APPENDIX D

TABLE OF CONTENTS

Section No.

APPENDIX D

Section 1

Outfall 001 – April 4, 2011

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project: Annual Outfall 001
Annual Outfall 001

Sampled: 04/04/11
Received: 04/04/11
Issued: 04/07/11 17:37

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

SAMPLE CROSS REFERENCE

LABORATORY ID	CLIENT ID	MATRIX
IUD0174-01	Outfall 001	Water

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.

Reviewed By:

Debby Wilson

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001
Annual Outfall 001
Report Number: IUD0174

Sampled: 04/04/11
Received: 04/04/11

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUD0174-01 (Outfall 001 - Water)									
Reporting Units: MPN/100 ml									
Fecal Coliform	SM9221 A,B,C,E	11D0405	2.00	2.00	**30.0**	1	SK	04/07/11	
E. Coli	SM9221 A,B,C,E	11D0405	2.00	2.00	**30.0**	1	SK	04/07/11	

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001
Annual Outfall 001
Report Number: IUD0174

Sampled: 04/04/11
Received: 04/04/11

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 001 (IUD0174-01) - Water					
SM9221 A,B,C,E	0	04/04/2011 14:05	04/04/2011 17:25	04/04/2011 18:06	04/07/2011 14:27

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001
Annual Outfall 001
Report Number: IUD0174

Sampled: 04/04/11
Received: 04/04/11

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001
Annual Outfall 001
Report Number: IUD0174

Sampled: 04/04/11
Received: 04/04/11

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
SM9221 A,B,C,E	Water		

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Irvine

Debby Wilson
Project Manager

Test America Version 07/19/10

CHAIN OF CUSTODY FORM

IOD0174

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES Outfall 001 Stormwater
Project Manager: Bronwyn Kelly Sampler: R Banaga	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Fecal coliform (SM-9221)	E.coli (SM9221)								Comments
							ANALYSIS REQUIRED									
Outfall 001	W	125 ml poly	1	4.4.2011 14:05	Na2s203	1	X									
Outfall 001	w	125 ml poly	1	4.4.2011 14:05	Na2s203	2		x								

Relinquished By	Date/Time:	Received By	Date/Time:
Ruby Banaga	4.4.2011 14:20		4-4-11 14:20
Relinquished By	Date/Time:	Received By	Date/Time:
	4-4-11 17:25		
Relinquished By	Date/Time:	Received By	Date/Time:
		VuBanda	4/4/11 17:25

Turn around Time: (check)
24 Hours ~~X~~ 36 _____ 5 Days _____
48 Hours _____ 10 Days _____
72 Hours _____ Normal _____

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

5.0

APPENDIX D

Section 2

Outfall 009 – April 4, 2011

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project: Annual Outfall 009

Sampled: 04/04/11
Received: 04/04/11
Issued: 04/07/11 17:35

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

SAMPLE CROSS REFERENCE

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

LABORATORY ID	CLIENT ID	MATRIX
IUD0175-01	Outfall 009	Water

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.

Reviewed By:

Debby Wilson

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: IUD0175

Sampled: 04/04/11
Received: 04/04/11

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUD0175-01 (Outfall 009 - Water)									
Reporting Units: MPN/100 ml									
Fecal Coliform	SM9221 A,B,C,E	11D0405	2.00	2.00	**8.00**	1	SK	04/07/11	
E. Coli	SM9221 A,B,C,E	11D0405	2.00	2.00	**8.00**	1	SK	04/07/11	

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: IUD0175

Sampled: 04/04/11
Received: 04/04/11

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 009 (IUD0175-01) - Water					
SM9221 A,B,C,E	0	04/04/2011 13:50	04/04/2011 17:25	04/04/2011 18:06	04/07/2011 14:27

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: IUD0175

Sampled: 04/04/11
Received: 04/04/11

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: IUD0175

Sampled: 04/04/11
Received: 04/04/11

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
SM9221 A,B,C,E	Water		

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Irvine

Debby Wilson
Project Manager

Test America Version 07/19/10

CHAIN OF CUSTODY FORM

IUD0175

Client Name/Address:
MWH-Arcadia
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Test America Contact: Debby Wilson

Project:
Boeing-SSFL NPDES
Outfall 009
Stormwater At WS-13

Project Manager: Bronwyn Kelly

Sampler: R Banaga

Phone Number:
(626) 568-6691
Fax Number:
(626) 568-6515

ANALYSIS REQUIRED

Sample Description	Sample Matrix	Container	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Fecal coliform (SM-9221)	E.coli (SM9221)						Comments
Outfall 009	W	125 ml poly	1	4-4-2011 13:56	Na2s203	1	X							
Outfall 009	W	125 ml poly	1	4-4-2011 13:50	Na2s203	2		x						

Relinquished By	Date/Time	Received By	Date/Time
[signature]	4-4-2011 14:20	[signature]	4-4-11 14:20
[signature]	4-4-11 17:25		
		Vu Band	4/4/11 17:25

Turn around Time: (check)
~~24~~ 36 Hours X 5 Days ___
48 Hours ___ 10 Days ___
72 Hours ___ Normal ___

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

5.0

APPENDIX D

Section 3

Outfall 009 – April 8, 2011

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project: Annual Outfall 009

Sampled: 04/08/11
Received: 04/08/11
Issued: 04/15/11 16:58

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

SAMPLE CROSS REFERENCE

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

LABORATORY ID	CLIENT ID	MATRIX
IUD0813-01	Outfall 009	Water

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.

Reviewed By:

Debby Wilson

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: IUD0813

Sampled: 04/08/11
Received: 04/08/11

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUD0813-01 (Outfall 009 - Water)									
Reporting Units: MPN/100 ml									
Fecal Coliform	SM9221 A,B,C,E	11D1072	2.00	2.00	**2.00**	1	AK	04/11/11	
E. Coli	SM9221 A,B,C,E	11D1072	2.00	2.00	**2.00**	1	AK	04/11/11	

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: IUD0813

Sampled: 04/08/11
Received: 04/08/11

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 009 (IUD0813-01) - Water					
SM9221 A,B,C,E	0	04/08/2011 12:40	04/08/2011 15:20	04/08/2011 15:49	04/11/2011 11:30

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: IUD0813

Sampled: 04/08/11
Received: 04/08/11

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: IUD0813

Sampled: 04/08/11
Received: 04/08/11

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: IUD0813

Sampled: 04/08/11
Received: 04/08/11

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
SM9221 A,B,C,E	Water		

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Irvine

Debby Wilson
Project Manager

Test America Version 07/19/10

CHAIN OF CUSTODY FORM

IUD0813

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES Outfall 009 Stormwater At WS-13
Project Manager: Bronwyn Kelly Sampler: R Banaga	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container	# of Cont.	Sampling Date/Time	Preservative	Bottle #	ANALYSIS REQUIRED: Fecal coliform (SM-9221)	E.coli (SM9221)							Comments
Outfall 009	W	125 ml poly	1	4-8-2011 12:40	Na2s203	1	X								
Outfall 009	w	125 ml poly	1	4-8-2011 12:40	Na2s203	2		x							

Relinquished By	Date/Time:	Received By	Date/Time:
	4-8-2011 13:25		4-8-11 13:25
Relinquished By	Date/Time: 4-8-11 15:20	Received By	Date/Time:
Relinquished By	Date/Time:	Received By	Date/Time: 04/08/11 1520

Turn around Time: (check)
~~24~~ 6 Hours _____ 5 Days _____
48 Hours _____ 10 Days _____
72 Hours _____ Normal _____

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

5.0

APPENDIX D

Section 4

Outfall 019 – June 1 & 2, 2011

MEC^X Data Validation Report

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IUF0139

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:	IUF0139
Project Manager:	B. Kelly
Matrix:	Water
QC Level:	IV
No. of Samples:	2
No. of Reanalyses/Dilutions:	1
Laboratory:	TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 019 (Grab)	IUF0139-01	N/A	Water	6/1/2011 11:40:00 AM	120.1
Outfall 019	IUF0139-03	G1F040425-001, S106041-01	Water	6/2/2011 11:30:00 AM	180.1, 200.7, 200.7 (Diss), 245.1, 245.1 (Diss), 314.0, 1613B, 900.0, 901.1, 903.1, 904, 905, 906, SM5310B
Outfall 019	IUF0139-03RE1	G1F040425-001	Water	6/2/2011 11:30:00 AM	1613B

II. Sample Management

No anomalies were observed regarding sample management. The samples were received above the temperature limit at Eberline; however, due to the nonvolatile nature of the analytes, no qualifications were required. The samples in this SDG were received at the remaining laboratories within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, 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 TestAmerica-West Sacramento. As the sample was couriered to TestAmerica-Irvine and Eberline, no custody seals were required. If necessary, the client ID was added to the sample result summary by the reviewer.

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: July 11, 2011

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 detects between the EDL and the RL for all target compounds except 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, and total PeCDD. All associated sample totals were comprised of the same peaks as those in the method blank totals; therefore, all sample results for the blank contaminants below the reporting limit were qualified as nondetected, "U," at the level of contamination.

- Blank Spikes and Laboratory Control Samples: LCS/LCSD recoveries were within the acceptance criteria listed in Table 6 of Method 1613, and RPDs were within the laboratory QC limit of ≤50%.

- 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.

- Internal Standards Performance: The labeled standard recoveries in 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. A confirmation analysis for 2,3,7,8-TCDF was performed. The result was not confirmed; however, as the original result and total TCDF were both previously qualified as nondetected for method blank contamination (see Blanks section,) the confirmation result was rejected, "R," as duplicate data.

- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of reportable sample results. Several results were reported as EMPCs, however, as all of those were previously qualified for method blank contamination, the results were not further qualified as EMPCs. 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.

B. EPA METHODS 200.7, and 245.1—Metals and Mercury

Reviewed By: P. Meeks
Date Reviewed: July 11, 2011

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.

- Tuning: Not applicable to these analyses.

- 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. The CRDL/CRI recoveries were within the control limits of 70-130%.

- Blanks: Method blanks and CCBs had no applicable detects.

- Interference Check Samples: Recoveries were within 80-120%.

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

- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.

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

- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.

- Internal Standards Performance: Not applicable to these analyses.

- 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.

C. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks
Date Reviewed: July 11, 2011

The sample listed in Table 1 for these analyses was 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. The remaining aliquots were prepared within the five-day analytical holding time for unpreserved samples.

- 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 ≥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.

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

- 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. The 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.

D. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks
Date Reviewed: July 11, 2011

The sample 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, 314.0, SM5310B*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: Analytical holding times were met.

- Calibration: Calibration criteria were met. Initial calibration r^2 values were $\geq$0.995. All initial and continuing calibration recoveries were within 90-110%. Perchlorate IPC and IPC-MA recoveries were within the method-established control limits.

- Blanks: Method blanks and CCBs had no detects.

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

- Laboratory Duplicates: A laboratory duplicate analyses were performed on the sample in this SDG for turbidity. The RPD was within the laboratory-established control limit.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG for perchlorate. The recoveries and RPD were within the method-established control limits. Method accuracy was evaluated based on 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 IUF0139

Analysis Method 900

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587461	0.41	3	1.26	pCi/L	U	UJ	C
Gross Beta	12587472	8.9	4	1.64	pCi/L			

Analysis Method 901.1

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium-137	10045973	ND	20	1.2	pCi/L	U	U	
Potassium-40	13966002	ND	25	15.9	pCi/L	U	U	

Analysis Method 903.1

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-226	13982633	-0.132	1	0.656	pCi/L	U	U	

Analysis Method 904

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-228	15262201	0.217	1	0.446	pCi/L	U	U	

Analysis Method 905

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium-90	10098972	-0.133	2	0.771	pCi/L	U	U	

Analysis Method 906

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028178	44.4	500	158	pCi/L	U	U	

Analysis Method D5174

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Uranium, Total		0	1	0.024	pCi/L	U	U	

Analysis Method EPA 120.1

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

Lab Sample Name: IUF0139-01 **Sample Date:** 6/1/2011 11:40:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Specific Conductance	NA	990	1.0	1.0	umhos/c			

Analysis Method EPA 180.1

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

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Turbidity	Turb	0.10	1.0	0.040	NTU	Ja	J	DNQ

Analysis Method EPA 200.7

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

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Calcium	7440-70-2	46	0.10	0.050	mg/l			
Magnesium	7439-95-4	0.56	0.020	0.012	mg/l			
Zinc	7440-66-6	37	20	6.0	ug/l			

Analysis Method EPA 200.7-Diss

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

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Calcium	7440-70-2	46	0.10	0.050	mg/l			
Magnesium	7439-95-4	0.55	0.020	0.012	mg/l			
Zinc	7440-66-6	31	20	6.0	ug/l			

Analysis Method EPA 245.1

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

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 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	

Analysis Method EPA 245.1-Diss

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

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 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	

Analysis Method EPA-5 1613B

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 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	0.00005	0.0000016	ug/L	J, B	U	B
1,2,3,4,6,7,8-HpCDF	67562-39-4	ND	0.00005	0.0000013	ug/L	J, Q, B	U	B
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	0.00005	0.0000017	ug/L	J, B	U	B
1,2,3,4,7,8-HxCDD	39227-28-6	ND	0.00005	0.0000013	ug/L	J, B	U	B
1,2,3,4,7,8-HxCDF	70648-26-9	ND	0.00005	0.0000008	ug/L	J, Q, B	U	B
1,2,3,6,7,8-HxCDD	57653-85-7	ND	0.00005	0.0000012	ug/L	J, B	U	B
1,2,3,6,7,8-HxCDF	57117-44-9	ND	0.00005	0.0000008	ug/L	J, Q, B	U	B
1,2,3,7,8,9-HxCDD	19408-74-3	ND	0.00005	0.0000012	ug/L	J, B	U	B
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.00005	0.0000009	ug/L	J, Q, B	U	B
1,2,3,7,8-PeCDD	40321-76-4	0.000003	0.00005	0.0000019	ug/L	J	J	DNQ
1,2,3,7,8-PeCDF	57117-41-6	ND	0.00005	0.0000014	ug/L	J, B	U	B
2,3,4,6,7,8-HxCDF	60851-34-5	ND	0.00005	0.0000008	ug/L	J, Q, B	U	B
2,3,4,7,8-PeCDF	57117-31-4	ND	0.00005	0.0000016	ug/L	J, B	U	B
2,3,7,8-TCDD	1746-01-6	ND	0.00001	0.0000011	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.00001	0.0000011	ug/L	J, Q, B	U	B
2,3,7,8-TCDF	51207-31-9	ND	0.00001	0.0000022	ug/L		R	D
OCDD	3268-87-9	ND	0.0001	0.0000021	ug/L	J, B	U	B
OCDF	39001-02-0	ND	0.0001	0.0000022	ug/L	J, Q, B	U	B
Total HpCDD	37871-00-4	ND	0.00005	0.0000016	ug/L	J, Q, B	U	B
Total HpCDF	38998-75-3	ND	0.00005	0.0000015	ug/L	J, Q, B	U	B
Total HxCDD	34465-46-8	ND	0.00005	0.0000012	ug/L	J, B	U	B
Total HxCDF	55684-94-1	ND	0.00005	0.0000008	ug/L	J, Q, B	U	B
Total PeCDD	36088-22-9	0.000003	0.00005	0.0000019	ug/L	J	J	DNQ
Total PeCDF	30402-15-4	ND	0.00005	0.0000015	ug/L	J, B	U	B
Total TCDD	41903-57-5	ND	0.00001	0.0000011	ug/L		U	
Total TCDF	55722-27-5	ND	0.00001	0.0000011	ug/L	J, Q, B	U	B

Analysis Method SM5310B

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

Lab Sample Name: IUF0139-03 **Sample Date:** 6/2/2011 11:30:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Organic Carbon	TOC	2.6	1.0	0.50	mg/l			

APPENDIX D

Section 5

Outfall 019 – June 1 & 2, 2011

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project: Quarterly Outfall 019
Quarterly Outfall 019

Sampled: 06/01/11-06/06/11
Received: 06/01/11
Revised: 07/25/11 10:55

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: Due to incubator malfunction, the BOD container froze and the sample analysis was cancelled. Sample was recollected and will be reported under separate cover.

WATER, 1613B, Dioxins/Furans with Totals

Some analytes in this sample and the associated method blank 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.

The recoveries for the internal standard listed below are below method recommended goal. Data quality is not considered affected if the internal standard signal-to-noise ratio is greater than 10:1, which is achieved for the internal standards in these QC samples. The detection limits are below the lower calibration limit and there is no adverse impact on data quality.

Method Blank: 13C-1,2,3,4,7,8-HxCDD
Laboratory control sample: 13C-2,3,7,8-TCDD, 13C-2,3,7,8-TCDF
Laboratory control sample duplicate: 13C-1,2,3,4,6,7,8-HpCDD,

Revised report to correct the sample collection date for the rad chem trip blank.

LABORATORY ID	CLIENT ID	MATRIX
IUF0139-01	Outfall 019 (Grab)	Water
IUF0139-02	Trip Blanks	Water
IUF0139-03	Outfall 019 (Composite)	Water
IUF0139-04	Travel Blank	Water

Reviewed By:

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
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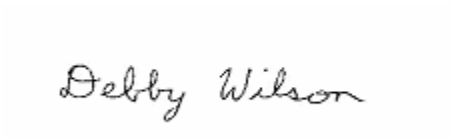
Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11



TestAmerica Irvine

Debby Wilson
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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-01 (Outfall 019 (Grab) - Water)						**Sampled: 06/01/11**			
Reporting Units: ug/l									
Benzene	EPA 624	11F1620	0.50	0.28	ND	1	6/12/2011	6/13/2011	
Carbon tetrachloride	EPA 624	11F1620	0.50	0.28	ND	1	6/12/2011	6/13/2011	
Chloroform	EPA 624	11F1620	0.50	0.33	ND	1	6/12/2011	6/13/2011	
1,1-Dichloroethane	EPA 624	11F1620	0.50	0.40	ND	1	6/12/2011	6/13/2011	
1,2-Dichloroethane	EPA 624	11F1620	0.50	0.28	ND	1	6/12/2011	6/13/2011	
1,1-Dichloroethene	EPA 624	11F1620	0.50	0.42	ND	1	6/12/2011	6/13/2011	
Ethylbenzene	EPA 624	11F1620	0.50	0.25	ND	1	6/12/2011	6/13/2011	
Tetrachloroethene	EPA 624	11F1620	0.50	0.32	ND	1	6/12/2011	6/13/2011	
Toluene	EPA 624	11F1620	0.50	0.36	ND	1	6/12/2011	6/13/2011	
1,1,1-Trichloroethane	EPA 624	11F1620	0.50	0.30	ND	1	6/12/2011	6/13/2011	
1,1,2-Trichloroethane	EPA 624	11F1620	0.50	0.30	ND	1	6/12/2011	6/13/2011	
Trichloroethene	EPA 624	11F1620	0.50	0.26	ND	1	6/12/2011	6/13/2011	
Trichlorofluoromethane	EPA 624	11F1620	0.50	0.34	ND	1	6/12/2011	6/13/2011	
Trichlorotrifluoroethane (Freon 113)	EPA 624	11F1620	5.0	0.50	ND	1	6/12/2011	6/13/2011	
Vinyl chloride	EPA 624	11F1620	0.50	0.40	ND	1	6/12/2011	6/13/2011	
Xylenes, Total	EPA 624	11F1620	1.5	0.90	ND	1	6/12/2011	6/13/2011	
Surrogate: 4-Bromofluorobenzene (80-120%)					*101 %*				
Surrogate: Dibromofluoromethane (80-120%)					*110 %*				
Surrogate: Toluene-d8 (80-120%)					*107 %*				
Sample ID: IUF0139-02 (Trip Blanks - Water)						**Sampled: 06/01/11**			
Reporting Units: ug/l									
Benzene	EPA 624	11F1620	0.50	0.28	ND	1	6/12/2011	6/12/2011	
Carbon tetrachloride	EPA 624	11F1620	0.50	0.28	ND	1	6/12/2011	6/12/2011	
Chloroform	EPA 624	11F1620	0.50	0.33	ND	1	6/12/2011	6/12/2011	
1,1-Dichloroethane	EPA 624	11F1620	0.50	0.40	ND	1	6/12/2011	6/12/2011	
1,2-Dichloroethane	EPA 624	11F1620	0.50	0.28	ND	1	6/12/2011	6/12/2011	
1,1-Dichloroethene	EPA 624	11F1620	0.50	0.42	ND	1	6/12/2011	6/12/2011	
Ethylbenzene	EPA 624	11F1620	0.50	0.25	ND	1	6/12/2011	6/12/2011	
Tetrachloroethene	EPA 624	11F1620	0.50	0.32	ND	1	6/12/2011	6/12/2011	
Toluene	EPA 624	11F1620	0.50	0.36	ND	1	6/12/2011	6/12/2011	
1,1,1-Trichloroethane	EPA 624	11F1620	0.50	0.30	ND	1	6/12/2011	6/12/2011	
1,1,2-Trichloroethane	EPA 624	11F1620	0.50	0.30	ND	1	6/12/2011	6/12/2011	
Trichloroethene	EPA 624	11F1620	0.50	0.26	ND	1	6/12/2011	6/12/2011	
Trichlorofluoromethane	EPA 624	11F1620	0.50	0.34	ND	1	6/12/2011	6/12/2011	
Trichlorotrifluoroethane (Freon 113)	EPA 624	11F1620	5.0	0.50	ND	1	6/12/2011	6/12/2011	
Vinyl chloride	EPA 624	11F1620	0.50	0.40	ND	1	6/12/2011	6/12/2011	
Xylenes, Total	EPA 624	11F1620	1.5	0.90	ND	1	6/12/2011	6/12/2011	
Surrogate: 4-Bromofluorobenzene (80-120%)					*100 %*				
Surrogate: Dibromofluoromethane (80-120%)					*103 %*				
Surrogate: Toluene-d8 (80-120%)					*106 %*				

TestAmerica Irvine

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)						**Sampled: 06/02/11**			
Reporting Units: ug/l									
Bis(2-ethylhexyl)phthalate	EPA 625	11F0470	4.72	1.60	ND	0.943	6/3/2011	6/6/2011	
2,4-Dinitrotoluene	EPA 625	11F0470	4.72	0.189	ND	0.943	6/3/2011	6/6/2011	
N-Nitrosodimethylamine	EPA 625	11F0470	4.72	0.0943	ND	0.943	6/3/2011	6/6/2011	
Pentachlorophenol	EPA 625	11F0470	4.72	0.0943	ND	0.943	6/3/2011	6/6/2011	
2,4,6-Trichlorophenol	EPA 625	11F0470	5.66	0.0943	ND	0.943	6/3/2011	6/6/2011	
Surrogate: 2,4,6-Tribromophenol (40-120%)					*88 %*				
Surrogate: 2-Fluorobiphenyl (50-120%)					*67 %*				
Surrogate: 2-Fluorophenol (30-120%)					*63 %*				
Surrogate: Nitrobenzene-d5 (45-120%)					*70 %*				
Surrogate: Phenol-d6 (35-120%)					*62 %*				
Surrogate: Terphenyl-d14 (50-125%)					*91 %*				

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Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)						**Sampled: 06/02/11**			
Reporting Units: ug/l									
alpha-BHC	EPA 608	11F1208	0.0094	0.0024	ND	0.943	6/9/2011	6/10/2011	
Surrogate: Decachlorobiphenyl (45-120%)					*74 %*				
Surrogate: Tetrachloro-m-xylene (35-115%)					*64 %*				

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Received: 06/01/11

HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-01 (Outfall 019 (Grab) - Water)						**Sampled: 06/01/11**			
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	11F1680	4.7	1.3	ND	1	6/13/2011	6/13/2011	

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Received: 06/01/11

METALS

Analyte	Method	Batch	Reporting Limit		Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)						**Sampled: 06/02/11**			
Reporting Units: mg/l									
Hardness (as CaCO3)	SM2340B	[CALC]	0.33		**120**	1	6/9/2011	6/10/2011	
Calcium	EPA 200.7	11F1320	0.10	0.050	**46**	1	6/9/2011	6/10/2011	
Magnesium	EPA 200.7	11F1320	0.020	0.012	**0.56**	1	6/9/2011	6/10/2011	
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)						**Sampled: 06/02/11**			
Reporting Units: ug/l									
Mercury	EPA 245.1	11F1300	0.20	0.10	ND	1	6/10/2011	6/10/2011	
Cadmium	EPA 200.8	11F1694	1.0	0.10	**0.18**	1	6/13/2011	6/13/2011	Ja
Zinc	EPA 200.7	11F1320	20.0	6.00	**37.1**	1	6/9/2011	6/10/2011	
Copper	EPA 200.8	11F1694	2.00	0.500	**0.772**	1	6/13/2011	6/13/2011	Ja
Lead	EPA 200.8	11F1694	1.0	0.20	**0.27**	1	6/13/2011	6/14/2011	Ja
Selenium	EPA 200.8	11F1694	2.0	0.50	**0.59**	1	6/13/2011	6/13/2011	Ja

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Sampled: 06/01/11-06/06/11
Received: 06/01/11

DISSOLVED METALS

Analyte	Method	Batch	Reporting Limit		Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)					**Sampled: 06/02/11**				
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B-Diss	[CALC]	0.33		**120**	1	6/9/2011	6/11/2011	
Calcium	EPA 200.7-Diss	11F1345	0.10	0.050	**46**	1	6/9/2011	6/11/2011	
Magnesium	EPA 200.7-Diss	11F1345	0.020	0.012	**0.55**	1	6/9/2011	6/11/2011	
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)					**Sampled: 06/02/11**				
Reporting Units: ug/l									
Mercury	EPA 245.1-Diss	11F0714	0.20	0.10	ND	1	6/6/2011	6/6/2011	
Cadmium	EPA 200.8-Diss	11F1346	1.0	0.10	ND	1	6/9/2011	6/10/2011	
Zinc	EPA 200.7-Diss	11F1345	20.0	6.00	**31.4**	1	6/9/2011	6/11/2011	
Copper	EPA 200.8-Diss	11F1346	2.00	0.500	**0.626**	1	6/9/2011	6/10/2011	Ja
Lead	EPA 200.8-Diss	11F1346	1.0	0.20	ND	1	6/9/2011	6/10/2011	
Selenium	EPA 200.8-Diss	11F1346	2.0	0.50	ND	1	6/9/2011	6/10/2011	

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INORGANICS

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-01 (Outfall 019 (Grab) - Water)						**Sampled: 06/01/11**			
Reporting Units: ml/l									
Total Settleable Solids	SM2540F	11F0265	0.10	0.10	ND	1	6/2/2011	6/2/2011	
Sample ID: IUF0139-01 (Outfall 019 (Grab) - Water)						**Sampled: 06/01/11**			
Reporting Units: umhos/cm @ 25C									
Specific Conductance	EPA 120.1	11F0195	1.0	1.0	**990**	1	6/2/2011	6/2/2011	
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)						**Sampled: 06/02/11**			
Reporting Units: mg/l									
Ammonia-N (Distilled)	SM4500NH3-C	11F1169	0.500	0.500	ND	1	6/8/2011	6/8/2011	
Chloride	EPA 300.0	11F0273	10	6.0	**100**	20	6/2/2011	6/2/2011	
Nitrate-N	EPA 300.0	11F0273	0.11	0.060	**0.093**	1	6/2/2011	6/2/2011	Ja
Nitrite-N	EPA 300.0	11F0273	0.15	0.090	ND	1	6/2/2011	6/2/2011	
Nitrate/Nitrite-N	EPA 300.0	11F0273	0.26	0.15	ND	1	6/2/2011	6/2/2011	
Sulfate	EPA 300.0	11F0273	10	6.0	**99**	20	6/2/2011	6/2/2011	
Surfactants (MBAS)	SM5540-C	11F0352	0.10	0.050	ND	1	6/2/2011	6/2/2011	
Total Dissolved Solids	SM2540C	11F0379	10	1.0	**490**	1	6/3/2011	6/3/2011	
Total Organic Carbon	SM5310B	11F1197	1.0	0.50	**2.6**	1	6/9/2011	6/9/2011	
Total Suspended Solids	SM 2540D	11F1165	10	1.0	**1.0**	1	6/8/2011	6/8/2011	Ja
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)						**Sampled: 06/02/11**			
Reporting Units: NTU									
Turbidity	EPA 180.1	11F0371	1.0	0.040	**0.10**	1	6/3/2011	6/3/2011	Ja
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)						**Sampled: 06/02/11**			
Reporting Units: ug/l									
Perchlorate	EPA 314.0	11F0384	4.0	0.90	ND	1	6/3/2011	6/3/2011	
Total Cyanide	SM4500CN-E	11F0489	5.0	2.2	ND	1	6/3/2011	6/3/2011	

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Received: 06/01/11

900

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)					**Sampled: 06/02/11**			
Reporting Units: pCi/L								
Gross Alpha	900	8685	3	**0.41**	1	6/16/2011	6/18/2011	U
Gross Beta	900	8685	4	**8.9**	1	6/16/2011	6/18/2011	
Sample ID: IUF0139-04 (Travel Blank - Water)					**Sampled: 06/06/11**			
Reporting Units: pCi/L								
Gross Alpha	900	8685	3	**-0.103**	1	6/16/2011	6/20/2011	U
Gross Beta	900	8685	4	**-0.832**	1	6/16/2011	6/20/2011	U

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901.1

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)					**Sampled: 06/02/11**			
Reporting Units: pCi/L								
Cesium-137	901.1	8685	20	ND	1	6/8/2011	6/21/2011	U
Potassium-40	901.1	8685	25	ND	1	6/8/2011	6/21/2011	U
Sample ID: IUF0139-04 (Travel Blank - Water)					**Sampled: 06/06/11**			
Reporting Units: pCi/L								
Cesium-137	901.1	8685	20	ND	1	6/8/2011	6/21/2011	U
Potassium-40	901.1	8685	25	ND	1	6/8/2011	6/21/2011	U

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903.1

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)					**Sampled: 06/02/11**			
Reporting Units: pCi/L								
Radium-226	903.1	8685	1	**-0.132**	1	6/15/2011	6/15/2011	U
Sample ID: IUF0139-04 (Travel Blank - Water)					**Sampled: 06/06/11**			
Reporting Units: pCi/L								
Radium-226	903.1	8685	1	**0.134**	1	6/15/2011	6/15/2011	U

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Received: 06/01/11

904

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)					**Sampled: 06/02/11**			
Reporting Units: pCi/L								
Radium-228	904	8685	1	**0.217**	1	6/20/2011	6/20/2011	U
Sample ID: IUF0139-04 (Travel Blank - Water)					**Sampled: 06/06/11**			
Reporting Units: pCi/L								
Radium-228	904	8685	1	**-0.114**	1	6/20/2011	6/20/2011	U

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Received: 06/01/11

905

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)					**Sampled: 06/02/11**			
Reporting Units: pCi/L								
Strontium-90	905	8685	2	**-0.133**	1	6/13/2011	6/13/2011	U
Sample ID: IUF0139-04 (Travel Blank - Water)					**Sampled: 06/06/11**			
Reporting Units: pCi/L								
Strontium-90	905	8685	2	**0.267**	1	6/13/2011	6/13/2011	U

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906

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)					**Sampled: 06/02/11**			
Reporting Units: pCi/L								
Tritium	906	8685	500	**44.4**	1	6/9/2011	6/9/2011	U

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Received: 06/01/11

ASTM-D5174

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)					**Sampled: 06/02/11**			
Reporting Units: pCi/L								
Uranium, Total	D5174	8685	1	ND	1	6/14/2011	6/14/2011	U
Sample ID: IUF0139-04 (Travel Blank - Water)					**Sampled: 06/06/11**			
Reporting Units: pCi/L								
Uranium, Total	D5174	8685	1	ND	1	6/14/2011	6/14/2011	U

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Received: 06/01/11

EPA-5 1613Bx

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)						**Sampled: 06/02/11**			
Reporting Units: ug/L									
1,2,3,4,6,7,8-HpCDD	EPA-5 1613B	1158065	0.00005	0.0000016	**0.0000054**	0.96	6/7/2011	6/9/2011	J, B
1,2,3,4,6,7,8-HpCDF	EPA-5 1613B	1158065	0.00005	0.0000013	**0.0000058**	0.96	6/7/2011	6/9/2011	J, Q, B
1,2,3,4,7,8,9-HpCDF	EPA-5 1613B	1158065	0.00005	0.0000017	**0.0000073**	0.96	6/7/2011	6/9/2011	J, B
1,2,3,4,7,8-HxCDD	EPA-5 1613B	1158065	0.00005	0.0000013	**0.0000046**	0.96	6/7/2011	6/9/2011	J, B
1,2,3,4,7,8-HxCDF	EPA-5 1613B	1158065	0.00005	0.0000008	**0.0000067**	0.96	6/7/2011	6/9/2011	J, Q, B
1,2,3,6,7,8-HxCDD	EPA-5 1613B	1158065	0.00005	0.0000012	**0.0000043**	0.96	6/7/2011	6/9/2011	J, B
1,2,3,6,7,8-HxCDF	EPA-5 1613B	1158065	0.00005	0.0000008	**0.0000036**	0.96	6/7/2011	6/9/2011	J, Q, B
1,2,3,7,8,9-HxCDD	EPA-5 1613B	1158065	0.00005	0.0000012	**0.0000033**	0.96	6/7/2011	6/9/2011	J, B
1,2,3,7,8,9-HxCDF	EPA-5 1613B	1158065	0.00005	0.0000009	**0.0000036**	0.96	6/7/2011	6/9/2011	J, Q, B
1,2,3,7,8-PeCDD	EPA-5 1613B	1158065	0.00005	0.0000019	**0.0000032**	0.96	6/7/2011	6/9/2011	J
1,2,3,7,8-PeCDF	EPA-5 1613B	1158065	0.00005	0.0000014	**0.0000052**	0.96	6/7/2011	6/9/2011	J, B
2,3,4,6,7,8-HxCDF	EPA-5 1613B	1158065	0.00005	0.0000008	**0.0000039**	0.96	6/7/2011	6/9/2011	J, Q, B
2,3,4,7,8-PeCDF	EPA-5 1613B	1158065	0.00005	0.0000016	**0.0000038**	0.96	6/7/2011	6/9/2011	J, B
2,3,7,8-TCDD	EPA-5 1613B	1158065	0.00001	0.0000011	ND	0.96	6/7/2011	6/9/2011	
2,3,7,8-TCDF	EPA-5 1613B	1158065	0.00001	0.0000011	**0.0000014**	0.96	6/7/2011	6/9/2011	J, Q, B
OCDD	EPA-5 1613B	1158065	0.0001	0.0000021	**0.00002**	0.96	6/7/2011	6/9/2011	J, B
OCDF	EPA-5 1613B	1158065	0.0001	0.0000022	**0.000013**	0.96	6/7/2011	6/9/2011	J, Q, B
Total HpCDD	EPA-5 1613B	1158065	0.00005	0.0000016	**0.0000068**	0.96	6/7/2011	6/9/2011	J, Q, B
Total HpCDF	EPA-5 1613B	1158065	0.00005	0.0000015	**0.000014**	0.96	6/7/2011	6/9/2011	J, Q, B
Total HxCDD	EPA-5 1613B	1158065	0.00005	0.0000012	**0.000012**	0.96	6/7/2011	6/9/2011	J, B
Total HxCDF	EPA-5 1613B	1158065	0.00005	0.0000087	**0.00002**	0.96	6/7/2011	6/9/2011	J, Q, B
Total PeCDD	EPA-5 1613B	1158065	0.00005	0.0000019	**0.0000032**	0.96	6/7/2011	6/9/2011	J
Total PeCDF	EPA-5 1613B	1158065	0.00005	0.0000015	**0.0000089**	0.96	6/7/2011	6/9/2011	J, B
Total TCDD	EPA-5 1613B	1158065	0.00001	0.0000011	ND	0.96	6/7/2011	6/9/2011	
Total TCDF	EPA-5 1613B	1158065	0.00001	0.0000011	**0.0000014**	0.96	6/7/2011	6/9/2011	J, Q, B
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)					*37 %*				
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)					*38 %*				
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)					*40 %*				
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)					*45 %*				
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)					*42 %*				
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)					*44 %*				
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)					*42 %*				
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)					*44 %*				
Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)					*46 %*				
Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)					*45 %*				
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)					*44 %*				
Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)					*49 %*				
Surrogate: 13C-2,3,7,8-TCDD (25-164%)					*45 %*				
Surrogate: 13C-2,3,7,8-TCDF (24-169%)					*47 %*				
Surrogate: 13C-OCDD (17-157%)					*39 %*				
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)					*80 %*				

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Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

EPA-5 1613Bx

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUF0139-03RE1 (Outfall 019 (Composite) - Water) - cont.						**Sampled: 06/02/11**			
Reporting Units: ug/L									
2,3,7,8-TCDF	EPA-5 1613B	1158065	0.00001	0.0000022	ND	1	6/7/2011	6/15/2011	
Surrogate: 13C-2,3,7,8-TCDF (24-169%)					*55 %*				
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)					*72 %*				

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Received: 06/01/11

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 019 (Grab) (IUF0139-01) - Water					
SM2540F	2	06/01/2011 11:40	06/01/2011 17:45	06/02/2011 12:00	06/02/2011 12:00
Sample ID: Outfall 019 (Composite) (IUF0139-03) - Water					
EPA 180.1	2	06/02/2011 11:30	06/01/2011 17:45	06/03/2011 07:10	06/03/2011 07:10
EPA 300.0	2	06/02/2011 11:30	06/01/2011 17:45	06/02/2011 20:30	06/02/2011 21:10
Filtration	1	06/02/2011 11:30	06/01/2011 17:45	06/03/2011 15:02	06/03/2011 15:04
SM5540-C	2	06/02/2011 11:30	06/01/2011 17:45	06/02/2011 19:43	06/02/2011 20:53

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Received: 06/01/11

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1620 Extracted: 06/12/11										
Blank Analyzed: 06/12/2011 (11F1620-BLK1)										
Benzene	ND	0.50	ug/l							
Carbon tetrachloride	ND	0.50	ug/l							
Chloroform	ND	0.50	ug/l							
1,1-Dichloroethane	ND	0.50	ug/l							
1,2-Dichloroethane	ND	0.50	ug/l							
1,1-Dichloroethene	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Tetrachloroethene	ND	0.50	ug/l							
Toluene	ND	0.50	ug/l							
1,1,1-Trichloroethane	ND	0.50	ug/l							
1,1,2-Trichloroethane	ND	0.50	ug/l							
Trichloroethene	ND	0.50	ug/l							
Trichlorofluoromethane	ND	0.50	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	ug/l							
Vinyl chloride	ND	0.50	ug/l							
Xylenes, Total	ND	1.5	ug/l							
Surrogate: 4-Bromofluorobenzene	*24.8*		*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: Dibromofluoromethane	*25.6*		*ug/l*	*25.0*		*103*	*80-120*			
Surrogate: Toluene-d8	*26.8*		*ug/l*	*25.0*		*107*	*80-120*			
LCS Analyzed: 06/12/2011 (11F1620-BS1)										
Benzene	25.4	0.50	ug/l	25.0		101	70-120			
Carbon tetrachloride	29.0	0.50	ug/l	25.0		116	65-140			
Chloroform	24.7	0.50	ug/l	25.0		99	70-130			
1,1-Dichloroethane	25.4	0.50	ug/l	25.0		102	70-125			
1,2-Dichloroethane	26.3	0.50	ug/l	25.0		105	60-140			
1,1-Dichloroethene	24.2	0.50	ug/l	25.0		97	70-125			
Ethylbenzene	29.0	0.50	ug/l	25.0		116	75-125			
Tetrachloroethene	26.1	0.50	ug/l	25.0		104	70-125			
Toluene	28.0	0.50	ug/l	25.0		112	70-120			
1,1,1-Trichloroethane	26.8	0.50	ug/l	25.0		107	65-135			
1,1,2-Trichloroethane	26.7	0.50	ug/l	25.0		107	70-125			
Trichloroethene	27.0	0.50	ug/l	25.0		108	70-125			
Trichlorofluoromethane	26.7	0.50	ug/l	25.0		107	65-145			
Vinyl chloride	22.7	0.50	ug/l	25.0		91	55-135			
Xylenes, Total	90.6	1.5	ug/l	75.0		121	70-125			

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1620 Extracted: 06/12/11										
LCS Analyzed: 06/12/2011 (11F1620-BS1)										
Surrogate: 4-Bromofluorobenzene	*26.5*		*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: Dibromofluoromethane	*26.4*		*ug/l*	*25.0*		*105*	*80-120*			
Surrogate: Toluene-d8	*26.4*		*ug/l*	*25.0*		*106*	*80-120*			
Matrix Spike Analyzed: 06/12/2011 (11F1620-MS1)					**Source: IUF0382-02**					
Benzene	28.5	0.50	ug/l	25.0	ND	114	65-125			
Carbon tetrachloride	31.2	0.50	ug/l	25.0	ND	125	65-140			
Chloroform	27.5	0.50	ug/l	25.0	ND	110	65-135			
1,1-Dichloroethane	29.2	0.50	ug/l	25.0	ND	117	65-130			
1,2-Dichloroethane	29.6	0.50	ug/l	25.0	ND	118	60-140			
1,1-Dichloroethene	26.1	0.50	ug/l	25.0	ND	104	60-130			
Ethylbenzene	31.8	0.50	ug/l	25.0	ND	127	65-130			
Tetrachloroethene	28.8	0.50	ug/l	25.0	ND	115	65-130			
Toluene	30.9	0.50	ug/l	25.0	ND	123	70-125			
1,1,1-Trichloroethane	30.6	0.50	ug/l	25.0	ND	123	65-140			
1,1,2-Trichloroethane	30.3	0.50	ug/l	25.0	ND	121	65-130			
Trichloroethene	28.7	0.50	ug/l	25.0	ND	115	65-125			
Trichlorofluoromethane	28.6	0.50	ug/l	25.0	ND	115	60-145			
Vinyl chloride	25.2	0.50	ug/l	25.0	ND	101	45-140			
Xylenes, Total	95.9	1.5	ug/l	75.0	ND	128	60-130			*M7*
Surrogate: 4-Bromofluorobenzene	*26.0*		*ug/l*	*25.0*		*104*	*80-120*			
Surrogate: Dibromofluoromethane	*28.0*		*ug/l*	*25.0*		*112*	*80-120*			
Surrogate: Toluene-d8	*25.9*		*ug/l*	*25.0*		*104*	*80-120*			
Matrix Spike Dup Analyzed: 06/12/2011 (11F1620-MSD1)					**Source: IUF0382-02**					
Benzene	26.6	0.50	ug/l	25.0	ND	106	65-125	7	20	
Carbon tetrachloride	28.6	0.50	ug/l	25.0	ND	115	65-140	9	25	
Chloroform	26.0	0.50	ug/l	25.0	ND	104	65-135	5	20	
1,1-Dichloroethane	27.6	0.50	ug/l	25.0	ND	110	65-130	6	20	
1,2-Dichloroethane	27.4	0.50	ug/l	25.0	ND	110	60-140	8	20	
1,1-Dichloroethene	25.6	0.50	ug/l	25.0	ND	102	60-130	2	20	
Ethylbenzene	31.6	0.50	ug/l	25.0	ND	126	65-130	0.6	20	
Tetrachloroethene	28.4	0.50	ug/l	25.0	ND	113	65-130	1	20	
Toluene	28.7	0.50	ug/l	25.0	ND	115	70-125	7	20	
1,1,1-Trichloroethane	28.8	0.50	ug/l	25.0	ND	115	65-140	6	20	
1,1,2-Trichloroethane	27.4	0.50	ug/l	25.0	ND	110	65-130	10	25	
Trichloroethene	27.2	0.50	ug/l	25.0	ND	109	65-125	5	20	

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Quarterly Outfall 019
Report Number: IUF0139

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Received: 06/01/11

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1620 Extracted: 06/12/11										
Matrix Spike Dup Analyzed: 06/12/2011 (11F1620-MSD1)					**Source: IUF0382-02**					
Trichlorofluoromethane	26.9	0.50	ug/l	25.0	ND	107	60-145	6	25	
Vinyl chloride	25.1	0.50	ug/l	25.0	ND	100	45-140	0.7	30	
Xylenes, Total	98.2	1.5	ug/l	75.0	ND	131	60-130	2	20	*M7*
Surrogate: 4-Bromofluorobenzene	*26.9*		*ug/l*	*25.0*		*108*	*80-120*			
Surrogate: Dibromofluoromethane	*26.8*		*ug/l*	*25.0*		*107*	*80-120*			
Surrogate: Toluene-d8	*25.9*		*ug/l*	*25.0*		*104*	*80-120*			

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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F0470 Extracted: 06/03/11										
Blank Analyzed: 06/05/2011 (11F0470-BLK1)										
Bis(2-ethylhexyl)phthalate	ND	5.00	ug/l							
2,4-Dinitrotoluene	ND	5.00	ug/l							
N-Nitrosodimethylamine	ND	5.00	ug/l							
Pentachlorophenol	ND	5.00	ug/l							
2,4,6-Trichlorophenol	ND	6.00	ug/l							
Surrogate: 2,4,6-Tribromophenol	*18.3*		*ug/l*	*20.0*		*92*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*7.38*		*ug/l*	*10.0*		*74*	*50-120*			
Surrogate: 2-Fluorophenol	*14.7*		*ug/l*	*20.0*		*74*	*30-120*			
Surrogate: Nitrobenzene-d5	*7.78*		*ug/l*	*10.0*		*78*	*45-120*			
Surrogate: Phenol-d6	*14.4*		*ug/l*	*20.0*		*72*	*35-120*			
Surrogate: Terphenyl-d14	*9.20*		*ug/l*	*10.0*		*92*	*50-125*			
LCS Analyzed: 06/05/2011 (11F0470-BS1)										
Bis(2-ethylhexyl)phthalate	9.04	5.00	ug/l	10.0		90	65-130			
2,4-Dinitrotoluene	8.08	5.00	ug/l	10.0		81	65-120			
N-Nitrosodimethylamine	7.88	5.00	ug/l	10.0		79	45-120			
Pentachlorophenol	3.82	5.00	ug/l	10.0		38	24-121			*Ja*
2,4,6-Trichlorophenol	7.26	6.00	ug/l	10.0		73	55-120			
Surrogate: 2,4,6-Tribromophenol	*17.0*		*ug/l*	*20.0*		*85*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*7.20*		*ug/l*	*10.0*		*72*	*50-120*			
Surrogate: 2-Fluorophenol	*12.4*		*ug/l*	*20.0*		*62*	*30-120*			
Surrogate: Nitrobenzene-d5	*8.24*		*ug/l*	*10.0*		*82*	*45-120*			
Surrogate: Phenol-d6	*11.8*		*ug/l*	*20.0*		*59*	*35-120*			
Surrogate: Terphenyl-d14	*9.18*		*ug/l*	*10.0*		*92*	*50-125*			
Matrix Spike Analyzed: 06/05/2011 (11F0470-MS1)					**Source: IUF0203-01**					
Bis(2-ethylhexyl)phthalate	9.35	5.05	ug/l	10.1	ND	93	65-130			
2,4-Dinitrotoluene	9.01	5.05	ug/l	10.1	ND	89	65-120			
N-Nitrosodimethylamine	7.56	5.05	ug/l	10.1	ND	75	45-120			
Pentachlorophenol	8.42	5.05	ug/l	10.1	ND	83	24-121			
2,4,6-Trichlorophenol	8.48	6.06	ug/l	10.1	ND	84	55-120			
Surrogate: 2,4,6-Tribromophenol	*19.3*		*ug/l*	*20.2*		*95*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*7.25*		*ug/l*	*10.1*		*72*	*50-120*			
Surrogate: 2-Fluorophenol	*13.0*		*ug/l*	*20.2*		*64*	*30-120*			
Surrogate: Nitrobenzene-d5	*7.90*		*ug/l*	*10.1*		*78*	*45-120*			
Surrogate: Phenol-d6	*13.8*		*ug/l*	*20.2*		*68*	*35-120*			
Surrogate: Terphenyl-d14	*9.33*		*ug/l*	*10.1*		*92*	*50-125*			

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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F0470 Extracted: 06/03/11										
Matrix Spike Dup Analyzed: 06/05/2011 (11F0470-MSD1)					**Source: IUF0203-01**					
Bis(2-ethylhexyl)phthalate	9.50	5.00	ug/l	10.0	ND	95	65-130	2	25	
2,4-Dinitrotoluene	9.22	5.00	ug/l	10.0	ND	92	65-120	2	25	
N-Nitrosodimethylamine	7.92	5.00	ug/l	10.0	ND	79	45-120	5	25	
Pentachlorophenol	8.64	5.00	ug/l	10.0	ND	86	24-121	3	25	
2,4,6-Trichlorophenol	8.88	6.00	ug/l	10.0	ND	89	55-120	5	30	
Surrogate: 2,4,6-Tribromophenol	*18.8*		*ug/l*	*20.0*		*94*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*7.32*		*ug/l*	*10.0*		*73*	*50-120*			
Surrogate: 2-Fluorophenol	*14.2*		*ug/l*	*20.0*		*71*	*30-120*			
Surrogate: Nitrobenzene-d5	*8.10*		*ug/l*	*10.0*		*81*	*45-120*			
Surrogate: Phenol-d6	*14.9*		*ug/l*	*20.0*		*74*	*35-120*			
Surrogate: Terphenyl-d14	*9.08*		*ug/l*	*10.0*		*91*	*50-125*			

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1208 Extracted: 06/09/11										
Blank Analyzed: 06/09/2011 (11F1208-BLK1)										
alpha-BHC	ND	0.010	ug/l							
Surrogate: Decachlorobiphenyl	*0.396*		*ug/l*	*0.500*		*79*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.390*		*ug/l*	*0.500*		*78*	*35-115*			
LCS Analyzed: 06/09/2011 (11F1208-BS1)										**MNR1**
alpha-BHC	0.411	0.010	ug/l	0.500		82	45-115			
Surrogate: Decachlorobiphenyl	*0.403*		*ug/l*	*0.500*		*81*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.411*		*ug/l*	*0.500*		*82*	*35-115*			
LCS Dup Analyzed: 06/09/2011 (11F1208-BSD1)										
alpha-BHC	0.403	0.010	ug/l	0.500		81	45-115	2	30	
Surrogate: Decachlorobiphenyl	*0.411*		*ug/l*	*0.500*		*82*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.403*		*ug/l*	*0.500*		*81*	*35-115*			

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METHOD BLANK/QC DATA

HEXANE EXTRACTABLE MATERIAL

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1680 Extracted: 06/13/11										
Blank Analyzed: 06/13/2011 (11F1680-BLK1)										
Hexane Extractable Material (Oil & Grease)	ND	5.0	mg/l							
LCS Analyzed: 06/13/2011 (11F1680-BS1)										
Hexane Extractable Material (Oil & Grease)	19.1	5.0	mg/l	20.0		96	78-114			
LCS Dup Analyzed: 06/13/2011 (11F1680-BSD1)										
Hexane Extractable Material (Oil & Grease)	19.3	5.0	mg/l	20.0		96	78-114	1	11	
Matrix Spike Analyzed: 06/13/2011 (11F1680-MS1)					**Source: IUF0427-02**					
Hexane Extractable Material (Oil & Grease)	38.5	5.0	mg/l	20.0	20.7	89	78-114			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1300 Extracted: 06/10/11										
Blank Analyzed: 06/10/2011 (11F1300-BLK1)										
Mercury	ND	0.20	ug/l							
LCS Analyzed: 06/10/2011 (11F1300-BS1)										
Mercury	8.92	0.20	ug/l	8.00		112	85-115			
Matrix Spike Analyzed: 06/10/2011 (11F1300-MS1)					**Source: IUF0679-01**					
Mercury	8.73	0.20	ug/l	8.00	ND	109	70-130			
Matrix Spike Dup Analyzed: 06/10/2011 (11F1300-MSD1)					**Source: IUF0679-01**					
Mercury	8.67	0.20	ug/l	8.00	ND	108	70-130	0.8	20	
Batch: 11F1320 Extracted: 06/09/11										
Blank Analyzed: 06/10/2011 (11F1320-BLK1)										
Calcium	ND	0.10	mg/l							
Magnesium	ND	0.020	mg/l							
Zinc	ND	20.0	ug/l							
LCS Analyzed: 06/10/2011 (11F1320-BS1)										
Calcium	2.48	0.10	mg/l	2.50		99	85-115			
Magnesium	2.52	0.020	mg/l	2.50		101	85-115			
Zinc	497	20.0	ug/l	500		99	85-115			
Matrix Spike Analyzed: 06/10/2011 (11F1320-MS1)					**Source: IUE2606-01RE2**					
Calcium	28.0	0.10	mg/l	2.50	26.2	73	70-130			*MHA*
Magnesium	6.19	0.020	mg/l	2.50	3.76	97	70-130			
Zinc	503	20.0	ug/l	500	ND	101	70-130			

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Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1320 Extracted: 06/09/11										
Matrix Spike Analyzed: 06/10/2011 (11F1320-MS2)					**Source: IUE2606-02RE2**					
Calcium	28.2	0.10	mg/l	2.50	33.4	-209	70-130			*MHA*
Magnesium	6.13	0.020	mg/l	2.50	4.89	50	70-130			*M2*
Zinc	507	20.0	ug/l	500	ND	101	70-130			
Matrix Spike Analyzed: 06/10/2011 (11F1320-MS3)					**Source: IUF0203-01**					
Calcium	160	0.10	mg/l	2.50	159	30	70-130			*MHA*
Magnesium	198	0.020	mg/l	2.50	199	-31	70-130			*MHA*
Zinc	506	20.0	ug/l	500	14.2	98	70-130			
Matrix Spike Analyzed: 06/10/2011 (11F1320-MS4)					**Source: IUF0577-01**					
Calcium	35.6	0.10	mg/l	2.50	33.0	102	70-130			*MHA*
Magnesium	16.6	0.020	mg/l	2.50	14.2	95	70-130			*MHA*
Zinc	479	20.0	ug/l	500	50.2	86	70-130			
Matrix Spike Analyzed: 06/10/2011 (11F1320-MS5)					**Source: IUF0769-01**					
Calcium	135	0.10	mg/l	2.50	134	36	70-130			*MHA*
Magnesium	77.2	0.020	mg/l	2.50	74.4	112	70-130			*MHA*
Zinc	773	20.0	ug/l	500	315	92	70-130			
Matrix Spike Dup Analyzed: 06/10/2011 (11F1320-MSD1)					**Source: IUE2606-01RE2**					
Calcium	27.9	0.10	mg/l	2.50	26.2	69	70-130	0.3	20	*MHA*
Magnesium	6.16	0.020	mg/l	2.50	3.76	96	70-130	0.6	20	
Zinc	496	20.0	ug/l	500	ND	99	70-130	1	20	
Matrix Spike Dup Analyzed: 06/10/2011 (11F1320-MSD2)					**Source: IUE2606-02RE2**					
Calcium	28.2	0.10	mg/l	2.50	33.4	-206	70-130	0.2	20	*MHA*
Magnesium	6.64	0.020	mg/l	2.50	4.89	70	70-130	8	20	
Zinc	497	20.0	ug/l	500	ND	99	70-130	2	20	

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METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1320 Extracted: 06/09/11										
Matrix Spike Dup Analyzed: 06/10/2011 (11F1320-MSD3)					**Source: IUF0203-01**					
Calcium	162	0.10	mg/l	2.50	159	126	70-130	1	20	*MHA*
Magnesium	200	0.020	mg/l	2.50	199	20	70-130	0.6	20	*MHA*
Zinc	493	20.0	ug/l	500	14.2	96	70-130	2	20	
Matrix Spike Dup Analyzed: 06/10/2011 (11F1320-MSD4)					**Source: IUF0577-01**					
Calcium	35.7	0.10	mg/l	2.50	33.0	110	70-130	0.5	20	*MHA*
Magnesium	16.7	0.020	mg/l	2.50	14.2	98	70-130	0.5	20	*MHA*
Zinc	470	20.0	ug/l	500	50.2	84	70-130	2	20	
Matrix Spike Dup Analyzed: 06/10/2011 (11F1320-MSD5)					**Source: IUF0769-01**					
Calcium	136	0.10	mg/l	2.50	134	103	70-130	1	20	*MHA*
Magnesium	78.2	0.020	mg/l	2.50	74.4	151	70-130	1	20	*MHA*
Zinc	778	20.0	ug/l	500	315	92	70-130	0.6	20	
Batch: 11F1694 Extracted: 06/13/11										
Blank Analyzed: 06/13/2011-06/14/2011 (11F1694-BLK1)										
Cadmium	ND	1.0	ug/l							
Copper	ND	2.00	ug/l							
Lead	ND	1.0	ug/l							
Selenium	ND	2.0	ug/l							
LCS Analyzed: 06/13/2011-06/14/2011 (11F1694-BS1)										
Cadmium	79.5	1.0	ug/l	80.0		99	85-115			
Copper	76.9	2.00	ug/l	80.0		96	85-115			
Lead	76.9	1.0	ug/l	80.0		96	85-115			
Selenium	79.8	2.0	ug/l	80.0		100	85-115			

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METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1694 Extracted: 06/13/11										
Matrix Spike Analyzed: 06/13/2011-06/14/2011 (11F1694-MS1)					**Source: IUF0550-01**					
Cadmium	78.5	1.0	ug/l	80.0	ND	98	70-130			
Copper	67.5	2.00	ug/l	80.0	ND	84	70-130			
Lead	74.3	1.0	ug/l	80.0	ND	93	70-130			
Selenium	78.3	2.0	ug/l	80.0	0.958	97	70-130			
Matrix Spike Dup Analyzed: 06/13/2011-06/14/2011 (11F1694-MSD1)					**Source: IUF0550-01**					
Cadmium	77.9	1.0	ug/l	80.0	ND	97	70-130	0.8	20	
Copper	67.5	2.00	ug/l	80.0	ND	84	70-130	0.03	20	
Lead	72.8	1.0	ug/l	80.0	ND	91	70-130	2	20	
Selenium	79.3	2.0	ug/l	80.0	0.958	98	70-130	1	20	

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DISSOLVED METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F0714 Extracted: 06/06/11										
Blank Analyzed: 06/06/2011 (11F0714-BLK1)										
Mercury	ND	0.20	ug/l							
LCS Analyzed: 06/06/2011 (11F0714-BS1)										
Mercury	8.22	0.20	ug/l	8.00		103	85-115			
Matrix Spike Analyzed: 06/06/2011 (11F0714-MS1)					**Source: IUF0114-01**					
Mercury	8.21	0.20	ug/l	8.00	ND	103	70-130			
Matrix Spike Dup Analyzed: 06/06/2011 (11F0714-MSD1)					**Source: IUF0114-01**					
Mercury	8.28	0.20	ug/l	8.00	ND	104	70-130	0.9	20	
Batch: 11F1345 Extracted: 06/09/11										
Blank Analyzed: 06/11/2011 (11F1345-BLK1)										
Calcium	ND	0.10	mg/l							
Magnesium	ND	0.020	mg/l							
Zinc	ND	20.0	ug/l							
LCS Analyzed: 06/11/2011 (11F1345-BS1)										**MNR1**
Calcium	2.47	0.10	mg/l	2.50		99	85-115			
Magnesium	2.52	0.020	mg/l	2.50		101	85-115			
Zinc	448	20.0	ug/l	500		90	85-115			
LCS Dup Analyzed: 06/11/2011 (11F1345-BSD1)										
Calcium	2.54	0.10	mg/l	2.50		102	85-115	3	20	
Magnesium	2.49	0.020	mg/l	2.50		100	85-115	1	20	
Zinc	444	20.0	ug/l	500		89	85-115	0.9	20	

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DISSOLVED METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1346 Extracted: 06/09/11										
Blank Analyzed: 06/10/2011 (11F1346-BLK1)										
Cadmium	ND	1.0	ug/l							
Copper	ND	2.00	ug/l							
Lead	ND	1.0	ug/l							
Selenium	ND	2.0	ug/l							
LCS Analyzed: 06/10/2011 (11F1346-BS1)										**MNR1**
Cadmium	79.5	1.0	ug/l	80.0		99	85-115			
Copper	83.2	2.00	ug/l	80.0		104	85-115			
Lead	73.0	1.0	ug/l	80.0		91	85-115			
Selenium	72.9	2.0	ug/l	80.0		91	85-115			
LCS Dup Analyzed: 06/10/2011 (11F1346-BSD1)										
Cadmium	80.7	1.0	ug/l	80.0		101	85-115	1	20	
Copper	83.7	2.00	ug/l	80.0		105	85-115	0.5	20	
Lead	80.3	1.0	ug/l	80.0		100	85-115	10	20	
Selenium	72.6	2.0	ug/l	80.0		91	85-115	0.4	20	

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INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F0195 Extracted: 06/02/11										
Blank Analyzed: 06/02/2011 (11F0195-BLK1)										
Specific Conductance	ND	1.0	umhos/cm @ 25C							
LCS Analyzed: 06/02/2011 (11F0195-BS1)										
Specific Conductance	1370	1.0	umhos/cm @ 25C	1410		97	90-110			
Duplicate Analyzed: 06/02/2011 (11F0195-DUP1)					**Source: IUF0082-01**					
Specific Conductance	687	1.0	umhos/cm @ 25C		679			1	5	
Batch: 11F0273 Extracted: 06/02/11										
Blank Analyzed: 06/02/2011 (11F0273-BLK1)										
Chloride	ND	0.50	mg/l							
Nitrate-N	ND	0.11	mg/l							
Nitrite-N	ND	0.15	mg/l							
Nitrate/Nitrite-N	ND	0.26	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 06/02/2011 (11F0273-BS1)										
Chloride	4.76	0.50	mg/l	5.00		95	90-110			
Nitrate-N	1.03	0.11	mg/l	1.13		91	90-110			
Nitrite-N	1.46	0.15	mg/l	1.52		96	90-110			
Sulfate	9.93	0.50	mg/l	10.0		99	90-110			
Matrix Spike Analyzed: 06/02/2011 (11F0273-MS1)					**Source: IUF0129-05**					
Chloride	128	5.0	mg/l	50.0	81.0	94	80-120			
Nitrate-N	43.2	1.1	mg/l	11.3	32.0	99	80-120			
Nitrite-N	14.8	1.5	mg/l	15.2	ND	97	80-120			
Sulfate	210	5.0	mg/l	100	107	103	80-120			

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INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F0273 Extracted: 06/02/11										
Matrix Spike Dup Analyzed: 06/02/2011 (11F0273-MSD1)					**Source: IUF0129-05**					
Chloride	129	5.0	mg/l	50.0	81.0	97	80-120	1	20	
Nitrate-N	43.7	1.1	mg/l	11.3	32.0	104	80-120	1	20	
Nitrite-N	14.9	1.5	mg/l	15.2	ND	98	80-120	0.6	20	
Sulfate	213	5.0	mg/l	100	107	105	80-120	1	20	
Batch: 11F0352 Extracted: 06/02/11										
Blank Analyzed: 06/02/2011 (11F0352-BLK1)										
Surfactants (MBAS)	ND	0.10	mg/l							
LCS Analyzed: 06/02/2011 (11F0352-BS1)										
Surfactants (MBAS)	0.254	0.10	mg/l	0.250		102	90-110			
Matrix Spike Analyzed: 06/02/2011 (11F0352-MS1)					**Source: IUF0137-01**					
Surfactants (MBAS)	0.261	0.10	mg/l	0.250	ND	104	50-125			
Matrix Spike Dup Analyzed: 06/02/2011 (11F0352-MSD1)					**Source: IUF0137-01**					
Surfactants (MBAS)	0.245	0.10	mg/l	0.250	ND	98	50-125	6	20	
Batch: 11F0371 Extracted: 06/03/11										
Blank Analyzed: 06/03/2011 (11F0371-BLK1)										
Turbidity	ND	1.0	NTU							
Duplicate Analyzed: 06/03/2011 (11F0371-DUP1)					**Source: IUF0139-03**					
Turbidity	0.100	1.0	NTU		0.100			0	20	*Ja*

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F0371 Extracted: 06/03/11										
Duplicate Analyzed: 06/03/2011 (11F0371-DUP2)					**Source: IUF0248-04**					
Turbidity	ND	1.0	NTU		ND				20	
Batch: 11F0379 Extracted: 06/03/11										
Blank Analyzed: 06/03/2011 (11F0379-BLK1)										
Total Dissolved Solids	ND	10	mg/l							
LCS Analyzed: 06/03/2011 (11F0379-BS1)										
Total Dissolved Solids	1000	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 06/03/2011 (11F0379-DUP1)					**Source: IUF0232-02**					
Total Dissolved Solids	779	10	mg/l		773			0.8	10	
Batch: 11F0384 Extracted: 06/03/11										
Blank Analyzed: 06/03/2011 (11F0384-BLK1)										
Perchlorate	ND	4.0	ug/l							
LCS Analyzed: 06/03/2011 (11F0384-BS1)										
Perchlorate	24.9	4.0	ug/l	25.0		100	85-115			
Matrix Spike Analyzed: 06/03/2011 (11F0384-MS1)					**Source: IUF0139-03**					
Perchlorate	26.6	4.0	ug/l	25.0	ND	107	80-120			
Matrix Spike Dup Analyzed: 06/03/2011 (11F0384-MSD1)					**Source: IUF0139-03**					
Perchlorate	27.0	4.0	ug/l	25.0	ND	108	80-120	1	20	

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INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F0489 Extracted: 06/03/11										
Blank Analyzed: 06/03/2011 (11F0489-BLK1)										
Total Cyanide	ND	5.0	ug/l							
LCS Analyzed: 06/03/2011 (11F0489-BS1)										
Total Cyanide	195	5.0	ug/l	196		100	90-110			
Matrix Spike Analyzed: 06/03/2011 (11F0489-MS1)					**Source: IUF0276-01**					
Total Cyanide	169	5.0	ug/l	196	ND	86	70-115			
Matrix Spike Dup Analyzed: 06/03/2011 (11F0489-MSD1)					**Source: IUF0276-01**					
Total Cyanide	174	5.0	ug/l	196	ND	89	70-115	3	15	
Batch: 11F1165 Extracted: 06/08/11										
Blank Analyzed: 06/08/2011 (11F1165-BLK1)										
Total Suspended Solids	ND	10	mg/l							
LCS Analyzed: 06/08/2011 (11F1165-BS1)										
Total Suspended Solids	996	10	mg/l	1000		100	85-115			
Duplicate Analyzed: 06/08/2011 (11F1165-DUP1)					**Source: IUF0766-01**					
Total Suspended Solids	22.8	10	mg/l		22.0			4	10	
Duplicate Analyzed: 06/08/2011 (11F1165-DUP2)					**Source: IUF0864-01**					
Total Suspended Solids	19.0	10	mg/l		20.0			5	10	
Batch: 11F1169 Extracted: 06/08/11										
Blank Analyzed: 06/08/2011 (11F1169-BLK1)										
Ammonia-N (Distilled)	ND	0.500	mg/l							

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1169 Extracted: 06/08/11										
LCS Analyzed: 06/08/2011 (11F1169-BS1)										
Ammonia-N (Distilled)	9.52	0.500	mg/l	10.0		95	80-115			
Matrix Spike Analyzed: 06/08/2011 (11F1169-MS1)					**Source: IUF0139-03**					
Ammonia-N (Distilled)	9.80	0.500	mg/l	10.0	ND	98	70-120			
Matrix Spike Dup Analyzed: 06/08/2011 (11F1169-MSD1)					**Source: IUF0139-03**					
Ammonia-N (Distilled)	9.80	0.500	mg/l	10.0	ND	98	70-120	0	15	
Batch: 11F1197 Extracted: 06/09/11										
Blank Analyzed: 06/09/2011 (11F1197-BLK1)										
Total Organic Carbon	ND	1.0	mg/l							
LCS Analyzed: 06/09/2011 (11F1197-BS1)										
Total Organic Carbon	10.4	1.0	mg/l	10.0		104	90-110			
Matrix Spike Analyzed: 06/09/2011 (11F1197-MS1)					**Source: IUF0207-09**					
Total Organic Carbon	13.7	1.0	mg/l	5.00	9.06	93	80-120			
Matrix Spike Dup Analyzed: 06/09/2011 (11F1197-MSD1)					**Source: IUF0207-09**					
Total Organic Carbon	13.4	1.0	mg/l	5.00	9.06	88	80-120	2	20	

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Project ID: Quarterly Outfall 019
Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

METHOD BLANK/QC DATA

900

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8685 Extracted: 06/16/11										
LCS Analyzed: 06/20/2011 (S106041-03)					**Source:**					
Gross Alpha	115	3	pCi/L	111		104	70-130			
Gross Beta	99.7	4	pCi/L	104		96	70-130			
Blank Analyzed: 06/20/2011 (S106041-04)					**Source:**					
Gross Alpha	-0.295	3	pCi/L				-			*U*
Gross Beta	-0.684	4	pCi/L				-			*U*
Duplicate Analyzed: 06/20/2011 (S106041-05)					**Source: IUF0139-03**					
Gross Alpha	0.77	3	pCi/L		0.41		-	0		*U*
Gross Beta	8.46	4	pCi/L		8.9		-	5		

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METHOD BLANK/QC DATA

901.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8685 Extracted: 06/08/11										
LCS Analyzed: 06/21/2011 (S106041-03)					**Source:**					
Cobalt-60	226	10	pCi/L	241		94	80-120			
Cesium-137	237	20	pCi/L	250		95	80-120			
Blank Analyzed: 06/21/2011 (S106041-04)					**Source:**					
Cesium-137	ND	20	pCi/L				-			*U*
Potassium-40	ND	25	pCi/L				-			*U*
Duplicate Analyzed: 06/22/2011 (S106041-05)					**Source: IUF0139-03**					
Cesium-137	ND	20	pCi/L		0		-	0		*U*
Potassium-40	ND	25	pCi/L		0		-	0		*U*

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METHOD BLANK/QC DATA

903.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8685 Extracted: 06/15/11										
LCS Analyzed: 06/15/2011 (S106041-03)					**Source:**					
Radium-226	49	1	pCi/L	55.7		88	80-120			
Blank Analyzed: 06/15/2011 (S106041-04)					**Source:**					
Radium-226	-0.056	1	pCi/L				-			*U*
Duplicate Analyzed: 06/15/2011 (S106041-05)					**Source: IUF0139-03**					
Radium-226	0.01	1	pCi/L		-0.132		-	0		*U*

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Received: 06/01/11

METHOD BLANK/QC DATA

904

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8685 Extracted: 06/20/11										
LCS Analyzed: 06/20/2011 (S106041-03)					**Source:**					
Radium-228	6.06	1	pCi/L	5.89		103	60-140			
Blank Analyzed: 06/20/2011 (S106041-04)					**Source:**					
Radium-228	-0.05	1	pCi/L				-			*U*
Duplicate Analyzed: 06/20/2011 (S106041-05)					**Source: IUF0139-03**					
Radium-228	0.155	1	pCi/L		0.217		-	0		*U*

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METHOD BLANK/QC DATA

905

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8685 Extracted: 06/13/11										
LCS Analyzed: 06/13/2011 (S106041-03)					**Source:**					
Strontium-90	18.2	2	pCi/L	17.3		105	80-120			
Blank Analyzed: 06/13/2011 (S106041-04)					**Source:**					
Strontium-90	0.154	2	pCi/L				-			*U*
Duplicate Analyzed: 06/13/2011 (S106041-05)					**Source: IUF0139-03**					
Strontium-90	0.143	2	pCi/L		-0.133		-	0		*U*

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METHOD BLANK/QC DATA

906

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8685 Extracted: 06/09/11										
LCS Analyzed: 06/09/2011 (S106041-03)					**Source:**					
Tritium	2410	500	pCi/L	2320		104	80-120			
Blank Analyzed: 06/09/2011 (S106041-04)					**Source:**					
Tritium	63.4	500	pCi/L				-			*U*
Duplicate Analyzed: 06/10/2011 (S106041-05)					**Source: IUF0139-03**					
Tritium	16.4	500	pCi/L		44.4		-	0		*U*

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METHOD BLANK/QC DATA

ASTM-D5174

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8685 Extracted: 06/14/11										
LCS Analyzed: 06/14/2011 (S106041-03)					**Source:**					
Uranium, Total	59.8	1	pCi/L	62.5		96	80-120			
Blank Analyzed: 06/14/2011 (S106041-04)					**Source:**					
Uranium, Total	0	1	pCi/L				-			*U*
Duplicate Analyzed: 06/14/2011 (S106041-05)					**Source: IUF0139-03**					
Uranium, Total	0	1	pCi/L		0		-	0		*U*

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METHOD BLANK/QC DATA

EPA-5 1613Bx

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 1158065 Extracted: 06/07/11										
Blank Analyzed: 06/09/2011 (G1F070000065B)					**Source:**					
1,2,3,4,6,7,8-HpCDD	0.0000033	0.00005	ug/L				-			*J, Q*
1,2,3,4,6,7,8-HpCDF	0.0000046	0.00005	ug/L				-			*J, Q*
1,2,3,4,7,8,9-HpCDF	0.0000077	0.00005	ug/L				-			*J*
1,2,3,4,7,8-HxCDD	0.0000027	0.00005	ug/L				-			*J, Q*
1,2,3,4,7,8-HxCDF	0.0000066	0.00005	ug/L				-			*J*
1,2,3,6,7,8-HxCDD	0.0000021	0.00005	ug/L				-			*J*
1,2,3,6,7,8-HxCDF	0.0000026	0.00005	ug/L				-			*J, Q*
1,2,3,7,8,9-HxCDD	0.0000026	0.00005	ug/L				-			*J*
1,2,3,7,8,9-HxCDF	0.0000021	0.00005	ug/L				-			*J*
1,2,3,7,8-PeCDD	ND	0.00005	ug/L				-			
1,2,3,7,8-PeCDF	0.0000047	0.00005	ug/L				-			*J, Q*
2,3,4,6,7,8-HxCDF	0.0000016	0.00005	ug/L				-			*J, Q*
2,3,4,7,8-PeCDF	0.0000032	0.00005	ug/L				-			*J*
2,3,7,8-TCDD	ND	0.00001	ug/L				-			
2,3,7,8-TCDF	0.0000017	0.00001	ug/L				-			*J, Q*
OCDD	0.000011	0.0001	ug/L				-			*J*
OCDF	0.00001	0.0001	ug/L				-			*J*
Total HpCDD	0.0000048	0.00005	ug/L				-			*J, Q*
Total HpCDF	0.000015	0.00005	ug/L				-			*J, Q*
Total HxCDD	0.0000074	0.00005	ug/L				-			*J, Q*
Total HxCDF	0.000019	0.00005	ug/L				-			*J, Q*
Total PeCDD	ND	0.00005	ug/L				-			
Total PeCDF	0.000011	0.00005	ug/L				-			*J, Q*
Total TCDD	0.0000018	0.00001	ug/L				-			*J, Q*
Total TCDF	0.0000017	0.00001	ug/L				-			*J, Q*
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.00064*		*ug/L*	*0.002*		*32*	*23-140*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.00062*		*ug/L*	*0.002*		*31*	*28-143*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.00067*		*ug/L*	*0.002*		*34*	*26-138*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.00062*		*ug/L*	*0.002*		*31*	*32-141*			*
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.00058*		*ug/L*	*0.002*		*29*	*26-152*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.00068*		*ug/L*	*0.002*		*34*	*28-130*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.00059*		*ug/L*	*0.002*		*30*	*26-123*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.00067*		*ug/L*	*0.002*		*34*	*29-147*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.0006*		*ug/L*	*0.002*		*30*	*25-181*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.00054*		*ug/L*	*0.002*		*27*	*24-185*			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.00066*		*ug/L*	*0.002*		*33*	*28-136*			

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METHOD BLANK/QC DATA

EPA-5 1613Bx

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 1158065 Extracted: 06/07/11										
Blank Analyzed: 06/09/2011 (G1F070000065B)					**Source:**					
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.00065*		*ug/L*	*0.002*		*33*	*21-178*			
Surrogate: 13C-2,3,7,8-TCDD	*0.00052*		*ug/L*	*0.002*		*26*	*25-164*			
Surrogate: 13C-2,3,7,8-TCDF	*0.00055*		*ug/L*	*0.002*		*27*	*24-169*			
Surrogate: 13C-OCDD	*0.0014*		*ug/L*	*0.004*		*35*	*17-157*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.0007*		*ug/L*	*0.0008*		*88*	*35-197*			
LCS Analyzed: 06/09/2011 (G1F070000065C)					**Source:**					
1,2,3,4,6,7,8-HpCDD	0.000999	0.00005	ug/L	0.001		100	70-140			*B*
1,2,3,4,6,7,8-HpCDF	0.00108	0.00005	ug/L	0.001		108	82-122			*B*
1,2,3,4,7,8,9-HpCDF	0.00107	0.00005	ug/L	0.001		107	78-138			*B*
1,2,3,4,7,8-HxCDD	0.00101	0.00005	ug/L	0.001		101	70-164			*B*
1,2,3,4,7,8-HxCDF	0.00103	0.00005	ug/L	0.001		103	72-134			*B*
1,2,3,6,7,8-HxCDD	0.0009	0.00005	ug/L	0.001		90	76-134			*B*
1,2,3,6,7,8-HxCDF	0.00107	0.00005	ug/L	0.001		107	84-130			*B*
1,2,3,7,8,9-HxCDD	0.000975	0.00005	ug/L	0.001		97	64-162			*B*
1,2,3,7,8,9-HxCDF	0.00102	0.00005	ug/L	0.001		102	78-130			*B*
1,2,3,7,8-PeCDD	0.00104	0.00005	ug/L	0.001		104	70-142			
1,2,3,7,8-PeCDF	0.00105	0.00005	ug/L	0.001		105	80-134			*B*
2,3,4,6,7,8-HxCDF	0.00104	0.00005	ug/L	0.001		104	70-156			*B*
2,3,4,7,8-PeCDF	0.00102	0.00005	ug/L	0.001		102	68-160			*B*
2,3,7,8-TCDD	0.000201	0.00001	ug/L	0.0002		100	67-158			
2,3,7,8-TCDF	0.000231	0.00001	ug/L	0.0002		115	75-158			*B*
OCDD	0.00209	0.0001	ug/L	0.002		104	78-144			*B*
OCDF	0.00223	0.0001	ug/L	0.002		111	63-170			*B*
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.000556*		*ug/L*	*0.002*		*28*	*26-166*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.000545*		*ug/L*	*0.002*		*27*	*21-158*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.000592*		*ug/L*	*0.002*		*30*	*20-186*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.000577*		*ug/L*	*0.002*		*29*	*21-193*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.000505*		*ug/L*	*0.002*		*25*	*19-202*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.000609*		*ug/L*	*0.002*		*31*	*25-163*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.000513*		*ug/L*	*0.002*		*26*	*21-159*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.0006*		*ug/L*	*0.002*		*30*	*17-205*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.000498*		*ug/L*	*0.002*		*25*	*21-227*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.000431*		*ug/L*	*0.002*		*22*	*21-192*			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.00059*		*ug/L*	*0.002*		*30*	*22-176*			
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.000536*		*ug/L*	*0.002*		*27*	*13-328*			

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METHOD BLANK/QC DATA

EPA-5 1613Bx

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 1158065 Extracted: 06/07/11										
LCS Analyzed: 06/09/2011 (G1F070000065C)					**Source:**					
Surrogate: 13C-2,3,7,8-TCDD	*0.000383*		*ug/L*	*0.002*		*19*	*20-175*			*
Surrogate: 13C-2,3,7,8-TCDF	*0.000391*		*ug/L*	*0.002*		*20*	*22-152*			*
Surrogate: 13C-OCDD	*0.00121*		*ug/L*	*0.00399*		*30*	*13-199*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.000724*		*ug/L*	*0.0008*		*91*	*31-191*			
LCS Dup Analyzed: 06/09/2011 (G1F070000065L)					**Source:**					
1,2,3,4,6,7,8-HpCDD	0.00102	0.00005	ug/L	0.001		102	70-140	1.7	50	*B*
1,2,3,4,6,7,8-HpCDF	0.00112	0.00005	ug/L	0.001		112	82-122	4	50	*B*
1,2,3,4,7,8,9-HpCDF	0.00109	0.00005	ug/L	0.001		109	78-138	2.4	50	*B*
1,2,3,4,7,8-HxCDD	0.00104	0.00005	ug/L	0.001		104	70-164	3	50	*B*
1,2,3,4,7,8-HxCDF	0.00108	0.00005	ug/L	0.001		108	72-134	4.2	50	*B*
1,2,3,6,7,8-HxCDD	0.00094	0.00005	ug/L	0.001		94	76-134	4.3	50	*B*
1,2,3,6,7,8-HxCDF	0.00106	0.00005	ug/L	0.001		106	84-130	0.44	50	*B*
1,2,3,7,8,9-HxCDD	0.00104	0.00005	ug/L	0.001		104	64-162	6.1	50	*B*
1,2,3,7,8,9-HxCDF	0.00106	0.00005	ug/L	0.001		106	78-130	3.4	50	*B*
1,2,3,7,8-PeCDD	0.00106	0.00005	ug/L	0.001		106	70-142	2.4	50	
1,2,3,7,8-PeCDF	0.00107	0.00005	ug/L	0.001		107	80-134	1.8	50	*B*
2,3,4,6,7,8-HxCDF	0.00105	0.00005	ug/L	0.001		105	70-156	0.93	50	*B*
2,3,4,7,8-PeCDF	0.00106	0.00005	ug/L	0.001		106	68-160	3.1	50	*B*
2,3,7,8-TCDD	0.000208	0.00001	ug/L	0.0002		104	67-158	3.8	50	
2,3,7,8-TCDF	0.000222	0.00001	ug/L	0.0002		111	75-158	3.8	50	*B*
OCDD	0.0021	0.0001	ug/L	0.002		105	78-144	0.69	50	*B*
OCDF	0.00208	0.0001	ug/L	0.002		104	63-170	7.1	50	*B*
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.000484*		*ug/L*	*0.002*		*24*	*26-166*			*
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.00046*		*ug/L*	*0.002*		*23*	*21-158*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.000509*		*ug/L*	*0.002*		*25*	*20-186*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.000498*		*ug/L*	*0.002*		*25*	*21-193*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.000447*		*ug/L*	*0.002*		*22*	*19-202*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.000532*		*ug/L*	*0.002*		*27*	*25-163*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.000462*		*ug/L*	*0.002*		*23*	*21-159*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.000525*		*ug/L*	*0.002*		*26*	*17-205*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.00047*		*ug/L*	*0.002*		*24*	*21-227*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.000441*		*ug/L*	*0.002*		*22*	*21-192*			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.000529*		*ug/L*	*0.002*		*27*	*22-176*			
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.00052*		*ug/L*	*0.002*		*26*	*13-328*			
Surrogate: 13C-2,3,7,8-TCDD	*0.000445*		*ug/L*	*0.002*		*22*	*20-175*			

TestAmerica Irvine

Debby Wilson
Project Manager

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 1158065 Extracted: 06/07/11										
LCS Dup Analyzed: 06/09/2011 (G1F070000065L)					**Source:**					
Surrogate: 13C-2,3,7,8-TCDF	*0.000484*		*ug/L*	*0.002*		*24*	*22-152*			
Surrogate: 13C-OCDD	*0.00105*		*ug/L*	*0.00401*		*26*	*13-199*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.000727*		*ug/L*	*0.0008*		*91*	*31-191*			
Blank Analyzed: 06/14/2011 (G1F07000065B2)					**Source:**					
2,3,7,8-TCDF	ND	0.00001	ug/L				-			
Surrogate: 13C-2,3,7,8-TCDF	*0.00066*		*ug/L*	*0.002*		*33*	*24-169*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*630*		*ug/L*	*800*		*79*	*35-197*			

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Received: 06/01/11

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IUF0139-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	0	4.7	15
IUF0139-01	624-Boeing 001/002Q (Fr113+X+Fr	1,1-Dichloroethene	ug/l	0	0.50	6
IUF0139-01	624-Boeing 001/002Q (Fr113+X+Fr	Trichloroethene	ug/l	0	0.50	5
IUF0139-01	Settleable Solids - SM2540F	Total Settleable Solids	ml/l	0	0.10	0.3

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IUF0139-02	624-Boeing 001/002Q (Fr113+X+Fr	1,1-Dichloroethene	ug/l	0	0.50	6
IUF0139-02	624-Boeing 001/002Q (Fr113+X+Fr	Trichloroethene	ug/l	0	0.50	5

Compliance Check

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LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IUF0139-03	608-Pest Boeing 001/002 Q (LL)	alpha-BHC	ug/l	0	0.0094	0.03
IUF0139-03	625-Boeing 001/002 Q-LL	2,4,6-Trichlorophenol	ug/l	0	5.66	13
IUF0139-03	625-Boeing 001/002 Q-LL	2,4-Dinitrotoluene	ug/l	0	4.72	18
IUF0139-03	625-Boeing 001/002 Q-LL	Bis(2-ethylhexyl)phthalate	ug/l	0.38	4.72	4
IUF0139-03	625-Boeing 001/002 Q-LL	N-Nitrosodimethylamine	ug/l	0	4.72	16
IUF0139-03	625-Boeing 001/002 Q-LL	Pentachlorophenol	ug/l	0	4.72	16.5
IUF0139-03	Ammonia-N, Titr 4500NH3-C (w/di	Ammonia-N (Distilled)	mg/l	0	0.500	10.1
IUF0139-03	Cadmium-200.8	Cadmium	ug/l	0.18	1.0	3.1
IUF0139-03	Chloride - 300.0	Chloride	mg/l	103	10	150
IUF0139-03	Copper-200.8	Copper	ug/l	0.77	2.00	14
IUF0139-03	Cyanide, Total-4500CN-E (5ppb)	Total Cyanide	ug/l	1.59	5.0	8.5
IUF0139-03	Lead-200.8	Lead	ug/l	0.27	1.0	5.2
IUF0139-03	MBAS - SM5540C	Surfactants (MBAS)	mg/l	0.034	0.10	0.5
IUF0139-03	Mercury - 245.1	Mercury	ug/l	0	0.20	0.1
IUF0139-03	Nitrate-N, 300.0	Nitrate-N	mg/l	0.093	0.11	8
IUF0139-03	Nitrite-N, 300.0	Nitrite-N	mg/l	0	0.15	1
IUF0139-03	Nitrogen, NO3+NO2 -N EPA 300.0	Nitrate/Nitrite-N	mg/l	0.093	0.26	8
IUF0139-03	Perchlorate 314.0 - Default	Perchlorate	ug/l	0	4.0	6
IUF0139-03	Selenium-200.8	Selenium	ug/l	0.59	2.0	5

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618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

IUF0139-03	Sulfate-300.0	Sulfate	mg/l	99	10	300
IUF0139-03	TDS - SM2540C	Total Dissolved Solids	mg/l	494	10	950
IUF0139-03	TSS - SM2540D	Total Suspended Solids	mg/l	1.00	10	45
IUF0139-03	Zinc-200.7	Zinc	ug/l	37	20.0	119

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit

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Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

DATA QUALIFIERS AND DEFINITIONS

*****	Surrogate recovery is outside stated control limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than the reporting limit.
Ja	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M7	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
Q	Estimated maximum possible concentration (EMPC).
U	The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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Sampled: 06/01/11-06/06/11
Received: 06/01/11

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EDD + Level 4	Water	N/A	N/A
EPA 120.1	Water	X	X
EPA 1664A	Water	X	X
EPA 180.1	Water	X	N/A
EPA 200.7-Diss	Water	X	N/A
EPA 200.7	Water	X	N/A
EPA 200.8-Diss	Water	X	N/A
EPA 200.8	Water	X	N/A
EPA 245.1-Diss	Water	X	N/A
EPA 245.1	Water	X	N/A
EPA 300.0	Water	X	N/A
EPA 314.0	Water	X	N/A
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
Filtration	Water	N/A	N/A
SM 2540D	Water	X	X
SM2340B-Diss	Water		
SM2340B	Water	X	N/A
SM2540C	Water	X	N/A
SM2540F	Water	X	X
SM4500CN-E	Water	X	N/A
SM4500NH3-C	Water	X	X
SM5310B	Water	X	X
SM5540-C	Water	X	N/A

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Aquatic Testing Laboratories-SUB *California Cert #1775*
4350 Transport Street, Unit 107 - Ventura, CA 93003
Analysis Performed: Bioassay-Acute 96hr
Samples: IUF0139-03

TestAmerica Irvine

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

Eberline Services - SUB

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gamma Spec
Samples: IUF0139-03, IUF0139-04

Analysis Performed: Gross Alpha
Samples: IUF0139-03, IUF0139-04

Analysis Performed: Gross Beta
Samples: IUF0139-03, IUF0139-04

Analysis Performed: Radium, Combined
Samples: IUF0139-03, IUF0139-04

Analysis Performed: Strontium 90
Samples: IUF0139-03, IUF0139-04

Analysis Performed: Tritium
Samples: IUF0139-03, IUF0139-04

Analysis Performed: Uranium, Combined
Samples: IUF0139-03, IUF0139-04

TestAmerica Buffalo

10 Hazelwood Drive, Suite 106 - Amherst, NY 14228

Method Performed: 900
Samples: IUF0139-03, IUF0139-04

Method Performed: 901.1
Samples: IUF0139-03, IUF0139-04

Method Performed: 903.1
Samples: IUF0139-03, IUF0139-04

Method Performed: 904
Samples: IUF0139-03, IUF0139-04

Method Performed: 905
Samples: IUF0139-03, IUF0139-04

Method Performed: 906
Samples: IUF0139-03

Method Performed: D5174
Samples: IUF0139-03, IUF0139-04

TestAmerica Irvine

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Quarterly Outfall 019
Report Number: IUF0139

Sampled: 06/01/11-06/06/11
Received: 06/01/11

TestAmerica West Sacramento *NELAC Cert #1119CA, Nevada Cert #CA44*

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B

Samples: IUF0139-03, IUF0139-03RE1

TestAmerica Irvine

Debby Wilson
Project Manager

CHAIN OF CUSTODY FORM

IUF 0139

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Quarterly Outfall 019** **COMPOSITE**
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: Total Recoverable Metals: Cu, Pb, Hg, Cd, Se, Zn, Hardness as $CaCO_3$	TCDD (and all congeners)	BOD_5 (20 degrees C)	Surfactants (MBAS)	Cl^-, SO_4, NO_3+NO_2-N, Perchlorate	Nitrate-N, Nitrite-N	Turbidity, TDS, TSS	Ammonia-N (350.2)	Alpha BHC (608)	2,4,6 TCP, 2,4 Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs 625)					Comments
Outfall 019	W	1L Poly	1	6-2-2011 11:30	HNO_3	6A	X														
Outfall 019 Dup	W	1L Poly	1		HNO_3	6B	X														
Outfall 019	W	1L Amber	2		None	7A, 7B		X													
Outfall 019	W	1L Poly	1		None	8			X												
Outfall 019	W	500 mL Poly	2		None	9A, 9B				X											
Outfall 019	W	500 mL Poly	2		None	10A, 10B					X										
Outfall 019	W	500 mL Poly	1		None	11						X									
Outfall 019	W	500 mL Poly	2		None	12A, 12B							X								GA 6/2 18:50
Outfall 019	W	500 mL Poly	1		H_2SO_4	13								X							
Outfall 019	W	1L Amber	2		None	14A, 14B									X						
Outfall 019	W	1L Amber	2	6-2-2011 11:30	None	15A, 15B										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 Bañaga	6-2-2011 12:35	Matt Cruz	6-2-11 12:35
Matt Cruz	6-2-11 16:20	Jun Bandi	6/2/11 16:20

Turn-around time: (Check)

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

48 Hour: _____ 5 Day: _____ Normal: X

Sample Integrity: (Check)

Intact: ✓ On Ice: ✓

Data Requirements: (Check)

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

2 coolers 02M02 2-6

CHAIN OF CUSTODY FORM

IDF0139

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Quarterly Outfall 019** **COMPOSITE**
Project Manager: Bronwyn Kelly Sampler: Rick BAÑAGA	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 Dissolved Metals: Cu, Pb, Hg, Cd, Se, Zn, Hardness as CaCO3	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)	Acute Toxicity	Cyanide	~~Chronic Toxicity~~	Comments
Outfall 019	W	1L Poly	1	6-2-2011 11:30	None	16	X						Filter w/in 24hrs of receipt at lab
Outfall 019	W	250 mL Glass	1	↓	HCl	17		X					
Outfall 019	W	2.5 Gal Cube	1	↓	None	18A			X				Unfiltered and unpreserved analysis
		500 mL Amber	1	↓	None	18B							
Outfall 019	W	1 Gal Cube	1	↓	None	19				X			
Outfall 019	W	500 mL Poly	1	6-2-2011 11:30	NaOH	20					X		
~~Outfall 019~~	~~W~~	~~1 Gal Poly~~	~~1~~		~~None~~	~~21~~						~~X~~	Only test if first or second rain ~~events of the year~~

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
[signature]	6-2-2011 12:35	[signature]	6-2-11 12:35
[signature]	6-2-11 16:20	VuBaull	6/2/11 16:20

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

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

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

02M02 2.6

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 **Quarterly 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 + Freon 113	Oil & Grease (1664-HEM)	Settleable Solids	Conductivity	Comments
Outfall 019	W	VOAs	5	6-1-2011 11:40	HCl	1A, 1B, 1C, 1D, 1E	X				
Outfall 019	W	1L Amber	2	"	HCl	2A, 2B		X			
Outfall 019	W	1L Poly	1	"	None	3			X		
Outfall 019	W	500 mL Poly	2	"	None	4A, 4B				X	
Trip Blanks	W	VOAs	3	6-1-2011 11:40	HCl	5A, 5B, 5C	X				

ANALYSIS REQUIRED

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

Temp °F = 20°C = 68°F
pH = 7.6
DO = 2.09

Time of readings = 11:40

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	6-1-2011 15:00	Matt Arnold	6-1-11 15:00
Matt Arnold	6-1-11 17:45		
		Vu Banh	6/1/11 17:45

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

Sample Integrity: (Check)
Intact: J On Ice: V

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

01M03

5-8

EBERLINE SERVICES

EBERLINE ANALYTICAL CORPORATION
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Richmond, California 94804-3849
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Toll Free (800) 841-5487
www.eberlineservices.com

June 27, 2011

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

Reference: **Test America-Irvine IUF0139**
Eberline Analytical Report S106041-8685
Sample Delivery Group 8685

Dear Ms. Wilson:

Enclosed is a Level IV CLP-like data package (on CD) for two water samples received under Test America Job No. IUF0139. The samples were received on June 7, 2011.

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

Sincerely,

N. Joseph Verville
Client Services Manager

NJV/ljb
Enclosure: Level IV CLP-like Data Package CD

1.0 General Comments

Sample delivery group 8685 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 sample as received i.e. the sample was 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 2σerror (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. The gamma spectroscopy planchets were counted for sufficient time to meet the required Cs-137 detection limit of 20 pCi/L. As a consequence of keying to the Cs-137 RDL, the detection limits for K-40 were not achieved for the QC Method Blank.

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."

N. Joseph Verville
Client Services Manager

6/27/11
Date

EBERLINE ANALYTICAL
SDG 8685

SDG 8685	Client Test America, Inc.
Contact N. Joseph Verville	Contract IUF0139

SUMMARY DATA SECTION

TABLE OF CONTENTS

Prepared by

Reviewed by

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-TOC
Version	3.06
Report date	06/27/11

SDG 8685
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUF0139

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 06/27/11

SDG 8685
Contact N. Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract IUF0139

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 06/27/11

EBERLINE ANALYTICAL

SDG 8685

LAB SAMPLE SUMMARY

SDG 8685
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUF0139

LAB SAMPLE ID	CLIENT SAMPLE ID	LOCATION	MATRIX	LEVEL	SAS NO	CHAIN OF CUSTODY	COLLECTED
S106041-01	IUF0139-03	Boeing - SSFL	WATER			IUF0139	06/02/11 11:30
S106041-02	IUF0139-04 (TRAVEL-BLANK	Boeing - SSFL	WATER			IUF0139	06/06/11 17:00
S106041-03	Lab Control Sample		WATER				
S106041-04	Method Blank		WATER				
S106041-05	Duplicate (S106041-01)	Boeing - SSFL	WATER				06/02/11 11:30

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LS
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

QC SUMMARY

Client Test America, Inc.
Contract IUF0139

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
8685	IUF0139	IUF0139-03	WATER		10.0 L		06/07/11	5	S106041-01	8685-001
		IUF0139-04 (TRAVEL-BLANK	WATER		10.0 L		06/07/11	1	S106041-02	8685-002
		Method Blank	WATER						S106041-04	8685-004
		Lab Control Sample	WATER						S106041-03	8685-003
		Duplicate (S106041-01)	WATER		10.0 L		06/07/11	5	S106041-05	8685-005

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-QS
Version 3.06
Report date 06/27/11

EBERLINE ANALYTICAL

SDG 8685

PREP BATCH SUMMARY

SDG 8685
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUF0139

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	7271-086	10.4	2			1	1	1/1		
SR	WATER	Strontium-90 in Water	7271-086	10.4	2			1	1	1/1		
Gas Proportional Counting												
80A	WATER	Gross Alpha in Water	7271-086	20.6	2			1	1	1/1		
80B	WATER	Gross Beta in Water	7271-086	11.0	2			1	1	1/1		
Gamma Spectroscopy												
GAM	WATER	Gamma Emitters in Water	7271-086	7.0	2			1	1	1/1		
Kinetic Phosphorimetry, ug												
U_T	WATER	Uranium, Total	7271-086		2			1	1	1/1		
Liquid Scintillation Counting												
H	WATER	Tritium in Water	7271-086	10.0	1			1	1	1/1		
Radon Counting												
RA	WATER	Radium-226 in Water	7271-086	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 06/27/11

SDG 8685
Contact N. Joseph Verville

LAB WORK SUMMARY

Client Test America, Inc.
Contract IUF0139

LAB SAMPLE / COLLECTED / RECEIVED	CLIENT SAMPLE ID / LOCATION / CUSTODY / SAS no	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
S106041-01	IUF0139-03		8685-001	80A/80		06/18/11	06/20/11	BW	Gross Alpha in Water
06/02/11	Boeing - SSFL	WATER	8685-001	80B/80		06/18/11	06/20/11	BW	Gross Beta in Water
06/07/11	IUF0139		8685-001	AC		06/20/11	06/21/11	BW	Radium-228 in Water
			8685-001	GAM		06/21/11	06/24/11	MWT	Gamma Emitters in Water
			8685-001	H		06/09/11	06/14/11	BW	Tritium in Water
			8685-001	RA		06/15/11	06/16/11	BW	Radium-226 in Water
			8685-001	SR		06/13/11	06/15/11	BW	Strontium-90 in Water
			8685-001	U_T		06/14/11	06/14/11	BW	Uranium, Total
S106041-02	IUF0139-04 (TRAVEL-BLANK		8685-002	80A/80		06/20/11	06/20/11	BW	Gross Alpha in Water
06/06/11	Boeing - SSFL	WATER	8685-002	80B/80		06/20/11	06/20/11	BW	Gross Beta in Water
06/07/11	IUF0139		8685-002	AC		06/20/11	06/21/11	BW	Radium-228 in Water
			8685-002	GAM		06/21/11	06/24/11	MWT	Gamma Emitters in Water
			8685-002	RA		06/15/11	06/16/11	BW	Radium-226 in Water
			8685-002	SR		06/13/11	06/15/11	BW	Strontium-90 in Water
			8685-002	U_T		06/14/11	06/14/11	BW	Uranium, Total
S106041-03	Lab Control Sample		8685-003	80A/80		06/20/11	06/20/11	BW	Gross Alpha in Water
		WATER	8685-003	80B/80		06/20/11	06/20/11	BW	Gross Beta in Water
			8685-003	AC		06/20/11	06/21/11	BW	Radium-228 in Water
			8685-003	GAM		06/21/11	06/24/11	MWT	Gamma Emitters in Water
			8685-003	H		06/09/11	06/14/11	BW	Tritium in Water
			8685-003	RA		06/15/11	06/16/11	BW	Radium-226 in Water
			8685-003	SR		06/13/11	06/15/11	BW	Strontium-90 in Water
			8685-003	U_T		06/14/11	06/14/11	BW	Uranium, Total
S106041-04	Method Blank		8685-004	80A/80		06/20/11	06/20/11	BW	Gross Alpha in Water
		WATER	8685-004	80B/80		06/20/11	06/20/11	BW	Gross Beta in Water
			8685-004	AC		06/20/11	06/21/11	BW	Radium-228 in Water
			8685-004	GAM		06/21/11	06/24/11	MWT	Gamma Emitters in Water
			8685-004	H		06/09/11	06/14/11	BW	Tritium in Water
			8685-004	RA		06/15/11	06/16/11	BW	Radium-226 in Water
			8685-004	SR		06/13/11	06/15/11	BW	Strontium-90 in Water
			8685-004	U_T		06/14/11	06/14/11	BW	Uranium, Total

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LWS
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

WORK SUMMARY, cont.

Client Test America, Inc.
Contract IUF0139

LAB SAMPLE / COLLECTED / RECEIVED	CLIENT SAMPLE ID / LOCATION / CUSTODY	SAS no	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
S106041-05	Duplicate (S106041-01)			8685-005	80A/80		06/20/11	06/20/11	BW	Gross Alpha in Water
06/02/11	Boeing - SSFL		WATER	8685-005	80B/80		06/20/11	06/20/11	BW	Gross Beta in Water
06/07/11				8685-005	AC		06/20/11	06/21/11	BW	Radium-228 in Water
				8685-005	GAM		06/22/11	06/24/11	MWT	Gamma Emitters in Water
				8685-005	H		06/10/11	06/14/11	BW	Tritium in Water
				8685-005	RA		06/15/11	06/16/11	BW	Radium-226 in Water
				8685-005	SR		06/13/11	06/15/11	BW	Strontium-90 in Water
				8685-005	U_T		06/14/11	06/14/11	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 06/27/11

EBERLINE ANALYTICAL

SDG 8685

8685-004 Method Blank

METHOD BLANK

SDG 8685 Client Test America, Inc.
Contact N. Joseph Verville Contract IUF0139

Lab sample id S106041-04 Client sample id Method Blank
Dept sample id 8685-004 Material/Matrix WATER

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	-0.295	0.80	1.88	3.00	U	80A
Gross Beta	12587472	-0.684	1.4	2.38	4.00	U	80B
Tritium	10028178	63.4	92	152	500	U	H
Radium-226	13982633	-0.056	0.33	0.626	1.00	U	RA
Radium-228	15262201	-0.050	0.20	0.420	1.00	U	AC
Strontium-90	10098972	0.154	0.46	0.973	2.00	U	SR
Uranium, Total		0	0.010	0.024	1.00	U	U_T
Potassium-40	13966002	U		29.5	25.0	U	GAM
Cesium-137	10045973	U		2.17	20.0	U	GAM

QC-BLANK #78722

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 06/27/11

EBERLINE ANALYTICAL

SDG 8685

8685-003 Lab Control Sample

LAB CONTROL SAMPLE

SDG 8685 Client Test America, Inc.

Contact N. Joseph Verville Contract IUF0139

Lab sample id S106041-03 Client sample id Lab Control Sample

Dept sample id 8685-003 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	115	6.4	1.56	3.00		80A	111	4.4	104	78-122	70-130
Gross Beta	99.7	3.9	3.04	4.00		80B	104	4.2	96	88-112	70-130
Tritium	2410	150	155	500		H	2320	93	104	87-113	80-120
Radium-226	49.0	2.2	0.785	1.00		RA	55.7	2.2	88	85-115	80-120
Radium-228	6.06	0.32	0.415	1.00		AC	5.89	0.24	103	87-113	60-140
Strontium-90	18.2	1.0	0.451	2.00		SR	17.3	0.69	105	87-113	80-120
Uranium, Total	59.8	7.2	0.239	1.00		U_T	62.5	2.5	96	88-112	80-120
Cobalt-60	226	7.3	3.72	10.0		GAM	241	9.6	94	92-108	80-120
Cesium-137	237	6.1	4.24	20.0		GAM	250	10	95	92-108	80-120

QC-LCS #78721

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 06/27/11

EBERLINE ANALYTICAL

SDG 8685

8685-005 IUF0139-03

DUPLICATE

SDG 8685 Client Test America, Inc.

Contact N. Joseph Verville Contract IUF0139

DUPLICATE	ORIGINAL	
Lab sample id S106041-05	Lab sample id S106041-01	Client sample id IUF0139-03
Dept sample id 8685-005	Dept sample id 8685-001	Location/Matrix Boeing - SSFL WATER
	Received 06/07/11	Collected/Volume 06/02/11 11:30 10.0 L
		Chain of custody id IUF0139

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	0.770	1.1	1.74	3.00	U	80A	0.410	0.78	1.26	U	-		0.5
Gross Beta	8.46	1.3	1.82	4.00		80B	8.90	1.3	1.64		5	39	0.4
Tritium	16.4	93	157	500	U	H	44.4	95	158	U	-		0.4
Radium-226	0.010	0.31	0.578	1.00	U	RA	-0.132	0.34	0.656	U	-		0.6
Radium-228	0.155	0.20	0.487	1.00	U	AC	0.217	0.18	0.446	U	-		0.5
Strontium-90	0.143	0.32	0.616	2.00	U	SR	-0.133	0.31	0.771	U	-		1.2
Uranium, Total	0	0.010	0.024	1.00	U	U_T	0	0.010	0.024	U	-		0
Potassium-40	U		23.3	25.0	U	GAM	U		15.9	U	-		0.5
Cesium-137	U		1.14	20.0	U	GAM	U		1.20	U	-		0.1

QC-DUP#1 78723

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-DUP
Version 3.06
Report date 06/27/11

EBERLINE ANALYTICAL

SDG 8685

8685-001 IUF0139-03

DATA SHEET

SDG	8685	Client	Test America, Inc.
Contact	N. Joseph Verville	Contract	IUF0139
Lab sample id	S106041-01	Client sample id	IUF0139-03
Dept sample id	8685-001	Location/Matrix	Boeing - SSFL WATER
Received	06/07/11	Collected/Volume	06/02/11 11:30 10.0 L
		Chain of custody id	IUF0139

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	0.410	0.78	1.26	3.00	U	80A
Gross Beta	12587472	8.90	1.3	1.64	4.00		80B
Tritium	10028178	44.4	95	158	500	U	H
Radium-226	13982633	-0.132	0.34	0.656	1.00	U	RA
Radium-228	15262201	0.217	0.18	0.446	1.00	U	AC
Strontium-90	10098972	-0.133	0.31	0.771	2.00	U	SR
Uranium, Total		0	0.010	0.024	1.00	U	U_T
Potassium-40	13966002	U		15.9	25.0	U	GAM
Cesium-137	10045973	U		1.20	20.0	U	GAM

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	06/27/11

EBERLINE ANALYTICAL

SDG 8685

8685-002 IUF0139-04 (TRAVEL-BLANK

DATA SHEET

SDG	8685	Client	Test America, Inc.
Contact	N. Joseph Verville	Contract	IUF0139
Lab sample id	S106041-02	Client sample id	IUF0139-04 (TRAVEL-BLANK
Dept sample id	8685-002	Location/Matrix	Boeing - SSFL WATER
Received	06/07/11	Collected/Volume	06/06/11 17:00 10.0 L
		Chain of custody id	IUF0139

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	-0.103	0.16	0.336	3.00	U	80A
Gross Beta	12587472	-0.832	0.49	0.867	4.00	U	80B
Radium-226	13982633	0.134	0.37	0.647	1.00	U	RA
Radium-228	15262201	-0.114	0.16	0.442	1.00	U	AC
Strontium-90	10098972	0.267	0.38	0.782	2.00	U	SR
Uranium, Total		0	0.010	0.024	1.00	U	U_T
Potassium-40	13966002	U		20.6	25.0	U	GAM
Cesium-137	10045973	U		1.05	20.0	U	GAM

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	06/27/11

EBERLINE ANALYTICAL

SDG 8685

LAB METHOD SUMMARY

RADIUM-228 IN WATER

BETA COUNTING

Test AC Matrix WATER
SDG 8685
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUF0139

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Radium-228	
Preparation batch 7271-086						
S106041-01			8685-001	IUF0139-03	U	
S106041-02			8685-002	IUF0139-04 (TRAVEL-BLANK	U	
S106041-03			8685-003	Lab Control Sample	ok	
S106041-04			8685-004	Method Blank	U	
S106041-05			8685-005	Duplicate (S106041-01)	-	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 7271-086 2σ prep error 10.4 % Reference Lab Notebook No. 7271 pg.086																
S106041-01			IUF0139-03	0.446	1.80			75	150				18	06/20/11	06/20	GRB-220
S106041-02			IUF0139-04 (TRAVEL-BLANK	0.442	1.80			72	150				14	06/20/11	06/20	GRB-221
S106041-03			Lab Control Sample	0.415	1.80			73	150					06/20/11	06/20	GRB-222
S106041-04			Method Blank	0.420	1.80			74	150					06/20/11	06/20	GRB-223
S106041-05			Duplicate (S106041-01)	0.487	1.80			74	150				18	06/20/11	06/20	GRB-224
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 0.442 ± 0.057
YIELD 74 ± 2

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 06/27/11

EBERLINE ANALYTICAL

SDG 8685

Test SR Matrix WATER
SDG 8685
Contact N. Joseph Verville

LAB METHOD SUMMARY

STRONTIUM-90 IN WATER

BETA COUNTING

Client Test America, Inc.
Contract IUF0139

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Strontium-90	
Preparation batch 7271-086						
S106041-01			8685-001	IUF0139-03	U	
S106041-02			8685-002	IUF0139-04 (TRAVEL-BLANK	U	
S106041-03			8685-003	Lab Control Sample	ok	
S106041-04			8685-004	Method Blank	U	
S106041-05			8685-005	Duplicate (S106041-01)	-	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 7271-086 2σ prep error 10.4 % Reference Lab Notebook No. 7271 pg.086																
S106041-01			IUF0139-03	0.771	0.500			97	50				11	06/13/11	06/13	GRB-221
S106041-02			IUF0139-04 (TRAVEL-BLANK	0.782	0.500			90	50				7	06/13/11	06/13	GRB-222
S106041-03			Lab Control Sample	0.451	0.500			86	100					06/13/11	06/13	GRB-227
S106041-04			Method Blank	0.973	0.500			85	50					06/13/11	06/13	GRB-224
S106041-05			Duplicate (S106041-01)	0.616	0.500			94	85				11	06/13/11	06/13	GRB-225
Nominal values and limits from method				2.00	0.500			30-105	50				180			

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

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.719 ± 0.392
YIELD 90 ± 10

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 06/27/11

EBERLINE ANALYTICAL

SDG 8685

LAB METHOD SUMMARY

GROSS ALPHA IN WATER

GAS PROPORTIONAL COUNTING

Test 80A Matrix WATER
SDG 8685
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUF0139

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Gross Alpha	
Preparation batch 7271-086						
S106041-01	80		8685-001	IUF0139-03	U	
S106041-02	80		8685-002	IUF0139-04 (TRAVEL-BLANK	U	
S106041-03	80		8685-003	Lab Control Sample	ok	
S106041-04	80		8685-004	Method Blank	U	
S106041-05	80		8685-005	Duplicate (S106041-01)	-	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 7271-086 2σ prep error 20.6 % Reference Lab Notebook No. 7271 pg.086																
S106041-01	80		IUF0139-03	1.26	0.160			106		400			16	06/16/11	06/18	GRB-112
S106041-02	80		IUF0139-04 (TRAVEL-BLANK	0.336	0.300			0		400			14	06/16/11	06/20	GRB-101
S106041-03	80		Lab Control Sample	1.56	0.100			60		400				06/16/11	06/20	GRB-103
S106041-04	80		Method Blank	1.88	0.100			64		400				06/16/11	06/20	GRB-104
S106041-05	80		Duplicate (S106041-01)	1.74	0.160			106		400			18	06/16/11	06/20	GRB-105
Nominal values and limits from method				3.00	0.100			0-200		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 1.36 ± 1.23
RESIDUE 67 ± 87

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 06/27/11

EBERLINE ANALYTICAL

SDG 8685

LAB METHOD SUMMARY

GROSS BETA IN WATER

GAS PROPORTIONAL COUNTING

Test 80B Matrix WATER
SDG 8685
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUF0139

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Gross Beta
Preparation batch 7271-086					
S106041-01	80		8685-001	IUF0139-03	8.90
S106041-02	80		8685-002	IUF0139-04 (TRAVEL-BLANK	U
S106041-03	80		8685-003	Lab Control Sample	ok
S106041-04	80		8685-004	Method Blank	U
S106041-05	80		8685-005	Duplicate (S106041-01)	ok
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 7271-086 2σ prep error 11.0 % Reference Lab Notebook No. 7271 pg.086																
S106041-01	80		IUF0139-03	1.64	0.160			106		400			16	06/16/11	06/18	GRB-112
S106041-02	80		IUF0139-04 (TRAVEL-BLANK	0.867	0.300			0		400			14	06/16/11	06/20	GRB-101
S106041-03	80		Lab Control Sample	3.04	0.100			60		400				06/16/11	06/20	GRB-103
S106041-04	80		Method Blank	2.38	0.100			64		400				06/16/11	06/20	GRB-104
S106041-05	80		Duplicate (S106041-01)	1.82	0.160			106		400			18	06/16/11	06/20	GRB-105
Nominal values and limits from method				4.00	0.100			0-200		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 1.95 ± 1.63
RESIDUE 67 ± 87

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 06/27/11

EBERLINE ANALYTICAL

SDG 8685

Test GAM Matrix WATER
SDG 8685
Contact N. Joseph Verville

LAB METHOD SUMMARY

GAMMA EMITTERS IN WATER

GAMMA SPECTROSCOPY

Client Test America, Inc.
Contract IUF0139

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Cobalt-60	Cesium-137	
Preparation batch 7271-086							
S106041-01			8685-001	IUF0139-03		U	
S106041-02			8685-002	IUF0139-04 (TRAVEL-BLANK		U	
S106041-03			8685-003	Lab Control Sample	ok	ok	
S106041-04			8685-004	Method Blank		U	
S106041-05			8685-005	Duplicate (S106041-01)		-	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 7271-086			2σ prep error 7.0 %	Reference Lab Notebook No. 7271 pg.086												
S106041-01			IUF0139-03		2.00					1016			19	06/08/11	06/21	01,01,00
S106041-02			IUF0139-04 (TRAVEL-BLANK		2.00					1016			15	06/08/11	06/21	01,02,00
S106041-03			Lab Control Sample		1.00					1016				06/08/11	06/21	01,03,00
S106041-04			Method Blank		1.00					1016				06/08/11	06/21	01,04,00
S106041-05			Duplicate (S106041-01)		2.00					950			20	06/08/11	06/22	01,02,00
Nominal values and limits from method				6.00	1.00					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 06/27/11

EBERLINE ANALYTICAL

SDG 8685

LAB METHOD SUMMARY

URANIUM, TOTAL

KINETIC PHOSPHORIMETRY, UG

Test U T Matrix WATER
SDG 8685
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUF0139

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Uranium, Total
Preparation batch 7271-086					
S106041-01			8685-001	IUF0139-03	U
S106041-02			8685-002	IUF0139-04 (TRAVEL-BLANK	U
S106041-03			8685-003	Lab Control Sample	ok
S106041-04			8685-004	Method Blank	U
S106041-05			8685-005	Duplicate (S106041-01)	- 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 7271-086			2σ prep error		Reference Lab Notebook No. 7271 pg.086											
S106041-01			IUF0139-03	0.024	0.0200								12	06/14/11	06/14	KPA-001
S106041-02			IUF0139-04 (TRAVEL-BLANK	0.024	0.0200								8	06/14/11	06/14	KPA-001
S106041-03			Lab Control Sample	0.239	0.0200									06/14/11	06/14	KPA-001
S106041-04			Method Blank	0.024	0.0200									06/14/11	06/14	KPA-001
S106041-05			Duplicate (S106041-01)	0.024	0.0200								12	06/14/11	06/14	KPA-001
Nominal values and limits from method				1.00	0.0200								180			

PROCEDURES REFERENCE D5174

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.067 ± 0.192
YIELD _____ ± _____

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 06/27/11

EBERLINE ANALYTICAL

SDG 8685

Test H Matrix WATER
SDG 8685
Contact N. Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN WATER

LIQUID SCINTILLATION COUNTING

Client Test America, Inc.
Contract IUF0139

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Tritium	
Preparation batch 7271-086						
S106041-01			8685-001	IUF0139-03	U	
S106041-03			8685-003	Lab Control Sample	ok	
S106041-04			8685-004	Method Blank	U	
S106041-05			8685-005	Duplicate (S106041-01)	-	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 7271-086 2σ prep error 10.0 % Reference Lab Notebook No. 7271 pg.086																
S106041-01			IUF0139-03	158	0.0100			100		150			7	06/09/11	06/09	LSC-005
S106041-03			Lab Control Sample	155	0.100			10		150				06/09/11	06/09	LSC-005
S106041-04			Method Blank	152	0.100			10		150				06/09/11	06/09	LSC-005
S106041-05			Duplicate (S106041-01)	157	0.0100			100		150			8	06/09/11	06/10	LSC-005
Nominal values and limits from method				500	0.0100					100			180			

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

AVERAGES ± 2 SD MDA 156 ± 5.29
FOR 4 SAMPLES YIELD 55 ± 104

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 06/27/11

EBERLINE ANALYTICAL

SDG 8685

LAB METHOD SUMMARY

RADIUM-226 IN WATER

RADON COUNTING

Test RA Matrix WATER
SDG 8685
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUF0139

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Radium-226
Preparation batch 7271-086					
S106041-01			8685-001	IUF0139-03	U
S106041-02			8685-002	IUF0139-04 (TRAVEL-BLANK	U
S106041-03			8685-003	Lab Control Sample	ok
S106041-04			8685-004	Method Blank	U
S106041-05			8685-005	Duplicate (S106041-01)	- 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 7271-086 2σ prep error 16.4 % Reference Lab Notebook No. 7271 pg.086																
S106041-01			IUF0139-03	0.656	0.100			100		122			13	06/15/11	06/15	RN-012
S106041-02			IUF0139-04 (TRAVEL-BLANK	0.647	0.100			100		122			9	06/15/11	06/15	RN-015
S106041-03			Lab Control Sample	0.785	0.100			100		122				06/15/11	06/15	RN-009
S106041-04			Method Blank	0.626	0.100			100		122				06/15/11	06/15	RN-010
S106041-05			Duplicate (S106041-01)	0.578	0.100			100		122			13	06/15/11	06/15	RN-014
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 0.658 ± 0.154
YIELD 100 ± 0

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUF0139

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.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUF0139

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.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUF0139

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 06/27/11

SDG 8685
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUF0139

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 06/27/11

SDG 8685
Contact N. Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract IUF0139

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 06/27/11

SDG 8685
Contact N. Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract IUF0139

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.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUF0139

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.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUF0139

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.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract IUF0139

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.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUF0139

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.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract IUF0139

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.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUF0139

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 06/27/11

SDG 8685
Contact N. Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract IUF0139

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

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract IUF0139

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.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

SDG 8685
Contact N. Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract IUF0139

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.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 06/27/11

Subcontract Order - TestAmerica Irvine (IUF0139)

8685

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Debby Wilson

RECEIVING LABORATORY:

Eberline Services - SUB
2030 Wright Avenue
Richmond, CA 94804
Phone :(510) 235-2633
Fax: (510) 235-0438
Project Location: California
Receipt Temperature:_____°C Ice: Y / N

Standard TAT is requested unless specific due date is requested. => Due Date: _____ Initials: _____

Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water) Sampled: 06/02/11 11:30

Analysis	Units	Expires	Comments
Gamma Spec-O	mg/kg	06/01/12 11:30	Out St Louis, k-40 and cs-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	11/29/11 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	11/29/11 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Radium, Combined-O	pCi/L	06/01/12 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	06/01/12 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	06/01/12 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	06/01/12 11:30	Out St Louis, Boeing permit, DO NOT FILTER!

Containers Supplied:
2.5 gal Poly (U) 500 mL Amber (V)

Sample ID: IUF0139-04 (Travel Blank - Water) Sampled: 06/06/06 17:00

Analysis	Units	Expires	Comments
Gamma Spec-O	mg/kg	06/06/07 17:00	Out eberline k-40 and cs-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	12/03/06 17:00	Out eberline, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	12/03/06 17:00	Out Eberline, Boeing permit, DO NOT FILTER!
Radium, Combined-O	pCi/L	06/06/07 17:00	Out eberline Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	06/06/07 17:00	Out eberline Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	06/06/07 17:00	Out eberline Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	06/06/07 17:00	Out eberline, Boeing permit, DO NOT FILTER!

Containers Supplied:
2.5 gal Poly (A)

Released By	6-6-11 Date/Time	Received By	6-6-11 17:00 Date/Time
Released By	Date/Time	Received By	06/07/11 0930 Date/Time

RICHMOND, CA LABORATORY

EBERLINE SERVICES

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA

Date/Time received 06/07/11 0930 CoC No. IUF0139

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

INSPECTION

1.	Custody seals on shipping container intact?	Yes [ ]	No [ ]	N/A [X]
2.	Custody seals on shipping container dated & signed?	Yes [ ]	No [ ]	N/A [X]
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: 06/07/11 Time: 10:50

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
Ice samples	<80						

Ion Chamber Ser. No. _____ Calibration date _____

Alpha Meter Ser. No. _____ Calibration date _____

Beta/Gamma Meter Ser. No. 100482 Calibration date 24 SEP 10

Laura Bralts

From: Wilson, Debby <Debby.Wilson@testamericainc.com>
Sent: Wednesday, June 08, 2011 11:41 AM
To: Laura Bralts
Cc: Joe Verville
Subject: RE: Eberline Analytical - CoC Discrepancy IUF0139
Attachments: REV IUF0139.pdf

Laura,
Revised sub coc attached.
Thanks

DEBBY WILSON
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Ave Suite #100
Irvine Ca 92614
Tel 949 261 1022 x228
Cell 949 279 2658
Fax 949 260 3277

www.testamericainc.com

From: Laura Bralts [mailto:laura.bralts@eberlineservices.com]
Sent: Wednesday, June 08, 2011 11:08 AM
To: Wilson, Debby
Cc: Joe Verville
Subject: Eberline Analytical - CoC Discrepancy IUF0139

Hello,

The travel blank only had one acidified fraction, it did not have a separate unacidified fraction for the tritium analysis. Therefore, the tritium analysis cannot be performed.

Could you please update the COC and email it back to me.

Thank you,

Laura Bralts
Technical Administrative Assistant
Eberline Analytical
2030 Wright Avenue
Richmond, CA 94804

Subcontract Order - TestAmerica Irvine (IUF0139) – rev

Revision 6/8/11 4 8685

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Debby Wilson

RECEIVING LABORATORY:

Eberline Services - SUB
2030 Wright Avenue
Richmond, CA 94804
Phone :(510) 235-2633
Fax: (510) 235-0438
Project Location: California
Receipt Temperature: _____ °C Ice: Y / N

Standard TAT is requested unless specific due date is requested. => Due Date: _____ Initials: _____

Analysis	Units	Expires	Comments
Sample ID: IUF0139-03 (Outfall 019 (Composite) - Water)		Sampled: 06/02/11 11:30	
Gamma Spec-O	mg/kg	06/01/12 11:30	Out St Louis, k-40 and cs-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	11/29/11 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	11/29/11 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Radium, Combined-O	pCi/L	06/01/12 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	06/01/12 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	06/01/12 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	06/01/12 11:30	Out St Louis, Boeing permit, DO NOT FILTER!
Containers Supplied:			
2.5 gal Poly (U)	500 mL Amber (V)		
Sample ID: IUF0139-04 (Travel Blank - Water)		Sampled: 06/06/06 17:00	
Gamma Spec-O	mg/kg	06/06/07 17:00	Out eberline k-40 and cs-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	12/03/06 17:00	Out eberline, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	12/03/06 17:00	Out Eberline, Boeing permit, DO NOT FILTER!
Radium, Combined-O	pCi/L	06/06/07 17:00	Out eberline Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	06/06/07 17:00	Out eberline Boeing permit, DO NOT FILTER!
~~Tritium-O~~	~~pCi/L~~ cancelled 6/8 dw	~~06/06/07 17:00~~	~~Out eberline Boeing permit, DO NOT FILTER!~~
Uranium, Combined-O	pCi/L	06/06/07 17:00	Out eberline, Boeing permit, DO NOT FILTER!
Containers Supplied:			
2.5 gal Poly (A)			

Released By	6-10-11 Date/Time	Received By	6/10/11 17:00 Date/Time
Released By	Date/Time	Received By	06/07/11 0930 Date/Time

LABORATORY REPORT

Aquatic Testing Laboratories
"dedicated to providing quality aquatic toxicity testing"
4350 Transport Street, Unit 107
Ventura, CA 93003
(805) 650-0546 FAX (805) 650-0756
CA DOHS ELAP Cert. No.: 1775

Date: June 6, 2011

Client: Test America – Irvine
17461 Derian Ave., Suite 100
Irvine, CA 92614
Attn: Debby Wilson

Laboratory No.: A-11060202-001
Sample ID.: IUF0139-03 Outfall 019

Sample Control: The sample was received by ATL in a chilled state, within the recommended hold time and with the chain of custody record attached. Temperature received was acceptable as sample was delivered directly from field.

Date Sampled:	06/02/11
Date Received:	06/02/11
Temp. Received:	10.3°C
Chlorine (TRC):	0.0 mg/l
Date Tested:	06/02/11 to 06/06/11

Sample Analysis: The following analyses were performed on your sample:

Fathead Minnow 96hr Percent Survival Bioassay (EPA Method 2000.0).

Attached are the test data generated from the analysis of your sample.

Result Summary:

Sample ID.	Results
IUF0139-03	100% Survival (TUa = 0.0)

Quality Control: Reviewed and approved by:

Joseph A. LeMay
Laboratory Director

FATHEAD MINNOW PERCENT SURVIVAL TEST
EPA Method 2000.0

Aquatic Testing Laboratories

Lab No.: A-11060202-001
Client/ID: TestAmerica Outfall 019
1UF0139-03

Start Date: 06/02/2011

TEST SUMMARY

Species: *Pimephales promelas*.
Age: 13 (1-14) days.
Regulations: NPDES.
Test solution volume: 250 ml.
Feeding: prior to renewal at 48 hrs.
Number of replicates: 2.
Control water: Moderately hard reconstituted water.
Photoperiod: 16/8 hrs light/dark.

Source: In-laboratory Culture.
Test type: Static-Renewal.
Test Protocol: EPA-821-R-02-012.
Endpoints: Percent Survival at 96 hrs.
Test chamber: 600 ml beakers.
Temperature: 20 +/- 1°C.
Number of fish per chamber: 10.
QA/QC No.: RT-110601.

TEST DATA

		°C	DO	pH	# Dead		Analyst & Time of Readings
					A	B	
INITIAL	Control	20.3	8.8	8.2	0	0	1445
	100%	20.4	8.0	7.2	0	0	
24 Hr	Control	20.0	8.1	8.0	0	0	1400
	100%	20.0	8.1	8.2	0	0	
48 Hr	Control	19.9	8.3	8.3	0	0	1400
	100%	19.4	8.4	8.4	0	0	
Renewal	Control	19.6	8.4	8.1	0	0	1400
	100%	19.6	8.7	7.4	0	0	
72 Hr	Control	19.7	8.3	8.6	0	0	1345
	100%	19.9	8.2	8.4	0	0	
96 Hr	Control	20.1	8.3	8.1	0	0	1400
	100%	20.1	8.3	8.4	0	0	

Comments:
Sample as received: Chlorine: 0.0 mg/l; pH: 7.2 ; Conductivity: 961 umho; Temp: 10.3°C;
DO: 8.0 mg/l; Alkalinity: 140 mg/l; Hardness: 135 mg/l; NH_3-N: 0.1 mg/l.
Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? Yes / (No)
Control: Alkalinity: 61 mg/l; Hardness: 92 mg/l; Conductivity: 315 umho.
Test solution aerated (not to exceed 100 bubbles/min) to maintain DO >4.0 mg/l? Yes / (No)
Sample used for renewal is the original sample kept at 0-6°C with minimal headspace.
Dissolved Oxygen (DO) readings in mg/l O_2.

RESULTS

Percent Survival In: Control: 100 % 100% Sample: 100 %

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 **Quarterly Outfall 019** **COMPOSITE**
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 #	Total Dissolved Metals: Cu, Pb, Hg, Cd, Se, Zn, Hardness as CaCO3	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)	Acute Toxicity	Cyanide	Chronic Toxicity	Comments
Outfall 019	W	1L Poly	1	6-2-2011 11:30	None	16	X						Filter w/in 24hrs of receipt at lab
Outfall 019	W	250 mL Glass	1		HCl	17		X					
Outfall 019	W	2.5 Gal Cube	1		None	18A			X				Unfiltered and unpreserved analysis
		500 mL Amber	1		None	18B							
Outfall 019	W	1 Gal Cube	1		None	19				X			
Outfall 019	W	500 mL Poly	1	6-2-2011 11:30	NaOH	20					X		
~~Outfall 019~~	~~W~~	~~1 Gal Poly~~	~~1~~		~~None~~	~~21~~							~~Only test if first or second rain events of the year~~

ANALYSIS REQUIRED

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:
	6-2-2011 12:35		6-2-11 12:35
Relinquished By	Date/Time:	Received By	Date/Time:
	6-2-11 13:40		6/2/11 13:40
Relinquished By	Date/Time:	Received By	Date/Time:
	6/2/11 2:40 pm		6-2-11 14:40

Turn-around time: (Check)

24 Hour: ____ 72 Hour: ____ 10 Day: ____

48 Hour: ____ 5 Day: ____ Normal: X

Sample Integrity: (Check)

Intact: ____ On Ice: ____

Data Requirements: (Check)

No Level IV: _ All Level IV: __ NPDES Level IV: X

SUBCONTRACT ORDER

TestAmerica Irvine

IUF0139

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Debby Wilson

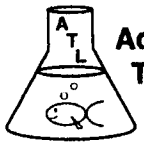
RECEIVING LABORATORY:

Aquatic Testing Laboratories-SUB
4350 Transport Street, Unit 107
Ventura, CA 93003
Phone :(805) 650-0546
Fax: (805) 650-0756

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: IUF0139-03	**Water**	**Sampled: 06/02/11 11:30**		
Bioassay-Acute 96hr	06/15/11 12:00	06/03/11 23:30		FH minnow, EPA/821-R02-012, Sub to AqTox Labs

Containers Supplied:
1 gal Poly (W)

Released By	Date	Received By	Date
TA	6-2-11		6-2-11 14:40
Released By	Date	Received By	Date



Aquatic
Testing
Laboratories

REFERENCE TOXICANT DATA

FATHEAD MINNOW ACUTE
Method 2000.0
Reference Toxicant - SDS

Aquatic Testing Laboratories

QA/QC Batch No.: RT-110601

TEST SUMMARY

Species: *Pimephales promelas.*
Age: 9 days old.
Regulations: NPDES.
Test chamber volume: 250 ml.
Feeding: Prior to renewal at 48 hrs.
Temperature: 20 +/- 1°C.
Number of replicates: 2.
Dilution water: MHSF.

Source: In-lab culture.
Test type: Static-Renewal.
Test Protocol: EPA-821-R-02-012.
Endpoints: LC50 at 96 hrs.
Test chamber: 600 ml beakers.
Aeration: None.
Number of organisms per chamber: 10.
Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL			24 Hr					48 Hr				
Date/Time:	6-1-11 1300			6-2-11 1300					6-3-11 1300				
Analyst:	Z			Z					Jm				
	°C	DO	pH	°C	DO	pH	# Dead A	# Dead B	°C	DO	pH	# Dead A	# Dead B
Control	20.2	8.5	8.1	20.1	8.6	8.0	0	0	20.4	8.2	7.6	0	0
1.0 mg/l	20.1	8.6	8.1	20.1	8.6	8.0	0	0	20.3	8.4	7.8	0	0
2.0 mg/l	20.2	8.7	8.2	20.0	8.8	8.0	0	1	20.3	8.3	7.9	0	0
4.0 mg/l	20.2	8.7	8.2	19.9	8.8	8.0	2	0	20.3	8.2	7.9	0	0
8.0 mg/l	20.2	8.6	8.2	19.9	8.6	8.0	10	10	—	—	—	—	—

	RENEWAL			72 Hr					96 Hr				
Date/Time:	6-3-11 1300			6-4-11 1300					6-5-11 1300				
Analyst:	Jm			Z					Z				
	°C	DO	pH	°C	DO	pH	# Dead A	# Dead B	°C	DO	pH	# Dead A	# Dead B
Control	20.2	8.4	7.6	20.0	8.3	8.0	0	0	20.3	8.0	8.1	0	0
1.0 mg/l	20.2	8.2	8.0	20.0	8.6	8.0	0	0	20.4	8.3	8.1	0	0
2.0 mg/l	20.1	8.4	8.0	19.9	8.4	8.0	0	0	20.2	8.4	8.1	0	0
4.0 mg/l	20.1	8.5	8.0	19.8	8.3	7.9	0	0	20.2	8.4	8.1	0	1
8.0 mg/l	—	—	—	—	—	—	—	—	—	—	—	—	—

Comments: Control: Alkalinity: 61 mg/l; Hardness: 92 mg/l; Conductivity: 315 umho.
SDS: Alkalinity: 62 mg/l; Hardness: 96 mg/l; Conductivity: 318 umho.

Concentration-response relationship acceptable? (see attached computer analysis):
(Yes) (response curve normal)
No (dose interrupted indicated or non-normal)

Acute Fish Test-96 Hr Survival

Start Date:	6/1/2011 13:00	Test ID:	RT110601	Sample ID:	REF-Ref Toxicant
End Date:	6/5/2011 13:00	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	SDS-Sodium dodecyl sulfate
Sample Date:	6/1/2011	Protocol:	ACUTE-EPA-821-R-02-012	Test Species:	PP-Pimephales promelas
Comments:					

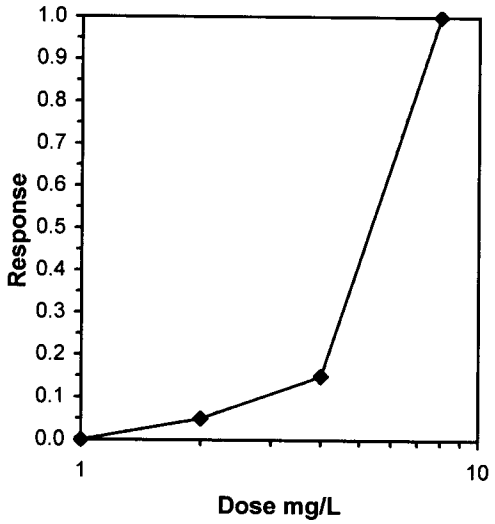
Conc-mg/L	1	2
D-Control	1.0000	1.0000
1	1.0000	1.0000
2	1.0000	0.9000
4	0.8000	0.9000
8	0.0000	0.0000

			Transform: Arcsin Square Root					Number	Total
Conc-mg/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Resp	Number
D-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
1	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
2	0.9500	0.9500	1.3305	1.2490	1.4120	8.661	2	1	20
4	0.8500	0.8500	1.1781	1.1071	1.2490	8.517	2	3	20
8	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Normality of the data set cannot be confirmed				
Equality of variance cannot be confirmed				

Trimmed Spearman-Karber

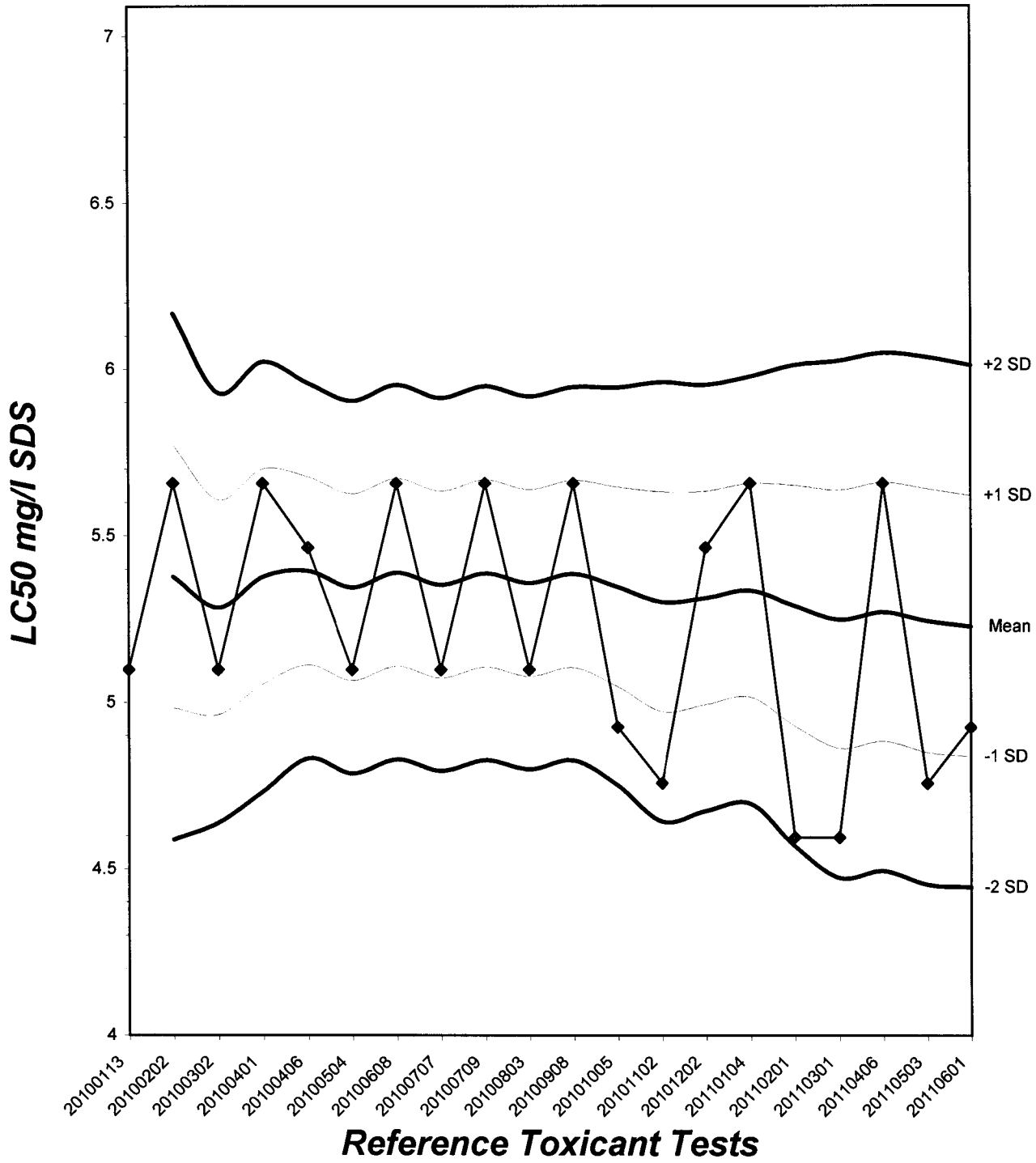
Trim Level	EC50	95% CL	
0.0%	4.9246	4.3257	5.6064
5.0%	5.1435	4.5238	5.8481
10.0%	5.2706	4.5136	6.1546
20.0%	5.3212	4.9289	5.7449
Auto-0.0%	4.9246	4.3257	5.6064



Reviewed by:

Fathead Minnow Acute Laboratory Control Chart

CV% = 7.49



TEST ORGANISM LOG

Aquatic Testing Laboratories

FATHEAD MINNOW - LARVAL
(Pimephales promelas)

QA/QC BATCH NO.: RT-1106c1

SOURCE: In-Lab Culture

DATE HATCHED: 5-23-11

APPROXIMATE QUANTITY: 4w

GENERAL APPEARANCE: good

 # MORTALITIES 48 HOURS PRIOR TO TO USE IN TESTING: 0

DATE USED IN LAB: 6/1/11

AVERAGE FISH WEIGHT: 0.005 **gm**

LOADING LIMITS: 0.65 gm/liter @ 20°C, 0.40 gm/liter @ 25°C

Approximately 1000 fish per 10 liters limit if held overnight for acclimation without filtration @ 20°C for fish with a mean weight of 0.006 gm.

Approximately 650 fish per 10 liters limit if held overnight for acclimation without filtration @ 25°C for fish with a mean weight of 0.006 gm.

200 ml test solution volume = 0.013 gm mean fish weight limit @ 20°C; 0.008 @ 25°C
250 ml test solution volume = 0.016 gm mean fish weight limit @ 20°C; 0.010 @ 25°C

ACCLIMATION WATER QUALITY:

Temp.: 20.2 **°C** **pH:** 8.1 **Ammonia:** <0.1 **mg/l NH_3-N**

DO: 8.5 **mg/l** **Alkalinity:** 61 **mg/l** **Hardness:** 92 **mg/l**

READINGS RECORDED BY: _____ **DATE:** 6-2-11

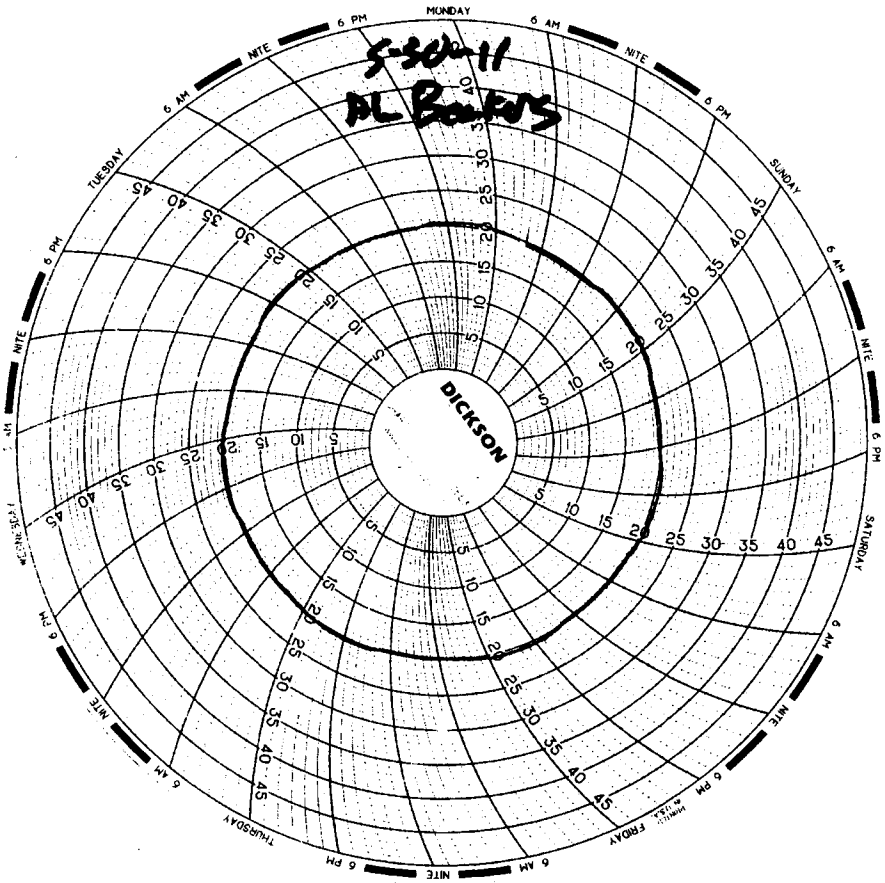
Aquatic Testing Laboratories

Test Temperature Chart

Test No: RT-110601

Date Tested: 06/01/11 to 06/05/11

Acceptable Range: 20+/- 1°C



APPENDIX D

Section 6

Outfall 019 – June 10, 2011

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project: Quarterly Outfall 019

Sampled: 06/10/11
Received: 06/10/11
Issued: 08/10/11 17:27

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

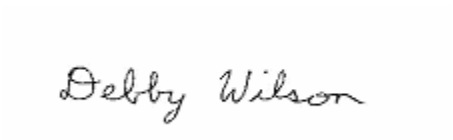
SAMPLE CROSS REFERENCE

ADDITIONAL INFORMATION: Revised report to correct the project name.

LABORATORY ID	CLIENT ID	MATRIX
IUF1092-01	Outfall 019	Water

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.

Reviewed By:



TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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MWH-Pasadena/Boeing
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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Report Number: IUF1092

Sampled: 06/10/11
Received: 06/10/11

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUF1092-01 (Outfall 019 - Water)									
Reporting Units: mg/l									
Biochemical Oxygen Demand	SM5210B	11F1577	0.50	2.0	**2.6**	1	XL	06/16/11	

TestAmerica Irvine

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Project Manager

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Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Report Number: IUF1092

Sampled: 06/10/11
Received: 06/10/11

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 019 (IUF1092-01) - Water					
SM5210B	2	06/10/2011 10:15	06/10/2011 16:05	06/11/2011 14:15	06/16/2011 09:30

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Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Report Number: IUF1092

Sampled: 06/10/11
Received: 06/10/11

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Analyst	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11F1577 Extracted: 06/11/11												
Blank Analyzed: 06/16/2011 (11F1577-BLK1)												
Biochemical Oxygen Demand	ND	2.0	0.50	mg/l	XL							
LCS Analyzed: 06/16/2011 (11F1577-BS1)												
Biochemical Oxygen Demand	206	100	25	mg/l	XL	198		104	85-115			
LCS Dup Analyzed: 06/16/2011 (11F1577-BSD1)												
Biochemical Oxygen Demand	201	100	25	mg/l	XL	198		102	85-115	3	20	

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Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019
Report Number: IUF1092

Sampled: 06/10/11
Received: 06/10/11

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 019

Report Number: IUF1092

Sampled: 06/10/11
Received: 06/10/11

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EDD + Level 4	Water	N/A	N/A
SM5210B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Irvine

Debby Wilson
Project Manager

CHAIN OF CUSTODY FORM

EJF1092

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Quarterly Outfall 019** **COMPOSITE**
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 #	ANALYSIS REQUIRED: BOD_5 (20 degrees C)													Comments
Outfall 019	W	1L Poly	1	6-10-2011 10:15	None	8	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:
	6-10-2011		6/10/11 11:10 Am
Relinquished By	Date/Time:	Received By	Date/Time:
	6/10/11 12:40		6-10-11 12:40
Relinquished By	Date/Time:	Received By	Date/Time:
	6-10-11 16:05		06/10/11 16:05

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

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

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

105803 5.8

APPENDIX D

Section 7

Arroyo Simi Receiving Water – May 12, 2011

MEC^X Data Validation Report

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IUE1362

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:	IUE1362
Project Manager:	B. Kelly
Matrix:	Water
QC Level:	IV
No. of Samples:	1
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Arroyo Simi-FP	IUE1362-01	N/A	Water	5/12/11	200.7, 525.2, 608, SM2340B

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, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were sent via courier, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

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 200.7—Metals

Reviewed By: P. Meeks
Date Reviewed: June 9, 2011

The sample listed in Table 1 for this analysis 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 Method 200.7, Standard Method SM2340B*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: Analytical holding times, six months for ICP metals, was met.
- Tuning: Not applicable to this analysis.
- Calibration: Calibration criteria were met. The initial and continuing calibration recoveries were within 90-110% and CRDL recoveries were within the control limits of 70-130%.
- Blanks: Method blanks and CCBs had no detects.
- Interference Check Samples: Recoveries were within the method-established control limits of 80-120%. There were no target compounds present in the ICSA solution at concentrations indicative of matrix interference.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: Not applicable to this analysis.
- 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.

B. EPA METHOD 525.2—Semivolatile Organic Compounds (SVOCs)

Reviewed By: P. Meeks
Date Reviewed: June 9, 2011

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0), EPA Method 525.2*, and the *National Functional Guidelines for Organic Data Review* (10/99).

- Holding Times: The water sample was extracted 36 minutes beyond the 24-hour holding time for diazinon; therefore, the nondetect result for diazinon was qualified as estimated, "UJ." The 14-day extraction holding time for chlorpyrifos was met. The sample was analyzed within 30 days of extraction.

- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The sample was analyzed within 12 hours of the DFTPP injection time.

- Calibration: Calibration criteria were met. The initial calibration average RRFs were $\geq$0.05 and %RSD $\leq$30%. The continuing calibration RRFs were $\geq$0.05 and recoveries were within the method QC limits of 70-130%.

- Blanks: The method blank had no target compound detects above the MDL.

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

- Surrogate Recovery: The recovery for perylene-d12 was above the QC limits in the sample; however, as there were no sample detects, no qualifications were required. Remaining recoveries were within laboratory-established QC limits.

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

- 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.

- Internal Standards Performance: The internal standard area counts and retention times were within the method control limits established by the continuing calibration standards of ±30%.

- Compound Identification: Compound identification was verified. The laboratory analyzed for chlorpyrifos and diazinon by Method 525.2. Review of the sample chromatogram, retention times, and spectra 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 calibration and the laboratory MDLs. Reported nondetects are valid to the reporting limit.

- Tentatively Identified Compounds: TICs were not reported by the laboratory for this analysis.

- System Performance: Review of the raw data indicated no problems with system performance.

C. EPA METHOD 608—Pesticides and PCBs

Reviewed By: L. Calvin
Date Reviewed: June 14, 2011

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 0), EPA Method 608*, and the *National Functional Guidelines for Organic Data Review* (10/99).

- Holding Times: Extraction and analytical holding times were met. The samples were extracted within seven days of collection and analyzed within 40 days of extraction.

- Calibration: The pesticide and PCB initial calibrations had %RSDs or average %RSDs of ≤10%, or r^2 of ≥0.995 on both columns. The ICVs had %Ds within the QC limit of ≤15%. The CCV bracketing the pesticide analysis had a %D outlier on channel B for 4,4'-DDD. The nondetected result for 4,4'-DDD was qualified as estimated, "UJ," in the sample.

Remaining CCV %Ds were≤15%. The breakdown totals for endrin and 4,4 -DDT were ≤15%.

- Blanks: The method blanks had no confirmed target compound detects above the MDL.

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

- Surrogate Recovery: Recoveries were within the laboratory-established QC limits.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the sample from this SDG. Evaluation of method accuracy and precision was based on the LCS/LCSD results.

- 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.

- Compound Identification: Compound identification was verified. Review of the sample chromatograms and retention times indicated no problems with target compound identification. The laboratory analyzed for pesticides and PCBs by Method 608.

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

D. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks
Date Reviewed: June 9, 2011

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 7196A and 9045*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: Analytical holding times, 24 hours from preparation for pH and 24 hours for hexavalent chromium, were met.

- Calibration: Calibration criteria were met. Hexavalent chromium initial calibration r^2 values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110%. The pH buffer check standards results were considered acceptable.

- Blanks: Method blanks and CCBs had no detects.

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

- Laboratory Duplicates: No laboratory duplicate analyses were performed.

- Matrix Spike/Matrix Spike Duplicate: Recoveries and RPDs were within laboratory-established QC limits.

- 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 IUE1362

Analysis Method EPA 200.7

Sample Name Arroyo Simi **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: IUE1362-01 **Sample Date:** 5/12/2011 11:45:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Calcium	7440-70-2	240	0.10	0.050	mg/l			
Magnesium	7439-95-4	82	0.020	0.012	mg/l			

Analysis Method EPA 525.2

Sample Name Arroyo Simi **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: IUE1362-01 **Sample Date:** 5/12/2011 11:45:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Chlorpyrifos	2921-88-2	ND	1.0	0.010	ug/l		U	
Diazinon	333-41-5	ND	0.25	0.10	ug/l		UJ	H

Analysis Method EPA 608

Sample Name Arroyo Simi **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: IUE1362-01 **Sample Date:** 5/12/2011 11:45:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
4,4'-DDD	72-54-8	ND	0.0047	0.0038	ug/l	C	UJ	C
4,4'-DDE	72-55-9	ND	0.0047	0.0028	ug/l		U	
4,4'-DDT	50-29-3	ND	0.0094	0.0038	ug/l		U	
Aroclor 1016	12674-11-2	ND	0.47	0.24	ug/l		U	
Aroclor 1221	11104-28-2	ND	0.47	0.24	ug/l		U	
Aroclor 1232	11141-16-5	ND	0.47	0.24	ug/l		U	
Aroclor 1242	53469-21-9	ND	0.47	0.24	ug/l		U	
Aroclor 1248	12672-29-6	ND	0.47	0.24	ug/l		U	
Aroclor 1254	11097-69-1	ND	0.47	0.24	ug/l		U	
Aroclor 1260	11096-82-5	ND	0.47	0.24	ug/l		U	
Chlordane	57-74-9	ND	0.094	0.075	ug/l		U	
Dieldrin	60-57-1	ND	0.0047	0.0019	ug/l		U	
Toxaphene	8001-35-2	ND	0.47	0.24	ug/l		U	

Analysis Method SM2340B

Sample Name Arroyo Simi **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: IUE1362-01 **Sample Date:** 5/12/2011 11:45:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness (as CaCO3)	NA	930	0.33	0.17	mg/l			

APPENDIX D

Section 8

Arroyo Simi Receiving Water – May 12, 2011

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project: Quarterly Arroyo Simi-Frontier Park

Sampled: 05/12/11
Received: 05/12/11
Issued: 05/24/11 13:46

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

CASE NARRATIVE

SAMPLE RECEIPT:	Samples were received intact, at 4°C, on ice and with chain of custody documentation.
HOLDING TIMES:	All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.
PRESERVATION:	Samples requiring preservation were verified prior to sample analysis.
QA/QC CRITERIA:	All analyses met method criteria, except as noted in the report with data qualifiers.
COMMENTS:	Results that fall between the MDL and RL are 'J' flagged.
SUBCONTRACTED:	No analyses were subcontracted to an outside laboratory.

LABORATORY ID	CLIENT ID	MATRIX
IUE1362-01	Arroyo Simi-FP	Water

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.

Reviewed By:

Debby Wilson

TestAmerica Irvine

Debby Wilson
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Arroyo Simi-Frontier Park
Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUE1362-01 (Arroyo Simi-FP - Water)									
Reporting Units: ug/l									
Chlorpyrifos	EPA 525.2	11E1908	0.010	1.0	ND	1	JM	05/17/11	
Diazinon	EPA 525.2	11E1908	0.10	0.25	ND	1	JM	05/17/11	
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)					*102 %*				
Surrogate: Triphenylphosphate (70-130%)					*84 %*				
Surrogate: Perylene-d12 (70-130%)					*137 %*				*Z2*

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Attention: Bronwyn Kelly

Project ID: Quarterly Arroyo Simi-Frontier Park

Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUE1362-01 (Arroyo Simi-FP - Water) - cont.									
Reporting Units: ug/l									
4,4'-DDD	EPA 608	11E1799	0.0038	0.0047	ND	0.943	DXD	05/13/11	C
4,4'-DDE	EPA 608	11E1799	0.0028	0.0047	ND	0.943	DXD	05/13/11	
4,4'-DDT	EPA 608	11E1799	0.0038	0.0094	ND	0.943	DXD	05/13/11	
Dieldrin	EPA 608	11E1799	0.0019	0.0047	ND	0.943	DXD	05/13/11	
Chlordane	EPA 608	11E1799	0.075	0.094	ND	0.943	DXD	05/13/11	
Toxaphene	EPA 608	11E1799	0.24	0.47	ND	0.943	DXD	05/13/11	
Surrogate: Decachlorobiphenyl (45-120%)					*85 %*				
Surrogate: Tetrachloro-m-xylene (35-115%)					*64 %*				

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Project ID: Quarterly Arroyo Simi-Frontier Park
Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUE1362-01 (Arroyo Simi-FP - Water) - cont.									
Reporting Units: ug/l									
Aroclor 1016	EPA 608	11E1799	0.24	0.47	ND	0.943	JSM	05/14/11	
Aroclor 1221	EPA 608	11E1799	0.24	0.47	ND	0.943	JSM	05/14/11	
Aroclor 1232	EPA 608	11E1799	0.24	0.47	ND	0.943	JSM	05/14/11	
Aroclor 1242	EPA 608	11E1799	0.24	0.47	ND	0.943	JSM	05/14/11	
Aroclor 1248	EPA 608	11E1799	0.24	0.47	ND	0.943	JSM	05/14/11	
Aroclor 1254	EPA 608	11E1799	0.24	0.47	ND	0.943	JSM	05/14/11	
Aroclor 1260	EPA 608	11E1799	0.24	0.47	ND	0.943	JSM	05/14/11	
Surrogate: Decachlorobiphenyl (45-120%)					*76 %*				

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Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUE1362-01 (Arroyo Simi-FP - Water) - cont.									
Reporting Units: mg/l									
Hardness (as CaCO3)	SM2340B	[CALC]		0.33	**930**	1	NH	05/23/11	
Calcium	EPA 200.7	11E2584	0.050	0.10	**240**	1	NH	05/23/11	
Magnesium	EPA 200.7	11E2584	0.012	0.020	**82**	1	NH	05/23/11	

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Project ID: Quarterly Arroyo Simi-Frontier Park

Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Arroyo Simi-FP (IUE1362-01) - Water					
EPA 525.2	1	05/12/2011 11:45	05/12/2011 18:30	05/13/2011 12:21	05/17/2011 00:27

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Project ID: Quarterly Arroyo Simi-Frontier Park

Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11E1908 Extracted: 05/13/11											
Blank Analyzed: 05/16/2011 (11E1908-BLK1)											
Chlorpyrifos	ND	1.0	0.010	ug/l							
Diazinon	ND	0.25	0.10	ug/l							
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.69*			*ug/l*	*5.00*		*94*	*70-130*			
Surrogate: Triphenylphosphate	*4.45*			*ug/l*	*5.00*		*89*	*70-130*			
Surrogate: Perylene-d12	*6.64*			*ug/l*	*5.00*		*133*	*70-130*			*Z2*
LCS Analyzed: 05/16/2011 (11E1908-BS1)											**MNR1**
Chlorpyrifos	4.91	1.0	0.010	ug/l	5.00		98	70-130			
Diazinon	5.50	0.25	0.10	ug/l	5.00		110	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.49*			*ug/l*	*5.00*		*90*	*70-130*			
Surrogate: Triphenylphosphate	*4.36*			*ug/l*	*5.00*		*87*	*70-130*			
Surrogate: Perylene-d12	*6.37*			*ug/l*	*5.00*		*127*	*70-130*			
LCS Dup Analyzed: 05/16/2011 (11E1908-BSD1)											
Chlorpyrifos	4.83	1.0	0.010	ug/l	5.00		97	70-130	2	30	
Diazinon	5.55	0.25	0.10	ug/l	5.00		111	70-130	1	30	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.49*			*ug/l*	*5.00*		*90*	*70-130*			
Surrogate: Triphenylphosphate	*4.05*			*ug/l*	*5.00*		*81*	*70-130*			
Surrogate: Perylene-d12	*6.40*			*ug/l*	*5.00*		*128*	*70-130*			

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Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11E1799 Extracted: 05/13/11											
Blank Analyzed: 05/13/2011 (11E1799-BLK1)											
4,4'-DDD	ND	0.0050	0.0040	ug/l							
4,4'-DDE	ND	0.0050	0.0030	ug/l							
4,4'-DDT	ND	0.010	0.0040	ug/l							
Dieldrin	ND	0.0050	0.0020	ug/l							
Chlordane	ND	0.10	0.080	ug/l							
Toxaphene	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	*0.469*			*ug/l*	*0.500*		*94*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.395*			*ug/l*	*0.500*		*79*	*35-115*			
LCS Analyzed: 05/13/2011 (11E1799-BS1)											
4,4'-DDD	0.505	0.0050	0.0040	ug/l	0.500		101	55-120			
4,4'-DDE	0.470	0.0050	0.0030	ug/l	0.500		94	50-120			
4,4'-DDT	0.536	0.010	0.0040	ug/l	0.500		107	55-120			
Dieldrin	0.473	0.0050	0.0020	ug/l	0.500		95	55-115			
Surrogate: Decachlorobiphenyl	*0.489*			*ug/l*	*0.500*		*98*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.421*			*ug/l*	*0.500*		*84*	*35-115*			
Matrix Spike Analyzed: 05/13/2011 (11E1799-MS1)						**Source: IUE0861-01**					
4,4'-DDD	0.471	0.0047	0.0038	ug/l	0.472	ND	100	50-125			
4,4'-DDE	0.425	0.0047	0.0028	ug/l	0.472	ND	90	45-125			
4,4'-DDT	0.494	0.0094	0.0038	ug/l	0.472	ND	105	50-125			
Dieldrin	0.400	0.0047	0.0019	ug/l	0.472	ND	85	50-120			
Surrogate: Decachlorobiphenyl	*0.463*			*ug/l*	*0.472*		*98*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.264*			*ug/l*	*0.472*		*56*	*35-115*			
Matrix Spike Dup Analyzed: 05/13/2011 (11E1799-MSD1)						**Source: IUE0861-01**					
4,4'-DDD	0.481	0.0047	0.0038	ug/l	0.472	ND	102	50-125	2	30	
4,4'-DDE	0.445	0.0047	0.0028	ug/l	0.472	ND	94	45-125	5	30	
4,4'-DDT	0.504	0.0094	0.0038	ug/l	0.472	ND	107	50-125	2	30	
Dieldrin	0.428	0.0047	0.0019	ug/l	0.472	ND	91	50-120	7	30	
Surrogate: Decachlorobiphenyl	*0.471*			*ug/l*	*0.472*		*100*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.299*			*ug/l*	*0.472*		*63*	*35-115*			

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Attention: Bronwyn Kelly

Project ID: Quarterly Arroyo Simi-Frontier Park

Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11E1799 Extracted: 05/13/11											
Blank Analyzed: 05/13/2011 (11E1799-BLK1)											
Aroclor 1016	ND	0.50	0.25	ug/l							
Aroclor 1221	ND	0.50	0.25	ug/l							
Aroclor 1232	ND	0.50	0.25	ug/l							
Aroclor 1242	ND	0.50	0.25	ug/l							
Aroclor 1248	ND	0.50	0.25	ug/l							
Aroclor 1254	ND	0.50	0.25	ug/l							
Aroclor 1260	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	*0.436*			*ug/l*	*0.500*		*87*	*45-120*			
LCS Analyzed: 05/13/2011 (11E1799-BS2)											
Aroclor 1016	3.87	0.50	0.25	ug/l	4.00		97	50-115			
Aroclor 1260	3.41	0.50	0.25	ug/l	4.00		85	60-120			
Surrogate: Decachlorobiphenyl	*0.455*			*ug/l*	*0.500*		*91*	*45-120*			
Matrix Spike Analyzed: 05/13/2011 (11E1799-MS2)						**Source: IUE0861-01**					
Aroclor 1016	3.23	0.47	0.24	ug/l	3.77	ND	86	45-120			
Aroclor 1260	3.26	0.47	0.24	ug/l	3.77	ND	86	55-125			
Surrogate: Decachlorobiphenyl	*0.400*			*ug/l*	*0.472*		*85*	*45-120*			
Matrix Spike Dup Analyzed: 05/13/2011 (11E1799-MSD2)						**Source: IUE0861-01**					
Aroclor 1016	3.01	0.47	0.24	ug/l	3.77	ND	80	45-120	7	30	
Aroclor 1260	3.01	0.47	0.24	ug/l	3.77	ND	80	55-125	8	25	
Surrogate: Decachlorobiphenyl	*0.391*			*ug/l*	*0.472*		*83*	*45-120*			

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Attention: Bronwyn Kelly

Project ID: Quarterly Arroyo Simi-Frontier Park
Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11E2584 Extracted: 05/18/11											
Blank Analyzed: 05/23/2011 (11E2584-BLK1)											
Calcium	ND	0.10	0.050	mg/l							
Magnesium	ND	0.020	0.012	mg/l							
LCS Analyzed: 05/23/2011 (11E2584-BS1)											
Calcium	2.63	0.10	0.050	mg/l	2.50		105	85-115			
Magnesium	2.73	0.020	0.012	mg/l	2.50		109	85-115			
Matrix Spike Analyzed: 05/23/2011 (11E2584-MS1)						**Source: IUE1338-01**					
Calcium	62.6	0.10	0.050	mg/l	2.50	58.4	168	70-130			*MHA*
Magnesium	35.8	0.020	0.012	mg/l	2.50	32.8	121	70-130			*MHA*
Matrix Spike Dup Analyzed: 05/23/2011 (11E2584-MSD1)						**Source: IUE1338-01**					
Calcium	61.0	0.10	0.050	mg/l	2.50	58.4	105	70-130	3	20	*MHA*
Magnesium	35.3	0.020	0.012	mg/l	2.50	32.8	100	70-130	1	20	*MHA*

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Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IUE1362-01	608-PCB (LL)	Aroclor 1016	ug/l	0	0.47	0.5
IUE1362-01	608-PCB (LL)	Aroclor 1221	ug/l	0	0.47	0.5
IUE1362-01	608-PCB (LL)	Aroclor 1232	ug/l	0	0.47	0.5
IUE1362-01	608-PCB (LL)	Aroclor 1242	ug/l	0	0.47	0.5
IUE1362-01	608-PCB (LL)	Aroclor 1248	ug/l	0	0.47	0.5
IUE1362-01	608-PCB (LL)	Aroclor 1254	ug/l	0	0.47	0.5
IUE1362-01	608-PCB (LL)	Aroclor 1260	ug/l	0	0.47	0.5
IUE1362-01	608-Pesticides (LL)	4,4'-DDD	ug/l	0	0.0047	0.005
IUE1362-01	608-Pesticides (LL)	4,4'-DDE	ug/l	0	0.0047	0.005
IUE1362-01	608-Pesticides (LL)	4,4'-DDT	ug/l	0.00052	0.0094	0.01
IUE1362-01	608-Pesticides (LL)	Chlordane	ug/l	0	0.094	0.1
IUE1362-01	608-Pesticides (LL)	Dieldrin	ug/l	0	0.0047	0.005
IUE1362-01	608-Pesticides (LL)	Toxaphene	ug/l	0	0.47	0.1

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Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

DATA QUALIFIERS AND DEFINITIONS

C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
Z2	Surrogate recovery was above the acceptance limits. Data not impacted.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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Project ID: Quarterly Arroyo Simi-Frontier Park

Report Number: IUE1362

Sampled: 05/12/11
Received: 05/12/11

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 200.7	Water	X	N/A
EPA 525.2	Water	X	N/A
EPA 608	Water	X	X
SM2340B	Water	X	N/A

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Irvine

Debby Wilson
Project Manager

Test America Version 7/19/2010

CHAIN OF CUSTODY FORM

IUE1362

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES Quarterly Arroyo Simi-Frontier Park
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 #	Hardness as $CaCO_3$	PCBs (608)	Chlorpyrifos, Diazinon (525.2)	Chlordane, Dieldrin, Toxaphene (608), 4,4-DDD, 4,4-DDE, 4,4-DDT									Comments
Arroyo Simi-FP	W	1L Poly	1	5-12-2011 11:45	HNO_3	1	X												
Arroyo Simi-FP	W	1L Amber	2		None	2A, 2B		X											
Arroyo Simi-FP	W	1L Amber	2		HCl	3A, 3B			X										Extract within 36-Hours of sampling
Arroyo Simi-FP	W	1L Amber	2	5-12-204 11:45	None	4A, 4B				X									

Field readings:
Temp = 56 ⊙ RA
pH = 7.8
Water Velocity (Ft/second) = 1 FT/20 SECONDS
Time of readings = 11:45

GA 5/12 22:00

Relinquished By	Date/Time	Received By	Date/Time
[signature]	5-12-2011 15:25	[signature]	5-12-11 15:25
[signature]	5-12-11 18:30		
		[signature] 5-12-11 18:30	

Turn around Time: (check)
24 Hours _____ 5 Days _____
48 Hours _____ 10 Days _____
72 Hours _____ Normal X

Sample Integrity: (check) 4.4
Intact ✓ On Ice: ✓

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

12/09