrix: Water
Analysis Batch: 11254

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11076

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	1.00	0.846		mg/L		85	40 - 115	10	25

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 440-11076/3-A
Matrix: Water
Analysis Batch: 11254

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11076

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane	*92*		*45 - 120*

Method: 218.6 - Chromium, Hexavalent (Ion Chromatography)

Lab Sample ID: MB 440-10382/3
Matrix: Water
Analysis Batch: 10382

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		1.0	0.25	ug/L			02/29/12 18:37	1

Lab Sample ID: LCS 440-10382/2
Matrix: Water
Analysis Batch: 10382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	50.0	49.8		ug/L		100	90 - 110

Lab Sample ID: 440-4058-D-3 MS
Matrix: Water
Analysis Batch: 10382

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.98	J,DX	50.0	50.8		ug/L		100	90 - 110

Lab Sample ID: 440-4058-D-3 MSD
Matrix: Water
Analysis Batch: 10382

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium, hexavalent	0.98	J,DX	50.0	50.0		ug/L		98	90 - 110	2	10

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-10204/3
Matrix: Water
Analysis Batch: 10204

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11	0.080	mg/L			02/29/12 11:37	1
Nitrate Nitrite as N	ND		0.26	0.19	mg/L			02/29/12 11:37	1
Nitrite as N	ND		0.15	0.11	mg/L			02/29/12 11:37	1

Lab Sample ID: LCS 440-10204/7
Matrix: Water
Analysis Batch: 10204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.13	1.16		mg/L		103	90 - 110
Nitrate Nitrite as N	2.65	2.73		mg/L		103	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-10204/7
Matrix: Water
Analysis Batch: 10204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N			1.52	1.57		mg/L		103	90 - 110		

Lab Sample ID: 440-4034-G-1 MS
Matrix: Water
Analysis Batch: 10204

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	0.10	J,DX	1.13	1.09		mg/L		87	80 - 120		
Nitrate Nitrite as N	ND		2.65	2.73		mg/L		103	80 - 120		
Nitrite as N	ND		1.52	1.64		mg/L		108	80 - 120		

Lab Sample ID: 440-4034-G-1 MSD
Matrix: Water
Analysis Batch: 10204

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.10	J,DX	1.13	1.19		mg/L		96	80 - 120	9	20
Nitrate Nitrite as N	ND		2.65	2.99		mg/L		113	80 - 120	9	20
Nitrite as N	ND		1.52	1.80		mg/L		118	80 - 120	9	20

Lab Sample ID: MB 440-10205/3
Matrix: Water
Analysis Batch: 10205

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.40	mg/L			02/29/12 11:37	1
Sulfate	ND		0.50	0.40	mg/L			02/29/12 11:37	1

Lab Sample ID: LCS 440-10205/7
Matrix: Water
Analysis Batch: 10205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			5.00	5.06		mg/L		101	90 - 110		
Sulfate			10.0	10.4		mg/L		104	90 - 110		

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 440-10437/6
Matrix: Water
Analysis Batch: 10437

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	0.95	ug/L			03/01/12 09:26	1

Lab Sample ID: LCS 440-10437/4
Matrix: Water
Analysis Batch: 10437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Perchlorate			25.0	24.0		ug/L		96	85 - 115		

Method: 314.0 - Perchlorate (IC) (Continued)

Lab Sample ID: 440-3307-A-1 MS
Matrix: Water
Analysis Batch: 10437

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	2.4	J,DX	25.0	22.9		ug/L		82	80 - 120

Lab Sample ID: 440-3307-A-1 MSD
Matrix: Water
Analysis Batch: 10437

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perchlorate	2.4	J,DX	25.0	23.6		ug/L		85	80 - 120	3	20

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B)

Lab Sample ID: G2C020000105B
Matrix: Water
Analysis Batch: 2062105

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 2062105_P

Analyte	MB Result	MB Qualifier	ML	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.000010	0.0000010	ug/L		03/02/12 09:00	03/05/12 19:39	1
Total TCDD	ND		0.000010	0.0000010	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,7,8-PeCDD	ND		0.000050	0.0000015	ug/L		03/02/12 09:00	03/05/12 19:39	1
Total PeCDD	ND		0.000050	0.0000015	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,4,7,8-HxCDD	ND		0.000050	0.0000013	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,6,7,8-HxCDD	ND		0.000050	0.0000012	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,7,8,9-HxCDD	ND		0.000050	0.0000011	ug/L		03/02/12 09:00	03/05/12 19:39	1
Total HxCDD	ND		0.000050	0.0000011	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,4,6,7,8-HpCDD	0.0000022	J	0.000050	0.0000016	ug/L		03/02/12 09:00	03/05/12 19:39	1
Total HpCDD	0.0000046	J	0.000050	0.0000016	ug/L		03/02/12 09:00	03/05/12 19:39	1
OCDD	0.000024	J	0.00010	0.0000018	ug/L		03/02/12 09:00	03/05/12 19:39	1
2,3,7,8-TCDF	ND		0.000010	0.00000099	ug/L		03/02/12 09:00	03/05/12 19:39	1
Total TCDF	ND		0.000010	0.00000099	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,7,8-PeCDF	ND		0.000050	0.0000011	ug/L		03/02/12 09:00	03/05/12 19:39	1
2,3,4,7,8-PeCDF	ND		0.000050	0.0000013	ug/L		03/02/12 09:00	03/05/12 19:39	1
Total PeCDF	ND		0.000050	0.0000011	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,4,7,8-HxCDF	0.0000013	J	0.000050	0.00000064	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,6,7,8-HxCDF	0.00000052	J Q	0.000050	0.00000058	ug/L		03/02/12 09:00	03/05/12 19:39	1
2,3,4,6,7,8-HxCDF	ND		0.000050	0.00000058	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,7,8,9-HxCDF	0.00000075	J Q	0.000050	0.00000073	ug/L		03/02/12 09:00	03/05/12 19:39	1
Total HxCDF	0.0000034	JQ	0.000050	0.00000058	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,4,6,7,8-HpCDF	0.0000014	J Q	0.000050	0.00000051	ug/L		03/02/12 09:00	03/05/12 19:39	1
1,2,3,4,7,8,9-HpCDF	0.00000089	J Q	0.000050	0.00000067	ug/L		03/02/12 09:00	03/05/12 19:39	1
Total HpCDF	0.0000030	JQ	0.000050	0.00000051	ug/L		03/02/12 09:00	03/05/12 19:39	1
OCDF	0.0000025	J Q	0.00010	0.0000021	ug/L		03/02/12 09:00	03/05/12 19:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*91*		*35 - 197*	*03/02/12 09:00*	*03/05/12 19:39*	*1*

Internal Standard	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*67*		*25 - 164*	*03/02/12 09:00*	*03/05/12 19:39*	*1*
13C-1,2,3,7,8-PeCDD	*77*		*25 - 181*	*03/02/12 09:00*	*03/05/12 19:39*	*1*
13C-1,2,3,4,7,8-HxCDD	*74*		*32 - 141*	*03/02/12 09:00*	*03/05/12 19:39*	*1*

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Lab Sample ID: G2C020000105B
Matrix: Water
Analysis Batch: 2062105

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 2062105_P

Internal Standard	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDD	72		28 - 130	03/02/12 09:00	03/05/12 19:39	1
13C-1,2,3,4,6,7,8-HpCDD	72		23 - 140	03/02/12 09:00	03/05/12 19:39	1
13C-OCDD	73		17 - 157	03/02/12 09:00	03/05/12 19:39	1
13C-2,3,7,8-TCDF	63		24 - 169	03/02/12 09:00	03/05/12 19:39	1
13C-1,2,3,7,8-PeCDF	71		24 - 185	03/02/12 09:00	03/05/12 19:39	1
13C-2,3,4,7,8-PeCDF	70		21 - 178	03/02/12 09:00	03/05/12 19:39	1
13C-1,2,3,6,7,8-HxCDF	77		26 - 123	03/02/12 09:00	03/05/12 19:39	1
13C-2,3,4,6,7,8-HxCDF	82		28 - 136	03/02/12 09:00	03/05/12 19:39	1
13C-1,2,3,7,8,9-HxCDF	83		29 - 147	03/02/12 09:00	03/05/12 19:39	1
13C-1,2,3,4,6,7,8-HpCDF	67		28 - 143	03/02/12 09:00	03/05/12 19:39	1
13C-1,2,3,4,7,8,9-HpCDF	71		26 - 138	03/02/12 09:00	03/05/12 19:39	1
13C-1,2,3,4,7,8-HxCDF	72		26 - 152	03/02/12 09:00	03/05/12 19:39	1

Lab Sample ID: G2C020000105C
Matrix: Water
Analysis Batch: 2062105

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 2062105_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,3,7,8-TCDD			0.000200	0.000185		ug/L		92	67 - 158		
1,2,3,7,8-PeCDD			0.00100	0.000991		ug/L		99	70 - 142		
1,2,3,4,7,8-HxCDD			0.00100	0.000949		ug/L		95	70 - 164		
1,2,3,6,7,8-HxCDD			0.00100	0.00104		ug/L		104	76 - 134		
1,2,3,7,8,9-HxCDD			0.00100	0.00104		ug/L		104	64 - 162		
1,2,3,4,6,7,8-HpCDD			0.00100	0.00102	B	ug/L		102	70 - 140		
OCDD			0.00200	0.00216	B	ug/L		108	78 - 144		
2,3,7,8-TCDF			0.000200	0.000198		ug/L		99	75 - 158		
1,2,3,7,8-PeCDF			0.00100	0.00101		ug/L		101	80 - 134		
2,3,4,7,8-PeCDF			0.00100	0.000994		ug/L		99	68 - 160		
1,2,3,4,7,8-HxCDF			0.00100	0.00102	B	ug/L		102	72 - 134		
1,2,3,6,7,8-HxCDF			0.00100	0.00106	B	ug/L		106	84 - 130		
2,3,4,6,7,8-HxCDF			0.00100	0.00104		ug/L		104	70 - 156		
1,2,3,7,8,9-HxCDF			0.00100	0.00107	B	ug/L		107	78 - 130		
1,2,3,4,6,7,8-HpCDF			0.00100	0.00102	B	ug/L		102	82 - 122		
1,2,3,4,7,8,9-HpCDF			0.00100	0.000949	B	ug/L		95	78 - 138		
OCDF			0.00200	0.00223	B	ug/L		111	63 - 170		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
37Cl4-2,3,7,8-TCDD	104		31 - 191

Internal Standard	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	61		20 - 175
13C-1,2,3,7,8-PeCDD	76		21 - 227
13C-1,2,3,4,7,8-HxCDD	75		21 - 193
13C-1,2,3,6,7,8-HxCDD	71		25 - 163
13C-1,2,3,4,6,7,8-HpCDD	72		26 - 166
13C-OCDD	73		13 - 199
13C-2,3,7,8-TCDF	55		22 - 152
13C-1,2,3,7,8-PeCDF	67		21 - 192

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Lab Sample ID: G2C020000105C
Matrix: Water
Analysis Batch: 2062105

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 2062105_P

Internal Standard	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,4,7,8-PeCDF	72		13 - 328
13C-1,2,3,6,7,8-HxCDF	76		21 - 159
13C-2,3,4,6,7,8-HxCDF	80		22 - 176
13C-1,2,3,7,8,9-HxCDF	81		17 - 205
13C-1,2,3,4,6,7,8-HpCDF	69		21 - 158
13C-1,2,3,4,7,8,9-HpCDF	71		20 - 186
13C-1,2,3,4,7,8-HxCDF	74		19 - 202

Lab Sample ID: G2C020000105L
Matrix: Water
Analysis Batch: 2062105

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 2062105_P

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD			0.000200	0.000188		ug/L		94	67 - 158	1.9	50
1,2,3,7,8-PeCDD			0.00100	0.000997		ug/L		100	70 - 142	0.54	50
1,2,3,4,7,8-HxCDD			0.00100	0.000885		ug/L		88	70 - 164	7.0	50
1,2,3,6,7,8-HxCDD			0.00100	0.00110		ug/L		110	76 - 134	6.3	50
1,2,3,7,8,9-HxCDD			0.00100	0.00103		ug/L		103	64 - 162	0.96	50
1,2,3,4,6,7,8-HpCDD			0.00100	0.00101	B	ug/L		101	70 - 140	0.67	50
OCDD			0.00200	0.00248	B	ug/L		124	78 - 144	14	50
2,3,7,8-TCDF			0.000200	0.000201		ug/L		101	75 - 158	1.4	50
1,2,3,7,8-PeCDF			0.00100	0.00101		ug/L		101	80 - 134	0.55	50
2,3,4,7,8-PeCDF			0.00100	0.000995		ug/L		99	68 - 160	0.050	50
1,2,3,4,7,8-HxCDF			0.00100	0.00101	B	ug/L		101	72 - 134	0.90	50
1,2,3,6,7,8-HxCDF			0.00100	0.00106	B	ug/L		106	84 - 130	0.080	50
2,3,4,6,7,8-HxCDF			0.00100	0.00108		ug/L		108	70 - 156	4.1	50
1,2,3,7,8,9-HxCDF			0.00100	0.00111	B	ug/L		111	78 - 130	3.6	50
1,2,3,4,6,7,8-HpCDF			0.00100	0.000988	B	ug/L		99	82 - 122	3.1	50
1,2,3,4,7,8,9-HpCDF			0.00100	0.000977	B	ug/L		98	78 - 138	2.9	50
OCDF			0.00200	0.00224	B	ug/L		112	63 - 170	0.67	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
37Cl4-2,3,7,8-TCDD	107		31 - 191

Internal Standard	LCSD %Recovery	LCSD Qualifier	Limits
13C-2,3,7,8-TCDD	48		20 - 175
13C-1,2,3,7,8-PeCDD	62		21 - 227
13C-1,2,3,4,7,8-HxCDD	68		21 - 193
13C-1,2,3,6,7,8-HxCDD	58		25 - 163
13C-1,2,3,4,6,7,8-HpCDD	61		26 - 166
13C-OCDD	56		13 - 199
13C-2,3,7,8-TCDF	41		22 - 152
13C-1,2,3,7,8-PeCDF	55		21 - 192
13C-2,3,4,7,8-PeCDF	60		13 - 328
13C-1,2,3,6,7,8-HxCDF	65		21 - 159
13C-2,3,4,6,7,8-HxCDF	66		22 - 176
13C-1,2,3,7,8,9-HxCDF	62		17 - 205
13C-1,2,3,4,6,7,8-HpCDF	57		21 - 158

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Lab Sample ID: G2C020000105L
Matrix: Water
Analysis Batch: 2062105

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 2062105_P

Internal Standard	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C-1,2,3,4,7,8,9-HpCDF	*58*		*20 - 186*
13C-1,2,3,4,7,8-HxCDF	*61*		*19 - 202*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-11339/1-A
Matrix: Water
Analysis Batch: 13142

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10	7.0	ug/L		03/06/12 08:54	03/13/12 22:18	1
Boron	0.0301	J,DX	0.050	0.020	mg/L		03/06/12 08:54	03/13/12 22:18	1
Barium	ND		0.010	0.0060	mg/L		03/06/12 08:54	03/13/12 22:18	1
Beryllium	ND		2.0	0.90	ug/L		03/06/12 08:54	03/13/12 22:18	1
Calcium	ND		0.10	0.050	mg/L		03/06/12 08:54	03/13/12 22:18	1
Cobalt	ND		10	2.0	ug/L		03/06/12 08:54	03/13/12 22:18	1
Chromium	ND		5.0	2.0	ug/L		03/06/12 08:54	03/13/12 22:18	1
Iron	ND		0.040	0.015	mg/L		03/06/12 08:54	03/13/12 22:18	1
Magnesium	ND		0.020	0.012	mg/L		03/06/12 08:54	03/13/12 22:18	1
Manganese	ND		20	7.0	ug/L		03/06/12 08:54	03/13/12 22:18	1
Nickel	2.39	J,DX	10	2.0	ug/L		03/06/12 08:54	03/13/12 22:18	1
Vanadium	ND		10	3.0	ug/L		03/06/12 08:54	03/13/12 22:18	1
Zinc	10.4	J,DX	20	6.0	ug/L		03/06/12 08:54	03/13/12 22:18	1
Silver	ND		10	6.0	ug/L		03/06/12 08:54	03/13/12 22:18	1

Lab Sample ID: MB 440-11339/1-A
Matrix: Water
Analysis Batch: 13269

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.0297	J,DX	0.050	0.020	mg/L		03/06/12 08:54	03/14/12 16:48	1
Calcium	ND		0.10	0.050	mg/L		03/06/12 08:54	03/14/12 16:48	1

Lab Sample ID: MB 440-11339/1-A
Matrix: Water
Analysis Batch: 13645

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10	7.0	ug/L		03/06/12 08:54	03/15/12 19:04	1
Boron	0.0295	J,DX	0.050	0.020	mg/L		03/06/12 08:54	03/15/12 19:04	1
Barium	ND		0.010	0.0060	mg/L		03/06/12 08:54	03/15/12 19:04	1
Beryllium	ND		2.0	0.90	ug/L		03/06/12 08:54	03/15/12 19:04	1
Calcium	ND		0.10	0.050	mg/L		03/06/12 08:54	03/15/12 19:04	1
Cobalt	ND		10	2.0	ug/L		03/06/12 08:54	03/15/12 19:04	1
Chromium	ND		5.0	2.0	ug/L		03/06/12 08:54	03/15/12 19:04	1
Magnesium	ND		0.020	0.012	mg/L		03/06/12 08:54	03/15/12 19:04	1
Manganese	ND		20	7.0	ug/L		03/06/12 08:54	03/15/12 19:04	1
Nickel	ND		10	2.0	ug/L		03/06/12 08:54	03/15/12 19:04	1
Vanadium	ND		10	3.0	ug/L		03/06/12 08:54	03/15/12 19:04	1
Zinc	ND		20	6.0	ug/L		03/06/12 08:54	03/15/12 19:04	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 440-11339/1-A
Matrix: Water
Analysis Batch: 13645

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10	6.0	ug/L		03/06/12 08:54	03/15/12 19:04	1

Lab Sample ID: LCS 440-11339/2-A
Matrix: Water
Analysis Batch: 13142

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	500	552		ug/L		110	85 - 115
Barium	0.500	0.552		mg/L		110	85 - 115
Beryllium	500	543		ug/L		109	85 - 115
Cobalt	500	539		ug/L		108	85 - 115
Chromium	500	559		ug/L		112	85 - 115
Iron	0.500	0.558		mg/L		112	85 - 115
Magnesium	2.50	2.81		mg/L		112	85 - 115
Manganese	500	541		ug/L		108	85 - 115
Nickel	500	546		ug/L		109	85 - 115
Vanadium	500	552		ug/L		110	85 - 115
Zinc	500	550		ug/L		110	85 - 115
Silver	250	273		ug/L		109	85 - 115

Lab Sample ID: LCS 440-11339/2-A
Matrix: Water
Analysis Batch: 13269

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.500	0.545		mg/L		109	85 - 115
Calcium	2.50	2.73		mg/L		109	85 - 115

Lab Sample ID: LCS 440-11339/2-A
Matrix: Water
Analysis Batch: 13645

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	500	511		ug/L		102	85 - 115
Boron	0.500	0.526		mg/L		105	85 - 115
Barium	0.500	0.509		mg/L		102	85 - 115
Beryllium	500	516		ug/L		103	85 - 115
Calcium	2.50	2.72		mg/L		109	85 - 115
Cobalt	500	502		ug/L		100	85 - 115
Chromium	500	519		ug/L		104	85 - 115
Magnesium	2.50	2.62		mg/L		105	85 - 115
Manganese	500	562		ug/L		112	85 - 115
Nickel	500	506		ug/L		101	85 - 115
Vanadium	500	503		ug/L		101	85 - 115
Zinc	500	489		ug/L		98	85 - 115
Silver	250	246		ug/L		98	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-4065-1 MS
Matrix: Water
Analysis Batch: 13069

Client Sample ID: Outfall 019 Composite
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	7.4	J,DX	500	596		ug/L		118	70 - 130
Barium	0.026		0.500	0.570		mg/L		109	70 - 130
Beryllium	ND		500	565		ug/L		113	70 - 130
Cobalt	ND		500	528		ug/L		106	70 - 130
Chromium	2.3	J,DX	500	582		ug/L		116	70 - 130
Iron	ND		0.500	0.568		mg/L		114	70 - 130
Magnesium	24		2.50	25.7	BB	mg/L		70	70 - 130
Manganese	ND		500	553		ug/L		111	70 - 130
Nickel	ND		500	535		ug/L		107	70 - 130
Vanadium	ND		500	563		ug/L		113	70 - 130
Zinc	10	J,DX	500	544		ug/L		107	70 - 130
Silver	ND		250	274		ug/L		109	70 - 130

Lab Sample ID: 440-4065-1 MS
Matrix: Water
Analysis Batch: 13269

Client Sample ID: Outfall 019 Composite
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	ND		0.500	0.565		mg/L		113	70 - 130
Calcium	100		2.50	112	BB	mg/L		371	70 - 130

Lab Sample ID: 440-4065-1 MSD
Matrix: Water
Analysis Batch: 13069

Client Sample ID: Outfall 019 Composite
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	7.4	J,DX	500	588		ug/L		116	70 - 130	1	20
Barium	0.026		0.500	0.584		mg/L		111	70 - 130	2	20
Beryllium	ND		500	556		ug/L		111	70 - 130	2	20
Cobalt	ND		500	521		ug/L		104	70 - 130	1	20
Chromium	2.3	J,DX	500	584		ug/L		116	70 - 130	0	20
Iron	ND		0.500	0.546		mg/L		109	70 - 130	4	20
Magnesium	24		2.50	25.9	BB	mg/L		78	70 - 130	1	20
Manganese	ND		500	552		ug/L		110	70 - 130	0	20
Nickel	ND		500	530		ug/L		106	70 - 130	1	20
Vanadium	ND		500	577		ug/L		115	70 - 130	2	20
Zinc	10	J,DX	500	550		ug/L		108	70 - 130	1	20
Silver	ND		250	273		ug/L		109	70 - 130	0	20

Lab Sample ID: 440-4065-1 MSD
Matrix: Water
Analysis Batch: 13269

Client Sample ID: Outfall 019 Composite
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	ND		0.500	0.577		mg/L		115	70 - 130	2	20
Calcium	100		2.50	113	BB	mg/L		426	70 - 130	1	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-4070-L-9-B MS
Matrix: Water
Analysis Batch: 13069

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	21		500	580		ug/L		112	70 - 130
Barium	0.10		0.500	0.613		mg/L		102	70 - 130
Beryllium	ND		500	531		ug/L		106	70 - 130
Cobalt	3.0	J,DX	500	490		ug/L		97	70 - 130
Chromium	2.8	J,DX	500	545		ug/L		108	70 - 130
Iron	0.15		0.500	0.668		mg/L		104	70 - 130
Magnesium	110		2.50	106	BB	mg/L		11	70 - 130
Manganese	210		500	719		ug/L		102	70 - 130
Nickel	32		500	524		ug/L		98	70 - 130
Vanadium	130		500	663		ug/L		107	70 - 130
Zinc	ND		500	510		ug/L		102	70 - 130
Silver	ND		250	267		ug/L		107	70 - 130

Lab Sample ID: 440-4070-L-9-C MSD
Matrix: Water
Analysis Batch: 13069

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 11339

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	21		500	591		ug/L		114	70 - 130	2	20
Barium	0.10		0.500	0.635		mg/L		107	70 - 130	4	20
Beryllium	ND		500	547		ug/L		109	70 - 130	3	20
Cobalt	3.0	J,DX	500	507		ug/L		101	70 - 130	3	20
Chromium	2.8	J,DX	500	566		ug/L		113	70 - 130	4	20
Iron	0.15		0.500	0.708		mg/L		112	70 - 130	6	20
Magnesium	110		2.50	108	BB	mg/L		83	70 - 130	2	20
Manganese	210		500	740		ug/L		106	70 - 130	3	20
Nickel	32		500	542		ug/L		102	70 - 130	3	20
Vanadium	130		500	689		ug/L		112	70 - 130	4	20
Zinc	ND		500	750	LM RA	ug/L		150	70 - 130	38	20
Silver	ND		250	276		ug/L		110	70 - 130	3	20

Lab Sample ID: MB 440-10331/1-C
Matrix: Water
Analysis Batch: 12020

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 11406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10	7.0	ug/L		03/06/12 11:52	03/08/12 11:35	1
Boron	0.0371	J,DX	0.050	0.020	mg/L		03/06/12 11:52	03/08/12 11:35	1
Barium	ND		0.010	0.0060	mg/L		03/06/12 11:52	03/08/12 11:35	1
Beryllium	ND		2.0	0.90	ug/L		03/06/12 11:52	03/08/12 11:35	1
Cobalt	ND		10	2.0	ug/L		03/06/12 11:52	03/08/12 11:35	1
Chromium	ND		5.0	2.0	ug/L		03/06/12 11:52	03/08/12 11:35	1
Manganese	ND		20	7.0	ug/L		03/06/12 11:52	03/08/12 11:35	1
Nickel	ND		10	2.0	ug/L		03/06/12 11:52	03/08/12 11:35	1
Vanadium	ND		10	3.0	ug/L		03/06/12 11:52	03/08/12 11:35	1
Zinc	21.3		20	6.0	ug/L		03/06/12 11:52	03/08/12 11:35	1
Silver	ND		10	6.0	ug/L		03/06/12 11:52	03/08/12 11:35	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-10331/2-C
Matrix: Water
Analysis Batch: 12020

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 11406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	500	518		ug/L		104	85 - 115
Boron	0.500	0.544		mg/L		109	85 - 115
Barium	0.500	0.529		mg/L		106	85 - 115
Beryllium	500	523		ug/L		105	85 - 115
Calcium	2.50	3.23	LQ	mg/L		129	85 - 115
Cobalt	500	514		ug/L		103	85 - 115
Chromium	500	541		ug/L		108	85 - 115
Iron	0.500	0.554		mg/L		111	85 - 115
Magnesium	2.50	2.73		mg/L		109	85 - 115
Nickel	500	527		ug/L		105	85 - 115
Vanadium	500	523		ug/L		105	85 - 115
Zinc	500	521		ug/L		104	85 - 115
Silver	250	261		ug/L		104	85 - 115

Lab Sample ID: 440-3909-L-1-D MS
Matrix: Water
Analysis Batch: 12020

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 11406

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		500	515		ug/L		103	70 - 130
Boron	0.30	MB	0.500	0.841		mg/L		107	70 - 130
Barium	0.34		0.500	0.857		mg/L		104	70 - 130
Beryllium	ND		500	523		ug/L		105	70 - 130
Calcium	140	MB LQ	2.50	143	BB	mg/L		-65	70 - 130
Cobalt	ND		500	478		ug/L		96	70 - 130
Chromium	ND		500	534		ug/L		107	70 - 130
Iron	0.21		0.500	0.741		mg/L		105	70 - 130
Magnesium	41	MB	2.50	43.2	BB	mg/L		86	70 - 130
Manganese	51		500	618		ug/L		113	70 - 130
Nickel	2.8	J,DX	500	487		ug/L		97	70 - 130
Vanadium	ND		500	533		ug/L		107	70 - 130
Zinc	ND		500	494		ug/L		99	70 - 130
Silver	ND		250	270		ug/L		108	70 - 130

Lab Sample ID: 440-3909-L-1-E MSD
Matrix: Water
Analysis Batch: 12020

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 11406

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		500	509		ug/L		102	70 - 130	1	20
Boron	0.30	MB	0.500	0.818		mg/L		103	70 - 130	3	20
Barium	0.34		0.500	0.846		mg/L		102	70 - 130	1	20
Beryllium	ND		500	518		ug/L		104	70 - 130	1	20
Calcium	140	MB LQ	2.50	140	BB	mg/L		-188	70 - 130	2	20
Cobalt	ND		500	471		ug/L		94	70 - 130	1	20
Chromium	ND		500	525		ug/L		105	70 - 130	2	20
Iron	0.21		0.500	0.513	AY RA	mg/L		60	70 - 130	36	20
Magnesium	41	MB	2.50	42.6	BB	mg/L		66	70 - 130	1	20
Manganese	51		500	610		ug/L		112	70 - 130	1	20
Nickel	2.8	J,DX	500	479		ug/L		95	70 - 130	2	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-3909-L-1-E MSD
Matrix: Water
Analysis Batch: 12020

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 11406

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vanadium	ND		500	521		ug/L		104	70 - 130	2	20
Zinc	ND		500	482		ug/L		96	70 - 130	2	20
Silver	ND		250	263		ug/L		105	70 - 130	3	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-11154/1-A
Matrix: Water
Analysis Batch: 11472

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 11154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/05/12 14:20	03/06/12 14:09	1
Copper	ND		2.0	0.50	ug/L		03/05/12 14:20	03/06/12 14:09	1
Lead	ND		1.0	0.20	ug/L		03/05/12 14:20	03/06/12 14:09	1
Antimony	ND		2.0	0.30	ug/L		03/05/12 14:20	03/06/12 14:09	1
Selenium	ND		2.0	0.50	ug/L		03/05/12 14:20	03/06/12 14:09	1
Thallium	ND		1.0	0.20	ug/L		03/05/12 14:20	03/06/12 14:09	1

Lab Sample ID: LCS 440-11154/2-A
Matrix: Water
Analysis Batch: 11472

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 11154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	79.6		ug/L		100	85 - 115
Copper	80.0	80.6		ug/L		101	85 - 115
Lead	80.0	81.5		ug/L		102	85 - 115
Antimony	80.0	81.4		ug/L		102	85 - 115
Selenium	80.0	81.5		ug/L		102	85 - 115
Thallium	80.0	81.1		ug/L		101	85 - 115

Lab Sample ID: 440-4377-A-4-B MS
Matrix: Water
Analysis Batch: 11472

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 11154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		80.0	73.7		ug/L		92	70 - 130
Copper	8.2		80.0	46.7	LN	ug/L		48	70 - 130
Lead	ND		80.0	70.5		ug/L		88	70 - 130
Antimony	ND		80.0	82.4		ug/L		103	70 - 130
Selenium	ND		80.0	9.33	LN	ug/L		12	70 - 130
Thallium	ND		80.0	70.9		ug/L		89	70 - 130

Lab Sample ID: 440-4377-A-4-C MSD
Matrix: Water
Analysis Batch: 11472

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 11154

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		80.0	71.4		ug/L		89	70 - 130	3	20
Copper	8.2		80.0	44.9	AY	ug/L		46	70 - 130	4	20
Lead	ND		80.0	70.1		ug/L		88	70 - 130	1	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-4377-A-4-C MSD
Matrix: Water
Analysis Batch: 11472

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 11154

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		80.0	81.1		ug/L		101	70 - 130	2	20
Selenium	ND		80.0	9.27	AY	ug/L		12	70 - 130	1	20
Thallium	ND		80.0	70.7		ug/L		88	70 - 130	0	20

Lab Sample ID: MB 440-10742/1-C
Matrix: Water
Analysis Batch: 11615

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 11400

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/06/12 11:26	03/06/12 23:01	1
Copper	ND		2.0	0.50	ug/L		03/06/12 11:26	03/06/12 23:01	1
Lead	ND		1.0	0.20	ug/L		03/06/12 11:26	03/06/12 23:01	1
Antimony	ND		2.0	0.30	ug/L		03/06/12 11:26	03/06/12 23:01	1
Selenium	ND		2.0	0.50	ug/L		03/06/12 11:26	03/06/12 23:01	1
Thallium	ND		1.0	0.20	ug/L		03/06/12 11:26	03/06/12 23:01	1

Lab Sample ID: LCS 440-10742/2-C
Matrix: Water
Analysis Batch: 11615

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 11400

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	73.9		ug/L		92	85 - 115
Copper	80.0	82.8		ug/L		104	85 - 115
Lead	80.0	79.5		ug/L		99	85 - 115
Antimony	80.0	77.5		ug/L		97	85 - 115
Selenium	80.0	80.5		ug/L		101	85 - 115
Thallium	80.0	81.1		ug/L		101	85 - 115

Lab Sample ID: 440-3724-B-1-D MS
Matrix: Water
Analysis Batch: 11615

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 11400

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.147		80.0	71.9		ug/L		90	70 - 130
Copper	10.9		80.0	80.1		ug/L		86	70 - 130
Lead	-0.00300		80.0	70.4		ug/L		88	70 - 130
Antimony	0.474		80.0	80.6		ug/L		100	70 - 130
Selenium	4.36		80.0	87.0		ug/L		103	70 - 130
Thallium	0.128		80.0	70.2		ug/L		88	70 - 130

Lab Sample ID: 440-3724-B-1-E MSD
Matrix: Water
Analysis Batch: 11615

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 11400

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.147		80.0	71.3		ug/L		89	70 - 130	1	20
Copper	10.9		80.0	78.4		ug/L		84	70 - 130	2	20
Lead	-0.00300		80.0	69.2		ug/L		86	70 - 130	2	20
Antimony	0.474		80.0	81.1		ug/L		101	70 - 130	1	20
Selenium	4.36		80.0	86.5		ug/L		103	70 - 130	1	20
Thallium	0.128		80.0	69.9		ug/L		87	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-10633/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 10858 — **Prep Batch: 10633**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		03/01/12 17:42	03/02/12 19:41	1

Lab Sample ID: LCS 440-10633/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 10858 — **Prep Batch: 10633**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	8.84		ug/L		110	85 - 115

Lab Sample ID: 440-3916-B-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 10858 — **Prep Batch: 10633**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		8.00	8.63		ug/L		108	70 - 130

Lab Sample ID: 440-3916-B-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 10858 — **Prep Batch: 10633**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		8.00	10.1		ug/L		127	70 - 130	16	20

Lab Sample ID: MB 440-10742/1-D — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 11794 — **Prep Batch: 11466**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.109	J,DX	0.20	0.10	ug/L		03/06/12 15:05	03/07/12 13:25	1

Lab Sample ID: LCS 440-10742/2-D — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 11794 — **Prep Batch: 11466**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	7.64		ug/L		96	85 - 115

Lab Sample ID: 440-4065-1 MS — **Client Sample ID: Outfall 019 Composite**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 11794 — **Prep Batch: 11466**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND	BU IH	8.00	7.49		ug/L		91	70 - 130

Lab Sample ID: 440-4065-1 MSD — **Client Sample ID: Outfall 019 Composite**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 11794 — **Prep Batch: 11466**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND	BU IH	8.00	7.62		ug/L		92	70 - 130	2	20

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: MB 440-12569/1
Matrix: Water
Analysis Batch: 12569

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	1.0	umhos/cm			03/12/12 09:15	1

Lab Sample ID: LCS 440-12569/2
Matrix: Water
Analysis Batch: 12569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	501	536		umhos/cm		107	90 - 110

Lab Sample ID: 440-3913-9 DU
Matrix: Water
Analysis Batch: 12569

Client Sample ID: Outfall 019 Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	830		835		umhos/cm		0.6	5

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-12574/1-A
Matrix: Water
Analysis Batch: 12658

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12574

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		03/12/12 09:31	03/12/12 14:19	1

Lab Sample ID: LCS 440-12574/2-A
Matrix: Water
Analysis Batch: 12658

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12574

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	20.0	18.7		mg/L		93	78 - 114

Lab Sample ID: LCSD 440-12574/3-A
Matrix: Water
Analysis Batch: 12658

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12574

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM	20.0	19.1		mg/L		95	78 - 114	2	11

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 440-10520/6
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		0.10	0.040	NTU			03/01/12 11:50	1

Method: 180.1 - Turbidity, Nephelometric (Continued)

Lab Sample ID: MRL 440-10520/4 MRL
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Turbidity	1.00	1.07		NTU		107	

Lab Sample ID: 440-4064-C-5 DU
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Turbidity	0.040	J,DX	0.0400	J,DX	NTU		0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-11105/1
Matrix: Water
Analysis Batch: 11105

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			03/05/12 10:41	1

Lab Sample ID: LCS 440-11105/2
Matrix: Water
Analysis Batch: 11105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	980		mg/L		98	90 - 110

Lab Sample ID: 440-3781-A-1 DU
Matrix: Water
Analysis Batch: 11105

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	390		382		mg/L		2	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-11241/1
Matrix: Water
Analysis Batch: 11241

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		10	10	mg/L			03/05/12 19:15	1

Lab Sample ID: LCS 440-11241/2
Matrix: Water
Analysis Batch: 11241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	1000		mg/L		100	85 - 115

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: 440-4112-B-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 11241

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	29		30.0		mg/L		3	10

Method: SM 4500 CN E - Cyanide, Total (Low Level)

Lab Sample ID: MB 440-10790/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 10845 — **Prep Batch: 10790**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		5.0	3.0	ug/L		03/02/12 14:45	03/02/12 17:31	1

Lab Sample ID: LCS 440-10790/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 10845 — **Prep Batch: 10790**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	100	100		ug/L		100	90 - 110

Lab Sample ID: 440-3897-G-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 10845 — **Prep Batch: 10790**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		100	101		ug/L		101	70 - 115

Lab Sample ID: 440-3897-G-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 10845 — **Prep Batch: 10790**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		100	101		ug/L		101	70 - 115	0	15

Method: SM 4500 NH3 C - Ammonia

Lab Sample ID: MB 440-10587/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 10665 — **Prep Batch: 10587**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.400	0.157	mg/L		03/01/12 15:53	03/01/12 20:05	1

Lab Sample ID: LCS 440-10587/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 10665 — **Prep Batch: 10587**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	10.0	9.520		mg/L		95	85 - 115

Method: SM 4500 NH3 C - Ammonia (Continued)

Lab Sample ID: 440-4065-1 MS
Matrix: Water
Analysis Batch: 10665

Client Sample ID: Outfall 019 Composite
Prep Type: Total/NA
Prep Batch: 10587

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia (as N)	0.280	J,DX	10.0	9.520		mg/L		92	70 - 120		

Lab Sample ID: 440-4065-1 MSD
Matrix: Water
Analysis Batch: 10665

Client Sample ID: Outfall 019 Composite
Prep Type: Total/NA
Prep Batch: 10587

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.280	J,DX	10.0	9.520		mg/L		92	70 - 120	0	15

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 440-11428/1
Matrix: Water
Analysis Batch: 11428

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0	0.75	mg/L			03/06/12 10:33	1

Lab Sample ID: LCS 440-11428/2
Matrix: Water
Analysis Batch: 11428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.6		mg/L		106	90 - 110

Lab Sample ID: 440-4207-A-1 MS
Matrix: Water
Analysis Batch: 11428

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	ND		5.00	5.56		mg/L		111	80 - 120

Lab Sample ID: 440-4207-A-1 MSD
Matrix: Water
Analysis Batch: 11428

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	ND		5.00	5.53		mg/L		111	80 - 120	1	20

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 440-10656/3
Matrix: Water
Analysis Batch: 10656

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	ND		0.10	0.050	mg/L			03/01/12 20:02	1

Method: SM 5540C - Methylene Blue Active Substances (MBAS) (Continued)

Lab Sample ID: LCS 440-10656/4
Matrix: Water
Analysis Batch: 10656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	0.250	0.252		mg/L		101	90 - 110

Lab Sample ID: 440-4065-1 MS
Matrix: Water
Analysis Batch: 10656

Client Sample ID: Outfall 019 Composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	ND		0.250	0.252		mg/L		101	50 - 125

Lab Sample ID: 440-4065-1 MSD
Matrix: Water
Analysis Batch: 10656

Client Sample ID: Outfall 019 Composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Blue Active Substances	ND		0.250	0.265		mg/L		106	50 - 125	5	20

Method: SM5210B - BOD, 5 Day

Lab Sample ID: USB 440-10741/1 USB
Matrix: Water
Analysis Batch: 10741

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	0.50	mg/L			03/02/12 10:43	1

Lab Sample ID: LCS 440-10741/4
Matrix: Water
Analysis Batch: 10741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	199	204		mg/L		103	85 - 115

Lab Sample ID: LCSD 440-10741/5
Matrix: Water
Analysis Batch: 10741

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand	199	200		mg/L		101	85 - 115	2	20

Method: Gross Alpha and Beta - Gross Alpha/Beta

Lab Sample ID: S203010-04
Matrix: WATER
Analysis Batch: 8600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8600_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tritium	-8.59	U	10		pCi/L		03/13/12 00:00	03/13/12 19:51	1

Method: Gross Alpha and Beta - Gross Alpha/Beta (Continued)

Lab Sample ID: S203010-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium-90	-0.103	U	0.13		pCi/L		03/16/12 00:00	03/16/12 09:46	1

Lab Sample ID: S203010-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cesium-137	0.32	U	1.6		pCi/L		03/14/12 00:00	03/19/12 00:00	1
Potassium-40	12.7	U	18		pCi/L		03/14/12 00:00	03/19/12 00:00	1

Lab Sample ID: S203010-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium, Total	0	U	0.008		pCi/L		03/19/12 00:00	03/19/12 10:40	1

Lab Sample ID: S203010-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-228	-0.088	U	0.13		pCi/L		03/19/12 00:00	03/19/12 12:43	1

Lab Sample ID: S203010-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Alpha	0.093	U	0.26		pCi/L		03/15/12 00:00	03/19/12 16:54	1
Gross Beta	-0.344	U	0.58		pCi/L		03/15/12 00:00	03/19/12 16:54	1

Lab Sample ID: S203010-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-226	0.054	U	0.33		pCi/L		03/21/12 00:00	03/21/12 13:09	1

Lab Sample ID: S203010-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tritium	92	338	J	pCi/L		80	120 - 0

Method: Gross Alpha and Beta - Gross Alpha/Beta (Continued)

Lab Sample ID: S203010-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Strontium-90	88	7.54		pCi/L		80	120 - 0

Lab Sample ID: S203010-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cesium-137	104	153		pCi/L		80	120 - 0
Cobalt-60	103	136		pCi/L		80	120 - 0

Lab Sample ID: S203010-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Uranium, Total	100	57.4		pCi/L		80	120 - 0

Lab Sample ID: S203010-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Radium-228	89	3.97		pCi/L		60	140 - 0

Lab Sample ID: S203010-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gross Alpha	120	40.4		pCi/L		70	130 - 0
Gross Beta	96	27.4		pCi/L		70	130 - 0

Lab Sample ID: S203010-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Radium-226	102	56.9		pCi/L		80	120 - 0

Lab Sample ID: S203010-05 — **Client Sample ID: OUTFALL 019 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Tritium	-57.9	U	-104	U	pCi/L			

Method: Gross Alpha and Beta - Gross Alpha/Beta (Continued)

Lab Sample ID: S203010-05 — **Client Sample ID: OUTFALL 019 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Strontium-90	0.242	U		0.067	U	pCi/L					

Lab Sample ID: S203010-05 — **Client Sample ID: OUTFALL 019 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Cesium-137	0.622	U		0.616	U	pCi/L					
Potassium-40	1.26	U		17.3	U	pCi/L					

Lab Sample ID: S203010-05 — **Client Sample ID: OUTFALL 019 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Uranium, Total	1.22			1.23		pCi/L					

Lab Sample ID: S203010-05 — **Client Sample ID: OUTFALL 019 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Radium-228	0.022	U		0.004	U	pCi/L					

Lab Sample ID: S203010-05 — **Client Sample ID: OUTFALL 019 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gross Alpha	0.091	U		1.08	U	pCi/L					
Gross Beta	2.6	J		3.3	J	pCi/L					

Lab Sample ID: S203010-05 — **Client Sample ID: OUTFALL 019 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8600 — **Prep Batch: 8600_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Radium-226	0.1	U		-0.117	U	pCi/L					

GC/MS VOA

Analysis Batch: 10368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	624	
440-3913-9 MS	Outfall 019 Grab	Total/NA	Water	624	
440-3913-9 MSD	Outfall 019 Grab	Total/NA	Water	624	
440-3913-11	Trip Blanks	Total/NA	Water	624	
LCS 440-10368/6	Lab Control Sample	Total/NA	Water	624	
MB 440-10368/5	Method Blank	Total/NA	Water	624	

Analysis Batch: 10469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3827-B-3 MS	Matrix Spike	Total/NA	Water	8260B SIM	
440-3827-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	
440-4065-1	Outfall 019 Composite	Total/NA	Water	8260B SIM	
LCS 440-10469/4	Lab Control Sample	Total/NA	Water	8260B SIM	
MB 440-10469/3	Method Blank	Total/NA	Water	8260B SIM	

Analysis Batch: 12466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	624	
440-3913-11	Trip Blanks	Total/NA	Water	624	
440-4348-C-1 MS	Matrix Spike	Total/NA	Water	624	
440-4348-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	624	
LCS 440-12466/5	Lab Control Sample	Total/NA	Water	624	
MB 440-12466/4	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 11009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	625	
LCS 440-11009/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 440-11009/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 440-11009/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 11972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	625	11009
LCS 440-11009/2-A	Lab Control Sample	Total/NA	Water	625	11009
LCSD 440-11009/3-A	Lab Control Sample Dup	Total/NA	Water	625	11009
MB 440-11009/1-A	Method Blank	Total/NA	Water	625	11009

Analysis Batch: 12240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	625	11009
LCS 440-11009/2-A	Lab Control Sample	Total/NA	Water	625	11009
LCSD 440-11009/3-A	Lab Control Sample Dup	Total/NA	Water	625	11009
MB 440-11009/1-A	Method Blank	Total/NA	Water	625	11009

GC VOA

Analysis Batch: 12427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	8015B	

GC VOA (Continued)

Analysis Batch: 12427 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4070-A-8 MS	Matrix Spike	Total/NA	Water	8015B	
440-4070-A-8 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	
LCS 440-12427/2	Lab Control Sample	Total/NA	Water	8015B	
MB 440-12427/3	Method Blank	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 10989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3893-J-5-A MS	Matrix Spike	Total/NA	Water	608	
440-3893-J-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	608	
440-3893-L-5-A MS	Matrix Spike	Total/NA	Water	608	
440-3893-L-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	608	
440-4065-1	Outfall 019 Composite	Total/NA	Water	608	
LCS 440-10989/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 440-10989/5-A	Lab Control Sample	Total/NA	Water	608	
MB 440-10989/1-A	Method Blank	Total/NA	Water	608	

Analysis Batch: 11073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3893-J-5-A MS	Matrix Spike	Total/NA	Water	608 Pesticides	10989
440-3893-J-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	608 Pesticides	10989
440-4065-1	Outfall 019 Composite	Total/NA	Water	608 Pesticides	10989
LCS 440-10989/2-A	Lab Control Sample	Total/NA	Water	608 Pesticides	10989
MB 440-10989/1-A	Method Blank	Total/NA	Water	608 Pesticides	10989

Prep Batch: 11076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	3510C	
LCS 440-11076/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 440-11076/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 440-11076/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 11085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3893-L-5-A MS	Matrix Spike	Total/NA	Water	608 PCB LL	10989
440-3893-L-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	608 PCB LL	10989
440-4065-1	Outfall 019 Composite	Total/NA	Water	608 PCB LL	10989
LCS 440-10989/5-A	Lab Control Sample	Total/NA	Water	608 PCB LL	10989
MB 440-10989/1-A	Method Blank	Total/NA	Water	608 PCB LL	10989

Analysis Batch: 11254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	8015B	11076
LCS 440-11076/2-A	Lab Control Sample	Total/NA	Water	8015B	11076
LCSD 440-11076/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	11076
MB 440-11076/1-A	Method Blank	Total/NA	Water	8015B	11076

HPLC/IC

Analysis Batch: 10204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4034-G-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-4034-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
440-4065-1	Outfall 019 Composite	Total/NA	Water	300.0	
LCS 440-10204/7	Lab Control Sample	Total/NA	Water	300.0	
MB 440-10204/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 10205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	300.0	
LCS 440-10205/7	Lab Control Sample	Total/NA	Water	300.0	
MB 440-10205/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 10382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4058-D-3 MS	Matrix Spike	Total/NA	Water	218.6	
440-4058-D-3 MSD	Matrix Spike Duplicate	Total/NA	Water	218.6	
440-4065-1	Outfall 019 Composite	Total/NA	Water	218.6	
LCS 440-10382/2	Lab Control Sample	Total/NA	Water	218.6	
MB 440-10382/3	Method Blank	Total/NA	Water	218.6	

Analysis Batch: 10437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3307-A-1 MS	Matrix Spike	Total/NA	Water	314.0	
440-3307-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	314.0	
440-4065-1	Outfall 019 Composite	Total/NA	Water	314.0	
LCS 440-10437/4	Lab Control Sample	Total/NA	Water	314.0	
MB 440-10437/6	Method Blank	Total/NA	Water	314.0	

Specialty Organics

Analysis Batch: 2062105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total	Water	1613B	
G2C020000105B	Method Blank	Total	Water	1613B	
G2C020000105C	Lab Control Sample	Total	Water	1613B	
G2C020000105L	Lab Control Sample Dup	Total	Water	1613B	

Prep Batch: 2062105_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total	Water	3542	
G2C020000105B	Method Blank	Total	Water	3542	
G2C020000105C	Lab Control Sample	Total	Water	3542	
G2C020000105L	Lab Control Sample Dup	Total	Water	3542	

Metals

Prep Batch: 10633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3916-B-1-B MS	Matrix Spike	Total/NA	Water	245.1	
440-3916-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
440-4065-1	Outfall 019 Composite	Total/NA	Water	245.1	
LCS 440-10633/2-A	Lab Control Sample	Total/NA	Water	245.1	

Metals (Continued)

Prep Batch: 10633 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-10633/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 10858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3916-B-1-B MS	Matrix Spike	Total/NA	Water	245.1	10633
440-3916-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	10633
440-4065-1	Outfall 019 Composite	Total/NA	Water	245.1	10633
LCS 440-10633/2-A	Lab Control Sample	Total/NA	Water	245.1	10633
MB 440-10633/1-A	Method Blank	Total/NA	Water	245.1	10633

Prep Batch: 11154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total Recoverable	Water	200.2	
440-4377-A-4-B MS	Matrix Spike	Total Recoverable	Water	200.2	
440-4377-A-4-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	
LCS 440-11154/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
MB 440-11154/1-A	Method Blank	Total Recoverable	Water	200.2	

Prep Batch: 11339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total Recoverable	Water	200.2	
440-4065-1 MS	Outfall 019 Composite	Total Recoverable	Water	200.2	
440-4065-1 MSD	Outfall 019 Composite	Total Recoverable	Water	200.2	
440-4070-L-9-B MS	Matrix Spike	Total Recoverable	Water	200.2	
440-4070-L-9-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	
LCS 440-11339/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
MB 440-11339/1-A	Method Blank	Total Recoverable	Water	200.2	

Prep Batch: 11400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3724-B-1-D MS	Matrix Spike	Dissolved	Water	200.2	
440-3724-B-1-E MSD	Matrix Spike Duplicate	Dissolved	Water	200.2	
440-4065-1	Outfall 019 Composite	Dissolved	Water	200.2	
LCS 440-10742/2-C	Lab Control Sample	Dissolved	Water	200.2	
MB 440-10742/1-C	Method Blank	Dissolved	Water	200.2	

Prep Batch: 11406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3909-L-1-D MS	Matrix Spike	Dissolved	Water	200.2	
440-3909-L-1-E MSD	Matrix Spike Duplicate	Dissolved	Water	200.2	
440-4065-1	Outfall 019 Composite	Dissolved	Water	200.2	
LCS 440-10331/2-C	Lab Control Sample	Dissolved	Water	200.2	
MB 440-10331/1-C	Method Blank	Dissolved	Water	200.2	

Prep Batch: 11466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Dissolved	Water	245.1	
440-4065-1 MS	Outfall 019 Composite	Dissolved	Water	245.1	
440-4065-1 MSD	Outfall 019 Composite	Dissolved	Water	245.1	
LCS 440-10742/2-D	Lab Control Sample	Dissolved	Water	245.1	
MB 440-10742/1-D	Method Blank	Dissolved	Water	245.1	

Metals (Continued)

Analysis Batch: 11472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total Recoverable	Water	200.8	11154
440-4377-A-4-B MS	Matrix Spike	Total Recoverable	Water	200.8	11154
440-4377-A-4-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	11154
LCS 440-11154/2-A	Lab Control Sample	Total Recoverable	Water	200.8	11154
MB 440-11154/1-A	Method Blank	Total Recoverable	Water	200.8	11154

Analysis Batch: 11615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3724-B-1-D MS	Matrix Spike	Dissolved	Water	200.8	11400
440-3724-B-1-E MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	11400
440-4065-1	Outfall 019 Composite	Dissolved	Water	200.8	11400
LCS 440-10742/2-C	Lab Control Sample	Dissolved	Water	200.8	11400
MB 440-10742/1-C	Method Blank	Dissolved	Water	200.8	11400

Analysis Batch: 11794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Dissolved	Water	245.1	11466
440-4065-1 MS	Outfall 019 Composite	Dissolved	Water	245.1	11466
440-4065-1 MSD	Outfall 019 Composite	Dissolved	Water	245.1	11466
LCS 440-10742/2-D	Lab Control Sample	Dissolved	Water	245.1	11466
MB 440-10742/1-D	Method Blank	Dissolved	Water	245.1	11466

Analysis Batch: 12020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3909-L-1-D MS	Matrix Spike	Dissolved	Water	200.7 Rev 4.4	11406
440-3909-L-1-E MSD	Matrix Spike Duplicate	Dissolved	Water	200.7 Rev 4.4	11406
440-4065-1	Outfall 019 Composite	Dissolved	Water	200.7 Rev 4.4	11406
LCS 440-10331/2-C	Lab Control Sample	Dissolved	Water	200.7 Rev 4.4	11406
MB 440-10331/1-C	Method Blank	Dissolved	Water	200.7 Rev 4.4	11406

Analysis Batch: 13069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total Recoverable	Water	200.7 Rev 4.4	11339
440-4065-1 MS	Outfall 019 Composite	Total Recoverable	Water	200.7 Rev 4.4	11339
440-4065-1 MSD	Outfall 019 Composite	Total Recoverable	Water	200.7 Rev 4.4	11339
440-4070-L-9-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	11339
440-4070-L-9-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	11339

Analysis Batch: 13142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-11339/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	11339
MB 440-11339/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	11339

Analysis Batch: 13269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total Recoverable	Water	200.7 Rev 4.4	11339
440-4065-1 MS	Outfall 019 Composite	Total Recoverable	Water	200.7 Rev 4.4	11339
440-4065-1 MSD	Outfall 019 Composite	Total Recoverable	Water	200.7 Rev 4.4	11339
LCS 440-11339/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	11339
MB 440-11339/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	11339

Metals (Continued)

Analysis Batch: 13645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-11339/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	11339
MB 440-11339/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	11339

Analysis Batch: 13789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	SM 2340B	

Analysis Batch: 13799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Dissolved	Water	SM 2340B	

Prep Batch: 18443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Dissolved	Water	245.1	
440-4065-1 MS	Outfall 019 Composite	Dissolved	Water	245.1	
440-4065-1 MSD	Outfall 019 Composite	Dissolved	Water	245.1	
LCS 440-10742/2-E	Lab Control Sample	Dissolved	Water	245.1	
MB 440-10742/1-E	Method Blank	Dissolved	Water	245.1	

Prep Batch: 18451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	245.1	
440-4065-1 MS	Outfall 019 Composite	Total/NA	Water	245.1	
440-4065-1 MSD	Outfall 019 Composite	Total/NA	Water	245.1	
LCS 440-18451/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 440-18451/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 18539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	245.1	18451
440-4065-1	Outfall 019 Composite	Dissolved	Water	245.1	18443
440-4065-1 MS	Outfall 019 Composite	Total/NA	Water	245.1	18451
440-4065-1 MS	Outfall 019 Composite	Dissolved	Water	245.1	18443
440-4065-1 MSD	Outfall 019 Composite	Total/NA	Water	245.1	18451
440-4065-1 MSD	Outfall 019 Composite	Dissolved	Water	245.1	18443
LCS 440-10742/2-E	Lab Control Sample	Dissolved	Water	245.1	18443
LCS 440-18451/2-A	Lab Control Sample	Total/NA	Water	245.1	18451
MB 440-10742/1-E	Method Blank	Dissolved	Water	245.1	18443
MB 440-18451/1-A	Method Blank	Total/NA	Water	245.1	18451

General Chemistry

Analysis Batch: 10176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	SM 2540F	

Analysis Batch: 10520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4064-C-5 DU	Duplicate	Total/NA	Water	180.1	
440-4065-1	Outfall 019 Composite	Total/NA	Water	180.1	
MB 440-10520/6	Method Blank	Total/NA	Water	180.1	
MRL 440-10520/4 MRL	Lab Control Sample	Total/NA	Water	180.1	

General Chemistry (Continued)

Prep Batch: 10587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	SM 4500 NH3 B	
440-4065-1 MS	Outfall 019 Composite	Total/NA	Water	SM 4500 NH3 B	
440-4065-1 MSD	Outfall 019 Composite	Total/NA	Water	SM 4500 NH3 B	
LCS 440-10587/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
MB 440-10587/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 10656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	SM 5540C	
440-4065-1 MS	Outfall 019 Composite	Total/NA	Water	SM 5540C	
440-4065-1 MSD	Outfall 019 Composite	Total/NA	Water	SM 5540C	
LCS 440-10656/4	Lab Control Sample	Total/NA	Water	SM 5540C	
MB 440-10656/3	Method Blank	Total/NA	Water	SM 5540C	

Analysis Batch: 10665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	SM 4500 NH3 C	10587
440-4065-1 MS	Outfall 019 Composite	Total/NA	Water	SM 4500 NH3 C	10587
440-4065-1 MSD	Outfall 019 Composite	Total/NA	Water	SM 4500 NH3 C	10587
LCS 440-10587/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 C	10587
MB 440-10587/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 C	10587

Analysis Batch: 10741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	SM5210B	
LCS 440-10741/4	Lab Control Sample	Total/NA	Water	SM5210B	
LCSD 440-10741/5	Lab Control Sample Dup	Total/NA	Water	SM5210B	
USB 440-10741/1 USB	Method Blank	Total/NA	Water	SM5210B	

Prep Batch: 10790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3897-G-1-A MS	Matrix Spike	Total/NA	Water	Distill/CN	
440-3897-G-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	Distill/CN	
440-4065-1	Outfall 019 Composite	Total/NA	Water	Distill/CN	
LCS 440-10790/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 440-10790/1-A	Method Blank	Total/NA	Water	Distill/CN	

Analysis Batch: 10845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3897-G-1-A MS	Matrix Spike	Total/NA	Water	SM 4500 CN E	10790
440-3897-G-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CN E	10790
LCS 440-10790/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	10790
MB 440-10790/1-A	Method Blank	Total/NA	Water	SM 4500 CN E	10790

Analysis Batch: 10872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	SM 4500 CN E	10790

Analysis Batch: 11105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3781-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
440-4065-1	Outfall 019 Composite	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 11105 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-11105/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 440-11105/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 11241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	SM 2540D	
440-4112-B-1 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 440-11241/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-11241/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 11428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	SM 5310B	
440-4207-A-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
440-4207-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	
LCS 440-11428/2	Lab Control Sample	Total/NA	Water	SM 5310B	
MB 440-11428/1	Method Blank	Total/NA	Water	SM 5310B	

Analysis Batch: 12569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	120.1	
440-3913-9 DU	Outfall 019 Grab	Total/NA	Water	120.1	
LCS 440-12569/2	Lab Control Sample	Total/NA	Water	120.1	
MB 440-12569/1	Method Blank	Total/NA	Water	120.1	

Prep Batch: 12574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	1664A	
LCS 440-12574/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-12574/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-12574/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 12658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	1664A	12574
LCS 440-12574/2-A	Lab Control Sample	Total/NA	Water	1664A	12574
LCSD 440-12574/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	12574
MB 440-12574/1-A	Method Blank	Total/NA	Water	1664A	12574

Biology

Analysis Batch: 10219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	SM 9221E	

Analysis Batch: 10220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3913-9	Outfall 019 Grab	Total/NA	Water	SM 9221F	

Subcontract

Analysis Batch: 8600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	Gamma Spec K-40 CS-137	8600_P
440-4065-1	Outfall 019 Composite	Total/NA	Water	Gross Alpha and Beta	8600_P
440-4065-1	Outfall 019 Composite	Total/NA	Water	Radium-226	8600_P
440-4065-1	Outfall 019 Composite	Total/NA	Water	Radium-228	8600_P
440-4065-1	Outfall 019 Composite	Total/NA	Water	Strontium 90	8600_P
440-4065-1	Outfall 019 Composite	Total/NA	Water	Tritium	8600_P
440-4065-1	Outfall 019 Composite	Total/NA	Water	Uranium, Combined	8600_P
440-4065-3	Trip Blank	Total/NA	Water	Gamma Spec K-40 CS-137	8600_P
440-4065-3	Trip Blank	Total/NA	Water	Gross Alpha and Beta	8600_P
440-4065-3	Trip Blank	Total/NA	Water	Radium 226	8600_P
440-4065-3	Trip Blank	Total/NA	Water	Radium 228	8600_P
440-4065-3	Trip Blank	Total/NA	Water	Strontium 90	8600_P
440-4065-3	Trip Blank	Total/NA	Water	Uranium, Combined	8600_P
S203010-03	Lab Control Sample	Total/NA	WATER	Gross Alpha and Beta	8600_P
S203010-04	Method Blank	Total/NA	WATER	Gross Alpha and Beta	8600_P
S203010-05	OUTFALL 019 COMPOSITE DU	Total/NA	WATER	Gross Alpha and Beta	8600_P

Prep Batch: 8600_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-4065-1	Outfall 019 Composite	Total/NA	Water	General Prep	
440-4065-3	Trip Blank	Total/NA	Water	General Prep	
S203010-03	Lab Control Sample	Total/NA	WATER	General Prep	
S203010-04	Method Blank	Total/NA	WATER	General Prep	
S203010-05	OUTFALL 019 COMPOSITE DU	Total/NA	WATER	General Prep	

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
LQ	LCS/LCSD recovery above method control limits
AZ	Surrogate recover outside of acceptance limits due to matrix interference

GC VOA

Qualifier	Qualifier Description
AY	Matrix Interference suspected

GC Semi VOA

Qualifier	Qualifier Description
AY	Matrix Interference suspected
PI	Primary and confirm results varied by > than 40% RPD

HPLC/IC

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL

DIOXIN

Qualifier	Qualifier Description
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
Q	Estimated maximum possible concentration (EMPC).
JQ	

Metals

Qualifier	Qualifier Description
MB	Analyte present in the method blank
LQ	LCS/LCSD recovery above method control limits
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL
BB	Sample > 4X spike concentration
AY	Matrix Interference suspected
RA	RPD exceeds limits due to matrix interference. % recoveries were within limits
LM	MS and/or MSD above acceptance limits. See Blank Spike (LCS)
LN	MS and/or MSD below acceptance limits. See Blank Spike (LCS)

General Chemistry

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL

Subcontract

Qualifier	Qualifier Description
U	The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.
J	The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: MWH Americas Inc
Project/Site: Boeing SSFL

TestAmerica Job ID: 440-3913-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	LA Cty Sanitation Districts	9	10256
TestAmerica Irvine	California	NELAC	9	1108CA
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Guam	State Program	9	Cert. No. 12.002r
TestAmerica Irvine	Hawaii	State Program	9	N/A
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	New Mexico	State Program	6	N/A
TestAmerica Irvine	Northern Mariana Islands	State Program	9	MP0002
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	Federal		P330-09-00080
TestAmerica West Sacramento	A2LA	A2LA		MP0007
TestAmerica West Sacramento	A2LA	DoD ELAP		2928-01
TestAmerica West Sacramento	Alaska (UST)	State Program	10	UST-055
TestAmerica West Sacramento	Arizona	State Program	9	AZ0708
TestAmerica West Sacramento	Arkansas DEQ	State Program	6	88-0691
TestAmerica West Sacramento	California	NELAC	9	1119CA
TestAmerica West Sacramento	Colorado	State Program	8	N/A
TestAmerica West Sacramento	Connecticut	State Program	1	PH-0691
TestAmerica West Sacramento	Florida	NELAC	4	E87570
TestAmerica West Sacramento	Georgia	State Program	4	960
TestAmerica West Sacramento	Guam	State Program	9	N/A
TestAmerica West Sacramento	Hawaii	State Program	9	N/A
TestAmerica West Sacramento	Illinois	NELAC	5	200060
TestAmerica West Sacramento	Kansas	NELAC	7	E-10375
TestAmerica West Sacramento	Louisiana	NELAC	6	30612
TestAmerica West Sacramento	Michigan	State Program	5	9947
TestAmerica West Sacramento	Nevada	State Program	9	CA44
TestAmerica West Sacramento	New Jersey	NELAC	2	CA005
TestAmerica West Sacramento	New Mexico	State Program	6	N/A
TestAmerica West Sacramento	New York	NELAC	2	11666
TestAmerica West Sacramento	Oregon	NELAC	10	CA200005
TestAmerica West Sacramento	Pennsylvania	NELAC	3	68-01272
TestAmerica West Sacramento	South Carolina	State Program	4	87014
TestAmerica West Sacramento	Texas	NELAC	6	T104704399-08-TX
TestAmerica West Sacramento	US Fish & Wildlife	Federal		LE148388-0
TestAmerica West Sacramento	USDA	Federal		P330-09-00055
TestAmerica West Sacramento	Utah	NELAC	8	QUAN1
TestAmerica West Sacramento	Virginia	State Program	3	178
TestAmerica West Sacramento	Washington	State Program	10	C581
TestAmerica West Sacramento	West Virginia	State Program	3	9930C
TestAmerica West Sacramento	West Virginia DEP	State Program	3	334
TestAmerica West Sacramento	Wisconsin	State Program	5	998204680
TestAmerica West Sacramento	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

EBERLINE SERVICES

EBERLINE ANALYTICAL CORPORATION
2030 Wright Avenue
Richmond, California 94804-3849
Phone (510) 235-2633 Fax (510) 235-0438
Toll Free (800) 841-5487
www.eberlineservices.com

April 17, 2012

Ms. Debby Wilson
Test America Irvine
17461 Derian Ave., Ste. 100
Irvine, CA 92614

Reference: **Test America-Irvine 44002624**
Eberline Analytical Report S203010-8600
Sample Delivery Group 8600

Dear Ms. Wilson:

Enclosed is a revised Level IV CLP-like data package (on CD) for two water samples received under Test America Project No. 44002624. The samples were received on March 7, 2012 and originally reported on March 28, 2012.

The original data package included gamma spectroscopy results for Co60 that were not requested on the COC. Those results have been removed. No other revisions were made.

Please call me, if you have any questions concerning the enclosed report.

Sincerely,

Joseph Verville
Client Services Manager

NJV/mw

Enclosure: Level IV CLP-like Data Package CD

1.0 General Comments

Sample delivery group 8600 consists of the analytical results and supporting documentation for two water samples. Sample ID's and reference dates/times are given in the Sample Summary section of the Summary Data report. The samples were received as stated on the chain-of-custody document. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist. No holding times were exceeded.

Tritium and gamma analyses were performed on the samples as received i.e. the samples were not filtered. The analytical volumes for all other analyses were subjected to a full nitric acid/hydrofluoric acid dissolution, and analyses were performed on the dissolution volumes.

Sample OUTFALL 019 COMPOSITE was originally received on March 13 however the sample container was compromised and the sample volume had leaked into shipping cooler. A replacement sample was received on March 7, 2012.

2.0 Quality Control

Quality Control Samples consisted of laboratory control samples (LCS), method blanks, and duplicate analyses. Included in the data package are copies of the Eberline Analytical radiometrics data sheets. The radiometrics data sheets for the QC LCS and QC blank samples indicate Eberline Analytical's standard QC aliquot of 1.0 sample; results for those QC types are calculated as pCi/sample. The QC LCS and QC blank sample results reported in the Summary Data Section have been divided by the appropriate method specific aliquot (see the Lab Method Summaries for specific aliquots) in order to make the results comparable to the field sample results. All QC sample results were within required control limits.

3.0 Method Errors

The error for each result is an estimate of the significant random uncertainties incurred in the measurement process. These are propagated to each final result. They include the counting (Poisson) uncertainty, as well as those intrinsic errors due to carrier or tracer standardization, aliquoting, counter efficiencies, weights, or volumes. The following method errors were propagated to the count error to calculate the 2σ error (Total):

Analysis	Method Error
Gross alpha	20.6%
Gross beta	11.0%
Tritium	10.0%
Sr-90	10.4%
Ra-226	16.4%
Ra-228	10.4%
Uranium,Total	
Gamma Spec.	7.0%

4.0 Analysis Notes

4.1 Gross Alpha/Gross Beta Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.2 Tritium Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.3 Strontium-90 Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.4 Radium-226 Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

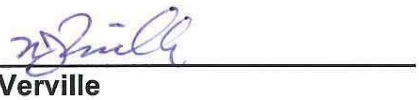
4.5 Radium-228 Analysis - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits

4.6 Total Uranium Analysis - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.7 Gamma Spectroscopy – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

5.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."



Joseph Verville
Client Services Manager

4/17/12
Date

EBERLINE ANALYTICAL
SDG 8600

SDG 8600	Client Test America, Inc.
Contact Joseph Verville	Contract 44002624

SUMMARY DATA SECTION

TABLE OF CONTENTS

About this section	1
Sample Summaries	3
Prep Batch Summary	5
Work Summary	6
Method Blanks	8
Lab Control Samples	9
Duplicates	10
Data Sheets	11
Method Summaries	13
Report Guides	21
End of Section	35

Prepared by

Reviewed by

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-TOC
Version	3.06
Report date	04/17/12

SDG 8600
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

ABOUT THE DATA SUMMARY SECTION

The Data Summary Section of a Data Package has all data, in several useful orders, necessary for first level, routine review of the data package for a Sample Delivery Group (SDG). This section follows the Data Package Narrative, which has an overview of the data package and a discussion of special problems. It is followed by the Raw Data Section, which has full details.

The Data Summary Section has several groups of reports:

SAMPLE SUMMARIES

The Sample and QC Summary Reports show all samples, including QC samples, reported in one SDG. These reports cross-reference client and lab sample identifiers.

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches (lab groupings reflecting how work was organized) relevant to the reported SDG with information necessary to check the completeness and consistency of the SDG.

WORK SUMMARY

The Work Summary Report shows all samples and work done on them relevant to the reported SDG.

METHOD BLANKS

The Method Blank Reports, one for each Method Blank relevant to the SDG, show all results and primary supporting information for the blanks.

LAB CONTROL SAMPLES

The Lab Control Sample Reports, one for each Lab Control Sample relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DUPLICATES

SDG 8600
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

ABOUT THE DATA SUMMARY SECTION

The Duplicate Reports, one for each Duplicate and Original sample pair relevant to the SDG, show all results, differences and primary supporting information for these QC samples.

MATRIX SPIKES

The Matrix Spike Reports, one for each Spiked and Original sample pair relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DATA SHEETS

The Data Sheet Reports, one for each client sample in the SDG, show all results and primary supporting information for these samples.

METHOD SUMMARIES

The Method Summary Reports, one for each test used in the SDG, show all results, QC and method performance data for one analyte on one or two pages. (A test is a short code for the method used to do certain work to the client's specification.)

REPORT GUIDES

The Report Guides, one for each of the above groups of reports, have documentation on how to read the associated reports.

EBERLINE ANALYTICAL

SDG 8600

LAB SAMPLE SUMMARY

SDG 8600
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

LAB SAMPLE ID	CLIENT SAMPLE ID	LOCATION	MATRIX	LEVEL	SAS NO	CHAIN OF CUSTODY	COLLECTED
S203010-01	OUTFALL 019 COMPOSITE	Boeing-SSFL	WATER			440-2062.1	02/29/12 11:30
S203010-02	TRIP-BLANK (440-4065-3)	Boeing-SSFL	WATER			440-2062.1	02/29/12 10:33
S203010-03	Lab Control Sample		WATER				
S203010-04	Method Blank		WATER				
S203010-05	Duplicate (S203010-01)	Boeing-SSFL	WATER				02/29/12 11:30

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LS
Version 3.06
Report date 04/17/12

SDG 8600
Contact Joseph Verville

QC SUMMARY

Client Test America, Inc.
Contract 44002624

QC BATCH	CHAIN OF CUSTODY	CLIENT SAMPLE ID	MATRIX	% MOIST	SAMPLE AMOUNT	BASIS AMOUNT	DAYS RECEIVED	DAYS COLL	LAB SAMPLE ID	DEPARTMENT SAMPLE ID
8600	440-2062.1	OUTFALL 019 COMPOSITE	WATER		10.0 L		03/07/12	7	S203010-01	8600-001
		TRIP-BLANK (440-4065-3)	WATER		10.0 L		03/07/12	7	S203010-02	8600-002
		Method Blank	WATER						S203010-04	8600-004
		Lab Control Sample	WATER						S203010-03	8600-003
		Duplicate (S203010-01)	WATER		10.0 L		03/07/12	7	S203010-05	8600-005

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-QS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

PREP BATCH SUMMARY

SDG 8600
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

TEST	MATRIX	METHOD	PREPARATION BATCH	ERROR 2σ %	PLANCHETS ANALYZED CLIENT	MORE	RE	BLANK	LCS	DUP/ORIG	MS/ORIG	QUALIFIERS
Beta Counting												
AC	WATER	Radium-228 in Water	7726-030	10.4	2			1	1	1/1		
SR	WATER	Strontium-90 in Water	7726-030	10.4	2			1	1	1/1		
Gas Proportional Counting												
80A	WATER	Gross Alpha in Water	7726-030	20.6	2			1	1	1/1		
80B	WATER	Gross Beta in Water	7726-030	11.0	2			1	1	1/1		
Gamma Spectroscopy												
GAM	WATER	Gamma Emitters in Water	7726-030	7.0	2			1	1	1/1		
Kinetic Phosphorimetry												
U_T	WATER	Uranium, Total	7726-030		2			1	1	1/1		
Liquid Scintillation Counting												
H	WATER	Tritium in Water	7726-030	10.0	1			1	1	1/1		
Radon Counting												
RA	WATER	Radium-226 in Water	7726-030	16.4	2			1	1	1/1		

Blank, LCS, Duplicate and Spike planchets are those in the same preparation batch as some Client sample.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-PBS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

LAB WORK SUMMARY

SDG 8600
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

LAB SAMPLE / COLLECTED / RECEIVED	CLIENT SAMPLE ID / LOCATION / CUSTODY / SAS no	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
S203010-01	OUTFALL 019 COMPOSITE		8600-001	80A/80		03/19/12	03/20/12	BW	Gross Alpha in Water
02/29/12	Boeing-SSFL	WATER	8600-001	80B/80		03/19/12	03/20/12	BW	Gross Beta in Water
03/07/12	440-2062.1		8600-001	AC		03/19/12	03/21/12	BW	Radium-228 in Water
			8600-001	GAM		03/17/12	03/20/12	CSS	Gamma Emitters in Water
			8600-001	H		03/13/12	03/19/12	BW	Tritium in Water
			8600-001	RA		03/21/12	03/21/12	BW	Radium-226 in Water
			8600-001	SR		03/16/12	03/21/12	BW	Strontium-90 in Water
			8600-001	U_T		03/19/12	03/19/12	CSS	Uranium, Total
S203010-02	TRIP-BLANK (440-4065-3)		8600-002	80A/80		03/19/12	03/20/12	BW	Gross Alpha in Water
02/29/12	Boeing-SSFL	WATER	8600-002	80B/80		03/19/12	03/20/12	BW	Gross Beta in Water
03/07/12	440-2062.1		8600-002	AC		03/19/12	03/21/12	BW	Radium-228 in Water
			8600-002	GAM		03/17/12	03/20/12	CSS	Gamma Emitters in Water
			8600-002	RA		03/21/12	03/21/12	BW	Radium-226 in Water
			8600-002	SR		03/16/12	03/21/12	BW	Strontium-90 in Water
			8600-002	U_T		03/19/12	03/19/12	CSS	Uranium, Total
S203010-03	Lab Control Sample		8600-003	80A/80		03/19/12	03/20/12	BW	Gross Alpha in Water
		WATER	8600-003	80B/80		03/19/12	03/20/12	BW	Gross Beta in Water
			8600-003	AC		03/19/12	03/21/12	BW	Radium-228 in Water
			8600-003	GAM		03/17/12	03/20/12	CSS	Gamma Emitters in Water
			8600-003	H		03/13/12	03/19/12	BW	Tritium in Water
			8600-003	RA		03/21/12	03/21/12	BW	Radium-226 in Water
			8600-003	SR		03/16/12	03/21/12	BW	Strontium-90 in Water
			8600-003	U_T		03/19/12	03/19/12	CSS	Uranium, Total
S203010-04	Method Blank		8600-004	80A/80		03/19/12	03/20/12	BW	Gross Alpha in Water
		WATER	8600-004	80B/80		03/19/12	03/20/12	BW	Gross Beta in Water
			8600-004	AC		03/19/12	03/21/12	BW	Radium-228 in Water
			8600-004	GAM		03/19/12	03/20/12	CSS	Gamma Emitters in Water
			8600-004	H		03/13/12	03/19/12	BW	Tritium in Water
			8600-004	RA		03/21/12	03/21/12	BW	Radium-226 in Water
			8600-004	SR		03/16/12	03/21/12	BW	Strontium-90 in Water
			8600-004	U_T		03/19/12	03/19/12	CSS	Uranium, Total

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LWS
Version 3.06
Report date 04/17/12

SDG 8600
Contact Joseph Verville

WORK SUMMARY, cont.

Client Test America, Inc.
Contract 44002624

LAB SAMPLE / COLLECTED / RECEIVED	CLIENT SAMPLE ID / LOCATION / CUSTODY	SAS no	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
S203010-05	Duplicate (S203010-01)			8600-005	80A/80		03/19/12	03/20/12	BW	Gross Alpha in Water
02/29/12	Boeing-SSFL		WATER	8600-005	80B/80		03/19/12	03/20/12	BW	Gross Beta in Water
03/07/12				8600-005	AC		03/19/12	03/21/12	BW	Radium-228 in Water
				8600-005	GAM		03/19/12	03/20/12	CSS	Gamma Emitters in Water
				8600-005	H		03/13/12	03/19/12	BW	Tritium in Water
				8600-005	RA		03/21/12	03/21/12	BW	Radium-226 in Water
				8600-005	SR		03/16/12	03/21/12	BW	Strontium-90 in Water
				8600-005	U_T		03/19/12	03/19/12	CSS	Uranium, Total

COUNTS OF TESTS BY SAMPLE TYPE

TEST	SAS no	METHOD	REFERENCE	CLIENT	MORE	RE	BLANK	LCS	DUP	SPIKE	TOTAL
80A/80		Gross Alpha in Water	900.0	2			1	1	1		5
80B/80		Gross Beta in Water	900.0	2			1	1	1		5
AC		Radium-228 in Water	904.0	2			1	1	1		5
GAM		Gamma Emitters in Water	901.1	2			1	1	1		5
H		Tritium in Water	906.0	1			1	1	1		4
RA		Radium-226 in Water	903.1	2			1	1	1		5
SR		Strontium-90 in Water	905.0	2			1	1	1		5
U_T		Uranium, Total	D5174	2			1	1	1		5
TOTALS				15			8	8	8		39

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LWS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

8600-004 Method Blank

METHOD BLANK

SDG	8600	Client	Test America, Inc.
Contact	Joseph Verville	Contract	44002624
Lab sample id	S203010-04	Client sample id	Method Blank
Dept sample id	8600-004	Material/Matrix	WATER

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	0.093	0.26	0.477	3.00	U	80A
Gross Beta	12587472	-0.344	0.58	0.983	4.00	U	80B
Tritium	10028178	-8.59	10	17.2	500	U	H
Radium-226	13982633	0.054	0.33	0.590	1.00	U	RA
Radium-228	15262201	-0.088	0.13	0.354	1.00	U	AC
Strontium-90	10098972	-0.103	0.13	0.353	2.00	U	SR
Uranium, Total		0	0.008	0.018	1.00	U	U_T
Potassium-40	13966002	12.7	18	30.4	25.0	U	GAM
Cesium-137	10045973	0.320	1.6	2.83	20.0	U	GAM

QC-BLANK #81258

EBERLINE ANALYTICAL

SDG 8600

8600-003 Lab Control Sample

LAB CONTROL SAMPLE

SDG 8600 Client Test America, Inc.

Contact Joseph Verville Contract 44002624

Lab sample id S203010-03 Client sample id Lab Control Sample

Dept sample id 8600-003 Material/Matrix WATER

ANALYTE	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST	ADDED pCi/L	2σ ERR pCi/L	REC %	2σ LMTS (TOTAL)	PROTOCOL LIMITS
Gross Alpha	40.4	2.2	0.520	3.00		80A	33.7	1.3	120	74-126	70-130
Gross Beta	27.4	1.2	0.944	4.00		80B	28.4	1.1	96	88-112	70-130
Tritium	338	24	24.9	500	J	H	369	15	92	88-112	80-120
Radium-226	56.9	2.2	0.752	1.00		RA	55.7	2.2	102	82-118	80-120
Radium-228	3.97	0.089	0.316	1.00		AC	4.47	0.18	89	90-110	60-140
Strontium-90	7.54	0.68	0.344	2.00		SR	8.52	0.34	88	87-113	80-120
Uranium, Total	57.4	6.5	0.178	1.00		U_T	57.5	2.3	100	88-112	80-120
Cobalt-60	136	6.1	5.02	10.0		GAM	132	5.3	103	91-109	80-120
Cesium-137	153	3.6	5.03	20.0		GAM	147	5.9	104	91-109	80-120

QC-LCS #81257

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

8600-005

OUTFALL 019 COMPOSITE

DUPLICATE

SDG 8600
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

DUPLICATE
Lab sample id S203010-05
Dept sample id 8600-005

ORIGINAL
Lab sample id S203010-01
Dept sample id 8600-001
Received 03/07/12

Client sample id OUTFALL 019 COMPOSITE
Location/Matrix Boeing-SSFL WATER
Collected/Volume 02/29/12 11:30 10.0 L
Chain of custody id 440-2062.1

ANALYTE	DUPLICATE pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST	ORIGINAL pCi/L	2σ ERR (COUNT)	MDA pCi/L	QUALI-FIERS	RPD %	3σ TOT	DER σ
Gross Alpha	1.08	0.97	1.70	3.00	U	80A	0.091	1.2	2.13	U	-		1.3
Gross Beta	3.30	1.2	1.83	4.00	J	80B	2.60	1.3	2.09	J	24	93	0.8
Tritium	-104	85	150	500	U	H	-57.9	87	151	U	-		0.8
Radium-226	-0.117	0.34	0.653	1.00	U	RA	0.100	0.35	0.616	U	-		0.9
Radium-228	0.004	0.13	0.346	1.00	U	AC	0.022	0.12	0.329	U	-		0.2
Strontium-90	0.067	0.34	0.744	2.00	U	SR	0.242	0.45	0.958	U	-		0.6
Uranium, Total	1.23	0.13	0.018	1.00		U_T	1.22	0.13	0.018		1	23	0.1
Potassium-40	17.3	21	34.8	25.0	U	GAM	1.26	17	30.0	U	-		1.2
Cesium-137	0.616	1.6	2.79	20.0	U	GAM	0.622	0.66	1.54	U	-		0

QC-DUP#1 81259

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-DUP
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

8600-001 OUTFALL 019 COMPOSITE

DATA SHEET

SDG 8600 Client Test America, Inc.
Contact Joseph Verville Contract 44002624

Lab sample id S203010-01 Client sample id OUTFALL 019 COMPOSITE
Dept sample id 8600-001 Location/Matrix Boeing-SSFL WATER
Received 03/07/12 Collected/Volume 02/29/12 11:30 10.0 L
Chain of custody id 440-2062.1

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	0.091	1.2	2.13	3.00	U	80A
Gross Beta	12587472	2.60	1.3	2.09	4.00	J	80B
Tritium	10028178	-57.9	87	151	500	U	H
Radium-226	13982633	0.100	0.35	0.616	1.00	U	RA
Radium-228	15262201	0.022	0.12	0.329	1.00	U	AC
Strontium-90	10098972	0.242	0.45	0.958	2.00	U	SR
Uranium, Total		1.22	0.13	0.018	1.00		U_T
Potassium-40	13966002	1.26	17	30.0	25.0	U	GAM
Cesium-137	10045973	0.622	0.66	1.54	20.0	U	GAM

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 04/17/12

DATA SHEETS
Page 1
SUMMARY DATA SECTION
Page 11

EBERLINE ANALYTICAL

SDG 8600

8600-002 TRIP-BLANK (440-4065-3)

DATA SHEET

SDG	8600	Client	Test America, Inc.
Contact	Joseph Verville	Contract	44002624
Lab sample id	S203010-02	Client sample id	TRIP-BLANK (440-4065-3)
Dept sample id	8600-002	Location/Matrix	Boeing-SSFL WATER
Received	03/07/12	Collected/Volume	02/29/12 10:33 10.0 L
		Chain of custody id	440-2062.1

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	-0.054	0.19	0.357	3.00	U	80A
Gross Beta	12587472	0.221	0.66	1.07	4.00	U	80B
Radium-226	13982633	0.022	0.25	0.474	1.00	U	RA
Radium-228	15262201	-0.108	0.098	0.284	1.00	U	AC
Strontium-90	10098972	-0.166	0.26	0.683	2.00	U	SR
Uranium, Total		0	0.008	0.018	1.00	U	U_T
Potassium-40	13966002	19.9	32	54.1	25.0	U	GAM
Cesium-137	10045973	-0.323	0.93	2.43	20.0	U	GAM

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/17/12

EBERLINE ANALYTICAL

SDG 8600

LAB METHOD SUMMARY

RADIUM-228 IN WATER

BETA COUNTING

Test AC Matrix WATER
SDG 8600
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Radium-228	
Preparation batch 7726-030						
S203010-01			8600-001	OUTFALL 019 COMPOSITE	U	
S203010-02			8600-002	TRIP-BLANK (440-4065-3)	U	
S203010-03			8600-003	Lab Control Sample	ok	
S203010-04			8600-004	Method Blank	U	
S203010-05			8600-005	Duplicate (S203010-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	1.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7726-030			2σ prep error 10.4 %	Reference Lab Notebook 7724 pg. 119												
S203010-01			OUTFALL 019 COMPOSITE	0.329	1.80			82		150			19	03/19/12	03/19	GRB-221
S203010-02			TRIP-BLANK (440-4065-3)	0.284	1.80			98		150			19	03/19/12	03/19	GRB-222
S203010-03			Lab Control Sample	0.316	1.80			86		150				03/19/12	03/19	GRB-223
S203010-04			Method Blank	0.354	1.80			81		150				03/19/12	03/19	GRB-224
S203010-05			Duplicate (S203010-01)	0.346	1.80			80		150			19	03/19/12	03/19	GRB-225
Nominal values and limits from method				1.00	1.80			30-105		50			180			

PROCEDURES REFERENCE 904.0
DWP-894 Sequential Separation of Actinium-228 and Radium-226 in Drinking Water (>1 Liter Aliquot), rev 5

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.326 ± 0.055
YIELD 85 ± 15

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

LAB METHOD SUMMARY

STRONTIUM-90 IN WATER

BETA COUNTING

Test SR Matrix WATER
SDG 8600
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Strontium-90	
Preparation batch 7726-030						
S203010-01			8600-001	OUTFALL 019 COMPOSITE	U	
S203010-02			8600-002	TRIP-BLANK (440-4065-3)	U	
S203010-03			8600-003	Lab Control Sample	ok	
S203010-04			8600-004	Method Blank	U	
S203010-05			8600-005	Duplicate (S203010-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	2.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7726-030			2σ prep error 10.4 %	Reference Lab Notebook 7724 pg. 119												
S203010-01			OUTFALL 019 COMPOSITE	0.958	0.500			94		50			16	03/16/12	03/16	GRB-229
S203010-02			TRIP-BLANK (440-4065-3)	0.683	0.500			95		50			16	03/16/12	03/16	GRB-221
S203010-03			Lab Control Sample	0.344	1.00			90		50				03/16/12	03/16	GRB-222
S203010-04			Method Blank	0.353	1.00			91		50				03/16/12	03/16	GRB-223
S203010-05			Duplicate (S203010-01)	0.744	0.500			93		50			16	03/16/12	03/16	GRB-224
Nominal values and limits from method				2.00	1.00			30-105		50			180			

PROCEDURES REFERENCE 905.0
CP-380 Strontium in Water Samples, rev 5

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.616 ± 0.530
YIELD 93 ± 4

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

Test 80A Matrix WATER
SDG 8600
Contact Joseph Verville

LAB METHOD SUMMARY

GROSS ALPHA IN WATER
GAS PROPORTIONAL COUNTING

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Gross Alpha	
Preparation batch 7726-030						
S203010-01	80		8600-001	OUTFALL 019 COMPOSITE	U	
S203010-02	80		8600-002	TRIP-BLANK (440-4065-3)	U	
S203010-03	80		8600-003	Lab Control Sample	ok	
S203010-04	80		8600-004	Method Blank	U	
S203010-05	80		8600-005	Duplicate (S203010-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	3.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	RESID mg	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7726-030			2σ prep error 20.6 %	Reference Lab Notebook 7724 pg. 119												
S203010-01	80		OUTFALL 019 COMPOSITE	2.13	0.135			97		400			19	03/15/12	03/19	GRB-105
S203010-02	80		TRIP-BLANK (440-4065-3)	0.357	0.300			2		400			19	03/15/12	03/19	GRB-107
S203010-03	80		Lab Control Sample	0.520	0.300			60		400				03/15/12	03/19	GRB-101
S203010-04	80		Method Blank	0.477	0.300			62		400				03/15/12	03/19	GRB-103
S203010-05	80		Duplicate (S203010-01)	1.70	0.135			97		400			19	03/15/12	03/19	GRB-104
Nominal values and limits from method				3.00	0.300			0-250		100			180			

PROCEDURES REFERENCE 900.0
DWP-121 Gross Alpha and Gross Beta in Drinking Water, rev 10

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 1.04 ± 1.64
RESIDUE 64 ± 78

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

LAB METHOD SUMMARY

GROSS BETA IN WATER

GAS PROPORTIONAL COUNTING

Test 80B Matrix WATER
SDG 8600
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Gross Beta	
Preparation batch 7726-030						
S203010-01	80		8600-001	OUTFALL 019 COMPOSITE	2.60	J
S203010-02	80		8600-002	TRIP-BLANK (440-4065-3)	U	
S203010-03	80		8600-003	Lab Control Sample	ok	
S203010-04	80		8600-004	Method Blank	U	
S203010-05	80		8600-005	Duplicate (S203010-01)	ok	J
Nominal values and limits from method				RDLs (pCi/L)	4.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	RESID mg	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7726-030			2σ prep error 11.0 %	Reference Lab Notebook 7724 pg. 119												
S203010-01	80		OUTFALL 019 COMPOSITE	2.09	0.135			97		400			19	03/15/12	03/19	GRB-105
S203010-02	80		TRIP-BLANK (440-4065-3)	1.07	0.300			2		400			19	03/15/12	03/19	GRB-107
S203010-03	80		Lab Control Sample	0.944	0.300			60		400				03/15/12	03/19	GRB-101
S203010-04	80		Method Blank	0.983	0.300			62		400				03/15/12	03/19	GRB-103
S203010-05	80		Duplicate (S203010-01)	1.83	0.135			97		400			19	03/15/12	03/19	GRB-104
Nominal values and limits from method				4.00	0.300			0-250		100			180			

PROCEDURES REFERENCE 900.0
DWP-121 Gross Alpha and Gross Beta in Drinking Water, rev 10

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 1.38 ± 1.07
RESIDUE 64 ± 78

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

LAB METHOD SUMMARY

GAMMA EMITTERS IN WATER

GAMMA SPECTROSCOPY

Test GAM Matrix WATER
SDG 8600
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Cobalt-60	Cesium-137	
Preparation batch 7726-030							
S203010-01			8600-001	OUTFALL 019 COMPOSITE		U	
S203010-02			8600-002	TRIP-BLANK (440-4065-3)		U	
S203010-03			8600-003	Lab Control Sample	ok	ok	
S203010-04			8600-004	Method Blank		U	
S203010-05			8600-005	Duplicate (S203010-01)		-	U
Nominal values and limits from method				RDLs (pCi/L)	10.0	20.0	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7726-030			2σ prep error 7.0 %	Reference Lab Notebook 7724 pg. 119												
S203010-01			OUTFALL 019 COMPOSITE		2.00					400			17	03/14/12	03/17	MB,G8,0
S203010-02			TRIP-BLANK (440-4065-3)		2.00					400			17	03/14/12	03/17	MB,G5,0
S203010-03			Lab Control Sample		2.00					400				03/14/12	03/17	MB,G6,0
S203010-04			Method Blank		2.00					400				03/14/12	03/19	MB,G3,0
S203010-05			Duplicate (S203010-01)		2.00					400			19	03/14/12	03/19	MB,G4,0
Nominal values and limits from method				6.00	2.00					400			180			

PROCEDURES REFERENCE 901.1
DWP-100 Preparation of Drinking Water Samples for Gamma Spectroscopy, rev 5

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

LAB METHOD SUMMARY

URANIUM, TOTAL

KINETIC PHOSPHORIMETRY

Test U T Matrix WATER
SDG 8600
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Uranium, Total
Preparation batch 7726-030					
S203010-01			8600-001	OUTFALL 019 COMPOSITE	1.22
S203010-02			8600-002	TRIP-BLANK (440-4065-3)	U
S203010-03			8600-003	Lab Control Sample	ok
S203010-04			8600-004	Method Blank	U
S203010-05			8600-005	Duplicate (S203010-01)	ok
Nominal values and limits from method				RDLs (pCi/L)	1.00

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7726-030			2σ prep error		Reference Lab Notebook 7724 pg. 119											
S203010-01			OUTFALL 019 COMPOSITE	0.018	0.0200								19	03/19/12	03/19	KPA-001
S203010-02			TRIP-BLANK (440-4065-3)	0.018	0.0200								19	03/19/12	03/19	KPA-001
S203010-03			Lab Control Sample	0.178	0.0200									03/19/12	03/19	KPA-001
S203010-04			Method Blank	0.018	0.0200									03/19/12	03/19	KPA-001
S203010-05			Duplicate (S203010-01)	0.018	0.0200								19	03/19/12	03/19	KPA-001
Nominal values and limits from method				1.00	0.0200								180			

PROCEDURES REFERENCE D5174

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.050 ± 0.143
YIELD _____ ± _____

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

LAB METHOD SUMMARY

TRITIUM IN WATER

LIQUID SCINTILLATION COUNTING

Test H Matrix WATER
SDG 8600
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Tritium	
Preparation batch 7726-030						
S203010-01			8600-001	OUTFALL 019 COMPOSITE	U	
S203010-03			8600-003	Lab Control Sample	ok	J
S203010-04			8600-004	Method Blank	U	
S203010-05			8600-005	Duplicate (S203010-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	500	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7726-030			2σ prep error 10.0 %		Reference Lab Notebook 7724 pg. 119											
S203010-01			OUTFALL 019 COMPOSITE	151	0.0100			100		150			13	03/13/12	03/13	LSC-007
S203010-03			Lab Control Sample	24.9	0.605			10		150				03/13/12	03/13	LSC-007
S203010-04			Method Blank	17.2	0.605			10		300				03/13/12	03/13	LSC-007
S203010-05			Duplicate (S203010-01)	150	0.0100			100		150			13	03/13/12	03/13	LSC-007
Nominal values and limits from method				500	0.605					100			180			

PROCEDURES REFERENCE 906.0
DWP-212 Tritium in Drinking Water by Distillation, rev 8

AVERAGES ± 2 SD FOR 4 SAMPLES
MDA 85.8 ± 150
YIELD 55 ± 104

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/17/12

EBERLINE ANALYTICAL

SDG 8600

Test RA Matrix WATER
SDG 8600
Contact Joseph Verville

LAB METHOD SUMMARY

RADIUM-226 IN WATER

RADON COUNTING

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Radium-226	
Preparation batch 7726-030						
S203010-01			8600-001	OUTFALL 019 COMPOSITE	U	
S203010-02			8600-002	TRIP-BLANK (440-4065-3)	U	
S203010-03			8600-003	Lab Control Sample	ok	
S203010-04			8600-004	Method Blank	U	
S203010-05			8600-005	Duplicate (S203010-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	1.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7726-030			2σ prep error 16.4 %	Reference Lab Notebook 7724 pg. 119												
S203010-01			OUTFALL 019 COMPOSITE	0.616	0.100			100		121			21	03/21/12	03/21	RN-014
S203010-02			TRIP-BLANK (440-4065-3)	0.474	0.100			100		121			21	03/21/12	03/21	RN-010
S203010-03			Lab Control Sample	0.752	0.100			100		121				03/21/12	03/21	RN-009
S203010-04			Method Blank	0.590	0.100			100		121				03/21/12	03/21	RN-013
S203010-05			Duplicate (S203010-01)	0.653	0.100			100		121			21	03/21/12	03/21	RN-016
Nominal values and limits from method				1.00	0.100					100			180			

PROCEDURES REFERENCE 903.1
DWP-881A Ra-226 Screening in Drinking Water, rev 6

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.617 ± 0.202
YIELD 100 ± 0

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/17/12

SDG 8600
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

SAMPLE SUMMARY

The Sample and QC Summary Reports show all samples, including QC samples, reported in one Sample Delivery Group (SDG).

The Sample Summary Report fully identifies client samples and gives the corresponding lab sample identification. The QC Summary Report shows at the sample level how the lab organized the samples into batches and generated QC samples. The Preparation Batch and Method Summary Reports show this at the analysis level.

The following notes apply to these reports:

* LAB SAMPLE ID is the lab's primary identification for a sample.

* DEPARTMENT SAMPLE ID is an alternate lab id, for example one assigned by a radiochemistry department in a lab.

* CLIENT SAMPLE ID is the client's primary identification for a sample. It includes any sample preparation done by the client that is necessary to identify the sample.

* QC BATCH is a lab assigned code that groups samples to be processed and QCed together. These samples should have similar matrices.

  QC BATCH is not necessarily the same as SDG, which reflects samples received and reported together.

* All Lab Control Samples, Method Blanks, Duplicates and Matrix Spikes are shown that QC any of the samples. Due to possible reanalyses, not all results for all these QC samples may be relevant to the SDG. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

SDG 8600
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches in one Sample Delivery Group (SDG) with information necessary to check the completeness and consistency of the SDG.

The following notes apply to this report:

* The preparation batches are shown in the same order as the Method Summary Reports are printed.

* Only analyses of planchets relevant to the SDG are included.

* Each preparation batch should have at least one Method Blank and LCS in it to validate client sample results.

* The QUALIFIERS shown are all qualifiers other than U, J, B, L and H that occur on any analysis in the preparation batch. The Method Summary Report has these qualifiers on a per sample basis.

  These qualifiers should be reviewed as follows:

  X Some data has been manually entered or modified. Transcription errors are possible.

  P One or more results are 'preliminary'. The data is not ready for final reporting.

  2 There were two or more results for one analyte on one planchet imported at one time. The results in DVD may not be the same as on the raw data sheets.

  Other lab defined qualifiers may occur. In general, these should be addressed in the SDG narrative.

SDG 8600
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

WORK SUMMARY

The Work Summary Report shows all samples, including QC samples, and all relevant analyses in one Sample Delivery Group (SDG). This report is often useful as supporting documentation for an invoice.

The following notes apply to this report:

* TEST is a code for the method used to measure associated analytes. Results and related information for each analyte are on the Data Sheet Report. In special cases, a test code used in the summary data section is not the same as in associated raw data. In this case, both codes are shown on the Work Summary.

* SUFFIX is the lab's code to distinguish multiple analyses (recounts, reworks, reanalyses) of a fraction of the sample. The suffix indicates which result is being reported. An empty suffix normally identifies the first attempt to analyze the sample.

* The LAB SAMPLE ID, TEST and SUFFIX uniquely identify all supporting data for a result. The Method Summary Report for each TEST has method performance data, such as yield, for each lab sample id and suffix and procedures used in the method.

* PLANCHET is an alternate lab identifier for work done for one test. It, combined with the TEST and SUFFIX, may be the best link to raw data.

* For QC samples, only analyses that directly QC some regular sample are shown. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

* The SAS (Special Analytical Services) Number is a client or lab assigned code that reflects special processing for samples, such as rapid turn around. Counts of tests done are lists by SAS number since it is likely to affect prices.

SDG 8600
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

DATA SHEET

The Data Sheet Report shows all results and primary supporting information for one client sample or Method Blank. This report corresponds to both the CLP Inorganics and Organics Data Sheet.

The following notes apply to this report:

* TEST is a code for the method used to measure an analyte. If the TEST is empty, no data is available; the analyte was not analyzed for.

* The LAB SAMPLE ID and TEST uniquely identify work within the Summary Data Section of a Data Package. The Work Summary and Method Summary Reports further identify raw data that underlies this work.

  The Method Summary Report for each TEST has method performance data, such as yield, for each Lab Sample ID and a list of procedures used in the method.

* ERRORs can be labeled TOTAL or COUNT. TOTAL implies a preparation (non-counting method) error has been added, as square root of sum of squares, to the counting error denoted by COUNT. The preparation errors, which may vary by preparation batch, are shown on the Method Summary Report.

* A RESULT can be 'N.R.' (Not Reported). This means the lab did this work but chooses not to report it now, possibly because it was reported at another time.

* When reporting a Method Blank, a RESULT can be 'N.A.' (Not Applicable). This means there is no reported client sample work in the same preparation batch as the Blank's result. This is likely to occur when the Method Blank is associated with reanalyses of selected work for a few samples in the SDG.

The following qualifiers are defined by the DVD system:

U The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/17/12

SDG 8600
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

DATA SHEET

J The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.

B A Method Blank associated with this sample had a result without a U flag and, after correcting for possibly different aliquots, that result is greater than or equal to the MDA for this sample.

Normally, B is not assigned if U is. When method blank subtraction is shown on this report, B flags are assigned based on the unsubtracted values while U's are assigned based on the subtracted ones. Both flags can be assigned in this case.

For each sample result, all Method Blank results in the same preparation batch are compared. The Method Summary Report documents this and other QC relationships.

L Some Lab Control Sample that QC's this sample had a low recovery. The lab can disable assignment of this qualifier.

H Similar to 'L' except the recovery was high.

P The RESULT is 'preliminary'.

X Some data necessary to compute the RESULT, ERROR or MDA was manually entered or modified.

2 There were two or more results available for this analyte. The reported result may not be the same as in the raw data.

Other qualifiers are lab defined. Definitions should be in the SDG narrative.

The following values are underlined to indicate possible problems:

* An MDA is underlined if it is bigger than its RDL.

* An ERROR is underlined if the 1.645 sigma counting error is bigger than both the MDA and the RESULT, implying that the MDA

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/17/12

SDG 8600
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

DATA SHEET

may not be a good estimate of the 'real' minimum detectable activity.

* A negative RESULT is underlined if it is less than the negative of its 2 sigma counting ERROR.

* When reporting a Method Blank, a RESULT is underlined if greater than its MDA. If the MDA is blank, the 2 sigma counting error is used in the comparison.

SDG 8600
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

LAB CONTROL SAMPLE

The Lab Control Sample Report shows all results, recoveries and primary supporting information for one Lab Control Sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. Refer to its Report Guide for details.

* An amount ADDED is the lab's value for the actual amount spiked into this sample with its ERROR an estimate of the error of this amount.

  An amount added is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

* REC (Recovery) is RESULT divided by ADDED expressed as a percent.

* The first, computed limits for the recovery reflect:

  1. The error of RESULT, including that introduced by rounding the result prior to printing.

     If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

  2. The error of ADDED.

  3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

* The second limits are protocol defined upper and lower QC limits for the recovery.

* The recovery is underlined if it is outside either of these ranges.

SDG 8600
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

DUPLICATE

The Duplicate Report shows all results, differences and primary supporting information for one Duplicate and associated Original sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. This applies both to the Duplicate and Original sample data. Refer to the Data Sheet Report Guide for details.

  If the Duplicate has data for a TEST and the lab did not do this test to the Original, the Original's RESULTs are underlined.

* The RPD (Relative Percent Difference) is the absolute value of the difference of the RESULTs divided by their average expressed as a percent.

  If both RESULTs are less than their MDAs, no RPD is computed and a '-' is printed.

  For an analyte, if the lab did work for both samples but has data for only one, the MDA from the sample with data is used as the other's result in the RPD.

* The first, computed limit is the sum, as square root of sum of squares, of the errors of the results divided by the average result as a percent, hence the relative error of the difference rather than the error of the relative difference. The errors include those introduced by rounding the RESULTs prior to printing.

  If this limit is labeled TOT, it includes the preparation error in the RESULTs. If labeled CNT, it does not.

  This value reported for this limit is at most 999.

* The second limit for the RPD is the larger of:

  1. A fixed percentage specified in the protocol.

SDG 8600
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GUIDE, cont.

Client Test America, Inc.
Contract 44002624

DUPLICATE

2. A protocol factor (typically 2) times the average MDA as a percent of the average result. This limit applies when the results are close to the MDAs.

* The RPD is underlined if it is greater than either limit.

* If specified by the lab, the second limit column is replaced by the Difference Error Ratio (DER), which is the absolute value of the difference of the results divided by the quadratic sum of their one sigma errors, the same errors as used in the first limit.

  Except for differences due to rounding, the DER is the same as the RPD divided by the first RPD limit with the limit scaled to 1 sigma.

* The DER is underlined if it is greater than the sigma factor, typically 2 or 3, shown in the header for the first RPD limit.

SDG 8600
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REPORT GUIDE

Client Test America, Inc.
Contract 44002624

MATRIX SPIKE

The Matrix Spike Report shows all results, recoveries and primary supporting information for one Matrix Spike and associated Original sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. This applies both to the Spiked and Original sample data. Refer to the Data Sheet Report Guide for details.

  If the Spike has data for a TEST and the lab did not do this test to the Original, the Original's RESULTs are underlined.

* An amount ADDED is the lab's value for the actual amount spiked into the Spike sample with its ERROR an estimate of the error of this amount.

  An amount is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

* REC (Recovery) is the Spike RESULT minus the Original RESULT divided by ADDED expressed as a percent.

* The first, computed limits for the recovery reflect:

  1. The errors of the two RESULTs, including those introduced by rounding them prior to printing.

     If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

  2. The error of ADDED.

  3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

* The second limits are protocol defined upper and lower QC limits for the recovery.

SDG 8600
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

MATRIX SPIKE

These limits are left blank if the Original RESULT is more than a protocol defined factor (typically 4) times ADDED. This is a way of accounting for that when the spike is small compared to the amount in the original sample, the recovery is unreliable.

* The recovery is underlined (out of spec) if it is outside either of these ranges.

SDG 8600
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

METHOD SUMMARY

The Method Summary Report has two tables. One shows up to five results measured using one method. The other has performance data for the method. There is one report for each TEST, as used on the Data Sheet Report.

The following notes apply to this report:

* Each table is subdivided into sections, one for each preparation batch. A preparation batch is a group of aliquots prepared at roughly the same time in one work area of the lab using the same method.

  There should be Lab Control Sample and Method Blank results in each preparation batch since this close correspondence makes the QC meaningful. Depending on lab policy, Duplicates need not occur in each batch since they QC sample dependencies such as matrix effects.

* The RAW TEST column shows the test code used in the raw data to identify a particular analysis if it is different than the test code in the header of the report. This occurs in special cases due to method specific details about how the lab labels work.

  The Lab Sample or Planchet ID combined with the (Raw) Test Code and Suffix uniquely identify the raw data for each analysis.

* If a result is less than both its MDA and RDL, it is replaced by just 'U' on this report. If it is greater than or equal to the RDL but less than the MDA, the result is shown with a 'U' flag.

  The J and X flags are as on the data sheet.

* Non-U results for Method Blanks are underlined to indicate possible contamination of other samples in the preparation batch. The Method Blank Report has supporting data.

* Lab Control Sample and Matrix Spike results are shown as: ok, No data, LOW or HIGH, with the last two underlined. 'No data' means no amount ADDED was specified. 'LOW' and 'HIGH'

METHOD SUMMARY

correspond to when the recovery is underlined on the Lab Control Sample or Matrix Spike Report. See these reports for supporting data.

* Duplicate sample results are shown as: ok, No data, or OUT, with the last two underlined. 'No data' means there was no original sample data found for this duplicate. 'OUT' corresponds to when the RPD is underlined on the Duplicate Report. See this report for supporting data.

* If the MDA column is labeled 'MAX MDA', there was more than one result measured by the reported method and the MDA shown is the largest MDA. If not all these results have the same RDL, the MAX MDA reflects only those results with RDL equal to the smallest one.

  MDAs are underlined if greater than the printed RDL.

* Aliquots are underlined if less than the nominal value specified for the method.

* Prepareation factors are underlined if greater than the nominal value specified for the method.

* Dilution factors are underlined if greater than the nominal value specified for the method.

* Residues are underlined if outside the range specified for the method. Residues are not printed if yields are.

* Yields, which may be gravimetric, radiometric or some type of recovery depending on the method, are underlined if outside the range specified for the method.

* Efficiencies are underlined if outside the range specified for the method. Efficiencies are detector and geometry dependent so this test is only approximate.

* Count times are underlined if less than the nominal value

METHOD SUMMARY

specified for the method.

* Resolutions (as FWHM; Full Width at Half Max) are underlined if greater than the method specified limit.

* Tracer drifts are underlined if their absolute values are greater than the method specified limit. Tracer drifts are not printed if percent moistures are.

* Days Held are underlined if greater than the holding time specified in the protocol.

* Analysis dates are underlined if before their planchet's preparation date or, if a limit is specified, too far after it.

For some methods, ratios as percentages and error estimates for them are computed for pairs of results. A ratio column header like '1÷3' means the ratio of the first result column and the third result column.

Ratios are not computed for Lab Control Sample, Method Blank or Matrix Spike results since their matrices are not necessarily similar to client samples'.

The error estimate for a ratio of results from one planchet reflects only counting errors since other errors should be correlated. For a ratio involving different planchets, if QC limits are computed based on total errors, the error for the ratio allows for the preparation errors for the planchets.

The ratio is underlined (out of spec) if the absolute value of its difference from the nominal value is greater than its error estimate. If no nominal value is specified, this test is not done.

For Gross Alpha or Gross Beta results, there may be a column showing the sum of other Alpha or Beta emitters. This sum includes all relevant results in the DVD database, whether reported or not. Results in the sum are weighted by a particles/decay value specified by the lab for each relevant analyte. Results less than their MDA are not included.

SDG 8600
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GUIDE, cont.

Client Test America, Inc.
Contract 44002624

METHOD SUMMARY

No sums are computed for Lab Control, Method Blank or Matrix Spike samples since their various planchets may not be physically related.

If a ratio of total isotopic to Gross Alpha or Beta is shown, the error for the ratio reflects both the error in the Gross result and the sum, as square root of sum of squares, of the errors in the isotopic results.

For total elemental uranium or thorium results, there may be a column showing the total weight computed from associated isotopic results. Ignoring results less than their MDAs, this is a weighted sum of the isotopic results. The weights depend on the molecular weight and half-life of each isotope so as to convert activities (decays) to weight (atoms).

If a ratio of total computed to measured elemental uranium or thorium is shown, the error for the ratio reflects the errors in all the measurements.

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

8600

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby	Carrier Tracking No(s):	COC No: 440-2062.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: Eberline Services				Job #: 440-4065-1
Address: 7021 Pan American Fwy NE,	Due Date Requested: 3/14/2012			
City: Albuquerque	TAT Requested (days):			
State, Zip: NM, 87109				
Phone:	PO #:			
Email:	WO #:			
Project Name: Boeing SSFL	Project #: 44002624			
Site: Boeing SSFL	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ Strontium 90	SUBCONTRACT/ Gross Beta	SUBCONTRACT/ Gamma Spec K-40 CS-137	SUBCONTRACT/ Radium Combined	SUBCONTRACT/ Uranium, Combined	SUBCONTRACT/ Tritium	SUBCONTRACT/ Gross Alpha	Total Number of containers	Special Instructions/Note:
				Preservation Code:											
Outfall 019 Composite (440-4065-1)	2/29/12	11:30 Pacific		Water			X	X	X	X	X	X	X		
Trip Blank (440-4065-3)	2/29/12	10:33 Pacific		Water			X	X	X	X	X	X	X		

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI-Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)
Other:

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:	
Relinquished by: [signature]	Date/Time: 3/6/12 17:00	Company: TAI	Received by: FedEx	Date/Time: 3/6/12 17:00	Company
Relinquished by: Fed EX	Date/Time: 03/07/12 0930	Company	Received by: [signature]	Date/Time: 03/07/12 0930	Company: Eberline
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

EBERLINE SERVICES

RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA

Date/Time received 3/3/12 CoC No. 440-1917.1

Container I.D. No. ICE chest Requested TAT (Days) _____ P.O. Received Yes [ ] No [ ]

INSPECTION

1. Custody seals on shipping container intact? Yes [✓] No [ ] N/A [ ]
2. Custody seals on shipping container dated & signed? Yes [✓] No [ ] N/A [ ]
3. Custody seals on sample containers intact? Yes [ ] No [ ] N/A [✓]
4. Custody seals on sample containers dated & signed? Yes [ ] No [ ] N/A [✓]
5. Packing material is: Wet [ ] Dry [ ] N/A ✓
6. Number of samples in shipping container: 2 Sample Matrix WATER
7. Number of containers per sample: _____ (Or see CoC ✓)
8. Samples are in correct container Yes [✓] No [ ]
9. Paperwork agrees with samples? Yes [✓] No [ ]
10. Samples have: Tape [ ] Hazard labels [ ] Rad labels [ ] Appropriate sample labels [✓]
11. Samples are: In good condition [ ] Leaking [✓] Broken Container [✓] Missing [ ]
12. Samples are: Preserved [ ] Not preserved [ ] pH _____ Preservative _____
13. Describe any anomalies:
    Sample 440-4065-1 leak and STORAGE IN separate container
14. Was P.M. notified of any anomalies? Yes [✓] No [ ] Date 3/5/12
15. Inspected by _____ Date: 3/5/12 Time: 11:00

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
All Samples	<80						

Ion Chamber Ser. No. _____ Calibration date _____

Alpha Meter Ser. No. _____ Calibration date _____

Beta/Gamma Meter Ser. No. 100482 Calibration date 6 Dec 2011

EBERLINE SERVICES

RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA

Date/Time received 03/07/12 0930 CoC No. 44002624

Container I.D. No. ICE CHEST Requested TAT (Days) — P.O. Received Yes [ ] No [ ]

INSPECTION

1. Custody seals on shipping container intact? Yes [X] No [ ] N/A [ ]
2. Custody seals on shipping container dated & signed? Yes [X] No [ ] N/A [ ]
3. Custody seals on sample containers intact? Yes [ ] No [ ] N/A [X]
4. Custody seals on sample containers dated & signed? Yes [ ] No [ ] N/A [X]
5. Packing material is: Wet [ ] Dry [X]
6. Number of samples in shipping container: 2 Sample Matrix W
7. Number of containers per sample: 1 (Or see CoC _____)
8. Samples are in correct container Yes [X] No [ ]
9. Paperwork agrees with samples? Yes [X] No [ ]
10. Samples have: Tape [ ] Hazard labels [ ] Rad labels [ ] Appropriate sample labels [X]
11. Samples are: In good condition [X] Leaking [ ] Broken Container [ ] Missing [ ]
12. Samples are: Preserved [X] Not preserved [ ] pH <2 Preservative HNO3
13. Describe any anomalies: Replacement from Broken Samples receipt on 3/3/12 and
14. Was P.M. notified of any anomalies? Yes [ ] No [ ] Date _____
15. Inspected by _____ Date: 03/07/12 Time: 1100

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
Au Stubbies	<50						

Ion Chamber Ser. No. _____ Calibration date _____

Alpha Meter Ser. No. _____ Calibration date _____

Beta/Gamma Meter Ser. No. 100487 Calibration date 06 DEC 11

Form SCP-02, 07-30-07

"over 55 years of quality nuclear services"

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record 8600

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby	Carrier Tracking No(s):	COC No: 440-2062.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: Eberline Services				Job #: 440-4065-1
Address: 7021 Pan American Fwy NE, ,	Due Date Requested: 3/14/2012			
City: Albuquerque	TAT Requested (days):			
State, Zip: NM, 87109				
Phone:	PO #:			
Email:	WO #:			
Project Name: Boeing SSFL	Project #: 44002624			
Site: Boeing SSFL	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ Strontium 90	SUBCONTRACT/ Gross Beta	SUBCONTRACT/ Gamma Spec K-40 CS-137	SUBCONTRACT/ Radium Combined	SUBCONTRACT/ Uranium, Combined	SUBCONTRACT/ Tritium	SUBCONTRACT/ Gross Alpha	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Outfall 019 Composite (440-4065-1)	2/29/12	11:30 Pacific		Water			X	X	X	X	X	X	X		
Trip Blank (440-4065-3)	2/29/12	10:33 Pacific		Water			X	X	X	X	X	X	X		

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	VanBaren	3/6/12 17:00	TAT	FedEx	3/6/12 17:00	
2	FED EX	03/07/12 0930			03/07/12 0930	EBERLINE
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

EBERLINE SERVICES

RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA

Date/Time received 3/3/12 CoC No. 440-1917.1

Container I.D. No. ICE chest Requested TAT (Days) _____ P.O. Received Yes [ ] No [ ]

INSPECTION

1. Custody seals on shipping container intact? Yes [✓] No [ ] N/A [ ]
2. Custody seals on shipping container dated & signed? Yes [✓] No [ ] N/A [ ]
3. Custody seals on sample containers intact? Yes [ ] No [ ] N/A [✓]
4. Custody seals on sample containers dated & signed? Yes [ ] No [ ] N/A [✓]
5. Packing material is: Wet [ ] Dry [ ] N/A ✓
6. Number of samples in shipping container: 2 Sample Matrix WATER
7. Number of containers per sample: _____ (Or see CoC ✓)
8. Samples are in correct container Yes [✓] No [ ]
9. Paperwork agrees with samples? Yes [✓] No [ ]
10. Samples have: Tape [ ] Hazard labels [ ] Rad labels [ ] Appropriate sample labels [✓]
11. Samples are: In good condition [ ] Leaking [✓] Broken Container [✓] Missing [ ]
12. Samples are: Preserved [ ] Not preserved [ ] pH _____ Preservative _____
13. Describe any anomalies:
    Sample 440-4065-1 leak and STORAGE IN separate container
14. Was P.M. notified of any anomalies? Yes [✓] No [ ] Date 3/5/12
15. Inspected by _____ Date: 3/5/12 Time: 11:00

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
All Samples	<80						

Ion Chamber Ser. No. _____ Calibration date _____

Alpha Meter Ser. No. _____ Calibration date _____

Beta/Gamma Meter Ser. No. 100482 Calibration date 6 Dec 2011

Form SCP-02, 07-30-07

"over 55 years of quality nuclear services"

EBERLINE SERVICES

RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA

Date/Time received 03/07/12 0930 CoC No. 440026 24

Container I.D. No. ICE CHEST Requested TAT (Days) — P.O. Received Yes [ ] No [ ]

INSPECTION

1. Custody seals on shipping container intact? Yes [X] No [ ] N/A [ ]
2. Custody seals on shipping container dated & signed? Yes [X] No [ ] N/A [ ]
3. Custody seals on sample containers intact? Yes [ ] No [ ] N/A [X]
4. Custody seals on sample containers dated & signed? Yes [ ] No [ ] N/A [X]
5. Packing material is: Wet [ ] Dry [X]
6. Number of samples in shipping container: 2 Sample Matrix W
7. Number of containers per sample: 1 (Or see CoC _____)
8. Samples are in correct container Yes [X] No [ ]
9. Paperwork agrees with samples? Yes [X] No [ ]
10. Samples have: Tape [ ] Hazard labels [ ] Rad labels [ ] Appropriate sample labels [X]
11. Samples are: In good condition [X] Leaking [ ] Broken Container [ ] Missing [ ]
12. Samples are: Preserved [X] Not preserved [ ] pH <2 Preservative HNO3
13. Describe any anomalies: Replacement from Broken Samples receipt on 3/3/12 ad

14. Was P.M. notified of any anomalies? Yes [ ] No [ ] Date _____
15. Inspected by [signature] Date: 03/07/12 Time: 1100

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
Au Stubbies	<50						

Ion Chamber Ser. No. _____ Calibration date _____

Alpha Meter Ser. No. _____ Calibration date _____

Beta/Gamma Meter Ser. No. 100487 Calibration date 06 DEC 11

Form SCP-02, 07-30-07

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TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING

Established 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

March 15, 2012

Client: Test America
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Attention: Debby Wilson

Project Name: **Boeing SSFL**

Project Number: **44002624**

Date Received: **3/2/2012**

Truesdail Project: **800279**

Samples Cross-reference

Truesdail ID	*Client ID*	*Matrix*	*Date Sampled*	*Time Sampled*	*Analysis Requested*
800279-01	Outfall 019 Composite (440-4065-1)	Water	02/29/12	11:30	Hydrazines by EPA 8315M

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

Jeff Lee
Project Manager

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING

Established 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

March 15, 2012

Client: Test America
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Attention: Debby Wilson

Project Name: **Boeing SSFL**
Project Number: **44002624**

Date Received: **03/02/12**
Truesdail Project: **800279**

Case Narrative

Sample Receipt The samples were received at 5.1 °C and in good condition. They were kept in a refrigerator until analysis. Thereafter, they are being kept in ambient storage for an additional 2 months before disposal. Any anomalies would be noted in the "Comments" section.

Analysis The analysis was performed as requested on the chain-of-custody.

Quality Control The analytical results for each batch of samples performed include one set of laboratory control sample/laboratory control sample duplicate (LCS/LCSD), one set of matrix spike/matrix spike duplicate (MS/MSD), and a reagent blank (Method blank). Any exceptions or problems would be noted in the "Comments" section.

Comments The sample was sampled on 2/29/12 and Truesdail received the sample on Friday 03/02/12. Extraction of the sample began on Friday and completed on Saturday. The sample was analyzed immediately after completion of extraction. However, the quality control data failed. We re-extracted the sample on Monday which is out of holding time and completed the extraction by Tuesday. After the analysis is completed on Tuesday, all quality control parameters passed.

All quality assurance requirements set forth by the method specification and all quality control recoveries were within the laboratory acceptance limits. No anomalies or nonconformance events occurred during the course of analysis.

Jeff Lee
Project Manager

TRUESDAIL LABORATORIES, INC.
EXCELLENCE IN INDEPENDENT TESTING
Established 1931
14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

REPORT

Client: **TestAmerica Analytical - Irvine**
17461 Derian Avenue, Suite 100
Irvine, CA 92614
Attention: Debby Wilson
Project Name: Boeing SSFL
Project Number: 44002624
P.O. Number: 440-4065-1
Release Number: 440-4065-1

Laboratory No. 800279

Printed 3/20/2012

Samples Received on 3/2/2012 10:00:00 AM

Field ID	Lab ID	Collected	Matrix
Outfall 019 Composite Outfall 019 Composite	800279-001	02/29/2012 11:30	Water

EPA 8315 M-Hydrazines (water) Batch 709811

Parameter	Unit	Analyzed	DF	MDL	RL	Result
800279-001 Hydrazine	ug/L	03/06/2012 20:08	1	0.439	1.00	0.439
Monomethyl Hydrazine	ug/L	03/06/2012 20:08	1	1.77	5.00	1.77
Unsymmetrical Dimethyl Hydrazine	ug/L	03/06/2012 20:08	1	1.13	5.00	1.13

Method Blank

Parameter	Unit	DF	Result
Hydrazine	ug/L	1	ND
Monomethyl Hydrazine	ug/L	1	ND
Unsymmetrical Dimethyl Hydr:	ug/L	1	ND

Lab Control Sample

Parameter	Unit	DF	Result	Expected	Recovery	Acceptance Range
Hydrazine	ug/L	1	9.99	10.0	99.9	50 - 150
Monomethyl Hydrazine	ug/L	1	46.8	50.0	93.6	50 - 150
Unsymmetrical Dimethyl Hydr:	ug/L	1	45.8	50.0	91.6	50 - 150

Lab Control Sample Duplicate

Parameter	Unit	DF	Result	Expected	Recovery	Acceptance Range
Hydrazine	ug/L	1	8.50	10.0	85.0	50 - 150
Monomethyl Hydrazine	ug/L	1	49.7	50.0	99.4	50 - 150
Unsymmetrical Dimethyl Hydr:	ug/L	1	47.2	50.0	94.4	50 - 150

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

Client: TestAmerica Analytical - Irvine Project Name: Boeing SSFL Project Number: 44002624

Matrix Spike — Lab ID = 800279-001

Parameter	Unit	DF	Result	Expected/Added	Recovery	Acceptance Range
Hydrazine	ug/L	1	9.94	10.0(10.0)	99.4	45 - 146
Monomethyl Hydrazine	ug/L	1	53.9	50.0(50.0)	108.	7 - 149
Unsymmetrical Dimethyl Hydr	ug/L	1	52.9	50.0(50.0)	106.	45 - 137

Matrix Spike Duplicate — Lab ID = 800279-001

Parameter	Unit	DF	Result	Expected/Added	Recovery	Acceptance Range
Hydrazine	ug/L	1	11.0	10.0(10.0)	110.	45 - 146
Monomethyl Hydrazine	ug/L	1	52.1	50.0(50.0)	104.	7 - 149
Unsymmetrical Dimethyl Hydr	ug/L	1	54.5	50.0(50.0)	109	45 - 137

MRCCS - Secondary

Parameter	Unit	DF	Result	Expected	Recovery	Acceptance Range
Hydrazine	ug/L	1	9.87	10.0	98.7	85 - 115
Monomethyl Hydrazine	ug/L	1	45.8	50.0	91.6	85 - 115
Unsymmetrical Dimethyl Hydr	ug/L	1	46.9	50.0	93.8	85 - 115

MRCVS - Primary

Parameter	Unit	DF	Result	Expected	Recovery	Acceptance Range
Hydrazine	ug/L	1	5.01	5.00	100.	85 - 115
Monomethyl Hydrazine	ug/L	1	25.9	25.0	104.	85 - 115
Unsymmetrical Dimethyl Hydr	ug/L	1	25.3	25.0	101.	85 - 115

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Jeff Lee
Assistant Project Manager

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Client: **Test America**
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Attention: **Debby Wilson**
Project Name: **Boeing SSFL**
Method Number: **8315 (Modified)**
Investigation: **Hydrazines**

Laboratory No: 800279
Report Date: March 15, 2012
Sampling Date: February 29, 2012
Receiving Date: March 2, 2012
Analysis Date: March 6, 2012
Reported By: JS

Qualifier Codes and Definitions

Code	***Definition***
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
ND	Not Detected: Analyte is not detected at or above the method detection limit.
N/A	Not Applicable
ICV	Initial Calibration Verification: First source calibration standard run at a mid-level spike prior to samples.
QCS	Quality Control Standard: Second source calibration standard run at a mid-level spike after all samples.
MB	Method Blank: Reagent water extracted and run with each batch of 20 samples to demonstrate that all analytes are not detected from the extraction process.
LCS (D)	Laboratory Control Spike: Second source standard spiked into blank matrix and extracted and run with each batch of 20 samples (run in duplicate).
MS (D)	Matrix Spike: Second source standard spiked into sample matrix and extracted and run with each batch of 20 samples (run in duplicate).
RPD	Relative Percent Difference: A calculated value of the deviation between the spikes and spike duplicates to measure precision.
J	J-flags: Any result found between the MDL and the PQL will be reported with a "J" attached.
Flag	Pass if within Control Limits; otherwise "Fail"

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TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

800279

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby	Carrier Tracking No(s):	COC No: 440-1841.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: Truesdail Laboratories Inc				Job #: 440-4065-1
Address: 14201 Franklin Ave,	Due Date Requested: 3/14/2012			
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone:	PO #:			
Email:	WO #:			
Project Name: Boeing SSFL	Project #: 44002624			
Site: Boeing SSFL	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ Monomethylhydrazine	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall 019 Composite (440-4065-1)	2/29/12	11:30 Pacific		Water			X	1	

Rec'd 03/02/12
s23b 800279

ALERT !!
Level IV QC

For Sample Conditions See Form Attached

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3/2/12 0900	TA-I		3-2-12 0900	TAI
2		3-2-12 1000	TAI		3-2-12 1000	TAI
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TRUESDAIL LABORATORIES, INC.

Sample Integrity & Analysis Discrepancy Form

Client: Test America **Lab #** 800279

Date Delivered: 03/02/12 **Time:** 10:00a **By:** ☐Mail ☐Field Service ☑Client

1.	Was a Chain of Custody received and signed?	☑Yes	☐No	☐N/A
2.	Does Customer require an acknowledgement of the COC?	☐Yes	☐No	☑N/A
3.	Are there any special requirements or notes on the COC?	☐Yes	☐No	☑N/A
4.	If a letter was sent with the COC, does it match the COC?	☐Yes	☐No	☑N/A
5.	Were all requested analyses understood and acceptable?	☑Yes	☐No	☐N/A
6.	Were samples received in a chilled condition? Temperature (if yes)? 5.1 °C	☑Yes	☐No	☐N/A
7.	Were samples received intact (i.e. broken bottles, leaks, air bubbles, etc..)?	☑Yes	☐No	☐N/A
8.	Were sample custody seals intact?	☐Yes	☐No	☑N/A
9.	Does the number of samples received agree with COC?	☑Yes	☐No	☐N/A
10.	Did sample labels correspond with the client ID's?	☑Yes	☐No	☐N/A
11.	Did sample labels indicate proper preservation? Preserved (if yes) by: ☐**Truesdail** ☐Client	☐Yes	☐No	☑N/A
12.	Were samples pH checked? pH = _____	☐Yes	☐No	☑N/A
13.	Were all analyses within holding time at time of receipt? If not, notify Project Manager.	☑Yes	☐No	☐N/A
14.	Have Project due dates been checked and accepted? Turn Around Time (TAT): ☐ **RUSH** ☑ Std	☑Yes	☐No	☐N/A

ALERT !! Level IV QC

15. **Sample Matrix:** ☐Liquid ☐Drinking Water ☐Ground Water ☐Waste Water ☐Sludge ☐Soil ☐Wipe ☐Paint ☐Solid ☑Other Water

16. Comments: _____

17. Sample Check-In completed by **Truesdail** Log-In/Receiving: L. Shoemake

C:\Users\Test\Desktop\Forms A - D\Discrp.FormBlank.doc

Test America Version 7/19/2010

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Annual Outfall 019** **GRAB**
Project Manager: Bronwyn Kelly Sampler: Rick BANAGA	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	VOCs 624 + xylenes + Freon 123A, Cyclohexane + PP	VOCs 624 +A+A+2CVE	Settleable Solids	Oil & Grease (1664-HEM)	8015 - gas	8015 - diesel/jet fuel	Fecal coliform (SM9221)	E. coli (SM9221)							Comments
Outfall 019	W	VOAs	5	2-28-2012 12:10	HCl	1A, 1B, 1C, 1D, 1E	X														
Outfall 019	W	VOAs	3		None	2A, 2B, 2C		X													
Outfall 019	W	1L Poly	1		None	3			X												
Outfall 019	W	500 mL Poly	2		None	4A, 4B															
Outfall 019	W	1L Amber	2		HCl	5A, 5B				X											
Trip Blanks	W	VOAs	3		HCl	6A, 6B, 6C	X														
Trip Blanks	W	VOAs	3		None	7A, 7B, 7C		X													
Outfall 019	W	VOAs	1		HCl	8A					X										
Outfall 019 Dup	W	VOAs	2		HCl	8B, 8C					X										
Outfall 019	W	1L Amber	1		None	9A						X									
Outfall 019 Dup	W	1L Amber	1		None	9B						X									
Outfall 019	W	125mL Poly	1		Na2S2O3	10							X								
Outfall 019	W	125mL Poly	1	2-28-2012 12:10	Na2S2O3	11								X							

ANALYSIS REQUIRED

Field readings:
(Log in and include in report Temp and pH)

Temp °F = 63°
pH = 7.3
DO = 3.69 mg/L
Total Residual Chlorine = 0 ppm

Time of readings = 12:10

These Samples are the Grab Portion of Outfall 019 for this storm event. Composite samples will follow and are to be added to this work order.

Relinquished By	Date/Time:	Received By	Date/Time:
Rick Banaga	2-28-2012 12:50		2/28/12 12:50
Relinquished By	Date/Time: 2-28-12 17:05	Received By	Date/Time: 2/28/12 17:05
Relinquished By	Date/Time:	Received By	Date/Time:

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: _____
48 Hour: _____ 5 Day: _____ Normal: X

Sample Integrity: (Check)
Intact: ✓ On Ice: ✓ 5-2°C

Data Requirements: (Check)
No Level IV: __ All Level IV: _____ NPDES Level IV: X

Test America Version 7/19/2010

CHAIN OF CUSTODY FORM

Client Name/Address: MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Project: Boeing-SSFL NPDES **Annual Outfall 019** **COMPOSITE**
Project Manager: Bronwyn Kelly Sampler: Rick Banaga	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

ANALYSIS REQUIRED

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: Cu, Pb, Hg, B, Ba, Fe, Mn, Sb, As, Be, Cd, Cr, Ni, Se, Ag, Tl, Zn, Co, V	TCDD (and all congeners)	BOD_5 (20 degrees C)	Surfactants (MBAS)	Cl^-, SO_4, NO_3+NO_2-N, F, Perchlorate	Nitrate-N, Nitrite-N	Turbidity, TDS, TSS	Ammonia-N (350.2)	Alpha BHC (608) + Pesticides + PP	2,4,6 TCP, 2,4 Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs 625) + PP					Comments
Outfall 019	W	1L Poly	1	2-29-2012 11:30	HNO_3	12A	X														
Outfall 019 Dup	W	1L Poly	1		HNO_3	12B	X														
Outfall 019	W	1L Amber	2		None	13A, 13B		X													
Outfall 019	W	1L Poly	1		None	14			X												
Outfall 019	W	500 mL Poly	2		None	15A, 15B				X											
Outfall 019	W	500 mL Poly	2		None	16A, 16B					X										
Outfall 019	W	500 mL Poly	1		None	17						X									
Outfall 019	W	500 mL Poly	2		None	18A, 18B							X								
Outfall 019	W	500 mL Poly	1		H_2SO_4	19								X							
Outfall 019	W	1L Amber	2		None	20A, 20B									X						0.0 2/29/12 21:40
Outfall 019	W	1L Amber	2	2-29-2012	None	21A, 21B										X					

COC Page 2 of 3 and Page 3 of 3 are the composite samples for Outfall 019 for this storm event.
These must be added to the same work order for COC Page 1 of 3 for Outfall 019 for the same event.

Relinquished By: [signature]	Date/Time: 2-29-2012 12:45	Received By: [signature]	Date/Time: 2-29-12 12:45	Turn-around time: (Check) 24 Hour: ___ 72 Hour: ___ 10 Day: ___ 48 Hour: ___ 5 Day: ___ Normal: X
Relinquished By: Matt [signature]	Date/Time: 2-29-12 17:55	Received By: [signature]	Date/Time: 2/29/12 17:55	Sample Integrity: (Check) Intact: ✓ On Ice: ✓
Relinquished By	Date/Time:	Received By	Date/Time:	Data Requirements: (Check) No Level IV: ___ All Level IV: ___ NPDES Level IV: X

2.7°C

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Annual Outfall 019** **COMPOSITE**
Project Manager: Bronwyn Kelly Sampler: Rick Bañacan	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	1,4-Dioxane	Total Organic Carbon	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	PCBs	Monomethyl Hydrazine	Chronic Toxicity	Total Dissolved Metals: Cu, Pb, Hg, B, Ba, Fe, Mn, Sb, As, Be, Cd, Cr, Ni, Se, Ag, Tl, Zn, Co, V	Cr (VI) (218.6)	Cyanide	Acute Toxicity					Comments
Outfall 019	W	VOAs	3	2-28-2012 11:30	HCl	22A, 22B, 22C	X													
Outfall 019	W	250 mL Glass	1		HCl	23		X												
Outfall 019	W	2.5 Gal Cube	1		None	24A			X											Unfiltered and unpreserved analysis
		500 mL Amber	1		None	24B														
Outfall 019	W	1L Amber	2		None	25A, 25B				X										
Outfall 019	W	1L Amber	2		None	26A, 26B					X									
Outfall 019	W	1 Gal Cube	1		None	27						X								**Only test if first or second rain events of the year**
Outfall 019	W	1L Poly	1		None	28							X							Filter w/in 24hrs of receipt at lab
Outfall 019	W	500 mL Poly	1		None	29								X						
Outfall 019	W	500 mL Poly	1		NaOH	30									X					
Outfall 019	W	1 Gal Cube	1	2-28-2012 11:30	None	31										X				

COC Page 2 of 3 and Page 3 of 3 are the composite samples for Outfall 019 for this storm event.
These must be added to the same work order for COC Page 1 of 3 for Outfall 019 for the same event.

Relinquished By	Date/Time	Received By	Date/Time
Rick Bañacan	2-29-2012 12:45	Mark Crump	2-29-12 12:45
Mark Crump	2-29-12 17:55	VanBrandt	2/29/12 17:55

Turn-around time: (Check)
24 Hour: ____ 72 Hour: ____ 10 Day: ____
48 Hour: ____ 5 Day: ____ Normal: X

Sample Integrity: (Check)
Intact: ✓ On Ice: ✓ 2.7 °C

Data Requirements: (Check)
No Level IV: _ All Level IV: __ NPDES Level IV: X

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 440-3913-1

Login Number: 3913
List Number: 1
Creator: Van Banh, Vu

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 440-3913-1

Login Number: 4065

List Number: 1

Creator: O'Donnell, Brandon R

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	