

APPENDIX G

Section 85

Outfall 013, January 5, 2008

MEC^X Data Validation Reports



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRA0403

Prepared by

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

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
Contract Task Order: 1261.100D.00
Sample Delivery Group: IRA0403
Project Manager: B. Kelly
Matrix: Soil
QC Level: IV
No. of Samples: 1
No. of Reanalyses/Dilutions: 0
Laboratory: TestAmerica-Irvine, Weck, Vista

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 013	IRA0403-01	30123-001, 8010771-01	Water	01/05/08 1200	180.1, 200.8, 245.1, 405.1, 624, 625, 1613
Trip Blank	IRA0403-02	N/A	Water	01/05/08	624

II. Sample Management

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine and Weck within the temperature limits of 4°C ±2°C. The sample was received below the temperature limits at Vista; however, the sample was not noted to have been frozen. According to the case narrative for this SDG, the sample was 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 seals were intact upon arrival at Vista and Weck. 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: February 27, 2008

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

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was 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: 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 below the laboratory lower calibration level were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Any EMPC value was qualified as an estimated nondetect, "UJ." Nondetects are valid to the estimated detection limit (EDL).

B. EPA METHODS 200.8, 245.1—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: February 29, 2008

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 200.8 and 245.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding times, 6 months for 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 and all initial and continuing calibration recoveries were within 90-110% for the ICP-MS metals and 85-115% for mercury.
- Blanks: There were no applicable detects in the method blanks or CCBs.
- Interference Check Samples: ICSA/B analyses were performed in association with the dissolved metals analyses only. Recoveries were within the method-established control limits. Most analytes were reported in the 6020 ICSA solution; however, the reviewer was not able to ascertain if the detection was indicative of matrix interference.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the sample in this SDG. Evaluation of method accuracy was based on LCS results.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. The bracketing CCV and CCB internal standard intensities were within 80-120% 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 summary 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 625—Semivolatile Organic Compounds (SVOCs)

Reviewed By: L. Calvin

Date Reviewed: March 1, 2008

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X *Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0)*, EPA Method 8270C, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- 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.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. Samples were analyzed within 12 hours of the DFTPP injection time.
- Calibration: For applicable target compounds, initial calibration average RRFs were ≥ 0.05 and %RSDs $\leq 35\%$, and continuing calibration RRFs were ≥ 0.05 and %Ds $\leq 20\%$.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs 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 on the sample of this SDG. Evaluation of method accuracy and precision was based on LSC/LSCD results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the 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 semivolatile target compounds naphthalene and n-nidrosodimethylamine by EPA

Method 625. 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 results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- 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.

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

Reviewed By: L. Calvin

Date Reviewed: March 1, 2008

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 (2/94)*.

- Holding Times: Analytical holding times were met. The preserved water samples were analyzed within 14 days of collection.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. Samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria were met. For applicable target compounds, initial calibration average RRFs were ≥ 0.05 and %RSDs $\leq 35\%$. Continuing calibration RRFs were ≥ 0.05 and %Ds $\leq 20\%$.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries 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 on the sample of this SDG. Evaluation of method accuracy was based on LSC 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 Blank was the trip blank associated with site sample Outfall 013. The trip blank had no target compound detects above the MDL.
- 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 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 five 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 results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- 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 3, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 180.1, 405.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The holding times, 48 hours for BOD and turbidity, were met.
- Calibration: Calibration criteria are not applicable to BOD.. The turbidity check standard recoveries were acceptable.

- Blanks: There were no applicable detects in the method blanks.
- Blank Spikes and Laboratory Control Samples: The BOD recoveries and RPD were within the laboratory-established control limits. The LCS is not applicable to turbidity.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: BOD MS/MSD analyses were not performed. Method accuracy and precision were evaluated based on the LCS/LCSD results. MS/MSD analyses are not applicable to turbidity.
- Sample Result Verification: The sample results were verified against the raw data. No transcription or calculation errors were noted.
- 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.

EPA Method 1613

Sample ID: IRA0403-01 Outfall 013

Client Data		Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30123-001		
Project:	IRA0403	Sample Size:	1.01 L	QC Batch No.:	9886		
Date Collected:	5-Jan-08			Date Analyzed DB-5:	19-Jan-08		
Time Collected:	1200			Date Analyzed DB-225:	NA		
Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.00000112		IS 13C-2,3,7,8-TCDD	76.8	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000212		13C-1,2,3,7,8-PeCDD	68.7	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000234		13C-1,2,3,4,7,8-HxCDD	64.5	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000251		13C-1,2,3,6,7,8-HxCDD	65.0	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000233		13C-1,2,3,4,6,7,8-HpCDD	68.9	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.00000623			13C-OCDD	57.0	17 - 157	
OCDD	0.00000473			13C-2,3,7,8-TCDF	73.6	24 - 169	
2,3,7,8-TCDF	ND		0.00000164	13C-1,2,3,7,8-PeCDF	63.4	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000281		13C-2,3,4,7,8-PeCDF	66.3	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000275		13C-1,2,3,4,7,8-HxCDF	63.1	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.00000109		13C-1,2,3,6,7,8-HxCDF	63.0	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.00000117		13C-2,3,4,6,7,8-HxCDF	64.0	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000120		13C-1,2,3,7,8,9-HxCDF	66.7	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000160		13C-1,2,3,4,6,7,8-HpCDF	73.1	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND		0.00000311	13C-1,2,3,4,7,8,9-HpCDF	64.7	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000167		13C-OCDF	55.5	17 - 157	
OCDF	0.00000457			CRS 37Cl-2,3,7,8-TCDD	95.2	35 - 197	
Totals							
Total TCDD	ND	0.00000112					
Total PeCDD	ND	0.00000415					
Total HxCDD	ND	0.00000240					
Total HpCDD	0.00000623		0.00000120				
Total TCDF	0.00000300		0.00000973				
Total PeCDF	ND		0.00000241				
Total HxCDF	ND	0.00000184					
Total HpCDF	ND		0.00000449				

Footnotes

- a. Sample specific estimated detection limit.
- b. Estimated maximum possible concentration.
- c. Method detection limit.
- d. Lower control limit - upper control limit.

Approved By: Martha M. Maier 23-Jan-2008 08:53

Analyst: MAS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: ug/l									
Cadmium	EPA 200.8	8A07086	0.11	1.0	5.2	1	01/07/08	01/08/08	
Copper	EPA 200.8	8A07086	0.75	2.0	5.2	1	01/07/08	01/08/08	
Lead	EPA 200.8	8A07086	0.30	1.0	2.9	1	01/07/08	01/08/08	
Selenium	EPA 200.8	8A07086	0.30	2.0	ND	1	01/07/08	01/08/08	
Zinc	EPA 200.8	8A07086	2.5	20	160	1	01/07/08	01/08/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 9 of 41>

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: ug/l									
Cadmium	EPA 200.8-Diss	8A08129	0.11	1.0	4.3	1	01/08/08	01/08/08	
Copper	EPA 200.8-Diss	8A08129	0.75	2.0	4.0	1	01/08/08	01/08/08	
Lead	EPA 200.8-Diss	8A08129	0.30	1.0	1.1	1	01/08/08	01/08/08	
Selenium	EPA 200.8-Diss	8A08129	0.30	2.0	ND	1	01/08/08	01/08/08	
Zinc	EPA 200.8-Diss	8A08129	2.5	20	140	1	01/08/08	01/08/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 11 of 41>

21

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

Project ID: Routine Outfall 013
Routine Outfall 013
Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8A0148	0.050	0.20	ND	1	01/08/08	01/09/08	
Mercury, Total	EPA 245.1	W8A0148	0.050	0.20	ND	1	01/08/08	01/09/08	

LEVEL IV

TestAmerica Irvine

Sushmitha Reddy For Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 16 of 41>

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				
Reporting Units: ug/l									
Naphthalene	EPA 625	8A06033	2.8	9.4	ND	0.943	01/06/08	01/09/08	
N-Nitrosodimethylamine	EPA 625	8A06033	2.4	19	ND	0.943	01/06/08	01/09/08	
Surrogate: 2-Fluorophenol (30-120%)					58 %				
Surrogate: Phenol-d6 (35-120%)					69 %				
Surrogate: 2,4,6-Tribromophenol (40-120%)					65 %				
Surrogate: Nitrobenzene-d5 (45-120%)					68 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					78 %				
Surrogate: Terphenyl-d14 (50-125%)					82 %				

Level IV

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 6 of 29>

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

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: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	u EPA 624	8A09005	0.40	2.0	ND	1	01/09/08	01/09/08	
Methyl-tert-butyl Ether (MTBE)	↓ EPA 624	8A09005	0.32	5.0	ND	1	01/09/08	01/09/08	
1,2,3-Trichloropropane	EPA 624	8A09005	0.40	10	ND	1	01/09/08	01/09/08	
Di-isopropyl Ether (DIPE)	EPA 624	8A09005	0.25	5.0	ND	1	01/09/08	01/09/08	
tert-Butanol (TBA)	↓ EPA 624	8A09005	4.9	25	ND	1	01/09/08	01/09/08	
Surrogate: Dibromofluoromethane (80-120%)					105 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					92 %				
Sample ID: IRA0403-02 (TRIP BLANK - Water)					Sampled: 01/04/08				
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	u EPA 624	8A09005	0.40	2.0	ND	1	01/09/08	01/09/08	
Methyl-tert-butyl Ether (MTBE)	↓ EPA 624	8A09005	0.32	5.0	ND	1	01/09/08	01/09/08	
1,2,3-Trichloropropane	EPA 624	8A09005	0.40	10	ND	1	01/09/08	01/09/08	
Di-isopropyl Ether (DIPE)	EPA 624	8A09005	0.25	5.0	ND	1	01/09/08	01/09/08	
tert-Butanol (TBA)	↓ EPA 624	8A09005	4.9	25	ND	1	01/09/08	01/09/08	
Surrogate: Dibromofluoromethane (80-120%)					101 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					91 %				

Level IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 5 of 41>

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8A07065	1.3	4.7	ND	1	01/07/08	01/07/08	
Ammonia-N (Distilled)	EPA 350.2	8A07093	0.30	0.50	0.56	1	01/07/08	01/07/08	
Biochemical Oxygen Demand	EPA 405.1	8A07076	0.59	2.0	ND	1	01/07/08	01/12/08	
Chloride	EPA 300.0	8A06026	0.25	0.50	21	1	01/06/08	01/06/08	
Fluoride	EPA 340.2	8A09065	0.014	0.10	0.39	1	01/09/08	01/09/08	
Nitrate-N	EPA 300.0	8A06026	0.060	0.11	1.6	1	01/06/08	01/06/08	
Nitrite-N	EPA 300.0	8A06026	0.090	0.15	ND	1	01/06/08	01/06/08	
Nitrate/Nitrite-N	EPA 300.0	8A06026	0.15	0.26	1.6	1	01/06/08	01/06/08	
Sulfate	EPA 300.0	8A06026	0.20	0.50	8.6	1	01/06/08	01/06/08	
Total Dissolved Solids	SM2540C	8A08084	10	10	110	1	01/08/08	01/08/08	
Total Suspended Solids	EPA 160.2	8A07105	10	10	ND	1	01/07/08	01/07/08	
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	8A06031	0.10	0.10	ND	1	01/06/08	01/06/08	
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				
Reporting Units: NTU									
Turbidity	EPA 180.1	8A06032	0.040	1.0	4.8	1	01/06/08	01/06/08	
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	8A07062	1.5	4.0	ND	1	01/07/08	01/07/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 9 of 29>

APPENDIX G

Section 86

Outfall 013, January 5, 2008

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Routine Outfall 013

Sampled: 01/04/08-01/05/08

Received: 01/05/08

Revised: 02/27/08 15:42

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

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

ADDITIONAL INFORMATION: This report was revised to correct reported carbon range for EFH.

LABORATORY ID	CLIENT ID	MATRIX
IRA0403-01	OUTFALL 013	Water
IRA0403-02	TRIP BLANK	Water

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				C
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	8A07066	0.094	0.47	ND	0.943	01/07/08	01/08/08	
<i>Surrogate: n-Octacosane (40-125%)</i>					<i>84 %</i>				

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 2 of 29>
NPDES - 3264

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015 Mod.	8A09029	25	100	ND	1	01/09/08	01/09/08	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>					98 %				

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 3 of 29>
NPDES - 3265

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

VOLATILE ORGANICS by GCMS SIM

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B-SIM	8A06013	1.0	2.0	ND	1	01/06/08	01/06/08	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					<i>100 %</i>				

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 4 of 29>
NPDES - 3266

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

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: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	8A09005	0.40	2.0	ND	1	01/09/08	01/09/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8A09005	0.32	5.0	ND	1	01/09/08	01/09/08	
1,2,3-Trichloropropane	EPA 624	8A09005	0.40	10	ND	1	01/09/08	01/09/08	
Di-isopropyl Ether (DIPE)	EPA 624	8A09005	0.25	5.0	ND	1	01/09/08	01/09/08	
tert-Butanol (TBA)	EPA 624	8A09005	4.9	25	ND	1	01/09/08	01/09/08	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					105 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					101 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					92 %				
Sample ID: IRA0403-02 (TRIP BLANK - Water)					Sampled: 01/04/08				
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	8A09005	0.40	2.0	ND	1	01/09/08	01/09/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8A09005	0.32	5.0	ND	1	01/09/08	01/09/08	
1,2,3-Trichloropropane	EPA 624	8A09005	0.40	10	ND	1	01/09/08	01/09/08	
Di-isopropyl Ether (DIPE)	EPA 624	8A09005	0.25	5.0	ND	1	01/09/08	01/09/08	
tert-Butanol (TBA)	EPA 624	8A09005	4.9	25	ND	1	01/09/08	01/09/08	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					101 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					101 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					91 %				

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				
Reporting Units: ug/l									
Naphthalene	EPA 625	8A06033	2.8	9.4	ND	0.943	01/06/08	01/09/08	
N-Nitrosodimethylamine	EPA 625	8A06033	2.4	19	ND	0.943	01/06/08	01/09/08	
<i>Surrogate: 2-Fluorophenol (30-120%)</i>					58 %				
<i>Surrogate: Phenol-d6 (35-120%)</i>					69 %				
<i>Surrogate: 2,4,6-Tribromophenol (40-120%)</i>					65 %				
<i>Surrogate: Nitrobenzene-d5 (45-120%)</i>					68 %				
<i>Surrogate: 2-Fluorobiphenyl (50-120%)</i>					78 %				
<i>Surrogate: Terphenyl-d14 (50-125%)</i>					82 %				

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: mg/l									
Boron	EPA 200.7	8A07084	0.020	0.050	ND	1	01/07/08	01/08/08	
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				
Reporting Units: ug/l									
Cadmium	EPA 200.8	8A07086	0.11	1.0	5.2	1	01/07/08	01/08/08	
Copper	EPA 200.8	8A07086	0.75	2.0	5.2	1	01/07/08	01/08/08	
Lead	EPA 200.8	8A07086	0.30	1.0	2.9	1	01/07/08	01/08/08	
Selenium	EPA 200.8	8A07086	0.30	2.0	ND	1	01/07/08	01/08/08	
Zinc	EPA 200.8	8A07086	2.5	20	160	1	01/07/08	01/08/08	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: mg/l									
Boron	EPA 200.7-Diss	8A08130	0.020	0.050	ND	1	01/08/08	01/08/08	
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				
Reporting Units: ug/l									
Cadmium	EPA 200.8-Diss	8A08129	0.11	1.0	4.3	1	01/08/08	01/08/08	
Copper	EPA 200.8-Diss	8A08129	0.75	2.0	4.0	1	01/08/08	01/08/08	
Lead	EPA 200.8-Diss	8A08129	0.30	1.0	1.1	1	01/08/08	01/08/08	
Selenium	EPA 200.8-Diss	8A08129	0.30	2.0	ND	1	01/08/08	01/08/08	
Zinc	EPA 200.8-Diss	8A08129	2.5	20	140	1	01/08/08	01/08/08	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8A07065	1.3	4.7	ND	1	01/07/08	01/07/08	
Ammonia-N (Distilled)	EPA 350.2	8A07093	0.30	0.50	0.56	1	01/07/08	01/07/08	
Biochemical Oxygen Demand	EPA 405.1	8A07076	0.59	2.0	ND	1	01/07/08	01/12/08	
Chloride	EPA 300.0	8A06026	0.25	0.50	21	1	01/06/08	01/06/08	
Fluoride	EPA 340.2	8A09065	0.014	0.10	0.39	1	01/09/08	01/09/08	
Nitrate-N	EPA 300.0	8A06026	0.060	0.11	1.6	1	01/06/08	01/06/08	
Nitrite-N	EPA 300.0	8A06026	0.090	0.15	ND	1	01/06/08	01/06/08	
Nitrate/Nitrite-N	EPA 300.0	8A06026	0.15	0.26	1.6	1	01/06/08	01/06/08	
Sulfate	EPA 300.0	8A06026	0.20	0.50	8.6	1	01/06/08	01/06/08	
Total Dissolved Solids	SM2540C	8A08084	10	10	110	1	01/08/08	01/08/08	
Total Suspended Solids	EPA 160.2	8A07105	10	10	ND	1	01/07/08	01/07/08	
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				
Reporting Units: ml/l/hr									
Total Settleable Solids	EPA 160.5	8A06031	0.10	0.10	ND	1	01/06/08	01/06/08	
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				
Reporting Units: NTU									
Turbidity	EPA 180.1	8A06032	0.040	1.0	4.8	1	01/06/08	01/06/08	
Sample ID: IRA0403-01 (OUTFALL 013 - Water)					Sampled: 01/05/08				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	8A07062	1.5	4.0	ND	1	01/07/08	01/07/08	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA0403-01 (OUTFALL 013 - Water) - cont.					Sampled: 01/05/08				
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8A0148	0.050	0.20	ND	1	01/08/08	01/09/08	
Mercury, Total	EPA 245.1	W8A0148	0.050	0.20	ND	1	01/08/08	01/09/08	

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 10 of 29>
NPDES - 3272

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: OUTFALL 013 (IRA0403-01) - Water					
EPA 160.5	2	01/05/2008 12:00	01/05/2008 19:00	01/06/2008 10:50	01/06/2008 10:50
EPA 180.1	2	01/05/2008 12:00	01/05/2008 19:00	01/06/2008 12:10	01/06/2008 12:10
EPA 300.0	2	01/05/2008 12:00	01/05/2008 19:00	01/06/2008 07:00	01/06/2008 08:58
EPA 405.1	2	01/05/2008 12:00	01/05/2008 19:00	01/07/2008 10:00	01/12/2008 10:00

TestAmerica Irvine

Joseph Doak
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,
except in full, without written permission from TestAmerica.*

IRA0403 <Page 11 of 29>
NPDES - 3273

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A07066 Extracted: 01/07/08											
Blank Analyzed: 01/07/2008 (8A07066-BLK1)											
EFH (C13 - C22)	ND	0.50	0.10	mg/l							
Surrogate: n-Octacosane	0.198			mg/l	0.200		99	40-125			
LCS Analyzed: 01/07/2008 (8A07066-BS1)											
EFH (C13 - C40)	0.721	0.50	0.10	mg/l	0.750		96	40-115			MNR1
Surrogate: n-Octacosane	0.200			mg/l	0.200		100	40-125			
LCS Dup Analyzed: 01/07/2008 (8A07066-BSD1)											
EFH (C13 - C40)	0.728	0.50	0.10	mg/l	0.750		97	40-115	1	25	
Surrogate: n-Octacosane	0.185			mg/l	0.200		92	40-125			

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A09029 Extracted: 01/09/08											
Blank Analyzed: 01/09/2008 (8A09029-BLK1)											
GRO (C4 - C12)	ND	100	25	ug/l							
Surrogate: 4-BFB (FID)	9.07			ug/l	10.0		91	65-140			
LCS Analyzed: 01/09/2008 (8A09029-BS1)											
GRO (C4 - C12)	781	100	25	ug/l	800		98	80-120			
Surrogate: 4-BFB (FID)	12.8			ug/l	10.0		128	65-140			
Matrix Spike Analyzed: 01/09/2008 (8A09029-MS1) Source: IRA0484-01											
GRO (C4 - C12)	228	100	25	ug/l	220	ND	103	65-140			
Surrogate: 4-BFB (FID)	10.1			ug/l	10.0		101	65-140			
Matrix Spike Dup Analyzed: 01/09/2008 (8A09029-MSD1) Source: IRA0484-01											
GRO (C4 - C12)	227	100	25	ug/l	220	ND	103	65-140	0	20	
Surrogate: 4-BFB (FID)	10.4			ug/l	10.0		104	65-140			

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GCMS SIM

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A06013 Extracted: 01/06/08											
Blank Analyzed: 01/06/2008 (8A06013-BLK1)											
1,4-Dioxane	ND	2.0	1.0	ug/l							
Surrogate: Dibromofluoromethane	0.980			ug/l	1.00		98	80-120			
LCS Analyzed: 01/06/2008 (8A06013-BS1)											
1,4-Dioxane	9.04	2.0	1.0	ug/l	10.0		90	70-125			
Surrogate: Dibromofluoromethane	0.970			ug/l	1.00		97	80-120			
Matrix Spike Analyzed: 01/06/2008 (8A06013-MS1)						Source: IRA0014-01					
1,4-Dioxane	9.01	2.0	1.0	ug/l	10.0	ND	90	70-130			
Surrogate: Dibromofluoromethane	0.990			ug/l	1.00		99	80-120			
Matrix Spike Dup Analyzed: 01/06/2008 (8A06013-MSD1)						Source: IRA0014-01					
1,4-Dioxane	8.95	2.0	1.0	ug/l	10.0	ND	90	70-130	1	30	
Surrogate: Dibromofluoromethane	0.990			ug/l	1.00		99	80-120			

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A09005 Extracted: 01/09/08											
Blank Analyzed: 01/09/2008 (8A09005-BLK1)											
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
tert-Butanol (TBA)	ND	25	4.9	ug/l							
Surrogate: Dibromofluoromethane	24.4			ug/l	25.0		98	80-120			
Surrogate: Toluene-d8	25.3			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	22.6			ug/l	25.0		90	80-120			
LCS Analyzed: 01/09/2008 (8A09005-BS1)											
1,2-Dibromoethane (EDB)	23.7	2.0	0.40	ug/l	25.0		95	75-125			
Methyl-tert-butyl Ether (MTBE)	25.0	5.0	0.32	ug/l	25.0		100	60-135			
1,2,3-Trichloropropane	24.8	10	0.40	ug/l	25.0		99	60-130			
Di-isopropyl Ether (DIPE)	29.5	5.0	0.25	ug/l	25.0		118	60-135			
tert-Butanol (TBA)	149	25	4.9	ug/l	125		119	70-135			
Surrogate: Dibromofluoromethane	26.3			ug/l	25.0		105	80-120			
Surrogate: Toluene-d8	25.5			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	23.7			ug/l	25.0		95	80-120			
Matrix Spike Analyzed: 01/09/2008 (8A09005-MS1)					Source: IRA0464-01						
1,2-Dibromoethane (EDB)	22.1	2.0	0.40	ug/l	25.0	ND	88	70-130			
Methyl-tert-butyl Ether (MTBE)	23.6	5.0	0.32	ug/l	25.0	ND	95	55-145			
1,2,3-Trichloropropane	23.6	10	0.40	ug/l	25.0	ND	94	55-135			
Di-isopropyl Ether (DIPE)	28.1	5.0	0.25	ug/l	25.0	ND	112	60-140			
tert-Butanol (TBA)	146	25	4.9	ug/l	125	ND	116	65-140			
Surrogate: Dibromofluoromethane	26.8			ug/l	25.0		107	80-120			
Surrogate: Toluene-d8	25.1			ug/l	25.0		100	80-120			
Surrogate: 4-Bromofluorobenzene	23.7			ug/l	25.0		95	80-120			

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A09005 Extracted: 01/09/08											
Matrix Spike Dup Analyzed: 01/09/2008 (8A09005-MSD1)					Source: IRA0464-01						
1,2-Dibromoethane (EDB)	23.0	2.0	0.40	ug/l	25.0	ND	92	70-130	4	25	
Methyl-tert-butyl Ether (MTBE)	24.4	5.0	0.32	ug/l	25.0	ND	98	55-145	3	25	
1,2,3-Trichloropropane	24.1	10	0.40	ug/l	25.0	ND	96	55-135	2	30	
Di-isopropyl Ether (DIPE)	28.6	5.0	0.25	ug/l	25.0	ND	114	60-140	2	25	
tert-Butanol (TBA)	151	25	4.9	ug/l	125	ND	121	65-140	4	25	
Surrogate: Dibromofluoromethane	26.5			ug/l	25.0		106	80-120			
Surrogate: Toluene-d8	25.5			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	23.9			ug/l	25.0		96	80-120			

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A06033 Extracted: 01/06/08											
Blank Analyzed: 01/08/2008 (8A06033-BLK1)											
Naphthalene	ND	10	3.0	ug/l							
N-Nitrosodimethylamine	ND	20	2.5	ug/l							
Surrogate: 2-Fluorophenol	123			ug/l	200		61	30-120			
Surrogate: Phenol-d6	143			ug/l	200		72	35-120			
Surrogate: 2,4,6-Tribromophenol	139			ug/l	200		69	40-120			
Surrogate: Nitrobenzene-d5	68.3			ug/l	100		68	45-120			
Surrogate: 2-Fluorobiphenyl	82.7			ug/l	100		83	50-120			
Surrogate: Terphenyl-d14	80.1			ug/l	100		80	50-125			
LCS Analyzed: 01/08/2008 (8A06033-BS1)											
Naphthalene	73.2	10	3.0	ug/l	100		73	55-120			MNR1
N-Nitrosodimethylamine	60.1	20	2.5	ug/l	100		60	45-120			
Surrogate: 2-Fluorophenol	110			ug/l	200		55	30-120			
Surrogate: Phenol-d6	128			ug/l	200		64	35-120			
Surrogate: 2,4,6-Tribromophenol	136			ug/l	200		68	40-120			
Surrogate: Nitrobenzene-d5	64.7			ug/l	100		65	45-120			
Surrogate: 2-Fluorobiphenyl	73.9			ug/l	100		74	50-120			
Surrogate: Terphenyl-d14	71.5			ug/l	100		72	50-125			
LCS Dup Analyzed: 01/08/2008 (8A06033-BSD1)											
Naphthalene	76.2	10	3.0	ug/l	100		76	55-120	4	20	
N-Nitrosodimethylamine	59.6	20	2.5	ug/l	100		60	45-120	1	20	
Surrogate: 2-Fluorophenol	116			ug/l	200		58	30-120			
Surrogate: Phenol-d6	136			ug/l	200		68	35-120			
Surrogate: 2,4,6-Tribromophenol	145			ug/l	200		72	40-120			
Surrogate: Nitrobenzene-d5	67.3			ug/l	100		67	45-120			
Surrogate: 2-Fluorobiphenyl	76.2			ug/l	100		76	50-120			
Surrogate: Terphenyl-d14	75.8			ug/l	100		76	50-125			

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A07084 Extracted: 01/07/08											
Blank Analyzed: 01/08/2008 (8A07084-BLK1)											
Boron	ND	0.050	0.020	mg/l							
LCS Analyzed: 01/08/2008 (8A07084-BS1)											
Boron	0.476	0.050	0.020	mg/l	0.500		95	85-115			
Matrix Spike Analyzed: 01/08/2008 (8A07084-MS1) Source: IRA0397-01											
Boron	0.521	0.050	0.020	mg/l	0.500	0.0534	94	70-130			
Matrix Spike Analyzed: 01/08/2008 (8A07084-MS2) Source: IRA0317-02											
Boron	0.762	0.050	0.020	mg/l	0.500	0.296	93	70-130			
Matrix Spike Dup Analyzed: 01/08/2008 (8A07084-MSD1) Source: IRA0397-01											
Boron	0.523	0.050	0.020	mg/l	0.500	0.0534	94	70-130	0	20	
Batch: 8A07086 Extracted: 01/07/08											
Blank Analyzed: 01/08/2008 (8A07086-BLK1)											
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Zinc	ND	20	2.5	ug/l							
LCS Analyzed: 01/08/2008 (8A07086-BS1)											
Cadmium	86.8	1.0	0.11	ug/l	80.0		109	85-115			
Copper	84.2	2.0	0.75	ug/l	80.0		105	85-115			
Lead	85.6	1.0	0.30	ug/l	80.0		107	85-115			
Selenium	80.9	2.0	0.30	ug/l	80.0		101	85-115			
Zinc	83.2	20	2.5	ug/l	80.0		104	85-115			

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A07086 Extracted: 01/07/08											
Matrix Spike Analyzed: 01/08/2008 (8A07086-MS1)						Source: IRA0400-01					
Cadmium	86.4	1.0	0.11	ug/l	80.0	ND	108	70-130			
Copper	81.9	2.0	0.75	ug/l	80.0	ND	102	70-130			
Lead	86.5	1.0	0.30	ug/l	80.0	ND	108	70-130			
Selenium	78.4	2.0	0.30	ug/l	80.0	ND	98	70-130			
Zinc	79.6	20	2.5	ug/l	80.0	2.81	96	70-130			
Matrix Spike Dup Analyzed: 01/08/2008 (8A07086-MSD1)						Source: IRA0400-01					
Cadmium	86.4	1.0	0.11	ug/l	80.0	ND	108	70-130	0	20	
Copper	82.1	2.0	0.75	ug/l	80.0	ND	103	70-130	0	20	
Lead	86.0	1.0	0.30	ug/l	80.0	ND	108	70-130	1	20	
Selenium	78.4	2.0	0.30	ug/l	80.0	ND	98	70-130	0	20	
Zinc	80.3	20	2.5	ug/l	80.0	2.81	97	70-130	1	20	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A08129 Extracted: 01/08/08											
Blank Analyzed: 01/08/2008 (8A08129-BLK1)											
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Zinc	ND	20	2.5	ug/l							
LCS Analyzed: 01/08/2008 (8A08129-BS1)											
Cadmium	79.9	1.0	0.11	ug/l	80.0		100	85-115			
Copper	76.8	2.0	0.75	ug/l	80.0	2.23	96	85-115			
Lead	85.3	1.0	0.30	ug/l	80.0		107	85-115			
Selenium	91.1	2.0	0.30	ug/l	80.0	1.16	114	85-115			
Zinc	88.0	20	2.5	ug/l	80.0		110	85-115			
Matrix Spike Analyzed: 01/08/2008 (8A08129-MS1) Source: IRA0393-01											
Cadmium	76.6	1.0	0.11	ug/l	80.0	ND	96	70-130			
Copper	76.2	2.0	0.75	ug/l	80.0	2.23	92	70-130			
Lead	83.2	1.0	0.30	ug/l	80.0	ND	104	70-130			
Selenium	96.7	2.0	0.30	ug/l	80.0	1.16	119	70-130			
Zinc	79.6	20	2.5	ug/l	80.0	ND	100	70-130			
Matrix Spike Dup Analyzed: 01/08/2008 (8A08129-MSD1) Source: IRA0393-01											
Cadmium	76.4	1.0	0.11	ug/l	80.0	ND	96	70-130	0	20	
Copper	76.0	2.0	0.75	ug/l	80.0	2.23	92	70-130	0	20	
Lead	82.9	1.0	0.30	ug/l	80.0	ND	104	70-130	0	20	
Selenium	96.3	2.0	0.30	ug/l	80.0	1.16	119	70-130	0	20	
Zinc	79.7	20	2.5	ug/l	80.0	ND	100	70-130	0	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A08130 Extracted: 01/08/08											
Blank Analyzed: 01/08/2008 (8A08130-BLK1)											
Boron	ND	0.050	0.020	mg/l							
LCS Analyzed: 01/08/2008 (8A08130-BS1)											
Boron	0.974	0.050	0.020	mg/l	1.00		97	85-115			
Matrix Spike Analyzed: 01/08/2008 (8A08130-MS1)											
Boron	1.05	0.050	0.020	mg/l	1.00	0.0649	98	70-130			
Matrix Spike Dup Analyzed: 01/08/2008 (8A08130-MSD1)											
Boron	1.06	0.050	0.020	mg/l	1.00	0.0649	100	70-130	1	20	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A06026 Extracted: 01/06/08											
Blank Analyzed: 01/06/2008 (8A06026-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	0.320	0.50	0.20	mg/l							J
LCS Analyzed: 01/06/2008 (8A06026-BS1)											
Chloride	4.53	0.50	0.25	mg/l	5.00		91	90-110			
Nitrate-N	1.05	0.11	0.060	mg/l	1.13		93	90-110			
Nitrite-N	1.53	0.15	0.090	mg/l	1.52		101	90-110			
Sulfate	9.97	0.50	0.20	mg/l	10.0		100	90-110			
Matrix Spike Analyzed: 01/06/2008 (8A06026-MS1) Source: IRA0399-01											
Chloride	12.9	0.50	0.25	mg/l	5.00	7.84	101	80-120			
Nitrate-N	3.84	0.11	0.060	mg/l	1.13	2.51	118	80-120			
Nitrite-N	1.87	0.15	0.090	mg/l	1.52	ND	123	80-120			MI
Sulfate	22.3	0.50	0.20	mg/l	10.0	12.0	103	80-120			
Matrix Spike Dup Analyzed: 01/06/2008 (8A06026-MSD1) Source: IRA0399-01											
Chloride	12.6	0.50	0.25	mg/l	5.00	7.84	94	80-120	3	20	
Nitrate-N	3.62	0.11	0.060	mg/l	1.13	2.51	99	80-120	6	20	
Nitrite-N	1.68	0.15	0.090	mg/l	1.52	ND	111	80-120	10	20	
Sulfate	21.6	0.50	0.20	mg/l	10.0	12.0	96	80-120	3	20	
Batch: 8A06032 Extracted: 01/06/08											
Blank Analyzed: 01/06/2008 (8A06032-BLK1)											
Turbidity	ND	1.0	0.040	NTU							

TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8A06032 Extracted: 01/06/08</u>											
Duplicate Analyzed: 01/06/2008 (8A06032-DUP1)						Source: IRA0401-01					
Turbidity	5.44	1.0	0.040	NTU		5.39			1	20	
<u>Batch: 8A07062 Extracted: 01/07/08</u>											
Blank Analyzed: 01/07/2008 (8A07062-BLK1)											
Perchlorate	ND	4.0	1.5	ug/l							
LCS Analyzed: 01/07/2008 (8A07062-BS1)											
Perchlorate	50.8	4.0	1.5	ug/l	50.0		102	85-115			
Matrix Spike Analyzed: 01/07/2008 (8A07062-MS1)						Source: IRA0314-03					
Perchlorate	55.2	4.0	1.5	ug/l	50.0	ND	110	80-120			
Matrix Spike Dup Analyzed: 01/07/2008 (8A07062-MSD1)						Source: IRA0314-03					
Perchlorate	56.4	4.0	1.5	ug/l	50.0	ND	113	80-120	2	20	
<u>Batch: 8A07065 Extracted: 01/07/08</u>											
Blank Analyzed: 01/07/2008 (8A07065-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 01/07/2008 (8A07065-BS1)											
Hexane Extractable Material (Oil & Grease)	17.9	5.0	1.4	mg/l	20.2		89	78-114			MNRI
LCS Dup Analyzed: 01/07/2008 (8A07065-BSD1)											
Hexane Extractable Material (Oil & Grease)	18.6	5.0	1.4	mg/l	20.2		92	78-114	4	11	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013
Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8A07076 Extracted: 01/07/08</u>											
Blank Analyzed: 01/12/2008 (8A07076-BLK1)											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 01/12/2008 (8A07076-BS1)											
Biochemical Oxygen Demand	182	100	30	mg/l	198		92	85-115			
LCS Dup Analyzed: 01/12/2008 (8A07076-BSD1)											
Biochemical Oxygen Demand	178	100	30	mg/l	198		90	85-115	2	20	
<u>Batch: 8A07093 Extracted: 01/07/08</u>											
Blank Analyzed: 01/07/2008 (8A07093-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 01/07/2008 (8A07093-BS1)											
Ammonia-N (Distilled)	10.6	0.50	0.30	mg/l	10.0		106	80-115			
Matrix Spike Analyzed: 01/07/2008 (8A07093-MS1)											
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	ND	112	70-120			
Matrix Spike Dup Analyzed: 01/07/2008 (8A07093-MSD1)											
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	ND	112	70-120	0	15	
<u>Batch: 8A07105 Extracted: 01/07/08</u>											
Blank Analyzed: 01/07/2008 (8A07105-BLK1)											
Total Suspended Solids	ND	10	10	mg/l							

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
 Received: 01/05/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8A07105 Extracted: 01/07/08</u>											
LCS Analyzed: 01/07/2008 (8A07105-BS1)											
Total Suspended Solids	965	10	10	mg/l	1000		96	85-115			
Duplicate Analyzed: 01/07/2008 (8A07105-DUP1)											
						Source: IRA0401-01					
Total Suspended Solids	ND	10	10	mg/l		ND				10	
<u>Batch: 8A08084 Extracted: 01/08/08</u>											
Blank Analyzed: 01/08/2008 (8A08084-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 01/08/2008 (8A08084-BS1)											
Total Dissolved Solids	996	10	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 01/08/2008 (8A08084-DUP1)											
						Source: IRA0400-01					
Total Dissolved Solids	238	10	10	mg/l		240			1	10	
<u>Batch: 8A09065 Extracted: 01/09/08</u>											
Blank Analyzed: 01/09/2008 (8A09065-BLK1)											
Fluoride	0.0303	0.10	0.014	mg/l							J
LCS Analyzed: 01/09/2008 (8A09065-BS1)											
Fluoride	1.07	0.10	0.014	mg/l	1.00		107	90-110			
Matrix Spike Analyzed: 01/09/2008 (8A09065-MS1)											
						Source: IRA0648-01					
Fluoride	2.29	0.10	0.014	mg/l	2.00	0.340	97	80-120			

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A09065 Extracted: 01/09/08											
Matrix Spike Dup Analyzed: 01/09/2008 (8A09065-MSD1)						Source: IRA0648-01					
Fluoride	2.27	0.10	0.014	mg/l	2.00	0.340	97	80-120	1	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 26 of 29>
NPDES - 3288

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

METHOD BLANK/QC DATA

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: W8A0148 Extracted: 01/08/08											
Blank Analyzed: 01/09/2008 (W8A0148-BLK1)											
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.20	0.050	ug/l							
LCS Analyzed: 01/09/2008 (W8A0148-BS1)											
Mercury, Dissolved	0.965	0.20	0.050	ug/l	1.00		96	85-115			
Mercury, Total	0.965	0.20	0.050	ug/l	1.00		96	85-115			
Matrix Spike Analyzed: 01/09/2008 (W8A0148-MS1) Source: 7120722-01											
Mercury, Dissolved	1.97	0.40	0.10	ug/l	2.00	ND	98	70-130			
Mercury, Total	1.97	0.40	0.10	ug/l	2.00	ND	98	70-130			
Matrix Spike Analyzed: 01/09/2008 (W8A0148-MS2) Source: 7120722-03											
Mercury, Dissolved	1.88	0.40	0.10	ug/l	2.00	ND	94	70-130			
Mercury, Total	1.88	0.40	0.10	ug/l	2.00	ND	94	70-130			
Matrix Spike Dup Analyzed: 01/09/2008 (W8A0148-MSD1) Source: 7120722-01											
Mercury, Dissolved	1.92	0.40	0.10	ug/l	2.00	ND	96	70-130	2	20	
Mercury, Total	1.92	0.40	0.10	ug/l	2.00	ND	96	70-130	2	20	
Matrix Spike Dup Analyzed: 01/09/2008 (W8A0148-MSD2) Source: 7120722-03											
Mercury, Dissolved	1.96	0.40	0.10	ug/l	2.00	ND	98	70-130	4	20	
Mercury, Total	1.96	0.40	0.10	ug/l	2.00	ND	98	70-130	4	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

DATA QUALIFIERS AND DEFINITIONS

- C** Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

ADDITIONAL COMMENTS

For GRO (C4-C12):

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA0403 <Page 28 of 29>
NPDES - 3290

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

Project ID: Routine Outfall 013

Report Number: IRA0403

Sampled: 01/04/08-01/05/08
Received: 01/05/08

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EDD + Level 4	Water		
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 1664A	Water		
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 340.2	Water	X	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B-SIM	Water		
SM2540C	Water	X	

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

Subcontracted Laboratories

Vista Analytical *NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413*

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta

Samples: IRA0403-01

Weck Laboratories, Inc

14859 E. Clark Avenue - City of Industry, CA 91745

Method Performed: EPA 245.1

Samples: IRA0403-01

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

CHAIN OF CUSTODY FORM

IRA0403

Test America Version 12/20/07

Client Name/Address: MWH-Arcadia 618 Michilinda Avenue, Suite 200 Arcadia, CA 91007		Project: Boeing-SSFL NPDES Routine Outfall 013 Bravo Test Stand	
Test America Contact: Joseph Doak Project Manager: Bronwyn Kelly Sampler: <i>R. Naranjo</i>		Phone Number: (626) 568-6691 Fax Number: (626) 568-6515	

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #
Outfall 013	W	1L Amber	1	1-5-08	HCl	1A
Outfall 013 Dup	W	1L Amber	1		HCl	1B
Outfall 013	W	VOAs	1		HCl	2A
Outfall 013 Dup	W	VOAs	2		HCl	2B, 2C
Outfall 013	W	1L Amber	1		None	3A
Outfall 013 Dup	W	1L Amber	1		None	3B
Outfall 013	W	1L Amber	1		HCl	4A
Outfall 013 Dup	W	1L Amber	1		HCl	4B
Outfall 013	W	VOAs	1		HCl	5A
Outfall 013 Dup	W	VOAs	2		HCl	5B, 5C
Outfall 013	W	1L Poly	1		None	6
Outfall 013	W	1L Amber	1		None	7A
Outfall 013 Dup	W	1L Amber	1		None	7B
Outfall 013	W	500 ml Poly	1		H ₂ SO ₄	8
Outfall 013	W	500 ml Poly	2		None	9A, 9B
Outfall 013	W	500 ml Poly	1	1-5-08	None	10

Relinquished By: <i>R. Naranjo</i>	Date/Time: 1-5-08 13:00	Received By: <i>Chesco (TAI)</i>	Date/Time: 2/05/08 1535
Relinquished By: <i>Chesco (TAI)</i>	Date/Time: 1-5-08 1900	Received By: <i>Amyda Chesco</i>	Date/Time: 1/5/03 19:00
Relinquished By:	Date/Time:	Received By:	Date/Time:

ANALYSIS REQUIRED										
Oil & Grease (1664-HEM)	8015 - gas	8015 - diesel/jet fuel	TRPH = Total Rec. Petroleum Hydrocarbons (8015)	1,4-Dioxane (8260B)	BOD ₅ (20 degrees C)	625 (Naphthalene + NDMA analysis)	Ammonia-N (350.2)	Cl, SO ₄ , F, NO ₃ +NO ₂ -N Perchlorate	Nitrate-N, Nitrite-N	Field readings: Temp = 12.5 = 53.60 pH = 8.7 Time of readings = 12:00
	X									
	X									
		X								
	X									
		X								
			X							
				X						
					X					
						X				
							X			
								X		
									X	

TAI
2/05/08

January 23, 2008

Vista Project I.D.: 30123

Mr. Joseph Doak
Test America-Irvine, CA
17461 Derian Avenue
Suite 100
Irvine, CA 92614

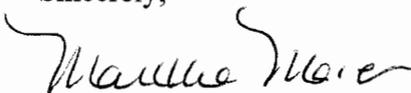
Dear Mr. Doak,

Enclosed are the results for the one aqueous samples received at Vista Analytical Laboratory on January 08, 2008 under your Project Name "IRA0403". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Martha M. Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.



Section I: Sample Inventory Report

Date Received: 1/8/2008

Vista Lab. ID

Client Sample ID

30123-001

IRA0403-01

SECTION II

Method Blank					EPA Method 1613				
Matrix:	Aqueous	QC Batch No.:	9886	Lab Sample:	0-MB001	Date Analyzed DB-5:	19-Jan-08	Date Analyzed DB-225:	NA
Sample Size:	1.00 L	Date Extracted:	17-Jan-08						
Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers	
2,3,7,8-TCDD	ND	0.00000111			IS 13C-2,3,7,8-TCDD	85.7	25 - 164		
1,2,3,7,8-PeCDD	ND	0.00000171			13C-1,2,3,7,8-PeCDD	76.8	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.00000174			13C-1,2,3,4,7,8-HxCDD	75.3	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.00000184			13C-1,2,3,6,7,8-HxCDD	75.1	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.00000172			13C-1,2,3,4,6,7,8-HpCDD	87.8	23 - 140		
1,2,3,4,6,7,8-HpCDD	ND	0.00000243			13C-OCDD	70.8	17 - 157		
OCDD	ND	0.00000780			13C-2,3,7,8-TCDF	83.6	24 - 169		
2,3,7,8-TCDF	ND	0.00000116			13C-1,2,3,7,8-PeCDF	72.8	24 - 185		
1,2,3,7,8-PeCDF	ND	0.00000159			13C-2,3,4,7,8-PeCDF	75.3	21 - 178		
2,3,4,7,8-PeCDF	ND	0.00000156			13C-1,2,3,4,7,8-HxCDF	72.9	26 - 152		
1,2,3,4,7,8-HxCDF	ND	0.000000815			13C-1,2,3,6,7,8-HxCDF	73.2	26 - 123		
1,2,3,6,7,8-HxCDF	ND	0.000000832			13C-2,3,4,6,7,8-HxCDF	76.3	28 - 136		
2,3,4,6,7,8-HxCDF	ND	0.000000894			13C-1,2,3,7,8,9-HxCDF	79.4	29 - 147		
1,2,3,7,8,9-HxCDF	ND	0.00000120			13C-1,2,3,4,6,7,8-HpCDF	88.5	28 - 143		
1,2,3,4,6,7,8-HpCDF	ND	0.000000977			13C-1,2,3,4,7,8,9-HpCDF	86.1	26 - 138		
1,2,3,4,7,8,9-HpCDF	ND	0.00000133			13C-OCDF	72.3	17 - 157		
OCDF	ND	0.00000313			CRS 37Cl-2,3,7,8-TCDD	105	35 - 197		
Totals					Footnotes				
Total TCDD	ND	0.00000111			a. Sample specific estimated detection limit.				
Total PeCDD	ND	0.00000373			b. Estimated maximum possible concentration.				
Total HxCDD	ND	0.00000177			c. Method detection limit.				
Total HpCDD	ND	0.00000314			d. Lower control limit - upper control limit.				
Total TCDF	ND	0.00000116							
Total PeCDF	ND	0.00000157							
Total HxCDF	ND	0.000000928							
Total HpCDF	ND	0.00000114							

Analyst: MAS

Approved By: Martha M. Maier 23-Jan-2008 08:53

OPR Results				EPA Method 1613			
Matrix:	Aqueous	QC Batch No.:	9886	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	17-Jan-08	Date Analyzed DB-5:	19-Jan-08	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.4	6.7 - 15.8	IS 13C-2,3,7,8-TCDD	76.2	25 - 164	
1,2,3,7,8-PeCDD	50.0	52.4	35 - 71	13C-1,2,3,7,8-PeCDD	68.3	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	52.8	35 - 82	13C-1,2,3,4,7,8-HxCDD	66.2	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	51.4	38 - 67	13C-1,2,3,6,7,8-HxCDD	66.8	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	52.3	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	87.2	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	51.7	35 - 70	13C-OCDD	70.1	17 - 157	
OCDD	100	103	78 - 144	13C-2,3,7,8-TCDF	74.1	24 - 169	
2,3,7,8-TCDF	10.0	9.71	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	64.3	24 - 185	
1,2,3,7,8-PeCDF	50.0	50.9	40 - 67	13C-2,3,4,7,8-PeCDF	67.4	21 - 178	
2,3,4,7,8-PeCDF	50.0	51.2	34 - 80	13C-1,2,3,4,7,8-HxCDF	62.5	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	51.5	36 - 67	13C-1,2,3,6,7,8-HxCDF	63.5	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	52.2	42 - 65	13C-2,3,4,6,7,8-HxCDF	66.6	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	52.3	35 - 78	13C-1,2,3,7,8,9-HxCDF	69.3	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	51.7	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	76.7	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	50.6	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	85.4	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	51.2	39 - 69	13C-OCDF	71.9	17 - 157	
OCDF	100	104	63 - 170	CRS 37Cl-2,3,7,8-TCDD	84.4	35 - 197	

Analyst: MAS

Approved By: Martha M. Maier 23-Jan-2008 08:53

Sample ID: IRA0403-01					EPA Method 1613			
Client Data			Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA		Matrix:	Aqueous	Lab Sample:	30123-001	Date Received:	8-Jan-08
Project:	IRA0403		Sample Size:	1.01 L	QC Batch No.:	9886	Date Extracted:	17-Jan-08
Date Collected:	5-Jan-08				Date Analyzed DB-5:	19-Jan-08	Date Analyzed DB-225:	NA
Time Collected:	1200							
Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.00000112			IS 13C-2,3,7,8-TCDD	76.8	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000212			13C-1,2,3,7,8-PeCDD	68.7	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000234			13C-1,2,3,4,7,8-HxCDD	64.5	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000251			13C-1,2,3,6,7,8-HxCDD	65.0	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000233			13C-1,2,3,4,6,7,8-HpCDD	68.9	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.00000623			J	13C-OCDD	57.0	17 - 157	
OCDD	0.0000473			J	13C-2,3,7,8-TCDF	73.6	24 - 169	
2,3,7,8-TCDF	ND		0.00000164		13C-1,2,3,7,8-PeCDF	63.4	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000281			13C-2,3,4,7,8-PeCDF	66.3	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000275			13C-1,2,3,4,7,8-HxCDF	63.1	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.00000109			13C-1,2,3,6,7,8-HxCDF	63.0	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.00000117			13C-2,3,4,6,7,8-HxCDF	64.0	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000120			13C-1,2,3,7,8,9-HxCDF	66.7	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000160			13C-1,2,3,4,6,7,8-HpCDF	73.1	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND		0.00000311		13C-1,2,3,4,7,8,9-HpCDF	64.7	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000167			13C-OCDF	55.5	17 - 157	
OCDF	0.00000457			J	CRS 37Cl-2,3,7,8-TCDD	95.2	35 - 197	
Totals					Footnotes			
Total TCDD	ND	0.00000112			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.00000415			b. Estimated maximum possible concentration.			
Total HxCDD	ND	0.00000240			c. Method detection limit.			
Total HpCDD	0.00000623		0.0000120		d. Lower control limit - upper control limit.			
Total TCDF	0.00000300		0.00000973					
Total PeCDF	ND		0.00000241					
Total HxCDF	ND	0.00000184						
Total HpCDF	ND		0.00000449					

Analyst: MAS

Approved By: Martha M. Maier 23-Jan-2008 08:53

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
P	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
H	The signal-to-noise ratio is greater than 10:1.
I	Chemical Interference
J	The amount detected is below the Lower Calibration Limit of the instrument.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated detection limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that correspond to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SUBCONTRACT ORDER

TestAmerica Irvine

IRA0403

30123

SENDING LABORATORY:

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

RECEIVING LABORATORY:

Vista Analytical Laboratory- SUB
1104 Windfield Way
El Dorado Hills, CA 95762
Phone : (916) 673-1520
Fax: (916) 673-0106
Project Location: California
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA0403-01	Water			Sampled: 01/05/08 12:00 pH=8.7, temp=53.60
1613-Dioxin-HR-Alta	ug/l	01/16/08	01/12/08 12:00	J flags, 17 congeners, no TEQ, ug/L, sub=Vista Boeing
Level 4 Data Package - Out	N/A	01/16/08	02/02/08 12:00	
<i>Containers Supplied:</i>				
1 L Amber (Y)		1 L Amber (Z)		

~~Released By~~ _____ Date/Time 1/7/08 1700

Received By FedEx Date/Time 1/7/08 1700

Released By _____ Date/Time _____

Received By Bethina Benedict Date/Time 1/8/08 1018

SAMPLE LOG-IN CHECKLIST



Vista Project #: 30123

TAT Standard

Samples Arrival:	Date/Time <u>1/8/08 0909</u>	Initials: <u>UBSB</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>1/8/08 1200</u>	Initials: <u>UBSB</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>C3</u>
Delivered By:	<u>FedEx</u>	UPS	Cal
		DHL	Hand Delivered
Other			
Preservation:	<u>Ice</u>	Blue Ice	Dry Ice
			None
Temp °C	<u>1.6°C</u>	Time: <u>0929</u>	Thermometer ID: IR-1

	YES	NO	NA
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>		
Holding Time Acceptable?	<input checked="" type="checkbox"/>		
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>		
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Airbill			
Trk # <u>7926 2674 3476</u>	<input checked="" type="checkbox"/>		
Sample Container Intact?	<input checked="" type="checkbox"/>		
Sample Custody Seals Intact?			<input checked="" type="checkbox"/>
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>		
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			<input checked="" type="checkbox"/>
Na ₂ S ₂ O ₃ Preservation Documented?			<u>None</u>
COC			
Sample Container			
Shipping Container	Vista	<u>Client</u>	Retain
		<u>Return</u>	Dispose

Comments:

SUBCONTRACT ORDER

TestAmerica Irvine

IRA0403

8010772

SENDING LABORATORY:

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

RECEIVING LABORATORY:

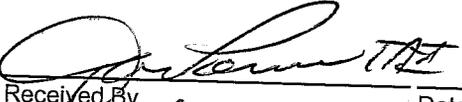
Weck Laboratories, Inc-SUB
14859 E. Clark Avenue
City of Industry, CA 91745
Phone : (626) 336-2139
Fax: (626) 336-2634
Project Location: California
Receipt Temperature: 3.1 °C

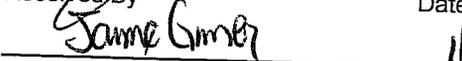
Ice: (Y) / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA0403-01				
	Water			
Ammonia-N, Titr (350.2) w/di	mg/l	01/16/08	02/02/08 12:00	Boeing, permit, J flags
Level 4 + EDD-OUT	N/A	01/16/08	02/02/08 12:00	Excel EDD email to pm, Include Std logs for Lvl IV
Level 4 Data Package - Weck	N/A	01/16/08	02/02/08 12:00	
Mercury - 245.1, Diss -OUT	mg/l	01/16/08	02/02/08 12:00	Out to Weck Level 4 Boeing, permit, J flags
Mercury - 245.1-OUT	mg/l	01/16/08	02/02/08 12:00	Out to Weck Level 4 Boeing, permit, J flags
<i>Containers Supplied:</i>				
125 mL Poly w/HNO3	125 mL Poly (AF)			
(AE)				

Released By:  Date/Time: 1/7/08 0900

Released By:  Date/Time: 1/7/08 1420

Received By:  Date/Time: 1/7/08 0900

Received By:  Date/Time: 1/7/08 1420



CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Joseph Doak

Report Date: 01/10/08 08:43
Received Date: 01/07/08 14:20
Turn Around: 7 days

Phone: (949) 261-1022
Fax: (949) 260-3297

Work Order #: 8010772
Client Project: IRA0403

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Joseph Doak :

Enclosed are the results of analyses for samples received 01/07/08 14:20 with the Chain of Custody document. The samples were received in good condition. The samples were received at 3.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Kim G Tu

Project Manager





Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

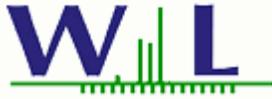
TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8010772
Project ID: IRA0403

Date Received: 01/07/08 14:20
Date Reported: 01/10/08 08:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IRA0403-01	Client		8010772-01	Water	01/05/08 12:00



Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8010772
Project ID: IRA0403

Date Received: 01/07/08 14:20
Date Reported: 01/10/08 08:43

IRA0403-01 8010772-01 (Water)

Date Sampled: 01/05/08 12:00

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Dissolved	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A0148	01/08/08	01/09/08	jlp
Mercury, Total	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A0148	01/08/08	01/09/08	jlp



Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8010772
Project ID: IRA0403

Date Received: 01/07/08 14:20
Date Reported: 01/10/08 08:43

QUALITY CONTROL SECTION



Weck Laboratories, Inc.
 14859 E. Clark Ave.
 Industry, CA 91745
 Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
 17461 Derian Ave, Suite 100
 Irvine CA, 92614

Report ID: 8010772
 Project ID: IRA0403

Date Received: 01/07/08 14:20
 Date Reported: 01/10/08 08:43

Metals by EPA 200 Series Methods - Quality Control

%REC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-----------------

Batch W8A0148 - EPA 245.1

Blank (W8A0148-BLK1)

Analyzed: 01/09/08

Mercury, Dissolved	ND	0.20	ug/l							
Mercury, Total	ND	0.20	ug/l							

LCS (W8A0148-BS1)

Analyzed: 01/09/08

Mercury, Dissolved	0.965	0.20	ug/l	1.00		96	85-115			
Mercury, Total	0.965	0.20	ug/l	1.00		96	85-115			

Matrix Spike (W8A0148-MS1)

Source: 7120722-01

Analyzed: 01/09/08

Mercury, Dissolved	1.97	0.40	ug/l	2.00	ND	98	70-130			
Mercury, Total	1.97	0.40	ug/l	2.00	ND	98	70-130			

Matrix Spike (W8A0148-MS2)

Source: 7120722-03

Analyzed: 01/09/08

Mercury, Dissolved	1.88	0.40	ug/l	2.00	ND	94	70-130			
Mercury, Total	1.88	0.40	ug/l	2.00	ND	94	70-130			

Matrix Spike Dup (W8A0148-MSD1)

Source: 7120722-01

Analyzed: 01/09/08

Mercury, Dissolved	1.92	0.40	ug/l	2.00	ND	96	70-130	2	20	
Mercury, Total	1.92	0.40	ug/l	2.00	ND	96	70-130	2	20	

Matrix Spike Dup (W8A0148-MSD2)

Source: 7120722-03

Analyzed: 01/09/08

Mercury, Dissolved	1.96	0.40	ug/l	2.00	ND	98	70-130	4	20	
Mercury, Total	1.96	0.40	ug/l	2.00	ND	98	70-130	4	20	



Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8010772
Project ID: IRA0403

Date Received: 01/07/08 14:20
Date Reported: 01/10/08 08:43

Notes and Definitions

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

APPENDIX G

Section 87

Outfall 013, January 24, 2008

MEC^X Data Validation Reports



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRA2355

Prepared by

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

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
Contract Task Order: 1261.100D.00
Sample Delivery Group: IRA2355
Project Manager: B. Kelly
Matrix: Soil
QC Level: IV
No. of Samples: 2
No. of Reanalyses/Dilutions: 0
Laboratory: TestAmerica-Irvine, Weck, Vista

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 013	IRA2355-01	30204-001 8012537-01	Water	01/24/08 1100	180.1, 200.8, 245.1, 405.1, 1613, 625, 624
Trip Blank	IRA2355-02	N/A	Water	N/A	624

II. Sample Management

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine and Vista within the temperature limits of 4°C ±2°C. The sample was received above the temperature limit at Weck; however, mercury is not considered volatile. According to the case narrative for this SDG, the sample was 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 seals were intact upon arrival at Vista. No custody seals were present upon receipt at Weck. 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 8, 2008

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

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was 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: 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 below the laboratory lower calibration level 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 200.8, 245.1—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: March 10, 2008

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 200.8 and 245.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding times, 6 months for 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 and all initial and continuing calibration recoveries were within 90-110% for the ICP-MS metals and 85-115% for mercury. The cadmium 0.2 ppb check standard was recovered

above the control limit at 139%; therefore, total cadmium detected in the sample was qualified as an estimated detect, "J." All remaining check standard recoveries were within the control limits of 70-130%

- Blanks: There were no applicable detects in the method blanks or CCBs.
- Interference Check Samples: ICSA/B analyses were performed in association with the total metals analyses only. Recoveries were within the method-established control limits. Most analytes were reported in the 6020 ICSA solution; however, the reviewer was not able to ascertain if the detection was indicative of matrix interference.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the dissolved aliquot and a matrix spike analysis was performed on the total metals aliquot. All recoveries and RPDs were within the laboratory-established control limits. Evaluation of the mercury method accuracy was based on LCS results.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. The bracketing CCV and CCB internal standard intensities were within 80-120% 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 summary were verified against the raw data. No transcription errors or calculation errors were noted. 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 625—Semivolatile Organic Compounds (SVOCs)

Reviewed By: L. Calvin

Date Reviewed: March 9, 2008

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 8270C*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- 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.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. Samples were analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria were met. For applicable target compounds, initial calibration average RRFs were ≥ 0.05 and %RSDs $\leq 35\%$. Continuing calibration RRFs were ≥ 0.05 and %Ds $\leq 20\%$.
- Blanks: Method blanks had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs 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 on the sample of this SDG. Evaluation of method accuracy and precision was based on the LSC/LSCD results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the 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 semivolatile target compounds naphthalene and n-nitrosodimethylamine by EPA

Method 625. 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 results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- 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.

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

Reviewed By: L. Calvin

Date Reviewed: March 9, 2008

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 (2/94)*.

- Holding Times: Analytical holding times were met. The preserved water samples were analyzed within 14 days of collection.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. Samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria were met. For applicable target compounds, initial calibration average RRFs were ≥ 0.05 and %RSDs $\leq 35\%$. Continuing calibration RRFs were ≥ 0.05 and %Ds $\leq 20\%$.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on site sample Outfall 013. Recoveries and RPDs were within laboratory-established QC limits.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.

Following are findings associated with field QC samples:

- Trip Blanks: Sample Trip Blank was the trip blank associated with site sample Outfall 013. The trip blank had no target compound detects above the MDL.
- 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 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 five 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 results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- 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 3, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 180.1 and 405.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The holding times, 48 hours for BOD and turbidity, were met.
- Calibration: Calibration criteria are not applicable to BOD.. The turbidity check standard recoveries were acceptable.
- Blanks: There were no applicable detects in the method blanks.

- Blank Spikes and Laboratory Control Samples: The BOD recoveries and RPD were within the laboratory-established control limits. The LCS is not applicable to turbidity.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: BOD MS/MSD analyses were not performed. Method accuracy and precision were evaluated based on the LCS/LCSD results. MS/MSD analyses are not applicable to turbidity.
- Sample Result Verification: The sample results were verified against the raw data. No transcription or calculation errors were noted.
- 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: IRA2355-01 *Out-fail 013* **EPA Method 1613**

Client Data
 Name: Test America-Irvine, CA
 Project: IRA2355
 Date Collected: 24-Jan-08
 Time Collected: 1100

Sample Data
 Matrix: Aqueous
 Sample Size: 1.00 L

Laboratory Data
 Lab Sample: 30204-001
 QC Batch No.: 9917
 Date Analyzed DB-5: 6-Feb-08
 Date Received: 26-Jan-08
 Date Extracted: 31-Jan-08
 Date Analyzed DB-225: NA

Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.000000932			IS 13C-2,3,7,8-TCDD	88.4	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000119			13C-1,2,3,7,8-PeCDD	78.2	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000255			13C-1,2,3,4,7,8-HxCDD	80.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000260			13C-1,2,3,6,7,8-HxCDD	79.6	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000247			13C-1,2,3,4,6,7,8-HpCDD	81.3	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.00000314			13C-OCDD	71.7	17 - 157	
OCDD	0.0000140			J	13C-2,3,7,8-TCDF	88.3	24 - 169	
2,3,7,8-TCDF	ND	0.00000132			13C-1,2,3,7,8-PeCDF	76.1	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000144			13C-2,3,4,7,8-PeCDF	74.6	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000149			13C-1,2,3,4,7,8-HxCDF	78.4	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.00000156			13C-1,2,3,6,7,8-HxCDF	76.3	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.00000106			13C-2,3,4,6,7,8-HxCDF	75.7	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000123			13C-1,2,3,7,8,9-HxCDF	76.4	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.000000796			13C-1,2,3,4,6,7,8-HpCDF	75.5	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000287			13C-1,2,3,4,7,8,9-HpCDF	75.5	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.000000972			13C-OCDF	74.5	17 - 157	
OCDF	ND	0.00000618			CRS 37Cl-2,3,7,8-TCDD	93.5	35 - 197	
Totals								
Total TCDD	ND	0.00000178						
Total PeCDD	ND	0.00000119						
Total HxCDD	ND	0.00000254						
Total HpCDD	0.00000312							
Total TCDF	ND	0.00000169						
Total PeCDF	ND	0.00000147						
Total HxCDF	ND	0.00000180						
Total HpCDF	ND	0.00000306						

Footnotes
 a. Sample specific estimated detection limit.
 b. Estimated maximum possible concentration.
 c. Method detection limit.
 d. Lower control limit - upper control limit.

Analyst: MAS *Level IV* Approved By: William J. Luksemburg 08-Feb-2008 13:08

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08

Received: 01/24/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: ug/l									
Cadmium	J/A/III	EPA 200.8	8A25068	0.11	1.0	2.1	1	01/25/08	01/25/08
Copper		EPA 200.8	8A25068	0.75	2.0	3.0	1	01/25/08	01/25/08
Lead		EPA 200.8	8A25068	0.30	1.0	1.6	1	01/25/08	01/25/08
Selenium	U	EPA 200.8	8A25068	0.30	2.0	ND	1	01/25/08	01/25/08
Zinc		EPA 200.8	8A25068	2.5	20	55	1	01/25/08	01/25/08

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 9 of 41>

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

Project ID: Routine Outfall 013
Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: ug/l									
Cadmium	EPA 200.8-Diss	8A24169	0.11	1.0	1.7	1	01/24/08	01/24/08	
Copper	EPA 200.8-Diss	8A24169	0.75	2.0	2.0	1	01/24/08	01/24/08	
Lead	EPA 200.8-Diss	8A24169	0.30	1.0	ND	1	01/24/08	01/24/08	
Selenium	EPA 200.8-Diss	8A24169	0.30	2.0	ND	1	01/24/08	01/24/08	
Zinc	EPA 200.8-Diss	8A24169	2.5	20	44	1	01/24/08	01/25/08	

LEVEL IV

PM 3/10/08

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 11 of 41>

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

Project ID: Routine Outfall 013
Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8A1076	0.050	0.20	ND	1	01/30/08	01/31/08	
Mercury, Total	EPA 245.1	W8A1076	0.050	0.20	ND	1	01/30/08	01/31/08	

LEVEL 10

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 16 of 41>

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water)									
Reporting Units: ug/l									
Naphthalene	u EPA 625	8A25091	2.9	9.6	ND	0.957	01/25/08	01/29/08	
N-Nitrosodimethylamine	↓ EPA 625	8A25091	2.4	19	ND	0.957	01/25/08	01/29/08	
Surrogate: 2-Fluorophenol (30-120%)					69 %				
Surrogate: Phenol-d6 (35-120%)					79 %				
Surrogate: 2,4,6-Tribromophenol (40-120%)					68 %				
Surrogate: Nitrobenzene-d5 (45-120%)					72 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					78 %				
Surrogate: Terphenyl-d14 (50-125%)					94 %				

Level IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 6 of 29>

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

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: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	8A29020	0.40	2.0	ND	1	01/29/08	01/29/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8A29020	0.32	5.0	ND	1	01/29/08	01/29/08	
1,2,3-Trichloropropane	EPA 624	8A29020	0.40	10	ND	1	01/29/08	01/29/08	
Di-isopropyl Ether (DIPE)	EPA 624	8A29020	0.25	5.0	ND	1	01/29/08	01/29/08	
tert-Butanol (TBA)	EPA 624	8A29020	4.9	25	ND	1	01/29/08	01/29/08	
Surrogate: Dibromofluoromethane (80-120%)					102 %				
Surrogate: Toluene-d8 (80-120%)					105 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					96 %				

Sample ID: IRA2355-02 (TRIP BLANK - Water)

Reporting Units: ug/l

1,2-Dibromoethane (EDB)	EPA 624	8A29020	0.40	2.0	ND	1	01/29/08	01/29/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8A29020	0.32	5.0	ND	1	01/29/08	01/29/08	
1,2,3-Trichloropropane	EPA 624	8A29020	0.40	10	ND	1	01/29/08	01/29/08	
Di-isopropyl Ether (DIPE)	EPA 624	8A29020	0.25	5.0	ND	1	01/29/08	01/29/08	
tert-Butanol (TBA)	EPA 624	8A29020	4.9	25	ND	1	01/29/08	01/29/08	
Surrogate: Dibromofluoromethane (80-120%)					102 %				
Surrogate: Toluene-d8 (80-120%)					105 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					97 %				

Level IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 5 of 41>

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08

Received: 01/24/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8A31085	1.3	4.8	ND	1	01/31/08	01/31/08	
Ammonia-N (Distilled)	EPA 350.2	8A29110	0.30	0.50	ND	1	01/29/08	01/29/08	
Biochemical Oxygen Demand	EPA 405.1	8A24141	0.59	2.0	2.0	1	01/24/08	01/29/08	
Chloride	EPA 300.0	8A24034	5.0	10	62	20	01/24/08	01/24/08	
Fluoride	EPA 340.2	8A28117	0.014	0.10	0.30	1	01/28/08	01/28/08	
Nitrate-N	EPA 300.0	8A24034	0.060	0.11	0.74	1	01/24/08	01/24/08	
Nitrite-N	EPA 300.0	8A24034	0.090	0.15	ND	1	01/24/08	01/24/08	
Nitrate/Nitrite-N	EPA 300.0	8A24034	0.15	0.26	0.74	1	01/24/08	01/24/08	
Sulfate	EPA 300.0	8A24034	0.20	0.50	13	1	01/24/08	01/24/08	
Total Dissolved Solids	SM2540C	8A25141	10	10	200	1	01/25/08	01/25/08	
Total Suspended Solids	EPA 160.2	8A25132	10	10	ND	1	01/25/08	01/25/08	

* Analysis not validated

LEVEL IV

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 12 of 41>

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	8A25085	0.040	1.0	5.5	1	01/25/08	01/25/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 14 of 41>

APPENDIX G

Section 88

Outfall 013, January 24, 2008

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Routine Outfall 013

Sampled: 01/24/08
Received: 01/24/08
Revised: 02/27/08 15:57

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

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

ADDITIONAL INFORMATION: This report was revised to correct reported carbon range for EFH.

LABORATORY ID	CLIENT ID	MATRIX
IRA2355-01	OUTFALL 013	Water
IRA2355-02	TRIP BLANK	Water

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08

Received: 01/24/08

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water)									
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	8A27019	0.095	0.48	ND	0.952	01/27/08	01/29/08	
Surrogate: n-Octacosane (40-125%)					103 %				

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 2 of 29>
NPDES - 3335

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08

Received: 01/24/08

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015 Mod.	8A30041	25	100	ND	1	01/30/08	01/30/08	
Surrogate: 4-BFB (FID) (65-140%)					104 %				

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 3 of 29>
NPDES - 3336

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08

Received: 01/24/08

VOLATILE ORGANICS by GCMS SIM

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B-SIM	8A25014	1.0	2.0	ND	1	01/25/08	01/25/08	
Surrogate: Dibromofluoromethane (80-120%)					100 %				

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 4 of 29>
NPDES - 3337

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

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: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	8A29020	0.40	2.0	ND	1	01/29/08	01/29/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8A29020	0.32	5.0	ND	1	01/29/08	01/29/08	
1,2,3-Trichloropropane	EPA 624	8A29020	0.40	10	ND	1	01/29/08	01/29/08	
Di-isopropyl Ether (DIPE)	EPA 624	8A29020	0.25	5.0	ND	1	01/29/08	01/29/08	
tert-Butanol (TBA)	EPA 624	8A29020	4.9	25	ND	1	01/29/08	01/29/08	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					102 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					105 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					96 %				

Sample ID: IRA2355-02 (TRIP BLANK - Water)

Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	8A29020	0.40	2.0	ND	1	01/29/08	01/29/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8A29020	0.32	5.0	ND	1	01/29/08	01/29/08	
1,2,3-Trichloropropane	EPA 624	8A29020	0.40	10	ND	1	01/29/08	01/29/08	
Di-isopropyl Ether (DIPE)	EPA 624	8A29020	0.25	5.0	ND	1	01/29/08	01/29/08	
tert-Butanol (TBA)	EPA 624	8A29020	4.9	25	ND	1	01/29/08	01/29/08	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					102 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					105 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					97 %				

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water)									
Reporting Units: ug/l									
Naphthalene	EPA 625	8A25091	2.9	9.6	ND	0.957	01/25/08	01/29/08	
N-Nitrosodimethylamine	EPA 625	8A25091	2.4	19	ND	0.957	01/25/08	01/29/08	
<i>Surrogate: 2-Fluorophenol (30-120%)</i>					69 %				
<i>Surrogate: Phenol-d6 (35-120%)</i>					79 %				
<i>Surrogate: 2,4,6-Tribromophenol (40-120%)</i>					68 %				
<i>Surrogate: Nitrobenzene-d5 (45-120%)</i>					72 %				
<i>Surrogate: 2-Fluorobiphenyl (50-120%)</i>					78 %				
<i>Surrogate: Terphenyl-d14 (50-125%)</i>					94 %				

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: mg/l									
Boron	EPA 200.7	8A29093	0.020	0.050	0.038	1	01/29/08	01/29/08	J
Sample ID: IRA2355-01 (OUTFALL 013 - Water)									
Reporting Units: ug/l									
Cadmium	EPA 200.8	8A25068	0.11	1.0	2.1	1	01/25/08	01/25/08	
Copper	EPA 200.8	8A25068	0.75	2.0	3.0	1	01/25/08	01/25/08	
Lead	EPA 200.8	8A25068	0.30	1.0	1.6	1	01/25/08	01/25/08	
Selenium	EPA 200.8	8A25068	0.30	2.0	ND	1	01/25/08	01/25/08	
Zinc	EPA 200.8	8A25068	2.5	20	55	1	01/25/08	01/25/08	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: mg/l									
Boron	EPA 200.7-Diss	8A24168	0.020	0.050	ND	1	01/24/08	01/25/08	
Sample ID: IRA2355-01 (OUTFALL 013 - Water)									
Reporting Units: ug/l									
Cadmium	EPA 200.8-Diss	8A24169	0.11	1.0	1.7	1	01/24/08	01/24/08	
Copper	EPA 200.8-Diss	8A24169	0.75	2.0	2.0	1	01/24/08	01/24/08	
Lead	EPA 200.8-Diss	8A24169	0.30	1.0	ND	1	01/24/08	01/24/08	
Selenium	EPA 200.8-Diss	8A24169	0.30	2.0	ND	1	01/24/08	01/24/08	
Zinc	EPA 200.8-Diss	8A24169	2.5	20	44	1	01/24/08	01/25/08	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8A31085	1.3	4.8	ND	1	01/31/08	01/31/08	
Ammonia-N (Distilled)	EPA 350.2	8A29110	0.30	0.50	ND	1	01/29/08	01/29/08	
Biochemical Oxygen Demand	EPA 405.1	8A24141	0.59	2.0	2.0	1	01/24/08	01/29/08	
Chloride	EPA 300.0	8A24034	5.0	10	62	20	01/24/08	01/24/08	
Fluoride	EPA 340.2	8A28117	0.014	0.10	0.30	1	01/28/08	01/28/08	
Nitrate-N	EPA 300.0	8A24034	0.060	0.11	0.74	1	01/24/08	01/24/08	
Nitrite-N	EPA 300.0	8A24034	0.090	0.15	ND	1	01/24/08	01/24/08	
Nitrate/Nitrite-N	EPA 300.0	8A24034	0.15	0.26	0.74	1	01/24/08	01/24/08	
Sulfate	EPA 300.0	8A24034	0.20	0.50	13	1	01/24/08	01/24/08	
Total Dissolved Solids	SM2540C	8A25141	10	10	200	1	01/25/08	01/25/08	
Total Suspended Solids	EPA 160.2	8A25132	10	10	ND	1	01/25/08	01/25/08	

Sample ID: IRA2355-01 (OUTFALL 013 - Water)

Reporting Units: ml/l/hr

Total Settleable Solids	EPA 160.5	8A25084	0.10	0.10	ND	1	01/25/08	01/25/08	
-------------------------	-----------	---------	------	------	----	---	----------	----------	--

Sample ID: IRA2355-01 (OUTFALL 013 - Water)

Reporting Units: NTU

Turbidity	EPA 180.1	8A25085	0.040	1.0	5.5	1	01/25/08	01/25/08	
-----------	-----------	---------	-------	-----	------------	---	----------	----------	--

Sample ID: IRA2355-01 (OUTFALL 013 - Water)

Reporting Units: ug/l

Perchlorate	EPA 314.0	8A28071	1.5	4.0	ND	1	01/28/08	01/28/08	
-------------	-----------	---------	-----	-----	----	---	----------	----------	--

TestAmerica Irvine

Joseph Doak
 Project Manager

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08

Received: 01/24/08

Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2355-01 (OUTFALL 013 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8A1076	0.050	0.20	ND	1	01/30/08	01/31/08	
Mercury, Total	EPA 245.1	W8A1076	0.050	0.20	ND	1	01/30/08	01/31/08	

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 10 of 29>
NPDES - 3343

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: OUTFALL 013 (IRA2355-01) - Water					
EPA 160.5	2	01/24/2008 11:00	01/24/2008 18:15	01/25/2008 12:45	01/25/2008 12:45
EPA 180.1	2	01/24/2008 11:00	01/24/2008 18:15	01/25/2008 17:15	01/25/2008 17:15
EPA 300.0	2	01/24/2008 11:00	01/24/2008 18:15	01/24/2008 19:00	01/24/2008 20:40
EPA 405.1	2	01/24/2008 11:00	01/24/2008 18:15	01/24/2008 20:35	01/29/2008 08:30

TestAmerica Irvine

Joseph Doak
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,
except in full, without written permission from TestAmerica.*

IRA2355 <Page 11 of 29>
NPDES - 3344

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A27019 Extracted: 01/27/08											
Blank Analyzed: 01/28/2008-01/29/2008 (8A27019-BLK1)											
EFH (C13 - C22)	ND	0.50	0.10	mg/l							
Surrogate: n-Octacosane	0.251			mg/l	0.400		63	40-125			A-01
LCS Analyzed: 01/28/2008 (8A27019-BS1)											
EFH (C13 - C40)	0.647	0.50	0.10	mg/l	0.750		86	40-115			MNR1
Surrogate: n-Octacosane	0.182			mg/l	0.200		91	40-125			
LCS Dup Analyzed: 01/28/2008 (8A27019-BSD1)											
EFH (C13 - C40)	0.602	0.50	0.10	mg/l	0.750		80	40-115	7	25	
Surrogate: n-Octacosane	0.179			mg/l	0.200		89	40-125			

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A30041 Extracted: 01/30/08											
Blank Analyzed: 01/30/2008 (8A30041-BLK1)											
GRO (C4 - C12)	ND	100	25	ug/l							
Surrogate: 4-BFB (FID)	9.78			ug/l	10.0		98	65-140			
LCS Analyzed: 01/30/2008 (8A30041-BS1)											
GRO (C4 - C12)	823	100	25	ug/l	800		103	80-120			
Surrogate: 4-BFB (FID)	16.2			ug/l	10.0		162	65-140			ZX
Matrix Spike Analyzed: 01/30/2008 (8A30041-MS1)											
						Source: IRA2348-31					
GRO (C4 - C12)	228	100	25	ug/l	220	ND	104	65-140			
Surrogate: 4-BFB (FID)	12.8			ug/l	10.0		128	65-140			
Matrix Spike Dup Analyzed: 01/30/2008 (8A30041-MSD1)											
						Source: IRA2348-31					
GRO (C4 - C12)	232	100	25	ug/l	220	ND	105	65-140	2	20	
Surrogate: 4-BFB (FID)	12.5			ug/l	10.0		125	65-140			

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GCMS SIM

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A25014 Extracted: 01/25/08											
Blank Analyzed: 01/25/2008 (8A25014-BLK1)											
1,4-Dioxane	ND	2.0	1.0	ug/l							
Surrogate: Dibromofluoromethane	0.990			ug/l	1.00		99	80-120			
LCS Analyzed: 01/25/2008 (8A25014-BS1)											
1,4-Dioxane	8.94	2.0	1.0	ug/l	10.0		89	70-125			
Surrogate: Dibromofluoromethane	1.00			ug/l	1.00		100	80-120			
Matrix Spike Analyzed: 01/25/2008 (8A25014-MS1)											
						Source: IRA2088-01					
1,4-Dioxane	10.9	2.0	1.0	ug/l	10.0	2.03	89	70-130			
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-120			
Matrix Spike Dup Analyzed: 01/25/2008 (8A25014-MSD1)											
						Source: IRA2088-01					
1,4-Dioxane	10.8	2.0	1.0	ug/l	10.0	2.03	88	70-130	1	30	
Surrogate: Dibromofluoromethane	1.00			ug/l	1.00		100	80-120			

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A29020 Extracted: 01/29/08											
Blank Analyzed: 01/29/2008 (8A29020-BLK1)											
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
tert-Butanol (TBA)	ND	25	4.9	ug/l							
Surrogate: Dibromofluoromethane	25.7			ug/l	25.0		103	80-120			
Surrogate: Toluene-d8	26.6			ug/l	25.0		106	80-120			
Surrogate: 4-Bromofluorobenzene	23.9			ug/l	25.0		95	80-120			
LCS Analyzed: 01/29/2008 (8A29020-BS1)											
1,2-Dibromoethane (EDB)	25.9	2.0	0.40	ug/l	25.0		104	75-125			
Methyl-tert-butyl Ether (MTBE)	25.2	5.0	0.32	ug/l	25.0		101	60-135			
1,2,3-Trichloropropane	30.8	10	0.40	ug/l	25.0		123	60-130			
Di-isopropyl Ether (DIPE)	26.6	5.0	0.25	ug/l	25.0		107	60-135			
tert-Butanol (TBA)	158	25	4.9	ug/l	125		126	70-135			
Surrogate: Dibromofluoromethane	26.1			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	26.8			ug/l	25.0		107	80-120			
Surrogate: 4-Bromofluorobenzene	25.6			ug/l	25.0		103	80-120			
Matrix Spike Analyzed: 01/29/2008 (8A29020-MS1)					Source: IRA2355-01						
1,2-Dibromoethane (EDB)	26.6	2.0	0.40	ug/l	25.0	ND	107	70-130			
Methyl-tert-butyl Ether (MTBE)	25.8	5.0	0.32	ug/l	25.0	ND	103	55-145			
1,2,3-Trichloropropane	33.0	10	0.40	ug/l	25.0	ND	132	55-135			
Di-isopropyl Ether (DIPE)	27.3	5.0	0.25	ug/l	25.0	ND	109	60-140			
tert-Butanol (TBA)	161	25	4.9	ug/l	125	ND	129	65-140			
Surrogate: Dibromofluoromethane	26.3			ug/l	25.0		105	80-120			
Surrogate: Toluene-d8	26.6			ug/l	25.0		107	80-120			
Surrogate: 4-Bromofluorobenzene	25.5			ug/l	25.0		102	80-120			

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A29020 Extracted: 01/29/08											
Matrix Spike Dup Analyzed: 01/29/2008 (8A29020-MSD1)						Source: IRA2355-01					
1,2-Dibromoethane (EDB)	26.3	2.0	0.40	ug/l	25.0	ND	105	70-130	1	25	
Methyl-tert-butyl Ether (MTBE)	25.8	5.0	0.32	ug/l	25.0	ND	103	55-145	0	25	
1,2,3-Trichloropropane	32.0	10	0.40	ug/l	25.0	ND	128	55-135	3	30	
Di-isopropyl Ether (DIPE)	26.9	5.0	0.25	ug/l	25.0	ND	108	60-140	2	25	
tert-Butanol (TBA)	161	25	4.9	ug/l	125	ND	129	65-140	1	25	
Surrogate: Dibromofluoromethane	26.1			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	26.9			ug/l	25.0		107	80-120			
Surrogate: 4-Bromofluorobenzene	25.4			ug/l	25.0		102	80-120			

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A25091 Extracted: 01/25/08											
Blank Analyzed: 01/28/2008 (8A25091-BLK1)											
Naphthalene	ND	10	3.0	ug/l							
N-Nitrosodimethylamine	ND	20	2.5	ug/l							
Surrogate: 2-Fluorophenol	133			ug/l	200		66	30-120			
Surrogate: Phenol-d6	149			ug/l	200		74	35-120			
Surrogate: 2,4,6-Tribromophenol	128			ug/l	200		64	40-120			
Surrogate: Nitrobenzene-d5	72.2			ug/l	100		72	45-120			
Surrogate: 2-Fluorobiphenyl	71.2			ug/l	100		71	50-120			
Surrogate: Terphenyl-d14	84.3			ug/l	100		84	50-125			
LCS Analyzed: 01/28/2008 (8A25091-BS1)											
Naphthalene	73.5	10	3.0	ug/l	100		74	55-120			MNR1
N-Nitrosodimethylamine	72.7	20	2.5	ug/l	100		73	45-120			
Surrogate: 2-Fluorophenol	124			ug/l	200		62	30-120			
Surrogate: Phenol-d6	134			ug/l	200		67	35-120			
Surrogate: 2,4,6-Tribromophenol	153			ug/l	200		76	40-120			
Surrogate: Nitrobenzene-d5	72.3			ug/l	100		72	45-120			
Surrogate: 2-Fluorobiphenyl	76.5			ug/l	100		76	50-120			
Surrogate: Terphenyl-d14	94.5			ug/l	100		95	50-125			
LCS Dup Analyzed: 01/28/2008 (8A25091-BSD1)											
Naphthalene	73.1	10	3.0	ug/l	100		73	55-120	1	20	
N-Nitrosodimethylamine	72.0	20	2.5	ug/l	100		72	45-120	1	20	
Surrogate: 2-Fluorophenol	117			ug/l	200		58	30-120			
Surrogate: Phenol-d6	125			ug/l	200		62	35-120			
Surrogate: 2,4,6-Tribromophenol	145			ug/l	200		72	40-120			
Surrogate: Nitrobenzene-d5	72.7			ug/l	100		73	45-120			
Surrogate: 2-Fluorobiphenyl	73.9			ug/l	100		74	50-120			
Surrogate: Terphenyl-d14	93.7			ug/l	100		94	50-125			

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A25068 Extracted: 01/25/08											
Blank Analyzed: 01/25/2008 (8A25068-BLK1)											
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Zinc	ND	20	2.5	ug/l							
LCS Analyzed: 01/25/2008 (8A25068-BS1)											
Cadmium	84.8	1.0	0.11	ug/l	80.0		106	85-115			
Copper	86.4	2.0	0.75	ug/l	80.0		108	85-115			
Lead	85.0	1.0	0.30	ug/l	80.0		106	85-115			
Selenium	84.3	2.0	0.30	ug/l	80.0		105	85-115			
Zinc	87.3	20	2.5	ug/l	80.0		109	85-115			
Matrix Spike Analyzed: 01/25/2008 (8A25068-MS1) Source: IRA2276-02											
Cadmium	82.0	1.0	0.11	ug/l	80.0	ND	102	70-130			
Copper	83.4	2.0	0.75	ug/l	80.0	ND	104	70-130			
Lead	81.0	1.0	0.30	ug/l	80.0	ND	101	70-130			
Selenium	79.8	2.0	0.30	ug/l	80.0	0.966	99	70-130			
Zinc	83.2	20	2.5	ug/l	80.0	ND	104	70-130			
Matrix Spike Analyzed: 01/25/2008 (8A25068-MS2) Source: IRA2349-01											
Cadmium	82.9	1.0	0.11	ug/l	80.0	0.119	104	70-130			
Copper	86.6	2.0	0.75	ug/l	80.0	1.92	106	70-130			
Lead	77.5	1.0	0.30	ug/l	80.0	1.14	95	70-130			
Selenium	77.9	2.0	0.30	ug/l	80.0	ND	97	70-130			
Zinc	84.9	20	2.5	ug/l	80.0	5.99	99	70-130			
Matrix Spike Dup Analyzed: 01/25/2008 (8A25068-MSD1) Source: IRA2276-02											
Cadmium	82.6	1.0	0.11	ug/l	80.0	ND	103	70-130	1	20	
Copper	83.7	2.0	0.75	ug/l	80.0	ND	105	70-130	0	20	
Lead	81.7	1.0	0.30	ug/l	80.0	ND	102	70-130	1	20	
Selenium	81.9	2.0	0.30	ug/l	80.0	0.966	101	70-130	3	20	
Zinc	83.6	20	2.5	ug/l	80.0	ND	105	70-130	0	20	

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A29093 Extracted: 01/29/08											
Blank Analyzed: 01/29/2008 (8A29093-BLK1)											
Boron	ND	0.050	0.020	mg/l							
LCS Analyzed: 01/29/2008 (8A29093-BS1)											
Boron	0.505	0.050	0.020	mg/l	0.500		101	85-115			
Matrix Spike Analyzed: 01/29/2008 (8A29093-MS1)											
Boron	0.513	0.050	0.020	mg/l	0.500	0.0431	94	70-130			
Matrix Spike Dup Analyzed: 01/29/2008 (8A29093-MSD1)											
Boron	0.539	0.050	0.020	mg/l	0.500	0.0431	99	70-130	5	20	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8A24168 Extracted: 01/24/08</u>											
Blank Analyzed: 01/25/2008 (8A24168-BLK1)											
Boron	ND	0.050	0.020	mg/l							
LCS Analyzed: 01/25/2008 (8A24168-BS1)											
Boron	0.950	0.050	0.020	mg/l	1.00		95	85-115			
Matrix Spike Analyzed: 01/25/2008 (8A24168-MS1)											
						Source: IRA2355-01					
Boron	0.965	0.050	0.020	mg/l	1.00	ND	96	70-130			
Matrix Spike Dup Analyzed: 01/25/2008 (8A24168-MSD1)											
						Source: IRA2355-01					
Boron	0.984	0.050	0.020	mg/l	1.00	ND	98	70-130	2	20	
<u>Batch: 8A24169 Extracted: 01/24/08</u>											
Blank Analyzed: 01/24/2008 (8A24169-BLK1)											
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Zinc	ND	20	2.5	ug/l							
LCS Analyzed: 01/24/2008-01/25/2008 (8A24169-BS1)											
Cadmium	80.4	1.0	0.11	ug/l	80.0		100	85-115			
Copper	84.6	2.0	0.75	ug/l	80.0		106	85-115			
Lead	78.0	1.0	0.30	ug/l	80.0		97	85-115			
Selenium	83.0	2.0	0.30	ug/l	80.0		104	85-115			
Zinc	79.0	20	2.5	ug/l	80.0		99	85-115			

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A24169 Extracted: 01/24/08											
Matrix Spike Analyzed: 01/24/2008 (8A24169-MS1)						Source: IRA2349-01					
Cadmium	77.3	1.0	0.11	ug/l	80.0	ND	97	70-130			
Copper	78.7	2.0	0.75	ug/l	80.0	ND	98	70-130			
Lead	75.7	1.0	0.30	ug/l	80.0	ND	95	70-130			
Selenium	99.7	2.0	0.30	ug/l	80.0	0.328	124	70-130			
Zinc	89.1	20	2.5	ug/l	80.0	ND	111	70-130			
Matrix Spike Dup Analyzed: 01/24/2008 (8A24169-MSD1)						Source: IRA2349-01					
Cadmium	78.7	1.0	0.11	ug/l	80.0	ND	98	70-130	2	20	
Copper	79.3	2.0	0.75	ug/l	80.0	ND	99	70-130	1	20	
Lead	73.7	1.0	0.30	ug/l	80.0	ND	92	70-130	3	20	
Selenium	101	2.0	0.30	ug/l	80.0	0.328	125	70-130	1	20	
Zinc	89.4	20	2.5	ug/l	80.0	ND	112	70-130	0	20	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A24034 Extracted: 01/24/08											
Blank Analyzed: 01/24/2008 (8A24034-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 01/24/2008 (8A24034-BS1)											
Chloride	4.86	0.50	0.25	mg/l	5.00		97	90-110			M-3
Nitrate-N	1.04	0.11	0.060	mg/l	1.13		92	90-110			
Nitrite-N	1.41	0.15	0.090	mg/l	1.52		93	90-110			
Sulfate	9.69	0.50	0.20	mg/l	10.0		97	90-110			
Matrix Spike Analyzed: 01/24/2008 (8A24034-MS1)											
					Source: IRA2329-01						
Nitrate-N	6.56	0.22	0.12	mg/l	1.13	5.27	115	80-120			
Nitrite-N	3.64	0.30	0.18	mg/l	1.52	ND	239	80-120			MI
Sulfate	107	1.0	0.40	mg/l	10.0	97.2	98	80-120			
Matrix Spike Analyzed: 01/25/2008 (8A24034-MS2)											
					Source: IRA2354-09						
Nitrate-N	1.06	0.11	0.060	mg/l	1.13	ND	94	80-120			
Nitrite-N	2.36	0.15	0.090	mg/l	1.52	ND	155	80-120			MI
Sulfate	16.9	0.50	0.20	mg/l	10.0	6.59	103	80-120			
Matrix Spike Dup Analyzed: 01/24/2008 (8A24034-MSD1)											
					Source: IRA2329-01						
Nitrate-N	5.89	0.22	0.12	mg/l	1.13	5.27	56	80-120	11	20	MHA
Nitrite-N	3.06	0.30	0.18	mg/l	1.52	ND	201	80-120	17	20	MI
Sulfate	106	1.0	0.40	mg/l	10.0	97.2	84	80-120	1	20	

TestAmerica Irvine

Joseph Doak
 Project Manager

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8A24141 Extracted: 01/24/08</u>											
Blank Analyzed: 01/29/2008 (8A24141-BLK1)											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 01/29/2008 (8A24141-BS1)											
Biochemical Oxygen Demand	193	100	30	mg/l	198		97	85-115			
LCS Dup Analyzed: 01/29/2008 (8A24141-BSD1)											
Biochemical Oxygen Demand	198	100	30	mg/l	198		100	85-115	2	20	
<u>Batch: 8A25085 Extracted: 01/25/08</u>											
Blank Analyzed: 01/25/2008 (8A25085-BLK1)											
Turbidity	0.0900	1.0	0.040	NTU							J
Duplicate Analyzed: 01/25/2008 (8A25085-DUP1)											
Turbidity	3.00	1.0	0.040	NTU		Source: IRA2353-01 3.28			9	20	
<u>Batch: 8A25132 Extracted: 01/25/08</u>											
Blank Analyzed: 01/25/2008 (8A25132-BLK1)											
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 01/25/2008 (8A25132-BS1)											
Total Suspended Solids	967	10	10	mg/l	1000		97	85-115			
Duplicate Analyzed: 01/25/2008 (8A25132-DUP1)											
Total Suspended Solids	12.0	10	10	mg/l		Source: IRA2326-01 11.0			9	10	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013
 Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8A25141 Extracted: 01/25/08</u>											
Blank Analyzed: 01/25/2008 (8A25141-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 01/25/2008 (8A25141-BS1)											
Total Dissolved Solids	1000	10	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 01/25/2008 (8A25141-DUP1)											
Total Dissolved Solids	1920	10	10	mg/l		Source: IRA2124-05 1920			0	10	
<u>Batch: 8A28071 Extracted: 01/28/08</u>											
Blank Analyzed: 01/28/2008 (8A28071-BLK1)											
Perchlorate	ND	4.0	1.5	ug/l							
LCS Analyzed: 01/28/2008 (8A28071-BS1)											
Perchlorate	54.0	4.0	1.5	ug/l	50.0		108	85-115			
Matrix Spike Analyzed: 01/28/2008 (8A28071-MS1)											
Perchlorate	55.4	4.0	1.5	ug/l	50.0	ND	111	80-120			
Matrix Spike Dup Analyzed: 01/28/2008 (8A28071-MSD1)											
Perchlorate	55.2	4.0	1.5	ug/l	50.0	ND	110	80-120	0	20	
<u>Batch: 8A28117 Extracted: 01/28/08</u>											
Blank Analyzed: 01/28/2008 (8A28117-BLK1)											
Fluoride	0.0329	0.10	0.014	mg/l							J

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8A28117 Extracted: 01/28/08</u>											
LCS Analyzed: 01/28/2008 (8A28117-BS1)											
Fluoride	1.07	0.10	0.014	mg/l	1.00		107	90-110			
Matrix Spike Analyzed: 01/28/2008 (8A28117-MS1)											
						Source: IRA2355-01					
Fluoride	2.31	0.10	0.014	mg/l	2.00	0.299	100	80-120			
Matrix Spike Dup Analyzed: 01/28/2008 (8A28117-MSD1)											
						Source: IRA2355-01					
Fluoride	2.41	0.10	0.014	mg/l	2.00	0.299	106	80-120	5	20	
<u>Batch: 8A29110 Extracted: 01/29/08</u>											
Blank Analyzed: 01/29/2008 (8A29110-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 01/29/2008 (8A29110-BS1)											
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0		101	80-115			
Matrix Spike Analyzed: 01/29/2008 (8A29110-MS1)											
						Source: IRA2355-01					
Ammonia-N (Distilled)	10.4	0.50	0.30	mg/l	10.0	ND	104	70-120			
Matrix Spike Dup Analyzed: 01/29/2008 (8A29110-MSD1)											
						Source: IRA2355-01					
Ammonia-N (Distilled)	10.6	0.50	0.30	mg/l	10.0	ND	106	70-120	3	15	
<u>Batch: 8A31085 Extracted: 01/31/08</u>											
Blank Analyzed: 01/31/2008 (8A31085-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A31085 Extracted: 01/31/08											
LCS Analyzed: 01/31/2008 (8A31085-BS1)											
Hexane Extractable Material (Oil & Grease)	19.8	5.0	1.4	mg/l	20.2		98	78-114			MNR1
LCS Dup Analyzed: 01/31/2008 (8A31085-BSD1)											
Hexane Extractable Material (Oil & Grease)	19.4	5.0	1.4	mg/l	20.2		96	78-114	2	11	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
 Received: 01/24/08

METHOD BLANK/QC DATA

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: W8A1076 Extracted: 01/30/08											
Blank Analyzed: 01/31/2008 (W8A1076-BLK1)											
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.20	0.050	ug/l							
LCS Analyzed: 01/31/2008 (W8A1076-BS1)											
Mercury, Dissolved	0.913	0.20	0.050	ug/l	1.00		91	85-115			
Mercury, Total	0.913	0.20	0.050	ug/l	1.00		91	85-115			
Matrix Spike Analyzed: 01/31/2008 (W8A1076-MS1) Source: 8012935-01											
Mercury, Dissolved	0.971	0.20	0.050	ug/l	1.00	0.0450	93	70-130			
Mercury, Total	0.971	0.20	0.050	ug/l	1.00	0.0450	93	70-130			
Matrix Spike Analyzed: 01/31/2008 (W8A1076-MS2) Source: 8012939-01											
Mercury, Dissolved	2.01	0.20	0.050	ug/l	1.00	1.18	83	70-130			
Mercury, Total	2.01	0.20	0.050	ug/l	1.00	1.18	83	70-130			
Matrix Spike Dup Analyzed: 01/31/2008 (W8A1076-MSD1) Source: 8012935-01											
Mercury, Dissolved	0.957	0.20	0.050	ug/l	1.00	0.0450	91	70-130	1	20	
Mercury, Total	0.957	0.20	0.050	ug/l	1.00	0.0450	91	70-130	1	20	
Matrix Spike Dup Analyzed: 01/31/2008 (W8A1076-MSD2) Source: 8012939-01											
Mercury, Dissolved	1.99	0.20	0.050	ug/l	1.00	1.18	81	70-130	1	20	
Mercury, Total	1.99	0.20	0.050	ug/l	1.00	1.18	81	70-130	1	20	

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

DATA QUALIFIERS AND DEFINITIONS

- A-01** Surrogate was double-spiked. Analyte reported from a second run at a 2x dilution.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- ZX** Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

ADDITIONAL COMMENTS

For GRO (C4-C12):

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRA2355 <Page 28 of 29>
NPDES - 3361

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

Project ID: Routine Outfall 013

Report Number: IRA2355

Sampled: 01/24/08
Received: 01/24/08

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 1664A	Water		
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 340.2	Water	X	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B-SIM	Water		
SM2540C	Water	X	

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

Subcontracted Laboratories

Vista Analytical *NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413*

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta
Samples: IRA2355-01

Weck Laboratories, Inc

14859 E. Clark Avenue - City of Industry, CA 91745

Method Performed: EPA 245.1
Samples: IRA2355-01

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

Client Name/Address:		Project:		ANALYSIS REQUIRED										Field readings				
MWH-Arcadia 618 Michilinda Avenue, Suite 200 Arcadia, CA 91007		Boeing-SSFL NPDES Routine Outfall 013 Bravo Test Stand		Oil & Grease (1664-HEM)	8015 - gas	8015 - diesel/jet fuel	TRPH = Total Rec. Petroleum Hydrocarbons (8015)	1,4-Dioxane (8260B)	BOD ₅ (20 degrees C)	625 (Naphthalene + NDMA analysis)	Ammonia-N (350.2)	Cl ⁻ , SO ₄ ²⁻ , NO ₃ ⁻ +NO ₂ ⁻ , Perchlorate	Nitrate-N, Nitrite-N	Temp = 87 48.0				
Sample Description	Sample Matrix	Container Type	# of Cont.	Preservative	Bottle #	8015 - gas	8015 - diesel/jet fuel	TRPH = Total Rec. Petroleum Hydrocarbons (8015)	1,4-Dioxane (8260B)	BOD ₅ (20 degrees C)	625 (Naphthalene + NDMA analysis)	Ammonia-N (350.2)	Cl ⁻ , SO ₄ ²⁻ , NO ₃ ⁻ +NO ₂ ⁻ , Perchlorate	Nitrate-N, Nitrite-N	Temp = 8.1	Time of readings = 11:00	Comments	
Outfall 013	W	1L Amber	1	HCl	1A	X												
Outfall 013 Dup	W	1L Amber	1	HCl	1B	X												
Outfall 013	W	VOAs	1	HCl	2A		X											
Outfall 013 Dup	W	VOAs	2	HCl	2B, 2C	X												
Outfall 013	W	1L Amber	1	None	3A		X											
Outfall 013 Dup	W	1L Amber	1	None	3B		X											
Outfall 013	W	1L Amber	1	HCl	4A			X										
Outfall 013 Dup	W	1L Amber	1	HCl	4B			X										
Outfall 013	W	VOAs	1	HCl	5A				X									
Outfall 013 Dup	W	VOAs	2	HCl	5B, 5C				X									
Outfall 013	W	1L Poly	1	None	6					X								
Outfall 013	W	1L Amber	1	None	7A						X							
Outfall 013 Dup	W	1L Amber	1	None	7B						X							
Outfall 013	W	500 ml Poly	1	H ₂ SO ₄	8							X						
Outfall 013	W	500 ml Poly	2	None	9A, 9B								X					
Outfall 013	W	500 ml Poly	1	None	10									X				
Relinquished By	Date/Time:		Received By		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<i>R. Brown</i>	1-24-08 1555		<i>Jonathan TAE</i>		1/24/08 1555													
Relinquished By	Date/Time:		Received By		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<i>Jonathan TAE</i>	1/24/08 1815		<i>[Signature]</i>		1/24/08 1815													
Relinquished By	Date/Time:		Received By		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
<i>[Signature]</i>	1/24/08 1815		<i>[Signature]</i>		1/24/08 1815													

A.P. Sample 1/24/08

7.015.0

CHAIN OF CUSTODY FORM

Test America version 12/20/07

Client Name/Address MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007		Project: Boeing-SSFL NPDES Routine Outfall 013 Bravo Test Stand		Phone Number: (626) 568-6691 Fax Number: (626) 568-6515		ANALYSIS REQUIRED TCDD (and all congeners)		Comments			
Test America Contact: Joseph Doak Project Manager: Bronwyn Kelly Sampler: <i>MARISCAL, J. Barroso, R.</i>		Turbidity, TDS, TSS		Setttable Solids		624 (EDB, 1,2,3-TCP, MTBE, DIFE, TBA)		Total Recoverable Metals, Cd, Se, Zn, B, Cu, Pb, Hg		Total Dissolved Metals, Cd, Se, Zn, B, Cu, Pb, Hg	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #					
Outfall 013	W	500 ml Poly	2	1-24-08 11:00	None	11A, 11B	X				
Outfall 013	W	1L Poly	1	↓	None	12					
Outfall 013	W	VOAs	1		HCl	13A	X				
Outfall 013	W	VOAs	2		HCl	13B, 13C	X				
Outfall 013 Dup	W	1L Poly	2		HNO ₃	14A, 14B		X			
Outfall 013	W	1L Poly	1	1-24-08 11:00	None	15					Filter w/in 24hrs of receipt at lab
Outfall 013	W	1L Amber	2		None	16A, 16B					
Trip Blanks	W	VOAs	3		HCl	17A, 17B, 17C	X				
Relinquished By				Date/Time	Received By		Date/Time				
<i>R. Barroso</i>				1-24-08 1535	<i>J. Barroso</i>		1/24/08 1555				
Relinquished By				Date/Time	Received By		Date/Time				
<i>J. Barroso</i>				1/24/08 1815	<i>J. Barroso</i>		1/24/08 1815				
Relinquished By				Date/Time	Received By		Date/Time				

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

Sample Integrity: (check)
 Intact _____ On Ice: X

7.015.0

February 08, 2008

Vista Project I.D.: 30204

Mr. Joseph Doak
Test America-Irvine, CA
17461 Derian Avenue
Suite 100
Irvine, CA 92614

Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on January 26, 2008 under your Project Name "IRA2355". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Martha M. Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.



Section I: Sample Inventory Report

Date Received: 1/26/2008

Vista Lab. ID

Client Sample ID

30204-001

IRA2355-01

SECTION II

Method Blank					EPA Method 1613				
Matrix:	Aqueous	QC Batch No.:	9917	Lab Sample:	0-MB001	Date Analyzed DB-5:	6-Feb-08	Date Analyzed DB-225:	NA
Sample Size:	1.00 L	Date Extracted:	31-Jan-08						
Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers	
2,3,7,8-TCDD	ND	0.000000997			IS 13C-2,3,7,8-TCDD	93.4	25 - 164		
1,2,3,7,8-PeCDD	ND	0.000000625			13C-1,2,3,7,8-PeCDD	84.1	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.00000147			13C-1,2,3,4,7,8-HxCDD	92.1	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.00000149			13C-1,2,3,6,7,8-HxCDD	91.6	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.00000142			13C-1,2,3,4,6,7,8-HpCDD	94.6	23 - 140		
1,2,3,4,6,7,8-HpCDD	ND	0.00000144			13C-OCDD	78.5	17 - 157		
OCDD	ND	0.00000845			13C-2,3,7,8-TCDF	92.5	24 - 169		
2,3,7,8-TCDF	ND	0.000000679			13C-1,2,3,7,8-PeCDF	79.3	24 - 185		
1,2,3,7,8-PeCDF	ND	0.000000815			13C-2,3,4,7,8-PeCDF	77.4	21 - 178		
2,3,4,7,8-PeCDF	ND	0.000000838			13C-1,2,3,4,7,8-HxCDF	93.1	26 - 152		
1,2,3,4,7,8-HxCDF	ND	0.000000635			13C-1,2,3,6,7,8-HxCDF	88.7	26 - 123		
1,2,3,6,7,8-HxCDF	ND	0.000000689			13C-2,3,4,6,7,8-HxCDF	87.8	28 - 136		
2,3,4,6,7,8-HxCDF	ND	0.000000752			13C-1,2,3,7,8,9-HxCDF	97.5	29 - 147		
1,2,3,7,8,9-HxCDF	ND	0.000000910			13C-1,2,3,4,6,7,8-HpCDF	85.2	28 - 143		
1,2,3,4,6,7,8-HpCDF	ND	0.00000116			13C-1,2,3,4,7,8,9-HpCDF	90.7	26 - 138		
1,2,3,4,7,8,9-HpCDF	ND	0.00000122			13C-OCDF	87.0	17 - 157		
OCDF	ND	0.00000291			CRS 37Cl-2,3,7,8-TCDD	94.5	35 - 197		
Totals					Footnotes				
Total TCDD	ND	0.000000997			a. Sample specific estimated detection limit.				
Total PeCDD	ND	0.00000191			b. Estimated maximum possible concentration.				
Total HxCDD	ND	0.00000146			c. Method detection limit.				
Total HpCDD	ND	0.00000353			d. Lower control limit - upper control limit.				
Total TCDF	ND	0.000000679							
Total PeCDF	ND	0.000000826							
Total HxCDF	ND	0.000000742							
Total HpCDF	ND	0.00000118							

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 13:08

OPR Results				EPA Method 1613			
Matrix:	Aqueous	QC Batch No.:	9917	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	31-Jan-08	Date Analyzed DB-5:	6-Feb-08	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.4	6.7 - 15.8	IS 13C-2,3,7,8-TCDD	91.2	25 - 164	
1,2,3,7,8-PeCDD	50.0	48.9	35 - 71	13C-1,2,3,7,8-PeCDD	83.6	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	49.4	35 - 82	13C-1,2,3,4,7,8-HxCDD	89.8	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	50.2	38 - 67	13C-1,2,3,6,7,8-HxCDD	86.1	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	49.0	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	88.4	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	49.9	35 - 70	13C-OCDD	75.3	17 - 157	
OCDD	100	102	78 - 144	13C-2,3,7,8-TCDF	88.0	24 - 169	
2,3,7,8-TCDF	10.0	9.69	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	76.4	24 - 185	
1,2,3,7,8-PeCDF	50.0	50.2	40 - 67	13C-2,3,4,7,8-PeCDF	74.3	21 - 178	
2,3,4,7,8-PeCDF	50.0	52.2	34 - 80	13C-1,2,3,4,7,8-HxCDF	87.1	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	49.9	36 - 67	13C-1,2,3,6,7,8-HxCDF	83.7	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	50.4	42 - 65	13C-2,3,4,6,7,8-HxCDF	84.8	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	50.8	35 - 78	13C-1,2,3,7,8,9-HxCDF	87.0	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	50.0	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	80.8	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	51.1	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	87.0	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	50.1	39 - 69	13C-OCDF	80.9	17 - 157	
OCDF	100	100	63 - 170	CRS 37Cl-2,3,7,8-TCDD	92.1	35 - 197	

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 13:08

Sample ID: IRA2355-01				EPA Method 1613				
Client Data		Sample Data		Laboratory Data				
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30204-001	Date Received:	26-Jan-08	
Project:	IRA2355	Sample Size:	1.00 L	QC Batch No.:	9917	Date Extracted:	31-Jan-08	
Date Collected:	24-Jan-08			Date Analyzed DB-5:	6-Feb-08	Date Analyzed DB-225:	NA	
Time Collected:	1100							
Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.00000932			<u>IS</u> 13C-2,3,7,8-TCDD	88.4	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0000119			13C-1,2,3,7,8-PeCDD	78.2	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0000255			13C-1,2,3,4,7,8-HxCDD	80.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0000260			13C-1,2,3,6,7,8-HxCDD	79.6	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0000247			13C-1,2,3,4,6,7,8-HpCDD	81.3	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.0000314			13C-OCDD	71.7	17 - 157	
OCDD	0.0000140			J	13C-2,3,7,8-TCDF	88.3	24 - 169	
2,3,7,8-TCDF	ND	0.0000132			13C-1,2,3,7,8-PeCDF	76.1	24 - 185	
1,2,3,7,8-PeCDF	ND	0.0000144			13C-2,3,4,7,8-PeCDF	74.6	21 - 178	
2,3,4,7,8-PeCDF	ND	0.0000149			13C-1,2,3,4,7,8-HxCDF	78.4	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.0000156			13C-1,2,3,6,7,8-HxCDF	76.3	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.0000106			13C-2,3,4,6,7,8-HxCDF	75.7	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.0000123			13C-1,2,3,7,8,9-HxCDF	76.4	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000796			13C-1,2,3,4,6,7,8-HpCDF	75.5	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.0000287			13C-1,2,3,4,7,8,9-HpCDF	75.5	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000972			13C-OCDF	74.5	17 - 157	
OCDF	ND	0.0000618			<u>CRS</u> 37Cl-2,3,7,8-TCDD	93.5	35 - 197	
Totals				Footnotes				
Total TCDD	ND	0.0000178			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.0000119			b. Estimated maximum possible concentration.			
Total HxCDD	ND	0.0000254			c. Method detection limit.			
Total HpCDD	0.00000312				d. Lower control limit - upper control limit.			
Total TCDF	ND	0.0000169						
Total PeCDF	ND	0.0000147						
Total HxCDF	ND	0.0000180						
Total HpCDF	ND	0.0000306						

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 13:08

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The amount detected is above the High Calibration Limit.
P	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
H	The signal-to-noise ratio is greater than 10:1.
I	Chemical Interference
J	The amount detected is below the Low Calibration Limit.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated detection limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that correspond to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2355

30204

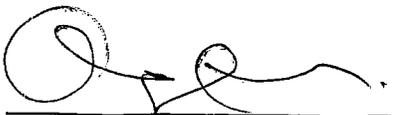
SENDING LABORATORY:

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

RECEIVING LABORATORY:

Vista Analytical Laboratory- SUB 4.1
1104 Windfield Way
El Dorado Hills, CA 95762
Phone : (916) 673-1520
Fax: (916) 673-0106
Project Location: California
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2355-01	Water			Sampled: 01/24/08 11:00 ph=8.1, temp=48
1613-Dioxin-HR-Alta	ug/l	02/04/08	01/31/08 11:00	J flags, 17 congeners, no TEQ, ug/L, sub=Vista
Level 4 Data Package - Out	N/A	02/04/08	02/21/08 11:00	Boeing
<i>Containers Supplied:</i>				
1 L Amber (Y)			1 L Amber (Z)	

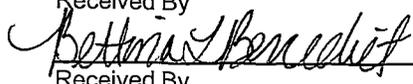

Released By

1/25/08 17:00
Date/Time

d By

Date/Time

FedEx
Received By
1/25/08 17:00
Date/Time


Received By
1/28/08 10:11
Date/Time

SAMPLE LOG-IN CHECKLIST



Vista Project #: 30204 TAT unspecified

Samples Arrival:	Date/Time	Initials:	Location: <u>WR-2</u>			
	<u>1/26/08 0944</u>	<u>FEB</u>	Shelf/Rack: <u>N/A</u>			
Logged In:	Date/Time	Initials:	Location: <u>WR-2</u>			
	<u>1/28/08 1014</u>	<u>UBB</u>	Shelf/Rack: <u>B-2</u>			
Delivered By:	<u>FedEx</u>	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	<u>Ice</u>	Blue Ice	Dry Ice	None		
Temp °C	<u>4.1</u>	Time:	<u>0947</u>	Thermometer ID: <u>IR-1</u>		

		YES	NO	NA
Adequate Sample Volume Received?		✓		
Holding Time Acceptable?		✓		
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?		✓		
Shipping Documentation Present?		✓		
Airbill	Trk # <u>7909 2519 0739</u>	✓		
Sample Container Intact?		✓		
Sample Custody Seals Intact?				✓
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?			✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				✓
Na ₂ S ₂ O ₃ Preservation Documented?	COC	Sample Container	<u>None</u>	
Shipping Container	Vista	<u>Client</u>	Retain	<u>Return</u> Dispose

Comments:

SUBCONTRACT ORDER

TestAmerica Irvine
IRA2355

8012537

SENDING LABORATORY:

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

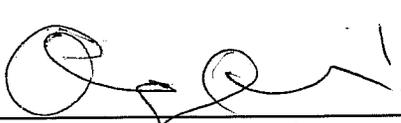
RECEIVING LABORATORY:

Weck Laboratories, Inc-SUB
14859 E. Clark Avenue
City of Industry, CA 91745
Phone : (626) 336-2139
Fax: (626) 336-2634
Project Location: California
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2355-01	Water		Sampled: 01/24/08 11:00	ph=8.1, temp=48
Level 4 + EDD-OUT	N/A	02/04/08	02/21/08 11:00	Excel EDD email to pm, Include Std logs for Lvl IV
Level 4 Data Package - Weck	N/A	02/04/08	02/21/08 11:00	Boeing, permit, J flags
Mercury - 245.1, Diss -OUT	mg/l	02/04/08	02/21/08 11:00	Out to Weck Level 4 Boeing, permit, J flags
Mercury - 245.1-OUT	mg/l	02/04/08	02/21/08 11:00	Out to Weck Level 4 Boeing, permit, J flags

Containers Supplied:

125 mL Poly w/HNO3 125 mL Poly (AF)
(AE)

 1/25/08 0820
 Released By _____ Date/Time _____
 1/25/08 1007
 Released By _____ Date/Time _____

 1/25/08 0820
 Received By _____ Date/Time _____
 1/25/08
 Received By _____ Date/Time _____



CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Joseph Doak

Phone: (949) 261-1022

Fax: (949) 260-3297

Report Date: 02/04/08 10:42

Received Date: 01/25/08 08:20

Turn Around: Normal

Work Order #: 8012537

Client Project: IRA2355

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Joseph Doak :

Enclosed are the results of analyses for samples received 01/25/08 08:20 with the Chain of Custody document. The samples were received in good condition. The samples were received at 7.3 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Kim G Tu

Project Manager



Page 1 of 6





Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012537
Project ID: IRA2355

Date Received: 01/25/08 08:20
Date Reported: 02/04/08 10:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IRA2355-01	Client		8012537-01	Water	01/24/08 11:00



Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012537
Project ID: IRA2355

Date Received: 01/25/08 08:20
Date Reported: 02/04/08 10:42

IRA2355-01 8012537-01 (Water)

Date Sampled: 01/24/08 11:00

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Dissolved	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A1076	01/30/08	01/31/08	jlp
Mercury, Total	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A1076	01/30/08	01/31/08	jlp



Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012537
Project ID: IRA2355

Date Received: 01/25/08 08:20
Date Reported: 02/04/08 10:42

QUALITY CONTROL SECTION



Weck Laboratories, Inc.
 14859 E. Clark Ave.
 Industry, CA 91745
 Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
 17461 Derian Ave, Suite 100
 Irvine CA, 92614

Report ID: 8012537
 Project ID: IRA2355

Date Received: 01/25/08 08:20
 Date Reported: 02/04/08 10:42

Metals by EPA 200 Series Methods - Quality Control

%REC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-----------------

Batch W8A1076 - EPA 245.1

Blank (W8A1076-BLK1)

Analyzed: 01/31/08

Mercury, Dissolved	ND	0.20	ug/l							
Mercury, Total	ND	0.20	ug/l							

LCS (W8A1076-BS1)

Analyzed: 01/31/08

Mercury, Dissolved	0.913	0.20	ug/l	1.00		91	85-115			
Mercury, Total	0.913	0.20	ug/l	1.00		91	85-115			

Matrix Spike (W8A1076-MS1)

Source: 8012935-01

Analyzed: 01/31/08

Mercury, Dissolved	0.971	0.20	ug/l	1.00	0.0450	93	70-130			
Mercury, Total	0.971	0.20	ug/l	1.00	0.0450	93	70-130			

Matrix Spike (W8A1076-MS2)

Source: 8012939-01

Analyzed: 01/31/08

Mercury, Dissolved	2.01	0.20	ug/l	1.00	1.18	83	70-130			
Mercury, Total	2.01	0.20	ug/l	1.00	1.18	83	70-130			

Matrix Spike Dup (W8A1076-MSD1)

Source: 8012935-01

Analyzed: 01/31/08

Mercury, Dissolved	0.957	0.20	ug/l	1.00	0.0450	91	70-130	1	20	
Mercury, Total	0.957	0.20	ug/l	1.00	0.0450	91	70-130	1	20	

Matrix Spike Dup (W8A1076-MSD2)

Source: 8012939-01

Analyzed: 01/31/08

Mercury, Dissolved	1.99	0.20	ug/l	1.00	1.18	81	70-130	1	20	
Mercury, Total	1.99	0.20	ug/l	1.00	1.18	81	70-130	1	20	



Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012537
Project ID: IRA2355

Date Received: 01/25/08 08:20
Date Reported: 02/04/08 10:42

Notes and Definitions

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

APPENDIX G

Section 89

Outfall 013, February 24, 2008

MEC^X Data Validation Reports



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRB2402

Prepared by

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

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
 Contract Task Order: 1261.100D.00
 Sample Delivery Group: IRB2402
 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 013	IRB2402-01	30304-001, 8022633-01	Water	02/24/08 1000	180.1, 200.7, 200.8, 245.1, 405.1, 624, 1613, SM2340-B
Trip Blank	IRB2402-02	N/A	Water	02/24/08	624

II. Sample Management

No anomalies were observed regarding sample management. The samples were received at Weck and Vista within the temperature limits of 4°C ±2°C. The samples were received at TestAmerica-Irvine below the temperature 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 Weck, custody seals were not required. Custody seals were intact upon arrival at 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: April 8, 2008

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

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was 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: 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 below the laboratory lower calibration level 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, 245.1—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: April 1, 2008

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 200.7, 200.8, and 245.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding times, 6 months for 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 and all initial and continuing calibration recoveries were within 90-110% for the ICP-MS

metals and 85-115% for mercury. All CRI/CRA and check standard recoveries were within the control limits of 70-130%.

- Blanks: There were no applicable detects in the method blanks or CCBs.
- Interference Check Samples: ICSA/B analyses were performed in association with all analyses except the dissolved ICP-MS analyses. Recoveries were within the method-established control limits. Most analytes were reported in the ICSA solutions. No 6010 analytes required qualification as the concentrations of the interferents were not significant. For the 6020 analytes, the reviewer was not able to ascertain if the detections were indicative of matrix interference.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG for mercury and a matrix spike analysis was performed for the total 6020 analytes. All recoveries and the mercury RPD were within the laboratory-established control limits.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. The bracketing CCV and CCB internal standard intensities were within 80-120% 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 summary were verified against the raw data. No transcription errors or calculation errors were noted. Due to matrix interference, the total metals fraction was reported from a 2x dilution. 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 624—Volatile Organic Compounds (VOCs)

Reviewed By: L. Calvin

Date Reviewed: April 3, 2008

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 (2/94)*.

- Holding Times: Analytical holding times were met. The preserved water samples were analyzed within 14 days of collection, and the unpreserved aliquots were analyzed within seven days of collection.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. Samples were analyzed within 12 hours of the BFB injection time.
- Calibration: For applicable target compounds, initial calibration average RRFs were ≥ 0.05 , with the exception of the average RRF for acrolein. Nondetect results for acrolein were rejected, "R," in both samples. Initial calibration %RSDs were $\leq 35\%$. Continuing calibration RRFs were ≥ 0.05 and %Ds $\leq 20\%$, with the exception of the RRF for acrolein and the %D for 2-chloroethyl vinyl ether. Nondetect results for acrolein were rejected, "R," in both samples. The nondetect result for 2-chloroethyl vinyl ether was qualified as estimated, "UJ," in site sample Outfall 013. Sample Trip Blanks was identified as field QC and required no qualification for the %D outlier.
- Blanks: The method blanks had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits. The reviewer noted that acrolein and acrylonitrile were not included in the LCSs.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the site sample in this SDG. Evaluation of method accuracy was based on the 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 site sample Outfall 012. Methylene chloride was detected in the trip blank above the reporting limit at 2.5 $\mu\text{g/L}$. The sample detect was qualified as an estimated nondetect, "UJ," at the level of contamination in sample Outfall 013. The trip blank had no target other compound detects above the MDL.

- 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 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 results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- 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.

D. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: April 3, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 180.1 and 405.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: Analytical holding times, 24 hours for conductivity and 48 hours for BOD, were met.
- Calibration: Check standard recoveries for turbidity were acceptable. Calibration is not applicable to BOD.
- Blanks: Turbidity was detected in the method blank but not at a concentration sufficient to qualify the site sample. Method blanks and CCBs had no other detects.
- Blank Spikes and Laboratory Control Samples: BOD recoveries and RPDs were within laboratory-established QC limits. The LCS is not applicable to turbidity.

- **Laboratory Duplicates:** Laboratory duplicate analyses were performed for the sample in this SDG for turbidity. The RPD was within the laboratory-established control limit.
- **Matrix Spike/Matrix Spike Duplicate:** No MS/MSD analyses were performed on the sample in this SDG.
- **Sample Result Verification:** Review is not applicable at a Level V validation. Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the reporting limit.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - **Field Blanks and Equipment Rinsates:** This SDG had no identified field blank or equipment rinsate samples.
 - **Field Duplicates:** There were no field duplicate samples identified for this SDG.

Client Data		Sample Data		Laboratory Data	
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30304-001
Project:	IRB2402	Sample Size:	1.01 L	QC Batch No.:	9997
Date Collected:	24-Feb-08			Date Analyzed DB-5:	10-Mar-08
Time Collected:	1000			Date Analyzed DB-225:	NA
Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Labeled Standard	%R LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	ND	0.000000774		13C-2,3,7,8-TCDD	73.7 25 - 164
1,2,3,7,8-PeCDD	ND	0.00000121		13C-1,2,3,7,8-PeCDD	67.3 25 - 181
1,2,3,4,7,8-HxCDD	ND	0.00000217		13C-1,2,3,4,7,8-HxCDD	65.4 32 - 141
1,2,3,6,7,8-HxCDD	ND	0.00000209		13C-1,2,3,6,7,8-HxCDD	72.7 28 - 130
1,2,3,7,8,9-HxCDD	ND	0.00000204		13C-1,2,3,4,6,7,8-HpCDD	68.1 23 - 140
1,2,3,4,6,7,8-HpCDD	0.00000206			13C-OCDD	56.1 17 - 157
OCDD	0.0000101		J	13C-2,3,7,8-TCDF	76.9 24 - 169
2,3,7,8-TCDF	ND	0.000000944		13C-1,2,3,7,8-PeCDF	62.0 24 - 185
1,2,3,7,8-PeCDF	ND	0.000000894		13C-2,3,4,7,8-PeCDF	64.9 21 - 178
2,3,4,7,8-PeCDF	ND	0.000000843		13C-1,2,3,4,7,8-HxCDF	65.0 26 - 152
1,2,3,4,7,8-HxCDF	ND	0.000000854		13C-1,2,3,6,7,8-HxCDF	73.8 26 - 123
1,2,3,6,7,8-HxCDF	ND	0.000000859		13C-2,3,4,6,7,8-HxCDF	69.3 28 - 136
2,3,4,6,7,8-HxCDF	ND	0.000000919		13C-1,2,3,7,8,9-HxCDF	69.2 29 - 147
1,2,3,7,8,9-HxCDF	ND	0.00000118		13C-1,2,3,4,6,7,8-HpCDF	62.5 28 - 143
1,2,3,4,6,7,8-HpCDF	ND	0.00000114		13C-1,2,3,4,7,8,9-HpCDF	67.9 26 - 138
1,2,3,4,7,8,9-HpCDF	ND	0.00000117		13C-OCDF	59.6 17 - 157
OCDF	ND	0.00000326		CRS 37Cl-2,3,7,8-TCDD	105 35 - 197
Totals					
Total TCDD	ND	0.000000774			
Total PeCDD	ND	0.00000224			
Total HxCDD	ND	0.00000209			
Total HpCDD	0.00000432				
Total TCDF	ND	0.00000219			
Total PeCDF	ND	0.00000136			
Total HxCDF	ND	0.000000943			
Total HpCDF	ND	0.00000115			

Footnotes
a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.

Analyst: MAS
Level IV
Approved By: Martha M. Maier
14-Mar-2008 11:28

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

Project ID: Annual Outfall 013

Report Number: IRB2402

Sampled: 02/24/08
 Received: 02/25/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2402-01 (Outfall 013 - Water) - cont.									
Reporting Units: mg/l									
Hardness as CaCO ₃	SM2340B	[CALC]	N/A	0.33	23	1	02/27/08	02/29/08	
Boron	EPA 200.7	8B27069	0.020	0.050	ND	1	02/27/08	02/29/08	
Calcium	EPA 200.7	8B27069	0.050	0.10	7.7	1	02/27/08	02/29/08	
Magnesium	EPA 200.7	8B27069	0.012	0.020	0.85	1	02/27/08	02/29/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRB2402 <Page 12 of 56>

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

Project ID: Annual Outfall 013

Report Number: IRB2402

Sampled: 02/24/08
 Received: 02/25/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2402-01 (Outfall 013 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8	8B28067	0.20	2.0	2.5	1	02/28/08	02/28/08	
Arsenic	EPA 200.7	8B27069	7.0	10	ND	1	02/27/08	02/29/08	U
Beryllium	EPA 200.7	8B27069	0.90	2.0	ND	1	02/27/08	02/29/08	↓
Cadmium	EPA 200.8	8B28067	0.11	1.0	1.9	1	02/28/08	02/28/08	
Chromium	EPA 200.7	8B27069	2.0	5.0	ND	1	02/27/08	02/29/08	U
Copper	EPA 200.8	8B28067	0.75	2.0	2.8	1	02/28/08	02/28/08	
Lead	EPA 200.8	8B28067	0.30	1.0	1.7	1	02/28/08	02/28/08	
Nickel	EPA 200.7	8B27069	2.0	10	ND	1	02/27/08	02/29/08	U
Selenium	EPA 200.8	8B28067	0.30	2.0	ND	1	02/28/08	02/28/08	↓
Silver	EPA 200.8	8B28067	0.30	1.0	ND	1	02/28/08	02/28/08	
Thallium	EPA 200.8	8B28067	0.20	1.0	ND	1	02/28/08	02/28/08	↓
Zinc	EPA 200.8	8B28067	2.5	20	66	1	02/28/08	02/28/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRB2402 <Page 13 of 56>

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

Project ID: Annual Outfall 013

Report Number: IRB2402

Sampled: 02/24/08
Received: 02/25/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2402-01 (Outfall 013 - Water) - cont.									
Reporting Units: mg/l									
Boron	EPA 200.7-Diss	8B25122	0.020	0.050	ND	1	02/25/08	02/26/08	
Calcium	EPA 200.7-Diss	8B25122	0.050	0.10	7.7	1	02/25/08	02/26/08	
Magnesium	EPA 200.7-Diss	8B25122	0.012	0.020	0.88	1	02/25/08	02/26/08	
Hardness (as CaCO3)	SM2340B	8B25122	1.0	1.0	23	1	02/25/08	02/26/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRB2402 <Page 14 of 56>

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly	Project ID: Annual Outfall 013 Report Number: IRB2402	Sampled: 02/24/08 Received: 02/25/08
---	--	---

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2402-01 (Outfall 013 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	8B25123	0.20	2.0	2.4	1	02/25/08	02/26/08	
Arsenic	EPA 200.7-Diss	8B25122	7.0	10	ND	1	02/25/08	02/26/08	
Beryllium	EPA 200.7-Diss	8B25122	0.90	2.0	ND	1	02/25/08	02/26/08	
Cadmium	EPA 200.8-Diss	8B25123	0.11	1.0	1.6	1	02/25/08	02/26/08	
Chromium	EPA 200.7-Diss	8B25122	2.0	5.0	ND	1	02/25/08	02/26/08	
Copper	EPA 200.8-Diss	8B25123	0.75	2.0	1.6	1	02/25/08	02/26/08	J
Lead	EPA 200.8-Diss	8B25123	0.30	1.0	0.50	1	02/25/08	02/26/08	J
Nickel	EPA 200.7-Diss	8B25122	2.0	10	ND	1	02/25/08	02/26/08	
Selenium	EPA 200.8-Diss	8B25123	0.30	2.0	ND	1	02/25/08	02/26/08	
Silver	EPA 200.8-Diss	8C04081	0.30	1.0	ND	1	03/04/08	03/04/08	
Thallium	EPA 200.8-Diss	8B25123	0.20	1.0	ND	1	02/25/08	02/26/08	
Zinc	EPA 200.8-Diss	8B25123	2.5	20	64	1	02/25/08	02/26/08	

U
↓
U
J/DNQ
↓
U
↓

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRB2402 <Page 15 of 56>

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

Project ID: Annual Outfall 013
Report Number: IRB2402

Sampled: 02/24/08
Received: 02/25/08

Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2402-01 (Outfall 013 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8B0982	0.050	0.20	ND	1	02/26/08	02/27/08	
Mercury, Total	EPA 245.1	W8B0982	0.050	0.20	ND	1	02/26/08	02/27/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRB2402 <Page 20 of 56>

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

Project ID: Annual Outfall 013

Report Number: IRB2402

Sampled: 02/24/08
Received: 02/25/08

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: IRB2402-01 (Outfall 013 - Water) - cont.									
Reporting Units: ug/l									
1,1,1-Trichloroethane	EPA 624	8B28024	0.30	0.50	ND	1	02/28/08	02/29/08	
1,2,3-Trichloropropane	EPA 624	8B28024	0.40	1.0	ND	1	02/28/08	02/29/08	
1,1,2,2-Tetrachloroethane	EPA 624	8B28024	0.24	0.50	ND	1	02/28/08	02/29/08	
1,2-Dibromoethane (EDB)	EPA 624	8B28024	0.40	0.50	ND	1	02/28/08	02/29/08	
1,1,2-Trichloroethane	EPA 624	8B28024	0.30	0.50	ND	1	02/28/08	02/29/08	
Di-isopropyl Ether (DIPE)	EPA 624	8B28024	0.25	0.50	ND	1	02/28/08	02/29/08	
1,1-Dichloroethane	EPA 624	8B28024	0.27	0.50	ND	1	02/28/08	02/29/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8B28024	0.32	0.50	ND	1	02/28/08	02/29/08	
1,1-Dichloroethene	EPA 624	8B28024	0.42	0.50	ND	1	02/28/08	02/29/08	
tert-Butanol (TBA)	EPA 624	8B28024	4.9	10	ND	1	02/28/08	02/29/08	
1,2-Dichloroethane	EPA 624	8B28024	0.28	0.50	ND	1	02/28/08	02/29/08	
1,2-Dichlorobenzene	EPA 624	8B28024	0.32	0.50	ND	1	02/28/08	02/29/08	
1,2-Dichloropropane	EPA 624	8B28024	0.35	0.50	ND	1	02/28/08	02/29/08	
1,3-Dichlorobenzene	EPA 624	8B28024	0.35	0.50	ND	1	02/28/08	02/29/08	
1,4-Dichlorobenzene	EPA 624	8B28024	0.37	0.50	ND	1	02/28/08	02/29/08	
Benzene	EPA 624	8B28024	0.28	0.50	ND	1	02/28/08	02/29/08	
Bromodichloromethane	EPA 624	8B28024	0.30	0.50	ND	1	02/28/08	02/29/08	
Bromoform	EPA 624	8B28024	0.40	0.50	ND	1	02/28/08	02/29/08	
Bromomethane	EPA 624	8B28024	0.42	1.0	ND	1	02/28/08	02/29/08	
Carbon tetrachloride	EPA 624	8B28024	0.28	0.50	ND	1	02/28/08	02/29/08	
Chlorobenzene	EPA 624	8B28024	0.36	0.50	ND	1	02/28/08	02/29/08	
Chloroethane	EPA 624	8B28024	0.40	1.0	ND	1	02/28/08	02/29/08	
Chloroform	EPA 624	8B28024	0.33	0.50	ND	1	02/28/08	02/29/08	
Chloromethane	EPA 624	8B28024	0.40	0.50	ND	1	02/28/08	02/29/08	
cis-1,3-Dichloropropene	EPA 624	8B28024	0.22	0.50	ND	1	02/28/08	02/29/08	
Dibromochloromethane	EPA 624	8B28024	0.28	0.50	ND	1	02/28/08	02/29/08	
Ethylbenzene	EPA 624	8B28024	0.25	0.50	ND	1	02/28/08	02/29/08	
Methylene chloride	EPA 624	8B28024	0.95	1.0	3.3	1	02/28/08	02/29/08	
Tetrachloroethene	EPA 624	8B28024	0.32	0.50	ND	1	02/28/08	02/29/08	
Toluene	EPA 624	8B28024	0.36	0.50	ND	1	02/28/08	02/29/08	
trans-1,2-Dichloroethene	EPA 624	8B28024	0.27	0.50	ND	1	02/28/08	02/29/08	
trans-1,3-Dichloropropene	EPA 624	8B28024	0.32	0.50	ND	1	02/28/08	02/29/08	
Trichloroethene	EPA 624	8B28024	0.26	0.50	ND	1	02/28/08	02/29/08	
Trichlorofluoromethane	EPA 624	8B28024	0.34	0.50	ND	1	02/28/08	02/29/08	
Trichlorotrifluoroethane (Freon 113)	EPA 624	8B28024	0.50	5.0	ND	1	02/28/08	02/29/08	
Vinyl chloride	EPA 624	8B28024	0.30	0.50	ND	1	02/28/08	02/29/08	
Xylenes, Total	EPA 624	8B28024	0.90	1.5	ND	1	02/28/08	02/29/08	
Surrogate: Dibromofluoromethane (80-120%)									99 %
Surrogate: Toluene-d8 (80-120%)									101 %
Surrogate: 4-Bromofluorobenzene (80-120%)									88 %

u
uJ/T
u

Level IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRB2402 <Page 5 of 56>

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

Project ID: Annual Outfall 013

Report Number: IRB2402

Sampled: 02/24/08
Received: 02/25/08

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: IRB2402-02 (Trip Blanks - Water)									
Reporting Units: ug/l									
1,1,1-Trichloroethane	EPA 624	8B28024	0.30	0.50	ND	1	02/28/08	02/29/08	
1,2,3-Trichloropropane	EPA 624	8B28024	0.40	1.0	ND	1	02/28/08	02/29/08	
1,1,2,2-Tetrachloroethane	EPA 624	8B28024	0.24	0.50	ND	1	02/28/08	02/29/08	
1,2-Dibromoethane (EDB)	EPA 624	8B28024	0.40	0.50	ND	1	02/28/08	02/29/08	
1,1,2-Trichloroethane	EPA 624	8B28024	0.30	0.50	ND	1	02/28/08	02/29/08	
Di-isopropyl Ether (DIPE)	EPA 624	8B28024	0.25	0.50	ND	1	02/28/08	02/29/08	
1,1-Dichloroethane	EPA 624	8B28024	0.27	0.50	ND	1	02/28/08	02/29/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8B28024	0.32	0.50	ND	1	02/28/08	02/29/08	
1,1-Dichloroethene	EPA 624	8B28024	0.42	0.50	ND	1	02/28/08	02/29/08	
tert-Butanol (TBA)	EPA 624	8B28024	4.9	10	ND	1	02/28/08	02/29/08	
1,2-Dichloroethane	EPA 624	8B28024	0.28	0.50	ND	1	02/28/08	02/29/08	
1,2-Dichlorobenzene	EPA 624	8B28024	0.32	0.50	ND	1	02/28/08	02/29/08	
1,2-Dichloropropane	EPA 624	8B28024	0.35	0.50	ND	1	02/28/08	02/29/08	
1,3-Dichlorobenzene	EPA 624	8B28024	0.35	0.50	ND	1	02/28/08	02/29/08	
1,4-Dichlorobenzene	EPA 624	8B28024	0.37	0.50	ND	1	02/28/08	02/29/08	
Benzene	EPA 624	8B28024	0.28	0.50	ND	1	02/28/08	02/29/08	
Bromodichloromethane	EPA 624	8B28024	0.30	0.50	ND	1	02/28/08	02/29/08	
Bromoform	EPA 624	8B28024	0.40	0.50	ND	1	02/28/08	02/29/08	
Bromomethane	EPA 624	8B28024	0.42	1.0	ND	1	02/28/08	02/29/08	
Carbon tetrachloride	EPA 624	8B28024	0.28	0.50	ND	1	02/28/08	02/29/08	
Chlorobenzene	EPA 624	8B28024	0.36	0.50	ND	1	02/28/08	02/29/08	
Chloroethane	EPA 624	8B28024	0.40	1.0	ND	1	02/28/08	02/29/08	
Chloroform	EPA 624	8B28024	0.33	0.50	ND	1	02/28/08	02/29/08	
Chloromethane	EPA 624	8B28024	0.40	0.50	ND	1	02/28/08	02/29/08	
cis-1,3-Dichloropropene	EPA 624	8B28024	0.22	0.50	ND	1	02/28/08	02/29/08	
Dibromochloromethane	EPA 624	8B28024	0.28	0.50	ND	1	02/28/08	02/29/08	
Ethylbenzene	EPA 624	8B28024	0.25	0.50	ND	1	02/28/08	02/29/08	
Methylene chloride	EPA 624	8B28024	0.95	1.0	2.5	1	02/28/08	02/29/08	
Tetrachloroethene	EPA 624	8B28024	0.32	0.50	ND	1	02/28/08	02/29/08	
Toluene	EPA 624	8B28024	0.36	0.50	ND	1	02/28/08	02/29/08	
trans-1,2-Dichloroethene	EPA 624	8B28024	0.27	0.50	ND	1	02/28/08	02/29/08	
trans-1,3-Dichloropropene	EPA 624	8B28024	0.32	0.50	ND	1	02/28/08	02/29/08	
Trichloroethene	EPA 624	8B28024	0.26	0.50	ND	1	02/28/08	02/29/08	
Trichlorofluoromethane	EPA 624	8B28024	0.34	0.50	ND	1	02/28/08	02/29/08	
Trichlorotrifluoroethane (Freon 113)	EPA 624	8B28024	0.50	5.0	ND	1	02/28/08	02/29/08	
Vinyl chloride	EPA 624	8B28024	0.30	0.50	ND	1	02/28/08	02/29/08	
Xylenes, Total	EPA 624	8B28024	0.90	1.5	ND	1	02/28/08	02/29/08	
Surrogate: Dibromofluoromethane (80-120%)									97 %
Surrogate: Toluene-d8 (80-120%)									89 %
Surrogate: 4-Bromofluorobenzene (80-120%)									88 %

TestAmerica Irvine

Joseph Doak
Project Manager

Level IV

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRB2402 <Page 6 of 56>

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

Project ID: Annual Outfall 013

Report Number: IRB2402

Sampled: 02/24/08
Received: 02/25/08

PURGEABLES-- GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2402-01 (Outfall 013 - Water)									
Reporting Units: ug/l									
Acrolein	R/R u EPA 624	8B26001	4.0	5.0	ND	1	02/26/08	02/26/08	
Acrylonitrile	u EPA 624	8B26001	0.70	2.0	ND	1	02/26/08	02/26/08	
2-Chloroethyl vinyl ether	u W/C EPA 624	8B26001	1.8	5.0	ND	1	02/26/08	02/26/08	
Surrogate: Dibromofluoromethane (80-120%)					97 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					88 %				
Sample ID: IRB2402-02 (Trip Blanks - Water)									
Reporting Units: ug/l									
Acrolein	R/R u EPA 624	8B26001	4.0	5.0	ND	1	02/26/08	02/26/08	
Acrylonitrile	u EPA 624	8B26001	0.70	2.0	ND	1	02/26/08	02/26/08	
2-Chloroethyl vinyl ether	u v EPA 624	8B26001	1.8	5.0	ND	1	02/26/08	02/26/08	
Surrogate: Dibromofluoromethane (80-120%)					94 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					89 %				

Level IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRB2402 <Page 7 of 56>

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

Project ID: Annual Outfall 013

Report Number: IRB2402

Sampled: 02/24/08

Received: 02/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2402-01 (Outfall 013 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8C04046	1.3	4.7	1.6	1	03/04/08	03/04/08	J
Ammonia-N (Distilled)	EPA 350.2	8B26101	0.30	0.50	ND	1	02/26/08	02/26/08	
Biochemical Oxygen Demand	EPA 405.1	8B25101	0.59	2.0	1.5	1	02/25/08	03/01/08	J
Chloride	EPA 300.0	8B25042	0.25	0.50	11	1	02/25/08	02/25/08	
Total Cyanide	EPA 335.2	8B26098	0.0022	0.0050	ND	1	02/26/08	02/26/08	
Fluoride	EPA 340.2	8B25072	0.014	0.10	0.12	1	02/25/08	02/25/08	B
Nitrate-N	EPA 300.0	8B25042	0.060	0.11	0.72	1	02/25/08	02/25/08	
Nitrite-N	EPA 300.0	8B25042	0.090	0.15	ND	1	02/25/08	02/25/08	
Nitrate/Nitrite-N	EPA 300.0	8B25042	0.15	0.26	0.72	1	02/25/08	02/25/08	
Sulfate	EPA 300.0	8B25042	0.20	0.50	4.2	1	02/25/08	02/25/08	
Total Dissolved Solids	SM2540C	8B27119	10	10	96	1	02/27/08	02/27/08	
Total Suspended Solids	EPA 160.2	8B28123	10	10	ND	1	02/28/08	02/28/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRB2402 <Page 16 of 56>

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

Project ID: Annual Outfall 013
Report Number: IRB2402

Sampled: 02/24/08
Received: 02/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2402-01 (Outfall 013 - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	8B26063	0.040	1.0	3.0	1	02/26/08	02/26/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IRB2402 <Page 18 of 56>