APPENDIX G

Section 36

Outfall 008 – March 25, 2010

Test America Analytical Laboratory Report

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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: Routine Outfall 008

Sampled: 03/25/10-03/26/10
Received: 03/25/10
Issued: 04/22/10 17:25

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

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 1°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: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: 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.

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

LABORATORY ID	CLIENT ID	MATRIX
ITC2505-01	Outfall 008	Water

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Report Number: ITC2505

Sampled: 03/25/10-03/26/10
Received: 03/25/10

LABORATORY ID	CLIENT ID	MATRIX
ITC2505-02	Blank	Water

Reviewed By:

Debby Wilson

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Sampled: 03/25/10-03/26/10
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HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	10C3331	1.3	4.8	ND	1	03/26/10	03/26/10	

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Received: 03/25/10

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: ug/l									
Mercury	EPA 245.1	10C3350	0.10	0.20	ND	1	03/26/10	03/26/10	
Antimony	EPA 200.8	10C3384	0.30	2.0	**0.48**	1	03/26/10	03/27/10	Ja
Cadmium	EPA 200.8	10C3384	0.10	1.0	ND	1	03/26/10	03/27/10	
Copper	EPA 200.8	10C3384	0.50	2.0	**6.0**	1	03/26/10	03/27/10	
Lead	EPA 200.8	10C3384	0.20	1.0	**1.5**	1	03/26/10	03/27/10	
Selenium	EPA 200.8	10C3384	0.50	2.0	**1.3**	1	03/26/10	03/27/10	Ja
Thallium	EPA 200.8	10C3384	0.20	1.0	ND	1	03/26/10	03/27/10	
Zinc	EPA 200.8	10C3384	5.0	20	**17**	1	03/26/10	03/27/10	Ja

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Received: 03/25/10

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: ug/l									
Mercury	EPA 245.1-Diss	10C3351	0.10	0.20	**0.16**	1	03/26/10	03/26/10	Ja
Antimony	EPA 200.8-Diss	10C3392	0.30	2.0	ND	1	03/26/10	03/29/10	
Cadmium	EPA 200.8-Diss	10C3392	0.10	1.0	ND	1	03/26/10	03/29/10	
Copper	EPA 200.8-Diss	10C3392	0.50	2.0	**1.1**	1	03/26/10	03/29/10	Ja
Lead	EPA 200.8-Diss	10C3392	0.20	1.0	**0.21**	1	03/26/10	03/29/10	Ja
Selenium	EPA 200.8-Diss	10C3392	0.50	2.0	**1.3**	1	03/26/10	03/29/10	Ja
Thallium	EPA 200.8-Diss	10C3392	0.20	1.0	ND	1	03/26/10	03/29/10	
Zinc	EPA 200.8-Diss	10C3392	5.0	20	ND	1	03/26/10	03/29/10	

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Sampled: 03/25/10-03/26/10
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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: mg/l									
Ammonia-N (Distilled)	SM4500NH3-C	10C3223	0.50	0.50	ND	1	03/25/10	03/25/10	
Chloride	EPA 300.0	10C3196	1.2	2.5	**83**	5	03/25/10	03/25/10	
Nitrate-N	EPA 300.0	10C3196	0.060	0.11	**0.93**	1	03/25/10	03/25/10	
Nitrite-N	EPA 300.0	10C3196	0.090	0.15	ND	1	03/25/10	03/25/10	
Nitrate/Nitrite-N	EPA 300.0	10C3196	0.15	0.26	**0.93**	1	03/25/10	03/25/10	
Sulfate	EPA 300.0	10C3196	1.0	2.5	**65**	5	03/25/10	03/25/10	
Total Dissolved Solids	SM2540C	10C3266	1.0	10	**330**	1	03/26/10	03/26/10	
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	10C3429	0.90	4.0	ND	1	03/27/10	03/27/10	

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EPA-5 1613B

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: ug/L									
1,2,3,4,6,7,8-HpCDD	EPA-5 1613B	88281	0.00000059	0.00005	**0.000012**	0.99	03/29/10	03/30/10	J, B
1,2,3,4,6,7,8-HpCDF	EPA-5 1613B	88281	0.00000036	0.00005	**0.0000087**	0.99	03/29/10	03/30/10	J, B
1,2,3,4,7,8,9-HpCDF	EPA-5 1613B	88281	0.00000057	0.00005	**0.00001**	0.99	03/29/10	03/30/10	J
1,2,3,4,7,8-HxCDD	EPA-5 1613B	88281	0.0000003	0.00005	**0.000006**	0.99	03/29/10	03/30/10	J, B
1,2,3,4,7,8-HxCDF	EPA-5 1613B	88281	0.00000032	0.00005	**0.0000048**	0.99	03/29/10	03/30/10	J, B
1,2,3,6,7,8-HxCDD	EPA-5 1613B	88281	0.00000029	0.00005	**0.0000072**	0.99	03/29/10	03/30/10	J, B
1,2,3,6,7,8-HxCDF	EPA-5 1613B	88281	0.00000032	0.00005	**0.0000054**	0.99	03/29/10	03/30/10	J, Q, B
1,2,3,7,8,9-HxCDD	EPA-5 1613B	88281	0.00000025	0.00005	**0.0000062**	0.99	03/29/10	03/30/10	J, B
1,2,3,7,8,9-HxCDF	EPA-5 1613B	88281	0.0000003	0.00005	**0.0000071**	0.99	03/29/10	03/30/10	J, B
1,2,3,7,8-PeCDD	EPA-5 1613B	88281	0.00000072	0.00005	**0.0000052**	0.99	03/29/10	03/30/10	J, Q, B
1,2,3,7,8-PeCDF	EPA-5 1613B	88281	0.00000051	0.00005	**0.0000046**	0.99	03/29/10	03/30/10	J
2,3,4,6,7,8-HxCDF	EPA-5 1613B	88281	0.00000026	0.00005	**0.0000079**	0.99	03/29/10	03/30/10	J, B
2,3,4,7,8-PeCDF	EPA-5 1613B	88281	0.00000059	0.00005	**0.0000044**	0.99	03/29/10	03/30/10	J
2,3,7,8-TCDD	EPA-5 1613B	88281	0.00000038	0.00001	ND	0.99	03/29/10	03/30/10	
2,3,7,8-TCDF	EPA-5 1613B	88281	0.00000039	0.00001	ND	0.99	03/29/10	03/30/10	
OCDD	EPA-5 1613B	88281	0.00000077	0.0001	**0.000038**	0.99	03/29/10	03/30/10	J, B
OCDF	EPA-5 1613B	88281	0.00000062	0.0001	**0.000022**	0.99	03/29/10	03/30/10	J, B
Total HpCDD	EPA-5 1613B	88281	0.00000059	0.00005	**0.000016**	0.99	03/29/10	03/30/10	J, B
Total HpCDF	EPA-5 1613B	88281	0.00000036	0.00005	**0.000019**	0.99	03/29/10	03/30/10	J, B
Total HxCDD	EPA-5 1613B	88281	0.00000025	0.00005	**0.00002**	0.99	03/29/10	03/30/10	J, Q, B
Total HxCDF	EPA-5 1613B	88281	0.00000026	0.00005	**0.000026**	0.99	03/29/10	03/30/10	J, Q, B
Total PeCDD	EPA-5 1613B	88281	0.00000072	0.00005	**0.0000078**	0.99	03/29/10	03/30/10	J, Q, B
Total PeCDF	EPA-5 1613B	88281	0.0000001	0.00005	**0.0000089**	0.99	03/29/10	03/30/10	J
Total TCDD	EPA-5 1613B	88281	0.00000016	0.00001	ND	0.99	03/29/10	03/30/10	
Total TCDF	EPA-5 1613B	88281	0.00000016	0.00001	ND	0.99	03/29/10	03/30/10	
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)					*70 %*				
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)					*65 %*				
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)					*63 %*				
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)					*60 %*				
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)					*60 %*				
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)					*57 %*				
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)					*55 %*				
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)					*57 %*				
Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)					*50 %*				
Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)					*59 %*				
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)					*58 %*				
Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)					*57 %*				
Surrogate: 13C-2,3,7,8-TCDD (25-164%)					*54 %*				
Surrogate: 13C-2,3,7,8-TCDF (24-169%)					*54 %*				
Surrogate: 13C-OCDD (17-157%)					*79 %*				
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)					*91 %*				

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Project ID: Routine Outfall 008
Report Number: ITC2505

Sampled: 03/25/10-03/26/10
Received: 03/25/10

ASTM 5174-91

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: pCi/L									
Total Uranium	ASTM 5174-91	98114	0.21	0.68	**1.61**	1	04/08/10	04/13/10	

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ASTM 5174-91

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-02 (Blank - Water)					**Sampled: 03/26/10**				
Reporting Units: pCi/L									
Total Uranium	ASTM 5174-91	98114	0.21	0.677	**0.146**	1	04/08/10	04/13/10	U

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EPA 900.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: pCi/L									
Gross Alpha	EPA 900.0 MOD	92098	2.5	3	**2.5**	1	04/02/10	04/13/10	U
Gross Beta	EPA 900.0 MOD	92098	1.3	4	**4.4**	1	04/02/10	04/13/10	
Sample ID: ITC2505-02 (Blank - Water)					**Sampled: 03/26/10**				
Reporting Units: pCi/L									
Gross Alpha	EPA 900.0 MOD	92098	0.84	3	-0.02	1	04/02/10	04/13/10	U
Gross Beta	EPA 900.0 MOD	92098	0.95	4	-0.67	1	04/02/10	04/13/10	U

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EPA 901.1 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: pCi/L									
Cesium 137	EPA 901.1 MOD	88399	12	20	**1**	1	03/29/10	04/18/10	U
Potassium 40	EPA 901.1 MOD	88399	220	NA	-90	1	03/29/10	04/18/10	U
Sample ID: ITC2505-02 (Blank - Water)					**Sampled: 03/26/10**				
Reporting Units: pCi/L									
Cesium 137	EPA 901.1 MOD	88399	13	20	ND	1	03/29/10	04/18/10	U
Potassium 40	EPA 901.1 MOD	88399	270	NA	-60	1	03/29/10	04/18/10	U

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EPA 903.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: pCi/L									
Radium (226)	EPA 903.0 MOD	88229	0.17	1	**0.2**	1	03/29/10	04/20/10	Jb
Sample ID: ITC2505-02 (Blank - Water)					**Sampled: 03/26/10**				
Reporting Units: pCi/L									
Radium (226)	EPA 903.0 MOD	88229	0.17	1	**0.08**	1	03/29/10	04/20/10	U

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Sampled: 03/25/10-03/26/10
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EPA 904 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: pCi/L									
Radium 228	EPA 904 MOD	88230	0.49	1	**0.07**	1	03/29/10	04/20/10	U
Sample ID: ITC2505-02 (Blank - Water)					**Sampled: 03/26/10**				
Reporting Units: pCi/L									
Radium 228	EPA 904 MOD	88230	0.45	1	-0.02	1	03/29/10	04/20/10	U

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EPA 905 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: pCi/L									
Strontium 90	EPA 905 MOD	88231	0.52	3	**0.12**	1	03/29/10	04/06/10	U
Sample ID: ITC2505-02 (Blank - Water)					**Sampled: 03/26/10**				
Reporting Units: pCi/L									
Strontium 90	EPA 905 MOD	88231	0.58	3	**0.18**	1	03/29/10	04/06/10	U

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EPA 906.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC2505-01 (Outfall 008 - Water)					**Sampled: 03/25/10**				
Reporting Units: pCi/L									
Tritium	EPA 906.0 MOD	105058	190	500	-106	1	04/15/10	04/15/10	U
Sample ID: ITC2505-02 (Blank - Water)					**Sampled: 03/26/10**				
Reporting Units: pCi/L									
Tritium	EPA 906.0 MOD	105058	200	500	**1200**	1	04/15/10	04/15/10	

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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: Routine Outfall 008
Report Number: ITC2505

Sampled: 03/25/10-03/26/10
Received: 03/25/10

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 008 (ITC2505-01) - Water					
EPA 300.0	2	03/25/2010 09:50	03/25/2010 16:45	03/25/2010 16:45	03/25/2010 18:36

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METHOD BLANK/QC DATA

HEXANE EXTRACTABLE MATERIAL

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C3331 Extracted: 03/26/10											
Blank Analyzed: 03/26/2010 (10C3331-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 03/26/2010 (10C3331-BS1)											**MNR1**
Hexane Extractable Material (Oil & Grease)	20.6	5.0	1.4	mg/l	20.0		103	78-114			
LCS Dup Analyzed: 03/26/2010 (10C3331-BSD1)											
Hexane Extractable Material (Oil & Grease)	19.7	5.0	1.4	mg/l	20.0		98	78-114	4	11	

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C3350 Extracted: 03/26/10											
Blank Analyzed: 03/26/2010 (10C3350-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 03/26/2010 (10C3350-BS1)											
Mercury	8.04	0.20	0.10	ug/l	8.00		100	85-115			
Matrix Spike Analyzed: 03/26/2010 (10C3350-MS1)						**Source: ITC2510-01**					
Mercury	7.52	0.20	0.10	ug/l	8.00	ND	94	70-130			
Matrix Spike Dup Analyzed: 03/26/2010 (10C3350-MSD1)						**Source: ITC2510-01**					
Mercury	7.40	0.20	0.10	ug/l	8.00	ND	92	70-130	2	20	
Batch: 10C3384 Extracted: 03/26/10											
Blank Analyzed: 03/27/2010 (10C3384-BLK1)											
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Selenium	ND	2.0	0.50	ug/l							
Thallium	ND	1.0	0.20	ug/l							
Zinc	ND	20	5.0	ug/l							
LCS Analyzed: 03/27/2010 (10C3384-BS1)											
Antimony	79.3	2.0	0.30	ug/l	80.0		99	85-115			
Cadmium	81.4	1.0	0.10	ug/l	80.0		102	85-115			
Copper	77.1	2.0	0.50	ug/l	80.0		96	85-115			
Lead	78.5	1.0	0.20	ug/l	80.0		98	85-115			
Selenium	76.7	2.0	0.50	ug/l	80.0		96	85-115			
Thallium	77.9	1.0	0.20	ug/l	80.0		97	85-115			
Zinc	75.9	20	5.0	ug/l	80.0		95	85-115			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C3384 Extracted: 03/26/10											
Matrix Spike Analyzed: 03/27/2010 (10C3384-MS1)						**Source: ITC1867-01**					
Antimony	77.1	2.0	0.30	ug/l	80.0	ND	96	70-130			
Cadmium	77.0	1.0	0.10	ug/l	80.0	ND	96	70-130			
Copper	74.4	2.0	0.50	ug/l	80.0	ND	93	70-130			
Lead	75.3	1.0	0.20	ug/l	80.0	ND	94	70-130			
Selenium	72.4	2.0	0.50	ug/l	80.0	ND	90	70-130			
Thallium	74.6	1.0	0.20	ug/l	80.0	ND	93	70-130			
Zinc	80.7	20	5.0	ug/l	80.0	5.35	94	70-130			
Matrix Spike Dup Analyzed: 03/27/2010 (10C3384-MSD1)						**Source: ITC1867-01**					
Antimony	76.6	2.0	0.30	ug/l	80.0	ND	96	70-130	0.6	20	
Cadmium	76.7	1.0	0.10	ug/l	80.0	ND	96	70-130	0.4	20	
Copper	73.9	2.0	0.50	ug/l	80.0	ND	92	70-130	0.7	20	
Lead	77.6	1.0	0.20	ug/l	80.0	ND	97	70-130	3	20	
Selenium	72.2	2.0	0.50	ug/l	80.0	ND	90	70-130	0.3	20	
Thallium	77.6	1.0	0.20	ug/l	80.0	ND	97	70-130	4	20	
Zinc	76.8	20	5.0	ug/l	80.0	5.35	89	70-130	5	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C3351 Extracted: 03/26/10											
Blank Analyzed: 03/26/2010 (10C3351-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 03/26/2010 (10C3351-BS1)											
Mercury	8.01	0.20	0.10	ug/l	8.00		100	85-115			
Matrix Spike Analyzed: 03/26/2010 (10C3351-MS1)						**Source: ITC2269-01**					
Mercury	8.09	0.20	0.10	ug/l	8.00	ND	101	70-130			
Matrix Spike Dup Analyzed: 03/26/2010 (10C3351-MSD1)						**Source: ITC2269-01**					
Mercury	8.18	0.20	0.10	ug/l	8.00	ND	102	70-130	1	20	
Batch: 10C3392 Extracted: 03/26/10											
Blank Analyzed: 03/29/2010 (10C3392-BLK1)											
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Selenium	ND	2.0	0.50	ug/l							
Thallium	ND	1.0	0.20	ug/l							
Zinc	ND	20	5.0	ug/l							
LCS Analyzed: 03/29/2010 (10C3392-BS1)											
Antimony	83.2	2.0	0.30	ug/l	80.0		104	85-115			
Cadmium	83.1	1.0	0.10	ug/l	80.0		104	85-115			
Copper	86.2	2.0	0.50	ug/l	80.0		108	85-115			
Lead	87.2	1.0	0.20	ug/l	80.0		109	85-115			
Selenium	82.9	2.0	0.50	ug/l	80.0		104	85-115			
Thallium	86.9	1.0	0.20	ug/l	80.0		109	85-115			
Zinc	81.8	20	5.0	ug/l	80.0		102	85-115			

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C3392 Extracted: 03/26/10											
Matrix Spike Analyzed: 03/29/2010 (10C3392-MS1)						**Source: ITC2505-01**					
Antimony	86.7	2.0	0.30	ug/l	80.0	ND	108	70-130			
Cadmium	84.4	1.0	0.10	ug/l	80.0	ND	106	70-130			
Copper	84.6	2.0	0.50	ug/l	80.0	1.05	104	70-130			
Lead	78.6	1.0	0.20	ug/l	80.0	0.206	98	70-130			
Selenium	83.4	2.0	0.50	ug/l	80.0	1.27	103	70-130			
Thallium	78.9	1.0	0.20	ug/l	80.0	ND	99	70-130			
Zinc	80.6	20	5.0	ug/l	80.0	ND	101	70-130			
Matrix Spike Dup Analyzed: 03/29/2010 (10C3392-MSD1)						**Source: ITC2505-01**					
Antimony	89.6	2.0	0.30	ug/l	80.0	ND	112	70-130	3	20	
Cadmium	88.8	1.0	0.10	ug/l	80.0	ND	111	70-130	5	20	
Copper	87.5	2.0	0.50	ug/l	80.0	1.05	108	70-130	3	20	
Lead	79.4	1.0	0.20	ug/l	80.0	0.206	99	70-130	1	20	
Selenium	84.4	2.0	0.50	ug/l	80.0	1.27	104	70-130	1	20	
Thallium	79.8	1.0	0.20	ug/l	80.0	ND	100	70-130	1	20	
Zinc	84.2	20	5.0	ug/l	80.0	ND	105	70-130	4	20	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C3196 Extracted: 03/25/10											
Blank Analyzed: 03/25/2010 (10C3196-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 03/25/2010 (10C3196-BS1)											
Chloride	4.90	0.50	0.25	mg/l	5.00		98	90-110			
Nitrate-N	1.10	0.11	0.060	mg/l	1.13		98	90-110			
Nitrite-N	1.48	0.15	0.090	mg/l	1.52		98	90-110			
Sulfate	10.2	0.50	0.20	mg/l	10.0		102	90-110			
Matrix Spike Analyzed: 03/25/2010 (10C3196-MS1)						**Source: ITC2471-01**					
Chloride	111	5.0	2.5	mg/l	50.0	63.1	95	80-120			
Nitrate-N	14.9	1.1	0.60	mg/l	11.3	3.71	99	80-120			
Nitrite-N	15.2	1.5	0.90	mg/l	15.2	ND	100	80-120			
Sulfate	306	5.0	2.0	mg/l	100	214	92	80-120			
Matrix Spike Analyzed: 03/25/2010 (10C3196-MS2)						**Source: ITC2519-08**					
Chloride	117	25	12	mg/l	50.0	63.2	108	80-120			
Nitrate-N	15.7	5.5	3.0	mg/l	11.3	2.05	121	80-120			*M1*
Nitrite-N	17.5	7.5	4.5	mg/l	15.2	0.433	112	80-120			
Sulfate	263	25	10	mg/l	100	161	102	80-120			
Matrix Spike Dup Analyzed: 03/25/2010 (10C3196-MSD1)						**Source: ITC2471-01**					
Chloride	107	5.0	2.5	mg/l	50.0	63.1	87	80-120	3	20	
Nitrate-N	14.3	1.1	0.60	mg/l	11.3	3.71	94	80-120	4	20	
Nitrite-N	14.3	1.5	0.90	mg/l	15.2	ND	94	80-120	6	20	
Sulfate	291	5.0	2.0	mg/l	100	214	78	80-120	5	20	*M2*

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C3223 Extracted: 03/25/10											
Blank Analyzed: 03/25/2010 (10C3223-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.50	mg/l							
LCS Analyzed: 03/25/2010 (10C3223-BS1)											
Ammonia-N (Distilled)	10.1	0.50	0.50	mg/l	10.0		101	80-115			
Matrix Spike Analyzed: 03/25/2010 (10C3223-MS1)						**Source: ITC1735-01**					
Ammonia-N (Distilled)	10.1	0.50	0.50	mg/l	10.0	ND	101	70-120			
Matrix Spike Dup Analyzed: 03/25/2010 (10C3223-MSD1)						**Source: ITC1735-01**					
Ammonia-N (Distilled)	10.1	0.50	0.50	mg/l	10.0	ND	101	70-120	0	15	
Batch: 10C3266 Extracted: 03/26/10											
Blank Analyzed: 03/26/2010 (10C3266-BLK1)											
Total Dissolved Solids	ND	10	1.0	mg/l							
LCS Analyzed: 03/26/2010 (10C3266-BS1)											
Total Dissolved Solids	1000	10	1.0	mg/l	1000		100	90-110			
Duplicate Analyzed: 03/26/2010 (10C3266-DUP1)						**Source: ITC2178-01**					
Total Dissolved Solids	604	10	1.0	mg/l		598			1	10	
Batch: 10C3429 Extracted: 03/27/10											
Blank Analyzed: 03/27/2010 (10C3429-BLK1)											
Perchlorate	ND	4.0	0.90	ug/l							

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C3429 Extracted: 03/27/10											
LCS Analyzed: 03/27/2010 (10C3429-BS1)											
Perchlorate	26.4	4.0	0.90	ug/l	25.0		106	85-115			
Matrix Spike Analyzed: 03/27/2010 (10C3429-MS1)						**Source: ITC2505-01**					
Perchlorate	27.8	4.0	0.90	ug/l	25.0	ND	111	80-120			
Matrix Spike Dup Analyzed: 03/27/2010 (10C3429-MSD1)						**Source: ITC2505-01**					
Perchlorate	27.3	4.0	0.90	ug/l	25.0	ND	109	80-120	2	20	

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METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 88281 Extracted: 03/29/10											
Blank Analyzed: 03/30/2010 (G0C290000281B)						**Source:**					
1,2,3,4,6,7,8-HpCDD	1.7e-006	0.00005	0.00000038	ug/L				-			*J*
1,2,3,4,6,7,8-HpCDF	1.1e-006	0.00005	0.00000026	ug/L				-			*J, Q*
1,2,3,4,7,8,9-HpCDF	ND	0.00005	0.00000039	ug/L				-			
1,2,3,4,7,8-HxCDD	5.7e-007	0.00005	0.00000044	ug/L				-			*J*
1,2,3,4,7,8-HxCDF	5.1e-007	0.00005	0.0000003	ug/L				-			*J*
1,2,3,6,7,8-HxCDD	6.7e-007	0.00005	0.00000041	ug/L				-			*J*
1,2,3,6,7,8-HxCDF	2.8e-007	0.00005	0.00000029	ug/L				-			*J, Q*
1,2,3,7,8,9-HxCDD	7.6e-007	0.00005	0.00000035	ug/L				-			*J, Q*
1,2,3,7,8,9-HxCDF	2.6e-007	0.00005	0.00000031	ug/L				-			*J, Q*
1,2,3,7,8-PeCDD	1e-006	0.00005	0.0000005	ug/L				-			*J*
1,2,3,7,8-PeCDF	ND	0.00005	0.00000036	ug/L				-			
2,3,4,6,7,8-HxCDF	3.1e-007	0.00005	0.00000026	ug/L				-			*J, Q*
2,3,4,7,8-PeCDF	ND	0.00005	0.00000038	ug/L				-			
2,3,7,8-TCDD	ND	0.00001	0.00000026	ug/L				-			
2,3,7,8-TCDF	ND	0.00001	0.00000032	ug/L				-			
OCDD	1.1e-005	0.0001	0.00000049	ug/L				-			*J*
OCDF	1.8e-006	0.0001	0.0000006	ug/L				-			*J, Q*
Total HpCDD	4.6e-006	0.00005	0.00000038	ug/L				-			*J*
Total HpCDF	1.1e-006	0.00005	0.00000026	ug/L				-			*J, Q*
Total HxCDD	2e-006	0.00005	0.00000035	ug/L				-			*J, Q*
Total HxCDF	1.4e-006	0.00005	0.00000026	ug/L				-			*J, Q*
Total PeCDD	1e-006	0.00005	0.0000005	ug/L				-			*J*
Total PeCDF	ND	0.00005	0.00000034	ug/L				-			
Total TCDD	7.1e-007	0.00001	0.00000026	ug/L				-			*J, Q*
Total TCDF	ND	0.00001	0.00000032	ug/L				-			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.0017*			*ug/L*	*0.00200*		*86*	*23-140*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.0015*			*ug/L*	*0.00200*		*75*	*28-143*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.0016*			*ug/L*	*0.00200*		*78*	*26-138*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.0014*			*ug/L*	*0.00200*		*71*	*32-141*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.0014*			*ug/L*	*0.00200*		*70*	*26-152*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.0014*			*ug/L*	*0.00200*		*69*	*28-130*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.0013*			*ug/L*	*0.00200*		*66*	*26-123*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.0013*			*ug/L*	*0.00200*		*65*	*29-147*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.0012*			*ug/L*	*0.00200*		*58*	*25-181*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.0014*			*ug/L*	*0.00200*		*69*	*24-185*			

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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: Routine Outfall 008

Report Number: ITC2505

Sampled: 03/25/10-03/26/10
Received: 03/25/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 88281 Extracted: 03/29/10											
Blank Analyzed: 03/30/2010 (G0C290000281B)						**Source:**					
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.0014*			*ug/L*	*0.00200*		*71*	*28-136*			
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.0014*			*ug/L*	*0.00200*		*69*	*21-178*			
Surrogate: 13C-2,3,7,8-TCDD	*0.0012*			*ug/L*	*0.00200*		*60*	*25-164*			
Surrogate: 13C-2,3,7,8-TCDF	*0.0013*			*ug/L*	*0.00200*		*63*	*24-169*			
Surrogate: 13C-OCDD	*0.0035*			*ug/L*	*0.00400*		*88*	*17-157*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.00073*			*ug/L*	*0.000800*		*91*	*35-197*			
LCS Analyzed: 03/30/2010 (G0C290000281C)						**Source:**					
1,2,3,4,6,7,8-HpCDD	0.00112	0.00005	0.0000011	ug/L	0.00100		112	70-140			*B*
1,2,3,4,6,7,8-HpCDF	0.00114	0.00005	0.0000011	ug/L	0.00100		114	82-122			*B*
1,2,3,4,7,8,9-HpCDF	0.00121	0.00005	0.0000016	ug/L	0.00100		121	78-138			
1,2,3,4,7,8-HxCDD	0.00117	0.00005	0.00000062	ug/L	0.00100		117	70-164			*B*
1,2,3,4,7,8-HxCDF	0.00116	0.00005	0.0000013	ug/L	0.00100		116	72-134			*B*
1,2,3,6,7,8-HxCDD	0.0012	0.00005	0.00000061	ug/L	0.00100		120	76-134			*B*
1,2,3,6,7,8-HxCDF	0.00114	0.00005	0.0000013	ug/L	0.00100		114	84-130			*B*
1,2,3,7,8,9-HxCDD	0.00105	0.00005	0.00000051	ug/L	0.00100		105	64-162			*B*
1,2,3,7,8,9-HxCDF	0.00117	0.00005	0.0000013	ug/L	0.00100		117	78-130			*B*
1,2,3,7,8-PeCDD	0.000952	0.00005	0.0000013	ug/L	0.00100		95	70-142			*B*
1,2,3,7,8-PeCDF	0.00115	0.00005	0.0000015	ug/L	0.00100		115	80-134			
2,3,4,6,7,8-HxCDF	0.00113	0.00005	0.0000011	ug/L	0.00100		113	70-156			*B*
2,3,4,7,8-PeCDF	0.00114	0.00005	0.0000016	ug/L	0.00100		114	68-160			
2,3,7,8-TCDD	0.000229	0.00001	0.00000038	ug/L	0.000200		114	67-158			
2,3,7,8-TCDF	0.000211	0.00001	0.00000033	ug/L	0.000200		106	75-158			
OCDD	0.00238	0.0001	0.0000017	ug/L	0.00200		119	78-144			*B*
OCDF	0.00227	0.0001	0.0000016	ug/L	0.00200		113	63-170			*B*
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.00202*			*ug/L*	*0.00200*		*101*	*26-166*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.00174*			*ug/L*	*0.00200*		*87*	*21-158*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.00174*			*ug/L*	*0.00200*		*87*	*20-186*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.00164*			*ug/L*	*0.00200*		*82*	*21-193*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.0016*			*ug/L*	*0.00200*		*80*	*19-202*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.00152*			*ug/L*	*0.00200*		*76*	*25-163*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.00154*			*ug/L*	*0.00200*		*77*	*21-159*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.00151*			*ug/L*	*0.00200*		*75*	*17-205*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.00138*			*ug/L*	*0.00200*		*69*	*21-227*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.0015*			*ug/L*	*0.00200*		*75*	*21-192*			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.00159*			*ug/L*	*0.00200*		*79*	*22-176*			

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Debby Wilson For Heather Clark
Project Manager

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 008
Report Number: ITC2505

Sampled: 03/25/10-03/26/10
Received: 03/25/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 88281 Extracted: 03/29/10											
LCS Analyzed: 03/30/2010 (G0C290000281C)						**Source:**					
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.00151*			*ug/L*	*0.00200*		*76*	*13-328*			
Surrogate: 13C-2,3,7,8-TCDD	*0.00132*			*ug/L*	*0.00200*		*66*	*20-175*			
Surrogate: 13C-2,3,7,8-TCDF	*0.00132*			*ug/L*	*0.00200*		*66*	*22-152*			
Surrogate: 13C-OCDD	*0.00416*			*ug/L*	*0.00400*		*104*	*13-199*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.000796*			*ug/L*	*0.000800*		*100*	*31-191*			

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Received: 03/25/10

METHOD BLANK/QC DATA

ASTM 5174-91

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 98114 Extracted: 04/08/10											
Matrix Spike Dup Analyzed: 04/13/2010 (F0C270425001D)						**Source: ITC2505-01**					
Total Uranium	29.9	0.7	0.2	pCi/L	27.1	1.61	104	62-150	2	20	
Matrix Spike Analyzed: 04/13/2010 (F0C270425001S)						**Source: ITC2505-01**					
Total Uranium	29.3	0.7	0.2	pCi/L	27.1	1.61	102	62-150			
Blank Analyzed: 04/13/2010 (F0D080000114B)						**Source:**					
Total Uranium	0.267	0.677	0.21	pCi/L				-			*Jb*
LCS Analyzed: 04/13/2010 (F0D080000114C)						**Source:**					
Total Uranium	5.69	0.68	0.21	pCi/L	5.42		105	90-120			

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Received: 03/25/10

METHOD BLANK/QC DATA

EPA 900.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 92098 Extracted: 04/02/10											
Matrix Spike Analyzed: 04/13/2010 (F0C270425001S)						**Source: ITC2505-01**					
Gross Alpha	52	3	2.5	pCi/L	51.2	2.5	97	35-150			
Gross Beta	80.4	4	1.2	pCi/L	70.3	4.4	108	54-150			
Duplicate Analyzed: 04/13/2010 (F0C270425001X)						**Source: ITC2505-01**					
Gross Alpha	2.7	3	2.4	pCi/L		2.5		-			*Jb*
Gross Beta	4.3	4	1.2	pCi/L		4.4		-			
Blank Analyzed: 04/13/2010 (F0D020000098B)						**Source:**					
Gross Alpha	0.21	2	0.83	pCi/L				-			*U*
Gross Beta	-0.36	4	0.95	pCi/L				-			*U*
LCS Analyzed: 04/13/2010 (F0D020000098C)						**Source:**					
Gross Alpha	53.2	3	1.3	pCi/L	49.4		108	62-134			
Gross Beta	67.6	4	1	pCi/L	67.9		100	58-133			

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METHOD BLANK/QC DATA

EPA 901.1 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 88399 Extracted: 03/29/10											
Duplicate Analyzed: 04/18/2010 (F0C270425001X)						**Source: ITC2505-01**					
Cesium 137	0.2	20	17	pCi/L		1		-			*U*
Potassium 40	50	NA	230	pCi/L		-90		-			*U*
Blank Analyzed: 04/18/2010 (F0C290000399B)						**Source:**					
Cesium 137	-2.3	20	15	pCi/L				-			*U*
Potassium 40	-20	NA	200	pCi/L				-			*U*
LCS Analyzed: 04/18/2010 (F0C290000399C)						**Source:**					
Americium 241	131000	NA	500	pCi/L	141000		93	87-110			
Cobalt 60	79300	NA	200	pCi/L	87900		90	89-110			
Cesium 137	48500	20	200	pCi/L	53100		91	90-110			

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METHOD BLANK/QC DATA

EPA 903.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 88229 Extracted: 03/29/10											
Blank Analyzed: 04/20/2010 (F0C290000229B)						**Source:**					
Radium (226)	0.075	1	0.16	pCi/L				-			*U*
LCS Analyzed: 04/20/2010 (F0C290000229C)						**Source:**					
Radium (226)	11.5	1	0.2	pCi/L	11.3		102	68-136			
LCS Dup Analyzed: 04/20/2010 (F0C290000229L)						**Source:**					
Radium (226)	10.6	1	0.2	pCi/L	11.3		94	68-136	8	40	

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Received: 03/25/10

METHOD BLANK/QC DATA

EPA 904 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 88230 Extracted: 03/29/10											
Blank Analyzed: 04/20/2010 (F0C290000230B)						**Source:**					
Radium 228	-0.02	1	0.44	pCi/L				-			*U*
LCS Analyzed: 04/20/2010 (F0C290000230C)						**Source:**					
Radium 228	6.05	1	0.41	pCi/L	6.30		96	60-142			
LCS Dup Analyzed: 04/20/2010 (F0C290000230L)						**Source:**					
Radium 228	6.52	1	0.42	pCi/L	6.30		104	60-142	8	40	

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Received: 03/25/10

METHOD BLANK/QC DATA

EPA 905 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 88231 Extracted: 03/29/10											
Blank Analyzed: 04/06/2010 (F0C290000231B)						**Source:**					
Strontium 90	-0.05	3	0.54	pCi/L				-			*U*
LCS Analyzed: 04/06/2010 (F0C290000231C)						**Source:**					
Strontium 90	7.69	3	0.58	pCi/L	6.78		113	80-130			
LCS Dup Analyzed: 04/06/2010 (F0C290000231L)						**Source:**					
Strontium 90	7.28	3	0.52	pCi/L	6.78		107	80-130	5	40	

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METHOD BLANK/QC DATA

EPA 906.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 105058 Extracted: 04/15/10											
Duplicate Analyzed: 04/15/2010 (F0C270425001X)						**Source: ITC2505-01**					
Tritium	-151	500	190	pCi/L		-106		-			*U*
Matrix Spike Analyzed: 04/15/2010 (F0C270425002S)						**Source: ITC2505-02**					
Tritium	4370	500	190	pCi/L	4490	1200	71	62-147			
Blank Analyzed: 04/15/2010 (F0D150000058B)						**Source:**					
Tritium	-28	500	190	pCi/L				-			*U*
LCS Analyzed: 04/15/2010 (F0D150000058C)						**Source:**					
Tritium	4910	500	200	pCi/L	4490		109	85-112			

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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
ITC2505-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	0.67	4.8	15
ITC2505-01	Antimony-200.8	Antimony	ug/l	0.48	2.0	6
ITC2505-01	Cadmium-200.8	Cadmium	ug/l	0.099	1.0	3.1
ITC2505-01	Chloride - 300.0	Chloride	mg/l	83	2.5	150
ITC2505-01	Copper-200.8	Copper	ug/l	6.03	2.0	14
ITC2505-01	Lead-200.8	Lead	ug/l	1.54	1.0	5.2
ITC2505-01	Nitrate-N, 300.0	Nitrate-N	mg/l	0.93	0.11	8
ITC2505-01	Nitrite-N, 300.0	Nitrite-N	mg/l	0	0.15	1
ITC2505-01	Nitrogen, NO3+NO2 -N EPA 300.0	Nitrate/Nitrite-N	mg/l	0.93	0.26	8
ITC2505-01	Perchlorate 314.0 - Default	Perchlorate	ug/l	0	4.0	6
ITC2505-01	Selenium-200.8	Selenium	ug/l	1.34	2.0	5
ITC2505-01	Sulfate-300.0	Sulfate	mg/l	65	2.5	300
ITC2505-01	TDS - SM2540C	Total Dissolved Solids	mg/l	332	10	950
ITC2505-01	Thallium-200.8	Thallium	ug/l	0.076	1.0	2
ITC2505-01	Zinc-200.8	Zinc	ug/l	17	20	160

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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DATA QUALIFIERS AND DEFINITIONS

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.
Jb	Result is greater than sample detection limit but less than stated reporting limit.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. 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	Result is less than the sample detection 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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Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 1664A	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
SM2540C	Water	X	
SM4500NH3-C	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

Subcontracted Laboratories

TestAmerica St. Louis

13715 Rider Trail North - Earth City, MO 63045

Method Performed: ASTM 5174-91
Samples: ITC2505-01, ITC2505-02

Method Performed: EPA 900.0 MOD
Samples: ITC2505-01, ITC2505-02

Method Performed: EPA 901.1 MOD
Samples: ITC2505-01, ITC2505-02

Method Performed: EPA 903.0 MOD
Samples: ITC2505-01, ITC2505-02

Method Performed: EPA 904 MOD
Samples: ITC2505-01, ITC2505-02

Method Performed: EPA 905 MOD
Samples: ITC2505-01, ITC2505-02

Method Performed: EPA 906.0 MOD
Samples: ITC2505-01, ITC2505-02

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Received: 03/25/10

TestAmerica West Sacramento

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B

Samples: ITC2505-01

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Routine Outfall 008** **GRAB** Stormwater at Happy Valley
Project Manager: Bronwyn Kelly Sampler: R 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: Oil & Grease (1664-HEM)	Field readings / Comments
Outfall 008	W	1L Amber	2	3/25/10 - 0950	HCl	1A, 1B	X	Temp °F = 55 pH = 6.9 Time of readings = 0950

1040 3/25/10

These Samples are the Grab Portion of Outfall 008 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:
	3-25-2010 13:50		3-25-10 13:50
Relinquished By	Date/Time:	Received By	Date/Time:
	3-25-10 16:45		3/25/10 16:45
Relinquished By	Date/Time:	Received By	Date/Time:

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

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

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

25V15 1.4

Test America Version 6/29/09

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Routine Outfall 008** **GRAB** Stormwater at Happy Valley
Project Manager: Bronwyn Kelly Sampler: R Bananga	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, Tl, Se, Zn	TCDD (and all congeners)	Cl-, SO_4, NO3+NO2-N, Perchlorate	TDS	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	~~Chronic Toxicity~~	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, Tl, Se, Zn	Nitrate-N, Nitrite-N	Ammonia-N (350.2)					Comments
							ANALYSIS REQUIRED													
Outfall 008	W	1L Poly	1	3/25/10 - 0950	HNO_3	2A	X													
Outfall 008 Dup	W	1L Poly	1	3/25/10 - 0950	HNO_3	2B	X													
Outfall 008	W	1L Amber	2	3/25/10 - 0950	None	3A, 3B		X												
Outfall 008	W	500 mL Poly	2	3/25/10 - 0950	None	4A, 4B			X											
Outfall 008	W	500 mL Poly	1	3/25/10 - 0950	None	5				X										
Outfall 008	W	2.5 Gal Cube	1	3/25/10 - 0950	None	6A					X									Unfiltered and unpreserved analysis
		500 ml Amber	1		None	6B														
~~Outfall 008~~	~~W~~	~~1 Gal Poly~~	~~1~~		~~None~~	~~7~~						X								~~Only test if first or second rain events of the year~~
Outfall 008	W	1L Poly	1	3/25/10 - 0950	None	8							X							Filter w/in 24hrs of receipt at lab
Outfall 008	W	500 mL Poly	1	3/25/10 - 0950	None	9								X						
Outfall 008	W	500 mL Poly	1	3/25/10 - 0950	H_2SO_4	10									X					
							GRAB													

COC Page 2 of 2 are the ~~composite~~ A samples for Outfall 008 for this storm event.

These must be added to the same work order for COC Page 1 of 2 for Outfall 008 for the same event.

Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	3-25-2010 13:50	[signature]	3-25-10 13:50
Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	3-25-10 16:45	[signature]	3/25/10 16:46
Relinquished By	Date/Time:	Received By	Date/Time:

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

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

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. ITC2505

MWH-Pasadena Boeing

Lot #: F0C270425

Debbie Wilson

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817

TESTAMERICA LABORATORIES, INC.

Lynn Fussner
Project Manager

April 21, 2010

Case Narrative
LOT NUMBER: F0C270425

This report contains the analytical results for the two samples received under chain of custody by TestAmerica St. Louis on March 27, 2010. These samples are associated with your MWH-Pasadena Boeing project.

The analytical results included in this report meet all applicable quality control procedure requirements, except as noted below.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances
Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Sample preparation was started in the TestAmerica Irvine laboratory prior to shipment of the samples to the TestAmerica St. Louis laboratory. The initial sample preparation consisted of acidification of samples to a pH less than 2 with Nitric Acid. Documentation of the acidification is attached in the Preparation Log.

Radium-226 by GFPC (EPA 903.0 MOD)
There was insufficient sample volume to perform MS/MSD analysis. A LCS/LCSD was performed to demonstrate accuracy and replicate precision.

Affected Samples:
F0C270425 (1): ITC2505-01
F0C270425 (2): ITC2505-02

Radium-228 by GFPC (EPA 904 MOD)
There was insufficient sample volume to perform MS/MSD analysis. A LCS/LCSD was performed to demonstrate accuracy and replicate precision.

Affected Samples:
F0C270425 (1): ITC2505-01
F0C270425 (2): ITC2505-02

H-3 by Distillation & LSC (906.0 MOD)
Tritium samples were received in non amber glass bottles.

Affected Samples:
F0C270425 (1): ITC2505-01
F0C270425 (2): ITC2505-02

Preparation Log (intial pH adjustment)

Laboratory: TestAmerica Irvine Method: Radium 226/228 by 903.0/904.0

Analyst: Francis Rocha Nitric Acid Lot #: ~~HS1027~~ HS1022 ; Mallinckrodt CHEMICALS
PR 03/26/10

DATE: 03/26/10

Lab Sample Number	Sample Volume (L)	Nitric Acid Volume added (ml)	Time	Check pH < 2	Comments
ITC2505-02	~~1~~ 10	~~16~~ 40	11:23	Yes	trip blank
ITC2505-01	10	40	11:36	Yes	Beach sample

METHODS SUMMARY

F0C270425

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
H-3 by Distillation & LSC	EPA 906.0 MOD	
Radium-226 by GFPC	EPA 903.0 MOD	EPA 903.0
Radium-228 by GFPC	EPA 904 MOD	EPA 904
Strontium 90 by GFPC	EPA 905 MOD	
Total Uranium By Laser Ph osphorimetry	ASTM 5174-91	

References:

ASTM Annual Book Of ASTM Standards.

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SAMPLE SUMMARY

F0C270425

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LW7WC	001	ITC2505-01	03/25/10	09:50
LW7WD	002	ITC2505-02	03/25/10	11:23

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ITC2505-01

Radiochemistry

Lab Sample ID: F0C270425-001
Work Order: LW7WC
Matrix: WATER

Date Collected: 03/25/10 0950
Date Received: 03/27/10 0815

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**	**Batch # 0088399**		**Yld %**
Cesium 137	1.0	U	6.7	20.0	12	03/29/10	04/18/10
Potassium 40	-90	U	390		220	03/29/10	04/18/10
Gross Alpha/Beta EPA 900				**pCi/L**	**Batch # 0092098**		**Yld %**
Gross Alpha	2.5	U	1.8	3.0	2.5	04/02/10	04/13/10
Gross Beta	**4.4**		**1.1**	4.0	**1.3**	**04/02/10**	**04/13/10**
SR-90 BY GFPC EPA-905 MOD				**pCi/L**	**Batch # 0088231**		**Yld % 82**
Strontium 90	0.12	U	0.31	3.00	0.52	03/29/10	04/06/10
TRITIUM (Distill) by EPA 906.0 MOD				**pCi/L**	**Batch # 0105058**		**Yld %**
Tritium	-106	U	89	500	190	04/15/10	04/15/10
Total Uranium by KPA ASTM 5174-91				**pCi/L**	**Batch # 0098114**		**Yld %**
Total Uranium	**1.61**		**0.17**	0.68	**0.21**	**04/08/10**	**04/13/10**
Radium 226 by EPA 903.0 MOD				**pCi/L**	**Batch # 0088229**		**Yld % 100**
Radium (226)	0.20	J	0.13	1.00	0.17	03/29/10	04/20/10
Radium 228 by GFPC EPA 904 MOD				**pCi/L**	**Batch # 0088230**		**Yld % 97**
Radium 228	0.07	U	0.29	1.00	0.49	03/29/10	04/20/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

J Result is greater than sample detection limit but less than stated reporting limit.
U Result is less than the sample detection limit.

TestAmerica Irvine

Client Sample ID: ITC2505-02

Radiochemistry

Lab Sample ID: F0C270425-002
Work Order: LW7WD
Matrix: WATER

Date Collected: 03/25/10 1123
Date Received: 03/27/10 0815

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**		**Batch # 0088399**	**Yld %**
Cesium 137	0.0	U	6.7	20.0	13	03/29/10	04/18/10
Potassium 40	-60	U	300		270	03/29/10	04/18/10
Gross Alpha/Beta EPA 900				**pCi/L**		**Batch # 0092098**	**Yld %**
Gross Alpha	-0.02	U	0.40	3.00	0.84	04/02/10	04/13/10
Gross Beta	-0.67	U	0.46	4.00	0.95	04/02/10	04/13/10
TRITIUM (Distill) by EPA 906.0 MOD				**pCi/L**		**Batch # 0105058**	**Yld %**
Tritium	**1200**		**230**	500	**200**	**04/15/10**	**04/15/10**
Total Uranium by KPA ASTM 5174-91				**pCi/L**		**Batch # 0098114**	**Yld %**
Total Uranium	0.146	U	0.019	0.677	0.21	04/08/10	04/13/10
Radium 226 by EPA 903.0 MOD				**pCi/L**		**Batch # 0088229**	**Yld % 106**
Radium (226)	0.08	U	0.10	1.00	0.17	03/29/10	04/20/10
Radium 228 by GFPC EPA 904 MOD				**pCi/L**		**Batch # 0088230**	**Yld % 98**
Radium 228	-0.02	U	0.25	1.00	0.45	03/29/10	04/20/10
SR-90 BY GFPC EPA-905 MOD				**pCi/L**		**Batch # 0088231**	**Yld % 83**
Strontium 90	0.18	U	0.35	3.00	0.58	03/29/10	04/06/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F0C270425
Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date	Lab Sample ID
Radium 226 by EPA 903.0 MOD			pCi/L	Batch # 0088229		Yld % 106		F0C290000-229B
Radium (226)	0.075	U	0.099	1.00	0.16		03/29/10	04/20/10
Radium 228 by GFPC EPA 904 MOD			pCi/L	Batch # 0088230		Yld % 97		F0C290000-230B
Radium 228	-0.02	U	0.25	1.00	0.44		03/29/10	04/20/10
SR-90 BY GFPC EPA-905 MOD			pCi/L	Batch # 0088231		Yld % 85		F0C290000-231B
Strontium 90	-0.05	U	0.31	3.00	0.54		03/29/10	04/06/10
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch # 0088399		Yld %		F0C290000-399B
Cesium 137	-2.3	U	8.5	20.0	15		03/29/10	04/18/10
Potassium 40	-20	U	120		200		03/29/10	04/18/10
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	Batch # 0105058		Yld %		F0D150000-058B
Tritium	-28	U	99	500	190		04/15/10	04/15/10
Gross Alpha/Beta EPA 900			pCi/L	Batch # 0092098		Yld %		F0D020000-098B
Gross Alpha	0.21	U	0.47	2.00	0.83		04/02/10	04/13/10
Gross Beta	-0.36	U	0.50	4.00	0.95		04/02/10	04/13/10
Total Uranium by KPA ASTM 5174-91			pCi/L	Batch # 0098114		Yld %		F0D080000-114B
Total Uranium	0.267	J	0.033	0.677	0.21		04/08/10	04/13/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only
Bold results are greater than the MDC.

J Result is greater than sample detection limit but less than stated reporting limit.
U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F0C270425
Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by EPA 901.1 MOD		**pCi/L**		**901.1 MOD**			**F0C290000-399C**
Americium 241	141000	131000	10000	500		93	(87 - 110)
Cesium 137	53100	48500	2800	200		91	(90 - 110)
Cobalt 60	87900	79300	4500	200		90	(89 - 110)
	Batch #:	0088399		Analysis Date:	04/18/10		
Gross Alpha/Beta EPA 900		**pCi/L**		**900.0 MOD**			**F0D020000-098C**
Gross Beta	67.9	67.6	5.8	1.0		100	(58 - 133)
	Batch #:	0092098		Analysis Date:	04/13/10		
Gross Alpha/Beta EPA 900		**pCi/L**		**900.0 MOD**			**F0D020000-098C**
Gross Alpha	49.4	53.2	5.9	1.3		108	(62 - 134)
	Batch #:	0092098		Analysis Date:	04/13/10		
Total Uranium by KPA ASTM 5174-91		**pCi/L**		**5174-91**			**F0D080000-114C**
Total Uranium	27.1	29.0	3.5	0.2		107	(90 - 120)
	Batch #:	0098114		Analysis Date:	04/13/10		
Total Uranium by KPA ASTM 5174-91		**pCi/L**		**5174-91**			**F0D080000-114C**
Total Uranium	5.42	5.69	0.59	0.21		105	(90 - 120)
	Batch #:	0098114		Analysis Date:	04/13/10		
TRITIUM (Distill) by EPA 906.0 MOD		**pCi/L**		**906.0 MOD**			**F0D150000-058C**
Tritium	4490	4910	500	200		109	(85 - 112)
	Batch #:	0105058		Analysis Date:	04/15/10		

NOTE(S)

MDC is determined by instrument performance only
Calculations are performed before rounding to avoid round-off error in calculated results

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID: F0C270425
Matrix: WATER

Parameter		Spike Amount	Result		Total Uncert. (2 σ+/-)	% Yld	% Rec	QC Control Limits	Precision	
Radium 226 by EPA 903.0 MOD				**pCi/L**	**903.0 MOD**				**Lab Sample ID F0C290000-229C**	
Radium (226)		11.3	11.5		1.2	109	102	(68 - 136)		
	Spk 2	11.3	10.6		1.1	105	94	(68 - 136)	8	%RPD
		Batch #:	0088229			**Analysis Date:**		04/20/10		
Radium 228 by GFPC EPA 904 MOD				**pCi/L**	**904 MOD**				**Lab Sample ID F0C290000-230C**	
Radium 228		6.30	6.05		0.74	100	96	(60 - 142)		
	Spk 2	6.30	6.52		0.79	92	104	(60 - 142)	8	%RPD
		Batch #:	0088230			**Analysis Date:**		04/20/10		
SR-90 BY GFPC EPA-905 MOD				**pCi/L**	**905 MOD**				**Lab Sample ID F0C290000-231C**	
Strontium 90		6.78	7.69		0.89	82	113	(80 - 130)		
	Spk 2	6.78	7.28		0.84	83	107	(80 - 130)	5	%RPD
		Batch #:	0088231			**Analysis Date:**		04/06/10		

NOTE(S)

Calculations are performed before rounding to avoid round-off error in calculated results

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: F0C270425
Matrix: WATER

Date Sampled: 03/25/10
Date Received: 03/27/10

Parameter	Spike Amount	Spike Result	Total Uncert. (2σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2 σ +/-)	QC Sample ID %YLD	QC Sample ID %REC	QC Control Limits
Gross Alpha/Beta EPA 900			**pCi/L**		**900.0 MOD**			**F0C270425-001**	
Gross Beta	70.3	80.4	6.8		4.4	1.1		108	(54 - 150)
	Batch #:	0092098		Analysis Date:		04/13/10			
Gross Alpha/Beta EPA 900			**pCi/L**		**900.0 MOD**			**F0C270425-001**	
Gross Alpha	51.2	52.0	7.4		2.5	1.8		97	(35 - 150)
	Batch #:	0092098		Analysis Date:		04/13/10			
TRITIUM (Distill) by EPA 906.0 MOD			**pCi/L**		**906.0 MOD**			**F0C270425-002**	
Tritium	4490	4370	460		1200	230		71	(62 - 147)
	Batch #:	0105058		Analysis Date:		04/15/10			

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F0C270425
Matrix: WATER

Date Sampled: 03/25/10 0950
Date Received: 03/27/10 0815

Parameter		Spike Amount	SPIKE Result	Total Uncert. (2 σ+/-)	Spike Yld	SAMPLE Result	Total Uncert. (2σ +/-)	QC Sample ID % Yld	%Rec	QC Control Limits
Total Uranium by KPA ASTM 5				pCi/L		5174-91			F0C270425-001	
Total Uranium		27.1	29.3	3.5		1.61	0.17		102	(62 - 150)
	Spk2	27.1	29.9	3.6		1.61	0.17		104	(62 - 150)
								Precision:	2	%RPD

Batch #: 0098114 Analysis date: 04/13/10

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F0C270425
Matrix: WATER

Date Sampled: 03/25/10
Date Received: 03/27/10

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result		Total Uncert. (2 σ +/-)	% Yld	QC Sample ID Precision	
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**	**901.1 MOD**				**F0C270425-001**	
Cesium 137	1.0	U	6.7		0.2	U	8.8		140	%RPD
Potassium 40	-90	U	390		50	U	130		738	%RPD
	Batch #:		0088399	(Sample)	0088399		(Duplicate)			
Gross Alpha/Beta EPA 900				**pCi/L**	**900.0 MOD**				**F0C270425-001**	
Gross Alpha	2.5	U	1.8		2.7	J	1.8		9	%RPD
Gross Beta	4.4		1.1		4.3		1.1		2	%RPD
	Batch #:		0092098	(Sample)	0092098		(Duplicate)			
TRITIUM (Distill) by EPA 906.0 MOD				**pCi/L**	**906.0 MOD**				**F0C270425-001**	
Tritium	-106	U	89		-151	U	81		35	%RPD
	Batch #:		0105058	(Sample)	0105058		(Duplicate)			

NOTE(S)

Data are incomplete without the case narrative.
Calculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting limit.
U Result is less than the sample detection limit.

SUBCONTRACT ORDER
TestAmerica Irvine

ITC2505

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Heather Clark
Client: MWH-Pasadena/Boeing

RECEIVING LABORATORY:

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone :(314) 298-8566
Fax: (314) 298-8757
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ITC2505-01 (Outfall 008 - Water)			Sampled: 03/25/10 09:50			
Gamma Spec-O	mg/kg	03/29/10	03/25/11 09:50	$200.00	0%	Out St Louis, K-40 and CS-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	03/29/10	09/21/10 09:50	$90.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	03/29/10	09/21/10 09:50	$90.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Level 4 Data Package - Out	N/A	03/29/10	04/22/10 09:50	$0.00	75%	Boeing, J flags
Radium 226-O	pCi/L	03/29/10	03/25/11 09:50	$88.00	75%	Out St Louis, Boeing permit, DO NOT FILTER!
Radium 228-O	pCi/L	03/29/10	03/25/11 09:50	$84.00	75%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	03/29/10	03/25/11 09:50	$140.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	03/29/10	03/25/11 09:50	$80.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	03/29/10	03/25/11 09:50	$100.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Containers Supplied:						
2.5 gal Poly (J)	500 mL Amber (K)					
Sample ID: ITC2505-02 (Blank - Water)			Sampled: 03/26/10 11:23			
Gamma Spec-O	mg/kg	03/29/10	03/26/11 11:23	$200.00	0%	Out St Louis, K-40 and CS-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	03/29/10	09/22/10 11:23	$90.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	03/29/10	09/22/10 11:23	$90.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Level 4 Data Package - Out	N/A	03/29/10	04/23/10 11:23	$0.00	75%	Boeing, J flags
Radium 226-O	pCi/L	03/29/10	03/26/11 11:23	$88.00	75%	Out St Louis, Boeing permit, DO NOT FILTER!
Radium 228-O	pCi/L	03/29/10	03/26/11 11:23	$84.00	75%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	03/29/10	03/26/11 11:23	$80.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	03/29/10	03/26/11 11:23	$100.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Containers Supplied:						
2.5 gal Poly (A)						

Released By	3/26/10 Date/Time	Fed-Ex 3/26/10 1700 Received By	Date/Time
Released By	Date/Time	Received By	5/27/10 0811 Date/Time

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): FOC270 425
409

CONDITION UPON RECEIPT FORM

Client: TA Irvine 8-27-10
Quote No: 85044/8 77685
COC/RFA No: ITL2505, ITL2506

215

Initiated By: BD Date: 3/27/10 Time: 0815

Shipping Information

Shipper: (FedEx) UPS DHL Courier Client Other: _____ Multiple Packages: (Y) N

Shipping # (s):*

1. 4289 2133 9597
2. 9612
3. 9601
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Sample Temperature (s):**

1. ambient
2. 3
3. ambient
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	Y (N)	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N (N/A)	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	(Y) N N/A BM 3/27	Was sample received with proper pH[1]? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	(Y) N	Sample received in proper containers?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	(Y) N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	(Y) N	Was sample received broken?	13.	(Y) N N/A	Was Internal COC/Workshare received?
7.	(Y) N	Is sample volume sufficient for analysis?	14.	(Y) N N/A	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes: 1 500g for ITL2509-08 received broken

12. All TOX bottles have headspace

Corrective Action:
☐ Client Contact Name: _____ Informed by: _____
☐ Sample(s) processed "as is"
☐ Sample(s) on hold until: _____ If released, notify: _____
Project Management Review: _____ Date: 3-29-2010

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

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APPENDIX G

Section 37

Outfall 009 – January 18 & 19, 2010

MEC^X Data Validation Report

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DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ITA1328

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:	ITA1328
Project Manager:	B. Kelly
Matrix:	Water
QC Level:	IV
No. of Samples:	1
No. of Reanalyses/Dilutions:	1
Laboratory:	TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 009 (Composite)	ITA1328-01	G0A210539-001, F0A200536-001	Water	1/19/2010 12:13:00 AM	ASTM 5174-91, 200.8, 200.8 (Diss), 245.1, EPA 245.1 (Diss), 1613B, 900.0 MOD, 901.1 MOD, 903.0 MOD, 904 MOD, 905 MOD
Outfall 009 (Composite)	ITA1328-01RE1	G0A210539-001	Water	1/19/2010 12:13:00 AM	1613B, 906.0 MOD

II. Sample Management

No anomalies were observed regarding sample management. The sample receipt temperature was not noted by TestAmerica-St Louis; 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. No custody seals were present on the sample coolers sent to TestAmerica-St. Louis. Custody seals were present upon receipt at TestAmerica-West Sacramento. As the samples were delivered to the remaining laboratories by courier, no custody seals were necessary. 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: February 25, 2010

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* (9/05).

- Holding Times: Extraction and analytical holding times were met. The water samples were 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 with 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 ≤20% for the 16 native compounds (calibration by isotope dilution) and ≤35% for the one 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 compounds except 2,3,7,8-TCDF, total TCDF, all of the HxCDD isomers, and total HxCDD. Any sample detects for individual target compound isomers present at concentrations less than five times the method blank concentrations were qualified as nondetected, “U,” at the RL. Results for totals were qualified as nondetected, “U,” if all peaks comprising the total were

present in the method blank at less than five times the blank concentrations. Several detects in the method blank did not meet ratio criteria and were reported as EMPCs; however, due to the extent of contamination present in the method blank, it was the reviewer's professional opinion that those results be utilized to qualify applicable sample results. Results for totals that included peaks meeting ratio criteria that were not present in the method blank were qualified as estimated, "J," as only a portion of the total was considered method blank contamination.

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

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

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

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

- Internal Standards Performance: The labeled standard recoveries 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. Confirmation analyses were performed for 2,3,7,8-TCDF. The confirmation results were rejected, "R," in favor of the original results.

- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of reportable sample detects. The laboratory calculated and reported compound-specific detection limits. Several results for individual isomers were reported as EMPCs by the laboratory. The remaining results reported as EMPCs were previously qualified as nondetects for method blank contamination (see Method Blanks section) and were not further qualified as EMPCs. Any reported totals not qualified as nondetects for method blank contamination that included EMPCs were qualified as estimated, "J." Any detects 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 200.8, and 245.1—Metals and Mercury

Reviewed By: P, Meeks
Date Reviewed: February 25, 2010

The sample listed in Table 1 for these 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 Methods 200.8, 245.1*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

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

- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were ≤5%, and all masses of interest were calibrated to ≤ 0.1 amu and ≤0.9 amu at 10% peak height.

- 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-MS metals and 85-115% for mercury. CRDL recoveries were within the control limits of 70-130%.

- Blanks: Method blanks and CCBs had no detects.

- Interference Check Samples: No ICSA analyses were performed for the ICP-MS analyses.

- 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: MS/MSD analyses were performed on the dissolved aliquot of Outfall 009 Composite. The recoveries and RPDs were within laboratory-established QC limits.

- Serial Dilution: No serial dilution analyses were performed.

- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration. Copper was not bracketed by a lower mass internal standard; therefore, copper detected in the samples was qualified as estimated, "J."

- 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: February 25, 2010

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 aliquot for total uranium was prepared one day beyond 3× the five-day holding time for unpreserved samples; therefore, the nondetected total uranium result was rejected, "R." Aliquots for gross alpha and gross beta were prepared beyond the five-day analytical holding time for unpreserved samples; therefore, results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects. Aliquots for radium-226, radium-228, strontium-90, total uranium, and gamma spectroscopy were prepared within the five-day holding time for unpreserved aqueous 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, gross alpha detected in the samples was qualified as an estimated detect, "J." All remaining detector efficiencies were greater than 20%.

    The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. The tritium detector efficiency for the sample was at least 20% and was considered acceptable. The chemical yields were at least 40% and were considered

acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

- Blanks: Tritium was detected in the method blank but was not detected in the site sample. There were no other analytes detected in the method blanks or KPA CCBs.

- Blank Spikes and Laboratory Control Samples: All recoveries and RPDs for radium-226, radium-228, strontium-90 and total uranium were within laboratory-established control limits.

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

- Matrix Spike/Matrix Spike Duplicate: A matrix spike analysis was performed on the sample in this SDG for tritium. The recovery was within the laboratory-established control limits. For the remaining analytes, method accuracy was evaluated based on the LCS or 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.

- 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: ITA1328

Analysis Method ASTM 5174-91

Sample Name Outfall 009 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Uranium	7440-61-1	0.00278	0.693	0.21	pCi/L	U	R	H

Analysis Method EPA 200.8

Sample Name Outfall 009 (Composite) **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	7440-36-0	0.34	2.0	0.30	ug/l	Ja	J	DNQ
Cadmium	7440-43-9	0.15	1.0	0.10	ug/l	Ja	J	DNQ
Copper	7440-50-8	6.4	2.0	0.50	ug/l		J	*III
Lead	7439-92-1	9.3	1.0	0.20	ug/l			
Thallium	7440-28-0	ND	1.0	0.20	ug/l		U	

Analysis Method EPA 200.8-Diss

Sample Name Outfall 009 (Composite) **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony, dissolved	7440-36-0	ND	2.0	0.30	ug/l		U	
Cadmium, dissolved	7440-43-9	ND	1.0	0.10	ug/l		U	
Copper, dissolved	7440-50-8	2.8	2.0	0.50	ug/l		J	*III
Lead, dissolved	7439-92-1	0.62	1.0	0.20	ug/l	Ja	J	DNQ
Thallium, dissolved	7440-28-0	0.22	1.0	0.20	ug/l	Ja	J	DNQ

Analysis Method EPA 245.1

Sample Name Outfall 009 (Composite) **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 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 009 (Composite) **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 AM

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

Analysis Method EPA 900.0 MOD

Sample Name Outfall 009 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587-46-1	1.66	3	0.88	pCi/L	Jb	J	H, C, DNQ
Gross Beta	12587-47-2	3	4	1.6	pCi/L	Jb	J	H, DNQ

Analysis Method EPA 901.1 MOD

Sample Name Outfall 009 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium 137	10045-97-3	-2	20	19	pCi/L	U	U	
Potassium 40	13966-00-2	-100	0	200	pCi/L	U	U	

Analysis Method EPA 903.0 MOD

Sample Name Outfall 009 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium (226)	13982-63-3	0.04	1	0.18	pCi/L	U	U	

Analysis Method EPA 904 MOD

Sample Name Outfall 009 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium 228	15262-20-1	-0.03	1	1.1	pCi/L	U	U	

Analysis Method EPA 905 MOD

Sample Name Outfall 009 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium-90	10098-97-2	0.66	3	0.6	pCi/L	Jb	J	DNQ

Analysis Method EPA 906.0 MOD

Sample Name Outfall 009 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITA1328-01RE1 **Sample Date:** 1/19/2010 12:13:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028-17-8	29	500	76	pCi/L	U	U	

Analysis Method EPA-5 1613B

Sample Name Outfall 009 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITA1328-01 **Sample Date:** 1/19/2010 12:13:00 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	0.00025	0.000049	0.000014	ug/L	B		
1,2,3,4,6,7,8-HpCDF	67562-39-4	6.2e-005	0.000049	0.000001	ug/L	B		
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	2.8e-006	0.000002	ug/L	J, Q, B	U	B
1,2,3,4,7,8-HxCDD	39227-28-6	ND	0.000049	0.00001	ug/L		U	
1,2,3,4,7,8-HxCDF	70648-26-9	ND	0.000049	0.000001	ug/L	J, B	U	B
1,2,3,6,7,8-HxCDD	57653-85-7	1.3e-005	0.000049	0.000009	ug/L	J	J	DNQ
1,2,3,6,7,8-HxCDF	57117-44-9	ND	0.000049	0.000001	ug/L	J, B	U	B
1,2,3,7,8,9-HxCDD	19408-74-3	1e-005	0.000049	0.000008	ug/L	J	J	DNQ
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.000049	0.000001	ug/L		U	
1,2,3,7,8-PeCDD	40321-76-4	ND	0.000049	0.000004	ug/L	J, B	U	B
1,2,3,7,8-PeCDF	57117-41-6	ND	8.4e-007	0.000000	ug/L	J, Q, B	U	B
2,3,4,6,7,8-HxCDF	60851-34-5	ND	2.8e-006	0.000000	ug/L	J, Q, B	U	B
2,3,4,7,8-PeCDF	57117-31-4	ND	1.3e-006	0.000000	ug/L	J, Q, B	U	B
2,3,7,8-TCDD	1746-01-6	ND	0.0000097	0.000001	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	1.1e-006	0.000000	ug/L	J, Q, B	U	B
2,3,7,8-TCDF	51207-31-9	ND	0.0000097	0.000007	ug/L		R	D
OCDD	3268-87-9	0.0029	0.000097	0.000006	ug/L	B		
OCDF	39001-02-0	0.00016	0.000097	0.000001	ug/L	B		
Total HpCDD	37871-00-4	0.00065	0.000049	0.000014	ug/L	B		
Total HpCDF	38998-75-3	0.00016	0.00016	0.000001	ug/L	B, J, Q	J	B, *III, DNQ
Total HxCDD	34465-46-8	6e-005	0.000049	0.000008	ug/L	J		
Total HxCDF	55684-94-1	6e-005	6e-005	0.000000	ug/L	B, J, Q	J	B, *III, DNQ
Total PeCDD	36088-22-9	ND	0.000049	0.000004	ug/L	J, B	U	B
Total PeCDF	30402-15-4	1e-005	1e-005	0.000000	ug/L	B, J, Q	J	B, *III, DNQ
Total TCDD	41903-57-5	ND	0.0000097	0.000001	ug/L		U	
Total TCDF	55722-27-5	ND	5.1e-006	0.000000	ug/L	B, J, Q	U	B

APPENDIX G

Section 38

Outfall 009 – January 18 & 19, 2010

Test America Analytical Laboratory Report

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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: Routine Outfall 009

Sampled: 01/18/10-01/19/10
Received: 01/18/10
Revised: 04/05/10 15:23

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:	Refer to the last page for specific subcontract laboratory information included in this report.
ADDITIONAL INFORMATION:	Final revised report to provide corrected units and .pdf file for Radchem data. Revised 4/5/10 to report the radchem from the composite sample.

LABORATORY ID	CLIENT ID	MATRIX
ITA1328-01	Outfall 009 (Composite)	Water
ITA1328-02	Outfall 009 (Grab)	Water

Reviewed By:

Debby Wilson

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-02 (Outfall 009 (Grab) - Water)					**Sampled: 01/18/10**				
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	10A1946	1.3	4.8	ND	1	01/21/10	01/21/10	

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Sampled: 01/18/10-01/19/10
Received: 01/18/10

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: ug/l									
Mercury	EPA 245.1	10A1830	0.10	0.20	ND	1	01/20/10	01/20/10	
Antimony	EPA 200.8	10A1800	0.30	2.0	**0.34**	1	01/20/10	01/25/10	J
Cadmium	EPA 200.8	10A1800	0.10	1.0	**0.15**	1	01/20/10	01/25/10	J
Copper	EPA 200.8	10A1800	0.50	2.0	**6.4**	1	01/20/10	01/25/10	
Lead	EPA 200.8	10A1800	0.20	1.0	**9.3**	1	01/20/10	01/25/10	
Thallium	EPA 200.8	10A1800	0.20	1.0	ND	1	01/20/10	01/25/10	

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Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: ug/l									
Mercury	EPA 245.1-Diss	10A2023	0.10	0.20	ND	1	01/21/10	01/21/10	C
Antimony	EPA 200.8-Diss	10A2106	0.30	2.0	ND	1	01/22/10	01/25/10	
Cadmium	EPA 200.8-Diss	10A2106	0.10	1.0	ND	1	01/22/10	01/25/10	
Copper	EPA 200.8-Diss	10A2106	0.50	2.0	**2.8**	1	01/22/10	01/25/10	
Lead	EPA 200.8-Diss	10A2106	0.20	1.0	**0.62**	1	01/22/10	01/25/10	J
Thallium	EPA 200.8-Diss	10A2106	0.20	1.0	**0.22**	1	01/22/10	01/25/10	J

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Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: mg/l									
Chloride	EPA 300.0	10A1647	0.25	0.50	**2.5**	1	01/19/10	01/19/10	
Nitrate/Nitrite-N	EPA 300.0	10A1647	0.15	0.26	**0.48**	1	01/19/10	01/19/10	
Sulfate	EPA 300.0	10A1647	0.20	0.50	**2.8**	1	01/19/10	01/19/10	
Total Dissolved Solids	SM2540C	10A1751	1.0	10	**57**	1	01/20/10	01/20/10	
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	10A2275	0.90	4.0	ND	1	01/25/10	01/25/10	

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Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

ASTM 5174-91

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: pCi/L									
Total Uranium	ASTM 5174-91	35029	0.21	0.693	**0.00278**	1	02/04/10	02/08/10	U

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Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

EPA 900.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: pCi/L									
Gross Alpha	EPA 900.0 MOD	25415	0.88	3	**1.66**	1	01/25/10	01/29/10	Jb
Gross Beta	EPA 900.0 MOD	25415	1.6	4	**3**	1	01/25/10	01/29/10	Jb

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Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

EPA 901.1 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: pCi/L									
Cesium 137	EPA 901.1 MOD	23036	19	20	-2	1	01/23/10	01/26/10	U
Potassium 40	EPA 901.1 MOD	23036	200	NA	-100	1	01/23/10	01/26/10	U

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Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

EPA 903.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: pCi/L									
Radium (226)	EPA 903.0 MOD	22145	0.18	1	**0.04**	1	01/22/10	02/08/10	U

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Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

EPA 904 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: pCi/L									
Radium 228	EPA 904 MOD	22148	1.1	1	-0.03	1	01/22/10	02/08/10	U

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Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

EPA 905 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: pCi/L									
Strontium 90	EPA 905 MOD	22149	0.6	3	**0.66**	1	01/22/10	02/01/10	Jb

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Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

EPA 906.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01RE1 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: pCi/L									
Tritium	EPA 906.0 MOD	27209	76	500	**29**	1	01/27/10	01/28/10	U

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Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

EPA-5 1613B

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water)					**Sampled: 01/19/10**				
Reporting Units: ug/L									
1,2,3,4,6,7,8-HpCDD	EPA-5 1613B	25399	0.000014	0.000049	**0.00025**	0.97	01/25/10	01/27/10	B
2,3,7,8-TCDF	EPA-5 1613B	25399	0.000000490	0.0000097	**1.1e-006**	0.97	01/25/10	01/27/10	J, Q, B
1,2,3,4,6,7,8-HpCDF	EPA-5 1613B	25399	0.0000018	0.000049	**6.2e-005**	0.97	01/25/10	01/27/10	B
1,2,3,4,7,8,9-HpCDF	EPA-5 1613B	25399	0.0000027	0.000049	**2.8e-006**	0.97	01/25/10	01/27/10	J, Q, B
1,2,3,4,7,8-HxCDD	EPA-5 1613B	25399	0.00001	0.000049	ND	0.97	01/25/10	01/27/10	
2,3,4,6,7,8-HxCDF	EPA-5 1613B	25399	0.00000099	0.000049	**2.8e-006**	0.97	01/25/10	01/27/10	J, Q, B
1,2,3,4,7,8-HxCDF	EPA-5 1613B	25399	0.0000011	0.000049	**4e-006**	0.97	01/25/10	01/27/10	J, B
1,2,3,6,7,8-HxCDD	EPA-5 1613B	25399	0.0000097	0.000049	**1.3e-005**	0.97	01/25/10	01/27/10	J
OCDD	EPA-5 1613B	25399	0.0000063	0.000097	**0.0029**	0.97	01/25/10	01/27/10	B
1,2,3,6,7,8-HxCDF	EPA-5 1613B	25399	0.000001	0.000049	**2.9e-006**	0.97	01/25/10	01/27/10	J, B
OCDF	EPA-5 1613B	25399	0.0000015	0.000097	**0.00016**	0.97	01/25/10	01/27/10	B
1,2,3,7,8,9-HxCDD	EPA-5 1613B	25399	0.0000084	0.000049	**1e-005**	0.97	01/25/10	01/27/10	J
Total HxCDF	EPA-5 1613B	25399	0.00000099	0.000049	**6e-005**	0.97	01/25/10	01/27/10	B, J, Q
1,2,3,7,8,9-HxCDF	EPA-5 1613B	25399	0.0000012	0.000049	ND	0.97	01/25/10	01/27/10	
Total PeCDD	EPA-5 1613B	25399	0.0000042	0.000049	**3.4e-006**	0.97	01/25/10	01/27/10	J, B
1,2,3,7,8-PeCDD	EPA-5 1613B	25399	0.0000042	0.000049	**3.4e-006**	0.97	01/25/10	01/27/10	J, B
Total PeCDF	EPA-5 1613B	25399	0.00000065	0.000049	**1e-005**	0.97	01/25/10	01/27/10	B, J, Q
1,2,3,7,8-PeCDF	EPA-5 1613B	25399	0.00000085	0.000049	**8.4e-007**	0.97	01/25/10	01/27/10	J, Q, B
2,3,4,7,8-PeCDF	EPA-5 1613B	25399	0.00000091	0.000049	**1.3e-006**	0.97	01/25/10	01/27/10	J, Q, B
2,3,7,8-TCDD	EPA-5 1613B	25399	0.0000017	0.0000097	ND	0.97	01/25/10	01/27/10	
Total HpCDD	EPA-5 1613B	25399	0.000014	0.000049	**0.00065**	0.97	01/25/10	01/27/10	B
Total HpCDF	EPA-5 1613B	25399	0.0000018	0.000049	**0.00016**	0.97	01/25/10	01/27/10	B, J, Q
Total HxCDD	EPA-5 1613B	25399	0.0000084	0.000049	**6e-005**	0.97	01/25/10	01/27/10	J
Total TCDD	EPA-5 1613B	25399	0.0000017	0.0000097	ND	0.97	01/25/10	01/27/10	
Total TCDF	EPA-5 1613B	25399	0.000000490	0.0000097	**5.1e-006**	0.97	01/25/10	01/27/10	B, J, Q
Surrogate: 13C-2,3,7,8-TCDD (25-164%)					*71 %*				
Surrogate: 13C-2,3,7,8-TCDF (24-169%)					*66 %*				
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)					*97 %*				
Surrogate: 13C-OCDD (17-157%)					*83 %*				
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)					*84 %*				
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)					*83 %*				
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)					*83 %*				
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)					*96 %*				
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)					*92 %*				
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)					*67 %*				
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)					*74 %*				
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)					*82 %*				
Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)					*65 %*				
Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)					*60 %*				
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)					*79 %*				
Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)					*63 %*				

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Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

EPA-5 1613B

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1328-01RE1 (Outfall 009 (Composite) - Water) - cont.					**Sampled: 01/19/10**				
Reporting Units: ug/L									
2,3,7,8-TCDF	EPA-5 1613B	25399	0.0000071	0.0000097	ND	0.97	01/25/10	01/29/10	
Surrogate: 13C-2,3,7,8-TCDF (24-169%)					*69 %*				
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)					*102 %*				

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Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

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 (Composite) (ITA1328-01) - Water					
EPA 300.0	2	01/19/2010 00:13	01/18/2010 19:00	01/19/2010 21:45	01/19/2010 22:07
Filtration	1	01/19/2010 00:13	01/18/2010 19:00	01/20/2010 16:50	01/20/2010 16:53

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Project ID: Routine Outfall 009

Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

METHOD BLANK/QC DATA

HEXANE EXTRACTABLE MATERIAL

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A1946 Extracted: 01/21/10											
Blank Analyzed: 01/21/2010 (10A1946-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	2.5	1.4	mg/l							
LCS Analyzed: 01/21/2010 (10A1946-BS1)											**MNR1**
Hexane Extractable Material (Oil & Grease)	20.3	5.0	1.4	mg/l	20.0		102	78-114			
LCS Dup Analyzed: 01/21/2010 (10A1946-BSD1)											
Hexane Extractable Material (Oil & Grease)	20.3	5.0	1.4	mg/l	20.0		102	78-114	0	11	

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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: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A1800 Extracted: 01/20/10											
Blank Analyzed: 01/25/2010 (10A1800-BLK1)											
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 01/25/2010 (10A1800-BS1)											
Antimony	73.9	2.0	0.30	ug/l	80.0		92	85-115			
Cadmium	74.1	1.0	0.10	ug/l	80.0		93	85-115			
Copper	73.8	2.0	0.50	ug/l	80.0		92	85-115			
Lead	74.3	1.0	0.20	ug/l	80.0		93	85-115			
Thallium	73.9	1.0	0.20	ug/l	80.0		92	85-115			
Matrix Spike Analyzed: 01/25/2010 (10A1800-MS1)						**Source: ITA1401-01**					
Antimony	81.2	2.0	0.30	ug/l	80.0	2.44	98	70-130			
Cadmium	77.9	1.0	0.10	ug/l	80.0	ND	97	70-130			
Copper	86.3	2.0	0.50	ug/l	80.0	6.94	99	70-130			
Lead	118	1.0	0.20	ug/l	80.0	39.4	98	70-130			
Thallium	78.6	1.0	0.20	ug/l	80.0	0.228	98	70-130			
Matrix Spike Analyzed: 01/25/2010 (10A1800-MS2)						**Source: ITA1478-01**					
Antimony	73.2	4.0	0.60	ug/l	80.0	0.938	90	70-130			
Cadmium	80.5	2.0	0.20	ug/l	80.0	0.628	100	70-130			
Copper	101	4.0	1.0	ug/l	80.0	19.2	102	70-130			
Lead	130	2.0	0.40	ug/l	80.0	47.6	103	70-130			
Thallium	81.9	2.0	0.40	ug/l	80.0	0.594	102	70-130			
Matrix Spike Dup Analyzed: 01/25/2010 (10A1800-MSD1)						**Source: ITA1401-01**					
Antimony	81.3	2.0	0.30	ug/l	80.0	2.44	99	70-130	0.2	20	
Cadmium	79.0	1.0	0.10	ug/l	80.0	ND	99	70-130	1	20	
Copper	87.7	2.0	0.50	ug/l	80.0	6.94	101	70-130	2	20	
Lead	120	1.0	0.20	ug/l	80.0	39.4	101	70-130	2	20	
Thallium	81.2	1.0	0.20	ug/l	80.0	0.228	101	70-130	3	20	

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METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A1830 Extracted: 01/20/10											
Blank Analyzed: 01/20/2010 (10A1830-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 01/20/2010 (10A1830-BS1)											
Mercury	8.22	0.20	0.10	ug/l	8.00		103	85-115			
Matrix Spike Analyzed: 01/20/2010 (10A1830-MS1)						**Source: ITA1359-01**					
Mercury	8.18	0.20	0.10	ug/l	8.00	ND	102	70-130			
Matrix Spike Dup Analyzed: 01/20/2010 (10A1830-MSD1)						**Source: ITA1359-01**					
Mercury	8.18	0.20	0.10	ug/l	8.00	ND	102	70-130	0.08	20	

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DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A2023 Extracted: 01/21/10											
Blank Analyzed: 01/21/2010 (10A2023-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 01/21/2010 (10A2023-BS1)											
Mercury	8.84	0.20	0.10	ug/l	8.00		110	85-115			
Matrix Spike Analyzed: 01/21/2010 (10A2023-MS1)						**Source: ITA1481-02**					
Mercury	8.85	0.20	0.10	ug/l	8.00	ND	111	70-130			
Matrix Spike Dup Analyzed: 01/21/2010 (10A2023-MSD1)						**Source: ITA1481-02**					
Mercury	8.92	0.20	0.10	ug/l	8.00	ND	111	70-130	0.8	20	
Batch: 10A2106 Extracted: 01/22/10											
Blank Analyzed: 01/25/2010 (10A2106-BLK1)											
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 01/25/2010 (10A2106-BS1)											
Antimony	78.4	2.0	0.30	ug/l	80.0		98	85-115			
Cadmium	78.4	1.0	0.10	ug/l	80.0		98	85-115			
Copper	80.7	2.0	0.50	ug/l	80.0		101	85-115			
Lead	83.0	1.0	0.20	ug/l	80.0		104	85-115			
Thallium	83.3	1.0	0.20	ug/l	80.0		104	85-115			

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DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A2106 Extracted: 01/22/10											
Matrix Spike Analyzed: 01/25/2010 (10A2106-MS1)						**Source: ITA1328-01**					
Antimony	81.6	2.0	0.30	ug/l	80.0	ND	102	70-130			
Cadmium	81.9	1.0	0.10	ug/l	80.0	ND	102	70-130			
Copper	86.8	2.0	0.50	ug/l	80.0	2.76	105	70-130			
Lead	84.9	1.0	0.20	ug/l	80.0	0.620	105	70-130			
Thallium	84.7	1.0	0.20	ug/l	80.0	0.222	106	70-130			
Matrix Spike Dup Analyzed: 01/25/2010-01/27/2010 (10A2106-MSD1)						**Source: ITA1328-01**					
Antimony	74.6	2.0	0.30	ug/l	80.0	ND	93	70-130	9	20	
Cadmium	74.6	1.0	0.10	ug/l	80.0	ND	93	70-130	9	20	
Copper	79.9	2.0	0.50	ug/l	80.0	2.76	96	70-130	8	20	
Lead	77.9	1.0	0.20	ug/l	80.0	0.620	97	70-130	9	20	
Thallium	78.8	1.0	0.20	ug/l	80.0	0.222	98	70-130	7	20	

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A1647 Extracted: 01/19/10											
Blank Analyzed: 01/19/2010 (10A1647-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 01/19/2010 (10A1647-BS1)											
Chloride	4.93	0.50	0.25	mg/l	5.00		99	90-110			*M-3*
Sulfate	9.95	0.50	0.20	mg/l	10.0		100	90-110			*M-3*
Matrix Spike Analyzed: 01/20/2010 (10A1647-MS2)						**Source: ITA1331-03**					
Chloride	67.6	5.0	2.5	mg/l	50.0	16.4	102	80-120			
Sulfate	301	5.0	2.0	mg/l	100	205	96	80-120			
Batch: 10A1751 Extracted: 01/20/10											
Blank Analyzed: 01/20/2010 (10A1751-BLK1)											
Total Dissolved Solids	ND	10	1.0	mg/l							
LCS Analyzed: 01/20/2010 (10A1751-BS1)											
Total Dissolved Solids	998	10	1.0	mg/l	1000		100	90-110			
Duplicate Analyzed: 01/20/2010 (10A1751-DUP1)						**Source: ITA1458-01**					
Total Dissolved Solids	1020	10	1.0	mg/l		1020			0.8	10	
Batch: 10A2275 Extracted: 01/25/10											
Blank Analyzed: 01/25/2010 (10A2275-BLK1)											
Perchlorate	ND	4.0	0.90	ug/l							

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A2275 Extracted: 01/25/10											
LCS Analyzed: 01/25/2010 (10A2275-BS1)											
Perchlorate	23.8	4.0	0.90	ug/l	25.0		95	85-115			
Matrix Spike Analyzed: 01/25/2010 (10A2275-MS1)						**Source: ITA1654-13**					
Perchlorate	28.7	4.0	0.90	ug/l	25.0	6.12	90	80-120			
Matrix Spike Dup Analyzed: 01/25/2010 (10A2275-MSD1)						**Source: ITA1654-13**					
Perchlorate	29.6	4.0	0.90	ug/l	25.0	6.12	94	80-120	3	20	

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METHOD BLANK/QC DATA

ASTM 5174-91

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 35029 Extracted: 02/04/10											
Matrix Spike Dup Analyzed: 02/08/2010 (F0A200486001D)						**Source: F0A200486001**					
Total Uranium	29.2	0.7	0.2	pCi/L	27.7	-0.0334	105	62-150	2	20	
Matrix Spike Analyzed: 02/08/2010 (F0A200486001S)						**Source: F0A200486001**					
Total Uranium	28.8	0.7	0.2	pCi/L	27.7	-0.0334	104	62-150			
Blank Analyzed: 02/08/2010 (F0B040000029B)						**Source:**					
Total Uranium	-0.0623	0.693	0.21	pCi/L				-			*U*
LCS Analyzed: 02/08/2010 (F0B040000029C)						**Source:**					
Total Uranium	29.2	0.7	0.2	pCi/L	27.7		105	90-120			

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METHOD BLANK/QC DATA

EPA 900.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 25415 Extracted: 01/25/10											
Matrix Spike Analyzed: 01/29/2010 (F0A200486001S)						**Source: F0A200486001**					
Gross Alpha	6.9	3	1	pCi/L	49.4	0.98	12	35-150			*a*
Gross Beta	10	4	1.6	pCi/L	68.1	0.83	14	54-150			*a*
Duplicate Analyzed: 01/29/2010 (F0A200486001X)						**Source: F0A200486001**					
Gross Alpha	0.71	3	1.4	pCi/L		0.98		-			*Jb*
Gross Beta	1.6	4	1.6	pCi/L		0.83		-			*Jb*
Blank Analyzed: 01/29/2010 (F0A250000415B)						**Source:**					
Gross Alpha	-0.03	3	0.71	pCi/L				-			*U*
Gross Beta	-0.26	4	1.5	pCi/L				-			*U*
LCS Analyzed: 01/29/2010 (F0A250000415C)						**Source:**					
Gross Alpha	45.4	3	0.9	pCi/L	49.4		92	62-134			
Gross Beta	73.4	4	1.6	pCi/L	68.1		108	58-133			

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METHOD BLANK/QC DATA

EPA 901.1 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 23036 Extracted: 01/23/10											
Duplicate Analyzed: 01/26/2010 (F0A210532001X)						**Source: F0A210532001**					
Cesium 137	-1.4	20	18	pCi/L		-2.3		-			*U*
Potassium 40	-60	NA	250	pCi/L		-30		-			*U*
Blank Analyzed: 01/26/2010 (F0A230000036B)						**Source:**					
Cesium 137	-0.4	20	12	pCi/L				-			*U*
Potassium 40	-70	NA	210	pCi/L				-			*U*
LCS Analyzed: 01/26/2010 (F0A230000036C)						**Source:**					
Americium 241	132000	NA	500	pCi/L	141000		93	87-110			
Cobalt 60	79000	NA	200	pCi/L	87900		90	89-110			
Cesium 137	48200	20	200	pCi/L	53100		91	90-110			

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METHOD BLANK/QC DATA

EPA 903.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 22145 Extracted: 01/22/10											
Blank Analyzed: 02/08/2010 (F0A220000145B)						**Source:**					
Radium (226)	0.111	1	0.13	pCi/L				-			*U*
LCS Analyzed: 02/08/2010 (F0A220000145C)						**Source:**					
Radium (226)	10.7	1	0.1	pCi/L	11.3		95	68-136			
LCS Dup Analyzed: 02/08/2010 (F0A220000145L)						**Source:**					
Radium (226)	11.2	1	0.2	pCi/L	11.3		100	68-136	5	40	

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METHOD BLANK/QC DATA

EPA 904 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 22148 Extracted: 01/22/10											
Blank Analyzed: 02/08/2010 (F0A220000148B)						**Source:**					
Radium 228	0.22	1	0.59	pCi/L				-			*U*
LCS Analyzed: 02/08/2010 (F0A220000148C)						**Source:**					
Radium 228	8.22	1	0.61	pCi/L	6.45		127	60-142			
LCS Dup Analyzed: 02/08/2010 (F0A220000148L)						**Source:**					
Radium 228	7.58	1	0.57	pCi/L	6.45		118	60-142	8	40	

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METHOD BLANK/QC DATA

EPA 905 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 22149 Extracted: 01/22/10											
Blank Analyzed: 02/01/2010 (F0A220000149B)						**Source:**					
Strontium 90	-0.01	3	0.38	pCi/L				-			*U*
LCS Analyzed: 02/01/2010 (F0A220000149C)						**Source:**					
Strontium 90	6.74	3	0.39	pCi/L	6.81		99	80-130			
LCS Dup Analyzed: 02/01/2010 (F0A220000149L)						**Source:**					
Strontium 90	6.99	3	0.38	pCi/L	6.81		103	80-130	4	40	

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METHOD BLANK/QC DATA

EPA 906.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 27209 Extracted: 01/27/10											
Matrix Spike Analyzed: 01/28/2010 (F0A210536001S)						**Source: ITA1328-01**					
Tritium	9060	500	80	pCi/L	9090	29	99	62-147			
Duplicate Analyzed: 01/28/2010 (F0A210536001X)						**Source: ITA1328-01**					
Tritium	23	500	76	pCi/L		29		-			*U*
Blank Analyzed: 01/28/2010 (F0A270000209B)						**Source:**					
Tritium	69	500	76	pCi/L				-			*U*
LCS Analyzed: 01/28/2010 (F0A270000209C)						**Source:**					
Tritium	4640	500	80	pCi/L	4540		102	85-112			

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METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 25399 Extracted: 01/25/10											
Blank Analyzed: 01/27/2010 (G0A250000399B)						**Source:**					
1,2,3,4,6,7,8-HpCDD	7.4e-006	0.00005	0.0000087	ug/L				-			*J, Q*
2,3,7,8-TCDF	7e-007	0.00001	0.0000004	ug/L				-			*J, Q*
1,2,3,4,6,7,8-HpCDF	7e-006	0.00005	0.0000016	ug/L				-			*J*
1,2,3,4,7,8,9-HpCDF	7.1e-006	0.00005	0.0000021	ug/L				-			*J*
1,2,3,4,7,8-HxCDD	ND	0.00005	0.0000099	ug/L				-			
2,3,4,6,7,8-HxCDF	4.4e-006	0.00005	0.00000079	ug/L				-			*J*
1,2,3,4,7,8-HxCDF	5.3e-006	0.00005	0.00000087	ug/L				-			*J*
1,2,3,6,7,8-HxCDD	ND	0.00005	0.0000098	ug/L				-			
OCDD	1.5e-005	0.0001	0.0000072	ug/L				-			*J, Q*
1,2,3,6,7,8-HxCDF	4.8e-006	0.00005	0.00000086	ug/L				-			*J*
OCDF	1.6e-005	0.0001	0.0000016	ug/L				-			*J*
1,2,3,7,8,9-HxCDD	ND	0.00005	0.0000083	ug/L				-			
Total HxCDF	1.9e-005	0.00005	0.00000079	ug/L				-			*J*
1,2,3,7,8,9-HxCDF	5e-006	0.00005	0.00000096	ug/L				-			*J*
Total PeCDD	3.6e-006	0.00005	0.0000033	ug/L				-			*J*
1,2,3,7,8-PeCDD	3.6e-006	0.00005	0.0000033	ug/L				-			*J*
Total PeCDF	5.7e-006	0.00005	0.00000069	ug/L				-			*J, Q*
1,2,3,7,8-PeCDF	2.9e-006	0.00005	0.00000079	ug/L				-			*J*
2,3,4,7,8-PeCDF	2.9e-006	0.00005	0.00000083	ug/L				-			*J, Q*
2,3,7,8-TCDD	ND	0.00001	0.0000015	ug/L				-			
Total HpCDD	7.4e-006	0.00005	0.0000087	ug/L				-			*J, Q*
Total HpCDF	1.4e-005	0.00005	0.0000016	ug/L				-			*J*
Total HxCDD	ND	0.00005	0.0000083	ug/L				-			
Total TCDD	ND	0.00001	0.0000015	ug/L				-			
Total TCDF	7e-007	0.00001	0.0000004	ug/L				-			*J, Q*
Surrogate: 13C-2,3,7,8-TCDD	*0.0014*			*ug/L*	*0.00200*		*68*	*25-164*			
Surrogate: 13C-2,3,7,8-TCDF	*0.0013*			*ug/L*	*0.00200*		*65*	*24-169*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.00073*			*ug/L*	*0.000800*		*91*	*35-197*			
Surrogate: 13C-OCDD	*0.0031*			*ug/L*	*0.00400*		*78*	*17-157*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.0018*			*ug/L*	*0.00200*		*88*	*23-140*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.0017*			*ug/L*	*0.00200*		*85*	*28-143*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.0017*			*ug/L*	*0.00200*		*85*	*26-138*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.002*			*ug/L*	*0.00200*		*102*	*32-141*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.0019*			*ug/L*	*0.00200*		*95*	*26-152*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.0014*			*ug/L*	*0.00200*		*72*	*28-130*			

TestAmerica Irvine

Debby Wilson For Heather Clark
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: Routine Outfall 009

Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 25399 Extracted: 01/25/10											
Blank Analyzed: 01/27/2010 (G0A250000399B)						**Source:**					
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.0015*			*ug/L*	*0.00200*		*77*	*26-123*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.0017*			*ug/L*	*0.00200*		*86*	*29-147*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.0013*			*ug/L*	*0.00200*		*66*	*25-181*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.0012*			*ug/L*	*0.00200*		*59*	*24-185*			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.0017*			*ug/L*	*0.00200*		*85*	*28-136*			
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.0012*			*ug/L*	*0.00200*		*62*	*21-178*			
LCS Analyzed: 01/27/2010 (G0A250000399C)						**Source:**					
1,2,3,4,6,7,8-HpCDD	0.00103	0.00005	0.0000092	ug/L	0.00100		103	70-140			
2,3,7,8-TCDF	0.000201	0.00001	0.00000054	ug/L	0.000200		100	75-158			
1,2,3,4,6,7,8-HpCDF	0.00106	0.00005	0.0000058	ug/L	0.00100		106	82-122			
1,2,3,4,7,8,9-HpCDF	0.00107	0.00005	0.0000086	ug/L	0.00100		107	78-138			
1,2,3,4,7,8-HxCDD	0.0011	0.00005	0.000003	ug/L	0.00100		110	70-164			
2,3,4,6,7,8-HxCDF	0.00107	0.00005	0.00000056	ug/L	0.00100		107	70-156			
1,2,3,4,7,8-HxCDF	0.00103	0.00005	0.00000064	ug/L	0.00100		103	72-134			
1,2,3,6,7,8-HxCDD	0.00111	0.00005	0.0000031	ug/L	0.00100		111	76-134			
OCDD	0.00209	0.0001	0.000006	ug/L	0.00200		104	78-144			
1,2,3,6,7,8-HxCDF	0.00105	0.00005	0.00000062	ug/L	0.00100		105	84-130			
OCDF	0.00204	0.0001	0.0000019	ug/L	0.00200		102	63-170			
1,2,3,7,8,9-HxCDD	0.00109	0.00005	0.0000026	ug/L	0.00100		109	64-162			
1,2,3,7,8,9-HxCDF	0.00103	0.00005	0.00000068	ug/L	0.00100		103	78-130			
1,2,3,7,8-PeCDD	0.00102	0.00005	0.0000032	ug/L	0.00100		102	70-142			
1,2,3,7,8-PeCDF	0.00105	0.00005	0.0000016	ug/L	0.00100		105	80-134			
2,3,4,7,8-PeCDF	0.00104	0.00005	0.0000017	ug/L	0.00100		104	68-160			
2,3,7,8-TCDD	0.000201	0.00001	0.0000015	ug/L	0.000200		101	67-158			
Surrogate: 13C-2,3,7,8-TCDD	*0.00147*			*ug/L*	*0.00200*		*74*	*25-164*			
Surrogate: 13C-2,3,7,8-TCDF	*0.0014*			*ug/L*	*0.00200*		*70*	*24-169*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.000783*			*ug/L*	*0.000800*		*98*	*35-197*			
Surrogate: 13C-OCDD	*0.00341*			*ug/L*	*0.00400*		*85*	*17-157*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.00185*			*ug/L*	*0.00200*		*93*	*23-140*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.0018*			*ug/L*	*0.00200*		*90*	*28-143*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.00178*			*ug/L*	*0.00200*		*89*	*26-138*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.00199*			*ug/L*	*0.00200*		*100*	*32-141*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.0019*			*ug/L*	*0.00200*		*95*	*26-152*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.00162*			*ug/L*	*0.00200*		*81*	*28-130*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.00165*			*ug/L*	*0.00200*		*83*	*26-123*			

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

Project ID: Routine Outfall 009

Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 25399 Extracted: 01/25/10											
LCS Analyzed: 01/27/2010 (G0A250000399C)						**Source:**					
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.0018*			*ug/L*	*0.00200*		*90*	*29-147*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.00147*			*ug/L*	*0.00200*		*74*	*25-181*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.00133*			*ug/L*	*0.00200*		*67*	*24-185*			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.00175*			*ug/L*	*0.00200*		*88*	*28-136*			
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.00138*			*ug/L*	*0.00200*		*69*	*21-178*			
LCS Dup Analyzed: 01/27/2010 (G0A250000399L)						**Source:**					
1,2,3,4,6,7,8-HpCDD	0.000962	0.00005	0.000001	ug/L	0.00100		96	70-140	6.6	50	
2,3,7,8-TCDF	0.000193	0.00001	0.00000061	ug/L	0.000200		96	75-158	4.2	50	
1,2,3,4,6,7,8-HpCDF	0.000994	0.00005	0.0000036	ug/L	0.00100		99	82-122	6.8	50	
1,2,3,4,7,8,9-HpCDF	0.000999	0.00005	0.0000051	ug/L	0.00100		100	78-138	7	50	
1,2,3,4,7,8-HxCDD	0.00103	0.00005	0.0000051	ug/L	0.00100		103	70-164	5.8	50	
2,3,4,6,7,8-HxCDF	0.000971	0.00005	0.00000069	ug/L	0.00100		97	70-156	9.8	50	
1,2,3,4,7,8-HxCDF	0.000944	0.00005	0.0000008	ug/L	0.00100		94	72-134	8.4	50	
1,2,3,6,7,8-HxCDD	0.00102	0.00005	0.0000049	ug/L	0.00100		102	76-134	7.9	50	
OCDD	0.00195	0.0001	0.0000076	ug/L	0.00200		97	78-144	6.9	50	
1,2,3,6,7,8-HxCDF	0.000984	0.00005	0.00000075	ug/L	0.00100		98	84-130	6	50	
OCDF	0.00192	0.0001	0.0000024	ug/L	0.00200		96	63-170	6.2	50	
1,2,3,7,8,9-HxCDD	0.000967	0.00005	0.0000042	ug/L	0.00100		97	64-162	12	50	
1,2,3,7,8,9-HxCDF	0.000971	0.00005	0.00000082	ug/L	0.00100		97	78-130	6	50	
1,2,3,7,8-PeCDD	0.000951	0.00005	0.0000042	ug/L	0.00100		95	70-142	7.4	50	
1,2,3,7,8-PeCDF	0.000961	0.00005	0.0000025	ug/L	0.00100		96	80-134	9	50	
2,3,4,7,8-PeCDF	0.000967	0.00005	0.0000022	ug/L	0.00100		97	68-160	7.4	50	
2,3,7,8-TCDD	0.00019	0.00001	0.0000017	ug/L	0.000200		95	67-158	5.5	50	
Surrogate: 13C-2,3,7,8-TCDD	*0.00134*			*ug/L*	*0.00200*		*67*	*25-164*			
Surrogate: 13C-2,3,7,8-TCDF	*0.00132*			*ug/L*	*0.00200*		*66*	*24-169*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.000767*			*ug/L*	*0.000800*		*96*	*35-197*			
Surrogate: 13C-OCDD	*0.00319*			*ug/L*	*0.00400*		*80*	*17-157*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.00175*			*ug/L*	*0.00200*		*87*	*23-140*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.00172*			*ug/L*	*0.00200*		*86*	*28-143*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.00169*			*ug/L*	*0.00200*		*84*	*26-138*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.00199*			*ug/L*	*0.00200*		*100*	*32-141*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.00184*			*ug/L*	*0.00200*		*92*	*26-152*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.00154*			*ug/L*	*0.00200*		*77*	*28-130*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.0016*			*ug/L*	*0.00200*		*80*	*26-123*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.00173*			*ug/L*	*0.00200*		*86*	*29-147*			

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

Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 25399 Extracted: 01/25/10											
LCS Dup Analyzed: 01/27/2010 (G0A250000399L)						**Source:**					
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.0013*			*ug/L*	*0.00200*		*65*	*25-181*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.0012*			*ug/L*	*0.00200*		*60*	*24-185*			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.00173*			*ug/L*	*0.00200*		*86*	*28-136*			
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.00122*			*ug/L*	*0.00200*		*61*	*21-178*			
Blank Analyzed: 02/01/2010 (G0A2500099RE1)						**Source:**					
2,3,7,8-TCDF	ND	0.00001	0.0000061	ug/L				-			
Surrogate: 13C-2,3,7,8-TCDF	*0.0013*			*ug/L*	*0.00200*		*66*	*24-169*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.0008*			*ug/L*	*0.000800*		*100*	*35-197*			

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Sampled: 01/18/10-01/19/10
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DATA QUALIFIERS AND DEFINITIONS

a	Spiked analyte outside of stated QC limits.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
J	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.
Jb	Result is greater than sample detection limit but less than stated reporting limit.
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the 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	Result is less than the sample detection 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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Project Manager

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

Project ID: Routine Outfall 009

Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EDD + Level 4	Water	N/A	N/A
EPA 1664A	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
Filtration	Water	N/A	N/A
Level 4	Water		
SM2540C	Water	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

Subcontracted Laboratories

TestAmerica St. Louis

13715 Rider Trail North - Earth City, MO 63045

Method Performed: ASTM 5174-91
Samples: ITA1328-01

Method Performed: EPA 900.0 MOD
Samples: ITA1328-01

Method Performed: EPA 901.1 MOD
Samples: ITA1328-01

Method Performed: EPA 903.0 MOD
Samples: ITA1328-01

Method Performed: EPA 904 MOD
Samples: ITA1328-01

Method Performed: EPA 905 MOD
Samples: ITA1328-01

Method Performed: EPA 906.0 MOD
Samples: ITA1328-01RE1

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

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

Project ID: Routine Outfall 009
Report Number: ITA1328

Sampled: 01/18/10-01/19/10
Received: 01/18/10

TestAmerica West Sacramento

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B

Samples: ITA1328-01, ITA1328-01RE1

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Routine Outfall 009** ~~**COMPOSITE**~~ GRAB Stormwater at WS-13
Project Manager: Bronwyn Kelly Sampler: S DAVIS JM	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, Tl	TCDD (and all congeners)	Cl-, SO_4, NO3+NO2-N, Perchlorate	TDS	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	~~Chronic Toxicity~~	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, Tl							Comments
							ANALYSIS REQUIRED													
Outfall 009	W	1L Poly	1	1/15/10 0730	HNO_3	2A	X													
Outfall 009 Dup	W	1L Poly	1		HNO_3	2B	X													
Outfall 009	W	1L Amber	2		None	3A, 3B		X												
Outfall 009	W	500 mL Poly	2		None	4A, 4B			X											
Outfall 009	W	500 mL Poly	1		None	5				X										
Outfall 009	W	2.5 Gal Cube	1		None	6A					X									Unfiltered and unpreserved analysis
		500 ml Amber	1		None	6B														
~~Outfall 009~~	~~W~~	~~1 Gal Poly~~	~~1~~		~~None~~	~~7~~						X								~~Only test if first or second rain events of the year~~
Outfall 009	W	1L Poly	1	1/15/10 0730	None	8							X							Filter w/in 24hrs of receipt at lab
							grab	SD												

Canceled

COC Page 2 of 2 are the ~~composite~~ samples for Outfall 009 for this storm event.

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

Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	1-18-10 16:00	[signature]	1-18-10 16:00
Relinquished By	Date/Time:	Received By	Date/Time:
Relinquished By	Date/Time:	Received By	Date/Time:

Turn-around time: (Check)

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

48 Hour: ____ 5 Day: ____ Normal: X

Sample Integrity: (Check)

Intact: ____ On Ice: X

Data Requirements: (Check)

No Level IV: ____ All Level IV: ____ NPDES Level IV: X

Test America Version 6/29/09

CHAIN OF CUSTODY FORM

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

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, Tl	TCDD (and all congeners)	Cl-, SO_4, NO3+NO2-N, Perchlorate	TDS	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)	~~Chromic Toxicity~~	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, Tl	Comments
Outfall 009	W	1L Poly	1	1/19/10 0813	HNO_3	2A	X							
Outfall 009 Dup	W	1L Poly	1		HNO_3	2B	X							
Outfall 009	W	1L Amber	2		None	3A, 3B		X						
Outfall 009	W	500 mL Poly	2		None	4A, 4B			X					
Outfall 009	W	500 mL Poly	1		None	5				X				
Outfall 009	W	2.5 Gal Cube	1		None	6A					X			Unfiltered and unpreserved analysis
		500 ml Amber	1		None	6B								
~~Outfall 009~~	~~W~~	~~1 Gal Poly~~	~~1~~		None	7						X		~~Only test if first or second rain events of the year~~
Outfall 009	W	1L Poly	1		None	8							X	Filter w/in 24hrs of receipt at lab

21:00 01/19/10 NP

On 1/19/10

COC Page 2 of 2 are the composite samples for Outfall 009 for this storm event.

These must be added to the same work order for ~~COC Page 1 of 2 for~~ Outfall 009 for the same event. 6 grab samples taken 1/18/10

Relinquished By	Date/Time:	Received By	Date/Time:
	1/19/10 1430		1-19-10 14:30
Relinquished By	Date/Time:	Received By	Date/Time:
	1-19-10 18:55		1/19/10 1815
Relinquished By	Date/Time:	Received By	Date/Time:

Turn-around time: (Check)

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

48 Hour: _____ 5 Day: _____ Normal: X

Sample Integrity: (Check)

Intact: _____ On Ice: X 4°C

Data Requirements: (Check)

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

Test America Version 6/29/09

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Routine Outfall 009** SD ~~**COMPOSITE**~~ GRAB Stormwater at WS-13
Project Manager: Bronwyn Kelly Sampler: S Dawson	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, Tl	TCDD (and all congeners)	Cl-, SO_4, NO3+NO2-N, Perchlorate	TDS	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	~~Chronic Toxicity~~	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, Tl							Comments
							ANALYSIS REQUIRED													
Outfall 009	W	1L Poly	1	1/18/10 0730	HNO_3	2A	X													
Outfall 009 Dup	W	1L Poly	1		HNO_3	2B	X													
Outfall 009	W	1L Amber	2		None	3A, 3B		X												0.0 01/19/10 10:30
Outfall 009	W	500 mL Poly	2		None	4A, 4B			X											
Outfall 009	W	500 mL Poly	1		None	5				X										
Outfall 009	W	2.5 Gal Cube	1		None	6A					X									Unfiltered and unpreserved analysis
		500 ml Amber	1		None	6B														
~~Outfall 009~~	~~W~~	~~1 Gal Poly~~	~~1~~		~~None~~	~~7~~						~~X~~								**Only test if first or second rain events of the year**
Outfall 009	W	1L Poly	1	1/18/10 0730	None	8							X							Filter w/in 24hrs of receipt at lab
							grab	SD												

COC Page 2 of 2 are the ~~composite~~ samples for Outfall 009 for this storm event.

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

Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	1-18-10 16:00	[signature]	1-18-10 16:00
Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	1-18-10 19:00		
Relinquished By	Date/Time:	Received By	Date/Time:
		[signature]	1/18/10 19:00

Turn-around time: (Check)

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

48 Hour: _____ 5 Day: _____ Normal: X

Sample Integrity: (Check)

Intact: _____ On Ice: X 3.8

Data Requirements: (Check)

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

Test America Version 6/29/09

CHAIN OF CUSTODY FORM

ITA1328

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Routine Outfall 009** **GRAB** Stormwater at WS-13
Project Manager: Bronwyn Kelly Sampler: S Dawson	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 #	Oil & Grease (1664-HEM)	Comments
Outfall 009	W	1L Amber	2	1/18/10 0730	HCl	1A, 1B	X	

Field readings:

Temp °F = 50°F

pH = 7.1

Time of readings = 0730

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

Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	1-18-10 16:00	[signature]	1-18-10 16:00
[signature]	1-18-10 19:00		
		[signature]	1/18/10 19:00

Turn-around time: (Check)

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

48 Hour: ____ 5 Day: ____ Normal: X

Sample Integrity: (Check)

Intact: ____ On Ice: X 3.8

Data Requirements: (Check)

No Level IV: ____ All Level IV: ____ NPDES Level IV: X

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

REVISED

PROJECT NO. ITA1328

MWH-Pasadena Boeing

Lot #: F0A210536

Joseph Doak

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817

TESTAMERICA LABORATORIES, INC.

Kay Clay
Project Manager

March 17, 2010

Case Narrative
LOT NUMBER: F0A210536
Revised 03-17-10

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on January 21, 2010. This sample is associated with your MWH-Pasadena Boeing project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted below.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Report revised to report the KPA uranium results in pCi/L.

Observations/Nonconformances
Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

H-3 by Distillation and LSC (EPA906.0 MOD)
The Tritium blank has activity above the MDA. Samples were sent to re-extract to verify the results. The re-extract results are acceptable and are reported.

Tritium sample aliquot was reduced due to limited sample volume availability.

Affected Samples:
F0A210536 (1): ITA1328-01

Gross Alpha/Beta (EPA 900.0 MOD)
The gross alpha and beta matrix spike are outside lower control limits due to possible matrix interference. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:
F0A210536 (1): ITA1328-01

SUBCONTRACT ORDER
TestAmerica Irvine

ITA1328

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: MWH-Pasadena/Boeing

RECEIVING LABORATORY:

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone :(314) 298-8566
Fax: (314) 298-8757
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ITA1328-01 (Outfall 009 (Composite) - Water) Sampled: 01/19/10 00:13						
Gamma Spec-O	mg/kg	01/27/10	01/19/11 00:13	$250.00	0%	Out St Louis, K-40 and CS-137 only, DO NOT FILTER
Gross Alpha-O	pCi/L	01/27/10	07/18/10 00:13	$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	01/27/10	07/18/10 00:13	$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Level 4 Data Package - Out	N/A	01/27/10	02/16/10 00:13	$0.00	0%	
Radium, Combined-O	pCi/L	01/27/10	01/19/11 00:13	$238.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	01/27/10	01/19/11 00:13	$155.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	01/27/10	01/19/11 00:13	$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	01/27/10	01/19/11 00:13	$120.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Containers Supplied:						
2.5 gal Poly (H)	500 mL Amber (I)					
Sample ID: ITA1328-02 (Outfall 009 (Grab) - Water) Sampled: 01/18/10 07:30						
Gamma Spec-O	mg/kg	01/27/10	01/18/11 07:30	$250.00	0%	Out St Louis, K-40 and CS-137 only, DO NOT FILTER
Gross Alpha-O	pCi/L	01/27/10	07/17/10 07:30	$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	01/27/10	07/17/10 07:30	$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Radium, Combined-O	pCi/L	01/27/10	01/18/11 07:30	$238.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	01/27/10	01/18/11 07:30	$155.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	01/27/10	01/18/11 07:30	$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	01/27/10	01/18/11 07:30	$120.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Containers Supplied:						
2.5 gal Poly (H)	500 mL Amber (I)					

Alaa Ornelas 1/20/10 12:00 Fedex 1/20/10 17:00

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F0A210532, 536, 540, 541

CONDITION UPON RECEIPT FORM

Client: TA Irvine

Quote No: 85644

COC/RFA No: ITA1330,31,28,58

Initiated By: SW

Date: 1.21.10

Time: 1215

Shipping Information

Shipper: FedEx (circled) UPS DHL Courier Client Other: ______

Multiple Packages: Y (circled) N

Shipping # (s):*

1. 4289 2132 9059
2. 9060
3.
4.
5.
6.
7.
8.
9.
10.

Sample Temperature (s):**

1. ambient
2. ↓
3.
4.
5.
6.
7.
8.
9.
10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y (circled) N	Are there custody seals present on the cooler?	8.	Y N (circled)	Are there custody seals present on bottles?
2.	Y N (circled) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N N/A (circled)	Do custody seals on bottles appear to be tampered with?
3.	Y (circled) N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A (circled)	Was sample received with proper pH[1]? (If not, make note below)
4.	Y (circled) N	Sample received with Chain of Custody?	11.	Y (circled) N	Sample received in proper containers?
5.	Y (circled) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N N/A (circled)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y N (circled)	Was sample received broken?	13.	Y N N/A (circled)	Was Internal COC/Workshare received?
7.	Y (circled) N	Is sample volume sufficient for analysis?	14.	Y N N/A (circled)	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes: Log tritium for ITA1358 per RC [illegible]

Corrective Action:

☐ Client Contact Name: ______ Informed by: ______

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: ______ If released, notify: ______

Project Management Review: [signature] Date: 01-22-10

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

METHODS SUMMARY

F0A210536

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
H-3 by Distillation & LSC	EPA 906.0 MOD	
Radium-226 by GFPC	EPA 903.0 MOD	
Radium-228 by GFPC	EPA 904 MOD	
Strontium 90 by GFPC	EPA 905 MOD	
Total Uranium By Laser Ph osphorimetry	ASTM 5174-91	

References:

ASTM Annual Book Of ASTM Standards.

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SAMPLE SUMMARY

F0A210536

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LTH78	001	ITA1328-01	01/19/10	00:13

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ITA1328-01

Radiochemistry

Lab Sample ID: F0A210536-001
Work Order: LTH78
Matrix: WATER

Date Collected: 01/19/10 0013
Date Received: 01/21/10 1215

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**		**Batch # 0023036**	**Yld %**
Cesium 137	-2	U	11	20	19	01/23/10	01/26/10
Potassium 40	-100	U	4000		200	01/23/10	01/26/10
Gross Alpha/Beta EPA 900				**pCi/L**		**Batch # 0025415**	**Yld %**
Gross Alpha	**1.66**	**J**	**0.78**	3.00	**0.88**	**01/25/10**	**01/29/10**
Gross Beta	**3.0**	**J**	**1.1**	4.0	**1.6**	**01/25/10**	**01/29/10**
SR-90 BY GFPC EPA-905 MOD				**pCi/L**		**Batch # 0022149**	**Yld % 76**
Strontium 90	**0.66**	**J**	**0.39**	3.00	**0.60**	**01/22/10**	**02/01/10**
Total Uranium by KPA ASTM 5174-91				**pCi/L**		**Batch # 0035029**	**Yld %**
Total Uranium	0.00278	U	0.00032	0.693	0.21	02/04/10	02/08/10
Radium 226 by EPA 903.0 MOD				**pCi/L**		**Batch # 0022145**	**Yld % 61**
Radium (226)	0.04	U	0.10	1.00	0.18	01/22/10	02/08/10
Radium 228 by GFPC EPA 904 MOD				**pCi/L**		**Batch # 0022148**	**Yld % 54**
Radium 228	-0.03	U	0.62	1.00	1.1	01/22/10	02/08/10
TRITIUM (Distill) by EPA 906.0 MOD				**pCi/L**		**Batch # 0027209**	**Yld %**
Tritium	29	U	46	500	76	01/27/10	01/28/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F0A210536
Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC		Prep Date	Lab Sample ID / Analysis Date
Total Uranium by KPA ASTM 5174-91			**pCi/L**	**Batch #**	**0035029**	**Yld %**		**F0B040000-029B**
Total Uranium	-0.0623	U	0.0075	0.693	0.21		02/04/10	02/08/10
Radium 226 by EPA 903.0 MOD			**pCi/L**	**Batch #**	**0022145**	**Yld %**	**108**	**F0A220000-145B**
Radium (226)	0.111	U	0.094	1.00	0.13		01/22/10	02/08/10
Radium 228 by GFPC EPA 904 MOD			**pCi/L**	**Batch #**	**0022148**	**Yld %**	**92**	**F0A220000-148B**
Radium 228	0.22	U	0.35	1.00	0.59		01/22/10	02/08/10
SR-90 BY GFPC EPA-905 MOD			**pCi/L**	**Batch #**	**0022149**	**Yld %**	**79**	**F0A220000-149B**
Strontium 90	-0.01	U	0.22	3.00	0.38		01/22/10	02/01/10
Gamma Cs-137 & Hits by EPA 901.1 MOD			**pCi/L**	**Batch #**	**0023036**	**Yld %**		**F0A230000-036B**
Cesium 137	-0.4	U	6.7	20.0	12		01/23/10	01/26/10
Potassium 40	-70	U	240		210		01/23/10	01/26/10
Gross Alpha/Beta EPA 900			**pCi/L**	**Batch #**	**0025415**	**Yld %**		**F0A250000-415B**
Gross Alpha	-0.03	U	0.34	3.00	0.71		01/25/10	01/29/10
Gross Beta	-0.26	U	0.86	4.00	1.5		01/25/10	01/29/10
TRITIUM (Distill) by EPA 906.0 MOD			**pCi/L**	**Batch #**	**0027209**	**Yld %**		**F0A270000-209B**
Tritium	69	U	50	500	76		01/27/10	01/28/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F0A210536
Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by EPA 901.1 MOD		**pCi/L**		**901.1 MOD**			**F0A230000-036C**
Americium 241	141000	132000	10000	500		93	(87 - 110)
Cesium 137	53100	48200	2800	200		91	(90 - 110)
Cobalt 60	87900	79000	4400	200		90	(89 - 110)
	Batch #:	0023036		**Analysis Date:**	01/26/10		
Gross Alpha/Beta EPA 900		**pCi/L**		**900.0 MOD**			**F0A250000-415C**
Gross Beta	68.1	73.4	6.2	1.6		108	(58 - 133)
	Batch #:	0025415		**Analysis Date:**	01/29/10		
Gross Alpha/Beta EPA 900		**pCi/L**		**900.0 MOD**			**F0A250000-415C**
Gross Alpha	49.4	45.4	5.0	0.9		92	(62 - 134)
	Batch #:	0025415		**Analysis Date:**	01/29/10		
TRITIUM (Distill) by EPA 906.0 MOD		**pCi/L**		**906.0 MOD**			**F0A270000-209C**
Tritium	4540	4640	360	80		102	(85 - 112)
	Batch #:	0027209		**Analysis Date:**	01/28/10		
Total Uranium by KPA ASTM 5174-91		**pCi/L**		**5174-91**			**F0B040000-029C**
Total Uranium	27.7	29.2	3.5	0.2		105	(90 - 120)
	Batch #:	0035029		**Analysis Date:**	02/08/10		
Total Uranium by KPA ASTM 5174-91		**pCi/L**		**5174-91**			**F0B040000-029C**
Total Uranium	5.54	5.67	0.59	0.21		102	(90 - 120)
	Batch #:	0035029		**Analysis Date:**	02/08/10		

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID: F0A210536
Matrix: WATER

Parameter		Spike Amount	Result		Total Uncert. (2 σ+/-)	% Yld	% Rec	QC Control Limits	Precision	
								Lab Sample ID		
Radium 226 by EPA 903.0 MOD				**pCi/L**	**903.0 MOD**			**F0A220000-145C**		
Radium (226)		11.3	10.7		1.1	108	95	(68 - 136)		
	Spk 2	11.3	11.2		1.1	110	100	(68 - 136)	5	%RPD
		Batch #:	0022145			**Analysis Date:**		02/08/10		
Radium 228 by GFPC EPA 904 MOD				**pCi/L**	**904 MOD**			**F0A220000-148C**		
Radium 228		6.45	8.22		0.95	93	127	(60 - 142)		
	Spk 2	6.45	7.58		0.88	99	118	(60 - 142)	8	%RPD
		Batch #:	0022148			**Analysis Date:**		02/08/10		
SR-90 BY GFPC EPA-905 MOD				**pCi/L**	**905 MOD**			**F0A220000-149C**		
Strontium 90		6.81	6.74		0.79	77	99	(80 - 130)		
	Spk 2	6.81	6.99		0.81	80	103	(80 - 130)	4	%RPD
		Batch #:	0022149			**Analysis Date:**		02/01/10		

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: F0A200486
Matrix: WATER

Date Sampled: 01/18/10
Date Received: 01/20/10

Parameter	Spike Amount	Spike Result	Total Uncert. (2σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2 σ +/-)	QC Sample ID %YLD	%REC		QC Control Limits
Gross Alpha/Beta EPA 900			**pCi/L**		**900.0 MOD**			**F0A200486-001**		
Gross Beta	68.1	10.0	1.6		0.83	0.99		14	a	(54 - 150)
	Batch #:	0025415		Analysis Date:		01/29/10				
Gross Alpha/Beta EPA 900			**pCi/L**		**900.0 MOD**			**F0A200486-001**		
Gross Alpha	49.4	6.9	1.6		0.98	0.70		12	a	(35 - 150)
	Batch #:	0025415		Analysis Date:		01/29/10				
TRITIUM (Distill) by EPA 906.0 MOD			**pCi/L**		**906.0 MOD**			**F0A210536-001**		
Tritium	9090	9060	620		29	46		99		(62 - 147)
	Batch #:	0027209		Analysis Date:		01/28/10				

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F0A200486
Matrix: WATER

Date Sampled: 01/18/10 0730
Date Received: 01/20/10 0915

Parameter		Spike Amount	SPIKE Result	Total Uncert. (2 σ+/-)	Spike Yld	SAMPLE Result	Total Uncert. (2σ +/-)	QC Sample ID % Yld	%Rec	QC Control Limits
Total Uranium by KPA ASTM 5				**pCi/L**		**5174-91**			**F0A200486-001**	
Total Uranium		27.7	28.8	3.4		-0.0334 U	0.0040		104	(62 - 150)
	Spk2	27.7	29.2	3.5		-0.0334 U	0.0040		105	(62 - 150)
							Precision:		2	%RPD

Batch #: 0035029 **Analysis date:** 02/08/10

NOTE (S)

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F0A210536 Date Sampled: 01/18/10
Matrix: WATER Date Received: 01/20/10

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result		Total Uncert. (2 σ +/-)	% Yld	QC Sample ID Precision	
Gross Alpha/Beta EPA 900				**pCi/L**	**900.0 MOD**				**F0A200486-001**	
Gross Alpha	0.98	J	0.70		0.71	J	0.85		32	%RPD
Gross Beta	0.83	U	0.99		1.6	J	1.0		62	%RPD
	Batch #:		0025415 (Sample)		0025415 (Duplicate)					
TRITIUM (Distill) by EPA 906.0 MOD				**pCi/L**	**906.0 MOD**				**F0A210536-001**	
Tritium	29	U	46		23	U	45		22	%RPD
	Batch #:		0027209 (Sample)		0027209 (Duplicate)					
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**	**901.1 MOD**				**F0A210532-001**	
Cesium 137	-2.3	U	9.2		-1.4	U	9.8		47	%RPD
Potassium 40	-30	U	240		-60	U	440		69	%RPD
	Batch #:		0023036 (Sample)		0023036 (Duplicate)					

NOTE(S)

Data are incomplete without the case narrative.

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APPENDIX G

Section 39

Outfall 009 – February 5, 2010

MEC^X Data Validation Report

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DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ITB0773

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:	ITB0773
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
Outfall 009	ITB0773-02	F0B090473-001, G0B100420-001	Water	2/5/2010 13:44	ASTM 5174-91, 100.2, 200.7, 200.7 (Diss), 245.1, 245.1 (Diss), 1613B, 900.0 MOD, 901.1 MOD, 903.0 MOD, 904 MOD, 905 MOD, 906.0 MOD, SM2540D

II. Sample Management

No anomalies were observed regarding sample management. The sample receipt temperature was noted to be ambient by TestAmerica-St Louis; however, due to the nonvolatile nature of the analytes, no qualifications were required. The sample was received below the temperature limits at TestAmerica-West Sacramento; however, the sample was not noted to be frozen or damaged. 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 present upon receipt at TestAmerica-West Sacramento and TestAmerica-St. Louis. As the samples were delivered to the remaining laboratories by courier, no custody seals were necessary. 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 100.2—Asbestos

Reviewed By: P. Meeks
Date Reviewed: March 16, 2009

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 100.2*, and the *National Functional Guidelines for Inorganic Data Review* (10/2004).

- Holding Times: The sample was filtered one day beyond the 48-hour holding time; therefore, nondetected asbestos in the sample was qualified as estimated, "UJ." There is no analysis holding time; however, the sample was analyzed within 5 days of collection.

- Calibration: The refractive index calibration was acceptable.

- Blanks: A method blank was analyzed with the site sample. Asbestos was not detected in the method blank.

- Blank Spikes and Laboratory Control Samples: Not applicable to this analysis.

- Laboratory Duplicates: No laboratory duplicate analysis was performed on the sample in this SDG.

- Matrix Spike/Matrix Spike Duplicate: Not applicable to this analysis.

- Sample Result Verification: The sample result was verified against the raw data. No transcription errors were noted. Any detects reported below 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 1613—Dioxin/Furans

Reviewed By: L. Calvin
Date Reviewed: March 22, 2010

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* (9/05).

- 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 with 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 ≤20% for the 16 native compounds (calibration by isotope dilution) and ≤35% for the one 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-PeCDF, and 2,3,4,7,8-PeCDF. Most detects in the method blank did not meet ratio criteria and were reported as EMPCs; however, due to the extent of contamination present in the method blank, it was the reviewer's professional opinion that those results be utilized to qualify applicable sample results. Isomers present in the sample between the EDLs and RLs were qualified as nondetected, "U," at the levels of contamination. Results for associated totals that included peaks

meeting ratio criteria that were not present in the method blank were qualified as estimated, "J," as only a portion of the total was considered method blank contamination. The concentrations of OCDD and 1,2,3,4,6,7,8-HpCDD in the method blank were insufficient to qualify the sample results or associated total HpCDD.

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

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

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

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

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

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

- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of reportable sample results. EMPCs qualified as nondetected for method blank contamination were not further qualified as EMPCs. Any total results reported as EMPCs or including EMPCs were qualified as estimated, "J." Any detects reported below the EDL, or 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.

C. EPA METHODS 200.7 and 245.1—Metals and Mercury

Reviewed By: P. Meeks
Date Reviewed: March 16, 2010

The sample listed in Table 1 for these analyses were 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 and ICP-MS metals and 85-115% for mercury. The magnesium CRDL recovery was 154%; however, as the magnesium result was more than 3× the reporting limit, no qualifications were required. The remaining CRDL and CRI recoveries were within the control limits of 70-130%.

- Blanks: Boron was detected in the total method blank at 23.7 µg/L; therefore, boron in the total fraction was qualified as nondetected, "U," at the reporting limit. Selenium was detected in a bracketing CCB at 8.8 µg/L; therefore, total selenium detected in the sample was qualified as nondetected, "U," at the level of contamination. Method blanks and CCBs had no other applicable detects.

- Interference Check Samples: Recoveries were within the method-established control limits. Boron, arsenic, silver, and total selenium were reported at -62.6, -10.0, -8.4, and -16 µg/L, respectively, in the ICSA solution; however, the concentration of the interfering element, iron, was insufficient to cause matrix interference in the site sample.

- 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: MS/MSD analyses were performed for the ICP analytes on the dissolved fraction. All recoveries and RPDs were within the method-established control limits. No MS/MSD analyses were performed on the sample for mercury; therefore, for mercury, 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 tot 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.

  The reviewer noted that the result for total arsenic was a negative value, -7.5 µg/L, the absolute value of which was slightly larger than the MDL. The reviewer changed the MDL to the level of interference, 7.5 µg/L.

Selenium was detected in the dissolved fraction and was originally detected at a higher concentration in the total fraction; however, due to CCB contamination, total selenium was qualified as nondetected.

- 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 — Radionuclides

Reviewed By: P. Meeks
Date Reviewed: March 17, 2010

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* (7/02).

- Holding Times: The tritium sample was analyzed within 180 days of collection. The aliquots for total uranium and radium-228 were reanalyzed more than 3× beyond the holding time for unpreserved samples; therefore, total uranium and radium-228 detected in the sample was qualified as estimated, "J." Aliquots for gross alpha and gross beta, and gamma spectroscopy were prepared beyond the five-day analytical holding time for unpreserved samples; therefore, the results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects. Aliquots for radium-226 and strontium-90 were prepared within the five-day holding time for unpreserved aqueous samples.

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

    The gross alpha and radium-226 detector efficiencies were less than 20%; therefore, the results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects. The remaining detector efficiencies were greater than 20%.

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

sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

- Blanks: Tritium was detected in the method blank at 165 pCi/L; therefore, tritium detected in the sample was qualified as nondetected, "U," at the reporting limit. There were no other analytes detected in the method blanks or KPA CCBs.

- Blank Spikes and Laboratory Control Samples: The recoveries and the radium-228 RPD were within laboratory-established control 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 for the sample in this SDG. A matrix spike analysis was performed on the sample in this SDG for tritium. The recovery was within the laboratory-established control limits. Method accuracy for the remaining analytes 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.

  The reviewer noted that the preparation log for KPA was not signed as having been reviewed.

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

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

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

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

Reviewed By: P. Meeks
Date Reviewed: March 16, 2010

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: Extraction and analytical holding times were met. The water sample was extracted within 24 hours of collection and 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 ≥0.05 and %RSDs ≤30%. The continuing calibration RRFs were ≥0.05 and recoveries were within the method QC limits of 70-130%.

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

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

- Surrogate Recovery: 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.

F. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks
Date Reviewed: March 16, 2010

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), SM2540D*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: The analytical holding time of seven days was met.

- Calibration: The balance calibration logs were acceptable.

- Blanks: The method blank had no detect.

- Blank Spikes and Laboratory Control Samples: The recovery was within laboratory-established QC limits.

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

- Matrix Spike/Matrix Spike Duplicate: 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 reporting limit.

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

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

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

Analysis of Water by Transmission Electron Microscopy
(EPA-600 R 94 134) EPA 100.2

EMS No. 135399 **Client** Test America

Sample No. ITB0773-02 **Date Analyzed** 2/10/2010

Outfall 009

Fibers > 10 µm in length (chrysotile) UJ/H	BDL*	MFL
Mass (chrysotile)	0	ug/L
More/Less than 5 Fibers in Sample (chrysotile)	LESS	
Poisson 95% Confidence Interval	0 to 8	MFL
Detection Limit	2.2	MFL

* BDL : Below Detection Limit; MFL: Million Fibers per Liter

Particle Size Distribution (Chrysotile)

Particle Length - Microns

O -0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 - 4.99	5.00 - 9.99	10 & UP
0	0	0	0	0	0	0	0

Particle Width - Microns

O - .04	.05 - .09	.1 - .14	.15 - .19	.2 - .24	.25 - .49	.50 - .99	1 & UP
0	0	0	0	0	0	0	0

Aspect Ratio L/W

0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 - 99	100 - 199	200 & UP
0	0	0	0	0	0	0	0

TEM 7B (1994)

LEVEL IV

PM 3/19/10

Validated Sample Result Forms ITB0773

Analysis Method ASTM 5174-91

Sample Name Outfall 009 Composite **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Uranium	7440-61-1	0.264	0.693	0.21	pCi/L	Jb	J	H, DNQ

Analysis Method EPA 200.7

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	7429-90-5	950	50	40	ug/l			
Arsenic	7440-38-2	ND	10	7.0	ug/l		U	
Beryllium	7440-41-7	ND	2.0	0.90	ug/l		U	
Boron	7440-42-8	ND	0.053	0.020	mg/l	B	U	B
Calcium	7440-70-2	11	0.10	0.050	mg/l			
Chromium	7440-47-3	2.0	5.0	2.0	ug/l	J	J	DNQ
Iron	7439-89-6	1.1	0.040	0.015	mg/l			
Magnesium	7439-95-4	3.2	0.020	0.012	mg/l			
Nickel	7440-02-0	ND	10	2.0	ug/l		U	
Selenium	7782-49-2	ND	12	8.0	ug/l		U	B
Silver	7440-22-4	ND	10	6.0	ug/l		U	
Vanadium	7440-62-2	3.7	10	3.0	ug/l	J	J	DNQ
Zinc	7440-66-6	13	20	6.0	ug/l	J	J	DNQ

Analysis Method EPA 200.7-Diss

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	7429-90-5	ND	50	40	ug/l		U	
Arsenic	7440-38-2	ND	10	7.5	ug/l		UJ	$,*III
Beryllium	7440-41-7	ND	2.0	0.90	ug/l		U	
Boron	7440-42-8	0.046	0.050	0.020	mg/l	J	J	DNQ
Calcium	7440-70-2	11	0.10	0.050	mg/l	MHA		
Chromium	7440-47-3	ND	5.0	2.0	ug/l		U	
Iron	7439-89-6	0.042	0.040	0.015	mg/l			
Magnesium	7439-95-4	3.0	0.020	0.012	mg/l			
Nickel	7440-02-0	ND	10	2.0	ug/l		U	
Selenium	7782-49-2	10	10	8.0	ug/l			
Silver	7440-22-4	ND	10	6.0	ug/l		U	
Vanadium	7440-62-2	ND	10	3.0	ug/l		U	
Zinc	7440-66-6	ND	20	6.0	ug/l		U	

Analysis Method EPA 245.1

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.00020	0.00010	mg/l		U	

Analysis Method EPA 245.1-Diss

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.00020	0.00010	mg/l		U	

Analysis Method EPA 525.2

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

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

Analysis Method EPA 900.0 MOD

Sample Name Outfall 009 Composite **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587-46-1	1.02	3	1.2	pCi/L	U	UJ	H, C
Gross Beta	12587-47-2	1.65	4	0.95	pCi/L	Jb	J	H, DNQ

Analysis Method EPA 901.1 MOD

Sample Name Outfall 009 Composite **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium 137	10045-97-3	1.8	20	12	pCi/L	U	UJ	H
Potassium 40	13966-00-2	-40	0	220	pCi/L	U	UJ	H

Analysis Method EPA 903.0 MOD

Sample Name Outfall 009 Composite **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium (226)	13982-63-3	0.29	1	0.21	pCi/L	Jb	J	C, DNQ

Analysis Method EPA 904 MOD

Sample Name Outfall 009 Composite **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITB0773-02RE1 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium 228	15262-20-1	0.38	1	0.28	pCi/L	Jb	J	H, DNQ

Analysis Method EPA 905 MOD

Sample Name Outfall 009 Composite **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium 90	10098-97-2	0.2	3	0.42	pCi/L	U	U	

Analysis Method EPA 906.0 MOD

Sample Name Outfall 009 Composite **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028-17-8	ND	500	95	pCi/L	Jb	U	B

Analysis Method EPA-5 1613B

Sample Name Outfall 009 Composite **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

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	6.3e-005	0.000047	0.0000028	ug/L	Ba		
1,2,3,4,6,7,8-HpCDF	67562-39-4	ND	0.000047	0.000002	ug/L	J, Ba	U	B
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	0.000047	0.0000027	ug/L		U	
1,2,3,4,7,8-HxCDD	39227-28-6	ND	0.000047	0.0000021	ug/L	J, Ba	U	B
1,2,3,4,7,8-HxCDF	70648-26-9	ND	0.000047	0.0000016	ug/L		U	
1,2,3,6,7,8-HxCDD	57653-85-7	ND	0.000047	0.0000018	ug/L	J, Ba	U	B
1,2,3,6,7,8-HxCDF	57117-44-9	ND	0.000047	0.0000015	ug/L	J, Ba	U	B
1,2,3,7,8,9-HxCDD	19408-74-3	ND	2.4e-006	0.0000016	ug/L	J, Q, Ba	U	B
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.000047	0.0000012	ug/L		U	
1,2,3,7,8-PeCDD	40321-76-4	ND	0.000047	0.0000032	ug/L		U	
1,2,3,7,8-PeCDF	57117-41-6	ND	0.000047	0.0000018	ug/L		U	
2,3,4,6,7,8-HxCDF	60851-34-5	ND	0.000047	0.0000014	ug/L	J, Ba	U	B
2,3,4,7,8-PeCDF	57117-31-4	ND	0.000047	0.0000021	ug/L		U	
2,3,7,8-TCDD	1746-01-6	ND	0.0000094	0.0000015	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.0000094	0.0000012	ug/L		U	
OCDD	3268-87-9	0.00091	0.000094	0.0000045	ug/L	Ba		
OCDF	39001-02-0	ND	0.000094	0.0000027	ug/L	J, Ba	U	B
Total HpCDD	37871-00-4	0.00014	0.000047	0.0000028	ug/L	Ba		
Total HpCDF	38998-75-3	3.5e-005	0.000047	0.000002	ug/L	J, Ba	J	B, DNQ
Total HxCDD	34465-46-8	2.1e-005	2.1e-005	0.0000016	ug/L	J, Q, Ba	J	B, DNQ, *III
Total HxCDF	55684-94-1	9.7e-006	9.7e-006	0.0000012	ug/L	J, Q, Ba	J	B, DNQ, *III
Total PeCDD	36088-22-9	3.4e-006	3.4e-006	0.0000032	ug/L	J, Q, Ba	J	B, DNQ, *III
Total PeCDF	30402-15-4	7.2e-006	7.2e-006	0.0000012	ug/L	J, Q, Ba	J	B, DNQ, *III
Total TCDD	41903-57-5	ND	0.0000094	0.0000015	ug/L		U	
Total TCDF	55722-27-5	ND	0.0000094	0.0000012	ug/L		U	

Analysis Method SM 2540D

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITB0773-02 **Sample Date:** 2/5/2010 1:44:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	TSS	21	10	1.0	mg/l			

APPENDIX G

Section 40

Outfall 009 – February 5, 2010

Test America Analytical Laboratory Report

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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: 02/05/10
Received: 02/05/10
Revised: 04/01/10 18:59

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: WATER, 1613B, Dioxins/Furans with Totals

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

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.

Final revised report to provide corrected units and merge .pdf file for Radchem. Final report to include PP metals omittied from original issue.

LABORATORY ID	CLIENT ID	MATRIX
ITB0773-01	Outfall 009 Grab	Water
ITB0773-02	Outfall 009 Composite	Water
ITB0773-03	Trip Blank	Water

Reviewed By:

TestAmerica Irvine

Kathleen A. Robb For Heather Clark
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 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-01 (Outfall 009 Grab - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Benzene	EPA 624	10B0831	0.28	0.50	ND	1	02/08/10	02/08/10	
Bromodichloromethane	EPA 624	10B0831	0.30	0.50	ND	1	02/08/10	02/08/10	
Bromoform	EPA 624	10B0831	0.40	0.50	ND	1	02/08/10	02/08/10	
Bromomethane	EPA 624	10B0831	0.42	1.0	ND	1	02/08/10	02/08/10	
Carbon tetrachloride	EPA 624	10B0831	0.28	0.50	ND	1	02/08/10	02/08/10	
Chlorobenzene	EPA 624	10B0831	0.36	0.50	ND	1	02/08/10	02/08/10	
Chloroethane	EPA 624	10B0831	0.40	1.0	ND	1	02/08/10	02/08/10	
Chloroform	EPA 624	10B0831	0.33	0.50	ND	1	02/08/10	02/08/10	
Chloromethane	EPA 624	10B0831	0.40	0.50	ND	1	02/08/10	02/08/10	
Dibromochloromethane	EPA 624	10B0831	0.40	0.50	ND	1	02/08/10	02/08/10	
1,2-Dichlorobenzene	EPA 624	10B0831	0.32	0.50	ND	1	02/08/10	02/08/10	
1,3-Dichlorobenzene	EPA 624	10B0831	0.35	0.50	ND	1	02/08/10	02/08/10	
1,4-Dichlorobenzene	EPA 624	10B0831	0.37	0.50	ND	1	02/08/10	02/08/10	
1,1-Dichloroethane	EPA 624	10B0831	0.40	0.50	ND	1	02/08/10	02/08/10	
1,2-Dichloroethane	EPA 624	10B0831	0.28	0.50	ND	1	02/08/10	02/08/10	
1,1-Dichloroethene	EPA 624	10B0831	0.42	0.50	ND	1	02/08/10	02/08/10	
cis-1,2-Dichloroethene	EPA 624	10B0831	0.32	0.50	ND	1	02/08/10	02/08/10	
trans-1,2-Dichloroethene	EPA 624	10B0831	0.30	0.50	ND	1	02/08/10	02/08/10	
1,2-Dichloropropane	EPA 624	10B0831	0.35	0.50	ND	1	02/08/10	02/08/10	
cis-1,3-Dichloropropene	EPA 624	10B0831	0.22	0.50	ND	1	02/08/10	02/08/10	
trans-1,3-Dichloropropene	EPA 624	10B0831	0.32	0.50	ND	1	02/08/10	02/08/10	
Ethylbenzene	EPA 624	10B0831	0.25	0.50	ND	1	02/08/10	02/08/10	
Methylene chloride	EPA 624	10B0831	0.95	1.0	ND	1	02/08/10	02/08/10	
1,1,2,2-Tetrachloroethane	EPA 624	10B0831	0.30	0.50	ND	1	02/08/10	02/08/10	
Tetrachloroethene	EPA 624	10B0831	0.32	0.50	ND	1	02/08/10	02/08/10	
Toluene	EPA 624	10B0831	0.36	0.50	ND	1	02/08/10	02/08/10	
1,1,1-Trichloroethane	EPA 624	10B0831	0.30	0.50	ND	1	02/08/10	02/08/10	
1,1,2-Trichloroethane	EPA 624	10B0831	0.30	0.50	ND	1	02/08/10	02/08/10	
Trichloroethene	EPA 624	10B0831	0.26	0.50	ND	1	02/08/10	02/08/10	
Trichlorofluoromethane	EPA 624	10B0831	0.34	0.50	ND	1	02/08/10	02/08/10	
Trichlorotrifluoroethane (Freon 113)	EPA 624	10B0831	0.50	5.0	ND	1	02/08/10	02/08/10	
Vinyl chloride	EPA 624	10B0831	0.40	0.50	ND	1	02/08/10	02/08/10	
Xylenes, Total	EPA 624	10B0831	0.90	1.5	ND	1	02/08/10	02/08/10	
Surrogate: 4-Bromofluorobenzene (80-120%)					*97 %*				
Surrogate: Dibromofluoromethane (80-120%)					*105 %*				
Surrogate: Toluene-d8 (80-120%)					*107 %*				

TestAmerica Irvine

Kathleen A. Robb For Heather Clark
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: ITB0773

Sampled: 02/05/10
Received: 02/05/10

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-03 (Trip Blank - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Benzene	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	
Bromodichloromethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Bromoform	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Bromomethane	EPA 624	10B0785	0.42	1.0	ND	1	02/07/10	02/08/10	
Carbon tetrachloride	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	C, L
Chlorobenzene	EPA 624	10B0785	0.36	0.50	ND	1	02/07/10	02/08/10	
Chloroethane	EPA 624	10B0785	0.40	1.0	ND	1	02/07/10	02/08/10	
Chloroform	EPA 624	10B0785	0.33	0.50	ND	1	02/07/10	02/08/10	
Chloromethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Dibromochloromethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichlorobenzene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
1,3-Dichlorobenzene	EPA 624	10B0785	0.35	0.50	ND	1	02/07/10	02/08/10	
1,4-Dichlorobenzene	EPA 624	10B0785	0.37	0.50	ND	1	02/07/10	02/08/10	
1,1-Dichloroethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloroethane	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	
1,1-Dichloroethene	EPA 624	10B0785	0.42	0.50	ND	1	02/07/10	02/08/10	
cis-1,2-Dichloroethene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
trans-1,2-Dichloroethene	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloropropane	EPA 624	10B0785	0.35	0.50	ND	1	02/07/10	02/08/10	
cis-1,3-Dichloropropene	EPA 624	10B0785	0.22	0.50	ND	1	02/07/10	02/08/10	
trans-1,3-Dichloropropene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
Ethylbenzene	EPA 624	10B0785	0.25	0.50	ND	1	02/07/10	02/08/10	
Methylene chloride	EPA 624	10B0785	0.95	1.0	ND	1	02/07/10	02/08/10	
1,1,2,2-Tetrachloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Tetrachloroethene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
Toluene	EPA 624	10B0785	0.36	0.50	ND	1	02/07/10	02/08/10	
1,1,1-Trichloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
1,1,2-Trichloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Trichloroethene	EPA 624	10B0785	0.26	0.50	ND	1	02/07/10	02/08/10	
Trichlorofluoromethane	EPA 624	10B0785	0.34	0.50	ND	1	02/07/10	02/08/10	
Trichlorotrifluoroethane (Freon 113)	EPA 624	10B0785	0.50	5.0	ND	1	02/07/10	02/08/10	
Vinyl chloride	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Xylenes, Total	EPA 624	10B0785	0.90	1.5	ND	1	02/07/10	02/08/10	
Surrogate: 4-Bromofluorobenzene (80-120%)					*103 %*				
Surrogate: Dibromofluoromethane (80-120%)					*107 %*				
Surrogate: Toluene-d8 (80-120%)					*110 %*				

TestAmerica Irvine

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

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

PURGEABLES-- GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-01 (Outfall 009 Grab - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Acrolein	EPA 624	10B0831	4.0	5.0	ND	1	02/08/10	02/08/10	
Acrylonitrile	EPA 624	10B0831	1.2	2.0	ND	1	02/08/10	02/08/10	
2-Chloroethyl vinyl ether	EPA 624	10B0831	1.8	5.0	ND	1	02/08/10	02/08/10	
Surrogate: 4-Bromofluorobenzene (80-120%)					*97 %*				
Surrogate: Dibromofluoromethane (80-120%)					*105 %*				
Surrogate: Toluene-d8 (80-120%)					*107 %*				
Sample ID: ITB0773-03 (Trip Blank - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Acrolein	EPA 624	10B0785	4.0	5.0	ND	1	02/07/10	02/08/10	
Acrylonitrile	EPA 624	10B0785	1.2	2.0	ND	1	02/07/10	02/08/10	
2-Chloroethyl vinyl ether	EPA 624	10B0785	1.8	5.0	ND	1	02/07/10	02/08/10	
Surrogate: 4-Bromofluorobenzene (80-120%)					*103 %*				
Surrogate: Dibromofluoromethane (80-120%)					*107 %*				
Surrogate: Toluene-d8 (80-120%)					*110 %*				

TestAmerica Irvine

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

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Acenaphthene	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
Acenaphthylene	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
Aniline	EPA 625	10B1058	3.3	9.4	ND	0.943	02/09/10	02/11/10	
Anthracene	EPA 625	10B1058	2.4	9.4	ND	0.943	02/09/10	02/11/10	
Benzidine	EPA 625	10B1058	9.4	19	ND	0.943	02/09/10	02/11/10	C
Benzo(a)anthracene	EPA 625	10B1058	2.4	9.4	ND	0.943	02/09/10	02/11/10	
Benzo(a)pyrene	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
Benzo(b)fluoranthene	EPA 625	10B1058	1.9	9.4	ND	0.943	02/09/10	02/11/10	
Benzo(g,h,i)perylene	EPA 625	10B1058	3.8	9.4	ND	0.943	02/09/10	02/11/10	
Benzo(k)fluoranthene	EPA 625	10B1058	2.4	9.4	ND	0.943	02/09/10	02/11/10	
Benzoic acid	EPA 625	10B1058	9.4	19	ND	0.943	02/09/10	02/11/10	
Benzyl alcohol	EPA 625	10B1058	3.3	19	ND	0.943	02/09/10	02/11/10	C
4-Bromophenyl phenyl ether	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
Butyl benzyl phthalate	EPA 625	10B1058	3.8	19	ND	0.943	02/09/10	02/11/10	
4-Chloro-3-methylphenol	EPA 625	10B1058	2.4	19	ND	0.943	02/09/10	02/11/10	
4-Chloroaniline	EPA 625	10B1058	1.9	9.4	ND	0.943	02/09/10	02/11/10	
Bis(2-chloroethoxy)methane	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
Bis(2-chloroethyl)ether	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
Bis(2-chloroisopropyl)ether	EPA 625	10B1058	2.4	9.4	ND	0.943	02/09/10	02/11/10	
Bis(2-ethylhexyl)phthalate	EPA 625	10B1058	3.8	47	ND	0.943	02/09/10	02/11/10	
2-Chloronaphthalene	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
2-Chlorophenol	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
4-Chlorophenyl phenyl ether	EPA 625	10B1058	2.4	9.4	ND	0.943	02/09/10	02/11/10	
Chrysene	EPA 625	10B1058	2.4	9.4	ND	0.943	02/09/10	02/11/10	
Dibenz(a,h)anthracene	EPA 625	10B1058	2.8	19	ND	0.943	02/09/10	02/11/10	
Dibenzofuran	EPA 625	10B1058	3.8	9.4	ND	0.943	02/09/10	02/11/10	
Di-n-butyl phthalate	EPA 625	10B1058	2.8	19	ND	0.943	02/09/10	02/11/10	
1,2-Dichlorobenzene	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
1,3-Dichlorobenzene	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
1,4-Dichlorobenzene	EPA 625	10B1058	2.4	9.4	ND	0.943	02/09/10	02/11/10	
3,3'-Dichlorobenzidine	EPA 625	10B1058	7.1	19	ND	0.943	02/09/10	02/11/10	
2,4-Dichlorophenol	EPA 625	10B1058	3.3	9.4	ND	0.943	02/09/10	02/11/10	
Diethyl phthalate	EPA 625	10B1058	3.3	9.4	ND	0.943	02/09/10	02/11/10	
2,4-Dimethylphenol	EPA 625	10B1058	3.3	19	ND	0.943	02/09/10	02/11/10	
Dimethyl phthalate	EPA 625	10B1058	2.4	9.4	ND	0.943	02/09/10	02/11/10	
4,6-Dinitro-2-methylphenol	EPA 625	10B1058	3.8	19	ND	0.943	02/09/10	02/11/10	
2,4-Dinitrophenol	EPA 625	10B1058	7.5	19	ND	0.943	02/09/10	02/11/10	
2,4-Dinitrotoluene	EPA 625	10B1058	3.3	9.4	ND	0.943	02/09/10	02/11/10	
2,6-Dinitrotoluene	EPA 625	10B1058	1.9	9.4	ND	0.943	02/09/10	02/11/10	
Di-n-octyl phthalate	EPA 625	10B1058	3.3	19	ND	0.943	02/09/10	02/11/10	
1,2-Diphenylhydrazine/Azobenzene	EPA 625	10B1058	2.4	19	ND	0.943	02/09/10	02/11/10	

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

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water) - cont.					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Fluoranthene	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
Fluorene	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
Hexachlorobenzene	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
Hexachlorobutadiene	EPA 625	10B1058	3.8	9.4	ND	0.943	02/09/10	02/11/10	
Hexachlorocyclopentadiene	EPA 625	10B1058	4.7	19	ND	0.943	02/09/10	02/11/10	C, L
Hexachloroethane	EPA 625	10B1058	3.3	9.4	ND	0.943	02/09/10	02/11/10	
Indeno(1,2,3-cd)pyrene	EPA 625	10B1058	3.3	19	ND	0.943	02/09/10	02/11/10	
Isophorone	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
2-Methylnaphthalene	EPA 625	10B1058	1.9	9.4	ND	0.943	02/09/10	02/11/10	
2-Methylphenol	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
4-Methylphenol	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
Naphthalene	EPA 625	10B1058	2.8	9.4	ND	0.943	02/09/10	02/11/10	
2-Nitroaniline	EPA 625	10B1058	1.9	19	ND	0.943	02/09/10	02/11/10	
3-Nitroaniline	EPA 625	10B1058	2.8	19	ND	0.943	02/09/10	02/11/10	
4-Nitroaniline	EPA 625	10B1058	3.8	19	ND	0.943	02/09/10	02/11/10	
Nitrobenzene	EPA 625	10B1058	2.8	19	ND	0.943	02/09/10	02/11/10	
2-Nitrophenol	EPA 625	10B1058	3.3	9.4	ND	0.943	02/09/10	02/11/10	
4-Nitrophenol	EPA 625	10B1058	5.2	19	ND	0.943	02/09/10	02/11/10	
N-Nitroso-di-n-propylamine	EPA 625	10B1058	3.3	9.4	ND	0.943	02/09/10	02/11/10	
N-Nitrosodimethylamine	EPA 625	10B1058	2.4	19	ND	0.943	02/09/10	02/11/10	
N-Nitrosodiphenylamine	EPA 625	10B1058	1.9	9.4	ND	0.943	02/09/10	02/11/10	
Pentachlorophenol	EPA 625	10B1058	3.3	19	ND	0.943	02/09/10	02/11/10	
Phenanthrene	EPA 625	10B1058	3.3	9.4	ND	0.943	02/09/10	02/11/10	
Phenol	EPA 625	10B1058	1.9	9.4	ND	0.943	02/09/10	02/11/10	
Pyrene	EPA 625	10B1058	3.8	9.4	ND	0.943	02/09/10	02/11/10	
1,2,4-Trichlorobenzene	EPA 625	10B1058	2.4	9.4	ND	0.943	02/09/10	02/11/10	
2,4,5-Trichlorophenol	EPA 625	10B1058	2.8	19	ND	0.943	02/09/10	02/11/10	
2,4,6-Trichlorophenol	EPA 625	10B1058	4.2	19	ND	0.943	02/09/10	02/11/10	
Surrogate: 2,4,6-Tribromophenol (40-120%)					*92 %*				
Surrogate: 2-Fluorobiphenyl (50-120%)					*82 %*				
Surrogate: 2-Fluorophenol (30-120%)					*63 %*				
Surrogate: Nitrobenzene-d5 (45-120%)					*78 %*				
Surrogate: Phenol-d6 (35-120%)					*79 %*				
Surrogate: Terphenyl-d14 (50-125%)					*92 %*				

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Chlorpyrifos	EPA 525.2	10B0759	0.010	1.0	ND	1	02/06/10	02/09/10	
Diazinon	EPA 525.2	10B0759	0.10	0.25	ND	1	02/06/10	02/09/10	
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)					*98 %*				
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)					*98 %*				
Surrogate: Triphenylphosphate (70-130%)					*115 %*				
Surrogate: Triphenylphosphate (70-130%)					*115 %*				
Surrogate: Perylene-d12 (70-130%)					*97 %*				
Surrogate: Perylene-d12 (70-130%)					*97 %*				

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Sampled: 02/05/10
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ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
4,4'-DDD	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	C
4,4'-DDE	EPA 608	10B1291	0.0028	0.0047	ND	0.943	02/11/10	02/13/10	
4,4'-DDT	EPA 608	10B1291	0.0038	0.0094	ND	0.943	02/11/10	02/13/10	
Aldrin	EPA 608	10B1291	0.0014	0.0047	ND	0.943	02/11/10	02/13/10	
alpha-BHC	EPA 608	10B1291	0.0024	0.0047	ND	0.943	02/11/10	02/13/10	
beta-BHC	EPA 608	10B1291	0.0038	0.0094	ND	0.943	02/11/10	02/13/10	
delta-BHC	EPA 608	10B1291	0.0033	0.0047	ND	0.943	02/11/10	02/13/10	
Dieldrin	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	
Endosulfan I	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	
Endosulfan II	EPA 608	10B1291	0.0028	0.0047	ND	0.943	02/11/10	02/13/10	
Endosulfan sulfate	EPA 608	10B1291	0.0028	0.0094	ND	0.943	02/11/10	02/13/10	
Endrin	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	C
Endrin aldehyde	EPA 608	10B1291	0.0019	0.0094	ND	0.943	02/11/10	02/13/10	
Endrin ketone	EPA 608	10B1291	0.0028	0.0094	ND	0.943	02/11/10	02/13/10	
gamma-BHC (Lindane)	EPA 608	10B1291	0.0028	0.019	ND	0.943	02/11/10	02/13/10	
Heptachlor	EPA 608	10B1291	0.0028	0.0094	ND	0.943	02/11/10	02/13/10	C
Heptachlor epoxide	EPA 608	10B1291	0.0024	0.0047	ND	0.943	02/11/10	02/13/10	
Methoxychlor	EPA 608	10B1291	0.0033	0.0047	ND	0.943	02/11/10	02/13/10	
Chlordane	EPA 608	10B1291	0.038	0.094	ND	0.943	02/11/10	02/13/10	
Toxaphene	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/13/10	
Surrogate: Decachlorobiphenyl (45-120%)					*81 %*				
Surrogate: Tetrachloro-m-xylene (35-115%)					*54 %*				

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TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water) - cont.					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Aroclor 1016	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1221	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1232	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1242	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1248	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1254	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1260	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Surrogate: Decachlorobiphenyl (45-120%)					*87 %*				

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Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-01 (Outfall 009 Grab - Water)					**Sampled: 02/05/10**				
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	10B1778	1.3	4.8	ND	1	02/15/10	02/15/10	

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Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	**41**	1	02/15/10	02/15/10	
Aluminum	EPA 200.7	10B1770	0.040	0.050	**0.95**	1	02/15/10	02/15/10	
Boron	EPA 200.7	10B1770	0.020	0.050	**0.053**	1	02/15/10	02/15/10	B
Calcium	EPA 200.7	10B1770	0.050	0.10	**11**	1	02/15/10	02/15/10	
Iron	EPA 200.7	10B1770	0.015	0.040	**1.1**	1	02/15/10	02/15/10	
Magnesium	EPA 200.7	10B1770	0.012	0.020	**3.2**	1	02/15/10	02/15/10	
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Mercury	EPA 245.1	10B0921	0.10	0.20	ND	1	02/08/10	02/08/10	
Arsenic	EPA 200.7	10B1770	7.0	10	ND	1	02/15/10	02/15/10	
Antimony	EPA 200.8	10B1571	0.30	2.0	**0.52**	1	02/12/10	02/16/10	Ja
Beryllium	EPA 200.7	10B1770	0.90	2.0	ND	1	02/15/10	02/15/10	
Chromium	EPA 200.7	10B1770	2.0	5.0	**2.0**	1	02/15/10	02/15/10	Ja
Nickel	EPA 200.7	10B1770	2.0	10	ND	1	02/15/10	02/15/10	
Selenium	EPA 200.7	10B1770	8.0	10	**12**	1	02/15/10	04/01/10	
Silver	EPA 200.7	10B1770	6.0	10	ND	1	02/15/10	02/15/10	
Cadmium	EPA 200.8	10B1571	0.10	1.0	ND	1	02/12/10	02/16/10	
Vanadium	EPA 200.7	10B1770	3.0	10	**3.7**	1	02/15/10	02/15/10	Ja
Zinc	EPA 200.7	10B1770	6.0	20	**13**	1	02/15/10	02/15/10	Ja
Copper	EPA 200.8	10B1571	0.50	2.0	**4.1**	1	02/12/10	02/16/10	
Lead	EPA 200.8	10B1571	0.20	1.0	**3.5**	1	02/12/10	02/16/10	
Thallium	EPA 200.8	10B1571	0.20	1.0	ND	1	02/12/10	02/16/10	

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Sampled: 02/05/10
Received: 02/05/10

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B-Diss	[CALC]	N/A	0.33	**40**	1	02/15/10	02/15/10	
Aluminum	EPA 200.7-Diss	10B1782	0.040	0.050	ND	1	02/15/10	02/15/10	
Boron	EPA 200.7-Diss	10B1782	0.020	0.050	**0.046**	1	02/15/10	02/15/10	Ja
Calcium	EPA 200.7-Diss	10B1782	0.050	0.10	**11**	1	02/15/10	02/15/10	MHA
Iron	EPA 200.7-Diss	10B1782	0.015	0.040	**0.042**	1	02/15/10	02/15/10	
Magnesium	EPA 200.7-Diss	10B1782	0.012	0.020	**3.0**	1	02/15/10	02/15/10	
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Mercury	EPA 245.1-Diss	10B1554	0.10	0.20	ND	1	02/12/10	02/12/10	
Arsenic	EPA 200.7-Diss	10B1782	7.0	10	ND	1	02/15/10	02/15/10	
Antimony	EPA 200.8-Diss	10B1786	0.30	2.0	ND	1	02/15/10	02/15/10	
Beryllium	EPA 200.7-Diss	10B1782	0.90	2.0	ND	1	02/15/10	02/15/10	
Chromium	EPA 200.7-Diss	10B1782	2.0	5.0	ND	1	02/15/10	02/15/10	
Nickel	EPA 200.7-Diss	10B1782	2.0	10	ND	1	02/15/10	02/15/10	
Selenium	EPA 200.7-Diss	10B1782	8.0	10	**10**	1	02/15/10	02/15/10	
Silver	EPA 200.7-Diss	10B1782	6.0	10	ND	1	02/15/10	02/15/10	
Cadmium	EPA 200.8-Diss	10B1786	0.10	1.0	ND	1	02/15/10	02/15/10	
Vanadium	EPA 200.7-Diss	10B1782	3.0	10	ND	1	02/15/10	02/15/10	
Zinc	EPA 200.7-Diss	10B1782	6.0	20	ND	1	02/15/10	02/15/10	
Copper	EPA 200.8-Diss	10B1786	0.50	2.0	**1.8**	1	02/15/10	02/15/10	Ja
Lead	EPA 200.8-Diss	10B1786	0.20	1.0	ND	1	02/15/10	02/15/10	
Thallium	EPA 200.8-Diss	10B1786	0.20	1.0	ND	1	02/15/10	02/15/10	C

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DISSOLVED INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-01 (Outfall 009 Grab - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Chromium VI	EPA 218.6	10B0683	0.25	1.0	ND	1	02/05/10	02/05/10	

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: mg/l									
Chloride	EPA 300.0	10B0646	0.25	0.50	**5.4**	1	02/05/10	02/06/10	
Fluoride	SM 4500-F-C	10B0814	0.020	0.10	**0.20**	1	02/08/10	02/08/10	B
Nitrate/Nitrite-N	EPA 300.0	10B0646	0.15	0.26	**0.55**	1	02/05/10	02/06/10	
Sulfate	EPA 300.0	10B0646	0.20	0.50	**9.9**	1	02/05/10	02/06/10	
Total Dissolved Solids	SM2540C	10B1300	1.0	10	**79**	1	02/11/10	02/11/10	
Total Suspended Solids	SM 2540D	10B1557	1.0	10	**21**	1	02/12/10	02/12/10	
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	10B1480	0.90	4.0	ND	1	02/12/10	02/12/10	
Total Cyanide	SM4500CN-E	10B1250	2.2	5.0	ND	1	02/10/10	02/10/10	

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ASTM 5174-91

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: pCi/L									
Total Uranium	ASTM 5174-91	53280	0.21	0.693	**0.264**	1	02/23/10	02/26/10	Jb

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Sampled: 02/05/10
Received: 02/05/10

EPA 900.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: pCi/L									
Gross Alpha	EPA 900.0 MOD	43108	1.2	3	**1.02**	1	02/10/10	02/18/10	U
Gross Beta	EPA 900.0 MOD	43108	0.95	4	**1.65**	1	02/10/10	02/18/10	Jb

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EPA 901.1 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: pCi/L									
Cesium 137	EPA 901.1 MOD	42136	12	20	**1.8**	1	02/11/10	02/19/10	U
Potassium 40	EPA 901.1 MOD	42136	220	NA	-40	1	02/11/10	02/19/10	U

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EPA 903.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: pCi/L									
Radium (226)	EPA 903.0 MOD	41160	0.21	1	**0.29**	1	02/10/10	02/26/10	Jb

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Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

EPA 904 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02RE1 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: pCi/L									
Radium 228	EPA 904 MOD	60257	0.28	1	**0.38**	1	03/01/10	03/05/10	Jb

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Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

EPA 905 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: pCi/L									
Strontium 90	EPA 905 MOD	41162	0.42	3	**0.2**	1	02/10/10	02/19/10	U

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Sampled: 02/05/10
Received: 02/05/10

EPA 906.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: pCi/L									
Tritium	EPA 906.0 MOD	49035	95	500	**122**	1	02/18/10	02/18/10	Jb

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Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

EPA-5 1613B

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0773-02 (Outfall 009 Composite - Water)					**Sampled: 02/05/10**				
Reporting Units: ug/L									
1,2,3,4,6,7,8-HpCDD	EPA-5 1613B	47247	0.0000028	0.000047	**6.3e-005**	0.94	02/16/10	02/18/10	Ba
1,2,3,4,6,7,8-HpCDF	EPA-5 1613B	47247	0.000002	0.000047	**1.5e-005**	0.94	02/16/10	02/18/10	J, Ba
1,2,3,4,7,8,9-HpCDF	EPA-5 1613B	47247	0.0000027	0.000047	ND	0.94	02/16/10	02/18/10	
1,2,3,4,7,8-HxCDD	EPA-5 1613B	47247	0.0000021	0.000047	**1.7e-006**	0.94	02/16/10	02/18/10	J, Ba
1,2,3,4,7,8-HxCDF	EPA-5 1613B	47247	0.0000016	0.000047	ND	0.94	02/16/10	02/18/10	
1,2,3,6,7,8-HxCDD	EPA-5 1613B	47247	0.0000018	0.000047	**4.3e-006**	0.94	02/16/10	02/18/10	J, Ba
1,2,3,6,7,8-HxCDF	EPA-5 1613B	47247	0.0000015	0.000047	**1.2e-006**	0.94	02/16/10	02/18/10	J, Ba
1,2,3,7,8,9-HxCDD	EPA-5 1613B	47247	0.0000016	0.000047	**2.4e-006**	0.94	02/16/10	02/18/10	J, Q, Ba
1,2,3,7,8,9-HxCDF	EPA-5 1613B	47247	0.0000012	0.000047	ND	0.94	02/16/10	02/18/10	
1,2,3,7,8-PeCDD	EPA-5 1613B	47247	0.0000032	0.000047	ND	0.94	02/16/10	02/18/10	
1,2,3,7,8-PeCDF	EPA-5 1613B	47247	0.0000018	0.000047	ND	0.94	02/16/10	02/18/10	
2,3,4,6,7,8-HxCDF	EPA-5 1613B	47247	0.0000014	0.000047	**1.8e-006**	0.94	02/16/10	02/18/10	J, Ba
2,3,4,7,8-PeCDF	EPA-5 1613B	47247	0.0000021	0.000047	ND	0.94	02/16/10	02/18/10	
2,3,7,8-TCDD	EPA-5 1613B	47247	0.0000015	0.0000094	ND	0.94	02/16/10	02/18/10	
2,3,7,8-TCDF	EPA-5 1613B	47247	0.0000012	0.0000094	ND	0.94	02/16/10	02/18/10	
OCDD	EPA-5 1613B	47247	0.0000045	0.000094	**0.00091**	0.94	02/16/10	02/18/10	Ba
OCDF	EPA-5 1613B	47247	0.0000027	0.000094	**3.9e-005**	0.94	02/16/10	02/18/10	J, Ba
Total HpCDD	EPA-5 1613B	47247	0.0000028	0.000047	**0.00014**	0.94	02/16/10	02/18/10	Ba
Total HpCDF	EPA-5 1613B	47247	0.000002	0.000047	**3.5e-005**	0.94	02/16/10	02/18/10	J, Ba
Total HxCDD	EPA-5 1613B	47247	0.0000016	0.000047	**2.1e-005**	0.94	02/16/10	02/18/10	J, Q, Ba
Total HxCDF	EPA-5 1613B	47247	0.0000012	0.000047	**9.7e-006**	0.94	02/16/10	02/18/10	J, Q, Ba
Total PeCDD	EPA-5 1613B	47247	0.0000032	0.000047	**3.4e-006**	0.94	02/16/10	02/18/10	J, Q, Ba
Total PeCDF	EPA-5 1613B	47247	0.0000012	0.000047	**7.2e-006**	0.94	02/16/10	02/18/10	J, Q, Ba
Total TCDD	EPA-5 1613B	47247	0.0000015	0.0000094	ND	0.94	02/16/10	02/18/10	
Total TCDF	EPA-5 1613B	47247	0.0000012	0.0000094	ND	0.94	02/16/10	02/18/10	
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)					*98 %*				
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)					*86 %*				
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)					*83 %*				
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)					*70 %*				
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)					*76 %*				
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)					*74 %*				
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)					*72 %*				
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)					*81 %*				
Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)					*61 %*				
Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)					*60 %*				
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)					*72 %*				
Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)					*60 %*				
Surrogate: 13C-2,3,7,8-TCDD (25-164%)					*66 %*				
Surrogate: 13C-2,3,7,8-TCDF (24-169%)					*70 %*				
Surrogate: 13C-OCDD (17-157%)					*96 %*				
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)					*91 %*				

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Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

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 Grab (ITB0773-01) - Water					
EPA 218.6	1	02/05/2010 11:45	02/05/2010 19:20	02/05/2010 22:30	02/05/2010 22:50
EPA 624	3	02/05/2010 11:45	02/05/2010 19:20	02/08/2010 00:00	02/08/2010 11:47
Sample ID: Outfall 009 Composite (ITB0773-02) - Water					
EPA 300.0	2	02/05/2010 13:44	02/05/2010 19:20	02/05/2010 23:00	02/06/2010 01:51
EPA 525.2	1	02/05/2010 13:44	02/05/2010 19:20	02/06/2010 13:30	02/09/2010 16:49
Filtration	1	02/05/2010 13:44	02/05/2010 19:20	02/06/2010 13:21	02/06/2010 13:30
Sample ID: Trip Blank (ITB0773-03) - Water					
EPA 624	3	02/05/2010 07:00	02/05/2010 19:20	02/07/2010 00:00	02/08/2010 00:55

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10											
Blank Analyzed: 02/07/2010 (10B0785-BLK1)											
Benzene	ND	0.50	0.28	ug/l							
Bromodichloromethane	ND	0.50	0.30	ug/l							
Bromoform	ND	0.50	0.40	ug/l							
Bromomethane	ND	1.0	0.42	ug/l							
Carbon tetrachloride	ND	0.50	0.28	ug/l							
Chlorobenzene	ND	0.50	0.36	ug/l							
Chloroethane	ND	1.0	0.40	ug/l							
Chloroform	ND	0.50	0.33	ug/l							
Chloromethane	ND	0.50	0.40	ug/l							
Dibromochloromethane	ND	0.50	0.40	ug/l							
1,2-Dichlorobenzene	ND	0.50	0.32	ug/l							
1,3-Dichlorobenzene	ND	0.50	0.35	ug/l							
1,4-Dichlorobenzene	ND	0.50	0.37	ug/l							
1,1-Dichloroethane	ND	0.50	0.40	ug/l							
1,2-Dichloroethane	ND	0.50	0.28	ug/l							
1,1-Dichloroethene	ND	0.50	0.42	ug/l							
cis-1,2-Dichloroethene	ND	0.50	0.32	ug/l							
trans-1,2-Dichloroethene	ND	0.50	0.30	ug/l							
1,2-Dichloropropane	ND	0.50	0.35	ug/l							
cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l							
trans-1,3-Dichloropropene	ND	0.50	0.32	ug/l							
Ethylbenzene	ND	0.50	0.25	ug/l							
Methylene chloride	ND	1.0	0.95	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	0.30	ug/l							
Tetrachloroethene	ND	0.50	0.32	ug/l							
Toluene	ND	0.50	0.36	ug/l							
1,1,1-Trichloroethane	ND	0.50	0.30	ug/l							
1,1,2-Trichloroethane	ND	0.50	0.30	ug/l							
Trichloroethene	ND	0.50	0.26	ug/l							
Trichlorofluoromethane	ND	0.50	0.34	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	0.50	ug/l							
Vinyl chloride	ND	0.50	0.40	ug/l							
Xylenes, Total	ND	1.5	0.90	ug/l							
Surrogate: 4-Bromofluorobenzene	*26.2*			*ug/l*	*25.0*		*105*	*80-120*			
Surrogate: Dibromofluoromethane	*23.9*			*ug/l*	*25.0*		*96*	*80-120*			

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10											
Blank Analyzed: 02/07/2010 (10B0785-BLK1)											
Surrogate: Toluene-d8	*27.0*			*ug/l*	*25.0*		*108*	*80-120*			
LCS Analyzed: 02/07/2010 (10B0785-BS1)											
Benzene	24.1	0.50	0.28	ug/l	25.0		96	70-120			
Bromodichloromethane	28.8	0.50	0.30	ug/l	25.0		115	70-135			
Bromoform	22.2	0.50	0.40	ug/l	25.0		89	55-130			
Bromomethane	30.3	1.0	0.42	ug/l	25.0		121	65-140			
Carbon tetrachloride	39.8	0.50	0.28	ug/l	25.0		159	65-140			*L*
Chlorobenzene	25.9	0.50	0.36	ug/l	25.0		104	75-120			
Chloroethane	27.2	1.0	0.40	ug/l	25.0		109	60-140			
Chloroform	25.5	0.50	0.33	ug/l	25.0		102	70-130			
Chloromethane	28.2	0.50	0.40	ug/l	25.0		113	50-140			
Dibromochloromethane	25.7	0.50	0.40	ug/l	25.0		103	70-140			
1,2-Dichlorobenzene	26.1	0.50	0.32	ug/l	25.0		104	75-120			
1,3-Dichlorobenzene	27.0	0.50	0.35	ug/l	25.0		108	75-120			
1,4-Dichlorobenzene	26.6	0.50	0.37	ug/l	25.0		107	75-120			
1,1-Dichloroethane	25.1	0.50	0.40	ug/l	25.0		100	70-125			
1,2-Dichloroethane	25.5	0.50	0.28	ug/l	25.0		102	60-140			
1,1-Dichloroethene	26.8	0.50	0.42	ug/l	25.0		107	70-125			
cis-1,2-Dichloroethene	25.6	0.50	0.32	ug/l	25.0		102	70-125			
trans-1,2-Dichloroethene	25.4	0.50	0.30	ug/l	25.0		102	70-125			
1,2-Dichloropropane	22.8	0.50	0.35	ug/l	25.0		91	70-125			
cis-1,3-Dichloropropene	30.0	0.50	0.22	ug/l	25.0		120	75-125			
trans-1,3-Dichloropropene	23.0	0.50	0.32	ug/l	25.0		92	70-125			
Ethylbenzene	28.4	0.50	0.25	ug/l	25.0		114	75-125			
Methylene chloride	21.2	1.0	0.95	ug/l	25.0		85	55-130			
1,1,2,2-Tetrachloroethane	22.6	0.50	0.30	ug/l	25.0		90	55-130			
Tetrachloroethene	28.9	0.50	0.32	ug/l	25.0		116	70-125			
Toluene	25.5	0.50	0.36	ug/l	25.0		102	70-120			
1,1,1-Trichloroethane	31.7	0.50	0.30	ug/l	25.0		127	65-135			
1,1,2-Trichloroethane	22.6	0.50	0.30	ug/l	25.0		91	70-125			
Trichloroethene	28.0	0.50	0.26	ug/l	25.0		112	70-125			
Trichlorofluoromethane	31.6	0.50	0.34	ug/l	25.0		126	65-145			
Vinyl chloride	30.9	0.50	0.40	ug/l	25.0		124	55-135			
Xylenes, Total	79.7	1.5	0.90	ug/l	75.0		106	70-125			
Surrogate: 4-Bromofluorobenzene	*28.3*			*ug/l*	*25.0*		*113*	*80-120*			

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

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10											
LCS Analyzed: 02/07/2010 (10B0785-BS1)											
Surrogate: Dibromofluoromethane	*24.8*			*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: Toluene-d8	*27.3*			*ug/l*	*25.0*		*109*	*80-120*			
Matrix Spike Analyzed: 02/07/2010 (10B0785-MS1)						**Source: ITB0302-01**					
Benzene	21.5	0.50	0.28	ug/l	25.0	ND	86	65-125			
Bromodichloromethane	26.4	0.50	0.30	ug/l	25.0	ND	106	70-135			
Bromoform	19.7	0.50	0.40	ug/l	25.0	ND	79	55-135			
Bromomethane	26.9	1.0	0.42	ug/l	25.0	ND	108	55-145			
Carbon tetrachloride	35.7	0.50	0.28	ug/l	25.0	ND	143	65-140			*M7*
Chlorobenzene	23.7	0.50	0.36	ug/l	25.0	ND	95	75-125			
Chloroethane	24.5	1.0	0.40	ug/l	25.0	ND	98	55-140			
Chloroform	23.0	0.50	0.33	ug/l	25.0	ND	92	65-135			
Chloromethane	25.6	0.50	0.40	ug/l	25.0	ND	103	45-145			
Dibromochloromethane	23.2	0.50	0.40	ug/l	25.0	ND	93	65-140			
1,2-Dichlorobenzene	23.4	0.50	0.32	ug/l	25.0	ND	94	75-125			
1,3-Dichlorobenzene	24.0	0.50	0.35	ug/l	25.0	ND	96	75-125			
1,4-Dichlorobenzene	24.0	0.50	0.37	ug/l	25.0	ND	96	75-125			
1,1-Dichloroethane	22.7	0.50	0.40	ug/l	25.0	ND	91	65-130			
1,2-Dichloroethane	23.4	0.50	0.28	ug/l	25.0	ND	93	60-140			
1,1-Dichloroethene	25.0	0.50	0.42	ug/l	25.0	0.470	98	60-130			
cis-1,2-Dichloroethene	23.1	0.50	0.32	ug/l	25.0	ND	93	65-130			
trans-1,2-Dichloroethene	22.8	0.50	0.30	ug/l	25.0	ND	91	65-130			
1,2-Dichloropropane	20.3	0.50	0.35	ug/l	25.0	ND	81	65-130			
cis-1,3-Dichloropropene	26.6	0.50	0.22	ug/l	25.0	ND	106	70-130			
trans-1,3-Dichloropropene	21.0	0.50	0.32	ug/l	25.0	ND	84	65-135			
Ethylbenzene	25.6	0.50	0.25	ug/l	25.0	ND	103	65-130			
Methylene chloride	18.6	1.0	0.95	ug/l	25.0	ND	74	50-135			
1,1,2,2-Tetrachloroethane	19.8	0.50	0.30	ug/l	25.0	ND	79	55-135			
Tetrachloroethene	29.3	0.50	0.32	ug/l	25.0	3.33	104	65-130			
Toluene	23.0	0.50	0.36	ug/l	25.0	ND	92	70-125			
1,1,1-Trichloroethane	28.6	0.50	0.30	ug/l	25.0	ND	115	65-140			
1,1,2-Trichloroethane	20.7	0.50	0.30	ug/l	25.0	ND	83	65-130			
Trichloroethene	26.5	0.50	0.26	ug/l	25.0	1.63	100	65-125			
Trichlorofluoromethane	29.1	0.50	0.34	ug/l	25.0	ND	116	60-145			
Vinyl chloride	28.1	0.50	0.40	ug/l	25.0	ND	112	45-140			
Xylenes, Total	71.7	1.5	0.90	ug/l	75.0	ND	96	60-130			

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618 Michillinda Avenue, Suite 200
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Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10											
Matrix Spike Analyzed: 02/07/2010 (10B0785-MS1)						**Source: ITB0302-01**					
Surrogate: 4-Bromofluorobenzene	*28.7*			*ug/l*	*25.0*		*115*	*80-120*			
Surrogate: Dibromofluoromethane	*25.0*			*ug/l*	*25.0*		*100*	*80-120*			
Surrogate: Toluene-d8	*27.1*			*ug/l*	*25.0*		*108*	*80-120*			
Matrix Spike Dup Analyzed: 02/07/2010 (10B0785-MSD1)						**Source: ITB0302-01**					
Benzene	24.4	0.50	0.28	ug/l	25.0	ND	98	65-125	13	20	
Bromodichloromethane	29.7	0.50	0.30	ug/l	25.0	ND	119	70-135	12	20	
Bromoform	23.7	0.50	0.40	ug/l	25.0	ND	95	55-135	18	25	
Bromomethane	29.8	1.0	0.42	ug/l	25.0	ND	119	55-145	10	25	
Carbon tetrachloride	39.9	0.50	0.28	ug/l	25.0	ND	160	65-140	11	25	*M7*
Chlorobenzene	26.9	0.50	0.36	ug/l	25.0	ND	108	75-125	13	20	
Chloroethane	27.2	1.0	0.40	ug/l	25.0	ND	109	55-140	11	25	
Chloroform	25.8	0.50	0.33	ug/l	25.0	ND	103	65-135	11	20	
Chloromethane	28.8	0.50	0.40	ug/l	25.0	ND	115	45-145	12	25	
Dibromochloromethane	27.2	0.50	0.40	ug/l	25.0	ND	109	65-140	16	25	
1,2-Dichlorobenzene	26.6	0.50	0.32	ug/l	25.0	ND	106	75-125	13	20	
1,3-Dichlorobenzene	27.4	0.50	0.35	ug/l	25.0	ND	109	75-125	13	20	
1,4-Dichlorobenzene	26.9	0.50	0.37	ug/l	25.0	ND	108	75-125	11	20	
1,1-Dichloroethane	25.2	0.50	0.40	ug/l	25.0	ND	101	65-130	10	20	
1,2-Dichloroethane	26.8	0.50	0.28	ug/l	25.0	ND	107	60-140	14	20	
1,1-Dichloroethene	27.6	0.50	0.42	ug/l	25.0	0.470	108	60-130	10	20	
cis-1,2-Dichloroethene	26.0	0.50	0.32	ug/l	25.0	ND	104	65-130	12	20	
trans-1,2-Dichloroethene	25.4	0.50	0.30	ug/l	25.0	ND	102	65-130	11	20	
1,2-Dichloropropane	23.5	0.50	0.35	ug/l	25.0	ND	94	65-130	15	20	
cis-1,3-Dichloropropene	30.8	0.50	0.22	ug/l	25.0	ND	123	70-130	15	20	
trans-1,3-Dichloropropene	24.5	0.50	0.32	ug/l	25.0	ND	98	65-135	16	25	
Ethylbenzene	29.0	0.50	0.25	ug/l	25.0	ND	116	65-130	12	20	
Methylene chloride	21.4	1.0	0.95	ug/l	25.0	ND	85	50-135	14	20	
1,1,2,2-Tetrachloroethane	24.3	0.50	0.30	ug/l	25.0	ND	97	55-135	20	30	
Tetrachloroethene	32.2	0.50	0.32	ug/l	25.0	3.33	115	65-130	9	20	
Toluene	26.0	0.50	0.36	ug/l	25.0	ND	104	70-125	12	20	
1,1,1-Trichloroethane	31.6	0.50	0.30	ug/l	25.0	ND	126	65-140	10	20	
1,1,2-Trichloroethane	23.6	0.50	0.30	ug/l	25.0	ND	95	65-130	13	25	
Trichloroethene	30.2	0.50	0.26	ug/l	25.0	1.63	114	65-125	13	20	
Trichlorofluoromethane	32.0	0.50	0.34	ug/l	25.0	ND	128	60-145	10	25	
Vinyl chloride	31.2	0.50	0.40	ug/l	25.0	ND	125	45-140	11	30	

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10											
Matrix Spike Dup Analyzed: 02/07/2010 (10B0785-MSD1)						**Source: ITB0302-01**					
Xylenes, Total	80.9	1.5	0.90	ug/l	75.0	ND	108	60-130	12	20	
Surrogate: 4-Bromofluorobenzene	*28.3*			*ug/l*	*25.0*		*113*	*80-120*			
Surrogate: Dibromofluoromethane	*24.7*			*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: Toluene-d8	*27.4*			*ug/l*	*25.0*		*109*	*80-120*			
Batch: 10B0831 Extracted: 02/08/10											
Blank Analyzed: 02/08/2010 (10B0831-BLK1)											
Benzene	ND	0.50	0.28	ug/l							
Bromodichloromethane	ND	0.50	0.30	ug/l							
Bromoform	ND	0.50	0.40	ug/l							
Bromomethane	ND	1.0	0.42	ug/l							
Carbon tetrachloride	ND	0.50	0.28	ug/l							
Chlorobenzene	ND	0.50	0.36	ug/l							
Chloroethane	ND	1.0	0.40	ug/l							
Chloroform	ND	0.50	0.33	ug/l							
Chloromethane	ND	0.50	0.40	ug/l							
Dibromochloromethane	ND	0.50	0.40	ug/l							
1,2-Dichlorobenzene	ND	0.50	0.32	ug/l							
1,3-Dichlorobenzene	ND	0.50	0.35	ug/l							
1,4-Dichlorobenzene	ND	0.50	0.37	ug/l							
1,1-Dichloroethane	ND	0.50	0.40	ug/l							
1,2-Dichloroethane	ND	0.50	0.28	ug/l							
1,1-Dichloroethene	ND	0.50	0.42	ug/l							
cis-1,2-Dichloroethene	ND	0.50	0.32	ug/l							
trans-1,2-Dichloroethene	ND	0.50	0.30	ug/l							
1,2-Dichloropropane	ND	0.50	0.35	ug/l							
cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l							
trans-1,3-Dichloropropene	ND	0.50	0.32	ug/l							
Ethylbenzene	ND	0.50	0.25	ug/l							
Methylene chloride	ND	1.0	0.95	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	0.30	ug/l							
Tetrachloroethene	ND	0.50	0.32	ug/l							
Toluene	ND	0.50	0.36	ug/l							
1,1,1-Trichloroethane	ND	0.50	0.30	ug/l							
1,1,2-Trichloroethane	ND	0.50	0.30	ug/l							

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PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0831 Extracted: 02/08/10											
Blank Analyzed: 02/08/2010 (10B0831-BLK1)											
Trichloroethene	ND	0.50	0.26	ug/l							
Trichlorofluoromethane	ND	0.50	0.34	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	0.50	ug/l							
Vinyl chloride	ND	0.50	0.40	ug/l							
Xylenes, Total	ND	1.5	0.90	ug/l							
Surrogate: 4-Bromofluorobenzene	*23.4*			*ug/l*	*25.0*		*94*	*80-120*			
Surrogate: Dibromofluoromethane	*24.8*			*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: Toluene-d8	*26.6*			*ug/l*	*25.0*		*106*	*80-120*			
LCS Analyzed: 02/08/2010 (10B0831-BS1)											
Benzene	22.7	0.50	0.28	ug/l	25.0		91	70-120			
Bromodichloromethane	24.1	0.50	0.30	ug/l	25.0		97	70-135			
Bromoform	20.9	0.50	0.40	ug/l	25.0		83	55-130			
Bromomethane	27.8	1.0	0.42	ug/l	25.0		111	65-140			
Carbon tetrachloride	24.7	0.50	0.28	ug/l	25.0		99	65-140			
Chlorobenzene	24.7	0.50	0.36	ug/l	25.0		99	75-120			
Chloroethane	26.1	1.0	0.40	ug/l	25.0		105	60-140			
Chloroform	23.5	0.50	0.33	ug/l	25.0		94	70-130			
Chloromethane	27.1	0.50	0.40	ug/l	25.0		109	50-140			
Dibromochloromethane	22.6	0.50	0.40	ug/l	25.0		90	70-140			
1,2-Dichlorobenzene	24.9	0.50	0.32	ug/l	25.0		99	75-120			
1,3-Dichlorobenzene	25.8	0.50	0.35	ug/l	25.0		103	75-120			
1,4-Dichlorobenzene	24.8	0.50	0.37	ug/l	25.0		99	75-120			
1,1-Dichloroethane	23.3	0.50	0.40	ug/l	25.0		93	70-125			
1,2-Dichloroethane	23.2	0.50	0.28	ug/l	25.0		93	60-140			
1,1-Dichloroethene	26.2	0.50	0.42	ug/l	25.0		105	70-125			
cis-1,2-Dichloroethene	25.8	0.50	0.32	ug/l	25.0		103	70-125			
trans-1,2-Dichloroethene	24.7	0.50	0.30	ug/l	25.0		99	70-125			
1,2-Dichloropropane	21.7	0.50	0.35	ug/l	25.0		87	70-125			
cis-1,3-Dichloropropene	26.0	0.50	0.22	ug/l	25.0		104	75-125			
trans-1,3-Dichloropropene	20.0	0.50	0.32	ug/l	25.0		80	70-125			
Ethylbenzene	24.8	0.50	0.25	ug/l	25.0		99	75-125			
Methylene chloride	23.4	1.0	0.95	ug/l	25.0		94	55-130			
1,1,2,2-Tetrachloroethane	26.6	0.50	0.30	ug/l	25.0		107	55-130			
Tetrachloroethene	25.5	0.50	0.32	ug/l	25.0		102	70-125			
Toluene	23.8	0.50	0.36	ug/l	25.0		95	70-120			

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0831 Extracted: 02/08/10											
LCS Analyzed: 02/08/2010 (10B0831-BS1)											
1,1,1-Trichloroethane	23.9	0.50	0.30	ug/l	25.0		95	65-135			
1,1,2-Trichloroethane	24.1	0.50	0.30	ug/l	25.0		96	70-125			
Trichloroethene	25.0	0.50	0.26	ug/l	25.0		100	70-125			
Trichlorofluoromethane	27.9	0.50	0.34	ug/l	25.0		112	65-145			
Vinyl chloride	31.7	0.50	0.40	ug/l	25.0		127	55-135			
Xylenes, Total	77.7	1.5	0.90	ug/l	75.0		104	70-125			
Surrogate: 4-Bromofluorobenzene	*25.4*			*ug/l*	*25.0*		*102*	*80-120*			
Surrogate: Dibromofluoromethane	*25.4*			*ug/l*	*25.0*		*101*	*80-120*			
Surrogate: Toluene-d8	*26.6*			*ug/l*	*25.0*		*106*	*80-120*			
Matrix Spike Analyzed: 02/08/2010 (10B0831-MS1)						**Source: ITA2535-01RE1**					
Benzene	24.7	0.50	0.28	ug/l	25.0	ND	99	65-125			
Bromodichloromethane	28.9	0.50	0.30	ug/l	25.0	1.69	109	70-135			
Bromoform	33.9	0.50	0.40	ug/l	25.0	8.96	100	55-135			
Bromomethane	29.6	1.0	0.42	ug/l	25.0	ND	118	55-145			
Carbon tetrachloride	26.1	0.50	0.28	ug/l	25.0	ND	104	65-140			
Chlorobenzene	27.0	0.50	0.36	ug/l	25.0	ND	108	75-125			
Chloroethane	27.8	1.0	0.40	ug/l	25.0	ND	111	55-140			
Chloroform	28.2	0.50	0.33	ug/l	25.0	1.71	106	65-135			
Chloromethane	30.0	0.50	0.40	ug/l	25.0	ND	120	45-145			
Dibromochloromethane	30.8	0.50	0.40	ug/l	25.0	4.84	104	65-140			
1,2-Dichlorobenzene	26.3	0.50	0.32	ug/l	25.0	ND	105	75-125			
1,3-Dichlorobenzene	27.2	0.50	0.35	ug/l	25.0	ND	109	75-125			
1,4-Dichlorobenzene	26.4	0.50	0.37	ug/l	25.0	ND	106	75-125			
1,1-Dichloroethane	26.1	0.50	0.40	ug/l	25.0	ND	104	65-130			
1,2-Dichloroethane	25.5	0.50	0.28	ug/l	25.0	ND	102	60-140			
1,1-Dichloroethene	27.4	0.50	0.42	ug/l	25.0	ND	109	60-130			
cis-1,2-Dichloroethene	29.0	0.50	0.32	ug/l	25.0	ND	116	65-130			
trans-1,2-Dichloroethene	27.6	0.50	0.30	ug/l	25.0	ND	110	65-130			
1,2-Dichloropropane	24.2	0.50	0.35	ug/l	25.0	ND	97	65-130			
cis-1,3-Dichloropropene	29.6	0.50	0.22	ug/l	25.0	ND	119	70-130			
trans-1,3-Dichloropropene	22.5	0.50	0.32	ug/l	25.0	ND	90	65-135			
Ethylbenzene	26.1	0.50	0.25	ug/l	25.0	ND	105	65-130			
Methylene chloride	25.8	1.0	0.95	ug/l	25.0	ND	103	50-135			
1,1,2,2-Tetrachloroethane	28.7	0.50	0.30	ug/l	25.0	ND	115	55-135			
Tetrachloroethene	26.4	0.50	0.32	ug/l	25.0	ND	105	65-130			

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 009

Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0831 Extracted: 02/08/10											
Matrix Spike Analyzed: 02/08/2010 (10B0831-MS1)						**Source: ITA2535-01RE1**					
Toluene	25.6	0.50	0.36	ug/l	25.0	ND	102	70-125			
1,1,1-Trichloroethane	26.1	0.50	0.30	ug/l	25.0	ND	104	65-140			
1,1,2-Trichloroethane	26.4	0.50	0.30	ug/l	25.0	ND	106	65-130			
Trichloroethene	26.5	0.50	0.26	ug/l	25.0	ND	106	65-125			
Trichlorofluoromethane	29.0	0.50	0.34	ug/l	25.0	ND	116	60-145			
Vinyl chloride	33.2	0.50	0.40	ug/l	25.0	ND	133	45-140			
Xylenes, Total	82.5	1.5	0.90	ug/l	75.0	ND	110	60-130			
Surrogate: 4-Bromofluorobenzene	*27.5*			*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Dibromofluoromethane	*26.5*			*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: Toluene-d8	*26.4*			*ug/l*	*25.0*		*106*	*80-120*			
Matrix Spike Dup Analyzed: 02/08/2010 (10B0831-MSD1)						**Source: ITA2535-01RE1**					
Benzene	24.9	0.50	0.28	ug/l	25.0	ND	100	65-125	0.7	20	
Bromodichloromethane	29.8	0.50	0.30	ug/l	25.0	1.69	113	70-135	3	20	
Bromoform	34.1	0.50	0.40	ug/l	25.0	8.96	101	55-135	0.6	25	
Bromomethane	28.9	1.0	0.42	ug/l	25.0	ND	115	55-145	2	25	
Carbon tetrachloride	26.5	0.50	0.28	ug/l	25.0	ND	106	65-140	2	25	
Chlorobenzene	26.4	0.50	0.36	ug/l	25.0	ND	106	75-125	2	20	
Chloroethane	27.5	1.0	0.40	ug/l	25.0	ND	110	55-140	1	25	
Chloroform	28.2	0.50	0.33	ug/l	25.0	1.71	106	65-135	0.04	20	
Chloromethane	28.6	0.50	0.40	ug/l	25.0	ND	114	45-145	5	25	
Dibromochloromethane	30.9	0.50	0.40	ug/l	25.0	4.84	104	65-140	0.4	25	
1,2-Dichlorobenzene	26.6	0.50	0.32	ug/l	25.0	ND	106	75-125	0.9	20	
1,3-Dichlorobenzene	27.2	0.50	0.35	ug/l	25.0	ND	109	75-125	0.2	20	
1,4-Dichlorobenzene	26.6	0.50	0.37	ug/l	25.0	ND	106	75-125	0.6	20	
1,1-Dichloroethane	25.7	0.50	0.40	ug/l	25.0	ND	103	65-130	1	20	
1,2-Dichloroethane	26.1	0.50	0.28	ug/l	25.0	ND	104	60-140	2	20	
1,1-Dichloroethene	26.7	0.50	0.42	ug/l	25.0	ND	107	60-130	3	20	
cis-1,2-Dichloroethene	28.8	0.50	0.32	ug/l	25.0	ND	115	65-130	0.6	20	
trans-1,2-Dichloroethene	26.9	0.50	0.30	ug/l	25.0	ND	108	65-130	2	20	
1,2-Dichloropropane	24.2	0.50	0.35	ug/l	25.0	ND	97	65-130	0.04	20	
cis-1,3-Dichloropropene	29.9	0.50	0.22	ug/l	25.0	ND	120	70-130	0.9	20	
trans-1,3-Dichloropropene	23.2	0.50	0.32	ug/l	25.0	ND	93	65-135	3	25	
Ethylbenzene	25.9	0.50	0.25	ug/l	25.0	ND	104	65-130	0.9	20	
Methylene chloride	25.3	1.0	0.95	ug/l	25.0	ND	101	50-135	2	20	
1,1,2,2-Tetrachloroethane	29.6	0.50	0.30	ug/l	25.0	ND	118	55-135	3	30	

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Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0831 Extracted: 02/08/10											
Matrix Spike Dup Analyzed: 02/08/2010 (10B0831-MSD1)						**Source: ITA2535-01RE1**					
Tetrachloroethene	26.0	0.50	0.32	ug/l	25.0	ND	104	65-130	1	20	
Toluene	25.8	0.50	0.36	ug/l	25.0	ND	103	70-125	0.7	20	
1,1,1-Trichloroethane	26.0	0.50	0.30	ug/l	25.0	ND	104	65-140	0.7	20	
1,1,2-Trichloroethane	26.5	0.50	0.30	ug/l	25.0	ND	106	65-130	0.4	25	
Trichloroethene	26.9	0.50	0.26	ug/l	25.0	ND	108	65-125	1	20	
Trichlorofluoromethane	28.9	0.50	0.34	ug/l	25.0	ND	115	60-145	0.7	25	
Vinyl chloride	31.4	0.50	0.40	ug/l	25.0	ND	126	45-140	6	30	
Xylenes, Total	81.9	1.5	0.90	ug/l	75.0	ND	109	60-130	0.7	20	
Surrogate: 4-Bromofluorobenzene	*27.6*			*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Dibromofluoromethane	*26.2*			*ug/l*	*25.0*		*105*	*80-120*			
Surrogate: Toluene-d8	*26.7*			*ug/l*	*25.0*		*107*	*80-120*			

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PURGEABLES-- GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10											
Blank Analyzed: 02/07/2010 (10B0785-BLK1)											
Acrolein	ND	5.0	4.0	ug/l							
Acrylonitrile	ND	2.0	1.2	ug/l							
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l							
Surrogate: 4-Bromofluorobenzene	*26.2*			*ug/l*	*25.0*		*105*	*80-120*			
Surrogate: Dibromofluoromethane	*23.9*			*ug/l*	*25.0*		*96*	*80-120*			
Surrogate: Toluene-d8	*27.0*			*ug/l*	*25.0*		*108*	*80-120*			
LCS Analyzed: 02/07/2010 (10B0785-BS1)											
2-Chloroethyl vinyl ether	18.7	5.0	1.8	ug/l	25.0		75	25-170			
Surrogate: 4-Bromofluorobenzene	*28.3*			*ug/l*	*25.0*		*113*	*80-120*			
Surrogate: Dibromofluoromethane	*24.8*			*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: Toluene-d8	*27.3*			*ug/l*	*25.0*		*109*	*80-120*			
Matrix Spike Analyzed: 02/07/2010 (10B0785-MS1)						**Source: ITB0302-01**					
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l	25.0	ND		25-170			*M13*
Surrogate: 4-Bromofluorobenzene	*28.7*			*ug/l*	*25.0*		*115*	*80-120*			
Surrogate: Dibromofluoromethane	*25.0*			*ug/l*	*25.0*		*100*	*80-120*			
Surrogate: Toluene-d8	*27.1*			*ug/l*	*25.0*		*108*	*80-120*			
Matrix Spike Dup Analyzed: 02/07/2010 (10B0785-MSD1)						**Source: ITB0302-01**					
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l	25.0	ND		25-170		25	*M13*
Surrogate: 4-Bromofluorobenzene	*28.3*			*ug/l*	*25.0*		*113*	*80-120*			
Surrogate: Dibromofluoromethane	*24.7*			*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: Toluene-d8	*27.4*			*ug/l*	*25.0*		*109*	*80-120*			
Batch: 10B0831 Extracted: 02/08/10											
Blank Analyzed: 02/08/2010 (10B0831-BLK1)											
Acrolein	ND	5.0	4.0	ug/l							
Acrylonitrile	ND	2.0	1.2	ug/l							
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l							
Surrogate: 4-Bromofluorobenzene	*23.4*			*ug/l*	*25.0*		*94*	*80-120*			
Surrogate: Dibromofluoromethane	*24.8*			*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: Toluene-d8	*26.6*			*ug/l*	*25.0*		*106*	*80-120*			

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METHOD BLANK/QC DATA

PURGEABLES-- GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0831 Extracted: 02/08/10											
LCS Analyzed: 02/08/2010 (10B0831-BS1)											
2-Chloroethyl vinyl ether	12.9	5.0	1.8	ug/l	25.0		52	25-170			
Surrogate: 4-Bromofluorobenzene	*25.4*			*ug/l*	*25.0*		*102*	*80-120*			
Surrogate: Dibromofluoromethane	*25.4*			*ug/l*	*25.0*		*101*	*80-120*			
Surrogate: Toluene-d8	*26.6*			*ug/l*	*25.0*		*106*	*80-120*			
Matrix Spike Analyzed: 02/08/2010 (10B0831-MS1)						**Source: ITA2535-01RE1**					
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l	25.0	ND		25-170			*M13*
Surrogate: 4-Bromofluorobenzene	*27.5*			*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Dibromofluoromethane	*26.5*			*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: Toluene-d8	*26.4*			*ug/l*	*25.0*		*106*	*80-120*			
Matrix Spike Dup Analyzed: 02/08/2010 (10B0831-MSD1)						**Source: ITA2535-01RE1**					
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l	25.0	ND		25-170		25	*M13*
Surrogate: 4-Bromofluorobenzene	*27.6*			*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Dibromofluoromethane	*26.2*			*ug/l*	*25.0*		*105*	*80-120*			
Surrogate: Toluene-d8	*26.7*			*ug/l*	*25.0*		*107*	*80-120*			

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METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1058 Extracted: 02/09/10											
Blank Analyzed: 02/11/2010 (10B1058-BLK1)											
Acenaphthene	ND	10	3.0	ug/l							
Acenaphthylene	ND	10	3.0	ug/l							
Aniline	ND	10	3.5	ug/l							
Anthracene	ND	10	2.5	ug/l							
Benzidine	ND	20	10	ug/l							
Benzo(a)anthracene	ND	10	2.5	ug/l							
Benzo(a)pyrene	ND	10	3.0	ug/l							
Benzo(b)fluoranthene	ND	10	2.0	ug/l							
Benzo(g,h,i)perylene	ND	10	4.0	ug/l							
Benzo(k)fluoranthene	ND	10	2.5	ug/l							
Benzoic acid	ND	20	10	ug/l							
Benzyl alcohol	ND	20	3.5	ug/l							
4-Bromophenyl phenyl ether	ND	10	3.0	ug/l							
Butyl benzyl phthalate	ND	20	4.0	ug/l							
4-Chloro-3-methylphenol	ND	20	2.5	ug/l							
4-Chloroaniline	ND	10	2.0	ug/l							
Bis(2-chloroethoxy)methane	ND	10	3.0	ug/l							
Bis(2-chloroethyl)ether	ND	10	3.0	ug/l							
Bis(2-chloroisopropyl)ether	ND	10	2.5	ug/l							
Bis(2-ethylhexyl)phthalate	ND	50	4.0	ug/l							
2-Chloronaphthalene	ND	10	3.0	ug/l							
2-Chlorophenol	ND	10	3.0	ug/l							
4-Chlorophenyl phenyl ether	ND	10	2.5	ug/l							
Chrysene	ND	10	2.5	ug/l							
Dibenz(a,h)anthracene	ND	20	3.0	ug/l							
Dibenzofuran	ND	10	4.0	ug/l							
Di-n-butyl phthalate	ND	20	3.0	ug/l							
3,3'-Dichlorobenzidine	ND	20	7.5	ug/l							
2,4-Dichlorophenol	ND	10	3.5	ug/l							
Diethyl phthalate	ND	10	3.5	ug/l							
2,4-Dimethylphenol	ND	20	3.5	ug/l							
Dimethyl phthalate	ND	10	2.5	ug/l							
4,6-Dinitro-2-methylphenol	ND	20	4.0	ug/l							
2,4-Dinitrophenol	ND	20	8.0	ug/l							
2,4-Dinitrotoluene	ND	10	3.5	ug/l							

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Sampled: 02/05/10
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METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1058 Extracted: 02/09/10											
Blank Analyzed: 02/11/2010 (10B1058-BLK1)											
2,6-Dinitrotoluene	ND	10	2.0	ug/l							
Di-n-octyl phthalate	ND	20	3.5	ug/l							
1,2-Diphenylhydrazine/Azobenzene	ND	20	2.5	ug/l							
Fluoranthene	ND	10	3.0	ug/l							
Fluorene	ND	10	3.0	ug/l							
Hexachlorobenzene	ND	10	3.0	ug/l							
Hexachlorobutadiene	ND	10	4.0	ug/l							
Hexachlorocyclopentadiene	ND	20	5.0	ug/l							
Hexachloroethane	ND	10	3.5	ug/l							
Indeno(1,2,3-cd)pyrene	ND	20	3.5	ug/l							
Isophorone	ND	10	3.0	ug/l							
2-Methylnaphthalene	ND	10	2.0	ug/l							
2-Methylphenol	ND	10	3.0	ug/l							
4-Methylphenol	ND	10	3.0	ug/l							
Naphthalene	ND	10	3.0	ug/l							
2-Nitroaniline	ND	20	2.0	ug/l							
3-Nitroaniline	ND	20	3.0	ug/l							
4-Nitroaniline	ND	20	4.0	ug/l							
Nitrobenzene	ND	20	3.0	ug/l							
2-Nitrophenol	ND	10	3.5	ug/l							
4-Nitrophenol	ND	20	5.5	ug/l							
N-Nitroso-di-n-propylamine	ND	10	3.5	ug/l							
N-Nitrosodimethylamine	ND	20	2.5	ug/l							
N-Nitrosodiphenylamine	ND	10	2.0	ug/l							
Pentachlorophenol	ND	20	3.5	ug/l							
Phenanthrene	ND	10	3.5	ug/l							
Phenol	ND	10	2.0	ug/l							
Pyrene	ND	10	4.0	ug/l							
1,2,4-Trichlorobenzene	ND	10	2.5	ug/l							
2,4,5-Trichlorophenol	ND	20	3.0	ug/l							
2,4,6-Trichlorophenol	ND	20	4.5	ug/l							
Surrogate: 2,4,6-Tribromophenol	*198*			*ug/l*	*200*		*99*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*97.6*			*ug/l*	*100*		*98*	*50-120*			
Surrogate: 2-Fluorophenol	*155*			*ug/l*	*200*		*78*	*30-120*			
Surrogate: Nitrobenzene-d5	*97.6*			*ug/l*	*100*		*98*	*45-120*			

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1058 Extracted: 02/09/10											
Blank Analyzed: 02/11/2010 (10B1058-BLK1)											
Surrogate: Phenol-d6	*172*			*ug/l*	*200*		*86*	*35-120*			
Surrogate: Terphenyl-d14	*101*			*ug/l*	*100*		*101*	*50-125*			
LCS Analyzed: 02/11/2010 (10B1058-BS1)											**MNR1**
Acenaphthene	83.7	10	3.0	ug/l	100		84	60-120			
Acenaphthylene	85.2	10	3.0	ug/l	100		85	60-120			
Aniline	66.2	10	3.5	ug/l	100		66	35-120			
Anthracene	87.5	10	2.5	ug/l	100		88	65-120			
Benzidine	125	20	10	ug/l	100		125	30-160			
Benzo(a)anthracene	87.8	10	2.5	ug/l	100		88	65-120			
Benzo(a)pyrene	92.0	10	3.0	ug/l	100		92	55-130			
Benzo(b)fluoranthene	91.3	10	2.0	ug/l	100		91	55-125			
Benzo(g,h,i)perylene	97.7	10	4.0	ug/l	100		98	45-135			
Benzo(k)fluoranthene	88.1	10	2.5	ug/l	100		88	50-125			
Benzoic acid	60.2	20	10	ug/l	100		60	25-120			
Benzyl alcohol	103	20	3.5	ug/l	100		103	50-120			
4-Bromophenyl phenyl ether	84.4	10	3.0	ug/l	100		84	60-120			
Butyl benzyl phthalate	95.7	20	4.0	ug/l	100		96	55-130			
4-Chloro-3-methylphenol	79.3	20	2.5	ug/l	100		79	60-120			
4-Chloroaniline	78.9	10	2.0	ug/l	100		79	55-120			
Bis(2-chloroethoxy)methane	82.8	10	3.0	ug/l	100		83	55-120			
Bis(2-chloroethyl)ether	75.1	10	3.0	ug/l	100		75	50-120			
Bis(2-chloroisopropyl)ether	86.2	10	2.5	ug/l	100		86	45-120			
Bis(2-ethylhexyl)phthalate	101	50	4.0	ug/l	100		101	65-130			
2-Chloronaphthalene	82.1	10	3.0	ug/l	100		82	60-120			
2-Chlorophenol	69.1	10	3.0	ug/l	100		69	45-120			
4-Chlorophenyl phenyl ether	82.4	10	2.5	ug/l	100		82	65-120			
Chrysene	91.9	10	2.5	ug/l	100		92	65-120			
Dibenz(a,h)anthracene	99.4	20	3.0	ug/l	100		99	50-135			
Dibenzofuran	84.0	10	4.0	ug/l	100		84	65-120			
Di-n-butyl phthalate	90.5	20	3.0	ug/l	100		90	60-125			
3,3'-Dichlorobenzidine	77.2	20	7.5	ug/l	100		77	45-135			
2,4-Dichlorophenol	76.6	10	3.5	ug/l	100		77	55-120			
Diethyl phthalate	82.1	10	3.5	ug/l	100		82	55-120			
2,4-Dimethylphenol	73.4	20	3.5	ug/l	100		73	40-120			
Dimethyl phthalate	83.2	10	2.5	ug/l	100		83	30-120			

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

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1058 Extracted: 02/09/10											
LCS Analyzed: 02/11/2010 (10B1058-BS1)											**MNR1**
4,6-Dinitro-2-methylphenol	100	20	4.0	ug/l	100		100	45-120			
2,4-Dinitrophenol	88.4	20	8.0	ug/l	100		88	40-120			
2,4-Dinitrotoluene	86.2	10	3.5	ug/l	100		86	65-120			
2,6-Dinitrotoluene	85.8	10	2.0	ug/l	100		86	65-120			
Di-n-octyl phthalate	102	20	3.5	ug/l	100		102	65-135			
1,2-Diphenylhydrazine/Azobenzene	84.4	20	2.5	ug/l	100		84	60-120			
Fluoranthene	87.7	10	3.0	ug/l	100		88	60-120			
Fluorene	82.6	10	3.0	ug/l	100		83	65-120			
Hexachlorobenzene	82.1	10	3.0	ug/l	100		82	60-120			
Hexachlorobutadiene	61.7	10	4.0	ug/l	100		62	40-120			
Hexachlorocyclopentadiene	136	20	5.0	ug/l	100		136	25-120			*L*
Hexachloroethane	57.0	10	3.5	ug/l	100		57	35-120			
Indeno(1,2,3-cd)pyrene	92.7	20	3.5	ug/l	100		93	45-135			
Isophorone	88.0	10	3.0	ug/l	100		88	50-120			
2-Methylnaphthalene	77.6	10	2.0	ug/l	100		78	55-120			
2-Methylphenol	72.8	10	3.0	ug/l	100		73	50-120			
4-Methylphenol	76.5	10	3.0	ug/l	100		76	50-120			
Naphthalene	76.2	10	3.0	ug/l	100		76	55-120			
2-Nitroaniline	90.4	20	2.0	ug/l	100		90	65-120			
3-Nitroaniline	87.8	20	3.0	ug/l	100		88	60-120			
4-Nitroaniline	88.7	20	4.0	ug/l	100		89	55-125			
Nitrobenzene	80.0	20	3.0	ug/l	100		80	55-120			
2-Nitrophenol	77.3	10	3.5	ug/l	100		77	50-120			
4-Nitrophenol	74.4	20	5.5	ug/l	100		74	45-120			
N-Nitroso-di-n-propylamine	86.4	10	3.5	ug/l	100		86	45-120			
N-Nitrosodimethylamine	71.5	20	2.5	ug/l	100		72	45-120			
N-Nitrosodiphenylamine	92.9	10	2.0	ug/l	100		93	60-120			
Pentachlorophenol	76.6	20	3.5	ug/l	100		77	50-120			
Phenanthrene	86.5	10	3.5	ug/l	100		86	65-120			
Phenol	74.1	10	2.0	ug/l	100		74	40-120			
Pyrene	88.8	10	4.0	ug/l	100		89	55-125			
1,2,4-Trichlorobenzene	69.0	10	2.5	ug/l	100		69	45-120			
2,4,5-Trichlorophenol	81.7	20	3.0	ug/l	100		82	55-120			
2,4,6-Trichlorophenol	82.2	20	4.5	ug/l	100		82	55-120			
Surrogate: 2,4,6-Tribromophenol	*172*			*ug/l*	*200*		*86*	*40-120*			

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METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1058 Extracted: 02/09/10											
LCS Analyzed: 02/11/2010 (10B1058-BS1)											**MNR1**
Surrogate: 2-Fluorobiphenyl	*84.2*			*ug/l*	*100*		*84*	*50-120*			
Surrogate: 2-Fluorophenol	*115*			*ug/l*	*200*		*58*	*30-120*			
Surrogate: Nitrobenzene-d5	*79.7*			*ug/l*	*100*		*80*	*45-120*			
Surrogate: Phenol-d6	*133*			*ug/l*	*200*		*66*	*35-120*			
Surrogate: Terphenyl-d14	*89.4*			*ug/l*	*100*		*89*	*50-125*			
LCS Dup Analyzed: 02/11/2010 (10B1058-BSD1)											
Acenaphthene	81.4	10	3.0	ug/l	100		81	60-120	3	20	
Acenaphthylene	82.9	10	3.0	ug/l	100		83	60-120	3	20	
Aniline	79.3	10	3.5	ug/l	100		79	35-120	18	30	
Anthracene	83.9	10	2.5	ug/l	100		84	65-120	4	20	
Benzidine	120	20	10	ug/l	100		120	30-160	4	35	
Benzo(a)anthracene	84.7	10	2.5	ug/l	100		85	65-120	4	20	
Benzo(a)pyrene	89.5	10	3.0	ug/l	100		90	55-130	3	25	
Benzo(b)fluoranthene	89.4	10	2.0	ug/l	100		89	55-125	2	25	
Benzo(g,h,i)perylene	92.3	10	4.0	ug/l	100		92	45-135	6	25	
Benzo(k)fluoranthene	88.9	10	2.5	ug/l	100		89	50-125	0.9	20	
Benzoic acid	57.0	20	10	ug/l	100		57	25-120	5	30	
Benzyl alcohol	103	20	3.5	ug/l	100		103	50-120	0.5	20	
4-Bromophenyl phenyl ether	79.9	10	3.0	ug/l	100		80	60-120	6	25	
Butyl benzyl phthalate	90.8	20	4.0	ug/l	100		91	55-130	5	20	
4-Chloro-3-methylphenol	80.0	20	2.5	ug/l	100		80	60-120	0.9	25	
4-Chloroaniline	82.4	10	2.0	ug/l	100		82	55-120	4	25	
Bis(2-chloroethoxy)methane	82.8	10	3.0	ug/l	100		83	55-120	0.07	20	
Bis(2-chloroethyl)ether	74.4	10	3.0	ug/l	100		74	50-120	1	20	
Bis(2-chloroisopropyl)ether	86.0	10	2.5	ug/l	100		86	45-120	0.3	20	
Bis(2-ethylhexyl)phthalate	95.8	50	4.0	ug/l	100		96	65-130	5	20	
2-Chloronaphthalene	79.6	10	3.0	ug/l	100		80	60-120	3	20	
2-Chlorophenol	65.6	10	3.0	ug/l	100		66	45-120	5	25	
4-Chlorophenyl phenyl ether	79.6	10	2.5	ug/l	100		80	65-120	3	20	
Chrysene	88.2	10	2.5	ug/l	100		88	65-120	4	20	
Dibenz(a,h)anthracene	95.5	20	3.0	ug/l	100		96	50-135	4	25	
Dibenzofuran	82.1	10	4.0	ug/l	100		82	65-120	2	20	
Di-n-butyl phthalate	87.3	20	3.0	ug/l	100		87	60-125	4	20	
3,3'-Dichlorobenzidine	76.5	20	7.5	ug/l	100		76	45-135	1	25	
2,4-Dichlorophenol	74.0	10	3.5	ug/l	100		74	55-120	3	20	

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METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1058 Extracted: 02/09/10											
LCS Dup Analyzed: 02/11/2010 (10B1058-BSD1)											
Diethyl phthalate	79.9	10	3.5	ug/l	100		80	55-120	3	30	
2,4-Dimethylphenol	70.8	20	3.5	ug/l	100		71	40-120	3	25	
Dimethyl phthalate	80.7	10	2.5	ug/l	100		81	30-120	3	30	
4,6-Dinitro-2-methylphenol	97.0	20	4.0	ug/l	100		97	45-120	3	25	
2,4-Dinitrophenol	88.5	20	8.0	ug/l	100		88	40-120	0.09	25	
2,4-Dinitrotoluene	85.8	10	3.5	ug/l	100		86	65-120	0.5	20	
2,6-Dinitrotoluene	83.2	10	2.0	ug/l	100		83	65-120	3	20	
Di-n-octyl phthalate	97.6	20	3.5	ug/l	100		98	65-135	4	20	
1,2-Diphenylhydrazine/Azobenzene	82.4	20	2.5	ug/l	100		82	60-120	2	25	
Fluoranthene	86.7	10	3.0	ug/l	100		87	60-120	1	20	
Fluorene	81.7	10	3.0	ug/l	100		82	65-120	1	20	
Hexachlorobenzene	79.1	10	3.0	ug/l	100		79	60-120	4	20	
Hexachlorobutadiene	62.4	10	4.0	ug/l	100		62	40-120	1	25	
Hexachlorocyclopentadiene	131	20	5.0	ug/l	100		131	25-120	4	30	*L*
Hexachloroethane	55.3	10	3.5	ug/l	100		55	35-120	3	25	
Indeno(1,2,3-cd)pyrene	89.4	20	3.5	ug/l	100		89	45-135	4	25	
Isophorone	87.0	10	3.0	ug/l	100		87	50-120	1	20	
2-Methylnaphthalene	77.6	10	2.0	ug/l	100		78	55-120	0.08	20	
2-Methylphenol	71.3	10	3.0	ug/l	100		71	50-120	2	20	
4-Methylphenol	75.8	10	3.0	ug/l	100		76	50-120	0.9	20	
Naphthalene	75.0	10	3.0	ug/l	100		75	55-120	2	20	
2-Nitroaniline	88.8	20	2.0	ug/l	100		89	65-120	2	20	
3-Nitroaniline	88.1	20	3.0	ug/l	100		88	60-120	0.3	25	
4-Nitroaniline	90.5	20	4.0	ug/l	100		90	55-125	2	20	
Nitrobenzene	79.9	20	3.0	ug/l	100		80	55-120	0.2	25	
2-Nitrophenol	75.4	10	3.5	ug/l	100		75	50-120	3	25	
4-Nitrophenol	71.8	20	5.5	ug/l	100		72	45-120	4	30	
N-Nitroso-di-n-propylamine	86.1	10	3.5	ug/l	100		86	45-120	0.4	20	
N-Nitrosodimethylamine	71.6	20	2.5	ug/l	100		72	45-120	0.08	20	
N-Nitrosodiphenylamine	88.1	10	2.0	ug/l	100		88	60-120	5	20	
Pentachlorophenol	75.1	20	3.5	ug/l	100		75	50-120	2	25	
Phenanthrene	82.8	10	3.5	ug/l	100		83	65-120	4	20	
Phenol	69.3	10	2.0	ug/l	100		69	40-120	7	25	
Pyrene	83.4	10	4.0	ug/l	100		83	55-125	6	25	
1,2,4-Trichlorobenzene	67.7	10	2.5	ug/l	100		68	45-120	2	20	

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METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1058 Extracted: 02/09/10											
LCS Dup Analyzed: 02/11/2010 (10B1058-BSD1)											
2,4,5-Trichlorophenol	78.3	20	3.0	ug/l	100		78	55-120	4	30	
2,4,6-Trichlorophenol	78.1	20	4.5	ug/l	100		78	55-120	5	30	
Surrogate: 2,4,6-Tribromophenol	*160*			*ug/l*	*200*		*80*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*81.4*			*ug/l*	*100*		*81*	*50-120*			
Surrogate: 2-Fluorophenol	*98.8*			*ug/l*	*200*		*49*	*30-120*			
Surrogate: Nitrobenzene-d5	*79.3*			*ug/l*	*100*		*79*	*45-120*			
Surrogate: Phenol-d6	*120*			*ug/l*	*200*		*60*	*35-120*			
Surrogate: Terphenyl-d14	*85.0*			*ug/l*	*100*		*85*	*50-125*			

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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: 10B0759 Extracted: 02/06/10											
Blank Analyzed: 02/09/2010 (10B0759-BLK1)											
Chlorpyrifos	ND	1.0	N/A	ug/l							
Diazinon	ND	0.25	0.10	ug/l							
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*5.24*			*ug/l*	*5.00*		*105*	*70-130*			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*5.24*			*ug/l*	*5.00*		*105*	*70-130*			
Surrogate: Triphenylphosphate	*5.34*			*ug/l*	*5.00*		*107*	*70-130*			
Surrogate: Triphenylphosphate	*5.34*			*ug/l*	*5.00*		*107*	*70-130*			
Surrogate: Perylene-d12	*4.61*			*ug/l*	*5.00*		*92*	*70-130*			
Surrogate: Perylene-d12	*4.61*			*ug/l*	*5.00*		*92*	*70-130*			
LCS Analyzed: 02/09/2010 (10B0759-BS1)											
Chlorpyrifos	5.29	1.0	0.010	ug/l	5.00		106	70-130			
Diazinon	4.98	0.25	0.10	ug/l	5.00		100	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.21*			*ug/l*	*5.00*		*84*	*70-130*			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.21*			*ug/l*	*5.00*		*84*	*70-130*			
Surrogate: Triphenylphosphate	*5.22*			*ug/l*	*5.00*		*104*	*70-130*			
Surrogate: Triphenylphosphate	*5.22*			*ug/l*	*5.00*		*104*	*70-130*			
Surrogate: Perylene-d12	*5.26*			*ug/l*	*5.00*		*105*	*70-130*			
Surrogate: Perylene-d12	*5.26*			*ug/l*	*5.00*		*105*	*70-130*			
LCS Dup Analyzed: 02/09/2010 (10B0759-BSD1)											
Chlorpyrifos	5.08	1.0	0.010	ug/l	5.00		102	70-130	4	30	
Diazinon	4.81	0.25	0.10	ug/l	5.00		96	70-130	3	30	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.90*			*ug/l*	*5.00*		*98*	*70-130*			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.90*			*ug/l*	*5.00*		*98*	*70-130*			
Surrogate: Triphenylphosphate	*4.87*			*ug/l*	*5.00*		*97*	*70-130*			
Surrogate: Triphenylphosphate	*4.87*			*ug/l*	*5.00*		*97*	*70-130*			
Surrogate: Perylene-d12	*4.89*			*ug/l*	*5.00*		*98*	*70-130*			
Surrogate: Perylene-d12	*4.89*			*ug/l*	*5.00*		*98*	*70-130*			

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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: 10B1291 Extracted: 02/11/10											
Blank Analyzed: 02/12/2010 (10B1291-BLK1)											
4,4'-DDD	ND	0.0050	0.0020	ug/l							
4,4'-DDE	ND	0.0050	0.0030	ug/l							
4,4'-DDT	ND	0.010	0.0040	ug/l							
Aldrin	ND	0.0050	0.0015	ug/l							
alpha-BHC	ND	0.0050	0.0025	ug/l							
beta-BHC	ND	0.010	0.0040	ug/l							
delta-BHC	ND	0.0050	0.0035	ug/l							
Dieldrin	ND	0.0050	0.0020	ug/l							
Endosulfan I	ND	0.0050	0.0020	ug/l							
Endosulfan II	ND	0.0050	0.0030	ug/l							
Endosulfan sulfate	ND	0.010	0.0030	ug/l							
Endrin	ND	0.0050	0.0020	ug/l							
Endrin aldehyde	ND	0.010	0.0020	ug/l							
Endrin ketone	ND	0.010	0.0030	ug/l							
gamma-BHC (Lindane)	ND	0.020	0.0030	ug/l							
Heptachlor	ND	0.010	0.0030	ug/l							
Heptachlor epoxide	ND	0.0050	0.0025	ug/l							
Methoxychlor	ND	0.0050	0.0035	ug/l							
Chlordane	ND	0.10	0.040	ug/l							
Toxaphene	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	*0.387*			*ug/l*	*0.500*		*77*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.240*			*ug/l*	*0.500*		*48*	*35-115*			
LCS Analyzed: 02/12/2010 (10B1291-BS1)											
4,4'-DDD	0.464	0.0050	0.0020	ug/l	0.500		93	55-120			
4,4'-DDE	0.418	0.0050	0.0030	ug/l	0.500		84	50-120			
4,4'-DDT	0.450	0.010	0.0040	ug/l	0.500		90	55-120			
Aldrin	0.374	0.0050	0.0015	ug/l	0.500		75	40-115			
alpha-BHC	0.369	0.0050	0.0025	ug/l	0.500		74	45-115			
beta-BHC	0.361	0.010	0.0040	ug/l	0.500		72	55-115			
delta-BHC	0.404	0.0050	0.0035	ug/l	0.500		81	55-115			
Dieldrin	0.434	0.0050	0.0020	ug/l	0.500		87	55-115			
Endosulfan I	0.423	0.0050	0.0020	ug/l	0.500		85	55-115			
Endosulfan II	0.464	0.0050	0.0030	ug/l	0.500		93	55-120			
Endosulfan sulfate	0.431	0.010	0.0030	ug/l	0.500		86	60-120			
Endrin	0.477	0.0050	0.0020	ug/l	0.500		95	55-115			

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Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1291 Extracted: 02/11/10											
LCS Analyzed: 02/12/2010 (10B1291-BS1)											
Endrin aldehyde	0.393	0.010	0.0020	ug/l	0.500		79	50-120			
Endrin ketone	0.454	0.010	0.0030	ug/l	0.500		91	55-120			
gamma-BHC (Lindane)	0.381	0.020	0.0030	ug/l	0.500		76	45-115			
Heptachlor	0.415	0.010	0.0030	ug/l	0.500		83	45-115			
Heptachlor epoxide	0.407	0.0050	0.0025	ug/l	0.500		81	55-115			
Methoxychlor	0.485	0.0050	0.0035	ug/l	0.500		97	60-120			
Surrogate: Decachlorobiphenyl	*0.394*			*ug/l*	*0.500*		*79*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.339*			*ug/l*	*0.500*		*68*	*35-115*			
Matrix Spike Analyzed: 02/12/2010 (10B1291-MS1)						**Source: ITB0602-01**					
4,4'-DDD	0.362	0.019	0.0075	ug/l	0.472	ND	77	50-125			
4,4'-DDE	0.530	0.019	0.011	ug/l	0.472	ND	112	45-125			
4,4'-DDT	0.402	0.038	0.015	ug/l	0.472	ND	85	50-125			
Aldrin	0.386	0.019	0.0057	ug/l	0.472	ND	82	35-120			
alpha-BHC	0.372	0.019	0.0094	ug/l	0.472	ND	79	40-120			
beta-BHC	0.186	0.038	0.015	ug/l	0.472	ND	39	50-120			*M2*
delta-BHC	0.314	0.019	0.013	ug/l	0.472	ND	67	50-120			
Dieldrin	0.390	0.019	0.0075	ug/l	0.472	ND	83	50-120			
Endosulfan I	0.475	0.019	0.0075	ug/l	0.472	ND	101	50-120			
Endosulfan II	0.390	0.019	0.011	ug/l	0.472	ND	83	50-125			
Endosulfan sulfate	0.333	0.038	0.011	ug/l	0.472	ND	71	55-125			
Endrin	0.413	0.019	0.0075	ug/l	0.472	ND	88	50-120			
Endrin aldehyde	0.190	0.038	0.0075	ug/l	0.472	ND	40	45-125			*M2*
Endrin ketone	0.342	0.038	0.011	ug/l	0.472	ND	72	50-125			
gamma-BHC (Lindane)	0.371	0.075	0.011	ug/l	0.472	ND	79	40-120			
Heptachlor	0.452	0.038	0.011	ug/l	0.472	ND	96	40-120			
Heptachlor epoxide	0.450	0.019	0.0094	ug/l	0.472	ND	95	50-120			
Methoxychlor	0.447	0.019	0.013	ug/l	0.472	ND	95	55-125			
Surrogate: Decachlorobiphenyl	*0.418*			*ug/l*	*0.472*		*89*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.220*			*ug/l*	*0.472*		*47*	*35-115*			

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Report Number: ITB0773

Sampled: 02/05/10
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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: 10B1291 Extracted: 02/11/10											
Matrix Spike Dup Analyzed: 02/12/2010 (10B1291-MSD1)						**Source: ITB0602-01**					
4,4'-DDD	0.364	0.019	0.0075	ug/l	0.472	ND	77	50-125	0.5	30	
4,4'-DDE	0.527	0.019	0.011	ug/l	0.472	ND	112	45-125	0.7	30	
4,4'-DDT	0.396	0.038	0.015	ug/l	0.472	ND	84	50-125	1	30	
Aldrin	0.384	0.019	0.0057	ug/l	0.472	ND	81	35-120	0.6	30	
alpha-BHC	0.367	0.019	0.0094	ug/l	0.472	ND	78	40-120	1	30	
beta-BHC	0.196	0.038	0.015	ug/l	0.472	ND	42	50-120	5	30	*M2*
delta-BHC	0.313	0.019	0.013	ug/l	0.472	ND	66	50-120	0.2	30	
Dieldrin	0.387	0.019	0.0075	ug/l	0.472	ND	82	50-120	0.7	30	
Endosulfan I	0.471	0.019	0.0075	ug/l	0.472	ND	100	50-120	1	30	
Endosulfan II	0.393	0.019	0.011	ug/l	0.472	ND	83	50-125	0.7	30	
Endosulfan sulfate	0.346	0.038	0.011	ug/l	0.472	ND	73	55-125	4	30	
Endrin	0.409	0.019	0.0075	ug/l	0.472	ND	87	50-120	1	30	
Endrin aldehyde	0.197	0.038	0.0075	ug/l	0.472	ND	42	45-125	4	30	*M2*
Endrin ketone	0.338	0.038	0.011	ug/l	0.472	ND	72	50-125	1	30	
gamma-BHC (Lindane)	0.368	0.075	0.011	ug/l	0.472	ND	78	40-120	0.6	30	
Heptachlor	0.441	0.038	0.011	ug/l	0.472	ND	93	40-120	3	30	
Heptachlor epoxide	0.447	0.019	0.0094	ug/l	0.472	ND	95	50-120	0.7	30	
Methoxychlor	0.442	0.019	0.013	ug/l	0.472	ND	94	55-125	1	30	
Surrogate: Decachlorobiphenyl	*0.407*			*ug/l*	*0.472*		*86*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.264*			*ug/l*	*0.472*		*56*	*35-115*			

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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: 10B1291 Extracted: 02/11/10											
Blank Analyzed: 02/11/2010 (10B1291-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	*0.422*			*ug/l*	*0.500*		*84*	*45-120*			
LCS Analyzed: 02/11/2010 (10B1291-BS2)											
Aroclor 1016	2.94	0.50	0.25	ug/l	4.00		74	50-115			
Aroclor 1260	3.60	0.50	0.25	ug/l	4.00		90	60-120			
Surrogate: Decachlorobiphenyl	*0.432*			*ug/l*	*0.500*		*86*	*45-120*			
Matrix Spike Analyzed: 02/11/2010 (10B1291-MS2)						**Source: ITB0602-01**					
Aroclor 1016	4.30	0.47	0.24	ug/l	3.77	ND	114	45-120			
Aroclor 1260	3.32	0.47	0.24	ug/l	3.77	ND	88	55-125			
Surrogate: Decachlorobiphenyl	*0.388*			*ug/l*	*0.472*		*82*	*45-120*			
Matrix Spike Dup Analyzed: 02/11/2010 (10B1291-MSD2)						**Source: ITB0602-01**					
Aroclor 1016	4.36	0.47	0.24	ug/l	3.77	ND	116	45-120	1	30	
Aroclor 1260	3.32	0.47	0.24	ug/l	3.77	ND	88	55-125	0.2	25	
Surrogate: Decachlorobiphenyl	*0.383*			*ug/l*	*0.472*		*81*	*45-120*			

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METHOD BLANK/QC DATA

HEXANE EXTRACTABLE MATERIAL

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1778 Extracted: 02/15/10											
Blank Analyzed: 02/15/2010 (10B1778-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 02/15/2010 (10B1778-BS1)											**MNR1**
Hexane Extractable Material (Oil & Grease)	20.9	5.0	1.4	mg/l	20.0		104	78-114			
LCS Dup Analyzed: 02/15/2010 (10B1778-BSD1)											
Hexane Extractable Material (Oil & Grease)	20.5	5.0	1.4	mg/l	20.0		102	78-114	2	11	

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0921 Extracted: 02/08/10											
Blank Analyzed: 02/08/2010 (10B0921-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 02/08/2010 (10B0921-BS1)											
Mercury	8.22	0.20	0.10	ug/l	8.00		103	85-115			
Matrix Spike Analyzed: 02/08/2010 (10B0921-MS1)						**Source: ITB0263-07**					
Mercury	8.24	0.20	0.10	ug/l	8.00	ND	103	70-130			
Matrix Spike Dup Analyzed: 02/08/2010 (10B0921-MSD1)						**Source: ITB0263-07**					
Mercury	8.09	0.20	0.10	ug/l	8.00	ND	101	70-130	2	20	
Batch: 10B1571 Extracted: 02/12/10											
Blank Analyzed: 02/15/2010 (10B1571-BLK1)											
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/15/2010 (10B1571-BS1)											
Antimony	91.6	2.0	0.30	ug/l	80.0		114	85-115			
Cadmium	85.2	1.0	0.10	ug/l	80.0		107	85-115			
Copper	85.1	2.0	0.50	ug/l	80.0		106	85-115			
Lead	83.1	1.0	0.20	ug/l	80.0		104	85-115			
Thallium	83.3	1.0	0.20	ug/l	80.0		104	85-115			

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METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1571 Extracted: 02/12/10											
Matrix Spike Analyzed: 02/15/2010 (10B1571-MS1)						**Source: ITB0573-01**					
Antimony	104	2.0	0.30	ug/l	80.0	ND	129	70-130			
Cadmium	110	1.0	0.10	ug/l	80.0	ND	137	70-130			*M1*
Copper	87.2	2.0	0.50	ug/l	80.0	0.972	108	70-130			
Lead	84.2	1.0	0.20	ug/l	80.0	0.339	105	70-130			
Thallium	85.1	1.0	0.20	ug/l	80.0	ND	106	70-130			
Matrix Spike Analyzed: 02/15/2010 (10B1571-MS2)						**Source: ITB0729-01**					
Antimony	91.5	2.0	0.30	ug/l	80.0	ND	114	70-130			
Cadmium	96.6	1.0	0.10	ug/l	80.0	ND	121	70-130			
Copper	84.9	2.0	0.50	ug/l	80.0	8.51	95	70-130			
Lead	77.2	1.0	0.20	ug/l	80.0	0.446	96	70-130			
Thallium	77.1	1.0	0.20	ug/l	80.0	ND	96	70-130			
Matrix Spike Dup Analyzed: 02/15/2010 (10B1571-MSD1)						**Source: ITB0573-01**					
Antimony	96.9	2.0	0.30	ug/l	80.0	ND	121	70-130	7	20	
Cadmium	101	1.0	0.10	ug/l	80.0	ND	127	70-130	8	20	
Copper	81.6	2.0	0.50	ug/l	80.0	0.972	101	70-130	7	20	
Lead	80.7	1.0	0.20	ug/l	80.0	0.339	100	70-130	4	20	
Thallium	81.0	1.0	0.20	ug/l	80.0	ND	101	70-130	5	20	
Batch: 10B1770 Extracted: 02/15/10											
Blank Analyzed: 02/15/2010 (10B1770-BLK1)											
Aluminum	ND	0.050	0.040	mg/l							
Arsenic	ND	10	7.0	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	0.0237	0.050	0.020	mg/l							*Ja*
Calcium	ND	0.10	0.050	mg/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Magnesium	ND	0.020	0.012	mg/l							
Nickel	ND	10	2.0	ug/l							
Selenium	ND	10	8.0	ug/l							
Silver	ND	10	6.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							

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METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1770 Extracted: 02/15/10											
LCS Analyzed: 02/15/2010 (10B1770-BS1)											
Aluminum	0.514	0.050	0.040	mg/l	0.500		103	85-115			
Arsenic	481	10	7.0	ug/l	500		96	85-115			
Beryllium	477	2.0	0.90	ug/l	500		95	85-115			
Boron	0.540	0.050	0.020	mg/l	0.500		108	85-115			
Calcium	2.37	0.10	0.050	mg/l	2.50		95	85-115			
Chromium	464	5.0	2.0	ug/l	500		93	85-115			
Iron	0.468	0.040	0.015	mg/l	0.500		94	85-115			
Magnesium	2.28	0.020	0.012	mg/l	2.50		91	85-115			
Nickel	460	10	2.0	ug/l	500		92	85-115			
Selenium	485	10	8.0	ug/l	500		97	85-115			
Silver	261	10	6.0	ug/l	250		104	85-115			
Vanadium	473	10	3.0	ug/l	500		95	85-115			
Zinc	464	20	6.0	ug/l	500		93	85-115			
Matrix Spike Analyzed: 02/15/2010 (10B1770-MS1)						**Source: ITB1567-01**					
Aluminum	5.92	0.050	0.040	mg/l	0.500	5.22	141	70-130			*MHA*
Arsenic	487	10	7.0	ug/l	500	ND	97	70-130			
Beryllium	478	2.0	0.90	ug/l	500	ND	96	70-130			
Boron	0.546	0.050	0.020	mg/l	0.500	0.0706	95	70-130			
Calcium	39.5	0.10	0.050	mg/l	2.50	37.6	78	70-130			*MHA*
Chromium	471	5.0	2.0	ug/l	500	ND	94	70-130			
Iron	1.95	0.040	0.015	mg/l	0.500	1.45	99	70-130			
Magnesium	9.37	0.020	0.012	mg/l	2.50	7.09	91	70-130			
Nickel	468	10	2.0	ug/l	500	3.71	93	70-130			
Selenium	500	10	8.0	ug/l	500	19.4	96	70-130			
Silver	242	10	6.0	ug/l	250	ND	97	70-130			
Vanadium	476	10	3.0	ug/l	500	ND	95	70-130			
Zinc	496	20	6.0	ug/l	500	17.9	96	70-130			

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METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1770 Extracted: 02/15/10											
Matrix Spike Dup Analyzed: 02/15/2010 (10B1770-MSD1)						**Source: ITB1567-01**					
Aluminum	5.90	0.050	0.040	mg/l	0.500	5.22	137	70-130	0.3	20	*MHA*
Arsenic	491	10	7.0	ug/l	500	ND	98	70-130	0.8	20	
Beryllium	483	2.0	0.90	ug/l	500	ND	97	70-130	1	20	
Boron	0.552	0.050	0.020	mg/l	0.500	0.0706	96	70-130	1	20	
Calcium	39.0	0.10	0.050	mg/l	2.50	37.6	58	70-130	1	20	*MHA*
Chromium	475	5.0	2.0	ug/l	500	ND	95	70-130	0.9	20	
Iron	1.98	0.040	0.015	mg/l	0.500	1.45	105	70-130	1	20	
Magnesium	9.31	0.020	0.012	mg/l	2.50	7.09	89	70-130	0.7	20	
Nickel	472	10	2.0	ug/l	500	3.71	94	70-130	0.9	20	
Selenium	503	10	8.0	ug/l	500	19.4	97	70-130	0.5	20	
Silver	245	10	6.0	ug/l	250	ND	98	70-130	1	20	
Vanadium	481	10	3.0	ug/l	500	ND	96	70-130	1	20	
Zinc	484	20	6.0	ug/l	500	17.9	93	70-130	3	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1554 Extracted: 02/12/10											
Blank Analyzed: 02/12/2010 (10B1554-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 02/12/2010 (10B1554-BS1)											
Mercury	8.07	0.20	0.10	ug/l	8.00		101	85-115			
Matrix Spike Analyzed: 02/12/2010 (10B1554-MS1)						**Source: ITB0849-01**					
Mercury	8.19	0.20	0.10	ug/l	8.00	ND	102	70-130			
Matrix Spike Dup Analyzed: 02/12/2010 (10B1554-MSD1)						**Source: ITB0849-01**					
Mercury	8.21	0.20	0.10	ug/l	8.00	ND	103	70-130	0.2	20	
Batch: 10B1782 Extracted: 02/15/10											
Blank Analyzed: 02/15/2010 (10B1782-BLK1)											
Aluminum	ND	0.050	0.040	mg/l							
Arsenic	ND	10	7.0	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	ND	0.10	0.050	mg/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Magnesium	ND	0.020	0.012	mg/l							
Nickel	ND	10	2.0	ug/l							
Selenium	ND	10	8.0	ug/l							
Silver	ND	10	6.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							

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DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1782 Extracted: 02/15/10											
LCS Analyzed: 02/15/2010 (10B1782-BS1)											
Aluminum	0.465	0.050	0.040	mg/l	0.500		93	85-115			
Arsenic	494	10	7.0	ug/l	500		99	85-115			
Beryllium	484	2.0	0.90	ug/l	500		97	85-115			
Boron	0.482	0.050	0.020	mg/l	0.500		96	85-115			
Calcium	2.39	0.10	0.050	mg/l	2.50		95	85-115			
Chromium	472	5.0	2.0	ug/l	500		94	85-115			
Iron	0.495	0.040	0.015	mg/l	0.500		99	85-115			
Magnesium	2.36	0.020	0.012	mg/l	2.50		94	85-115			
Nickel	484	10	2.0	ug/l	500		97	85-115			
Selenium	473	10	8.0	ug/l	500		95	85-115			
Silver	244	10	6.0	ug/l	250		98	85-115			
Vanadium	490	10	3.0	ug/l	500		98	85-115			
Zinc	478	20	6.0	ug/l	500		96	85-115			
Matrix Spike Analyzed: 02/15/2010 (10B1782-MS1)						**Source: ITB0773-02**					
Aluminum	0.502	0.050	0.040	mg/l	0.500	ND	100	70-130			
Arsenic	505	10	7.0	ug/l	500	ND	101	70-130			
Beryllium	486	2.0	0.90	ug/l	500	ND	97	70-130			
Boron	0.521	0.050	0.020	mg/l	0.500	0.0464	95	70-130			
Calcium	13.1	0.10	0.050	mg/l	2.50	11.0	85	70-130			*MHA*
Chromium	480	5.0	2.0	ug/l	500	ND	96	70-130			
Iron	0.513	0.040	0.015	mg/l	0.500	0.0419	94	70-130			
Magnesium	5.27	0.020	0.012	mg/l	2.50	3.02	90	70-130			
Nickel	477	10	2.0	ug/l	500	ND	95	70-130			
Selenium	476	10	8.0	ug/l	500	10.2	93	70-130			
Silver	242	10	6.0	ug/l	250	ND	97	70-130			
Vanadium	482	10	3.0	ug/l	500	ND	96	70-130			
Zinc	474	20	6.0	ug/l	500	ND	95	70-130			

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Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1782 Extracted: 02/15/10											
Matrix Spike Dup Analyzed: 02/15/2010 (10B1782-MSD1)						**Source: ITB0773-02**					
Aluminum	0.522	0.050	0.040	mg/l	0.500	ND	104	70-130	4	20	
Arsenic	497	10	7.0	ug/l	500	ND	99	70-130	1	20	
Beryllium	491	2.0	0.90	ug/l	500	ND	98	70-130	1	20	
Boron	0.527	0.050	0.020	mg/l	0.500	0.0464	96	70-130	1	20	
Calcium	13.3	0.10	0.050	mg/l	2.50	11.0	93	70-130	1	20	*MHA*
Chromium	482	5.0	2.0	ug/l	500	ND	96	70-130	0.6	20	
Iron	0.520	0.040	0.015	mg/l	0.500	0.0419	96	70-130	1	20	
Magnesium	5.33	0.020	0.012	mg/l	2.50	3.02	93	70-130	1	20	
Nickel	478	10	2.0	ug/l	500	ND	96	70-130	0.3	20	
Selenium	478	10	8.0	ug/l	500	10.2	93	70-130	0.3	20	
Silver	245	10	6.0	ug/l	250	ND	98	70-130	1	20	
Vanadium	489	10	3.0	ug/l	500	ND	98	70-130	1	20	
Zinc	479	20	6.0	ug/l	500	ND	96	70-130	1	20	
Batch: 10B1786 Extracted: 02/15/10											
Blank Analyzed: 02/15/2010 (10B1786-BLK1)											
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/15/2010 (10B1786-BS1)											
Antimony	81.7	2.0	0.30	ug/l	80.0		102	85-115			
Cadmium	80.8	1.0	0.10	ug/l	80.0		101	85-115			
Copper	80.3	2.0	0.50	ug/l	80.0		100	85-115			
Lead	83.6	1.0	0.20	ug/l	80.0		104	85-115			
Thallium	82.6	1.0	0.20	ug/l	80.0		103	85-115			

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DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1786 Extracted: 02/15/10											
Matrix Spike Analyzed: 02/15/2010 (10B1786-MS1)						**Source: ITB1567-01**					
Antimony	82.3	2.0	0.30	ug/l	80.0	ND	103	70-130			
Cadmium	79.2	1.0	0.10	ug/l	80.0	ND	99	70-130			
Copper	80.4	2.0	0.50	ug/l	80.0	1.63	98	70-130			
Lead	75.9	1.0	0.20	ug/l	80.0	ND	95	70-130			
Thallium	78.1	1.0	0.20	ug/l	80.0	ND	98	70-130			
Matrix Spike Dup Analyzed: 02/15/2010 (10B1786-MSD1)						**Source: ITB1567-01**					
Antimony	83.0	2.0	0.30	ug/l	80.0	ND	104	70-130	0.9	20	
Cadmium	79.9	1.0	0.10	ug/l	80.0	ND	100	70-130	0.9	20	
Copper	81.3	2.0	0.50	ug/l	80.0	1.63	100	70-130	1	20	
Lead	78.0	1.0	0.20	ug/l	80.0	ND	98	70-130	3	20	
Thallium	79.9	1.0	0.20	ug/l	80.0	ND	100	70-130	2	20	

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DISSOLVED INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0683 Extracted: 02/05/10											
Blank Analyzed: 02/05/2010 (10B0683-BLK1)											
Chromium VI	ND	1.0	0.25	ug/l							
LCS Analyzed: 02/05/2010 (10B0683-BS1)											
Chromium VI	5.10	1.0	0.25	ug/l	5.00		102	90-110			
Matrix Spike Analyzed: 02/05/2010 (10B0683-MS1)						**Source: ITB0773-01**					
Chromium VI	4.72	1.0	0.25	ug/l	5.00	ND	94	90-110			
Matrix Spike Dup Analyzed: 02/05/2010 (10B0683-MSD1)						**Source: ITB0773-01**					
Chromium VI	5.34	1.0	0.25	ug/l	5.00	ND	107	90-110	12	10	*R-3*

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0646 Extracted: 02/05/10											
Blank Analyzed: 02/05/2010 (10B0646-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 02/05/2010 (10B0646-BS1)											
Chloride	5.08	0.50	0.25	mg/l	5.00		102	90-110			*M-3*
Sulfate	10.2	0.50	0.20	mg/l	10.0		102	90-110			
Matrix Spike Analyzed: 02/05/2010 (10B0646-MS1)						**Source: ITB0664-01**					
Sulfate	29.9	2.5	1.0	mg/l	10.0	20.5	94	80-120			
Matrix Spike Analyzed: 02/06/2010 (10B0646-MS2)						**Source: ITB0773-02**					
Chloride	10.4	0.50	0.25	mg/l	5.00	5.38	101	80-120			
Sulfate	19.8	0.50	0.20	mg/l	10.0	9.95	98	80-120			
Matrix Spike Dup Analyzed: 02/05/2010 (10B0646-MSD1)						**Source: ITB0664-01**					
Sulfate	30.2	2.5	1.0	mg/l	10.0	20.5	97	80-120	0.9	20	
Batch: 10B0814 Extracted: 02/08/10											
Blank Analyzed: 02/08/2010 (10B0814-BLK1)											
Fluoride	0.0335	0.10	0.020	mg/l							*Ja*
LCS Analyzed: 02/08/2010 (10B0814-BS1)											
Fluoride	1.04	0.10	0.020	mg/l	1.00		104	90-110			
Matrix Spike Analyzed: 02/08/2010 (10B0814-MS1)						**Source: ITB0610-01**					
Fluoride	1.48	0.10	0.020	mg/l	1.00	0.481	100	80-120			

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0814 Extracted: 02/08/10											
Matrix Spike Dup Analyzed: 02/08/2010 (10B0814-MSD1)						**Source: ITB0610-01**					
Fluoride	1.50	0.10	0.020	mg/l	1.00	0.481	101	80-120	1	20	
Batch: 10B1250 Extracted: 02/10/10											
Blank Analyzed: 02/10/2010 (10B1250-BLK1)											
Total Cyanide	ND	5.0	2.2	ug/l							
LCS Analyzed: 02/10/2010 (10B1250-BS1)											
Total Cyanide	190	5.0	2.2	ug/l	200		95	90-110			
Matrix Spike Analyzed: 02/10/2010 (10B1250-MS1)						**Source: ITB0359-02**					
Total Cyanide	187	5.0	2.2	ug/l	200	ND	94	70-115			
Matrix Spike Dup Analyzed: 02/10/2010 (10B1250-MSD1)						**Source: ITB0359-02**					
Total Cyanide	182	5.0	2.2	ug/l	200	ND	91	70-115	3	15	
Batch: 10B1300 Extracted: 02/11/10											
Blank Analyzed: 02/11/2010 (10B1300-BLK1)											
Total Dissolved Solids	ND	10	1.0	mg/l							
LCS Analyzed: 02/11/2010 (10B1300-BS1)											
Total Dissolved Solids	1010	10	1.0	mg/l	1000		101	90-110			
Duplicate Analyzed: 02/11/2010 (10B1300-DUP1)						**Source: ITB0770-04**					
Total Dissolved Solids	122	10	1.0	mg/l		120			2	10	

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1480 Extracted: 02/12/10											
Blank Analyzed: 02/12/2010 (10B1480-BLK1)											
Perchlorate	ND	4.0	0.90	ug/l							
LCS Analyzed: 02/12/2010 (10B1480-BS1)											
Perchlorate	25.1	4.0	0.90	ug/l	25.0		100	85-115			
Matrix Spike Analyzed: 02/12/2010 (10B1480-MS1)						**Source: ITB0567-01**					
Perchlorate	24.4	4.0	0.90	ug/l	25.0	ND	97	80-120			
Matrix Spike Dup Analyzed: 02/12/2010 (10B1480-MSD1)						**Source: ITB0567-01**					
Perchlorate	24.2	4.0	0.90	ug/l	25.0	ND	97	80-120	0.5	20	
Batch: 10B1557 Extracted: 02/12/10											
Blank Analyzed: 02/12/2010 (10B1557-BLK1)											
Total Suspended Solids	ND	10	1.0	mg/l							
LCS Analyzed: 02/12/2010 (10B1557-BS1)											
Total Suspended Solids	992	10	1.0	mg/l	1000		99	85-115			
Duplicate Analyzed: 02/12/2010 (10B1557-DUP1)						**Source: ITB0768-01**					
Total Suspended Solids	ND	10	1.0	mg/l		ND				10	

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METHOD BLANK/QC DATA

ASTM 5174-91

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 53280 Extracted: 02/23/10											
Matrix Spike Dup Analyzed: 02/26/2010 (F0B090470001D)						**Source: F0B090470001**					
Total Uranium	30	1.4	0.4	pCi/L	27.7	0.566	106	62-150	1	20	
Matrix Spike Analyzed: 02/26/2010 (F0B090470001S)						**Source: F0B090470001**					
Total Uranium	29.7	1.4	0.4	pCi/L	27.7	0.566	105	62-150			
Blank Analyzed: 02/26/2010 (F0B220000280B)						**Source:**					
Total Uranium	0.046	0.693	0.21	pCi/L				-			*U*
LCS Analyzed: 02/26/2010 (F0B220000280C)						**Source:**					
Total Uranium	30.2	0.7	0.2	pCi/L	27.7		109	90-120			

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METHOD BLANK/QC DATA

EPA 900.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 43108 Extracted: 02/10/10											
Matrix Spike Analyzed: 02/18/2010 (F0B090470001S)						**Source: F0B090470001**					
Gross Alpha	47.2	3	1	pCi/L	49.4	2	91	35-150			
Gross Beta	79	4	1.5	pCi/L	68	3.9	110	54-150			
Duplicate Analyzed: 02/18/2010 (F0B090470001X)						**Source: F0B090470001**					
Gross Alpha	0.84	3	0.94	pCi/L		2		-			*U*
Gross Beta	3.2	4	1.5	pCi/L		3.9		-			*Jb*
Blank Analyzed: 02/19/2010 (F0B120000108B)						**Source:**					
Gross Alpha	-0.28	2	0.87	pCi/L				-			*U*
Gross Beta	-0.23	4	1.1	pCi/L				-			*U*
LCS Analyzed: 02/19/2010 (F0B120000108C)						**Source:**					
Gross Alpha	34.8	3	1.2	pCi/L	49.4		70	62-134			
Gross Beta	71.6	4	1	pCi/L	68		105	58-133			

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METHOD BLANK/QC DATA

EPA 901.1 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 42136 Extracted: 02/11/10											
Duplicate Analyzed: 02/19/2010 (F0B090470001X)						**Source: F0B090470001**					
Cesium 137	1.2	20	14	pCi/L		-2.9		-			*U*
Potassium 40	-50	NA	200	pCi/L		-100		-			*U*
Blank Analyzed: 02/19/2010 (F0B110000136B)						**Source:**					
Cesium 137	1.8	20	14	pCi/L				-			*U*
Potassium 40	-80	NA	210	pCi/L				-			*U*
LCS Analyzed: 02/19/2010 (F0B110000136C)						**Source:**					
Americium 241	140000	NA	500	pCi/L	141000		99	87-110			
Cobalt 60	88000	NA	200	pCi/L	87900		100	89-110			
Cesium 137	52900	20	200	pCi/L	53100		100	90-110			

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METHOD BLANK/QC DATA

EPA 903.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 41160 Extracted: 02/10/10											
Duplicate Analyzed: 02/26/2010 (F0B090467001X)						**Source: F0B090467001**					
Radium (226)	0.07	1	0.29	pCi/L		0.089		-			*U*
Blank Analyzed: 02/26/2010 (F0B100000160B)						**Source:**					
Radium (226)	0.092	1	0.14	pCi/L				-			*U*
LCS Analyzed: 02/26/2010 (F0B100000160C)						**Source:**					
Radium (226)	10.4	1	0.2	pCi/L	11.3		93	68-136			

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METHOD BLANK/QC DATA

EPA 904 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 60257 Extracted: 03/01/10											
Blank Analyzed: 03/05/2010 (F0C010000257B)						**Source:**					
Radium 228	0.08	1	0.39	pCi/L				-			*U*
LCS Analyzed: 03/05/2010 (F0C010000257C)						**Source:**					
Radium 228	6.23	1	0.39	pCi/L	6.4		97	60-142			
LCS Dup Analyzed: 03/05/2010 (F0C010000257L)						**Source:**					
Radium 228	6.35	1	0.4	pCi/L	6.4		99	60-142	2	40	

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METHOD BLANK/QC DATA

EPA 905 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 41162 Extracted: 02/10/10											
Duplicate Analyzed: 02/19/2010 (F0B090475001X)						**Source: F0B090475001**					
Strontium 90	-0.15	3	0.42	pCi/L		-0.05		-			*U*
Blank Analyzed: 02/19/2010 (F0B100000162B)						**Source:**					
Strontium 90	-0.15	3	0.38	pCi/L				-			*U*
LCS Analyzed: 02/19/2010 (F0B100000162C)						**Source:**					
Strontium 90	6.82	3	0.34	pCi/L	6.8		100	80-130			

TestAmerica Irvine

Kathleen A. Robb For Heather Clark
Project Manager

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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: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

EPA 906.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 49035 Extracted: 02/18/10											
Duplicate Analyzed: 02/18/2010 (F0B090470001X)						**Source: F0B090470001**					
Tritium	80	500	92	pCi/L		114		-			*U*
Matrix Spike Analyzed: 02/18/2010 (F0B090473001S)						**Source: ITB0773-02**					
Tritium	4650	500	90	pCi/L	4530	122	100	62-147			
Blank Analyzed: 02/18/2010 (F0B180000035B)						**Source:**					
Tritium	165	500	95	pCi/L				-			*Jb*
LCS Analyzed: 02/18/2010 (F0B180000035C)						**Source:**					
Tritium	4440	500	90	pCi/L	4530		98	85-112			

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 47247 Extracted: 02/16/10											
Blank Analyzed: 02/18/2010 (G0B160000247B)						**Source:**					
1,2,3,4,6,7,8-HpCDD	0.0000052	0.00005	0.0000015	ug/L				-			*J*
1,2,3,4,6,7,8-HpCDF	0.0000039	0.00005	0.0000018	ug/L				-			*J, Q*
1,2,3,4,7,8,9-HpCDF	0.0000029	0.00005	0.0000023	ug/L				-			*J, Q*
1,2,3,4,7,8-HxCDD	0.0000046	0.00005	0.0000014	ug/L				-			*J*
1,2,3,4,7,8-HxCDF	0.0000037	0.00005	0.0000011	ug/L				-			*J, Q*
1,2,3,6,7,8-HxCDD	0.000003	0.00005	0.0000014	ug/L				-			*J, Q*
1,2,3,6,7,8-HxCDF	0.0000034	0.00005	0.0000011	ug/L				-			*J, Q*
1,2,3,7,8,9-HxCDD	0.0000032	0.00005	0.0000011	ug/L				-			*J, Q*
1,2,3,7,8,9-HxCDF	0.0000033	0.00005	0.00000079	ug/L				-			*J*
1,2,3,7,8-PeCDD	0.0000024	0.00005	0.000003	ug/L				-			*J, Q*
1,2,3,7,8-PeCDF	ND	0.00005	0.0000016	ug/L				-			
2,3,4,6,7,8-HxCDF	0.0000029	0.00005	0.000001	ug/L				-			*J, Q*
2,3,4,7,8-PeCDF	ND	0.00005	0.0000014	ug/L				-			
2,3,7,8-TCDD	ND	0.00001	0.0000008	ug/L				-			
2,3,7,8-TCDF	0.00000096	0.00001	0.000001	ug/L				-			*J, Q*
OCDD	0.000013	0.0001	0.000003	ug/L				-			*J*
OCDF	0.000008	0.0001	0.0000021	ug/L				-			*J*
Total HpCDD	0.0000052	0.00005	0.0000015	ug/L				-			*J*
Total HpCDF	0.0000068	0.00005	0.000002	ug/L				-			*J, Q*
Total HxCDD	0.000014	0.00005	0.0000013	ug/L				-			*J, Q*
Total HxCDF	0.000013	0.00005	0.00000079	ug/L				-			*J, Q*
Total PeCDD	0.0000058	0.00005	0.000003	ug/L				-			*J, Q*
Total PeCDF	0.0000011	0.00005	0.000001	ug/L				-			*J, Q*
Total TCDD	0.0000016	0.00001	0.00000072	ug/L				-			*J, Q*
Total TCDF	0.00000096	0.00001	0.000001	ug/L				-			*J, Q*
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.0023*			*ug/L*	*0.002*		*115*	*23-140*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.002*			*ug/L*	*0.002*		*100*	*28-143*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.0021*			*ug/L*	*0.002*		*104*	*26-138*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.0017*			*ug/L*	*0.002*		*85*	*32-141*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.0017*			*ug/L*	*0.002*		*85*	*26-152*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.0016*			*ug/L*	*0.002*		*79*	*28-130*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.0017*			*ug/L*	*0.002*		*83*	*26-123*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.002*			*ug/L*	*0.002*		*100*	*29-147*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.0014*			*ug/L*	*0.002*		*69*	*25-181*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.0014*			*ug/L*	*0.002*		*68*	*24-185*			

TestAmerica Irvine

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Project Manager

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

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 47247 Extracted: 02/16/10											
Blank Analyzed: 02/18/2010 (G0B160000247B)						**Source:**					
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.0017*			*ug/L*	*0.002*		*84*	*28-136*			
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.0014*			*ug/L*	*0.002*		*70*	*21-178*			
Surrogate: 13C-2,3,7,8-TCDD	*0.0013*			*ug/L*	*0.002*		*67*	*25-164*			
Surrogate: 13C-2,3,7,8-TCDF	*0.0015*			*ug/L*	*0.002*		*74*	*24-169*			
Surrogate: 13C-OCDD	*0.0047*			*ug/L*	*0.004*		*116*	*17-157*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.00076*			*ug/L*	*0.0008*		*95*	*35-197*			
LCS Analyzed: 02/18/2010 (G0B160000247C)						**Source:**					
1,2,3,4,6,7,8-HpCDD	0.00109	0.00005	0.0000041	ug/L	0.002		0	70-140			*a, Ba*
1,2,3,4,6,7,8-HpCDF	0.00111	0.00005	0.0000047	ug/L	0.002		0	82-122			*a, Ba*
1,2,3,4,7,8,9-HpCDF	0.00109	0.00005	0.0000059	ug/L	0.002		0	78-138			*a, Ba*
1,2,3,4,7,8-HxCDD	0.00113	0.00005	0.0000012	ug/L	0.002		0	70-164			*a, Ba*
1,2,3,4,7,8-HxCDF	0.00116	0.00005	0.00000098	ug/L	0.002		0	72-134			*a, Ba*
1,2,3,6,7,8-HxCDD	0.00111	0.00005	0.0000011	ug/L	0.002		0	76-134			*a, Ba*
1,2,3,6,7,8-HxCDF	0.0011	0.00005	0.00000088	ug/L	0.002		0	84-130			*a, Ba*
1,2,3,7,8,9-HxCDD	0.00113	0.00005	0.00000092	ug/L	0.002		0	64-162			*a, Ba*
1,2,3,7,8,9-HxCDF	0.00109	0.00005	0.00000074	ug/L	0.002		0	78-130			*a, Ba*
1,2,3,7,8-PeCDD	0.00108	0.00005	0.0000031	ug/L	0.002		0	70-142			*a, Ba*
1,2,3,7,8-PeCDF	0.00111	0.00005	0.0000023	ug/L	0.001		111	80-134			
2,3,4,6,7,8-HxCDF	0.00113	0.00005	0.0000009	ug/L	0.002		0	70-156			*a, Ba*
2,3,4,7,8-PeCDF	0.00114	0.00005	0.0000026	ug/L	0.001		114	68-160			
2,3,7,8-TCDD	0.000199	0.00001	0.0000014	ug/L	0.0002		99	67-158			
2,3,7,8-TCDF	0.000219	0.00001	0.00000096	ug/L	0.002		0	75-158			*a, Ba*
OCDD	0.00208	0.0001	0.0000051	ug/L	0.002		0	78-144			*a, Ba*
OCDF	0.00191	0.0001	0.0000025	ug/L	0.002		0	63-170			*a, Ba*
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.00206*			*ug/L*	*0.002*		*103*	*26-166*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.00184*			*ug/L*	*0.002*		*92*	*21-158*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.0018*			*ug/L*	*0.002*		*90*	*20-186*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.0015*			*ug/L*	*0.002*		*75*	*21-193*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.00167*			*ug/L*	*0.002*		*83*	*19-202*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.00167*			*ug/L*	*0.002*		*83*	*25-163*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.00155*			*ug/L*	*0.002*		*77*	*21-159*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.00171*			*ug/L*	*0.002*		*86*	*17-205*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.00139*			*ug/L*	*0.002*		*70*	*21-227*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.00137*			*ug/L*	*0.002*		*68*	*21-192*			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.00149*			*ug/L*	*0.002*		*74*	*22-176*			

TestAmerica Irvine

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

Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 47247 Extracted: 02/16/10											
LCS Analyzed: 02/18/2010 (G0B160000247C)						**Source:**					
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.0014*			*ug/L*	*0.002*		*70*	*13-328*			
Surrogate: 13C-2,3,7,8-TCDD	*0.00147*			*ug/L*	*0.002*		*74*	*20-175*			
Surrogate: 13C-2,3,7,8-TCDF	*0.00153*			*ug/L*	*0.002*		*76*	*22-152*			
Surrogate: 13C-OCDD	*0.00408*			*ug/L*	*0.004*		*102*	*13-199*			
Surrogate: 37Cl4-2,3,7,8-TCDD	*0.000733*			*ug/L*	*0.0008*		*92*	*31-191*			

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Sampled: 02/05/10
Received: 02/05/10

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
ITB0773-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	0.19	4.8	15

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
ITB0773-02	Antimony-200.8	Antimony	ug/l	0.52	2.0	6
ITB0773-02	Boron-200.7	Boron	mg/l	0.053	0.050	1
ITB0773-02	Cadmium-200.8	Cadmium	ug/l	0.058	1.0	4
ITB0773-02	Chloride - 300.0	Chloride	mg/l	5.38	0.50	150
ITB0773-02	Copper-200.8	Copper	ug/l	4.08	2.0	14
ITB0773-02	Fluoride SM4500F,C	Fluoride	mg/l	0.20	0.10	1.6
ITB0773-02	Lead-200.8	Lead	ug/l	3.52	1.0	5.2
ITB0773-02	Nickel-200.7	Nickel	ug/l	1.17	10	100
ITB0773-02	Nitrogen, NO3+NO2 -N EPA 300.0	Nitrate/Nitrite-N	mg/l	0.55	0.26	10
ITB0773-02	Perchlorate 314.0 - Default	Perchlorate	ug/l	0	4.0	6
ITB0773-02	Sulfate-300.0	Sulfate	mg/l	9.95	0.50	250
ITB0773-02	TDS - SM2540C	Total Dissolved Solids	mg/l	79	10	850
ITB0773-02	Thallium-200.8	Thallium	ug/l	0.023	1.0	2

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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Sampled: 02/05/10
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DATA QUALIFIERS AND DEFINITIONS

a	Spiked analyte recovery is outside stated control limits.
B	Analyte was detected in the associated Method Blank.
Ba	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
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.
Jb	Result is greater than sample detection limit but less than stated reporting limit.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M13	The sample spiked had a pH of less than 2. 2-Chloroethylvinylether degrades under acidic conditions.
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the 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).
R-3	The RPD exceeded the acceptance limit due to sample matrix effects.
U	Result is less than the sample detection limit.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For 1,2-Diphenylhydrazine:

The result for 1,2-Diphenylhydrazine is based upon the reading of its breakdown product, Azobenzene.

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 009

Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EDD + Level 4	Water	N/A	N/A
EPA 1664A	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 218.6	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 525.2	Water		
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
SM 4500-F-C	Water	X	X
SM2340B-Diss	Water		
SM2340B	Water	X	X
SM2540C	Water	X	
SM4500CN-E	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

Subcontracted Laboratories

Aquatic Testing Laboratories-SUB *California Cert #1775*
4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-Acute 96hr
Samples: ITB0773-01

Analysis Performed: Level 4 Data Package
Samples: ITB0773-01

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Project ID: Annual Outfall 009
Report Number: ITB0773

Sampled: 02/05/10
Received: 02/05/10

EMS Laboratories *California Cert #1119*

117 W. Bellevue Drive - Pasadena, CA 91105

Analysis Performed: Asbestos-TEM (100.2 - DW)
Samples: ITB0773-02

Analysis Performed: EDD + Level 4
Samples: ITB0773-02

TestAmerica St. Louis

13715 Rider Trail North - Earth City, MO 63045

Method Performed: ASTM 5174-91
Samples: ITB0773-02

Method Performed: EPA 900.0 MOD
Samples: ITB0773-02

Method Performed: EPA 901.1 MOD
Samples: ITB0773-02

Method Performed: EPA 903.0 MOD
Samples: ITB0773-02

Method Performed: EPA 904 MOD
Samples: ITB0773-02RE1

Method Performed: EPA 905 MOD
Samples: ITB0773-02

Method Performed: EPA 906.0 MOD
Samples: ITB0773-02

TestAmerica West Sacramento

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B
Samples: ITB0773-02

TestAmerica Irvine

Kathleen A. Robb For Heather Clark
Project Manager

Test America Version 6/29/09

CHAIN OF CUSTODY FORM

ITB0773

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Annual Outfall 009** **GRAB** Stormwater at WS-13
Project Manager: Bronwyn Kelly Sampler: SDawson	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (1664-HEM)	VOCs 624, Xylenes + PP	VOCs 624 +A+A+2CVE	Cr (VI) (218.6)	Acute Toxicity	Comments
Outfall 009	W	1L Amber	2	2/5/10 1145	HCl	1A, 1B	X					
Outfall 009	W	VOAs	3	SD	HCl	2A, 2B, 2C		X				
Outfall 009	W	VOAs	3		None	3A, 3B, 3C			X			
Trip Blanks	W	VOAs	3	2/5/10 0700	HCl	4A, 4B, 4C		X				
Trip Blanks	W	VOAs	3	2/5/10 0700	None	5A, 5B, 5C			X			
Outfall 009	W	500 mL Poly	1	2/5/10 1145	None	6				X		
Outfall 009	W	1 Gal Cube	1	2/5/10 1145	None	7					X	

ANALYSIS REQUIRED

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

Temp °F = 49.5

pH = 7.2

Time of readings = 2/5/10 1145

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

Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	2-5-10 15:30	[signature]	2-5-10 15:30
[signature]	2-5-10 19:20	[signature]	2/5/10 1920

Turn-around time: (Check)

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

48 Hour: _____ 5 Day: _____ Normal: X

Sample Integrity: (Check)

Intact: _____ On Ice: X

Data Requirements: (Check)

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

2.1 M254

CHAIN OF CUSTODY FORM

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

Test America Contact: Joseph Doak

Project:
Boeing-SSFL NPDES
Annual Outfall 009
COMPOSITE
Stormwater at WS-13

Project Manager: Bronwyn Kelly

Sampler: S Dawson

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

ANALYSIS REQUIRED

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, B, V, Tl, Fe, Al, Ni, + PP, Hardness as $CaCO_3$	TCDD (and all congeners)	Cl^-, SO_4, NO_3+NO_2-N, F, Perchlorate	TDS, TSS	Pesticides/PCBs , Chlorpyrifos, Diazinon + PP	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)	SVOCs (625) + PP	Chronic Toxicity	Cyanide	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, B, V, Tl, Fe, Al, Ni + PP, Hardness as $CaCO_3$	Asbestos (100.2)				Comments
Outfall 009	W	1L Poly	1	2/5/10 1344	HNO_3	8A	X														High flow
Outfall 009 Dup	W	1L Poly	1		HNO_3	8B	X														
Outfall 009	W	1L Amber	2		None	9A, 9B		X													
Outfall 009	W	500 mL Poly	2		None	10A, 10B			X												
Outfall 009	W	500 mL Poly	2		None	11A, 11B				X											
Outfall 009	W	1L Amber	2		None	12A, 12B					X										
Outfall 009	W	2.5 Gal Cube	1		None	13A						X									Unfiltered and unpreserved analysis
		500 mL Amber	1		None	13B															
Outfall 009	W	1L Amber	2		None	14A, 14B							X								
~~Outfall 009~~	~~W~~	~~1 Gal Poly~~	~~1~~		~~None~~	~~15~~						SD		X							
Outfall 009	W	500 mL Poly	1		NaOH	16									X						
Outfall 009	W	1L Poly	1		None	17										X					Filter w/in 24hrs of receipt at lab
Outfall 009	W	1L Poly	1	2/5/10 1344	None	18											X				High flow
																					High flow

COC Page 2 of 2 list the Composite Samples for Outfall 009 for this storm event.
These must be added to the same work order for COC Page 1 of 2 for Outfall 009 for the same event.

Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	2-5-10 15:30	[signature]	2-5-10 15:30
[signature]	2-5-10 19:20	[signature]	2-5-10 1920

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

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

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

2-10

M255

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: February 10, 2010

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

Laboratory No.: A-10020602-001
Sample ID.: ITB0773-01

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.

Date Sampled:	02/05/10
Date Received:	02/06/10
Temp. Received:	1.0°C
Chlorine (TRC):	0.0 mg/l
Date Tested:	02/06/10 to 02/10/10

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
ITB0773-01	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-10020602-001
Client/ID: TestAmerica ITB0773-01

Start Date: 02/06/2010

TEST SUMMARY

Species: *Pimephales promelas*.
Age: 11 (1-14) days.
Regulations: NPDES.
Test solution volume: 250 ml.
Feeding: prior to renewal at 48 hrs.
Number of replicates: 2.
Dilution 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 Batch No.: RT-100202.

TEST DATA

		°C	DO	pH	# Dead		Analyst & Time of Readings
					A	B	
INITIAL	Control	20.5	8.8	7.8	0	0	Lm 1200
	100%	20.1	11.4	7.9	0	0	
24 Hr	Control	19.6	8.4	7.8	0	0	Z 1200
	100%	19.6	8.3	7.8	0	0	
48 Hr	Control	19.6	8.2	7.6	0	0	Z 1200
	100%	19.6	8.3	7.7	0	0	
Renewal	Control	19.9	8.5	7.6	0	0	Z 1200
	100%	20.4	10.9	7.5	0	0	
72 Hr	Control	19.8	8.3	7.7	0	0	Lm 1200
	100%	19.7	7.4	7.8	0	0	
96 Hr	Control	20.2	6.7	7.4	0	0	Lm 1300
	100%	20.0	5.6	7.3	0	0	

Comments:
Sample as received: Chlorine: 0.0 mg/l; pH: 7.9; Conductivity: 81 umho; Temp: 1.0°C;
DO: 11.4 mg/l; Alkalinity: 27 mg/l; Hardness: 25 mg/l; NH_3-N: 0.4 mg/l.
Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? Yes / ~~No~~
Control: Alkalinity: 69 mg/l; Hardness: 94 mg/l; Conductivity: 330 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 %

SUBCONTRACT ORDER
TestAmerica Irvine

ITB0773

SENDING LABORATORY:

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

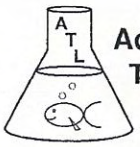
RECEIVING LABORATORY:

Aquatic Testing Laboratories-SUB
4350 Transport Street, Unit 107
Ventura, CA 93003
Phone :(805) 650-0546
Fax: (805) 650-0756
Project Location: CA - CALIFORNIA
Receipt Temperature: 1.0 °C Ice: (Y) / N

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

Analysis	Units	Expires	Comments
Sample ID: ITB0773-01 (Outfall 009 Grab - Water)		Sampled: **02/05/10 11:45**	
Bioassay-Acute 96hr	% Survival	02/06/10 23:45	FH minnow, EPA/821-R02-012, Sub to Aquatic Testing
Level 4 Data Package - Out	N/A	03/05/10 11:45	
Containers Supplied:			
1 gal Poly (J)			

Released By	Date/Time	Received By	Date/Time
2-6-10 900		2-6-10 900	
Released By	Date/Time	Received By	Date/Time
2-6-10 1122		2-6-10 1122	



Aquatic
Testing
Laboratories

REFERENCE TOXICANT DATA

FATHEAD MINNOW ACUTE
Method 2000.0
Reference Toxicant - SDS

Aquatic Testing Laboratories

QA/QC Batch No.: RT-100202

TEST SUMMARY

Species: *Pimephales promel*as.
Age: 13 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:	2-2-10 1200			2-3-10 1300					2-4-10 1200				
Analyst:													
	°C	DO	pH	°C	DO	pH	# Dead A	# Dead B	°C	DO	pH	# Dead A	# Dead B
Control	19.6	8.4	7.6	19.4	7.9	7.4	0	0	19.2	7.1	7.9	0	0
1.0 mg/l	19.6	8.5	7.6	19.2	8.0	7.4	0	0	19.2	7.3	7.7	0	0
2.0 mg/l	19.6	8.5	7.7	19.1	8.0	7.4	0	0	19.1	7.2	7.6	0	0
4.0 mg/l	19.6	8.5	7.7	19.1	7.6	7.4	0	0	19.1	7.2	7.6	0	0
8.0 mg/l	19.6	8.6	7.7	19.0	6.8	7.3	10	10	—	—	—	—	—

	RENEWAL			72 Hr					96 Hr				
Date/Time:	2-4-10 1200			2-5-10 1200					2-6-10 1130				
Analyst:													
	°C	DO	pH	°C	DO	pH	# Dead A	# Dead B	°C	DO	pH	# Dead A	# Dead B
Control	19.5	8.8	7.8	19.5	7.4	7.4	0	0	20.6	6.3	7.4	0	0
1.0 mg/l	19.5	8.8	7.8	19.4	7.4	7.4	0	0	20.6	6.6	7.4	0	0
2.0 mg/l	19.5	8.9	7.8	19.2	7.4	7.4	0	0	20.6	6.5	7.4	0	0
4.0 mg/l	19.5	8.9	7.8	19.2	7.3	7.4	0	0	20.5	6.4	7.4	0	0
8.0 mg/l	—	—	—	—	—	—	—	—	—	—	—	—	—

Comments: Control: Alkalinity: 69 mg/l; Hardness: 94 mg/l; Conductivity: 330 umho.
SDS: Alkalinity: 68 mg/l; Hardness: 94 mg/l; Conductivity: 333 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:	2/2/2010 12:00	Test ID:	RT100202f	Sample ID:	REF-Ref Toxicant
End Date:	2/6/2010 11:30	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	SDS-Sodium dodecyl sulfate
Sample Date:	2/2/2010	Protocol:	ACUTE-EPA-821-R-02-012	Test Species:	PP-Pimephales promelas
Comments:					

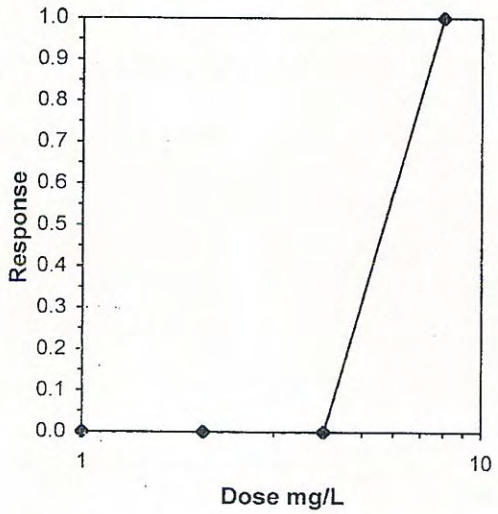
Conc-mg/L	1	2
D-Control	1.0000	1.0000
1	1.0000	1.0000
2	1.0000	1.0000
4	1.0000	1.0000
8	0.0000	0.0000

			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	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
4	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	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				

Graphical Method

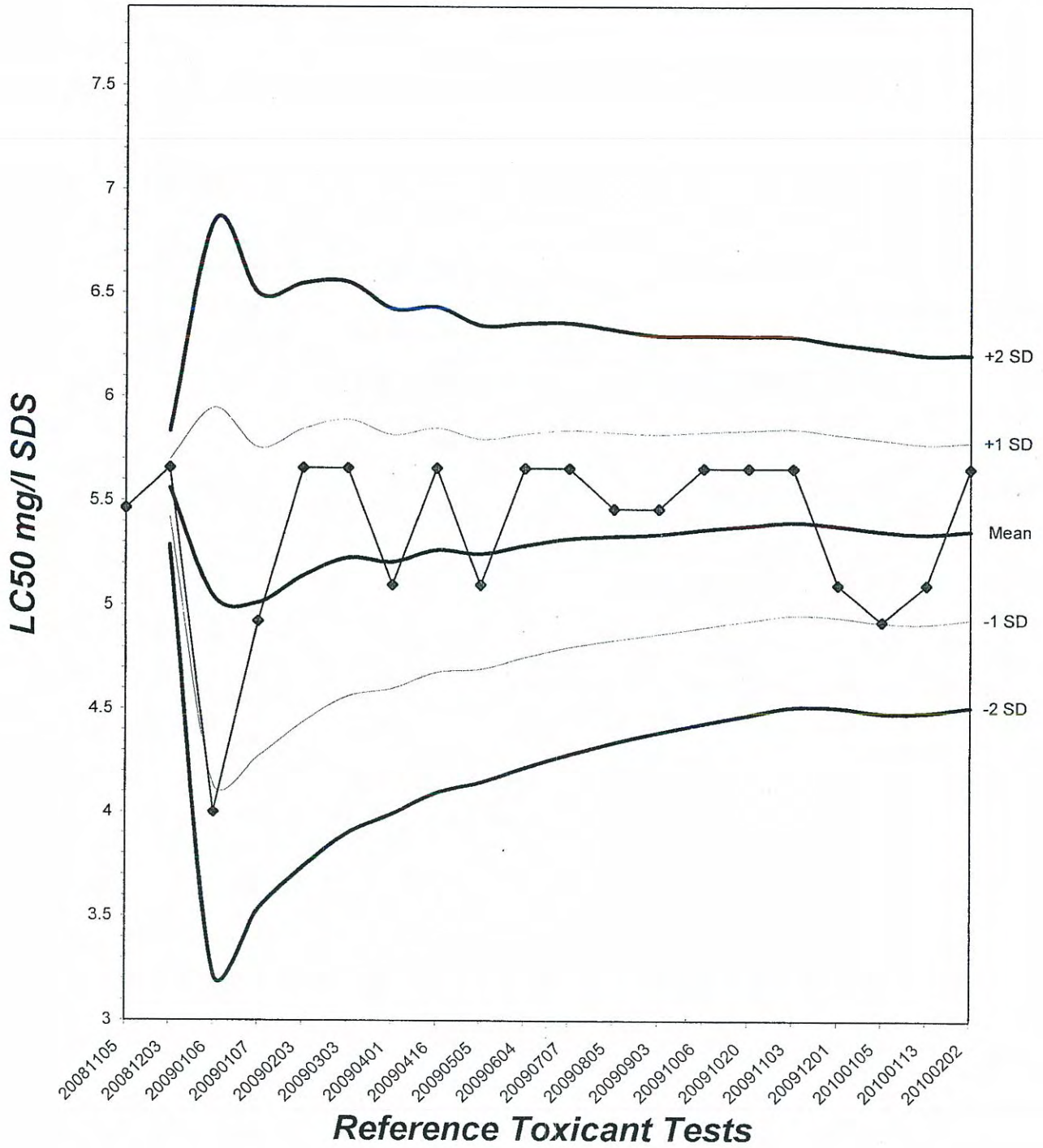
Trim Level	EC50
0.0%	5.6569
	5.6569



Reviewed by:

Fathead Minnow Acute Laboratory Control Chart

CV% = 7.91



TEST ORGANISM LOG

Aquatic Testing Laboratories

FATHEAD MINNOW - LARVAL
(Pimephales promelas)

QA/QC BATCH NO.: RT-100202

SOURCE: In-Lab Culture

DATE HATCHED: 1-20-10

APPROXIMATE QUANTITY: 400

GENERAL APPEARANCE: Good

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

DATE USED IN LAB: 1/5/10

AVERAGE FISH WEIGHT: 0.006 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.: 19.6 °C **pH:** 7.6 **Ammonia:** <0.1 mg/l NH_3-N

DO: 8.4 mg/l **Alkalinity:** 69 mg/l **Hardness:** 94 mg/l

READINGS RECORDED BY: _____ **DATE:** 2-3-10

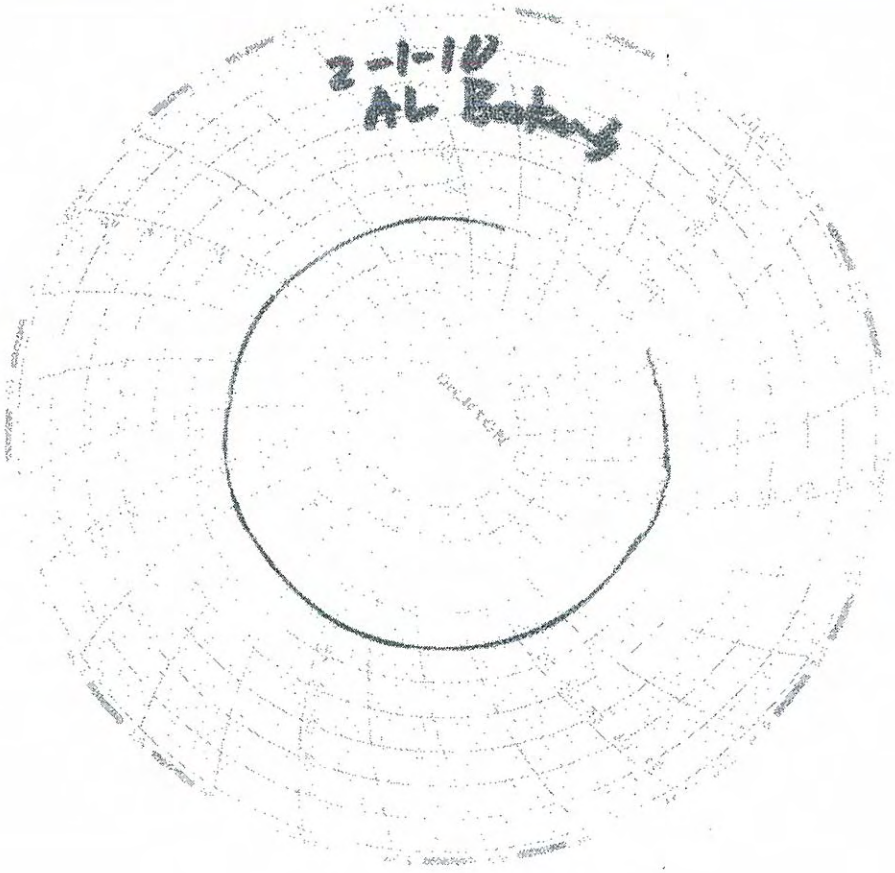
Aquatic
Testing
Laboratories

Test Temperature Chart

Test No: RT-100202

Date Tested: 02/02/10 to 02/06/10

Acceptable Range: 20+/- 1°C



DATE: February 15, 2010

CUSTOMER: Test America, Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614

ATTENTION: Joseph Doak

REPORT NO: 135399

REFERENCE: ITB0773

SUBJECT: ANALYSIS OF WATER SAMPLES FOR ASBESTOS BY TEM

ACCREDITATION: California Dept. of Health Services ELAP 1119

The date and times of collection, receipt, ozonation, filtration, and analysis are as follows:

SAMPLE NO: ITB0773-02

DATE COLLECTED: 2/5/10 at 1344

RECEIVED: 2/8/10 at 0932

OZONATED: 2/8/10 at 1000 to 1300

FILTERED: 2/8/10 at 1317

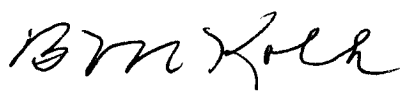
ANALYZED: 2/10/10

The sample was analyzed for fibers >10 um to conform with the drinking water document, EPA 600 E 94 134, 100.2. This regulation calls for an MCL (maximum contaminant level) of 7 MFL (millions of fibers per liter) and an analytical sensitivity of 0.2 MFL.

The analytical sensitivity of 0.2 MFL was not reached due to turbidity.

The results of the analysis and the detection limit(s) are summarized on the following page(s), accompanied by the chain of custody.

Respectfully submitted,
EMS Laboratories, Inc.



B.M. Kolk
Laboratory Director
BMK/mt

ANALYSIS OF WATER BY TEM (EPA-600 R 94 134) EPA 100.2

LAB NO: 135399
CLIENT: Test America
2/10/2010

Laboratory I.D.	Client I.D.	FILTER MEDIA DATA			No. of G.O.	Analyzed Area, mm^2	Sample Volume (ml)
		Type	Diameter mm	Effective Area mm^2			
135399-2	ITB0773-02*	PC	47	1017	10	0.094	5

* FOR FIBERS > 10um ONLY

ANALYTICAL RESULTS

Laboratory I.D.	Client I.D.	No. of Asbestos Str.			Detection Limit (MFL)	CONCENTRATION (MFL)		
		All Sizes	5-9.9um	>10um		All Sizes	5-9.9um	>10um
135399-2	ITB0773-02*	-	-	N.D.	2.2	-	-	< 2.2

* FOR FIBERS > 10um ONLY

The analysis was carried out to the approved TEM method. This laboratory is in compliance with the quality specified by the method.

Authorized Signature

PC - Polycarbonate
MCE - Mixed cellulose ester
G.O. - Grid Openings
Str - Structures
MFL - Millions of fibers per liter

TEM-7A (2009Rev.)

Analysis of Water by Transmission Electron Microscopy
(EPA-600 R 94 134) EPA 100.2

EMS No.	135399	**Client**	Test America
Sample No.	ITB0773-02	**Date Analyzed**	2/10/2010

Fibers > 10 µm in length (chrysotile)	BDL*	MFL
Mass (chrysotile)	0	ug/L
More/Less than 5 Fibers in Sample (chrysotile)	LESS	
Poisson 95% Confidence Interval	0 to 8	MFL
Detection Limit	2.2	MFL

* BDL : Below Detection Limit; MFL: Million Fibers per Liter

Particle Size Distribution (Chrysotile)

Particle Length - Microns

O -0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 - 4.99	5.00 - 9.99	10 & UP
0	0	0	0	0	0	0	0

Particle Width - Microns

O - .04	.05 - .09	.1 - .14	.15 - .19	.2 - .24	.25 - .49	.50 - .99	1 & UP
0	0	0	0	0	0	0	0

Aspect Ratio L/W

0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 - 99	100 - 199	200 & UP
0	0	0	0	0	0	0	0

TEM 7B (1994)

Analysis of Water by Transmission Electron Microscopy
(EPA-600/4-83-043)

EMS No.	135399	**Date Analyzed**	2/10/2010
Client	Test America		
Sample No.	EMS BLANK		

Fibers (chrysotile)	ND	MFL
> 5 Micron length (chrysotile)	ND	MFL
Mass (chrysotile)	0	ug/L
More/Less than 5 Fibers in Sample (chrysotile)	LESS	
Sensitivity Level	0.01	MFL

Particle Size Distribution (Chrysotile)

Particle Length - Microns

O -0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 & UP
0	0	0	0	0	0

Particle Width - Microns

O - .04	.05 - .09	.1 - .14	.15 - .19	.2 - .24	.25 & UP
0	0	0	0	0	0

Aspect Ratio L/W

0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 & UP
0	0	0	0	0	0

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

REVISED

PROJECT NO. ITB0773

MWH-Pasadena Boeing

Lot #: F0B090473

Joseph Doak

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817

TESTAMERICA LABORATORIES, INC.

Kay Clay
Project Manager

March 17, 2010

Case Narrative
LOT NUMBER: F0B090473
Revised 03-17-10

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on February 9, 2010. This sample is associated with your MWH-Pasadena Boeing project.

The analytical results included in this report meet all applicable quality control procedure requirements, except as noted below.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Report revised to report the KPA uranium results in pCi/L.

Observations/Nonconformances
Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Radium-228 by GFPC (EPA 904 MOD)
The Radium 228 LCS analyte recovery is outside the lower QC limit, indicating a potential negative bias for the analyte. Samples were sent to re-extract. Re-extract LCS recovered within acceptable QC limits. The data is reported.

Affected Samples:
F0B090473 (1): ITB0773-02

ws 12/

SUBCONTRACT ORDER
TestAmerica Irvine

ITB0773

FOB090473

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: MWH-Pasadena/Boeing

RECEIVING LABORATORY:

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone :(314) 298-8566
Fax: (314) 298-8757
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ITB0773-02 (Outfall 009 Composite - Water) Sampled: 02/05/10 13:44						
Gamma Spec-O	mg/kg	02/16/10	02/05/11 13:44	$200.00	50%	Out St Louis, k-40 and cs-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	02/16/10	08/04/10 13:44	$90.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	02/16/10	08/04/10 13:44	$90.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Level 4 Data Package - Out	N/A	02/16/10	03/05/10 13:44	$0.00	0%	
Radium, Combined-O	pCi/L	02/16/10	02/05/11 13:44	$200.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	02/16/10	02/05/11 13:44	$140.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	02/16/10	02/05/11 13:44	$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	02/16/10	02/05/11 13:44	$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!

Containers Supplied:
2.5 gal Poly (K) 500 mL Amber (L)

	2/8/10 17:00	Fedex	2/8/10 17:00
Released By	Date/Time	Received By	Date/Time
			2-9-10 1100

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F0B090467, 481, 488, 470, 482, 489, 473, 484, 491, 475, 485, 494, 476, 486, 495

CONDITION UPON RECEIPT FORM

Client: TA Irvine
Quote No: 77635, 85044
COC/RFA No: below

122

Initiated By: SV   Date: 2-9-10   Time: 1100

Shipping Information

Shipper: (FedEx) UPS DHL Courier Client Other: ______   Multiple Packages: (Y) N

Shipping # (s):*

1. 4289 2133 2309 MPS
2.
3.
4.
5.
6.
7.
8.
9.
10.

Sample Temperature (s):**

1. ambient
2.
3.
4.
5.
6.
7.
8.
9.
10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

#	Answer	Question	#	Answer	Question
1.	(Y) N	Are there custody seals present on the cooler?	8.	Y (N)	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N (N/A)	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N (N/A)	Was sample received with proper pH[1]? (If not, make note below)
4.	(Y) N SV 2.9.10	Sample received with Chain of Custody?	11.	(Y) N	Sample received in proper containers?
5.	~~(Y)~~ (N) N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y (N)	Was sample received broken?	13.	(Y) N N/A	Was Internal COC/Workshare received?
7.	(Y) N	Is sample volume sufficient for analysis?	14.	(Y) N N/A	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes: ITB0887 (ITB0773)

ITB08__	ITB07__	
95	36	
~~88~~ SV 2.9.10	97	Revised chains were
94	98	not relinquished for
88	99	Boeing project.
92	0800	
86	0590	ITB0800 label time is 1315;
85	0602	c-o-c reads 1254
96		

Corrective Action:

☐ Client Contact Name: ______   Informed by: ______
☐ Sample(s) processed "as is"
☐ Sample(s) on hold until: ______   If released, notify: ______

Project Management Review: Jayna Pohl   Date: 2-15-10

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

METHODS SUMMARY

F0B090473

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
H-3 by Distillation & LSC	EPA 906.0 MOD	
Radium-226 by GFPC	EPA 903.0 MOD	
Radium-228 by GFPC	EPA 904 MOD	
Strontium 90 by GFPC	EPA 905 MOD	
Total Uranium By Laser Ph osphorimetry	ASTM 5174-91	

References:

ASTM Annual Book Of ASTM Standards.

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SAMPLE SUMMARY

F0B090473

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LVF30	001	ITB0773-02	02/05/10	13:44

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ITB0773-02

Radiochemistry

Lab Sample ID: F0B090473-001
Work Order: LVF30
Matrix: WATER

Date Collected: 02/05/10 1344
Date Received: 02/09/10 1100

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**		**Batch # 0042136**	**Yld %**
Cesium 137	1.8	U	6.7	20.0	12	02/11/10	02/19/10
Potassium 40	-40	U	240		220	02/11/10	02/19/10
Gross Alpha/Beta EPA 900				**pCi/L**		**Batch # 0043108**	**Yld %**
Gross Alpha	1.02	U	0.84	3.00	1.2	02/10/10	02/18/10
Gross Beta	**1.65**	**J**	**0.71**	4.00	**0.95**	**02/10/10**	**02/18/10**
SR-90 BY GFPC EPA-905 MOD				**pCi/L**		**Batch # 0041162**	**Yld % 70**
Strontium 90	0.20	U	0.25	3.00	0.42	02/10/10	02/19/10
TRITIUM (Distill) by EPA 906.0 MOD				**pCi/L**		**Batch # 0049035**	**Yld %**
Tritium	122	**J**	**77**	500	**95**	**02/18/10**	**02/18/10**
Total Uranium by KPA ASTM 5174-91				**pCi/L**		**Batch # 0053280**	**Yld %**
Total Uranium	0.264	**J**	**0.031**	0.693	0.21	02/23/10	02/26/10
Radium 226 by EPA 903.0 MOD				**pCi/L**		**Batch # 0041160**	**Yld % 94**
Radium (226)	0.29	**J**	**0.16**	1.00	0.21	02/10/10	02/26/10
Radium 228 by GFPC EPA 904 MOD				**pCi/L**		**Batch # 0060257**	**Yld % 89**
Radium 228	0.38	**J**	**0.20**	1.00	0.28	03/01/10	03/05/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

J Result is greater than sample detection limit but less than stated reporting limit.
U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F0B090473
Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC		Prep Date	Analysis Date	Lab Sample ID
Radium 228 by GFPC EPA 904 MOD			**pCi/L**	**Batch #**	**0060257**	**Yld %**	**88**		**F0C010000-257B**
Radium 228	0.08	U	0.23	1.00	0.39		03/01/10	03/05/10	
Radium 226 by EPA 903.0 MOD			**pCi/L**	**Batch #**	**0041160**	**Yld %**	**95**		**F0B100000-160B**
Radium (226)	0.092	U	0.095	1.00	0.14		02/10/10	02/26/10	
SR-90 BY GFPC EPA-905 MOD			**pCi/L**	**Batch #**	**0041162**	**Yld %**	**80**		**F0B100000-162B**
Strontium 90	-0.15	U	0.20	3.00	0.38		02/10/10	02/19/10	
Gamma Cs-137 & Hits by EPA 901.1 MOD			**pCi/L**	**Batch #**	**0042136**	**Yld %**			**F0B110000-136B**
Cesium 137	1.8	U	7.7	20.0	14		02/11/10	02/19/10	
Potassium 40	-80	U	620		210		02/11/10	02/19/10	
Gross Alpha/Beta EPA 900			**pCi/L**	**Batch #**	**0043108**	**Yld %**			**F0B120000-108B**
Gross Alpha	-0.28	U	0.35	2.00	0.87		02/10/10	02/19/10	
Gross Beta	-0.23	U	0.62	4.00	1.1		02/10/10	02/19/10	
TRITIUM (Distill) by EPA 906.0 MOD			**pCi/L**	**Batch #**	**0049035**	**Yld %**			**F0B180000-035B**
Tritium	165	J	85	500	95		**02/18/10**	**02/18/10**	
Total Uranium by KPA ASTM 5174-91			**pCi/L**	**Batch #**	**0053280**	**Yld %**			**F0B220000-280B**
Total Uranium	0.0460	U	0.0057	0.693	0.21		02/23/10	02/26/10	

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only
Bold results are greater than the MDC.

J Result is greater than sample detection limit but less than stated reporting limit.
U Result is less than the sample detection limit

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F0B090473
Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Radium 226 by EPA 903.0 MOD			**pCi/L**	**903.0 MOD**			**F0B100000-160C**
Radium (226)	11.3	10.4	1.1	0.2	97	93	(68 - 136)
	Batch #:	0041160		**Analysis Date:**	02/26/10		
SR-90 BY GFPC EPA-905 MOD			**pCi/L**	**905 MOD**			**F0B100000-162C**
Strontium 90	6.80	6.82	0.77	0.34	83	100	(80 - 130)
	Batch #:	0041162		**Analysis Date:**	02/19/10		
Gamma Cs-137 & Hits by EPA 901.1 MOD			**pCi/L**	**901.1 MOD**			**F0B110000-136C**
Americium 241	141000	140000	11000	500		99	(87 - 110)
Cesium 137	53100	52900	3000	200		100	(90 - 110)
Cobalt 60	87900	88000	5000	200		100	(89 - 110)
	Batch #:	0042136		**Analysis Date:**	02/19/10		
Gross Alpha/Beta EPA 900			**pCi/L**	**900.0 MOD**			**F0B120000-108C**
Gross Beta	68.0	71.6	6.0	1		105	(58 - 133)
	Batch #:	0043108		**Analysis Date:**	02/19/10		
Gross Alpha/Beta EPA 900			**pCi/L**	**900.0 MOD**			**F0B120000-108C**
Gross Alpha	49.4	34.8	4.3	1.2		70	(62 - 134)
	Batch #:	0043108		**Analysis Date:**	02/19/10		
TRITIUM (Distill) by EPA 906.0 MOD			**pCi/L**	**906.0 MOD**			**F0B180000-035C**
Tritium	4530	4440	460	90		98	(85 - 112)
	Batch #:	0049035		**Analysis Date:**	02/18/10		
Total Uranium by KPA ASTM 5174-91			**pCi/L**	**5174-91**			**F0B220000-280C**
Total Uranium	27.7	30.2	3.6	0.2		109	(90 - 120)
	Batch #:	0053280		**Analysis Date:**	02/26/10		
Total Uranium by KPA ASTM 5174-91			**pCi/L**	**5174-91**			**F0B220000-280C**
Total Uranium	5.54	5.97	0.61	0.21		108	(90 - 120)
	Batch #:	0053280		**Analysis Date:**	02/26/10		

NOTE(S)

MDC is determined by instrument performance only

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID: F0B090473
Matrix: WATER

Parameter		Spike Amount	Result	Total Uncert. (2 σ+/-)	% Yld	% Rec	QC Control Limits	Lab Sample ID Precision	
Radium 228 by GFPC EPA 904 MOD			**pCi/L**	**904 MOD**				**F0C010000-257C**	
Radium 228		6.40	6.23	0.74	87	97	(60 - 142)		
	Spk 2	6.40	6.35	0.77	84	99	(60 - 142)	2	%RPD
		Batch #:	0060257		**Analysis Date:**		03/05/10		

NOTE(S)

Calculations are performed before rounding to avoid round-off error in calculated results

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: F0B090473
Matrix: WATER

Date Sampled: 02/05/10
Date Received: 02/09/10

Parameter	Spike Amount	Spike Result	Total Uncert. (2σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2 σ +/-)	QC Sample ID %YLD	QC Sample ID %REC	QC Control Limits
TRITIUM (Distill) by EPA 906.0 MOD			**pCi/L**		**906.0 MOD**			**F0B090473-001**	
Tritium	4530	4650	470		122	77		100	(62 - 147)
	Batch #: 0049035			Analysis Date: 02/18/10					
Gross Alpha/Beta EPA 900			**pCi/L**		**900.0 MOD**			**F0B090470-001**	
Gross Alpha	49.4	47.2	5.2		2.00	0.88		91	(35 - 150)
	Batch #: 0043108			Analysis Date: 02/18/10					
Gross Alpha/Beta EPA 900			**pCi/L**		**900.0 MOD**			**F0B090470-001**	
Gross Beta	68.0	79.0	6.6		3.9	1.2		110	(54 - 150)
	Batch #: 0043108			Analysis Date: 02/18/10					

NOTE (S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F0B090470 Date Sampled: 02/07/10 1143
Matrix: WATER Date Received: 02/09/10 1100

Parameter		Spike Amount	SPIKE Result	Total Uncert. (2 σ+/-)	Spike Yld	SAMPLE Result		Total Uncert. (2σ +/-)	QC Sample ID % Yld	%Rec	QC Control Limits
Total Uranium by KPA ASTM 5				**pCi/L**		**5174-91**				**F0B090470-001**	
Total Uranium		27.7	29.7	3.1		0.566	J	0.068		105	(62 - 150)
	Spk2	27.7	30.0	3.1		0.566	J	0.068		106	(62 - 150)
									Precision:	1	%RPD

Batch #: 0053280 **Analysis date:** 02/26/10

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F0B090473
Matrix: WATER

Date Sampled: 02/05/10
Date Received: 02/09/10

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result		Total Uncert. (2 σ +/-)	% Yld	QC Sample ID Precision	
Radium 226 by EPA 903.0 MOD				**pCi/L**	**903.0 MOD**				**F0B090467-001**	
Radium (226)	0.089	U	0.098	92	0.07	U	0.16	92	31	%RPD
	Batch #:		0041160 (Sample)		0041160 (Duplicate)					
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**	**901.1 MOD**				**F0B090470-001**	
Cesium 137	-2.9	U	9.0		1.2	U	7.8		479	%RPD
Potassium 40	-100	U	43000		-50	U	230		93	%RPD
	Batch #:		0042136 (Sample)		0042136 (Duplicate)					
Gross Alpha/Beta EPA 900				**pCi/L**	**900.0 MOD**				**F0B090470-001**	
Gross Alpha	2.00	J	0.88		0.84	U	0.66		82	%RPD
Gross Beta	3.9	J	1.2		3.2	J	1.1		20	%RPD
	Batch #:		0043108 (Sample)		0043108 (Duplicate)					
TRITIUM (Distill) by EPA 906.0 MOD				**pCi/L**	**906.0 MOD**				**F0B090470-001**	
Tritium	114	J	75		80	U	66		35	%RPD
	Batch #:		0049035 (Sample)		0049035 (Duplicate)					
SR-90 BY GFPC EPA-905 MOD				**pCi/L**	**905 MOD**				**F0B090475-001**	
Strontium 90	-0.05	U	0.23	72	-0.15	U	0.23	69	97	%RPD
	Batch #:		0041162 (Sample)		0041162 (Duplicate)					

NOTE (S)

Data are incomplete without the case narrative.
Calculations are performed before rounding to avoid round-off error in calculated results

J **Result is greater than sample detection limit but less than stated reporting limit.**

SUBCONTRACT ORDER
TestAmerica Irvine

ITB0773

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: MWH-Pasadena/Boeing

RECEIVING LABORATORY:

TestAmerica West Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone :(916) 373-5600
Fax: (916) 372-1059
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ITB0773-02 (Outfall 009 Composite - Water) Sampled: **02/05/10 13:44**						
1613-Dioxin-HR-Alta	ug/l	02/16/10	02/12/10 13:44	$375.00	0%	J flags,17 congeners,no TEQ,ug/L,sub=West Sac
Level 4 + EDD-OUT	N/A	02/16/10	03/05/10 13:44	$0.00	0%	Excel EDD email to pm,Include Std logs for Lvl IV

Containers Supplied:
1 L Amber (C) 1 L Amber (D)

Released By	2/8/10 17:00 Date/Time	FedEx Received By	2/8/10 17:00 Date/Time
Released By	Date/Time	Received By	2-9-10 1300 Date/Time

TestAmerica

411111 THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT AMEC-Irvine PM LC LOG # 63178

LOT# (QUANTIMS ID) 608100420 QUOTE# 84779 84/10/10 85239 LOCATION W3A

DATE RECEIVED 2-9-10 TIME RECEIVED 940 Checked (✓)

DELIVERED BY ☑ FEDEX ☐ ON TRAC ☐ CLIENT ☑

☐ GOLDENSTATE ☐ UPS ☐ GO-GETTERS ☐ OTHER

☐ TAL COURIER ☐ TAL SF ☐ VALLEY LOGISTICS ☑

CUSTODY SEAL STATUS ☑ INTACT ☐ BROKEN ☐ N/A ☑

CUSTODY SEAL #(S) Seal

SHIPPPING CONTAINER(S) ☑ TAL ☐ CLIENT ☐ N/A ☑

COC #(S) NA ☑

TEMPERATURE BLANK Observed: -0.1 Corrected: n/a

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 1, 1, 2 Average 1 Corrected Average 1

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☐ #5 ☑ ☐ OTHER ☑

Initials MV Date 2-9-10

---

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A ☑

LABELED BY ☑

LABELS CHECKED BY ☑

PEER REVIEW ☑ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING ☑

WETCHEM ☑ N/A ☑

VOA-ENCORES ☑ N/A ☑

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A ☑

☐ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☑ N/A ☑

☑ CLOUSEAU ☑ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☐ N/A

☑ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☑ PM NOTIFIED

Initials MV Date 2/10/10 cw 2/10/10

Notes

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

TestAmerica West Sacramento

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: GOB100420

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*																				
VOAh*																				
AGB	2																			
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
____AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
____CGJ																				
500CGJ																				
250CGJ																				
125CGJ																				
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
_____"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

h = hydrochloric acid **s** = sulfuric acid **na** = sodium hydroxide **n** = nitric acid **zn** = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

LEAVE NO SPACES BLANK. USE "NA" IF NOT APPLICABLE.