# **APPENDIX G**

# Section 43

Outfall 013, February 6, 2009 MEC<sup>X</sup> Data Validation Report



# DATA VALIDATION REPORT

# Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ISB0755

Prepared by

MEC<sup>X</sup>, LP 12269 East Vassar Drive Aurora, CO 80014

## I. INTRODUCTION

Task Order Title: Contract Task Order:	Boeing SSFL NPDES 1261.100D.00
Sample Delivery Group:	ISB0755
Project Manager:	B. Kelly
Matrix:	Water
QC Level:	IV
No. of Samples:	2
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica-Irvine

Table 1. Sample Identification	
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Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 013	ISB0755-01	D9B100255-001, 31404-001,	Water	02/06/09 1215	200.7, 200.7 (Diss), 200.8, 200.8 (Diss), 245.1, 245.1 (Diss), 300.0, 314.0, 525.2, 608, 624, 625, 900.0, 901.1, 903.0, 904.0, 905.0, 906.0, 908.0, 1613B, 1664, 8015B, 8260B- SIM, SM2340B, SM2540D, SM2540D, SM2540F, SM450NH3- C, SM4500CN-C-E, SM4500-F-C, SM5210B
Trip Blanks	ISB0755-02	N/A	Water	02/06/09	624

## II. Sample Management

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

Qualifie	r 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.
Ν	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.

## Data Qualifier Reference Table

Qualifier	Organics	Inorganics
н	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
С	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.
В	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.
Е	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.
Μ	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
т	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**

# **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.
Ρ	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.
*11, *111	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found

## III. Method Analyses

# A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight Date Reviewed: March 24, 2009

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC<sup>×</sup> Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613,* and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review* (9/05).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
  - o 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 ≤20% for the 16 native compounds (calibration by isotope dilution) and ≤35% for the one native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.
  - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.
- Blanks: The method blank had no target compound detects above the EDL.

- Blank Spikes and Laboratory Control Samples: OPR recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.
- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating any sample detects and a representative number of blank spike concentrations. The laboratory calculated and reported compound-specific detection limits. Any detects between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the estimated detection limit (EDL).

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

Reviewed By: P. Meeks Date Reviewed: March 23, 2009

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the  $MEC^{X}$  Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 2007, 200.8, and 245.1, and the National Functional Guidelines for Inorganic Data Review (10/04).

- Holding Times: The analytical holding times, 180 days for ICP and ICP-MS metals and 28 days for mercury, were met.
- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were ≤5%, and all masses of interest were calibrated to ≤ 0.1 amu and ≤0.9 amu at 10% peak height.
- Calibration: Calibration criteria were met. Mercury initial calibration r<sup>2</sup> values were ≥0.995. Initial and continuing calibration recoveries were within 90-110% for the ICP and ICP-MS

metals and 85-115% for mercury. The CRI and CRA and check standards were recovered within the control limits of 70-130%.

- Blanks: Arsenic was detected in the total method blank at 7.21 µg/L; therefore, total arsenic detected in the sample was qualified as nondetected, "U," at the level of contamination. Mercury was detected in the method blank at 0.036 µg/L; therefore total and dissolved mercury detected in the sample were qualified as nondetected, "U," at the reporting limit. There were no other applicable detects in the method blanks or CCBs.
- Interference Check Samples: ICSA/B analyses were performed in association with the ICP and dissolved ICP-MS metals analyses only. Recoveries were within the methodestablished control limits. Cadmium and copper were detected at 2.0 µg/L each in the ICP-MS ICSA; however, the reviewer was unable to ascertain if the detects were due to matrix interference.
- Blank Spikes and Laboratory Control Samples: The recoveries were within the laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analysis was performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: All associated sample internal standard intensities were within 60-125% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summaries were verified against the raw data. No transcription errors or calculation errors were noted. Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.

# C. EPA METHOD 608—Pesticides and PCBs

Reviewed By: K. Shadowlight Date Reviewed: March 24, 2009

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

- Holding Times: The original extraction and analytical holding times were met. The water sample was originally extracted within seven days of collection; however, as the detect for alpha BHC was suspected to be a laboratory contaminant, the sample was re-extracted at TestAmerica-Irvine and a second extraction was performed at TestAmerica-Denver. Both re-extractions were performed outside of the holding time period. The retained result (nondetect) for alpha-BHC was qualified as estimated, "UJ," in sample Outfall 013 (see Method Blank section). The sample was extracted within seven days of collection for the PCB analysis. The sample was analyzed within 40 days of extraction for both pesticides and PCBs.
- Calibration: The initial calibration had average %RSDs of ≤10% or r<sup>2</sup> ≥0.995 for both the pesticide and PCB analyses. The %Ds for all analytes except alpha-BHC, endrin, chlordane, and toxaphene exceeded 15% in one or both of the low-level CCVs bracketing the pesticide analysis; therefore, the nondetects for these analytes were qualified as estimated, "UJ," in the retained analyses of the sample in this SDG. As there were no confirmed detects for the retained results, the confirmation column %Ds were not evaluated for either analysis. The ICV and remaining CCVs bracketing the sample analyses had %Ds within the QC limit of ≤15%.
- Blanks: The method blanks had no target compound detects above the MDL.

Alpha BHC was reported in sample Outfall 013; however, the laboratory suspected contamination related to one highly contaminated sample with percent level alpha-BHC. A second extraction of Outfall 013 yielded a low-level concentration of alpha BHC, indicating that the laboratory was not contamination free. The sample was sent to TestAmerica-Denver for alpha-BHC analysis. The nondetect result yielded from the TestAmerica-Denver analysis confirmed the suspicion that the original results were indeed laboratory contamination; therefore, the original result for alpha-BHC in extraction batch 9B12048 and the sample re-extraction from batch 9B23113 were rejected, "R," in favor of the result for alpha BHC reported in batch 9064381 from TestAmerica-Denver. Several corrective action steps have been taken by TestAmerica-Irvine including replacing glassware throughout the organics department and implementing an acid wash procedure to prevent future contamination issues.

• Blank Spikes and Laboratory Control Samples: Recoveries and RPDs for the blank spike/blank spike duplicate pairs were within laboratory-established QC limits.

- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed for the sample in this SDG. Method accuracy and precision was evaluated based on the blank spike/blank spike duplicate results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Compound Identification: Compound identification was verified. The laboratory analyzed for pesticides and PCBs by EPA Method 608. Review of the sample chromatograms and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified from the raw data. The reporting limits were supported by the lower level of the initial calibration. Any result reported between the MDL and the reporting limit was qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.

## D. EPA METHOD 625—Semivolatile Organic Compounds (SVOCs)

Reviewed By: S. Dellamia Date Reviewed: March 25, 2009

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the  $MEC^{X}$  Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0), EPA Method 625, and the National Functional Guidelines for Organic Data Review (10/99).

- Holding Times: Extraction and analytical holding times were met. The unpreserved 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. Initial calibration average RRFs were ≥0.05 and %RSDs ≤35% or r<sup>2</sup> values ≥0.995. Continuing calibration RRFs were ≥0.05 and %Ds ≤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 for the sample in this SDG. Evaluation of method accuracy and precision was based on LCS/LCSD results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the 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 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 result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review of the raw data indicated no problems with system performance.

# E. EPA METHOD 8015B—Extractable Total Fuel Hydrocarbons (EFHs) and Gasoline Range Organics (GROs)

Reviewed By: K. Shadowlight Date Reviewed: March 24, 2009

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the  $MEC^{X}$  Data Validation Procedure for Total Fuel Hydrocarbons (DVP-8, Rev. 0), EPA Method 8015B, and the National Functional Guidelines for Organic Data Review (10/99).

- Holding Times: Extraction and analytical holding times were met. The water sample was analyzed within 14 days of collection for gasoline range organics (GROs). The sample was extracted within seven days of collection for extractable fuel hydrocarbons (EFHs) and analyzed within 40 days of extraction.
- Calibration: Calibration criteria were met. The Initial calibration %RSDs were ≤20% for the EFH and GRO analyses. The ICV and CCVs bracketing the sample analyses had %Ds within the QC limit of ≤15% for both the EFH and GRO analyses.
- Blanks: There were no detects above the MDL in the method blanks.
- Blank Spikes and Laboratory Control Samples: The recoveries for the blank spike/blank spike duplicate pairs were within laboratory-established QC limits.
- Surrogate Recovery: Surrogate recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the sample from this SDG. Evaluation of method accuracy and precision was based on blank spike/blank spike duplicate results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Trip Blank: A trip blank was not identified for the GRO sample of this SDG.
  - Field Blanks and Equipment Rinsates: There were no field QC samples identified for this SDG.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Compound Identification: The sample was analyzed for EFH and GRO by EPA Method 8015M. A single hydrocarbon range of C8-C28 was reported for the EFHs and hydrocarbon range C4-C12 was reported for the GROs.

 Compound Quantification and Reported Detection Limits: Compound quantitation was verified for any detect and blank spike/blank spike duplicate results. Any result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the reporting limit.

# F. EPA METHOD 624 and 8260B-SIM—Volatile Organic Compounds (VOCs)

Reviewed By: S. Dellamia Date Reviewed: March 24, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC<sup>X</sup>* Data Validation Procedure for Volatile Organics (DVP-2, Rev. 0), EPA Method 624, and the National Functional Guidelines for Organic Data Review (10/99).

- Holding Times: Analytical holding times were met. The unpreserved water samples were analyzed within seven days of collection and preserved water samples were analyzed within 14 days of collection.
- GC/MS Tuning: The BFB tunes met the method abundance criteria specified by EPA Method 624. Samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Initial and continuing calibration average RRFs were ≥0.05. For the 624 analysis, initial calibration %RSDs were ≤35% or r<sup>2</sup> ≥0.995, with the exception of the r<sup>2</sup> value for trans-1,3-dichloropropene <0.995. Therefore, nondetected results for trans 1,3-dichloropropene in samples Outfall 013 and Trip Blanks were qualified as estimated, "UJ." For the initial calibration of 1,4-dioxane the %RSD was ≤15% and the RRF was ≥0.05. Continuing calibration %Ds were >20% for carbon tetrachloride, 1,2,3-trichloropropane and acrylonitrile; therefore, nondetected results for all three compounds in samples Outfall 013 and Trip Blanks were qualified as estimated, "UJ." Were ≤20%.
- Blanks: The method blanks had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: cis-1,3-Dichloropropene was recovered above the laboratory-established QC limit in the 624 analysis; however, cis-1,3-dichloropropene was not detected in samples Outfall 013 or Trip Blanks. Remaining LCS/LCSD recoveries and RPDs were within QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a sample from this SDG. Evaluation of method accuracy and precision were based on LCS/LCSD results.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Trip Blanks: Sample Trip Blanks was the trip blank associated with the site sample in this SDG. There were no detects above the MDL in the trip blank. 1,4-dioxane was not requested for sample Trip Blanks.
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified in this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the control limits established by the continuing calibration standards: -50%/+100% for internal standard areas and ±30 seconds for retention times.
- Compound Identification: Compound identification was verified. The laboratory analyzed for volatile target compounds by EPA Method 642 and for 1,4-dioxane by 8260 SIM. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Any result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review of the raw data indicated no problems with system performance.

## G. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks Date Reviewed: March 24, 2009

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the MEC<sup>X</sup> Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Methods 1664A, 300.0, 314.0, 180.1, Standard Methods SM5210B, SM4500-CN-C,E, SM4500-F-C, SM4500NH3-C, SM2540C, SM254-D and SM2540F, and the National Functional Guidelines for Inorganic Data Review (10/04).

- Holding Times: Analytical holding times, 48 hours from collection for turbidity and total settleable solids, 7 days for TDS, TSS, nitrate, and nitrite, 14 days for cyanide, and 28 days for the remaining analytes, were met.
- Calibration: Calibration criteria were met. Initial calibration r<sup>2</sup> values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110%. The perchlorate IPC and ICCS standard recoveries were within the method limits of 80-120% and 75-125%, respectively. Balance calibration logs were reviewed and found to be acceptable.
- Blanks: Method blanks and CCBs had no applicable detects.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. Any detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.

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Project 31404

# LEVEL IV

Approved By: Martha M. Maier 20-Feb-2009 10:58

Sample ID: ISB0755-01	(outfail as)					EPA N	EPA Method 1613
Client Data	Sample Data	ata	Laboratory Data				
		Aqueous	Lab Sample:	31404-001	Date Received:	ived:	10-Feb-09
Date Collected: 6-Feb-09	Sample Size:		QC Batch No .:	1876	Date Extracted	Date Extracted:	11-Feb-09
Conc.	(ug/L) DL <sup>a</sup> EMPC <sup>b</sup>	Oualifiers	Labeled Stand	lard	%R 1	LCL-UCL <sup>d</sup>	Oualifiers
2,3,7,8-TCDD ND U	0.000000396		IS 13C-2,3,7,8-TC	DD	89.8	25 - 164	
1,2,3,7,8-PeCDD ND	0.00000111		13C-1,2,3,7,8-PeCDD		83.4	25 - 181	
1,2,3,4,7,8-HxCDD ND	0.00000132		13C-1,2,3,4,7,8-HxCDD	-HxCDD	82.8	32 - 141	
1,2,3,6,7,8-HxCDD ND	0.00000136		13C-1,2,3,6,7,8-HxCDD	-HxCDD	79.0	28 - 130	
1,2,3,7,8,9-HxCDD ND	0.00000129		13C-1,2,3,4,6,7	7,8-HpCDD	94:3	23 - 140	
1,2,3,4,6,7,8-HpCDD ND <sup>\(\)</sup>	0.00000191		13C-OCDD		88.9	17 - 157	
OCDD 0.00001	05 J/2NQ	J.	13C-2,3,7,8-TC	13C-2,3,7,8-TCDF	95.6	24 - 169	
2,3,7,8-TCDF ND U.	0.000000482		13C-1,2,3,7,8-PeCDF	1997 - T. A. A. A.	80.5	24 - 185	
1,2,3,7,8-PeCDF ND	0.000000607		13C-2,3,4,7,8-PeCDF	No. of the other	81.0	21 - 178	
2,3,4,7,8-PeCDF ND	0.000000593		13C-1,2,3,4,7,8-HxCDF	3-HxCDF	84.4	26 - 152	
1,2,3,4,7,8-HxCDF ND	0.000000641		13C-1,2,3,6,7,8-HxCDF	3-HxCDF	79.7	26 - 123	
1,2,3,6,7,8-HxCDF ND	0.00000661		13C-2,3,4,6,7,8-HxCDF	3-HxCDF	100	28 - 136	
2,3,4,6,7,8-HxCDF ND	0.000000636		13C-1,2,3,7,8,9-HxCDF	-HxCDF	83,5	29 - 147	
1,2,3,7,8,9-HxCDF ND	0.00000105		13C-1,2,3,4,6,7	7,8-HpCDF	81.7	28 - 143	
1,2,3,4,6,7,8-HpCDF ND	0.00000118		13C-1,2,3,4,7,8	3,9-HpCDF	87.6	26 - 138	
1,2,3,4,7,8,9-HpCDF ND	0.00000126		13C-OCDF		84.4	17 - 157	
OCDF ND ↓	0.000000941		CRS 37CI-2,3,7,8-TO	CDD	87.3	35 - 197	
Totals			Footnotes				
Total TCDD ND (U	0.00000396		a. Sample specific estimated detection limit.	ted detection limit.			
Total PeCDD ND	0.00000111		b. Estimated maximum possible concentration	ossible concentration			
Total HxCDD ND	0.00000132		c. Method detection limit.				
Total HpCDD ND	161000000		d. Lower control limit - up	pper control limit			
Total TCDF ND	0.000000482						
Total PeCDF ND	0.000000600						
Total HxCDF ND	0.000000747						*
Total HpCDF ND V	0.00000122						

Analyst: JMH



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: Report Number:	Annual Outfall 013 ISB0755	Sampled: Received:						
	METALS								

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0755-01 (Outfall 013 -	- Water) - cont.				Sample	d: 02/06/	99		
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	22	1	02/09/09	02/14/09	
Boron U	EPA 200.7	9B09073	0.020	0.050	ND	1	02/09/09	02/16/09	
Calcium	EPA 200.7	9B09073	0.050	0.10	6.8	1	02/09/09	02/14/09	
Magnesium	EPA 200.7	9B09073	0.012	0.020	1.1	1	02/09/09	02/14/09	

# LEVEL IV

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MWH-Pasadena/Boeing	Project ID:	Annual Outfall 013			
618 Michillinda Avenue, Suite 200			Sampled:	02/06/09	
Arcadia, CA 91007	Report Number:	ISB0755	Received:	02/06/09	
Attention: Bronwyn Kelly					

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0755-01 (Outfall 013	- Water) - cont.				Sample	d: 02/06/	09		
Reporting Units: ug/I					-				
Arsenic ULB	EPA 200.7	9B09073	7.0	10	8.9	1	02/09/09	02/14/09	B, J
Antimony	EPA 200.8	9B09075	0.20	2.0	3.3	1	02/09/09	02/10/09	
Beryllium U	EPA 200.7	9B09073	0.90	2.0	ND	1	02/09/09	02/14/09	
Chromium	EPA 200.7	9B09073	2.0	5.0	ND	1	02/09/09	02/14/09	
Nickel	EPA 200.7	9B09073	2.0	10	ND	1	02/09/09	02/14/09	
Cadmium J/DNQ	EPA 200.8	9B09075	0.11	1.0	0.72	1	02/09/09	02/10/09	J
Copper	EPA 200.8	9B09075	0.75	2.0	2.6	1	02/09/09	02/10/09	
Lead	EPA 200.8	9B09075	0.30	1.0	1.4	1	02/09/09	02/10/09	
Selenium V	EPA 200.8	9B09075	0.30	2.0	ND	1	02/09/09	02/10/09	
Silver	EPA 200.8	9B09075	0.30	1.0	ND	1	02/09/09	02/10/09	
Thallium	EPA 200.8	9B09075	0.20	1.0	ND	1	02/09/09	02/10/09	
Zinc	EPA 200.8	9B09075	2.5	20	23	1	02/09/09	02/10/09	



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 MWH-Pasadena/Boeing
 Project ID:
 Annual Outfall 013

 618 Michillinda Avenue, Suite 200
 Sampled:
 02/06/09

 Arcadia, CA 91007
 Report Number:
 ISB0755
 Received:
 02/06/09

 Attention:
 Bronwyn Kelly
 Sampled:
 02/06/09

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0755-01 (Outfall 013 - Water) - cont.					Sample	d: 02/06/0	19		
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B-Diss	[CALC]	N/A	0.33	21	1	02/09/09	02/11/09	
Boron U	EPA 200.7-Diss	9B09083	0.020	0.050	ND	1	02/09/09	02/11/09	
Calcium	EPA 200.7-Diss	9B09083	0.050	0.10	6.5	1	02/09/09	02/11/09	
Magnesium	EPA 200.7-Diss	9B09083	0.012	0.020	1.1	1	02/09/09	02/11/09	

# LEVEL IV

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MWH-Pasadena/Boeing	Project ID:	Annual Outfall 013		
618 Michillinda Avenue, Suite 200			Sampled:	02/06/09
Arcadia, CA 91007	Report Number:	ISB0755	Received:	02/06/09
Attention: Bronwyn Kelly				

### **DISSOLVED METALS**

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ISB0755-01 (Outfall 013 -	Water) - cont.				Sample	d: 02/06/0	9		
Reporting Units: ug/l					-				
Arsenic U	EPA 200.7-Diss	9B09083	7.0	10	ND	1	02/09/09	02/11/09	
Antimony	EPA 200.8-Diss	9B12130	0.20	2.0	3.0	1	02/12/09	02/13/09	
Beryllium U	EPA 200.7-Diss	9B09083	0.90	2.0	ND	1	02/09/09	02/11/09	
Chromium	EPA 200.7-Diss	9B09083	2.0	5.0	ND	1	02/09/09	02/11/09	
Nickel	EPA 200.7-Diss	9B09083	2.0	10	ND	1	02/09/09	02/11/09	
Cadmium J/DNO	EPA 200.8-Diss	9B12130	0.11	1.0	0.54	1	02/12/09	02/13/09	J
Copper	EPA 200.8-Diss	9B12130	0.75	2.0	2.3	1	02/12/09	02/13/09	
Lead J/DNO	EPA 200.8-Diss	9B12130	0.30	1.0	0.51	1	02/12/09	02/13/09	1
Selenium V	EPA 200.8-Diss	9B12130	0.30	2.0	ND	1	02/12/09	02/13/09	
Silver	EPA 200.8-Diss	9B12130	0.30	1.0	ND	1	02/12/09	02/13/09	
Thallium	EPA 200.8-Diss	9B12130	0.20	1.0	ND	1	02/12/09	02/13/09	С
Zine J/Dula	EPA 200.8-Diss	9B12130	2.5	20	18	1	02/12/09	02/13/09	1



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MWH-Pasadena/Boeing		Project ID:	Annual O	utfall 013						
618 Michillinda Avenue, Suite 200         Arcadia, CA 91007       Report Number: ISB0755         Attention: Bronwyn Kelly								02/06/09 02/06/09		
	MCAWW 245.1									
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers	

Sample ID: ISB0755-01 (Outfall 013 -	Water) - cont.				Sampled	: 02/06/	09		
Reporting Units: ug/L									
Mercury U/B	MCAWW 245.1	9043305	0.027	0.2	0.035	1	02/12/09	02/12/09	J, Ba

# level IV

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly	Project ID: Report Number:	Annual Outfall 013 ISB0755	Sampled: 02/06/09 Received: 02/06/09						
MCAWW 245.1-DISS									

Analyte	Method Ba	MDI atch Limi		Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0755-01 (Outfall 013	- Water) - cont.			Sample	d: 02/06/	09		
Reporting Units: ug/L Mercury	MCAWW 245.1-DISS 904	3330 0.02	0.2	0.046	1	02/12/09	02/12/09	J, Ba

# level iv

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Project ID: Annual Outfall 013

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

Arcadia, CA 91007 Attention: Bronwyn Kelly

Report Number: ISB0755

## **ORGANOCHLORINE PESTICIDES (EPA 608)**

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ISB0755-01 (Outfall 013 - Wat	er) - cout.				Sampk	d: 02/06/	99		
Reporting Units: ug/l									
4,4'-DDD MJ/C	EPA 608	9B12048	0.0019	0.0047	ND	0.943	02/12/09	02/13/09	
4,4'-DDE	EPA 608	9B12048	0.0028	0.0047	ND	0.943	02/12/09	02/13/09	
4,4'-DDT	EPA 608	9B12048	0.0038	0.0094	ND	0.943	02/12/09	02/13/09	
Aldrin	EPA 608	9B12048	0.0014	0.0047	ND	0.943	02/12/09	02/13/09	
alpha-BHC	EPA 608	9B12048	0.0024	0.0047	0.0051	0.943	02/12/09	02/13/09	A-01, R-10
beta-BHC UJ/C	EPA 608	9B12048	0.0038	0.0094	ND	0.943	02/12/09	02/13/09	
delta-BHC	EPA 608	9B12048	0.0033	0.0047	ND	0.943	02/12/09	02/13/09	
Dieldrin	EPA 608	9B12048	0.0019	0.0047	ND	0.943	02/12/09	02/13/09	
Endosulfan I	EPA 608	9B12048	0.0019	0.0047	ND	0.943	02/12/09	02/13/09	
Endosulfan II	EPA 608	9B12048	0.0028	0.0047	ND	0.943	02/12/09	02/13/09	
Endosulfan sulfate	EPA 608	9B12048	0.0028	0.0094	ND	0.943	02/12/09	02/13/09	
Endrin	EPA 608	9B12048	0.0019	0.0047	ND	0.943	02/12/09	02/13/09	
Endrin aldehyde USIC	EPA 608	9B12048	0.0019	0.0094	ND	0.943	02/12/09	02/13/09	
Endrin ketone	EPA 608	9B12048	0.0028	0.0094	ND	0.943	02/12/09	02/13/09	
gamma-BHC (Lindane)	EPA 608	9B12048	0.0028	0.019	ND	0.943	02/12/09	02/13/09	
Heptachlor	EPA 608	9B12048	0.0028	0.0094	ND	0.943	02/12/09	02/13/09	
Heptachlor epoxide	EPA 608	9B12048	0.0024	0.0047	ND	0.943	02/12/09	02/13/09	
Methoxychlor	EPA 608	9B12048	0.0033	0.0047	ND	0.943	02/12/09	02/13/09	
Chlordane U	EPA 608	9B12048	0.038	0.094	ND	0.943	02/12/09	02/13/09	
Toxaphene	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/13/09	
Surrogate: Decachlorobiphenyl (45-120%)					67 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					65 %				



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

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 013

Report Number: ISB0755

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

## **ORGANOCHLORINE PESTICIDES (EPA 608)**

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ISB0755-01RE2 (Outfall 013 - V	Water) - cont.				Sample	d: 02/06/0	19		H8
Reporting Units: ug/i									
4,4'-DDD P	EPA 608	9B23113	0.0019	0.0047	ND	0.948	02/23/09	02/25/09	
4,4'-DDE	EPA 608	9B23113	0.0028	0.0047	ND	0.948	02/23/09	02/25/09	
4,4'-DDT	EPA 608	9B23113	0.0038	0.0095	ND	0.948	02/23/09	02/25/09	
Aldrin	EPA 608	9B23113	0.0014	0.0047	ND	0.948	02/23/09	02/25/09	
alpha-BHC	EPA 608	9B23113	0.0024	0.0047	0.0932	0.948	02/23/09	02/25/09	J
beta-BHC	EPA 608	9B23113	0.0038	0.0095	ND	0.948	02/23/09	02/25/09	
delta-BHC	EPA 608	9B23113	0.0033	0.0047	ND	0.948	02/23/09	02/25/09	
Dieldrin	EPA 608	9B23113	0.0019	0.0047	ND	0.948	02/23/09	02/25/09	
Endosulfan I	EPA 608	9B23113	0.0019	0.0047	ND	0.948	02/23/09	02/25/09	
Endosulfan II	EPA 608	9B23113	0.0028	0.0047	ND	0.948	02/23/09	02/25/09	
Endosulfan sulfate	EPA 608	9B23113	0.0028	0.0095	ND	0.948	02/23/09	02/25/09	
Endrin	EPA 608	9B23113	0.0019	0.0047	ND	0.948	02/23/09	02/25/09	
Endrin aldehyde	EPA 608	9B23113	0.0019	0.0095	ND	0.948	02/23/09	02/25/09	
Endrin ketone	EPA 608	9B23113	0.0028	0.0095	ND	0.948	02/23/09	02/25/09	
gamma-BHC (Lindane)	EPA 608	9B23113	0.0028	0.019	ND	0.948	02/23/09	02/25/09	
Heptachlor	EPA 608	9B23113	0.0028	0.0095	ND	0.948	02/23/09	02/25/09	
Heptachlor epoxide	EPA 608	9B23113	0.0024	0.0047	ND	0.948	02/23/09	02/25/09	
Methoxychlor	EPA 608	9B23113	0.0033	0.0047	ND	0.948	02/23/09	02/25/09	
Chlordane	EPA 608	9B23113	0.038	0.095	ND	0.948	02/23/09	02/25/09	
Toxaphene	EPA 608	9B23113	0.24	0.47	ND	0.948	02/23/09	02/25/09	
Surrogate: Decachlorobiphenyl (45-120%)					90 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					84 %				



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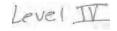
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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

CFR136A 608									
Attention: Bronwyn Kelly									
Arcadia, CA 91007	Report Number:	ISB0755	Received:	02/06/09					
618 Michillinda Avenue, Suite 200			Sampled:	02/06/09					
MWH-Pasadena/Boeing	Project ID:	Annual Outfall 013							

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor		Date Analyzed	Data Qualifiers
Sample ID: ISB0755-01 (		Sample	d: 02/06/0	19					
Reporting Units: ug/	L,								
alpha-BHC US	CFR136A 608	9064381	0.0053	0.05	ND	1	03/05/09	03/10/09	HTV
Surrogate: Decachlorobip	henyl (32-144%)				88 %				
Surrogate: Tetrachloro-m-xylene (52-117%)					92 %				



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

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 013

Report Number: ISB0755

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

## TOTAL PCBS (EPA 608)

				MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte		Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ISB0755-01 (Outfall	013 - Wat	er) – cont.				Sample	d: 02/06/0	)9		
Reporting Units: ug/l										
Aroclor 1016	le	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1221	1	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1232		EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1242		EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1248		EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1254	1	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Aroclor 1260	V	EPA 608	9B12048	0.24	0.47	ND	0.943	02/12/09	02/12/09	
Surrogate: Decachlorobiphenyl (	45-120%)					101 %				



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Joseph Doak Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

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

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

Project ID: Annual Outfall 013

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

Report Number: ISB0755

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

Data

#### MDL Reporting Sample Dilution Date Date Analyte Method Limit Batch Limit Result Factor Extracted Qualifiers Analyzed Sample ID: ISB0755-01 (Outfall 013 - Water) - cont. Sampled: 02/06/09 Reporting Units: ug/l Acenaphthene EPA 625 9B11088 2.8 9.4 ND U 0.943 02/11/09 02/16/09 Acenaphthylene EPA 625 9B11088 28 94 ND 0.943 02/11/09 02/16/09 Aniline EPA 625 9B11088 3.3 9.4 ND 0.943 02/11/09 02/16/09 Anthracene **EPA 625** 9B11088 2.4 9.4 ND 0.943 02/11/09 02/16/09 Benzidine EPA 625 9B11088 9.4 19 ND 0.943 02/11/09 02/16/09 Benzo(a)anthracene EPA 625 9B11088 24 94 ND 0.943 02/11/09 02/16/09 Benzo(a)pyrene EPA 625 9B11088 2.8 9.4 ND 0.943 02/11/09 02/16/09 Benzo(b)fluoranthene EPA 625 9B11088 1.9 94 ND 0.943 02/11/09 02/16/09 Benzo(g,h,i)perylene EPA 625 9B11088 3.8 94 ND 0 943 02/11/09 02/16/09 Benzo(k)fluoranthene EPA 625 9B11088 24 94 ND 0.943 02/11/09 02/16/09 Benzoic acid **EPA 625** 9B11088 94 19 ND 0.943 02/11/09 02/16/09 Benzyl alcohol EPA 625 9B11088 33 19 ND 0.943 02/11/09 02/16/09 4-Bromophenyl phenyl ether EPA 625 9B11088 28 94 ND 0.943 02/11/09 02/16/09 Butyl benzyl phthalate EPA 625 9B11088 3.8 19 ND 0.943 02/11/09 02/16/09 4-Chloro-3-methylphenol EPA 625 9B11088 2.4 19 ND 0.943 02/11/09 02/16/09 4-Chloroaniline EPA 625 9B11088 1.9 94 ND 0.943 02/11/09 02/16/09 Bis(2-chloroethoxy)methane EPA 625 9B11088 2.8 9.4 ND 0.943 02/11/09 02/16/09 Bis(2-chloroethyl)ether EPA 625 9B11088 2.8 9.4 ND 0.943 02/11/09 02/16/09 Bis(2-chloroisopropyl)ether EPA 625 9B11088 2.4 9.4 ND 0.943 02/11/09 02/16/09 2-Chloronaphthalene EPA 625 9B11088 2.8 9.4 ND 0.943 02/11/09 02/16/09 2-Chlorophenol EPA 625 9B11088 2.8 9.4 ND 0.943 02/11/09 02/16/09 4-Chlorophenyl phenyl ether EPA 625 9B11088 24 9.4 ND 0.943 02/11/09 02/16/09 Chrysene **FPA 625** 9B11088 24 04 ND 0.943 02/11/09 02/16/09 Dibenz(a,h)anthracene EPA 625 9B11088 2.8 19 ND 0.943 02/11/09 02/16/09 Dibenzofuran EPA 625 9B11088 3.8 9.4 ND 0.943 02/11/09 02/16/09 Di-n-butyl phthalate EPA 625 9B11088 2.8 19 ND 0.943 02/11/09 02/16/09 1,2-Dichlorobenzene **EPA 625** 9B11088 2.8 9.4 ND 02/11/09 0.943 02/16/09 1,3-Dichlorobenzene EPA 625 9B11088 28 94 ND 0.943 02/11/09 02/16/09 1,4-Dichlorobenzene EPA 625 9B11088 2.4 9.4 ND 0.943 02/11/09 02/16/09 3,3'-Dichlorobenzidine EPA 625 9B11088 7.1 19 ND 0.943 02/11/09 02/16/09 2,4-Dichlorophenol EPA 625 9B11088 33 94 ND 0.943 02/11/09 02/16/09 Diethyl phthalate EPA 625

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Bis(2-ethylhexyl)phthalate

2,4-Dimethylphenol

Dimethyl phthalate

2,4-Dinitrophenol

2,4-Dinitrotoluene

2,6-Dinitrotoluene

Di-n-octyl phthalate

4,6-Dinitro-2-methylphenol

1,2-Diphenylhydrazine/Azobenzene

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3.3

33

24

3.8

7.5

3.3

1.9

3.3

2.4

3.8

94

10

94

19

19

94

9.4

19

19

47

ND

0.943

0.943

0.943

0.943

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LEVEL IV

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9B11088

EPA 625

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02/16/09

02/16/09

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02/16/09

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20

**NPDES - 3254** 



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

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 013

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

Report Number: ISB0755

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

			MDL	Denentine	Commis	Dilasian	Dete	Dete	Data
Analyte	Method	Batch	Limit	Reporting Limit	Result	Dilution	Date Extracted	Date Analyzed	Data Qualifiers
-		Daten	Lamit	1.210114	Result	Factor	EAUACIEU	лшанулен	Quanners
Sample ID: ISB0755-01 (Outfall 013 - Wate	er) - cont.				Sample	d: 02/06/	09		
Reporting Units: ug/l									
Fluoranthene	EPA 625	9B11088	2.8	9.4	ND	0.943	02/11/09	02/16/09	U
Fluorene	EPA 625	9B11088	2.8	9.4	ND	0.943	02/11/09	02/16/09	
Hexachlorobenzene	EPA 625	9B11088	2.8	9.4	ND	0.943	02/11/09	02/16/09	
Hexachlorobutadiene	EPA 625	9B11088	3.8	9.4	ND	0.943	02/11/09	02/16/09	
Hexachlorocyclopentadiene	EPA 625	9B11088	4.7	19	ND	0.943	02/11/09	02/16/09	1
Hexachloroethane	EPA 625	9B11088	3.3	9.4	ND	0.943	02/11/09	02/16/09	
Indeno(1,2,3-cd)pyrene	EPA 625	9B11088	3.3	19	ND	0.943	02/11/09	02/16/09	
Isophorone	EPA 625	9B11088	2.8	9.4	ND	0.943	02/11/09	02/16/09	
2-Methylnaphthalene	EPA 625	9B11088	1.9	9.4	ND	0.943	02/11/09	02/16/09	
2-Methylphenol	EPA 625	9B11088	2.8	9.4	ND	0.943	02/11/09	02/16/09	
4-Methylphenol	EPA 625	9B11088	2.8	9.4	ND	0.943	02/11/09	02/16/09	
Naphthalene	EPA 625	9B11088	2.8	9.4	ND	0.943	02/11/09	02/16/09	
2-Nitroaniline	EPA 625	9B11088	1.9	19	ND	0.943	02/11/09	02/16/09	
3-Nitroaniline	EPA 625	9B11088	2.8	19	ND	0.943	02/11/09	02/16/09	
4-Nitroaniline	EPA 625	9B11088	3.8	19	ND	0.943	02/11/09	02/16/09	
Nitrobenzene	EPA 625	9B11088	2.8	19	ND	0.943	02/11/09	02/16/09	
2-Nitrophenol	EPA 625	9B11088	3.3	9.4	ND	0.943	02/11/09	02/16/09	
4-Nitrophenol	EPA 625	9B11088	5.2	19	ND	0.943	02/11/09	02/16/09	
N-Nitroso-di-n-propylamine	EPA 625	9B11088	3.3	-9.4	ND	0.943	02/11/09	02/16/09	1
N-Nitrosodimethylamine	EPA 625	9B11088	2.4	19	ND	0.943	02/11/09	02/16/09	
N-Nitrosodiphenylamine	EPA 625	9B11088	1.9	9.4	ND	0.943	02/11/09	02/16/09	
Pentachlorophenol	EPA 625	9B11088	3.3	19	ND	0.943	02/11/09	02/16/09	
Phenanthrene	EPA 625	9B11088	3.3	9.4	ND	0.943	02/11/09	02/16/09	
Phenol	EPA 625	9B11088	1.9	9.4	ND	0.943	02/11/09	02/16/09	
Pyrene	EPA 625	9B11088	3.8	9.4	ND	0.943	02/11/09	02/16/09	
1,2,4-Trichlorobenzene	EPA 625	9B11088	2.4	9.4	ND	0.943	02/11/09	02/16/09	
2,4,5-Trichlorophenol	EPA 625	9B11088	2.8	19	ND	0.943	02/11/09	02/16/09	
2,4,6-Trichlorophenol	EPA 625	9B11088	4.2	19	ND	0.943	02/11/09	02/16/09	J.
Surrogate: 2,4,6-Tribromophenol (40-120%)					86 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					77 %				
Surrogate: 2-Fluorophenol (30-120%)					65 %				
Surrogate: Nitrobenzene-d5 (45-120%)					75 %				
Surrogate: Phenol-d6 (35-120%)					74 %				
Surrogate: Terphenyl-d14 (50-125%)					97 %				

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LEVEL IV

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

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 013

Report Number: ISB0755

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

Kelly

## VOLATILE FUEL HYDROCARBONS (EPA 5030/8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0755-01 (Outfall 013 - V	Vater) - cont.				Sample	: <b>02/06</b> /0	9		
Reporting Units: mg/l           GRO (C4 - C12)         U           Surrogate: 4-BFB (F1D) (65-140%)	EPA 8015B	9B12038	0.030	0.050	ND 91 %	1	02/12/09	02/12/09	



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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 013

Report Number: ISB0755

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

## **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: ISB0755-01 (Out	fall 013 - Wa	ater)				Sample	d: 02/06/0	19		
Reporting Units: mg/l DRO (C13 - C28) Surrogate: n-Octacosane (40-	UL 125%)	EPA 8015B	9B10080	0.047	0.094	ND 66 %	0.943	<b>02/10/09</b>	02/10/0 <del>9</del>	

# LEVEL IV

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NPDES - 3257



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

Project ID:	Annual	Outfall	013
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PURGEABLES BY GC/MS (EPA 624)

Report Number: ISB0755

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

#### Reporting MDL Sample Dilution Date Date Data Method Analyte Batch Limit Limit Result Factor Extracted Analyzed Qualifiers Sample ID: ISB0755-01 (Outfall 013 - Water) - cont. Sampled: 02/06/09 Reporting Units: ug/l Benzene EPA 624 9B07011 0.28 0.50 ND 1 02/07/09 02/07/09 LA Bromodichloromethane EPA 624 9B07011 0.30 0.50 ND 1 02/07/09 02/07/09 Bromoform EPA 624 0.50 9B07011 0.40 ND 1 02/07/09 02/07/09 Bromomethane EPA 624 9B07011 0.42 1.0 ND 1 02/07/09 02/07/09 🕹 Carbon tetrachloride 02/07/09 UJ C EPA 624 9B07011 0.28 0.50 ND 1 02/07/09 Chlorobenzene **EPA 624** 9B07011 0 36 0.50 ND 02/07/09 () 1 02/07/09 Chloroethane EPA 624 9B07011 0.40 1.0 ND 1 02/07/09 02/07/09 Chloroform EPA 624 9B07011 0.33 0.50 ND 02/07/09 1 02/07/09 Chloromethane EPA 624 9B07011 0.40 0.50 ND 1 02/07/09 02/07/09 Dibromochloromethane EPA 624 9B07011 0.40 0.50 ND 1 02/07/09 02/07/09 1,2-Dibromoethane (EDB) **EPA 624** 9B07011 0 40 0.50 ND 1 02/07/09 02/07/09 1.2-Dichlorobenzene **EPA 624** 9B07011 0 32 0.50 ND 1 02/07/09 02/07/09 1.3-Dichlorobenzene **EPA 624** 9B07011 0.35 0.50 ND 1 02/07/09 02/07/09 1,4-Dichlorobenzene EPA 624 9B07011 0.37 0.50 ND 1 02/07/09 02/07/09 1,1-Dichloroethane EPA 624 9B07011 0.40 0.50 ND 1 02/07/09 02/07/09 1,2-Dichloroethane EPA 624 9B07011 0.28 0.50 ND 1 02/07/09 02/07/09 1,1-Dichloroethene EPA 624 9B07011 0.42 0.50 ND 1 02/07/09 02/07/09 trans-1,2-Dichloroethene EPA 624 9B07011 0.30 0.50 ND 1 02/07/09 02/07/09 1,2-Dichloropropane EPA 624 9B07011 0.35 0.50 ND 1 02/07/09 02/07/09 cis-1,3-Dichloropropene EPA 624 9B07011 0.22 0.50 ND 1 02/07/09 02/07/09 \ L trans-1,3-Dichloropropene EPA 624 9B07011 0.32 0.50 ND 1 02/07/09 02/07/09 WTC Ethylbenzene EPA 624 9B07011 0.25 0.50 ND 1 02/07/09 02/07/09 U Methylene chloride **EPA 624** 9B07011 0.95 1.0 ND 1 02/07/09 02/07/09 1,1,2,2-Tetrachloroethane EPA 624 9B07011 0.30 0.50 ND 1 02/07/09 02/07/09 Tetrachloroethene EPA 624 9B07011 0.32 0.50 ND 1 02/07/09 02/07/09 Tohiene EPA 624 9B07011 0.36 0.50 ND 02/07/09 1 02/07/09 1,1,1-Trichloroethane EPA 624 9B07011 0.30 0.50 ND 1 02/07/09 02/07/09 1,1,2-Trichloroethane EPA 624 9B07011 0.30 0.50 ND 1 02/07/09 02/07/09 Trichloroethene EPA 624 9B07011 0.26 0.50 ND 1 02/07/09 02/07/09 Trichlorofluoromethane **EPA 624** 9B07011 0 34 0.50 ND 1 02/07/09 02/07/09 划 1,2,3-Trichloropropane 02/07/09 UJ C EPA 624 9B07011 0.40 1.0 ND 1 02/07/09 Trichlorotrifluoroethane (Freon 113) EPA 624 9B07011 0.50 5.0 ND 1 02/07/09 02/07/09 UL Vinyl chloride EPA 624 9B07011 0.40 0.50 ND 1 02/07/09 02/07/09 Xylenes, Total EPA 624 9B07011 0.90 1.5 ND 1 02/07/09 02/07/09 Di-isopropyl Ether (DIPE) EPA 624 9B07011 0.25 0.50 ND 1 02/07/09 02/07/09 Methyl-tert-butyl Ether (MTBE) EPA 624 9B07011 0.32 0.50 ND 1 02/07/09 02/07/09 tert-Butanol (TBA) EPA 624 9B07011 6.5 10 ND 02/07/09 1 02/07/09 Surrogate: 4-Bromofluorobenzene (80-120%) 82 % Surrogate: Dibromofluoromethane (80-120%) 97 %

Surrogate: Toluene-d8 (80-120%)

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Joseph Doak Project Manager

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96 %

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EVEL IV

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

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

Project ID:	Annual	Outfall 013
-------------	--------	-------------

Report Number: ISB0755

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

## PURGEABLES BY GC/MS (EPA 624)

					,				
-			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ISB0755-02 (Trip Blanks - Wat	er)				Sample	ed: 02/06/	09		
Reporting Units: ug/l									
Benzene	EPA 624	9B07011	0.28	0.50	ND	1	02/07/09	02/07/09 (A	•
Bromodichloromethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
Bromoform	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
Bromomethane	EPA 624	9B07011	0.42	1.0	ND	1	02/07/09	02/07/09 🚽	· .
Carbon tetrachloride	EPA 624	9B07011	0.28	0.50	ND	1	02/07/09	02/07/09 V	JC
Chlorobenzene	EPA 624	9B07011	0.36	0.50	ND	1	02/07/09	02/07/09 U	L .
Chloroethane	EPA 624	9B07011	0.40	1.0	ND	1	02/07/09	02/07/09 (	
Chloroform	EPA 624	9B07011	0.33	0.50	ND	1	02/07/09	02/07/09	
Chloromethane	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
Dibromochloromethane	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
1,2-Dibromoethane (EDB)	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
1,2-Dichlorobenzene	EPA 624	9B07011	0.32	0.50	ND	1	02/07/09	02/07/09	
1,3-Dichlorobenzene	EPA 624	9B07011	0.35	0.50	ND	1	02/07/09	02/07/09	
1,4-Dichlorobenzene	EPA 624	9B07011	0.37	0.50	ND	1	02/07/09	02/07/09	
1,1-Dichloroethane	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
1,2-Dichloroethane	EPA 624	9B07011	0.28	0.50	ND	1	02/07/09	02/07/09	
1,1-Dichloroethene	EPA 624	9B07011	0.42	0.50	ND	1	02/07/09	02/07/09	
trans-1,2-Dichloroethene	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
1,2-Dichloropropane	EPA 624	9B07011	0.35	0.50	ND	1	02/07/09	02/07/09	
cis-1,3-Dichloropropene	EPA 624	9B07011	0.22	0.50	ND	1	02/07/09	02/07/09	L
trans-1,3-Dichloropropene	EPA 624	9B07011	0.32	0.50	ND	1	02/07/09	02/07/09 (	JC
Ethylbenzene	EPA 624	9B07011	0.25	0.50	ND	1	02/07/09	02/07/09	
Methylene chloride	EPA 624	9B07011	0.95	1.0	ND	1	02/07/09	02/07/09 (	
1,1,2,2-Tetrachloroethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
Tetrachloroethene	EPA 624	9B07011	0.32	0.50	ND	1	02/07/09	02/07/09	
Toluene	EPA 624	9B07011	0.36	0.50	ND	1	02/07/09	02/07/09	
1,1,1-Trichloroethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
1,1,2-Trichloroethane	EPA 624	9B07011	0.30	0.50	ND	1	02/07/09	02/07/09	
Trichloroethene	EPA 624	9B07011	0.26	0.50	ND	1	02/07/09	02/07/09	
Trichlorofluoromethane	EPA 624	9B07011	0.34	0.50	ND	1	02/07/09	02/07/09	/
1,2,3-Trichloropropane	EPA 624	9B07011	0.40	1.0	ND	1	02/07/09	02/07/09	JC
Trichlorotrifluoroethane (Freon 113)	EPA 624	9B07011	0.50	5.0	ND	1	02/07/09	02/07/09 U	
Vinyl chloride	EPA 624	9B07011	0.40	0.50	ND	1	02/07/09	02/07/09	
Xylenes, Total	EPA 624	9B07011	0.90	1.5	ND	`1	02/07/09	02/07/09	
Di-isopropyl Ether (DIPE)	EPA 624	9B07011	0.25	0.50	ND	1	02/07/09	02/07/09	
Methyl-tert-butyl Ether (MTBE)	EPA 624	9B07011	0.32	0.50	ND	1	02/07/09	02/07/09	
tert-Butanol (TBA)	EPA 624	9B07011	6.5	10	ND	1	02/07/09	02/07/09	/
Surrogate: 4-Bromofluorobenzene (80-120%)	)				81 %				
Surrogate: Dibromofluoromethane (80-120%	6)				97 %				
Surrogate: Toluene-d8 (80-120%)					94 %				



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Project Manager

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LEVEL IV

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Project ID-	Annual Outfall 013
LIDION ID.	a muniter of a contracts of the

Report Number: ISB0755

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

## PURGEABLES- GC/MS (EPA 624)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ISB0755-01 (Outfall 013	- Water)				Sample	d: 02/06/0	19		
Reporting Units: ug/l									
Acrolein	EPA 624	9B07011	4.0	5.0	ND	1	02/07/09	02/07/09	A
Acrylonitrile	EPA 624	9B07011	0.70	2.0	ND	1	02/07/09	02/07/09 U	alc
2-Chloroethyl vinyl ether	EPA 624	9B07011	1.8	5.0	ND	1	02/07/09	02/07/09	u
Surrogate: 4-Bromofluorobenzene (80-	-120%)				82 %				
Surrogate: Dibromofluoromethane (80	)-120%)				97 %				
Surrogate: Toluene-d8 (80-120%)					96 %				
Sample ID: ISB0755-02 (Trip Blanks	- Water)				Sample	d: 02/06/0	9		
Reporting Units: ug/l									_
Acrolein	EPA 624	9B07011	4.0	5.0	ND	1	02/07/09	02/07/09	u.
Acrylonitrile	EPA 624	9B07011	0.70	2.0	ND	1	02/07/09	02/07/09 (	JIC
2-Chloroethyl vinyl ether	EPA 624	9B07011	1.8	5.0	ND	1	02/07/09	02/07/09	u
Surrogate: 4-Bromofluorobenzene (80-	-120%)				81 %				
Surrogate: Dibromofluoromethane (80	)-120%)				97 %				
Surrogate: Toluene-d8 (80-120%)					94 %				

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LEVEL IV



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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelły Project ID: Annual Outfall 013

Report Number: ISB0755

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

## 1,4-DIOXANE BY DIRECT INJECTION GCMS - SINGLE ION MONITORING (SIM)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0755-01 (Outfall 013 -	Water)				Sample	d: 02/06/	19		
Reporting Units: ug/l					-				
1,4-Dioxane	EPA 8260B-SIM	9B12012	1.0	2.0	ND	1	02/12/09	02/12/09	U
Surrogate: Dibromofluoromethane (80-	120%)				104 %				•

LEVEL IV

**TestAmerica** Irvine

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THE LEADER IN EN	IRONMENTAL TESTING
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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 013

Report Number: ISB0755

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

#### HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0755-01 (Outfall 013 - V	Vater) - cont.				Sample	d: 02/06/0	)9		
Reporting Units: mg/l					-				
Hexane Extractable Material (Oil & 🕠	EPA 1664A	9B12121	1.3	4.8	ND	1	02/12/09	02/12/09	
Grease)									

# LEVEL IV

**TestAmerica** Irvine

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 MWH-Pasadena/Boeing
 Project ID: Annual Outfall 013

 618 Michillinda Avenue, Suite 200
 Sampled: 02/06/09

 Arcadia, CA 91007
 Report Number: ISB0755
 Received: 02/06/09

 Attention: Bronwyn Kelly
 Sampled: 02/06/09

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB0755-01 (Outfall 013 - W						ed: 02/06/			
Reporting Units: mg/l									
Ammonia-N (Distilled)	SM4500NH3-C	9B10100	0.50	0.50	0.56	1	02/10/09	02/10/09	
Biochemical Oxygen Demand J/DNQ	SM5210B	9B07054	0.50	2.0	1.8	1	02/07/09	02/12/09	J
Chloride	EPA 300.0	9B06069	0.25	0.50	30	1	02/06/09	02/07/09	
Total Cyanide U	SM4500-CN-C,E	9B09095	0.0022	0.0050	ND	1	02/09/09	02/09/09	
Fluoride	SM 4500-F-C	9B16034	0.020	0.10	0.33	1	02/16/09	02/16/09	в
Nitrate-N	EPA 300.0	9B06069	0.060	0.11	2.3	1	02/06/09	02/07/09	
Nitrite-N U	EPA 300.0	9B06069	0.090	0.15	ND	1	02/06/09	02/07/09	
Nitrate/Nitrite-N	EPA 300.0	9B06069	0.15	0.26	2.4	· 1	02/06/09	02/07/09	
Sulfate	EPA 300.0	9B06069	0.20	0.50	-19	1	02/06/09	02/07/09	
Total Dissolved Solids	SM2540C	9B11043	10	10	160	1	02/11/09	02/11/09	
Total Suspended Solids J /DNQ	SM 2540D	9B12141	1.0	10	1.0	1	02/12/09	02/12/09	1

LEVEL IV

**TestAmerica** Irvine

Joseph Doak Project Manager

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Sample ID: ISB0755-01 (Outfall 013 - Water) - cont.

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

Sampled: 02/06/09

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly		Project ID:						: 02/06/09 : 02/06/09	
Analyte	Method	IN Batch	ORGA MDL Limit	NICS Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers

Reporting Units: ml/l									
Total Settleable Solids U	SM2540F	9B07042	0.10	0.10	ND	1	02/07/09	02/07/09	pH

LEVEL IV

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

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly	Project ID: Annual Outfall 013 Report Number: ISB0755	Sampled: 02/06/09 Received: 02/06/09				
<b>K</b>	INORGANICS					

			MDL	Reporting	Sample	Dilution	Date	Date	Data	
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers	
Sample ID: ISB0755-01 (Outfall 013 - Water) - cont.					Sample	d: 02/06/	09			
Reporting Units: NTU										
Turbidity	EPA 180.1	9B07043	0.040	1.0	5.6	1	02/07/09	02/07/09		



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

618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly	Report Number:	ISB0755	 	Sampled: Received:		
	I	NORGANICS	 		Dete	Data

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor		Date Analyzed	Data Qualifiers	
Sample ID: ISB0755-01 (Outfall 013 - Water) - cont.					Sample	d: 02/06/	09			
Reporting Units: ug/l										
Perchlorate J/DNQ	EPA 314.0	9B13056	0.90	4.0	1.5	1	02/13/09	02/13/09	J	



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