

APPENDIX G

Section 39

Outfall 012, February 7, 2009

MEC^X Data Validation Report



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ISB0825

Prepared by

MEC^x, LP
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I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
 Contract Task Order: 1261.100D.00
 Sample Delivery Group: ISB0825
 Project Manager: B. Kelly
 Matrix: Water
 QC Level: IV
 No. of Samples: 2
 No. of Reanalyses/Dilutions: 0
 Laboratory: TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 012	ISB0825-01	D9B100241-001, 31408-001	Water	02/07/09 0850	180.1, 200.7, 200.7 (Diss), 200.8, 200.8 (Diss), 245.1, 245.1 (Diss), 608, 624, 1613B, SM2340B, SM5210B
Trip Blanks	ISB0825-02	N/A	Water	02/07/09	624

II. Sample Management

No anomalies were observed regarding sample management. The samples were received at TestAmerica-Irvine within the temperature limit of $4 \pm 2^{\circ}\text{C}$. The samples were received at Vista and TestAmerica-Denver below the control limit; however, the samples were not noted to be damaged or frozen. According to the case narrative for this SDG, the samples were received intact at all laboratories. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to TestAmerica-Irvine and Vista, custody seals were not required. Custody seal were present and intact upon arrival at TestAmerica-Denver. 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.	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: K. Shadowlight

Date Reviewed: March 24, 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 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 not analyzed prior to the initial calibration sequence or at the beginning of each analytical sequence; however, the first and last eluting congeners and isomer specificity compounds were added to the midpoint of the initial calibration and to the continuing calibration standards. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.
 - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.
- Calibration: Calibration criteria were met.
 - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq 20\%$ for the 16 native compounds (calibration by isotope dilution) and $\leq 35\%$ 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 no target compound detects above the EDL.

- 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 any sample detects and a representative number of blank spike concentrations. The laboratory calculated and reported compound-specific detection limits. Any estimated maximum possible concentrations (EMPCs) were qualified as estimated nondetects, "UJ," in the sample of this SDG. As the laboratory did not include EMPCs in the reported total concentration, no qualifications were required. 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 estimated detection limit (EDL).

B. EPA METHODS 200.7, 200.8, and 245.1—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: March 24, 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 Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Methods 2007, 200.8, and 245.1*, and the *National Functional Guidelines for Inorganic Data Review (10/04)*.

- Holding Times: The analytical holding times, 180 days for ICP and 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 $\leq 5\%$, 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 . Initial and continuing calibration recoveries were within 90-110% for the ICP and ICP-MS metals and 85-115% for mercury. The CRI and CRA and check standards were recovered within the control limits of 70-130%.
- Blanks: Mercury was detected in the method blank at 0.036 $\mu\text{g/L}$; therefore total and dissolved mercury detected in the sample were qualified as nondetected, "U," at the reporting limit. Antimony was detected in CCBs bracketing the sample analyses at 0.476 and 0.419 $\mu\text{g/L}$; therefore both total and dissolved antimony detected in the sample were qualified as nondetected, "U," at the reporting limit. Selenium was reported in a bracketing CCB at -1.02 $\mu\text{g/L}$ and in the dissolved method blank at -0.667 $\mu\text{g/L}$; therefore, nondetected dissolved selenium in the sample was qualified as estimated, "UJ." There were no other applicable detects in the method blanks or CCBs.
- Interference Check Samples: Recoveries were within the method-established control limits. Negative results and detects were noted in the ICP ICSEA; however, the concentration of interferent in the site sample were insufficient to cause matrix interference. Detects were noted in the ICP-MS ICSEA; however, the reviewer was unable to ascertain if the detects were due to matrix interference.
- Blank Spikes and Laboratory Control Samples: The recoveries were within the laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analysis was performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG for mercury and matrix spike analyses were performed for the dissolved fraction. All recoveries and RPDs were within the laboratory-established control limits.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: All associated sample internal standard intensities were within 60-125% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summaries were verified against the raw data. No transcription errors or calculation errors were noted. 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.

C. EPA METHOD 608—Pesticides and PCBs

Reviewed By: K. Shadowlight

Date Reviewed: March 24, 2009

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 0)*, *EPA Method 608*, and the *National Functional Guidelines for Organic Data Review (2/99)*.

- Holding Times: The original extraction and analytical holding times were met. The water sample was originally extracted within seven days of collection; however, as the detect for alpha BHC was suspected to be a lab contaminant, the sample was re-extracted at TestAmerica-Irvine and another extraction was performed at TestAmerica-Denver. Both re-extractions were performed outside of the holding time period. The retained result (nondetect) for alpha-BHC was qualified as estimated, "UJ," in sample Outfall 012 (Method Blank section). The sample was extracted within seven days of collection for the PCB analysis. The sample was analyzed within 40 days of extraction for both pesticides and PCBs.
- Calibration: The initial calibration had average %RSDs of $\leq 10\%$ or $r^2 \geq 0.995$ for both the pesticide and PCB analyses. The %Ds for all analytes except alpha-BHC, endrin, chlordane, and toxaphene exceeded 15% in one or both of the low-level CCVs bracketing the pesticide analysis; therefore, the nondetects for these analytes were qualified as estimated, "UJ," in the retained results of the sample in this SDG. As there were no confirmed detects for the retained results, the confirmation column %Ds were not evaluated for either analysis. The ICV and remaining CCVs bracketing the sample analyses had %Ds within the QC limit of $\leq 15\%$.
- Blanks: The method blanks had no target compound detects above the MDL.

Alpha BHC was reported in sample Outfall 012; however, the laboratory suspected contamination related to one highly contaminated sample with percent level alpha-BHC. A second extraction of Outfall 012 yielded a low-level concentration of alpha BHC, indicating that the laboratory was not contamination free. The sample was sent to TestAmerica-Denver for alpha-BHC analysis. The nondetect results yielded from the TestAmerica-Denver analysis confirmed the suspicion that the original results were indeed laboratory contamination; therefore, the original result for alpha BHC in extraction batch 9B12048 and the sample re-extraction from batch 9B23113 were rejected, "R," in favor of the result for alpha BHC reported in batch 9064381 from TestAmerica-Denver. Several corrective action steps have been taken by TestAmerica-Irvine including replacing glassware

throughout the organics department and implementing an acid wash procedure to prevent future contamination issues.

- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs for the blank spike/blank spike duplicate pairs were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed for the sample in this SDG. Method accuracy and precision was evaluated based on the blank spike/blank spike duplicate 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.
- Compound Identification: Compound identification was verified. The laboratory analyzed for pesticides and PCBs by EPA Method 608. Review of the sample chromatograms and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified from the raw data. The reporting limits were supported by the lower level of the initial calibration. Any result reported between the MDL and the reporting limit was qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.

D. EPA METHOD 624—Volatile Organic Compounds (VOCs)

Reviewed By: S. Dellamia

Date Reviewed: March 20, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Volatile Organics (DVP-2, Rev. 0)*, *EPA Method 8260B*, and the *National Functional Guidelines for Organic Data Review (10/99)*.

- Holding Times: Analytical holding times were met. The unpreserved water samples were analyzed within seven days of collection.

- GC/MS Tuning: The BFB tunes met the method abundance criteria specified in EPA Method 624. Samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Initial and continuing calibration average RRFs were ≥ 0.05 . Initial calibration %RSDs were $\leq 35\%$ or $r^2 \geq 0.995$, except for the r^2 for trans-1,3-dichloropropene. The r^2 value for trans-1,3-dichloropropene was < 0.995 ; therefore, nondetected results for trans-1,3-dichloropropene in samples Outfall 012 and Trip Blanks were qualified as estimated, "UJ." Remaining initial calibration r^2 values were ≥ 0.995 and continuing calibration %Ds were $\leq 20\%$.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: cis-1,3-Dichloropropene was recovered above the laboratory-established QC limit; however, cis-1,3-dichloropropene was not detected in samples Outfall 012 or Trip Blanks. The remaining LCS recoveries were within QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a sample from this SDG. Evaluation of method accuracy was based on LCS 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:
 - Trip Blanks: Sample Trip Blanks was the trip blank associated with the site sample in this SDG. There were no detects above the MDL in the trip blank.
 - 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 in this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the control limits established by the continuing calibration standards: $-50\%/+100\%$ for internal standard areas and ± 30 seconds for retention times.
- Compound Identification: Compound identification was verified. The laboratory analyzed for volatile target compounds by EPA Method 624. 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. Any result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the reporting limit.

- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review of the raw data indicated no problems with system performance.

E. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: March 24, 2009

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 180.1 and SM5210B*, and the *National Functional Guidelines for Inorganic Data Review (07/02)*.

- Holding Times: Analytical holding times, 48 hours from collection for turbidity and BOD, were met.
- Calibration: Calibration criteria were met. The turbidity initial calibration r^2 value was ≥ 0.995 and the continuing calibration recoveries were within 90-110%.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: Recoveries and the BOD RPD were within laboratory-established QC limits.
- Laboratory Duplicates: A laboratory duplicate analysis was performed on the sample in this SDG for turbidity. The RPD was within the laboratory-established control limit.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to these methods.
- 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. 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.

Sample ID: **ISB0825-01** *Out Fall 012*

EPA Method 1613

Client Data
 Name: Test America-Irvine, CA
 Project: ISB0825
 Date Collected: 7-Feb-09
 Time Collected: 0850

Sample Data
 Matrix: Aqueous
 Sample Size: 1.05 L

Laboratory Data
 Lab Sample: 31408-001
 QC Batch No.: 1876
 Date Analyzed DB-5: 13-Feb-09
 Date Received: 10-Feb-09
 Date Extracted: 11-Feb-09
 Date Analyzed DB-225: N/A

Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND <i>u</i>	0.000000381			<u>IS</u> 13C-2,3,7,8-TCDD	95.9	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000000866			13C-1,2,3,7,8-PeCDD	90.1	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000113			13C-1,2,3,4,7,8-HxCDD	90.3	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000113			13C-1,2,3,6,7,8-HxCDD	84.5	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000109			13C-1,2,3,4,6,7,8-HpCDD	99.0	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.00000404			J	13C-OCDD	96.9	17 - 157	
OCDD	0.0000274			J	13C-2,3,7,8-TCDF	103	24 - 169	
2,3,7,8-TCDF	ND <i>u</i>	0.000000386			13C-1,2,3,7,8-PeCDF	86.2	24 - 185	
1,2,3,7,8-PeCDF	ND	0.000000565			13C-2,3,4,7,8-PeCDF	86.0	21 - 178	
2,3,4,7,8-PeCDF	ND	0.000000553			13C-1,2,3,4,7,8-HxCDF	88.9	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000599			13C-1,2,3,6,7,8-HxCDF	83.5	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000586			13C-2,3,4,6,7,8-HxCDF	102	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000551			13C-1,2,3,7,8,9-HxCDF	91.2	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.000000878			13C-1,2,3,4,6,7,8-HpCDF	90.0	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND				13C-1,2,3,4,7,8,9-HpCDF	94.7	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000108			13C-OCDF	93.3	17 - 157	
OCDF	0.00000246			J	<u>CRS</u> 37Cl-2,3,7,8-TCDD	90.4	35 - 197	
Totals					Footnotes			
Total TCDD	ND <i>u</i>	0.000000381			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.000000866			b. Estimated maximum possible concentration.			
Total HxCDD	ND	0.00000112			c. Method detection limit.			
Total HpCDD	0.00000404		0.00000757		d. Lower control limit - upper control limit.			
Total TCDF	ND <i>u</i>	0.000000386						
Total PeCDF	ND	0.000000559						
Total HxCDF	ND	0.000000654						
Total HpCDF	ND		0.00000124					

Analyst: JMH

Approved By: Martha M. Maier 20-Feb-2009 11:42

LEVEL IV

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

Project ID: Annual Outfall 012

Report Number: ISB0825

Sampled: 02/07/09

Received: 02/07/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01 (Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	29	1	02/10/09	02/11/09	
Boron	EPA 200.7	9B10123	0.020	0.050	0.12	1	02/10/09	02/11/09	
Calcium	EPA 200.7	9B10123	0.050	0.10	9.0	1	02/10/09	02/11/09	
Magnesium	EPA 200.7	9B10123	0.012	0.020	1.6	1	02/10/09	02/11/09	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Annual Outfall 012

Report Number: ISB0825

Sampled: 02/07/09

Received: 02/07/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01 (Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
Arsenic	EPA 200.7	9B10123	7.0	10	17	1	02/10/09	02/11/09	
Antimony U/B	EPA 200.8	9B10143	0.20	2.0	1.3	1	02/10/09	02/11/09	Ja
Beryllium U	EPA 200.7	9B10123	0.90	2.0	ND	1	02/10/09	02/11/09	
Chromium J/DNQ	EPA 200.7	9B10123	2.0	5.0	3.2	1	02/10/09	02/11/09	Ja
Nickel U	EPA 200.7	9B10123	2.0	10	ND	1	02/10/09	02/11/09	
Cadmium	EPA 200.8	9B10143	0.11	1.0	1.0	1	02/10/09	02/11/09	
Copper	EPA 200.8	9B10143	0.75	2.0	3.8	1	02/10/09	02/11/09	
Lead J/DNQ	EPA 200.8	9B10143	0.30	1.0	0.86	1	02/10/09	02/11/09	Ja
Selenium U	EPA 200.8	9B10143	0.30	2.0	ND	1	02/10/09	02/11/09	
Silver U	EPA 200.8	9B10143	0.30	1.0	ND	1	02/10/09	02/11/09	
Thallium J/DNQ	EPA 200.8	9B10143	0.20	1.0	0.35	1	02/10/09	02/11/09	Ja
Zinc	EPA 200.8	9B10143	2.5	20	35	1	02/10/09	02/11/09	

LEVEL IV

TestAmerica Irvine

Joseph Doak
 Project Manager

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

Project ID: Annual Outfall 012

Report Number: ISB0825

Sampled: 02/07/09

Received: 02/07/09

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01 (Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B-Diss	[CALC]	N/A	0.33	26	1	02/09/09	02/11/09	
Boron	EPA 200.7-Diss	9B09083	0.020	0.050	0.11	1	02/09/09	02/11/09	
Calcium	EPA 200.7-Diss	9B09083	0.050	0.10	8.3	1	02/09/09	02/11/09	
Magnesium	EPA 200.7-Diss	9B09083	0.012	0.020	1.4	1	02/09/09	02/11/09	

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

Project ID: Annual Outfall 012

Report Number: ISB0825

Sampled: 02/07/09

Received: 02/07/09

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01 (Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
Arsenic	EPA 200.7-Diss	9B09083	7.0	10	12	1	02/09/09	02/11/09	
Antimony U/B	EPA 200.8-Diss	9B12130	0.20	2.0	1.0	1	02/12/09	02/13/09	Ja
Beryllium U	EPA 200.7-Diss	9B09083	0.90	2.0	ND	1	02/09/09	02/11/09	
Chromium J/DNG	EPA 200.7-Diss	9B09083	2.0	5.0	2.4	1	02/09/09	02/11/09	Ja
Nickel U	EPA 200.7-Diss	9B09083	2.0	10	ND	1	02/09/09	02/11/09	
Cadmium J/DNG	EPA 200.8-Diss	9B12130	0.11	1.0	0.66	1	02/12/09	02/13/09	Ja
Copper	EPA 200.8-Diss	9B12130	0.75	2.0	2.7	1	02/12/09	02/13/09	
Lead U	EPA 200.8-Diss	9B12130	0.30	1.0	ND	1	02/12/09	02/13/09	
Selenium U/B	EPA 200.8-Diss	9B12130	0.30	2.0	ND	1	02/12/09	02/13/09	
Silver U	EPA 200.8-Diss	9B12130	0.30	1.0	ND	1	02/12/09	02/13/09	
Thallium U	EPA 200.8-Diss	9B12130	0.20	1.0	ND	1	02/12/09	02/13/09	C
Zinc	EPA 200.8-Diss	9B12130	2.5	20	27	1	02/12/09	02/13/09	

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

Project ID: Annual Outfall 012
 Report Number: ISB0825

Sampled: 02/07/09
 Received: 02/07/09

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01 (Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
4,4'-DDD	EPA 608	9B12048	0.0019	0.0047	ND	0.943	02/12/09	02/13/09	
4,4'-DDE	EPA 608	9B12048	0.0028	0.0047	ND	0.943	02/12/09	02/13/09	
4,4'-DDT	EPA 608	9B12048	0.0038	0.0094	ND	0.943	02/12/09	02/13/09	
Aldrin	EPA 608	9B12048	0.0014	0.0047	ND	0.943	02/12/09	02/13/09	
alpha-BHC	EPA 608	9B12048	0.0024	0.0047	0.0053	0.943	02/12/09	02/13/09	A-01, R-10
beta-BHC	EPA 608	9B12048	0.0038	0.0094	ND	0.943	02/12/09	02/13/09	
delta-BHC	EPA 608	9B12048	0.0033	0.0047	ND	0.943	02/12/09	02/13/09	
Dieldrin	EPA 608	9B12048	0.0019	0.0047	ND	0.943	02/12/09	02/13/09	
Endosulfan I	EPA 608	9B12048	0.0019	0.0047	ND	0.943	02/12/09	02/13/09	
Endosulfan II	EPA 608	9B12048	0.0028	0.0047	ND	0.943	02/12/09	02/13/09	
Endosulfan sulfate	EPA 608	9B12048	0.0028	0.0094	ND	0.943	02/12/09	02/13/09	
Endrin	EPA 608	9B12048	0.0019	0.0047	ND	0.943	02/12/09	02/13/09	
Endrin aldehyde	EPA 608	9B12048	0.0019	0.0094	ND	0.943	02/12/09	02/13/09	
Endrin ketone	EPA 608	9B12048	0.0028	0.0094	ND	0.943	02/12/09	02/13/09	
gamma-BHC (Lindane)	EPA 608	9B12048	0.0028	0.019	ND	0.943	02/12/09	02/13/09	
Heptachlor	EPA 608	9B12048	0.0028	0.0094	ND	0.943	02/12/09	02/13/09	
Heptachlor epoxide	EPA 608	9B12048	0.0024	0.0047	ND	0.943	02/12/09	02/13/09	
Methoxychlor	EPA 608	9B12048	0.0033	0.0047	ND	0.943	02/12/09	02/13/09	
Chlordane	EPA 608	9B12048	0.038	0.094	ND	0.943	02/12/09	02/13/09	
Toxaphene	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/13/09	
Surrogate: Decachlorobiphenyl (45-120%)					71 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					64 %				

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 012

Report Number: ISB0825

Sampled: 02/07/09
Received: 02/07/09

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01RE2 (Outfall 012 - Water) - cont.									H8
Reporting Units: $\mu\text{g/l}$									
4,4'-DDD	EPA 608	9B23113	0.0019	0.0047	ND	0.948	02/23/09	02/25/09	
4,4'-DDE	EPA 608	9B23113	0.0028	0.0047	ND	0.948	02/23/09	02/25/09	
4,4'-DDT	EPA 608	9B23113	0.0038	0.0095	ND	0.948	02/23/09	02/25/09	
Aldrin	EPA 608	9B23113	0.0014	0.0047	ND	0.948	02/23/09	02/25/09	
alpha-BHC	EPA 608	9B23113	0.0024	0.0047	0.0046	0.948	02/23/09	02/25/09	Ja
beta-BHC	EPA 608	9B23113	0.0038	0.0095	ND	0.948	02/23/09	02/25/09	
delta-BHC	EPA 608	9B23113	0.0033	0.0047	ND	0.948	02/23/09	02/25/09	
Dieldrin	EPA 608	9B23113	0.0019	0.0047	ND	0.948	02/23/09	02/25/09	
Endosulfan I	EPA 608	9B23113	0.0019	0.0047	ND	0.948	02/23/09	02/25/09	
Endosulfan II	EPA 608	9B23113	0.0028	0.0047	ND	0.948	02/23/09	02/25/09	
Endosulfan sulfate	EPA 608	9B23113	0.0028	0.0095	ND	0.948	02/23/09	02/25/09	
Endrin	EPA 608	9B23113	0.0019	0.0047	ND	0.948	02/23/09	02/25/09	
Endrin aldehyde	EPA 608	9B23113	0.0019	0.0095	ND	0.948	02/23/09	02/25/09	
Endrin ketone	EPA 608	9B23113	0.0028	0.0095	ND	0.948	02/23/09	02/25/09	
gamma-BHC (Lindane)	EPA 608	9B23113	0.0028	0.019	ND	0.948	02/23/09	02/25/09	
Heptachlor	EPA 608	9B23113	0.0028	0.0095	ND	0.948	02/23/09	02/25/09	
Heptachlor epoxide	EPA 608	9B23113	0.0024	0.0047	ND	0.948	02/23/09	02/25/09	
Methoxychlor	EPA 608	9B23113	0.0033	0.0047	ND	0.948	02/23/09	02/25/09	
Chlordane	EPA 608	9B23113	0.038	0.095	ND	0.948	02/23/09	02/25/09	
Toxaphene	EPA 608	9B23113	0.24	0.47	ND	0.948	02/23/09	02/25/09	
Surrogate: Decachlorobiphenyl (45-120%)					91 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					82 %				

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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 012

Report Number: ISB0825

Sampled: 02/07/09
Received: 02/07/09

CFR136A 608

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01 (Outfall 012 - Water) - cont.									
Reporting Units: ug/L									
alpha-BHC	CFR136A 608	9064381	0.0053	0.05	ND	1	03/05/09	03/10/09	HTV
<i>Surrogate: Decachlorobiphenyl (32-144%)</i>					75 %				
<i>Surrogate: Tetrachloro-m-xylene (52-117%)</i>					86 %				

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

Project ID: Annual Outfall 012

Report Number: ISB0825

Sampled: 02/07/09
Received: 02/07/09

TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01 (Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
Aroclor 1016	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1221	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1232	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1242	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1248	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1254	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1260	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
<i>Surrogate: Decachlorobiphenyl (45-120%)</i>					92 %				

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 012

Report Number: ISB0825

Sampled: 02/07/09
Received: 02/07/09

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: ISB0825-01 (Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
Benzene	EPA 624	9B09010	0.28	0.50	ND	1	02/09/09	02/09/09	u
Bromodichloromethane	EPA 624	9B09010	0.30	0.50	ND	1	02/09/09	02/09/09	
Bromoform	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
Bromomethane	EPA 624	9B09010	0.42	1.0	ND	1	02/09/09	02/09/09	
Carbon tetrachloride	EPA 624	9B09010	0.28	0.50	ND	1	02/09/09	02/09/09	
Chlorobenzene	EPA 624	9B09010	0.36	0.50	ND	1	02/09/09	02/09/09	
Chloroethane	EPA 624	9B09010	0.40	1.0	ND	1	02/09/09	02/09/09	
Chloroform	EPA 624	9B09010	0.33	0.50	ND	1	02/09/09	02/09/09	
Chloromethane	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
Dibromochloromethane	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
1,2-Dibromoethane (EDB)	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
1,2-Dichlorobenzene	EPA 624	9B09010	0.32	0.50	ND	1	02/09/09	02/09/09	
1,3-Dichlorobenzene	EPA 624	9B09010	0.35	0.50	ND	1	02/09/09	02/09/09	
1,4-Dichlorobenzene	EPA 624	9B09010	0.37	0.50	ND	1	02/09/09	02/09/09	
1,1-Dichloroethane	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
1,2-Dichloroethane	EPA 624	9B09010	0.28	0.50	ND	1	02/09/09	02/09/09	
1,1-Dichloroethene	EPA 624	9B09010	0.42	0.50	ND	1	02/09/09	02/09/09	
trans-1,2-Dichloroethene	EPA 624	9B09010	0.30	0.50	ND	1	02/09/09	02/09/09	
1,2-Dichloropropane	EPA 624	9B09010	0.35	0.50	ND	1	02/09/09	02/09/09	
cis-1,3-Dichloropropene	EPA 624	9B09010	0.22	0.50	ND	1	02/09/09	02/09/09	
trans-1,3-Dichloropropene	EPA 624	9B09010	0.32	0.50	ND	1	02/09/09	02/09/09	L
Ethylbenzene	EPA 624	9B09010	0.25	0.50	ND	1	02/09/09	02/09/09	u
Methylene chloride	EPA 624	9B09010	0.95	1.0	ND	1	02/09/09	02/09/09	u
1,1,2,2-Tetrachloroethane	EPA 624	9B09010	0.30	0.50	ND	1	02/09/09	02/09/09	
Tetrachloroethene	EPA 624	9B09010	0.32	0.50	ND	1	02/09/09	02/09/09	
Toluene	EPA 624	9B09010	0.36	0.50	ND	1	02/09/09	02/09/09	
1,1,1-Trichloroethane	EPA 624	9B09010	0.30	0.50	ND	1	02/09/09	02/09/09	
1,1,2-Trichloroethane	EPA 624	9B09010	0.30	0.50	ND	1	02/09/09	02/09/09	
Trichloroethene	EPA 624	9B09010	0.26	0.50	0.68	1	02/09/09	02/09/09	
Trichlorofluoromethane	EPA 624	9B09010	0.34	0.50	ND	1	02/09/09	02/09/09	u
1,2,3-Trichloropropane	EPA 624	9B09010	0.40	1.0	ND	1	02/09/09	02/09/09	
Trichlorotrifluoroethane (Freon 113)	EPA 624	9B09010	0.50	5.0	ND	1	02/09/09	02/09/09	
Vinyl chloride	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
Xylenes, Total	EPA 624	9B09010	0.90	1.5	ND	1	02/09/09	02/09/09	
Di-isopropyl Ether (DIPE)	EPA 624	9B09010	0.25	0.50	ND	1	02/09/09	02/09/09	
Methyl-tert-butyl Ether (MTBE)	EPA 624	9B09010	0.32	0.50	ND	1	02/09/09	02/09/09	
tert-Butanol (TBA)	EPA 624	9B09010	6.5	10	ND	1	02/09/09	02/09/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					86 %				
Surrogate: Dibromofluoromethane (80-120%)					84 %				
Surrogate: Toluene-d8 (80-120%)					92 %				

LEVEL IV

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

Project ID: Annual Outfall 012

Report Number: ISB0825

Sampled: 02/07/09
Received: 02/07/09

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: ISB0825-02 (Trip Blanks - Water)									
Reporting Units: ug/l									
Benzene	EPA 624	9B09010	0.28	0.50	ND	1	02/09/09	02/09/09	u
Bromodichloromethane	EPA 624	9B09010	0.30	0.50	ND	1	02/09/09	02/09/09	
Bromoform	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
Bromomethane	EPA 624	9B09010	0.42	1.0	ND	1	02/09/09	02/09/09	
Carbon tetrachloride	EPA 624	9B09010	0.28	0.50	ND	1	02/09/09	02/09/09	
Chlorobenzene	EPA 624	9B09010	0.36	0.50	ND	1	02/09/09	02/09/09	
Chloroethane	EPA 624	9B09010	0.40	1.0	ND	1	02/09/09	02/09/09	
Chloroform	EPA 624	9B09010	0.33	0.50	ND	1	02/09/09	02/09/09	
Chloromethane	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
Dibromochloromethane	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
1,2-Dibromoethane (EDB)	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
1,2-Dichlorobenzene	EPA 624	9B09010	0.32	0.50	ND	1	02/09/09	02/09/09	
1,3-Dichlorobenzene	EPA 624	9B09010	0.35	0.50	ND	1	02/09/09	02/09/09	
1,4-Dichlorobenzene	EPA 624	9B09010	0.37	0.50	ND	1	02/09/09	02/09/09	
1,1-Dichloroethane	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
1,2-Dichloroethane	EPA 624	9B09010	0.28	0.50	ND	1	02/09/09	02/09/09	
1,1-Dichloroethene	EPA 624	9B09010	0.42	0.50	ND	1	02/09/09	02/09/09	
trans-1,2-Dichloroethene	EPA 624	9B09010	0.30	0.50	ND	1	02/09/09	02/09/09	
1,2-Dichloropropane	EPA 624	9B09010	0.35	0.50	ND	1	02/09/09	02/09/09	
cis-1,3-Dichloropropene	EPA 624	9B09010	0.22	0.50	ND	1	02/09/09	02/09/09	L
trans-1,3-Dichloropropene	EPA 624	9B09010	0.32	0.50	ND	1	02/09/09	02/09/09	u, L
Ethylbenzene	EPA 624	9B09010	0.25	0.50	ND	1	02/09/09	02/09/09	u
Methylene chloride	EPA 624	9B09010	0.95	1.0	ND	1	02/09/09	02/09/09	
1,1,2,2-Tetrachloroethane	EPA 624	9B09010	0.30	0.50	ND	1	02/09/09	02/09/09	
Tetrachloroethene	EPA 624	9B09010	0.32	0.50	ND	1	02/09/09	02/09/09	
Toluene	EPA 624	9B09010	0.36	0.50	ND	1	02/09/09	02/09/09	
1,1,1-Trichloroethane	EPA 624	9B09010	0.30	0.50	ND	1	02/09/09	02/09/09	
1,1,2-Trichloroethane	EPA 624	9B09010	0.30	0.50	ND	1	02/09/09	02/09/09	
Trichloroethene	EPA 624	9B09010	0.26	0.50	ND	1	02/09/09	02/09/09	
Trichlorofluoromethane	EPA 624	9B09010	0.34	0.50	ND	1	02/09/09	02/09/09	
1,2,3-Trichloropropane	EPA 624	9B09010	0.40	1.0	ND	1	02/09/09	02/09/09	
Trichlorotrifluoroethane (Freon 113)	EPA 624	9B09010	0.50	5.0	ND	1	02/09/09	02/09/09	
Vinyl chloride	EPA 624	9B09010	0.40	0.50	ND	1	02/09/09	02/09/09	
Xylenes, Total	EPA 624	9B09010	0.90	1.5	ND	1	02/09/09	02/09/09	
Di-isopropyl Ether (DIPE)	EPA 624	9B09010	0.25	0.50	ND	1	02/09/09	02/09/09	
Methyl-tert-butyl Ether (MTBE)	EPA 624	9B09010	0.32	0.50	ND	1	02/09/09	02/09/09	
tert-Butanol (TBA)	EPA 624	9B09010	6.5	10	ND	1	02/09/09	02/09/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					85 %				
Surrogate: Dibromofluoromethane (80-120%)					83 %				
Surrogate: Toluene-d8 (80-120%)					91 %				

LEVEL IV

TestAmerica Irvine

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

Project ID: Annual Outfall 012

Report Number: ISB0825

Sampled: 02/07/09
Received: 02/07/09

PURGEABLES-- GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01 (Outfall 012 - Water)									
Reporting Units: ug/l									
Acrolein	EPA 624	9B09010	4.0	5.0	ND	1	02/09/09	02/09/09	u
Acrylonitrile	EPA 624	9B09010	0.70	2.0	ND	1	02/09/09	02/09/09	d
Surrogate: 4-Bromofluorobenzene (80-120%)					86 %				
Surrogate: Dibromofluoromethane (80-120%)					84 %				
Surrogate: Toluene-d8 (80-120%)					92 %				
Sample ID: ISB0825-01RE1 (Outfall 012 - Water)									
Reporting Units: ug/l									
2-Chloroethyl vinyl ether	EPA 624	9B09020	1.8	5.0	ND	1	02/09/09	02/10/09	u
Surrogate: 4-Bromofluorobenzene (80-120%)					87 %				
Surrogate: Dibromofluoromethane (80-120%)					96 %				
Surrogate: Toluene-d8 (80-120%)					100 %				
Sample ID: ISB0825-02 (Trip Blanks - Water)									
Reporting Units: ug/l									
Acrolein	EPA 624	9B09010	4.0	5.0	ND	1	02/09/09	02/09/09	u
Acrylonitrile	EPA 624	9B09010	0.70	2.0	ND	1	02/09/09	02/09/09	d
Surrogate: 4-Bromofluorobenzene (80-120%)					85 %				
Surrogate: Dibromofluoromethane (80-120%)					83 %				
Surrogate: Toluene-d8 (80-120%)					91 %				
Sample ID: ISB0825-02RE1 (Trip Blanks - Water)									
Reporting Units: ug/l									
2-Chloroethyl vinyl ether	EPA 624	9B09020	1.8	5.0	ND	1	02/09/09	02/10/09	u
Surrogate: 4-Bromofluorobenzene (80-120%)					86 %				
Surrogate: Dibromofluoromethane (80-120%)					97 %				
Surrogate: Toluene-d8 (80-120%)					99 %				

LEVEL IV

TestAmerica Irvine

Joseph Doak
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 012

Report Number: ISB0825

Sampled: 02/07/09
Received: 02/07/09

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01 (Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
Ammonia-N (Distilled) *	SM4500NH3-C	9B10100	0.50	0.50	0.84	1	02/10/09	02/10/09	
Biochemical Oxygen Demand	SM5210B	9B08007	0.50	2.0	7.2	1	02/08/09	02/13/09	
Chloride *	EPA 300.0	9B07033	2.5	5.0	61	10	02/07/09	02/07/09	
Total Cyanide	SM4500-CN-C,E	9B12116	0.0022	0.0050	ND	1	02/12/09	02/12/09	
Fluoride	SM 4500-F-C	9B16034	0.020	0.10	1.0	1	02/16/09	02/16/09	
Nitrate-N	EPA 300.0	9B07033	0.060	0.11	1.9	1	02/07/09	02/07/09	
Nitrite-N	EPA 300.0	9B07033	0.090	0.15	ND	1	02/07/09	02/07/09	
Nitrate/Nitrite-N	EPA 300.0	9B07033	0.15	0.26	1.9	1	02/07/09	02/07/09	
Sulfate	EPA 300.0	9B07033	0.20	0.50	26	1	02/07/09	02/07/09	
Total Dissolved Solids	SM2540C	9B11045	10	10	240	1	02/11/09	02/11/09	
Total Suspended Solids	SM 2540D	9B13134	1.0	10	7.0	1	02/13/09	02/13/09	Ja

LEVEL IV

*Analysis not validated

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Joseph Doak
Project Manager

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NPDES - 2885

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

Project ID: Annual Outfall 012

Report Number: ISB0825

Sampled: 02/07/09

Received: 02/07/09

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0825-01 (Outfall 012 - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	9B08010	0.040	1.0	13	1	02/08/09	02/08/09	

LEVEL IV

*Analysis not validated

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