APPENDIX G

Section 6

Outfall 004, February 6, 2009

MEC^X Data Validation Report

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ISB0717

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:	ISB0717
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 004	ISB0717-01	D9B100268-001, 31400-001, F9B100167-001, CSB0300-001	Water	02/06/09 0910	200.7, 200.7 (Diss), 200.8, 200.8 (Diss), 245.1, 245.1 (Diss), 300.0, 314.0, 525.2, 608, 624, 625, 900.0, 901.1, 903.0, 904.0, 905.0, 906.0, 908.0, 1613B, 1664, SM2340B, SM2540D, SM4500

II. Sample Management

No anomalies were observed regarding sample management. The samples were received at TestAmerica-Irvine and TestAmerica-St. Louis within the temperature limit of 4 ±2°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, custody seals were not required. Custody seal were present and intact upon arrival at TestAmerica-Denver, TestAmerica-St. Louis, and Vista. 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 19, 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 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 20, 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 ≤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: Arsenic was detected in the total method blank at 7.21 µg/L; therefore, total arsenic detected in the sample was qualified as nondetected, "U," at the level of contamination. Mercury was detected in the method blank at 0.036 µg/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 0.299 and 0.419 µg/L; therefore both total and dissolved antimony detected in the sample were qualified as nondetected, "U," at the reporting limit. There were no other applicable detects in the method blanks or CCBs.

- Interference Check Samples: ICSA/B analyses were performed in association with the ICP and dissolved ICP-MS metals analyses only. Recoveries were within the method-established control limits. Cadmium and copper were detected at 2.0 µg/L each in the ICP-MS ICSA; 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: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.

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

- Internal Standards Performance: 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 21, 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 Methods 608*, and the *National Functional Guidelines for Organic Data Review* (2/99).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted within seven days of collection and analyzed within 40 days of extraction for both pesticides and PCBs.

- Calibration: The initial calibration had average %RSDs of ≤10% or r^2 ≥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 sample of this SDG. As there were no confirmed detects, 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 ≤15%.

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

- 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 by EPA Method 608 and PCBs by Method 8082. 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. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks
Date Reviewed: March 18, 2009

The sample listed in Table 1 for this analysis 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 aliquots for gross alpha and gross beta were prepared beyond the five-day holding time for unpreserved samples; therefore, the detected results for these analytes were qualified as estimated, "J." All remaining aliquots were prepared within the five-day holding time for unpreserved samples.

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

  The gross alpha detector efficiency was less than 20%; therefore, gross alpha detected in the sample was qualified as estimated, "J." The gross beta detector efficiency was 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 strontium, radium-226, and radium-228 chemical yields were considered acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

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

- Blank Spikes and Laboratory Control Samples: The recoveries and the strontium-90, radium-226, and radium-228 RPDs were within laboratory-established control limits.

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

- 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.

- 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. Total uranium, normally reported in aqueous units, was converted to pCi/L using a conversion factor for naturally occurring uranium. 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 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.

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

Reviewed By: P. Meeks
Date Reviewed: March 23, 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 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 diazinon initial calibration average RRF was ≥0.05 and %RSD ≤30%. The continuing calibration RRF for diazinon was ≥0.05 and recovery was within the method QC limits of 70-130%. The reviewer could not duplicate the chlorpyrifos initial calibration; however, the calculated average RRF was ≥0.05 and %RSD ≤30%. Additionally the calculated chlorpyrifos continuing calibration RRF was ≥0.05 and the recovery was 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 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 was evaluated based on the LCS result.

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

Reviewed By: S. Dellamia
Date Reviewed: March 19, 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 ≤35% or r^2 ≥0.995 except for trans-1,3-dichloropropene, which had an r^2 <0.995; therefore, nondetected results for trans-1,3-dichloropropene in samples Outfall 004 and Trip Blanks were qualified as estimated, "UJ." Continuing calibration %Ds were >20% for carbon tetrachloride and acrylonitrile; therefore, nondetected results for both compounds in samples Outfall 004 and Trip Blanks were qualified as estimated, "UJ." Remaining continuing calibration %Ds were ≤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 004 or Trip Blanks. 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 642. Review of the sample chromatograms, 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.

G. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks
Date Reviewed: March 23, 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 1664A, 300.0, 314.0, Standard Methods SM4500-CN-C,E, SM4500-F-C, SM2540C, and SM254-D,* and the *National Functional Guidelines for Inorganic Data Review* (07/02).

- Holding Times: Analytical holding times, 7 days from collection for TDS and TSS, 14 days for cyanide, 28 days for oil and grease, chloride, fluoride, sulfate, nitrate, and perchlorate, were met.

- Calibration: Calibration criteria were met. Initial calibration r^2 values were $\geq$0.995 and all initial and continuing calibration recoveries were within 90-110%, except one perchlorate CCV recovered at 115%. As perchlorate was not detected in the sample, no qualifications were required. The perchlorate IPC and ICCS standard recoveries were within the method limits of 80-120% and 75-125%, respectively. Balance calibration logs were reviewed and found to be acceptable.

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

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

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

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

- 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. Both nitrate and nitrate/nitrite were analyzed at 20× dilutions in order to report the analytes within the linear range of the calibration. 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:	ISB0717-01 (Outfall 004)				EPA Method 1613
Client Data		**Sample Data**		**Laboratory Data**	
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	31400-001
Project:	ISB0717	Sample Size:	1.01 L	QC Batch No.:	1876
Date Collected:	6-Feb-09			Date Analyzed DB-5:	13-Feb-09
Time Collected:	0910				
				Date Received:	10-Feb-09
				Date Extracted:	11-Feb-09
				Date Analyzed DB-225:	NA

Analyte	Conc. (ug/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND U	0.000000512		
1,2,3,7,8-PeCDD	ND	0.00000109		
1,2,3,4,7,8-HxCDD	ND	0.00000175		
1,2,3,6,7,8-HxCDD	ND	0.00000175		
1,2,3,7,8,9-HxCDD	ND	0.00000169		
1,2,3,4,6,7,8-HpCDD	0.0000526			
OCDD	0.000885			
2,3,7,8-TCDF	ND U	0.000000414		
1,2,3,7,8-PeCDF	ND	0.000000693		
2,3,4,7,8-PeCDF	ND	0.000000663		
1,2,3,4,7,8-HxCDF	ND	0.000000821		
1,2,3,6,7,8-HxCDF	ND	0.000000814		
2,3,4,6,7,8-HxCDF	ND	0.000000740		
1,2,3,7,8,9-HxCDF	ND	0.00000130		
1,2,3,4,6,7,8-HpCDF	0.00000811 J/DNQ			J
1,2,3,4,7,8,9-HpCDF	ND U	0.00000190		
OCDF	0.0000251 J/DNQ			J

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	93.0	25 - 164	
	13C-1,2,3,7,8-PeCDD	87.5	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	84.2	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	81.7	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	92.4	23 - 140	
	13C-OCDD	83.7	17 - 157	
	13C-2,3,7,8-TCDF	104	24 - 169	
	13C-1,2,3,7,8-PeCDF	84.0	24 - 185	
	13C-2,3,4,7,8-PeCDF	88.9	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	85.3	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	80.9	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	103	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	82.2	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	79.1	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	87.7	26 - 138	
	13C-OCDF	82.7	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	88.3	35 - 197	

Totals		
Total TCDD	ND U	0.000000512
Total PeCDD	ND U	0.00000109
Total HxCDD	0.00000530 J/DNQ	
Total HpCDD	0.000101	
Total TCDF	ND U	0.000000414
Total PeCDF	ND U	0.000000678
Total HxCDF	0.00000595 J/DNQ	
Total HpCDF	0.0000307	

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: JMH

Approved By: Martha M. Maier 19-Feb-2009 13:27

LEVEL IV KS 3/19/09

NPDES - 630

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 004
Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

METALS

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	**23**	1	02/09/09	02/14/09	
Boron U	EPA 200.7	9B09073	0.020	0.050	ND	1	02/09/09	02/16/09	
Calcium	EPA 200.7	9B09073	0.050	0.10	**5.2**	1	02/09/09	02/14/09	
Iron	EPA 200.7	9B09073	0.015	0.040	**4.7**	1	02/09/09	02/14/09	
Magnesium	EPA 200.7	9B09073	0.012	0.020	**2.6**	1	02/09/09	02/14/09	

LEVEL IV

TestAmerica Irvine

Joseph Doak
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 004
Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

METALS

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: ug/l									
Aluminum	EPA 200.7	9B09073	40	50	**4000**	1	02/09/09	02/16/09	
Arsenic U/B	EPA 200.7	9B09073	7.0	10	**14**	1	02/09/09	02/14/09	B
Antimony U/B	EPA 200.8	9B09075	0.20	2.0	**0.43**	1	02/09/09	02/10/09	Ja
Beryllium U	EPA 200.7	9B09073	0.90	2.0	ND	1	02/09/09	02/14/09	
Chromium J/DNQ	EPA 200.7	9B09073	2.0	5.0	**4.8**	1	02/09/09	02/14/09	Ja
Nickel ↓ ↓	EPA 200.7	9B09073	2.0	10	**3.6**	1	02/09/09	02/14/09	Ja
Selenium U	EPA 200.7	9B09073	8.0	10	ND	1	02/09/09	02/14/09	
Silver ↓	EPA 200.7	9B09073	6.0	10	ND	1	02/09/09	02/14/09	
Cadmium	EPA 200.8	9B09075	0.11	1.0	ND	1	02/09/09	02/10/09	
Vanadium	EPA 200.7	9B09073	3.0	10	**11**	1	02/09/09	02/14/09	
Zinc J/DNQ	EPA 200.7	9B09073	6.0	20	**14**	1	02/09/09	02/14/09	Ja
Copper	EPA 200.8	9B09075	0.75	2.0	**4.1**	1	02/09/09	02/10/09	
Lead	EPA 200.8	9B09075	0.30	1.0	**2.8**	1	02/09/09	02/10/09	
Thallium U	EPA 200.8	9B09075	0.20	1.0	ND	1	02/09/09	02/10/09	

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TestAmerica Irvine

Joseph Doak
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

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Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

DISSOLVED METALS

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B-Diss	[CALC]	N/A	0.33	**19**	1	02/09/09	02/11/09	
Boron J/DNQ	EPA 200.7-Diss	9B09083	0.020	0.050	**0.020**	1	02/09/09	02/11/09	Ja
Calcium	EPA 200.7-Diss	9B09083	0.050	0.10	**5.3**	1	02/09/09	02/11/09	
Iron	EPA 200.7-Diss	9B09083	0.015	0.040	**0.21**	1	02/09/09	02/11/09	
Magnesium	EPA 200.7-Diss	9B09083	0.012	0.020	**1.5**	1	02/09/09	02/11/09	

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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
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Received: 02/06/09

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: ug/l									
Aluminum	EPA 200.7-Diss	9B09083	40	50	**170**	1	02/09/09	02/11/09	
Arsenic U	EPA 200.7-Diss	9B09083	7.0	10	ND	1	02/09/09	02/11/09	
Antimony U/B	EPA 200.8-Diss	9B12130	0.20	2.0	**0.61**	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	EPA 200.7-Diss	9B09083	2.0	5.0	ND	1	02/09/09	02/11/09	
Nickel	EPA 200.7-Diss	9B09083	2.0	10	ND	1	02/09/09	02/11/09	
Selenium	EPA 200.7-Diss	9B09083	8.0	10	ND	1	02/09/09	02/11/09	
Silver	EPA 200.7-Diss	9B09083	6.0	10	ND	1	02/09/09	02/11/09	
Cadmium	EPA 200.8-Diss	9B12130	0.11	1.0	ND	1	02/12/09	02/13/09	
Vanadium	EPA 200.7-Diss	9B09083	3.0	10	ND	1	02/09/09	02/11/09	
Zinc	EPA 200.7-Diss	9B09083	6.0	20	ND	1	02/09/09	02/11/09	
Copper J/BN9	EPA 200.8-Diss	9B12130	0.75	2.0	**0.86**	1	02/12/09	02/13/09	Ja
Lead 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

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TestAmerica Irvine

Joseph Doak
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 004
Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

MCAWW 245.1

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: ug/L									
Mercury U/B	MCAWW 245.1	9043305	0.027	0.2	**0.1**	1	02/12/09	02/12/09	J, Ba

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TestAmerica Irvine

Joseph Doak
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
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Project ID: Annual Outfall 004
Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

MCAWW 245.1-DISS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: ug/L									
Mercury U/B	MCAWW 245.1-DISS	9043330	0.027	0.2	**0.054**	1	02/12/09	02/12/09	J, Ba

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Joseph Doak
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 004
Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: ug/l									
Aroclor 1016	EPA 608	9B12048	0.25	0.50	ND	1	02/12/09	02/12/09	
Aroclor 1221	EPA 608	9B12048	0.25	0.50	ND	1	02/12/09	02/12/09	
Aroclor 1232	EPA 608	9B12048	0.25	0.50	ND	1	02/12/09	02/12/09	
Aroclor 1242	EPA 608	9B12048	0.25	0.50	ND	1	02/12/09	02/12/09	
Aroclor 1248	EPA 608	9B12048	0.25	0.50	ND	1	02/12/09	02/12/09	
Aroclor 1254	EPA 608	9B12048	0.25	0.50	ND	1	02/12/09	02/12/09	
Aroclor 1260	EPA 608	9B12048	0.25	0.50	ND	1	02/12/09	02/12/09	
Surrogate: Decachlorobiphenyl (45-120%)					*101 %*				

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Joseph Doak
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

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Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: ug/l									
4,4'-DDD	EPA 608	9B12048	0.0020	0.0050	ND	1	02/12/09	02/13/09	
4,4'-DDE	EPA 608	9B12048	0.0030	0.0050	ND	1	02/12/09	02/13/09	
4,4'-DDT	EPA 608	9B12048	0.0040	0.010	ND	1	02/12/09	02/13/09	
Aldrin	EPA 608	9B12048	0.0015	0.0050	ND	1	02/12/09	02/13/09	
alpha-BHC	EPA 608	9B12048	0.0025	0.0050	ND	1	02/12/09	02/13/09	
beta-BHC	EPA 608	9B12048	0.0040	0.010	ND	1	02/12/09	02/13/09	
delta-BHC	EPA 608	9B12048	0.0035	0.0050	ND	1	02/12/09	02/13/09	
Dieldrin	EPA 608	9B12048	0.0020	0.0050	ND	1	02/12/09	02/13/09	
Endosulfan I	EPA 608	9B12048	0.0020	0.0050	ND	1	02/12/09	02/13/09	
Endosulfan II	EPA 608	9B12048	0.0030	0.0050	ND	1	02/12/09	02/13/09	
Endosulfan sulfate	EPA 608	9B12048	0.0030	0.010	ND	1	02/12/09	02/13/09	
Endrin	EPA 608	9B12048	0.0020	0.0050	ND	1	02/12/09	02/13/09	
Endrin aldehyde	EPA 608	9B12048	0.0020	0.010	ND	1	02/12/09	02/13/09	
Endrin ketone	EPA 608	9B12048	0.0030	0.010	ND	1	02/12/09	02/13/09	
gamma-BHC (Lindane)	EPA 608	9B12048	0.0030	0.020	ND	1	02/12/09	02/13/09	
Heptachlor	EPA 608	9B12048	0.0030	0.010	ND	1	02/12/09	02/13/09	
Heptachlor epoxide	EPA 608	9B12048	0.0025	0.0050	ND	1	02/12/09	02/13/09	
Methoxychlor	EPA 608	9B12048	0.0035	0.0050	ND	1	02/12/09	02/13/09	
Chlordane	EPA 608	9B12048	0.040	0.10	ND	1	02/12/09	02/13/09	
Toxaphene	EPA 608	9B12048	0.25	0.50	ND	1	02/12/09	02/13/09	
Surrogate: Decachlorobiphenyl (45-120%)					*82 %*				
Surrogate: Tetrachloro-m-xylene (35-115%)					*85 %*				

Level IV

TestAmerica Irvine

Joseph Doak
Project Manager

Outfall 004

TestAmerica Irvine

Client Sample ID: ISB0717-01

Radiochemistry

Lab Sample ID: F9B100167-001
Work Order: K603D
Matrix: WATER

Date Collected: 02/06/09 0910
Date Received: 02/10/09 0900

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 # 9042113**		**Yld %**
Cesium 137 U	0.6	U	7.5	20.0	14	02/11/09	02/26/09
Potassium 40 U	-90	U	770		280	02/11/09	02/26/09
Gross Alpha/Beta EPA 900				**pCi/L**	**Batch # 9043152**		**Yld %**
Gross Alpha J/C, H, DNQ	2.2	J	1.1	3.0	1.2	02/12/09	02/16/09
Gross Beta J/H	13.7		1.7	4.0	1.1	02/12/09	02/16/09
Radium 226 by EPA 903.0 MOD				**pCi/L**	**Batch # 9041370**		**Yld % 81**
Radium (226) J/DNQ	0.46	J	0.23	1.00	0.31	02/10/09	03/06/09
Radium 228 by GFPC EPA 904 MOD				**pCi/L**	**Batch # 9041371**		**Yld % 86**
Radium 228 U	0.12	U	0.24	1.00	0.40	02/10/09	03/06/09
TRITIUM (Distill) by EPA 906.0 MOD				**pCi/L**	**Batch # 9059104**		**Yld %**
Tritium U	20	U	190	500	340	02/28/09	03/05/09
SR-90 BY GFPC EPA-905 MOD				**pCi/L**	**Batch # 9041372**		**Yld % 59**
Strontium 90 U	0.21	U	0.38	3.00	0.64	02/10/09	02/26/09
Total Uranium by KPA ASTM 5174-91				**pCi/L**	**Batch # 9041382**		**Yld %**
Total Uranium J/DNQ	0.518	J	0.059	1.35	0.42	02/10/09	03/08/09

LEVEL IV

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
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 004
Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

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: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: ug/l									
Chlorpyrifos U	EPA 525.2	C9B0701	N/A	1.0	ND	1	02/07/09	02/07/09	
Diazinon U	EPA 525.2	C9B0701	N/A	0.25	ND	1	02/07/09	02/07/09	
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)					*102 %*				
Surrogate: Triphenylphosphate (70-130%)					*126 %*				
Surrogate: Perylene-d12 (70-130%)					*81 %*				

LEVEL IV

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Joseph Doak
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
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Project ID: Annual Outfall 004
Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water)					**Sampled: 02/06/09**				
Reporting Units: ug/l									
Benzene	EPA 624	9B07011	0.28	0.50	ND	1	02/07/09	02/07/09	U
Bromodichloromethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
Bromoform	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
Bromomethane	EPA 624	9B07011	0.42	1.0	ND	1	02/07/09	02/07/09	
Carbon tetrachloride	EPA 624	9B07011	0.28	0.50	ND	1	02/07/09	02/07/09	UJ/L
Chlorobenzene	EPA 624	9B07011	0.36	0.50	ND	1	02/07/09	02/07/09	U
Chloroethane	EPA 624	9B07011	0.40	1.0	ND	1	02/07/09	02/07/09	
Chloroform	EPA 624	9B07011	0.33	0.50	ND	1	02/07/09	02/07/09	
Chloromethane	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
Dibromochloromethane	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
1,2-Dichlorobenzene	EPA 624	9B07011	0.32	0.50	ND	1	02/07/09	02/07/09	
1,3-Dichlorobenzene	EPA 624	9B07011	0.35	0.50	ND	1	02/07/09	02/07/09	
1,4-Dichlorobenzene	EPA 624	9B07011	0.37	0.50	ND	1	02/07/09	02/07/09	
1,1-Dichloroethane	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
1,2-Dichloroethane	EPA 624	9B07011	0.28	0.50	ND	1	02/07/09	02/07/09	
1,1-Dichloroethene	EPA 624	9B07011	0.42	0.50	ND	1	02/07/09	02/07/09	
trans-1,2-Dichloroethene	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
1,2-Dichloropropane	EPA 624	9B07011	0.35	0.50	ND	1	02/07/09	02/07/09	
cis-1,3-Dichloropropene	EPA 624	9B07011	0.22	0.50	ND	1	02/07/09	02/07/09	L
trans-1,3-Dichloropropene	EPA 624	9B07011	0.32	0.50	ND	1	02/07/09	02/07/09	UJ/L
Ethylbenzene	EPA 624	9B07011	0.25	0.50	ND	1	02/07/09	02/07/09	U
Methylene chloride	EPA 624	9B07011	0.95	1.0	ND	1	02/07/09	02/07/09	
1,1,2,2-Tetrachloroethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
Tetrachloroethene	EPA 624	9B07011	0.32	0.50	ND	1	02/07/09	02/07/09	
Toluene	EPA 624	9B07011	0.36	0.50	ND	1	02/07/09	02/07/09	
1,1,1-Trichloroethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
1,1,2-Trichloroethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
Trichloroethene	EPA 624	9B07011	0.26	0.50	ND	1	02/07/09	02/07/09	
Trichlorofluoromethane	EPA 624	9B07011	0.34	0.50	ND	1	02/07/09	02/07/09	
Trichlorotrifluoroethane (Freon 113)	EPA 624	9B07011	0.50	5.0	ND	1	02/07/09	02/07/09	
Vinyl chloride	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
Xylenes, Total	EPA 624	9B07011	0.90	1.5	ND	1	02/07/09	02/07/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					*83 %*				
Surrogate: Dibromofluoromethane (80-120%)					*89 %*				
Surrogate: Toluene-d8 (80-120%)					*93 %*				

LEVEL IV

TestAmerica Irvine

Joseph Doak
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 004
Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

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: ISB0717-02 (Trip Blanks - Water)					**Sampled: 02/06/09**				
Reporting Units: ug/l									
Benzene	EPA 624	9B07011	0.28	0.50	ND	1	02/07/09	02/07/09	U
Bromodichloromethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
Bromoform	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
Bromomethane	EPA 624	9B07011	0.42	1.0	ND	1	02/07/09	02/07/09	
Carbon tetrachloride	EPA 624	9B07011	0.28	0.50	ND	1	02/07/09	02/07/09	UJ/C
Chlorobenzene	EPA 624	9B07011	0.36	0.50	ND	1	02/07/09	02/07/09	U
Chloroethane	EPA 624	9B07011	0.40	1.0	ND	1	02/07/09	02/07/09	
Chloroform	EPA 624	9B07011	0.33	0.50	ND	1	02/07/09	02/07/09	
Chloromethane	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
Dibromochloromethane	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
1,2-Dichlorobenzene	EPA 624	9B07011	0.32	0.50	ND	1	02/07/09	02/07/09	
1,3-Dichlorobenzene	EPA 624	9B07011	0.35	0.50	ND	1	02/07/09	02/07/09	
1,4-Dichlorobenzene	EPA 624	9B07011	0.37	0.50	ND	1	02/07/09	02/07/09	
1,1-Dichloroethane	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
1,2-Dichloroethane	EPA 624	9B07011	0.28	0.50	ND	1	02/07/09	02/07/09	
1,1-Dichloroethene	EPA 624	9B07011	0.42	0.50	ND	1	02/07/09	02/07/09	
trans-1,2-Dichloroethene	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
1,2-Dichloropropane	EPA 624	9B07011	0.35	0.50	ND	1	02/07/09	02/07/09	
cis-1,3-Dichloropropene	EPA 624	9B07011	0.22	0.50	ND	1	02/07/09	02/07/09	L
trans-1,3-Dichloropropene	EPA 624	9B07011	0.32	0.50	ND	1	02/07/09	02/07/09	UJ/C
Ethylbenzene	EPA 624	9B07011	0.25	0.50	ND	1	02/07/09	02/07/09	U
Methylene chloride	EPA 624	9B07011	0.95	1.0	ND	1	02/07/09	02/07/09	
1,1,2,2-Tetrachloroethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
Tetrachloroethene	EPA 624	9B07011	0.32	0.50	ND	1	02/07/09	02/07/09	
Toluene	EPA 624	9B07011	0.36	0.50	ND	1	02/07/09	02/07/09	
1,1,1-Trichloroethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
1,1,2-Trichloroethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
Trichloroethene	EPA 624	9B07011	0.26	0.50	ND	1	02/07/09	02/07/09	
Trichlorofluoromethane	EPA 624	9B07011	0.34	0.50	ND	1	02/07/09	02/07/09	
Trichlorotrifluoroethane (Freon 113)	EPA 624	9B07011	0.50	5.0	ND	1	02/07/09	02/07/09	
Vinyl chloride	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
Xylenes, Total	EPA 624	9B07011	0.90	1.5	ND	1	02/07/09	02/07/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					*86 %*				
Surrogate: Dibromofluoromethane (80-120%)					*92 %*				
Surrogate: Toluene-d8 (80-120%)					*94 %*				

LEVEL IV

TestAmerica Irvine

Joseph Doak
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 004

Report Number: ISB0717

Sampled: 02/06/09
Received: 02/06/09

PURGEABLES-- GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water)					**Sampled: 02/06/09**				
Reporting Units: ug/l									
Acrolein	EPA 624	9B07011	4.0	5.0	ND	1	02/07/09	02/07/09	u
Acrylonitrile	EPA 624	9B07011	0.70	2.0	ND	1	02/07/09	02/07/09	UJ|C
2-Chloroethyl vinyl ether	EPA 624	9B07011	1.8	5.0	ND	1	02/07/09	02/07/09	u
Surrogate: 4-Bromofluorobenzene (80-120%)					*83 %*				
Surrogate: Dibromofluoromethane (80-120%)					*89 %*				
Surrogate: Toluene-d8 (80-120%)					*93 %*				
Sample ID: ISB0717-02 (Trip Blanks - Water)					**Sampled: 02/06/09**				
Reporting Units: ug/l									
Acrolein	EPA 624	9B07011	4.0	5.0	ND	1	02/07/09	02/07/09	u
Acrylonitrile	EPA 624	9B07011	0.70	2.0	ND	1	02/07/09	02/07/09	UJ|C
2-Chloroethyl vinyl ether	EPA 624	9B07011	1.8	5.0	ND	1	02/07/09	02/07/09	u
Surrogate: 4-Bromofluorobenzene (80-120%)					*86 %*				
Surrogate: Dibromofluoromethane (80-120%)					*92 %*				
Surrogate: Toluene-d8 (80-120%)					*94 %*				

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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: ISB0717-01 (Outfall 004 - Water) - cont.						**Sampled: 02/06/09**				
Reporting Units: mg/l										
Hexane Extractable Material (Oil & Grease)	U	EPA 1664A	9B12121	1.3	4.7	ND	1	02/12/09	02/12/09	

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
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Sampled: 02/06/09
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INORGANICS

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: mg/l									
Chloride	EPA 300.0	9B06069	5.0	10	**50**	20	02/06/09	02/07/09	
Total Cyanide U	SM4500-CN-C,E	9B09095	0.0022	0.0050	ND	1	02/09/09	02/09/09	
Fluoride	SM 4500-F-C	9B16034	0.020	0.10	**0.26**	1	02/16/09	02/16/09	B
Nitrate/Nitrite-N J/DNQ	EPA 300.0	9B06069	0.15	0.26	**0.16**	1	02/06/09	02/06/09	Ja
Sulfate	EPA 300.0	9B06069	0.20	0.50	**22**	1	02/06/09	02/06/09	
Total Dissolved Solids	SM2540C	9B11043	10	10	**210**	1	02/11/09	02/11/09	
Total Suspended Solids	SM 2540D	9B12141	1.0	10	**27**	1	02/12/09	02/12/09	

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INORGANICS

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0717-01 (Outfall 004 - Water) - cont.					**Sampled: 02/06/09**				
Reporting Units: ug/l									
Perchlorate U	EPA 314.0	9B13054	0.90	4.0	ND	1	02/13/09	02/13/09	

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