

APPENDIX G

Section 57

Outfall 019 – February 24 & 25, 2011

MEC^X Data Validation Report



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IUB2621

Prepared by

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I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
 Contract Task Order: 1261.100D.00
 Sample Delivery Group: IUB2621
 Project Manager: B. Kelly
 Matrix: Water
 QC Level: IV
 No. of Samples: 2
 No. of Reanalyses/Dilutions: 1
 Laboratory: TestAmerica-Irvine

Table 1. Sample Identification

| Client ID | Laboratory ID | Sub-Laboratory ID | Matrix | Collected | Method |
|-------------------------|---------------|---|--------|----------------------------|--|
| Outfall 019 (Grab) | IUB2621-01 | N/A | Water | 2/19/2011 8:45:00 AM | 120.1 |
| Outfall 019 (Composite) | IUB2621-03 | G1C010466-001, S103018-01, 993874 | Water | 2/19/2011 6:41:00 PM | 180.1, 200.7, 200.7 (Diss), 245.1, 245.1 (Diss), 314.0, 1613B, 8260B SIM, 625, 900.0 MOD, 901.1 MOD, 903.0 MOD, 904 MOD, 905 MOD, 906.0 MOD, SM2340B, SM2340B-Diss, SM5310B, ASTM 5174 |
| Outfall 019 (Composite) | IUB2621-03RE | N/A | Water | 2/19/2011 6:41:00 PM | 1613B |

II. Sample Management

No anomalies were observed regarding sample management. The samples were received above the temperature limit at Eberline; however, due to the nonvolatile nature of the analytes, no qualifications were required. The samples in this SDG were received at the remaining laboratories within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact upon receipt at Eberline and TestAmerica-West Sacramento. As the sample was couriered to TestAmerica-Irvine and Truesdail, no custody seals were required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

| Qualifier | Organics | Inorganics |
|-----------|---|---|
| U | The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners. | The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only. |
| J | The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. | The associated value is an estimated quantity. |
| N | The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification." | Not applicable. |
| NJ | The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. | Not applicable. |
| UJ | The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. | The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise. |
| R | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. |

Qualification Code Reference Table

| Qualifier | Organics | Inorganics |
|-----------|--|---|
| H | Holding times were exceeded. | Holding times were exceeded. |
| S | Surrogate recovery was outside QC limits. | The sequence or number of standards used for the calibration was incorrect |
| C | Calibration %RSD or %D was noncompliant. | Correlation coefficient is <0.995. |
| R | Calibration RRF was <0.05. | %R for calibration is not within control limits. |
| B | Presumed contamination as indicated by the preparation (method) blank results. | Presumed contamination as indicated by the preparation (method) or calibration blank results. |
| L | Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits. | Laboratory Control Sample %R was not within control limits. |
| Q | MS/MSD recovery was poor or RPD high. | MS recovery was poor. |
| E | Not applicable. | Duplicates showed poor agreement. |
| I | Internal standard performance was unsatisfactory. | ICP ICS results were unsatisfactory. |
| A | Not applicable. | ICP Serial Dilution %D were not within control limits. |
| M | Tuning (BFB or DFTPP) was noncompliant. | Not applicable. |
| T | Presumed contamination as indicated by the trip blank results. | Not applicable. |
| + | False positive – reported compound was not present. | Not applicable. |
| - | False negative – compound was present but not reported. | Not applicable. |
| F | Presumed contamination as indicated by the FB or ER results. | Presumed contamination as indicated by the FB or ER results. |
| \$ | Reported result or other information was incorrect. | Reported result or other information was incorrect. |
| ? | TIC identity or reported retention time has been changed. | Not applicable. |

Qualification Code Reference Table Cont.

| | | |
|-----------|--|--|
| D | The analysis with this flag should not be used because another more technically sound analysis is available. | The analysis with this flag should not be used because another more technically sound analysis is available. |
| P | Instrument performance for pesticides was poor. | Post Digestion Spike recovery was not within control limits. |
| DNQ | The reported result is above the method detection limit but is less than the reporting limit. | The reported result is above the method detection limit but is less than the reporting limit. |
| *II, *III | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. |

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin

Date Reviewed: April 6, 2011

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 analyzed prior to the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.
 - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.
- Calibration: Calibration criteria were met.
 - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq 20\%$ for the 15 native compounds (calibration by isotope dilution) and $\leq 35\%$ for the two 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 a detect below the EDL for OCDD; therefore, the sample result between the EDL and the RL for OCDD was qualified as nondetected, "U," at the level of contamination.

- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613, and RPDs were within the laboratory control limit of ≤50%.
- 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 in the sample were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.
- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of reportable sample results. The result for 1,2,3,4,6,7,8-HpCDD was reported as an EMPC below the EDL. The result was qualified as an estimated nondetect, “UJ,” at the EDL. Total HpCDD was qualified as estimated, “J,” as the total included an EMPC. Any detects reported between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Nondetects are valid to the EDL.

B. EPA METHOD 8315M—Hydrazines

Reviewed By: P. Meeks

Date Reviewed: April 4, 2011

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Method 8315M*, and the *National Functional Guidelines for Organic Data Review (10/99)*.

- Holding Times: Extraction and analytical holding times were met. The hydrazine sample was derivitized within 28 days of collection and was analyzed within three days of derivitization.
- Calibration: Calibration criteria were met. The initial calibration r^2 values were ≥ 0.995 . The ICV, CCV and QCS recoveries were within 85-115%.

- Blanks: Hydrazines were not detected in the method blank.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG. 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:
 - 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. Review of the sample, LCS, and LCSD chromatograms and retention times 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 calibrations 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.

C. EPA METHODS 200.7, and 245.1—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: April 4, 2011

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

- Holding Times: Analytical holding times, six months for ICP metals and 28 days for mercury, were met.
- Tuning: Not applicable to these analyses.
- Calibration: Calibration criteria were met. Mercury initial calibration r^2 values were ≥ 0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP metals and 85-115% for mercury. Arsenic was recovered below the control limit in the 5.0 $\mu\text{g/L}$

CRDL standard; therefore, nondetected dissolved arsenic was qualified as estimated, "UJ." The remaining CRDL/CRI recoveries were within the control limits of 70-130%.

- Blanks: Total zinc was detected in the method blank at 15 µg/L; therefore, total zinc detected in the sample was qualified as nondetected, "U," at the reporting limit. Method blanks and CCBs had no other detects.
- Interference Check Samples: Recoveries were within 80-120%.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the total 200.7 analytes. Recoveries and RPDs were within the method-established control limit. Method accuracy for mercury was evaluated based on the LCS results.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: Not applicable to these analyses.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

Barium and boron were detected at slightly higher concentrations in the dissolved analyses. Zinc was reported at the same concentration in the total and dissolved analyses; however, total zinc was qualified as nondetected due to method blank contamination.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

D. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: April 4, 2011

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174*, and the *National Functional Guidelines for Inorganic Data Review (10/04)*.

- **Holding Times:** The tritium sample was analyzed within 180 days of collection. The remaining aliquots were prepared within the five-day analytical holding time for unpreserved samples.
- **Calibration:** The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

The gross alpha detector efficiency was less than 20%; therefore, nondetected gross alpha in the sample was qualified as estimated, "UJ." The remaining detector efficiencies were $\geq 20\%$.

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

- **Blanks:** There were no analytes detected in the method blanks.
- **Blank Spikes and Laboratory Control Samples:** the strontium LCS recovery was marginally above the control limit; however, strontium was not detected in the sample. The recoveries were within laboratory-established control limits.
- **Laboratory Duplicates:** No laboratory duplicate analyses were performed on the sample in this SDG.
- **Matrix Spike/Matrix Spike Duplicate:** No MS/MSD analyses were performed for the sample in this SDG. Method accuracy was evaluated based on the LCS results.
- **Sample Result Verification:** An EPA Level IV review was performed for the sample in this data package. The sample results and MDAs reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Any detects between the MDA and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDA. Total uranium, normally reported in aqueous units, was converted to pCi/L using the conversion factor of 0.67 for naturally occurring uranium.

A notation in the preparation log indicated that a portion of the aliquots for this sample were filtered and that the filtrate was dissolved and added back to the aliquot.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

E. EPA METHOD 625—Semivolatile Organic Compounds (SVOCs)

Reviewed By: L. Calvin

Date Reviewed: April 6, 2011

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 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. The sample was analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria were met. The initial calibration average RRFs and the ICV and continuing calibration RRFs were ≥ 0.05 for all target compounds. The initial calibration %RSDs were $\leq 35\%$, or r^2 values ≥ 0.995 . The second source ICV had a %D above 20% for 1,2-diphenylhydrazine/azobenzene; therefore, the nondetected result for this compound was qualified as estimated, "UJ." The remaining ICV and CCV %Ds were $\leq 20\%$.
- Blanks: Butylbenzyl phthalate was detected in the method blank below the reporting limit at 0.70 $\mu\text{g/L}$. The sample result for butylbenzyl phthalate was qualified as nondetected, "U," at the reporting limit. The method blank had no other 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 in this SDG. Method accuracy was evaluated based on LCS results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - 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. 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," 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.

F. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: April 4, 2011

The sample listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 180.1, SM5310B*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: Analytical holding times were met.

- Calibration: Calibration criteria were met. Initial calibration r^2 values were ≥ 0.995 . All initial and continuing calibration recoveries were within 90-110%. Perchlorate ICP-MA and ICCS recoveries were within 80-120% and 75-125%, respectively.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms IUB2621

Analysis Method 8670

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|----------------|--------|--------------|----|-------|--------------|---------------|----------------------|------------------|
| Uranium, Total | | 0.159 | 1 | 0.022 | pCi/L | Jb | J | DNQ |

Analysis Method 900

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|-------------|----------|--------------|----|------|--------------|---------------|----------------------|------------------|
| Gross Alpha | 12587461 | 1.1 | 3 | 1.46 | pCi/L | U | UJ | C |
| Gross Beta | 12587472 | 3.76 | 4 | 1.65 | pCi/L | Jb | J | DNQ |

Analysis Method 901.1

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|--------------|----------|--------------|----|------|--------------|---------------|----------------------|------------------|
| Cesium-137 | 10045973 | ND | 20 | 1.18 | pCi/L | U | U | |
| Potassium-40 | 13966002 | ND | 25 | 18 | pCi/L | U | U | |

Analysis Method 903.1

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|------------|----------|--------------|----|-------|--------------|---------------|----------------------|------------------|
| Radium-226 | 13982633 | 0.503 | 1 | 0.749 | pCi/L | U | U | |

Analysis Method 904

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|------------|----------|--------------|----|-------|--------------|---------------|----------------------|------------------|
| Radium-228 | 15262201 | 0.052 | 1 | 0.413 | pCi/L | U | U | |

Analysis Method 905

| | | | | | | | | |
|-------------------------|-------------------------|---------------------|-----------------------|--------------------------|---------------------|----------------------|-----------------------------|-------------------------|
| Sample Name | Outfall 019 (Composite) | Matrix Type: | WATER | Validation Level: | IV | | | |
| Lab Sample Name: | IUB2621-03 | Sample Date: | 2/25/2011 11:22:00 AM | | | | | |
| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
| Strontium-90 | 10098972 | -0.281 | 2 | 0.924 | pCi/L | U | U | |

Analysis Method 906

| | | | | | | | | |
|-------------------------|-------------------------|---------------------|-----------------------|--------------------------|---------------------|----------------------|-----------------------------|-------------------------|
| Sample Name | Outfall 019 (Composite) | Matrix Type: | WATER | Validation Level: | IV | | | |
| Lab Sample Name: | IUB2621-03 | Sample Date: | 2/25/2011 11:22:00 AM | | | | | |
| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
| Tritium | 10028178 | -56.2 | 500 | 172 | pCi/L | U | U | |

Analysis Method EPA 180.1

| | | | | | | | | |
|-------------------------|-------------------------|---------------------|-----------------------|--------------------------|---------------------|----------------------|-----------------------------|-------------------------|
| Sample Name | Outfall 019 (Composite) | Matrix Type: | Water | Validation Level: | IV | | | |
| Lab Sample Name: | IUB2621-03 | Sample Date: | 2/25/2011 11:22:00 AM | | | | | |
| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
| Turbidity | Turb | 0.90 | 1.0 | 0.040 | NTU | Ja | J | DNQ |

Analysis Method EPA 200.7

| | | | | | | | | |
|-------------------------|-------------------------|---------------------|-----------------------|--------------------------|---------------------|----------------------|-----------------------------|-------------------------|
| Sample Name | Outfall 019 (Composite) | Matrix Type: | Water | Validation Level: | IV | | | |
| Lab Sample Name: | IUB2621-03 | Sample Date: | 2/25/2011 11:22:00 AM | | | | | |
| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
| Arsenic | 7440-38-2 | ND | 10 | 7.0 | ug/l | | U | |
| Barium | 7440-39-3 | 0.0081 | 0.010 | 0.0060 | mg/l | Ja | J | DNQ |
| Beryllium | 7440-41-7 | ND | 2.0 | 0.90 | ug/l | | U | |
| Boron | 7440-42-8 | 0.064 | 0.050 | 0.020 | mg/l | | | |
| Chromium | 7440-47-3 | ND | 5.0 | 2.0 | ug/l | | U | |
| Cobalt | 7440-48-4 | ND | 10 | 2.0 | ug/l | | U | |
| Iron | 7439-89-6 | 0.075 | 0.040 | 0.015 | mg/l | | | |
| Manganese | 7439-96-5 | ND | 20 | 7.0 | ug/l | | U | |
| Nickel | 7440-02-0 | 2.9 | 10 | 2.0 | ug/l | Ja | J | DNQ |
| Vanadium | 7440-62-2 | ND | 10 | 3.0 | ug/l | | U | |
| Zinc | 7440-66-6 | 42.5 | 20.0 | 6.00 | ug/l | | | |

Analysis Method EPA 200.7-Diss

Sample Name Outfall 019 (Composite) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|-----------|-----------|--------------|-------|--------|--------------|---------------|----------------------|------------------|
| Arsenic | 7440-38-2 | ND | 10 | 7.0 | ug/l | | U | |
| Barium | 7440-39-3 | 0.0088 | 0.010 | 0.0060 | mg/l | Ja | J | DNQ |
| Beryllium | 7440-41-7 | ND | 2.0 | 0.90 | ug/l | | U | |
| Boron | 7440-42-8 | 0.066 | 0.050 | 0.020 | mg/l | | | |
| Calcium | 7440-70-2 | 50 | 0.10 | 0.050 | mg/l | | | |
| Chromium | 7440-47-3 | ND | 5.0 | 2.0 | ug/l | | U | |
| Cobalt | 7440-48-4 | ND | 10 | 2.0 | ug/l | | U | |
| Iron | 7439-89-6 | 0.064 | 0.040 | 0.015 | mg/l | | | |
| Magnesium | 7439-95-4 | 0.10 | 0.020 | 0.012 | mg/l | | | |
| Manganese | 7439-96-5 | ND | 20 | 7.0 | ug/l | | U | |
| Nickel | 7440-02-0 | 2.4 | 10 | 2.0 | ug/l | Ja | J | DNQ |
| Vanadium | 7440-62-2 | ND | 10 | 3.0 | ug/l | | U | |
| Zinc | 7440-66-6 | ND | 42.0 | 6.00 | ug/l | | U | B |

Analysis Method EPA 245.1

Sample Name Outfall 019 (Composite) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

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

Analysis Method EPA 245.1-Diss

Sample Name Outfall 019 (Composite) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

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

Analysis Method EPA 314.0

Sample Name Outfall 019 (Composite) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|-------------|------------|--------------|-----|------|--------------|---------------|----------------------|------------------|
| Perchlorate | 14797-73-0 | ND | 1.0 | 0.90 | ug/l | | U | |

Analysis Method EPA 625

Sample Name Outfall 019 (Composite) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|----------------------------------|-----------|--------------|-------|--------|--------------|---------------|----------------------|------------------|
| 1,2,4-Trichlorobenzene | 120-82-1 | ND | 0.943 | 0.0943 | ug/l | | U | |
| 1,2-Dichlorobenzene | 95-50-1 | ND | 0.472 | 0.0943 | ug/l | | U | |
| 1,2-Diphenylhydrazine/Azobenzene | 103-33-3 | ND | 0.943 | 0.0943 | ug/l | C | UJ | C |
| 1,3-Dichlorobenzene | 541-73-1 | ND | 0.472 | 0.0943 | ug/l | | U | |
| 1,4-Dichlorobenzene | 106-46-7 | ND | 0.472 | 0.189 | ug/l | | U | |
| 2,4,6-Trichlorophenol | 88-06-2 | ND | 0.943 | 0.0943 | ug/l | | U | |
| 2,4-Dichlorophenol | 120-83-2 | ND | 1.89 | 0.189 | ug/l | | U | |
| 2,4-Dimethylphenol | 105-67-9 | ND | 1.89 | 0.283 | ug/l | | U | |
| 2,4-Dinitrophenol | 51-28-5 | ND | 4.72 | 0.849 | ug/l | | U | |
| 2,4-Dinitrotoluene | 121-14-2 | ND | 4.72 | 0.189 | ug/l | | U | |
| 2,6-Dinitrotoluene | 606-20-2 | ND | 4.72 | 0.0943 | ug/l | | U | |
| 2-Chloronaphthalene | 91-58-7 | ND | 0.472 | 0.0943 | ug/l | | U | |
| 2-Chlorophenol | 95-57-8 | ND | 0.943 | 0.189 | ug/l | | U | |
| 2-Nitrophenol | 88-75-5 | ND | 1.89 | 0.0943 | ug/l | | U | |
| 3,3'-Dichlorobenzidine | 91-94-1 | ND | 4.72 | 4.72 | ug/l | | U | |
| 4,6-Dinitro-2-methylphenol | 534-52-1 | ND | 4.72 | 0.189 | ug/l | | U | |
| 4-Bromophenyl phenyl ether | 101-55-3 | ND | 0.943 | 0.0943 | ug/l | | U | |
| 4-Chloro-3-methylphenol | 59-50-7 | ND | 1.89 | 0.189 | ug/l | | U | |
| 4-Chlorophenyl phenyl ether | 7005-72-3 | ND | 0.472 | 0.0943 | ug/l | | U | |
| 4-Nitrophenol | 100-02-7 | ND | 4.72 | 2.36 | ug/l | | U | |
| Acenaphthene | 83-32-9 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Acenaphthylene | 208-96-8 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Anthracene | 120-12-7 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Benzidine | 92-87-5 | ND | 4.72 | 4.72 | ug/l | | U | |
| Benzo(a)anthracene | 56-55-3 | ND | 4.72 | 0.0943 | ug/l | | U | |
| Benzo(a)pyrene | 50-32-8 | ND | 1.89 | 0.0943 | ug/l | | U | |
| Benzo(b)fluoranthene | 205-99-2 | ND | 1.89 | 0.0943 | ug/l | | U | |
| Benzo(g,h,i)perylene | 191-24-2 | ND | 4.72 | 0.0943 | ug/l | | U | |
| Benzo(k)fluoranthene | 207-08-9 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Bis(2-chloroethoxy)methane | 111-91-1 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Bis(2-chloroethyl)ether | 111-44-4 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Bis(2-chloroisopropyl)ether | 108-60-1 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Bis(2-ethylhexyl)phthalate | 117-81-7 | ND | 4.72 | 1.60 | ug/l | | U | |
| Butyl benzyl phthalate | 85-68-7 | ND | 4.72 | 0.660 | ug/l | Ja | U | B |
| Chrysene | 218-01-9 | ND | 0.472 | 0.0943 | ug/l | | U | |

Analysis Method *EPA 625*

| | | | | | | | | |
|----------------------------|----------|-------|-------|--------|------|----|----------|------------|
| Dibenz(a,h)anthracene | 53-70-3 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Diethyl phthalate | 84-66-2 | 0.226 | 0.943 | 0.0943 | ug/l | Ja | J | DNQ |
| Dimethyl phthalate | 131-11-3 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Di-n-butyl phthalate | 84-74-2 | ND | 1.89 | 0.189 | ug/l | | U | |
| Di-n-octyl phthalate | 117-84-0 | ND | 4.72 | 0.0943 | ug/l | | U | |
| Fluoranthene | 206-44-0 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Fluorene | 86-73-7 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Hexachlorobenzene | 118-74-1 | ND | 0.943 | 0.0943 | ug/l | | U | |
| Hexachlorobutadiene | 87-68-3 | ND | 1.89 | 0.189 | ug/l | | U | |
| Hexachlorocyclopentadiene | 77-47-4 | ND | 4.72 | 0.0943 | ug/l | | U | |
| Hexachloroethane | 67-72-1 | ND | 2.83 | 0.189 | ug/l | | U | |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | ND | 1.89 | 0.0943 | ug/l | | U | |
| Isophorone | 78-59-1 | ND | 0.943 | 0.0943 | ug/l | | U | |
| Naphthalene | 91-20-3 | 0.151 | 0.943 | 0.0943 | ug/l | Ja | J | DNQ |
| Nitrobenzene | 98-95-3 | ND | 0.943 | 0.0943 | ug/l | | U | |
| N-Nitrosodimethylamine | 62-75-9 | ND | 1.89 | 0.0943 | ug/l | | U | |
| N-Nitroso-di-n-propylamine | 621-64-7 | ND | 1.89 | 0.0943 | ug/l | | U | |
| N-Nitrosodiphenylamine | 86-30-6 | ND | 0.943 | 0.0943 | ug/l | | U | |
| Pentachlorophenol | 87-86-5 | ND | 1.89 | 0.0943 | ug/l | | U | |
| Phenanthrene | 85-01-8 | ND | 0.472 | 0.0943 | ug/l | | U | |
| Phenol | 108-95-2 | ND | 0.943 | 0.283 | ug/l | | U | |
| Pyrene | 129-00-0 | ND | 0.472 | 0.0943 | ug/l | | U | |

Analysis Method EPA-5 1613B

Sample Name Outfall 019 (Composite) **Matrix Type:** WATER **Validation Level:** IV
Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|---------------------|------------|--------------|---------|-----------|--------------|---------------|----------------------|------------------|
| 1,2,3,4,6,7,8-HpCDD | 35822-46-9 | ND | 0.00005 | 0.0000031 | ug/L | J, Q | UJ | *III |
| 1,2,3,4,6,7,8-HpCDF | 67562-39-4 | ND | 0.00005 | 0.0000024 | ug/L | | U | |
| 1,2,3,4,7,8,9-HpCDF | 55673-89-7 | ND | 0.00005 | 0.0000035 | ug/L | | U | |
| 1,2,3,4,7,8-HxCDD | 39227-28-6 | ND | 0.00005 | 0.0000027 | ug/L | | U | |
| 1,2,3,4,7,8-HxCDF | 70648-26-9 | ND | 0.00005 | 0.0000032 | ug/L | | U | |
| 1,2,3,6,7,8-HxCDD | 57653-85-7 | ND | 0.00005 | 0.0000025 | ug/L | | U | |
| 1,2,3,6,7,8-HxCDF | 57117-44-9 | ND | 0.00005 | 0.0000028 | ug/L | | U | |
| 1,2,3,7,8,9-HxCDD | 19408-74-3 | ND | 0.00005 | 0.0000022 | ug/L | | U | |
| 1,2,3,7,8,9-HxCDF | 72918-21-9 | ND | 0.00005 | 0.0000038 | ug/L | | U | |
| 1,2,3,7,8-PeCDD | 40321-76-4 | ND | 0.00005 | 0.0000072 | ug/L | | U | |
| 1,2,3,7,8-PeCDF | 57117-41-6 | ND | 0.00005 | 0.0000092 | ug/L | | U | |
| 2,3,4,6,7,8-HxCDF | 60851-34-5 | ND | 0.00005 | 0.0000028 | ug/L | | U | |
| 2,3,4,7,8-PeCDF | 57117-31-4 | ND | 0.00005 | 0.0000096 | ug/L | | U | |
| 2,3,7,8-TCDD | 1746-01-6 | ND | 0.00001 | 0.0000094 | ug/L | | U | |
| 2,3,7,8-TCDF | 51207-31-9 | ND | 0.00001 | 0.0000026 | ug/L | | U | |
| OCDD | 3268-87-9 | ND | 0.0001 | 0.000009 | ug/L | J, B | U | B |
| OCDF | 39001-02-0 | 4.5e-006 | 0.0001 | 0.0000054 | ug/L | J | J | DNQ |
| Total HpCDD | 37871-00-4 | 6.5e-006 | 0.00005 | 0.0000031 | ug/L | J, Q | J | DNQ, *III |
| Total HpCDF | 38998-75-3 | ND | 0.00005 | 0.0000024 | ug/L | | U | |
| Total HxCDD | 34465-46-8 | ND | 0.00005 | 0.0000022 | ug/L | | U | |
| Total HxCDF | 55684-94-1 | ND | 0.00005 | 0.0000028 | ug/L | | U | |
| Total PeCDD | 36088-22-9 | ND | 0.00005 | 0.0000072 | ug/L | | U | |
| Total PeCDF | 30402-15-4 | ND | 0.00005 | 0.0000092 | ug/L | | U | |
| Total TCDD | 41903-57-5 | ND | 0.00001 | 0.0000094 | ug/L | | U | |
| Total TCDF | 55722-27-5 | ND | 0.00001 | 0.0000026 | ug/L | | U | |

Analysis Method SM5310B

Sample Name Outfall 019 (Composite) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUB2621-03 **Sample Date:** 2/25/2011 11:22:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|----------------------|--------|--------------|-----|------|--------------|---------------|----------------------|------------------|
| Total Organic Carbon | TOC | 4.3 | 1.0 | 0.50 | mg/l | | | |

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



Established 1931

14201 FRANKLIN AVENUE • TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 • FAX (714) 730-6462 • www.truesdail.com

Client: Test America - Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

REPORT

Attention: Debby Wilson
Sample: Water / 1 Sample
Project Name: IUB2621
Project Number: IUB2621
Method Number: EPA 8315 (Modified)
Investigation: Hydrazines

Laboratory No: 993874
Report Date: March 4, 2011
Sampling Date: February 25, 2011
Receiving Date: February 28, 2011
Extraction Date: February 28, 2010
Analysis Date: March 1, 2011
Units: µg/L
Reported By: JS

Outfall 019

Analytical Results

| Sample ID | Sample Description | Sample Amount (mL) | Dilution Factor | Monomethyl Hydrazine | u-Dimethyl Hydrazine | Hydrazine | Qualifier Codes |
|-------------------------|--------------------|--------------------|-----------------|----------------------|----------------------|-----------|-----------------|
| 709298-MB | Method Blank | 100 | 1 | ND | ND | ND | None |
| 993874 | IUB2621-03 | 100 | 1 | ND U | ND U | ND U | None |
| MDL | | | | 1.77 | 1.13 | 0.439 | |
| PQL | | | | 5.0 | 5.0 | 1.00 | |
| Sample Reporting Limits | | | | 5.0 | 5.0 | 1.00 | |

Note: Results based on detector #1 (UV=365nm) data.

LEVEL IV



Jeff Lee, Project Manager
Analytical Services, Truesdail Laboratories, Inc.

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

APPENDIX G

Section 58

Outfall 019 – February 24 & 25, 2011

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Annual Outfall 019
Annual Outfall 019

Sampled: 02/24/11-02/28/11
Received: 02/24/11
Issued: 04/28/11 16:46

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

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, 4 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 5°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: Results that fall between the MDL and RL are 'J' flagged.

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

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

**ADDITIONAL
INFORMATION:**

WATER, 1613B, Dioxins/Furans with Totals

Sample: 1

Some analytes in this sample have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

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

The reporting limit has been raised for 2,3,7,8-TCDF in the laboratory control sample/la laboratory control sample duplicate (LCS/LCSD) associated with this sample due to elevated noise. There is no adverse impact to the quality of the data as a result of this anomaly. Analytical data is reported with a "G" flag. Revised report to include trichlorofluoromethane and xylenes per client request.

LABORATORY ID

IUB2621-01
IUB2621-02
IUB2621-03
IUB2621-04

CLIENT ID

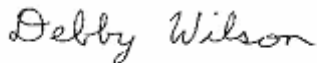
Outfall 019 (Grab)
Trip Blanks
Outfall 019 (Composite)
Trip Blank

MATRIX

Water
Water
Water
Water

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:



TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|---------------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-01 (Outfall 019 (Grab) - Water) | | | | | Sampled: 02/24/11 | | | | |
| Reporting Units: mg/l | | | | | | | | | |
| GRO (C4 - C12) | EPA 8015 Mod. | 11C0706 | 0.025 | 0.10 | ND | 1 | JA1 | 03/05/11 | |
| <i>Surrogate: 4-BFB (FID) (65-140%)</i> | | | | | 99 % | | | | |

TestAmerica Irvine

Debby Wilson
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.

IUB2621 <Page 3 of 80>

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

Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

EXTRACTABLE FUEL HYDROCARBONS (EPA 3510C/EPA 8015B)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|-----------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-01 (Outfall 019 (Grab) - Water) - cont. | | | | | Sampled: 02/24/11 | | | | |
| Reporting Units: mg/l | | | | | | | | | |
| DRO (C13 - C28) | EPA 8015B | 11C0118 | 0.094 | 0.47 | ND | 0.943 | CP | 03/02/11 | |
| <i>Surrogate: n-Octacosane (45-120%)</i> | | | | | 80 % | | | | |

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Debby Wilson
 Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

PURGEABLES BY GC/MS (EPA 624)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|---------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-01 (Outfall 019 (Grab) - Water) - cont. | | | | | Sampled: 02/24/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Benzene | EPA 624 | 11C0743 | 0.28 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Bromodichloromethane | EPA 624 | 11C0743 | 0.30 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Bromoform | EPA 624 | 11C0743 | 0.40 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Bromomethane | EPA 624 | 11C0743 | 0.42 | 1.0 | ND | 1 | GMK | 03/05/11 | |
| Carbon tetrachloride | EPA 624 | 11C0743 | 0.28 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Chlorobenzene | EPA 624 | 11C0743 | 0.36 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Chloroethane | EPA 624 | 11C0743 | 0.40 | 1.0 | ND | 1 | GMK | 03/05/11 | |
| Chloroform | EPA 624 | 11C0743 | 0.33 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Chloromethane | EPA 624 | 11C0743 | 0.40 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Dibromochloromethane | EPA 624 | 11C0743 | 0.40 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,2-Dichlorobenzene | EPA 624 | 11C0743 | 0.32 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,3-Dichlorobenzene | EPA 624 | 11C0743 | 0.35 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,4-Dichlorobenzene | EPA 624 | 11C0743 | 0.37 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,1-Dichloroethane | EPA 624 | 11C0743 | 0.40 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,2-Dichloroethane | EPA 624 | 11C0743 | 0.28 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,1-Dichloroethene | EPA 624 | 11C0743 | 0.42 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| cis-1,2-Dichloroethene | EPA 624 | 11C0743 | 0.32 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| trans-1,2-Dichloroethene | EPA 624 | 11C0743 | 0.30 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,2-Dichloropropane | EPA 624 | 11C0743 | 0.35 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| cis-1,3-Dichloropropene | EPA 624 | 11C0743 | 0.22 | 0.50 | ND | 1 | GMK | 03/05/11 | C |
| trans-1,3-Dichloropropene | EPA 624 | 11C0743 | 0.32 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,2-Dichloro-1,1,2-trifluoroethane | EPA 624 | 11C0743 | 1.1 | 2.0 | ND | 1 | GMK | 03/05/11 | |
| Ethylbenzene | EPA 624 | 11C0743 | 0.25 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Methylene chloride | EPA 624 | 11C0743 | 0.95 | 1.0 | ND | 1 | GMK | 03/05/11 | |
| 1,1,2,2-Tetrachloroethane | EPA 624 | 11C0743 | 0.30 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Tetrachloroethene | EPA 624 | 11C0743 | 0.32 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Toluene | EPA 624 | 11C0743 | 0.36 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,1,1-Trichloroethane | EPA 624 | 11C0743 | 0.30 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,1,2-Trichloroethane | EPA 624 | 11C0743 | 0.30 | 0.50 | ND | 1 | GMK | 03/05/11 | C |
| Trichloroethene | EPA 624 | 11C0743 | 0.26 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Trichlorofluoromethane | EPA 624 | 11C0743 | 0.34 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Trichlorotrifluoroethane (Freon 113) | EPA 624 | 11C0743 | 0.50 | 5.0 | ND | 1 | GMK | 03/05/11 | |
| Vinyl chloride | EPA 624 | 11C0743 | 0.40 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Xylenes, Total | EPA 624 | 11C0743 | 0.90 | 1.5 | ND | 1 | GMK | 03/05/11 | |
| Cyclohexane | EPA 624 | 11C0743 | 0.40 | 1.0 | ND | 1 | GMK | 03/05/11 | |
| <i>Surrogate: 4-Bromofluorobenzene (80-120%)</i> | | | | | <i>107 %</i> | | | | |
| <i>Surrogate: Dibromofluoromethane (80-120%)</i> | | | | | <i>111 %</i> | | | | |
| <i>Surrogate: Toluene-d8 (80-120%)</i> | | | | | <i>113 %</i> | | | | |

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

PURGEABLES BY GC/MS (EPA 624)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|---------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-02 (Trip Blanks - Water) | | | | | Sampled: 02/24/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Benzene | EPA 624 | 11C0743 | 0.28 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Bromodichloromethane | EPA 624 | 11C0743 | 0.30 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Bromoform | EPA 624 | 11C0743 | 0.40 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Bromomethane | EPA 624 | 11C0743 | 0.42 | 1.0 | ND | 1 | GMK | 03/05/11 | |
| Carbon tetrachloride | EPA 624 | 11C0743 | 0.28 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Chlorobenzene | EPA 624 | 11C0743 | 0.36 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Chloroethane | EPA 624 | 11C0743 | 0.40 | 1.0 | ND | 1 | GMK | 03/05/11 | |
| Chloroform | EPA 624 | 11C0743 | 0.33 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Chloromethane | EPA 624 | 11C0743 | 0.40 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Dibromochloromethane | EPA 624 | 11C0743 | 0.40 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,2-Dichlorobenzene | EPA 624 | 11C0743 | 0.32 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,3-Dichlorobenzene | EPA 624 | 11C0743 | 0.35 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,4-Dichlorobenzene | EPA 624 | 11C0743 | 0.37 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,1-Dichloroethane | EPA 624 | 11C0743 | 0.40 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,2-Dichloroethane | EPA 624 | 11C0743 | 0.28 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,1-Dichloroethene | EPA 624 | 11C0743 | 0.42 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| cis-1,2-Dichloroethene | EPA 624 | 11C0743 | 0.32 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| trans-1,2-Dichloroethene | EPA 624 | 11C0743 | 0.30 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,2-Dichloropropane | EPA 624 | 11C0743 | 0.35 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| cis-1,3-Dichloropropene | EPA 624 | 11C0743 | 0.22 | 0.50 | ND | 1 | GMK | 03/05/11 | C |
| trans-1,3-Dichloropropene | EPA 624 | 11C0743 | 0.32 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,2-Dichloro-1,1,2-trifluoroethane | EPA 624 | 11C0743 | 1.1 | 2.0 | ND | 1 | GMK | 03/05/11 | |
| Ethylbenzene | EPA 624 | 11C0743 | 0.25 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Methylene chloride | EPA 624 | 11C0743 | 0.95 | 1.0 | ND | 1 | GMK | 03/05/11 | |
| 1,1,2,2-Tetrachloroethane | EPA 624 | 11C0743 | 0.30 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Tetrachloroethene | EPA 624 | 11C0743 | 0.32 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Toluene | EPA 624 | 11C0743 | 0.36 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,1,1-Trichloroethane | EPA 624 | 11C0743 | 0.30 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| 1,1,2-Trichloroethane | EPA 624 | 11C0743 | 0.30 | 0.50 | ND | 1 | GMK | 03/05/11 | C |
| Trichloroethene | EPA 624 | 11C0743 | 0.26 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Trichlorofluoromethane | EPA 624 | 11C0743 | 0.34 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Trichlorotrifluoroethane (Freon 113) | EPA 624 | 11C0743 | 0.50 | 5.0 | ND | 1 | GMK | 03/05/11 | |
| Vinyl chloride | EPA 624 | 11C0743 | 0.40 | 0.50 | ND | 1 | GMK | 03/05/11 | |
| Xylenes, Total | EPA 624 | 11C0743 | 0.90 | 1.5 | ND | 1 | GMK | 03/05/11 | |
| Cyclohexane | EPA 624 | 11C0743 | 0.40 | 1.0 | ND | 1 | GMK | 03/05/11 | |
| <i>Surrogate: 4-Bromofluorobenzene (80-120%)</i> | | | | | <i>106 %</i> | | | | |
| <i>Surrogate: 4-Bromofluorobenzene (80-120%)</i> | | | | | <i>106 %</i> | | | | |
| <i>Surrogate: Dibromofluoromethane (80-120%)</i> | | | | | <i>112 %</i> | | | | |
| <i>Surrogate: Dibromofluoromethane (80-120%)</i> | | | | | <i>112 %</i> | | | | |
| <i>Surrogate: Toluene-d8 (80-120%)</i> | | | | | <i>114 %</i> | | | | |
| <i>Surrogate: Toluene-d8 (80-120%)</i> | | | | | <i>114 %</i> | | | | |

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

PURGEABLES-- GC/MS (EPA 624)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|---------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-01 (Outfall 019 (Grab) - Water) | | | | | Sampled: 02/24/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Acrolein | EPA 624 | 11B3216 | 4.0 | 5.0 | ND | 1 | LB | 02/25/11 | |
| Acrylonitrile | EPA 624 | 11B3216 | 1.2 | 2.0 | ND | 1 | LB | 02/25/11 | |
| 2-Chloroethyl vinyl ether | EPA 624 | 11B3216 | 1.8 | 5.0 | ND | 1 | LB | 02/25/11 | |
| <i>Surrogate: 4-Bromofluorobenzene (80-120%)</i> | | | | | 90 % | | | | |
| <i>Surrogate: Dibromofluoromethane (80-120%)</i> | | | | | 99 % | | | | |
| <i>Surrogate: Toluene-d8 (80-120%)</i> | | | | | 114 % | | | | |
| Sample ID: IUB2621-02 (Trip Blanks - Water) | | | | | Sampled: 02/24/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Acrolein | EPA 624 | 11B3216 | 4.0 | 5.0 | ND | 1 | LB | 02/25/11 | |
| Acrylonitrile | EPA 624 | 11B3216 | 1.2 | 2.0 | ND | 1 | LB | 02/25/11 | |
| 2-Chloroethyl vinyl ether | EPA 624 | 11B3216 | 1.8 | 5.0 | ND | 1 | LB | 02/25/11 | |
| <i>Surrogate: 4-Bromofluorobenzene (80-120%)</i> | | | | | 96 % | | | | |
| <i>Surrogate: Dibromofluoromethane (80-120%)</i> | | | | | 95 % | | | | |
| <i>Surrogate: Toluene-d8 (80-120%)</i> | | | | | 112 % | | | | |

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|---------------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| 1,4-Dioxane | EPA 8260B-SIM | 11B3460 | 1.0 | 2.0 | ND | 1 | GMK | 03/01/11 | |
| <i>Surrogate: Dibromofluoromethane (80-120%)</i> | | | | | <i>115 %</i> | | | | |

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|---------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) - cont. | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Acenaphthene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Acenaphthylene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Anthracene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Benzidine | EPA 625 | 11B3517 | 4.72 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| Benzo(a)anthracene | EPA 625 | 11B3517 | 0.0943 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| Benzo(a)pyrene | EPA 625 | 11B3517 | 0.0943 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| Benzo(b)fluoranthene | EPA 625 | 11B3517 | 0.0943 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| Benzo(g,h,i)perylene | EPA 625 | 11B3517 | 0.0943 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| Benzo(k)fluoranthene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| 4-Bromophenyl phenyl ether | EPA 625 | 11B3517 | 0.0943 | 0.943 | ND | 0.943 | up | 03/02/11 | |
| Butyl benzyl phthalate | EPA 625 | 11B3517 | 0.660 | 4.72 | 0.792 | 0.943 | up | 03/02/11 | Ja |
| 4-Chloro-3-methylphenol | EPA 625 | 11B3517 | 0.189 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| Bis(2-chloroethoxy)methane | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Bis(2-chloroethyl)ether | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Bis(2-chloroisopropyl)ether | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Bis(2-ethylhexyl)phthalate | EPA 625 | 11B3517 | 1.60 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| 2-Chloronaphthalene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| 2-Chlorophenol | EPA 625 | 11B3517 | 0.189 | 0.943 | ND | 0.943 | up | 03/02/11 | |
| 4-Chlorophenyl phenyl ether | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Chrysene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Dibenz(a,h)anthracene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Di-n-butyl phthalate | EPA 625 | 11B3517 | 0.189 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| 1,2-Dichlorobenzene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| 1,3-Dichlorobenzene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| 1,4-Dichlorobenzene | EPA 625 | 11B3517 | 0.189 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| 3,3'-Dichlorobenzidine | EPA 625 | 11B3517 | 4.72 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| 2,4-Dichlorophenol | EPA 625 | 11B3517 | 0.189 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| Diethyl phthalate | EPA 625 | 11B3517 | 0.0943 | 0.943 | 0.226 | 0.943 | up | 03/02/11 | Ja |
| 2,4-Dimethylphenol | EPA 625 | 11B3517 | 0.283 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| Dimethyl phthalate | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| 4,6-Dinitro-2-methylphenol | EPA 625 | 11B3517 | 0.189 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| 2,4-Dinitrophenol | EPA 625 | 11B3517 | 0.849 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| 2,4-Dinitrotoluene | EPA 625 | 11B3517 | 0.189 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| 2,6-Dinitrotoluene | EPA 625 | 11B3517 | 0.0943 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| Di-n-octyl phthalate | EPA 625 | 11B3517 | 0.0943 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| 1,2-Diphenylhydrazine/Azobenzene | EPA 625 | 11B3517 | 0.0943 | 0.943 | ND | 0.943 | up | 03/02/11 | C |
| Fluoranthene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Fluorene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Hexachlorobenzene | EPA 625 | 11B3517 | 0.0943 | 0.943 | ND | 0.943 | up | 03/02/11 | |
| Hexachlorobutadiene | EPA 625 | 11B3517 | 0.189 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| Hexachlorocyclopentadiene | EPA 625 | 11B3517 | 0.0943 | 4.72 | ND | 0.943 | up | 03/02/11 | |

TestAmerica Irvine

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Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|---------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) - cont. | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Hexachloroethane | EPA 625 | 11B3517 | 0.189 | 2.83 | ND | 0.943 | up | 03/02/11 | |
| Indeno(1,2,3-cd)pyrene | EPA 625 | 11B3517 | 0.0943 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| Isophorone | EPA 625 | 11B3517 | 0.0943 | 0.943 | ND | 0.943 | up | 03/02/11 | |
| Naphthalene | EPA 625 | 11B3517 | 0.0943 | 0.943 | 0.151 | 0.943 | up | 03/02/11 | Ja |
| Nitrobenzene | EPA 625 | 11B3517 | 0.0943 | 0.943 | ND | 0.943 | up | 03/02/11 | |
| 2-Nitrophenol | EPA 625 | 11B3517 | 0.0943 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| 4-Nitrophenol | EPA 625 | 11B3517 | 2.36 | 4.72 | ND | 0.943 | up | 03/02/11 | |
| N-Nitroso-di-n-propylamine | EPA 625 | 11B3517 | 0.0943 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| N-Nitrosodimethylamine | EPA 625 | 11B3517 | 0.0943 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| N-Nitrosodiphenylamine | EPA 625 | 11B3517 | 0.0943 | 0.943 | ND | 0.943 | up | 03/02/11 | |
| Pentachlorophenol | EPA 625 | 11B3517 | 0.0943 | 1.89 | ND | 0.943 | up | 03/02/11 | |
| Phenanthrene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| Phenol | EPA 625 | 11B3517 | 0.283 | 0.943 | ND | 0.943 | up | 03/02/11 | |
| Pyrene | EPA 625 | 11B3517 | 0.0943 | 0.472 | ND | 0.943 | up | 03/02/11 | |
| 1,2,4-Trichlorobenzene | EPA 625 | 11B3517 | 0.0943 | 0.943 | ND | 0.943 | up | 03/02/11 | |
| 2,4,6-Trichlorophenol | EPA 625 | 11B3517 | 0.0943 | 0.943 | ND | 0.943 | up | 03/02/11 | |
| Surrogate: 2,4,6-Tribromophenol (40-120%) | | | | | 99 % | | | | |
| Surrogate: 2-Fluorobiphenyl (50-120%) | | | | | 94 % | | | | |
| Surrogate: 2-Fluorophenol (30-120%) | | | | | 85 % | | | | |
| Surrogate: Nitrobenzene-d5 (45-120%) | | | | | 91 % | | | | |
| Surrogate: Phenol-d6 (35-120%) | | | | | 91 % | | | | |
| Surrogate: Terphenyl-d14 (50-125%) | | | | | 105 % | | | | |

TestAmerica Irvine

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IUB2621 <Page 10 of 80>

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

Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

ORGANOCHLORINE PESTICIDES (EPA 608)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|---------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) - cont. | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| 4,4'-DDD | EPA 608 | 11C0141 | 0.0038 | 0.0047 | ND | 0.943 | CN | 03/11/11 | |
| 4,4'-DDE | EPA 608 | 11C0141 | 0.0028 | 0.0047 | ND | 0.943 | CN | 03/11/11 | |
| 4,4'-DDT | EPA 608 | 11C0141 | 0.0038 | 0.0094 | ND | 0.943 | CN | 03/11/11 | |
| Aldrin | EPA 608 | 11C0141 | 0.0014 | 0.0047 | ND | 0.943 | CN | 03/11/11 | |
| alpha-BHC | EPA 608 | 11C0141 | 0.0024 | 0.0047 | ND | 0.943 | CN | 03/11/11 | |
| beta-BHC | EPA 608 | 11C0141 | 0.0038 | 0.0094 | ND | 0.943 | CN | 03/11/11 | |
| delta-BHC | EPA 608 | 11C0141 | 0.0033 | 0.0047 | ND | 0.943 | CN | 03/11/11 | |
| Dieldrin | EPA 608 | 11C0141 | 0.0019 | 0.0047 | ND | 0.943 | CN | 03/11/11 | |
| Endosulfan I | EPA 608 | 11C0141 | 0.0019 | 0.0047 | ND | 0.943 | CN | 03/11/11 | |
| Endosulfan II | EPA 608 | 11C0141 | 0.0028 | 0.0047 | ND | 0.943 | CN | 03/11/11 | |
| Endosulfan sulfate | EPA 608 | 11C0141 | 0.0028 | 0.0094 | ND | 0.943 | CN | 03/11/11 | |
| Endrin | EPA 608 | 11C0141 | 0.0019 | 0.0047 | ND | 0.943 | CN | 03/11/11 | |
| Endrin aldehyde | EPA 608 | 11C0141 | 0.0019 | 0.0094 | ND | 0.943 | CN | 03/11/11 | |
| gamma-BHC (Lindane) | EPA 608 | 11C0141 | 0.0028 | 0.019 | ND | 0.943 | CN | 03/11/11 | |
| Heptachlor | EPA 608 | 11C0141 | 0.0028 | 0.0094 | ND | 0.943 | CN | 03/11/11 | |
| Heptachlor epoxide | EPA 608 | 11C0141 | 0.0024 | 0.0047 | ND | 0.943 | CN | 03/11/11 | |
| Chlordane | EPA 608 | 11C0141 | 0.075 | 0.094 | ND | 0.943 | CN | 03/11/11 | |
| Toxaphene | EPA 608 | 11C0141 | 0.24 | 0.47 | ND | 0.943 | CN | 03/11/11 | |
| <i>Surrogate: Decachlorobiphenyl (45-120%)</i> | | | | | 67 % | | | | |
| <i>Surrogate: Tetrachloro-m-xylene (35-115%)</i> | | | | | 62 % | | | | |

TestAmerica Irvine

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

Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

TOTAL PCBS (EPA 608)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|---------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) - cont. | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Aroclor 1016 | EPA 608 | 11C0141 | 0.24 | 0.47 | ND | 0.943 | CN | 03/03/11 | |
| Aroclor 1221 | EPA 608 | 11C0141 | 0.24 | 0.47 | ND | 0.943 | CN | 03/03/11 | |
| Aroclor 1232 | EPA 608 | 11C0141 | 0.24 | 0.47 | ND | 0.943 | CN | 03/03/11 | |
| Aroclor 1242 | EPA 608 | 11C0141 | 0.24 | 0.47 | ND | 0.943 | CN | 03/03/11 | |
| Aroclor 1248 | EPA 608 | 11C0141 | 0.24 | 0.47 | ND | 0.943 | CN | 03/03/11 | |
| Aroclor 1254 | EPA 608 | 11C0141 | 0.24 | 0.47 | ND | 0.943 | CN | 03/03/11 | |
| Aroclor 1260 | EPA 608 | 11C0141 | 0.24 | 0.47 | ND | 0.943 | CN | 03/03/11 | |
| <i>Surrogate: Decachlorobiphenyl (45-120%)</i> | | | | | 52 % | | | | |

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

HEXANE EXTRACTABLE MATERIAL

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|-----------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-01 (Outfall 019 (Grab) - Water) | | | | | Sampled: 02/24/11 | | | | |
| Reporting Units: mg/l | | | | | | | | | |
| Hexane Extractable Material (Oil & Grease) | EPA 1664A | 11C1154 | 1.3 | 4.7 | ND | 1 | DA | 03/09/11 | |

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

Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: mg/l | | | | | | | | | |
| Barium | EPA 200.7 | 11C0795 | 0.0060 | 0.010 | 0.0081 | 1 | DT | 03/09/11 | Ja |
| Boron | EPA 200.7 | 11C0795 | 0.020 | 0.050 | 0.064 | 1 | DT | 03/09/11 | |
| Iron | EPA 200.7 | 11C0795 | 0.015 | 0.040 | 0.075 | 1 | DT | 03/09/11 | |
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Mercury | EPA 245.1 | 11C0578 | 0.10 | 0.20 | ND | 1 | DB | 03/04/11 | |
| Arsenic | EPA 200.7 | 11C0795 | 7.0 | 10 | ND | 1 | DT | 03/09/11 | |
| Antimony | EPA 200.8 | 11C0501 | 0.30 | 2.0 | ND | 1 | RDC | 03/04/11 | |
| Beryllium | EPA 200.7 | 11C0795 | 0.90 | 2.0 | ND | 1 | DP | 03/12/11 | |
| Chromium | EPA 200.7 | 11C0795 | 2.00 | 5.00 | ND | 1 | DT | 03/09/11 | |
| Cobalt | EPA 200.7 | 11C0795 | 2.0 | 10 | ND | 1 | DP | 03/12/11 | |
| Manganese | EPA 200.7 | 11C0795 | 7.0 | 20 | ND | 1 | DT | 03/09/11 | |
| Nickel | EPA 200.7 | 11C0795 | 2.0 | 10 | 2.9 | 1 | DP | 03/12/11 | Ja |
| Cadmium | EPA 200.8 | 11C0501 | 0.10 | 1.0 | ND | 1 | RDC | 03/04/11 | |
| Vanadium | EPA 200.7 | 11C0795 | 3.0 | 10 | ND | 1 | DT | 03/09/11 | |
| Zinc | EPA 200.7 | 11C0795 | 6.00 | 20.0 | 42.5 | 1 | DT | 03/09/11 | |
| Copper | EPA 200.8 | 11C0501 | 0.500 | 2.00 | 2.02 | 1 | RDC | 03/04/11 | |
| Lead | EPA 200.8 | 11C0501 | 0.20 | 1.0 | 0.24 | 1 | RDC | 03/04/11 | Ja |
| Selenium | EPA 200.8 | 11C0501 | 0.50 | 2.0 | 0.65 | 1 | KB1 | 03/04/11 | Ja |
| Silver | EPA 200.8 | 11C0501 | 0.10 | 1.0 | ND | 1 | RDC | 03/04/11 | |
| Thallium | EPA 200.8 | 11C0501 | 0.20 | 1.0 | ND | 1 | RDC | 03/04/11 | |

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

DISSOLVED METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|----------------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) - cont. | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: mg/l | | | | | | | | | |
| Hardness as CaCO3 | SM2340B-Diss | [CALC] | | 0.33 | 120 | 1 | NH | 03/07/11 | |
| Barium | EPA 200.7-Diss | 11B3548 | 0.0060 | 0.010 | 0.0088 | 1 | NH | 03/07/11 | Ja |
| Boron | EPA 200.7-Diss | 11B3548 | 0.020 | 0.050 | 0.066 | 1 | NH | 03/07/11 | |
| Calcium | EPA 200.7-Diss | 11B3548 | 0.050 | 0.10 | 50 | 1 | NH | 03/07/11 | |
| Iron | EPA 200.7-Diss | 11B3548 | 0.015 | 0.040 | 0.064 | 1 | NH | 03/07/11 | |
| Magnesium | EPA 200.7-Diss | 11B3548 | 0.012 | 0.020 | 0.10 | 1 | NH | 03/07/11 | |
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Mercury | EPA 245.1-Diss | 11C0168 | 0.10 | 0.20 | ND | 1 | DB | 03/02/11 | |
| Arsenic | EPA 200.7-Diss | 11B3548 | 7.0 | 10 | ND | 1 | NH | 03/07/11 | |
| Antimony | EPA 200.8-Diss | 11C0285 | 0.30 | 2.0 | 0.75 | 1 | RDC | 03/03/11 | Ja |
| Beryllium | EPA 200.7-Diss | 11B3548 | 0.90 | 2.0 | ND | 1 | NH | 03/07/11 | |
| Chromium | EPA 200.7-Diss | 11B3548 | 2.0 | 5.0 | ND | 1 | LL | 03/07/11 | |
| Cobalt | EPA 200.7-Diss | 11B3548 | 2.0 | 10 | ND | 1 | LL | 03/08/11 | |
| Manganese | EPA 200.7-Diss | 11B3548 | 7.0 | 20 | ND | 1 | NH | 03/07/11 | |
| Nickel | EPA 200.7-Diss | 11B3548 | 2.0 | 10 | 2.4 | 1 | NH | 03/07/11 | Ja |
| Cadmium | EPA 200.8-Diss | 11C0285 | 0.10 | 1.0 | ND | 1 | RDC | 03/03/11 | |
| Vanadium | EPA 200.7-Diss | 11B3548 | 3.0 | 10 | ND | 1 | NH | 03/07/11 | |
| Zinc | EPA 200.7-Diss | 11B3548 | 6.00 | 20.0 | 42.0 | 1 | NH | 03/07/11 | |
| Copper | EPA 200.8-Diss | 11C0285 | 0.500 | 2.00 | 1.25 | 1 | RDC | 03/03/11 | Ja |
| Lead | EPA 200.8-Diss | 11C0285 | 0.20 | 1.0 | ND | 1 | RDC | 03/03/11 | |
| Selenium | EPA 200.8-Diss | 11C0285 | 0.50 | 2.0 | ND | 1 | RDC | 03/03/11 | |
| Silver | EPA 200.8-Diss | 11C0285 | 0.10 | 1.0 | ND | 1 | RDC | 03/03/11 | |
| Thallium | EPA 200.8-Diss | 11C0285 | 0.20 | 1.0 | ND | 1 | RDC | 03/03/11 | |

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

DISSOLVED INORGANICS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) - cont. | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Chromium VI | EPA 218.6 | 11B3306 | 0.250 | 1.00 | ND | 1 | EL | 02/25/11 | |

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Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

INORGANICS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|-------------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) - cont. | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: mg/l | | | | | | | | | |
| Ammonia-N (Distilled) | SM4500NH3-C | 11C0150 | 0.500 | 0.500 | ND | 1 | TMK | 03/01/11 | |
| Biochemical Oxygen Demand | SM5210B | 11B3423 | 0.50 | 2.0 | 1.1 | 1 | XL | 03/03/11 | Ja |
| Chloride | EPA 300.0 | 11B3530 | 3.0 | 5.0 | 110 | 10 | NN | 02/28/11 | |
| Fluoride | SM 4500-F-C | 11B3475 | 0.020 | 0.10 | 0.35 | 1 | FZ | 02/28/11 | |
| Nitrate-N | EPA 300.0 | 11B3246 | 0.060 | 0.11 | 0.095 | 1 | NN | 02/25/11 | Ja |
| Nitrite-N | EPA 300.0 | 11B3246 | 0.090 | 0.15 | ND | 1 | NN | 02/25/11 | |
| Nitrate/Nitrite-N | EPA 300.0 | 11B3246 | 0.15 | 0.26 | ND | 1 | NN | 02/25/11 | |
| Sulfate | EPA 300.0 | 11B3246 | 1.5 | 2.5 | 97 | 5 | NN | 02/25/11 | |
| Surfactants (MBAS) | SM5540-C | 11B3430 | 0.050 | 0.10 | 0.058 | 1 | EL | 02/26/11 | Ja |
| Total Dissolved Solids | SM2540C | 11C0204 | 1.0 | 10 | 500 | 1 | MC | 03/02/11 | |
| Total Organic Carbon | SM5310B | 11C0822 | 0.50 | 1.0 | 4.3 | 1 | FZ | 03/07/11 | |
| Total Suspended Solids | SM 2540D | 11B3624 | 1.0 | 10 | 1.0 | 1 | DK1 | 02/28/11 | Ja |

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Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

INORGANICS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|------------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-01 (Outfall 019 (Grab) - Water) | | | | | Sampled: 02/24/11 | | | | |
| Reporting Units: ml/l | | | | | | | | | |
| Total Settleable Solids | SM2540F | 11B3268 | 0.10 | 0.10 | ND | 1 | AC1 | 02/25/11 | |
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: NTU | | | | | | | | | |
| Turbidity | EPA 180.1 | 11B3411 | 0.040 | 1.0 | 0.90 | 1 | AC1 | 02/26/11 | Ja |
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Perchlorate | EPA 314.0 | 11B3363 | 0.90 | 1.0 | ND | 1 | mn | 02/26/11 | |
| Total Cyanide | SM4500CN-E | 11C0158 | 2.2 | 5.0 | ND | 1 | HH | 03/01/11 | |

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|----------------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-01 (Outfall 019 (Grab) - Water) | | | | | Sampled: 02/24/11 | | | | |
| Reporting Units: MPN/100 ml | | | | | | | | | |
| Fecal Coliform | SM9221 A,B,C,E | 11B3162 | 2.00 | 2.00 | ND | 1 | AK | 02/27/11 | |
| E. Coli | SM9221 A,B,C,E | 11B3162 | 2.00 | 2.00 | ND | 1 | AK | 02/27/11 | |

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MWH-Pasadena/Boeing
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Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

8670

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|--------|-------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Uranium, Total | 8670 | 8670 | | 1 | 0.159 | 1 | TSC | 03/15/11 | Jb |
| Sample ID: IUB2621-04 (Trip Blank - Water) | | | | | Sampled: 02/28/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Uranium, Total | 8670 | 8670 | | 1 | ND | 1 | TSC | 03/15/11 | U |

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Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

900

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|--------|-------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Gross Alpha | 900 | 8670 | | 3 | 1.1 | 1 | LS | 03/15/11 | U |
| Gross Beta | 900 | 8670 | | 4 | 3.76 | 1 | LS | 03/15/11 | Jb |
| Sample ID: IUB2621-04 (Trip Blank - Water) | | | | | Sampled: 02/28/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Gross Alpha | 900 | 8670 | | 3 | 0.008 | 1 | LS | 03/15/11 | U |
| Gross Beta | 900 | 8670 | | 4 | 0.579 | 1 | LS | 03/15/11 | U |

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Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

901.1

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|--------|-------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Cesium-137 | 901.1 | 8670 | | 20 | ND | 1 | LS | 03/11/11 | U |
| Potassium-40 | 901.1 | 8670 | | 25 | ND | 1 | LS | 03/11/11 | U |
| Sample ID: IUB2621-04 (Trip Blank - Water) | | | | | Sampled: 02/28/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Cesium-137 | 901.1 | 8670 | | 20 | ND | 1 | LS | 03/11/11 | U |
| Potassium-40 | 901.1 | 8670 | | 25 | ND | 1 | LS | 03/11/11 | U |

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

903.1

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|--------|-------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Radium-226 | 903.1 | 8670 | | 1 | 0.503 | 1 | ASM | 03/19/11 | U |
| Sample ID: IUB2621-04 (Trip Blank - Water) | | | | | Sampled: 02/28/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Radium-226 | 903.1 | 8670 | | 1 | 0.099 | 1 | ASM | 03/19/11 | U |

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

904

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|--------|-------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Radium-228 | 904 | 8670 | | 1 | 0.052 | 1 | ASM | 03/18/11 | U |
| Sample ID: IUB2621-04 (Trip Blank - Water) | | | | | Sampled: 02/28/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Radium-228 | 904 | 8670 | | 1 | -0.118 | 1 | ASM | 03/18/11 | U |

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

905

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|--------|-------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Strontium-90 | 905 | 8670 | | 2 | -0.281 | 1 | ASM | 03/16/11 | U |
| Sample ID: IUB2621-04 (Trip Blank - Water) | | | | | Sampled: 02/28/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Strontium-90 | 905 | 8670 | | 2 | -0.173 | 1 | ASM | 03/16/11 | U |

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

906

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|--------|-------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: pCi/L | | | | | | | | | |
| Tritium | 906 | 8670 | | 500 | -56.2 | 1 | WL | 03/22/11 | U |

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

EPA-5 1613Bx

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|-------------|---------|-----------|-----------------|--------------------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water) - cont. | | | | | Sampled: 02/25/11 | | | | |
| Reporting Units: ug/L | | | | | | | | | |
| 1,2,3,4,6,7,8-HpCDD | EPA-5 1613B | 1060411 | 0.0000031 | 0.00005 | 2.6e-006 | 1.02 | SK | 03/02/11 | J, Q |
| 1,2,3,4,6,7,8-HpCDF | EPA-5 1613B | 1060411 | 0.0000024 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 1,2,3,4,7,8,9-HpCDF | EPA-5 1613B | 1060411 | 0.0000035 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 1,2,3,4,7,8-HxCDD | EPA-5 1613B | 1060411 | 0.0000027 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 1,2,3,4,7,8-HxCDF | EPA-5 1613B | 1060411 | 0.0000032 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 1,2,3,6,7,8-HxCDD | EPA-5 1613B | 1060411 | 0.0000025 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 1,2,3,6,7,8-HxCDF | EPA-5 1613B | 1060411 | 0.0000028 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 1,2,3,7,8,9-HxCDD | EPA-5 1613B | 1060411 | 0.0000022 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 1,2,3,7,8,9-HxCDF | EPA-5 1613B | 1060411 | 0.0000038 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 1,2,3,7,8-PeCDD | EPA-5 1613B | 1060411 | 0.0000072 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 1,2,3,7,8-PeCDF | EPA-5 1613B | 1060411 | 0.0000092 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 2,3,4,6,7,8-HxCDF | EPA-5 1613B | 1060411 | 0.0000028 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 2,3,4,7,8-PeCDF | EPA-5 1613B | 1060411 | 0.0000096 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| 2,3,7,8-TCDD | EPA-5 1613B | 1060411 | 0.0000094 | 0.00001 | ND | 1.02 | SK | 03/02/11 | |
| 2,3,7,8-TCDF | EPA-5 1613B | 1060411 | 0.0000026 | 0.00001 | ND | 1.02 | SK | 03/02/11 | |
| OCDD | EPA-5 1613B | 1060411 | 0.000009 | 0.0001 | 2.4e-005 | 1.02 | SK | 03/02/11 | J, B |
| OCDF | EPA-5 1613B | 1060411 | 0.0000054 | 0.0001 | 4.5e-006 | 1.02 | SK | 03/02/11 | J |
| Total HpCDD | EPA-5 1613B | 1060411 | 0.0000031 | 0.00005 | 6.5e-006 | 1.02 | SK | 03/02/11 | J, Q |
| Total HpCDF | EPA-5 1613B | 1060411 | 0.0000024 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| Total HxCDD | EPA-5 1613B | 1060411 | 0.0000022 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| Total HxCDF | EPA-5 1613B | 1060411 | 0.0000028 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| Total PeCDD | EPA-5 1613B | 1060411 | 0.0000072 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| Total PeCDF | EPA-5 1613B | 1060411 | 0.0000092 | 0.00005 | ND | 1.02 | SK | 03/02/11 | |
| Total TCDD | EPA-5 1613B | 1060411 | 0.0000094 | 0.00001 | ND | 1.02 | SK | 03/02/11 | |
| Total TCDF | EPA-5 1613B | 1060411 | 0.0000026 | 0.00001 | ND | 1.02 | SK | 03/02/11 | |

| | |
|--|-------|
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%) | 84 % |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%) | 98 % |
| Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%) | 98 % |
| Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%) | 79 % |
| Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%) | 89 % |
| Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%) | 90 % |
| Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%) | 93 % |
| Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%) | 99 % |
| Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%) | 78 % |
| Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%) | 86 % |
| Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%) | 101 % |
| Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%) | 88 % |
| Surrogate: 13C-2,3,7,8-TCDD (25-164%) | 77 % |
| Surrogate: 13C-2,3,7,8-TCDF (24-169%) | 87 % |
| Surrogate: 13C-OCDD (17-157%) | 92 % |
| Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%) | 90 % |

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

SHORT HOLD TIME DETAIL REPORT

| | Hold Time (in days) | Date/Time Sampled | Date/Time Received | Date/Time Extracted | Date/Time Analyzed |
|--|------------------------|----------------------|-----------------------|------------------------|-----------------------|
| Sample ID: Outfall 019 (Grab) (IUB2621-01) - Water | | | | | |
| EPA 624 | 3 | 02/24/2011 11:00 | 02/24/2011 14:50 | 02/25/2011 07:54 | 02/25/2011 10:46 |
| SM2540F | 2 | 02/24/2011 11:00 | 02/24/2011 14:50 | 02/25/2011 10:30 | 02/25/2011 10:30 |
| SM9221 A,B,C,E | 0 | 02/24/2011 11:00 | 02/24/2011 14:50 | 02/24/2011 15:11 | 02/27/2011 10:50 |
| Sample ID: Trip Blanks (IUB2621-02) - Water | | | | | |
| EPA 624 | 3 | 02/24/2011 11:00 | 02/24/2011 14:50 | 02/25/2011 07:54 | 02/25/2011 10:17 |
| Sample ID: Outfall 019 (Composite) (IUB2621-03) - Water | | | | | |
| EPA 180.1 | 2 | 02/25/2011 11:22 | 02/24/2011 14:50 | 02/26/2011 15:00 | 02/26/2011 15:00 |
| EPA 218.6 | 1 | 02/25/2011 11:22 | 02/24/2011 14:50 | 02/25/2011 19:20 | 02/25/2011 19:24 |
| EPA 300.0 | 2 | 02/25/2011 11:22 | 02/24/2011 14:50 | 02/25/2011 12:00 | 02/25/2011 20:29 |
| SM5210B | 2 | 02/25/2011 11:22 | 02/24/2011 14:50 | 02/26/2011 16:33 | 03/03/2011 09:30 |
| SM5540-C | 2 | 02/25/2011 11:22 | 02/24/2011 14:50 | 02/26/2011 19:31 | 02/26/2011 19:45 |

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

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: 11C0706 Extracted: 03/04/11 | | | | | | | | | | | |
| Blank Analyzed: 03/04/2011 (11C0706-BLK1) | | | | | | | | | | | |
| GRO (C4 - C12) | ND | 0.10 | 0.025 | mg/l | | | | | | | |
| Surrogate: 4-BFB (FID) | 0.00990 | | | mg/l | 0.0100 | | 99 | 65-140 | | | |
| LCS Analyzed: 03/04/2011 (11C0706-BS1) | | | | | | | | | | | |
| GRO (C4 - C12) | 0.792 | 0.10 | 0.025 | mg/l | 0.800 | | 99 | 80-120 | | | |
| Surrogate: 4-BFB (FID) | 0.0137 | | | mg/l | 0.0100 | | 137 | 65-140 | | | |
| Matrix Spike Analyzed: 03/04/2011 (11C0706-MS1) Source: IUB2739-01 | | | | | | | | | | | |
| GRO (C4 - C12) | 0.230 | 0.10 | 0.025 | mg/l | 0.220 | ND | 105 | 65-140 | | | |
| Surrogate: 4-BFB (FID) | 0.0122 | | | mg/l | 0.0100 | | 122 | 65-140 | | | |
| Matrix Spike Dup Analyzed: 03/05/2011 (11C0706-MSD1) Source: IUB2739-01 | | | | | | | | | | | |
| GRO (C4 - C12) | 0.226 | 0.10 | 0.025 | mg/l | 0.220 | ND | 103 | 65-140 | 2 | 20 | |
| Surrogate: 4-BFB (FID) | 0.0118 | | | mg/l | 0.0100 | | 118 | 65-140 | | | |

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (EPA 3510C/EPA 8015B)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 11C0118 Extracted: 03/01/11 | | | | | | | | | | | |
| Blank Analyzed: 03/02/2011 (11C0118-BLK1) | | | | | | | | | | | |
| DRO (C13 - C28) | ND | 0.50 | 0.10 | mg/l | | | | | | | |
| EFH (C10 - C28) | 0.0154 | NA | N/A | mg/l | | | | | | | |
| Surrogate: n-Octacosane | 0.182 | | | mg/l | 0.200 | | 91 | 45-120 | | | |
| LCS Analyzed: 03/02/2011 (11C0118-BS1) | | | | | | | | | | | |
| EFH (C10 - C28) | 0.731 | NA | N/A | mg/l | 1.00 | | 73 | 40-115 | | | MNR1 |
| Surrogate: n-Octacosane | 0.173 | | | mg/l | 0.200 | | 87 | 45-120 | | | |
| LCS Dup Analyzed: 03/02/2011 (11C0118-BSD1) | | | | | | | | | | | |
| EFH (C10 - C28) | 0.651 | NA | N/A | mg/l | 1.00 | | 65 | 40-115 | 12 | 25 | |
| Surrogate: n-Octacosane | 0.157 | | | mg/l | 0.200 | | 79 | 45-120 | | | |

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Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11C0743 Extracted: 03/05/11 | | | | | | | | | | | |
| Blank Analyzed: 03/05/2011 (11C0743-BLK1) | | | | | | | | | | | |
| Benzene | ND | 0.50 | 0.28 | ug/l | | | | | | | |
| Bromodichloromethane | ND | 0.50 | 0.30 | ug/l | | | | | | | |
| Bromoform | ND | 0.50 | 0.40 | ug/l | | | | | | | |
| Bromomethane | ND | 1.0 | 0.42 | ug/l | | | | | | | |
| Carbon tetrachloride | ND | 0.50 | 0.28 | ug/l | | | | | | | |
| Chlorobenzene | ND | 0.50 | 0.36 | ug/l | | | | | | | |
| Chloroethane | ND | 1.0 | 0.40 | ug/l | | | | | | | |
| Chloroform | ND | 0.50 | 0.33 | ug/l | | | | | | | |
| Chloromethane | ND | 0.50 | 0.40 | ug/l | | | | | | | |
| Dibromochloromethane | ND | 0.50 | 0.40 | ug/l | | | | | | | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.32 | ug/l | | | | | | | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.35 | ug/l | | | | | | | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.37 | ug/l | | | | | | | |
| 1,1-Dichloroethane | ND | 0.50 | 0.40 | ug/l | | | | | | | |
| 1,2-Dichloroethane | ND | 0.50 | 0.28 | ug/l | | | | | | | |
| 1,1-Dichloroethene | ND | 0.50 | 0.42 | ug/l | | | | | | | |
| cis-1,2-Dichloroethene | ND | 0.50 | 0.32 | ug/l | | | | | | | |
| trans-1,2-Dichloroethene | ND | 0.50 | 0.30 | ug/l | | | | | | | |
| 1,2-Dichloropropane | ND | 0.50 | 0.35 | ug/l | | | | | | | |
| cis-1,3-Dichloropropene | ND | 0.50 | 0.22 | ug/l | | | | | | | |
| trans-1,3-Dichloropropene | ND | 0.50 | 0.32 | ug/l | | | | | | | |
| 1,2-Dichloro-1,1,2-trifluoroethane | ND | 2.0 | 1.1 | ug/l | | | | | | | |
| Ethylbenzene | ND | 0.50 | 0.25 | ug/l | | | | | | | |
| Methylene chloride | ND | 1.0 | 0.95 | ug/l | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.30 | ug/l | | | | | | | |
| Tetrachloroethene | ND | 0.50 | 0.32 | ug/l | | | | | | | |
| Toluene | ND | 0.50 | 0.36 | ug/l | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.50 | 0.30 | ug/l | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.50 | 0.30 | ug/l | | | | | | | |
| Trichloroethene | ND | 0.50 | 0.26 | ug/l | | | | | | | |
| Trichlorofluoromethane | ND | 0.50 | 0.34 | ug/l | | | | | | | |
| Trichlorotrifluoroethane (Freon 113) | ND | 5.0 | 0.50 | ug/l | | | | | | | |
| Vinyl chloride | ND | 0.50 | 0.40 | ug/l | | | | | | | |
| Xylenes, Total | ND | 1.5 | 0.90 | ug/l | | | | | | | |
| Cyclohexane | ND | 1.0 | 0.40 | ug/l | | | | | | | |

TestAmerica Irvine

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Project Manager

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11C0743 Extracted: 03/05/11 | | | | | | | | | | | |
| Blank Analyzed: 03/05/2011 (11C0743-BLK1) | | | | | | | | | | | |
| Surrogate: 4-Bromofluorobenzene | 26.2 | | | ug/l | 25.0 | | 105 | 80-120 | | | |
| Surrogate: Dibromofluoromethane | 26.6 | | | ug/l | 25.0 | | 106 | 80-120 | | | |
| Surrogate: Toluene-d8 | 28.3 | | | ug/l | 25.0 | | 113 | 80-120 | | | |
| LCS Analyzed: 03/05/2011 (11C0743-BS1) | | | | | | | | | | | |
| Benzene | 26.6 | 0.50 | 0.28 | ug/l | 25.0 | | 106 | 70-120 | | | |
| Bromodichloromethane | 30.0 | 0.50 | 0.30 | ug/l | 25.0 | | 120 | 70-135 | | | |
| Bromoform | 24.7 | 0.50 | 0.40 | ug/l | 25.0 | | 99 | 55-130 | | | |
| Bromomethane | 25.9 | 1.0 | 0.42 | ug/l | 25.0 | | 104 | 65-140 | | | |
| Carbon tetrachloride | 27.7 | 0.50 | 0.28 | ug/l | 25.0 | | 111 | 65-140 | | | |
| Chlorobenzene | 27.3 | 0.50 | 0.36 | ug/l | 25.0 | | 109 | 75-120 | | | |
| Chloroethane | 28.4 | 1.0 | 0.40 | ug/l | 25.0 | | 113 | 60-140 | | | |
| Chloroform | 27.3 | 0.50 | 0.33 | ug/l | 25.0 | | 109 | 70-130 | | | |
| Chloromethane | 28.5 | 0.50 | 0.40 | ug/l | 25.0 | | 114 | 50-140 | | | |
| Dibromochloromethane | 24.7 | 0.50 | 0.40 | ug/l | 25.0 | | 99 | 70-140 | | | |
| 1,2-Dichlorobenzene | 28.6 | 0.50 | 0.32 | ug/l | 25.0 | | 115 | 75-120 | | | |
| 1,3-Dichlorobenzene | 28.1 | 0.50 | 0.35 | ug/l | 25.0 | | 112 | 75-120 | | | |
| 1,4-Dichlorobenzene | 27.1 | 0.50 | 0.37 | ug/l | 25.0 | | 109 | 75-120 | | | |
| 1,1-Dichloroethane | 27.6 | 0.50 | 0.40 | ug/l | 25.0 | | 110 | 70-125 | | | |
| 1,2-Dichloroethane | 28.3 | 0.50 | 0.28 | ug/l | 25.0 | | 113 | 60-140 | | | |
| 1,1-Dichloroethene | 25.6 | 0.50 | 0.42 | ug/l | 25.0 | | 103 | 70-125 | | | |
| cis-1,2-Dichloroethene | 28.0 | 0.50 | 0.32 | ug/l | 25.0 | | 112 | 70-125 | | | |
| trans-1,2-Dichloroethene | 26.6 | 0.50 | 0.30 | ug/l | 25.0 | | 106 | 70-125 | | | |
| 1,2-Dichloropropane | 28.0 | 0.50 | 0.35 | ug/l | 25.0 | | 112 | 70-125 | | | |
| cis-1,3-Dichloropropene | 29.0 | 0.50 | 0.22 | ug/l | 25.0 | | 116 | 75-125 | | | |
| trans-1,3-Dichloropropene | 26.4 | 0.50 | 0.32 | ug/l | 25.0 | | 106 | 70-125 | | | |
| Ethylbenzene | 28.8 | 0.50 | 0.25 | ug/l | 25.0 | | 115 | 75-125 | | | |
| Methylene chloride | 24.1 | 1.0 | 0.95 | ug/l | 25.0 | | 96 | 55-130 | | | |
| 1,1,2,2-Tetrachloroethane | 28.7 | 0.50 | 0.30 | ug/l | 25.0 | | 115 | 55-130 | | | |
| Tetrachloroethene | 27.1 | 0.50 | 0.32 | ug/l | 25.0 | | 108 | 70-125 | | | |
| Toluene | 28.4 | 0.50 | 0.36 | ug/l | 25.0 | | 113 | 70-120 | | | |
| 1,1,1-Trichloroethane | 28.4 | 0.50 | 0.30 | ug/l | 25.0 | | 113 | 65-135 | | | |
| 1,1,2-Trichloroethane | 27.8 | 0.50 | 0.30 | ug/l | 25.0 | | 111 | 70-125 | | | |
| Trichloroethene | 27.0 | 0.50 | 0.26 | ug/l | 25.0 | | 108 | 70-125 | | | |
| Trichlorofluoromethane | 28.3 | 0.50 | 0.34 | ug/l | 25.0 | | 113 | 65-145 | | | |
| Vinyl chloride | 26.8 | 0.50 | 0.40 | ug/l | 25.0 | | 107 | 55-135 | | | |

TestAmerica Irvine

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Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11C0743 Extracted: 03/05/11 | | | | | | | | | | | |
| LCS Analyzed: 03/05/2011 (11C0743-BS1) | | | | | | | | | | | |
| Xylenes, Total | 88.4 | 1.5 | 0.90 | ug/l | 75.0 | | 118 | 70-125 | | | |
| Surrogate: 4-Bromofluorobenzene | 28.0 | | | ug/l | 25.0 | | 112 | 80-120 | | | |
| Surrogate: Dibromofluoromethane | 26.9 | | | ug/l | 25.0 | | 108 | 80-120 | | | |
| Surrogate: Toluene-d8 | 28.2 | | | ug/l | 25.0 | | 113 | 80-120 | | | |
| Matrix Spike Analyzed: 03/05/2011 (11C0743-MS1) | | | | | | | | | | | |
| | | | | | | Source: IUC0171-01 | | | | | |
| Benzene | 25.9 | 0.50 | 0.28 | ug/l | 25.0 | ND | 104 | 65-125 | | | |
| Bromodichloromethane | 30.8 | 0.50 | 0.30 | ug/l | 25.0 | ND | 123 | 70-135 | | | |
| Bromoform | 24.2 | 0.50 | 0.40 | ug/l | 25.0 | ND | 97 | 55-135 | | | |
| Bromomethane | 24.5 | 1.0 | 0.42 | ug/l | 25.0 | ND | 98 | 55-145 | | | |
| Carbon tetrachloride | 26.5 | 0.50 | 0.28 | ug/l | 25.0 | ND | 106 | 65-140 | | | |
| Chlorobenzene | 26.6 | 0.50 | 0.36 | ug/l | 25.0 | ND | 106 | 75-125 | | | |
| Chloroethane | 27.4 | 1.0 | 0.40 | ug/l | 25.0 | ND | 110 | 55-140 | | | |
| Chloroform | 27.8 | 0.50 | 0.33 | ug/l | 25.0 | ND | 111 | 65-135 | | | |
| Chloromethane | 26.3 | 0.50 | 0.40 | ug/l | 25.0 | ND | 105 | 45-145 | | | |
| Dibromochloromethane | 25.4 | 0.50 | 0.40 | ug/l | 25.0 | ND | 102 | 65-140 | | | |
| 1,2-Dichlorobenzene | 27.5 | 0.50 | 0.32 | ug/l | 25.0 | ND | 110 | 75-125 | | | |
| 1,3-Dichlorobenzene | 26.9 | 0.50 | 0.35 | ug/l | 25.0 | ND | 108 | 75-125 | | | |
| 1,4-Dichlorobenzene | 26.3 | 0.50 | 0.37 | ug/l | 25.0 | ND | 105 | 75-125 | | | |
| 1,1-Dichloroethane | 27.1 | 0.50 | 0.40 | ug/l | 25.0 | ND | 109 | 65-130 | | | |
| 1,2-Dichloroethane | 29.1 | 0.50 | 0.28 | ug/l | 25.0 | ND | 116 | 60-140 | | | |
| 1,1-Dichloroethene | 23.8 | 0.50 | 0.42 | ug/l | 25.0 | ND | 95 | 60-130 | | | |
| cis-1,2-Dichloroethene | 27.7 | 0.50 | 0.32 | ug/l | 25.0 | ND | 111 | 65-130 | | | |
| trans-1,2-Dichloroethene | 26.0 | 0.50 | 0.30 | ug/l | 25.0 | ND | 104 | 65-130 | | | |
| 1,2-Dichloropropane | 28.4 | 0.50 | 0.35 | ug/l | 25.0 | ND | 114 | 65-130 | | | |
| cis-1,3-Dichloropropene | 30.2 | 0.50 | 0.22 | ug/l | 25.0 | ND | 121 | 70-130 | | | |
| trans-1,3-Dichloropropene | 27.4 | 0.50 | 0.32 | ug/l | 25.0 | ND | 109 | 65-135 | | | |
| Ethylbenzene | 27.5 | 0.50 | 0.25 | ug/l | 25.0 | ND | 110 | 65-130 | | | |
| Methylene chloride | 24.4 | 1.0 | 0.95 | ug/l | 25.0 | ND | 98 | 50-135 | | | |
| 1,1,2,2-Tetrachloroethane | 26.5 | 0.50 | 0.30 | ug/l | 25.0 | ND | 106 | 55-135 | | | |
| Tetrachloroethene | 25.4 | 0.50 | 0.32 | ug/l | 25.0 | ND | 101 | 65-130 | | | |
| Toluene | 27.8 | 0.50 | 0.36 | ug/l | 25.0 | ND | 111 | 70-125 | | | |
| 1,1,1-Trichloroethane | 27.6 | 0.50 | 0.30 | ug/l | 25.0 | ND | 110 | 65-140 | | | |
| 1,1,2-Trichloroethane | 28.9 | 0.50 | 0.30 | ug/l | 25.0 | ND | 116 | 65-130 | | | |
| Trichloroethene | 26.2 | 0.50 | 0.26 | ug/l | 25.0 | ND | 105 | 65-125 | | | |
| Trichlorofluoromethane | 26.1 | 0.50 | 0.34 | ug/l | 25.0 | ND | 105 | 60-145 | | | |

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Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11C0743 Extracted: 03/05/11 | | | | | | | | | | | |
| Matrix Spike Analyzed: 03/05/2011 (11C0743-MS1) | | | | | | Source: IUC0171-01 | | | | | |
| Vinyl chloride | 24.3 | 0.50 | 0.40 | ug/l | 25.0 | ND | 97 | 45-140 | | | |
| Xylenes, Total | 85.1 | 1.5 | 0.90 | ug/l | 75.0 | ND | 113 | 60-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 28.4 | | | ug/l | 25.0 | | 114 | 80-120 | | | |
| Surrogate: Dibromofluoromethane | 28.8 | | | ug/l | 25.0 | | 115 | 80-120 | | | |
| Surrogate: Toluene-d8 | 28.5 | | | ug/l | 25.0 | | 114 | 80-120 | | | |
| Matrix Spike Dup Analyzed: 03/05/2011 (11C0743-MSD1) | | | | | | Source: IUC0171-01 | | | | | |
| Benzene | 26.1 | 0.50 | 0.28 | ug/l | 25.0 | ND | 105 | 65-125 | 0.8 | 20 | |
| Bromodichloromethane | 30.9 | 0.50 | 0.30 | ug/l | 25.0 | ND | 124 | 70-135 | 0.3 | 20 | |
| Bromoform | 24.1 | 0.50 | 0.40 | ug/l | 25.0 | ND | 97 | 55-135 | 0.3 | 25 | |
| Bromomethane | 25.1 | 1.0 | 0.42 | ug/l | 25.0 | ND | 100 | 55-145 | 2 | 25 | |
| Carbon tetrachloride | 27.2 | 0.50 | 0.28 | ug/l | 25.0 | ND | 109 | 65-140 | 2 | 25 | |
| Chlorobenzene | 26.5 | 0.50 | 0.36 | ug/l | 25.0 | ND | 106 | 75-125 | 0.4 | 20 | |
| Chloroethane | 27.6 | 1.0 | 0.40 | ug/l | 25.0 | ND | 110 | 55-140 | 0.8 | 25 | |
| Chloroform | 28.3 | 0.50 | 0.33 | ug/l | 25.0 | ND | 113 | 65-135 | 2 | 20 | |
| Chloromethane | 26.9 | 0.50 | 0.40 | ug/l | 25.0 | ND | 108 | 45-145 | 2 | 25 | |
| Dibromochloromethane | 25.3 | 0.50 | 0.40 | ug/l | 25.0 | ND | 101 | 65-140 | 0.6 | 25 | |
| 1,2-Dichlorobenzene | 28.5 | 0.50 | 0.32 | ug/l | 25.0 | ND | 114 | 75-125 | 4 | 20 | |
| 1,3-Dichlorobenzene | 27.6 | 0.50 | 0.35 | ug/l | 25.0 | ND | 110 | 75-125 | 2 | 20 | |
| 1,4-Dichlorobenzene | 27.2 | 0.50 | 0.37 | ug/l | 25.0 | ND | 109 | 75-125 | 3 | 20 | |
| 1,1-Dichloroethane | 28.0 | 0.50 | 0.40 | ug/l | 25.0 | ND | 112 | 65-130 | 3 | 20 | |
| 1,2-Dichloroethane | 29.0 | 0.50 | 0.28 | ug/l | 25.0 | ND | 116 | 60-140 | 0.3 | 20 | |
| 1,1-Dichloroethene | 24.7 | 0.50 | 0.42 | ug/l | 25.0 | ND | 99 | 60-130 | 4 | 20 | |
| cis-1,2-Dichloroethene | 28.7 | 0.50 | 0.32 | ug/l | 25.0 | ND | 115 | 65-130 | 4 | 20 | |
| trans-1,2-Dichloroethene | 27.1 | 0.50 | 0.30 | ug/l | 25.0 | ND | 109 | 65-130 | 4 | 20 | |
| 1,2-Dichloropropane | 28.8 | 0.50 | 0.35 | ug/l | 25.0 | ND | 115 | 65-130 | 1 | 20 | |
| cis-1,3-Dichloropropene | 30.4 | 0.50 | 0.22 | ug/l | 25.0 | ND | 121 | 70-130 | 0.3 | 20 | |
| trans-1,3-Dichloropropene | 27.3 | 0.50 | 0.32 | ug/l | 25.0 | ND | 109 | 65-135 | 0.4 | 25 | |
| Ethylbenzene | 27.3 | 0.50 | 0.25 | ug/l | 25.0 | ND | 109 | 65-130 | 0.8 | 20 | |
| Methylene chloride | 24.7 | 1.0 | 0.95 | ug/l | 25.0 | ND | 99 | 50-135 | 1 | 20 | |
| 1,1,2,2-Tetrachloroethane | 26.5 | 0.50 | 0.30 | ug/l | 25.0 | ND | 106 | 55-135 | 0.2 | 30 | |
| Tetrachloroethene | 25.4 | 0.50 | 0.32 | ug/l | 25.0 | ND | 102 | 65-130 | 0.08 | 20 | |
| Toluene | 27.9 | 0.50 | 0.36 | ug/l | 25.0 | ND | 112 | 70-125 | 0.5 | 20 | |
| 1,1,1-Trichloroethane | 28.7 | 0.50 | 0.30 | ug/l | 25.0 | ND | 115 | 65-140 | 4 | 20 | |
| 1,1,2-Trichloroethane | 28.7 | 0.50 | 0.30 | ug/l | 25.0 | ND | 115 | 65-130 | 0.7 | 25 | |
| Trichloroethene | 26.7 | 0.50 | 0.26 | ug/l | 25.0 | ND | 107 | 65-125 | 2 | 20 | |

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

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: 11C0743 Extracted: 03/05/11 | | | | | | | | | | | |
| Matrix Spike Dup Analyzed: 03/05/2011 (11C0743-MSD1) | | | | | | Source: IUC0171-01 | | | | | |
| Trichlorofluoromethane | 26.9 | 0.50 | 0.34 | ug/l | 25.0 | ND | 107 | 60-145 | 3 | 25 | |
| Vinyl chloride | 25.4 | 0.50 | 0.40 | ug/l | 25.0 | ND | 102 | 45-140 | 5 | 30 | |
| Xylenes, Total | 85.2 | 1.5 | 0.90 | ug/l | 75.0 | ND | 114 | 60-130 | 0.2 | 20 | |
| Surrogate: 4-Bromofluorobenzene | 27.3 | | | ug/l | 25.0 | | 109 | 80-120 | | | |
| Surrogate: Dibromofluoromethane | 28.6 | | | ug/l | 25.0 | | 115 | 80-120 | | | |
| Surrogate: Toluene-d8 | 27.8 | | | ug/l | 25.0 | | 111 | 80-120 | | | |

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Received: 02/24/11

METHOD BLANK/QC DATA

PURGEABLES-- GC/MS (EPA 624)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 11B3216 Extracted: 02/25/11 | | | | | | | | | | | |
| Blank Analyzed: 02/25/2011 (11B3216-BLK1) | | | | | | | | | | | |
| Acrolein | ND | 5.0 | 4.0 | ug/l | | | | | | | |
| Acrylonitrile | ND | 2.0 | 1.2 | ug/l | | | | | | | |
| 2-Chloroethyl vinyl ether | ND | 5.0 | 1.8 | ug/l | | | | | | | |
| Surrogate: 4-Bromofluorobenzene | 24.3 | | | ug/l | 25.0 | | 97 | 80-120 | | | |
| Surrogate: Dibromofluoromethane | 24.6 | | | ug/l | 25.0 | | 98 | 80-120 | | | |
| Surrogate: Toluene-d8 | 28.5 | | | ug/l | 25.0 | | 114 | 80-120 | | | |
| LCS Analyzed: 02/25/2011 (11B3216-BS1) | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | 21.1 | 5.0 | 1.8 | ug/l | 25.0 | | 84 | 25-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 24.4 | | | ug/l | 25.0 | | 97 | 80-120 | | | |
| Surrogate: Dibromofluoromethane | 25.8 | | | ug/l | 25.0 | | 103 | 80-120 | | | |
| Surrogate: Toluene-d8 | 29.1 | | | ug/l | 25.0 | | 116 | 80-120 | | | |
| Matrix Spike Analyzed: 02/25/2011 (11B3216-MS1) Source: IUB2621-01 | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | 21.8 | 5.0 | 1.8 | ug/l | 25.0 | ND | 87 | 25-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 26.1 | | | ug/l | 25.0 | | 104 | 80-120 | | | |
| Surrogate: Dibromofluoromethane | 24.7 | | | ug/l | 25.0 | | 99 | 80-120 | | | |
| Surrogate: Toluene-d8 | 28.8 | | | ug/l | 25.0 | | 115 | 80-120 | | | |
| Matrix Spike Dup Analyzed: 02/25/2011 (11B3216-MSD1) Source: IUB2621-01 | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | 23.0 | 5.0 | 1.8 | ug/l | 25.0 | ND | 92 | 25-170 | 6 | 25 | |
| Surrogate: 4-Bromofluorobenzene | 26.5 | | | ug/l | 25.0 | | 106 | 80-120 | | | |
| Surrogate: Dibromofluoromethane | 25.3 | | | ug/l | 25.0 | | 101 | 80-120 | | | |
| Surrogate: Toluene-d8 | 28.7 | | | ug/l | 25.0 | | 115 | 80-120 | | | |

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

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

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| Batch: 11B3460 Extracted: 02/28/11 | | | | | | | | | | | |
| Blank Analyzed: 02/28/2011 (11B3460-BLK1) | | | | | | | | | | | |
| 1,4-Dioxane | ND | 2.0 | 1.0 | ug/l | | | | | | | |
| Surrogate: Dibromofluoromethane | 1.10 | | | ug/l | 1.00 | | 110 | 80-120 | | | |
| LCS Analyzed: 02/28/2011 (11B3460-BS1) | | | | | | | | | | | |
| 1,4-Dioxane | 10.1 | 2.0 | 1.0 | ug/l | 10.0 | | 101 | 70-125 | | | |
| Surrogate: Dibromofluoromethane | 1.07 | | | ug/l | 1.00 | | 107 | 80-120 | | | |
| Matrix Spike Analyzed: 02/28/2011 (11B3460-MS1) Source: IUB2220-02 | | | | | | | | | | | |
| 1,4-Dioxane | 10.4 | 2.0 | 1.0 | ug/l | 10.0 | ND | 104 | 70-130 | | | |
| Surrogate: Dibromofluoromethane | 1.13 | | | ug/l | 1.00 | | 113 | 80-120 | | | |
| Matrix Spike Dup Analyzed: 02/28/2011 (11B3460-MSD1) Source: IUB2220-02 | | | | | | | | | | | |
| 1,4-Dioxane | 10.4 | 2.0 | 1.0 | ug/l | 10.0 | ND | 104 | 70-130 | 0.4 | 30 | |
| Surrogate: Dibromofluoromethane | 1.14 | | | ug/l | 1.00 | | 114 | 80-120 | | | |

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 Received: 02/24/11

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 | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-------|-------|-------------|---------------|-----------|-------------|---------|-----------|-----------------|
| Batch: 11B3517 Extracted: 02/28/11 | | | | | | | | | | | |
| Blank Analyzed: 03/02/2011 (11B3517-BLK1) | | | | | | | | | | | |
| Acenaphthene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Acenaphthylene | 0.400 | 0.500 | 0.100 | ug/l | | | | | | | Ja |
| Anthracene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Benzidine | ND | 5.00 | 5.00 | ug/l | | | | | | | |
| Benzo(a)anthracene | ND | 5.00 | 0.100 | ug/l | | | | | | | |
| Benzo(a)pyrene | ND | 2.00 | 0.100 | ug/l | | | | | | | |
| Benzo(b)fluoranthene | ND | 2.00 | 0.100 | ug/l | | | | | | | |
| Benzo(g,h,i)perylene | ND | 5.00 | 0.100 | ug/l | | | | | | | |
| Benzo(k)fluoranthene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| 4-Bromophenyl phenyl ether | ND | 1.00 | 0.100 | ug/l | | | | | | | |
| Butyl benzyl phthalate | 0.800 | 5.00 | 0.700 | ug/l | | | | | | | Ja |
| 4-Chloro-3-methylphenol | ND | 2.00 | 0.200 | ug/l | | | | | | | |
| Bis(2-chloroethoxy)methane | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Bis(2-chloroethyl)ether | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Bis(2-chloroisopropyl)ether | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Bis(2-ethylhexyl)phthalate | ND | 5.00 | 1.70 | ug/l | | | | | | | |
| 2-Chloronaphthalene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| 2-Chlorophenol | ND | 1.00 | 0.200 | ug/l | | | | | | | |
| 4-Chlorophenyl phenyl ether | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Chrysene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Dibenz(a,h)anthracene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Di-n-butyl phthalate | ND | 2.00 | 0.200 | ug/l | | | | | | | |
| 1,2-Dichlorobenzene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| 1,3-Dichlorobenzene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| 1,4-Dichlorobenzene | ND | 0.500 | 0.200 | ug/l | | | | | | | |
| 3,3'-Dichlorobenzidine | ND | 5.00 | 5.00 | ug/l | | | | | | | |
| 2,4-Dichlorophenol | ND | 2.00 | 0.200 | ug/l | | | | | | | |
| Diethyl phthalate | 0.200 | 1.00 | 0.100 | ug/l | | | | | | | Ja |
| 2,4-Dimethylphenol | ND | 2.00 | 0.300 | ug/l | | | | | | | |
| Dimethyl phthalate | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| 4,6-Dinitro-2-methylphenol | ND | 5.00 | 0.200 | ug/l | | | | | | | |
| 2,4-Dinitrophenol | ND | 5.00 | 0.900 | ug/l | | | | | | | |
| 2,4-Dinitrotoluene | ND | 5.00 | 0.200 | ug/l | | | | | | | |
| 2,6-Dinitrotoluene | ND | 5.00 | 0.100 | ug/l | | | | | | | |
| Di-n-octyl phthalate | ND | 5.00 | 0.100 | ug/l | | | | | | | |

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 Received: 02/24/11

METHOD BLANK/QC DATA

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

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 11B3517 Extracted: 02/28/11 | | | | | | | | | | | |
| Blank Analyzed: 03/02/2011 (11B3517-BLK1) | | | | | | | | | | | |
| 1,2-Diphenylhydrazine/Azobenzene | 0.400 | 1.00 | 0.100 | ug/l | | | | | | | Ja |
| Fluoranthene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Fluorene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Hexachlorobenzene | ND | 1.00 | 0.100 | ug/l | | | | | | | |
| Hexachlorobutadiene | ND | 2.00 | 0.200 | ug/l | | | | | | | |
| Hexachlorocyclopentadiene | ND | 5.00 | 0.100 | ug/l | | | | | | | |
| Hexachloroethane | ND | 3.00 | 0.200 | ug/l | | | | | | | |
| Indeno(1,2,3-cd)pyrene | ND | 2.00 | 0.100 | ug/l | | | | | | | |
| Isophorone | ND | 1.00 | 0.100 | ug/l | | | | | | | |
| Naphthalene | ND | 1.00 | 0.100 | ug/l | | | | | | | |
| Nitrobenzene | ND | 1.00 | 0.100 | ug/l | | | | | | | |
| 2-Nitrophenol | ND | 2.00 | 0.100 | ug/l | | | | | | | |
| 4-Nitrophenol | ND | 5.00 | 2.50 | ug/l | | | | | | | |
| N-Nitroso-di-n-propylamine | ND | 2.00 | 0.100 | ug/l | | | | | | | |
| N-Nitrosodimethylamine | ND | 2.00 | 0.100 | ug/l | | | | | | | |
| N-Nitrosodiphenylamine | ND | 1.00 | 0.100 | ug/l | | | | | | | |
| Pentachlorophenol | ND | 2.00 | 0.100 | ug/l | | | | | | | |
| Phenanthrene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| Phenol | ND | 1.00 | 0.300 | ug/l | | | | | | | |
| Pyrene | ND | 0.500 | 0.100 | ug/l | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 1.00 | 0.100 | ug/l | | | | | | | |
| 2,4,6-Trichlorophenol | ND | 1.00 | 0.100 | ug/l | | | | | | | |
| Surrogate: 2,4,6-Tribromophenol | 18.7 | | | ug/l | 20.0 | | 94 | 40-120 | | | |
| Surrogate: 2-Fluorobiphenyl | 8.02 | | | ug/l | 10.0 | | 80 | 50-120 | | | |
| Surrogate: 2-Fluorophenol | 16.3 | | | ug/l | 20.0 | | 81 | 30-120 | | | |
| Surrogate: Nitrobenzene-d5 | 8.20 | | | ug/l | 10.0 | | 82 | 45-120 | | | |
| Surrogate: Phenol-d6 | 16.3 | | | ug/l | 20.0 | | 81 | 35-120 | | | |
| Surrogate: Terphenyl-d14 | 9.98 | | | ug/l | 10.0 | | 100 | 50-125 | | | |

TestAmerica Irvine

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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.

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 Received: 02/24/11

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: 11B3517 Extracted: 02/28/11 | | | | | | | | | | | |
| LCS Analyzed: 03/02/2011 (11B3517-BS1) | | | | | | | | | | | |
| Acenaphthene | 7.86 | 0.500 | 0.100 | ug/l | 10.0 | | 79 | 60-120 | | | MNR1 |
| Acenaphthylene | 8.68 | 0.500 | 0.100 | ug/l | 10.0 | | 87 | 60-120 | | | |
| Anthracene | 8.98 | 0.500 | 0.100 | ug/l | 10.0 | | 90 | 65-120 | | | |
| Benidine | ND | 5.00 | 5.00 | ug/l | 10.0 | | | 30-160 | | | L6 |
| Benzo(a)anthracene | 9.98 | 5.00 | 0.100 | ug/l | 10.0 | | 100 | 65-120 | | | |
| Benzo(a)pyrene | 9.02 | 2.00 | 0.100 | ug/l | 10.0 | | 90 | 55-130 | | | |
| Benzo(b)fluoranthene | 9.90 | 2.00 | 0.100 | ug/l | 10.0 | | 99 | 55-125 | | | |
| Benzo(g,h,i)perylene | 10.1 | 5.00 | 0.100 | ug/l | 10.0 | | 101 | 45-135 | | | |
| Benzo(k)fluoranthene | 9.48 | 0.500 | 0.100 | ug/l | 10.0 | | 95 | 50-125 | | | |
| 4-Bromophenyl phenyl ether | 8.88 | 1.00 | 0.100 | ug/l | 10.0 | | 89 | 60-120 | | | |
| Butyl benzyl phthalate | 11.8 | 5.00 | 0.700 | ug/l | 10.0 | | 118 | 55-130 | | | |
| 4-Chloro-3-methylphenol | 7.98 | 2.00 | 0.200 | ug/l | 10.0 | | 80 | 60-120 | | | |
| Bis(2-chloroethoxy)methane | 8.44 | 0.500 | 0.100 | ug/l | 10.0 | | 84 | 55-120 | | | |
| Bis(2-chloroethyl)ether | 6.74 | 0.500 | 0.100 | ug/l | 10.0 | | 67 | 50-120 | | | |
| Bis(2-chloroisopropyl)ether | 7.16 | 0.500 | 0.100 | ug/l | 10.0 | | 72 | 45-120 | | | |
| Bis(2-ethylhexyl)phthalate | 10.7 | 5.00 | 1.70 | ug/l | 10.0 | | 107 | 65-130 | | | |
| 2-Chloronaphthalene | 8.12 | 0.500 | 0.100 | ug/l | 10.0 | | 81 | 60-120 | | | |
| 2-Chlorophenol | 6.84 | 1.00 | 0.200 | ug/l | 10.0 | | 68 | 45-120 | | | |
| 4-Chlorophenyl phenyl ether | 8.50 | 0.500 | 0.100 | ug/l | 10.0 | | 85 | 65-120 | | | |
| Chrysene | 9.08 | 0.500 | 0.100 | ug/l | 10.0 | | 91 | 65-120 | | | |
| Dibenz(a,h)anthracene | 9.94 | 0.500 | 0.100 | ug/l | 10.0 | | 99 | 50-135 | | | |
| Di-n-butyl phthalate | 9.46 | 2.00 | 0.200 | ug/l | 10.0 | | 95 | 60-125 | | | |
| 1,2-Dichlorobenzene | 6.48 | 0.500 | 0.100 | ug/l | 10.0 | | 65 | 40-120 | | | |
| 1,3-Dichlorobenzene | 6.18 | 0.500 | 0.100 | ug/l | 10.0 | | 62 | 35-120 | | | |
| 1,4-Dichlorobenzene | 6.26 | 0.500 | 0.200 | ug/l | 10.0 | | 63 | 35-120 | | | |
| 3,3'-Dichlorobenzidine | 7.06 | 5.00 | 5.00 | ug/l | 10.0 | | 71 | 45-135 | | | |
| 2,4-Dichlorophenol | 7.30 | 2.00 | 0.200 | ug/l | 10.0 | | 73 | 55-120 | | | |
| Diethyl phthalate | 8.46 | 1.00 | 0.100 | ug/l | 10.0 | | 85 | 55-120 | | | |
| 2,4-Dimethylphenol | 6.78 | 2.00 | 0.300 | ug/l | 10.0 | | 68 | 40-120 | | | |
| Dimethyl phthalate | 8.04 | 0.500 | 0.100 | ug/l | 10.0 | | 80 | 30-120 | | | |
| 4,6-Dinitro-2-methylphenol | 9.00 | 5.00 | 0.200 | ug/l | 10.0 | | 90 | 45-120 | | | |
| 2,4-Dinitrophenol | 8.42 | 5.00 | 0.900 | ug/l | 10.0 | | 84 | 40-120 | | | |
| 2,4-Dinitrotoluene | 8.58 | 5.00 | 0.200 | ug/l | 10.0 | | 86 | 65-120 | | | |
| 2,6-Dinitrotoluene | 8.58 | 5.00 | 0.100 | ug/l | 10.0 | | 86 | 65-120 | | | |
| Di-n-octyl phthalate | 10.3 | 5.00 | 0.100 | ug/l | 10.0 | | 103 | 65-135 | | | |

TestAmerica Irvine

Debby Wilson
 Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11B3517 Extracted: 02/28/11 | | | | | | | | | | | |
| LCS Analyzed: 03/02/2011 (11B3517-BS1) | | | | | | | | | | | |
| 1,2-Diphenylhydrazine/Azobenzene | 7.46 | 1.00 | 0.100 | ug/l | 10.0 | | 75 | 60-120 | | | MNR1 |
| Fluoranthene | 9.96 | 0.500 | 0.100 | ug/l | 10.0 | | 100 | 60-120 | | | |
| Fluorene | 8.56 | 0.500 | 0.100 | ug/l | 10.0 | | 86 | 65-120 | | | |
| Hexachlorobenzene | 8.62 | 1.00 | 0.100 | ug/l | 10.0 | | 86 | 60-120 | | | |
| Hexachlorobutadiene | 5.82 | 2.00 | 0.200 | ug/l | 10.0 | | 58 | 40-120 | | | |
| Hexachlorocyclopentadiene | 4.98 | 5.00 | 0.100 | ug/l | 10.0 | | 50 | 25-120 | | | Ja |
| Hexachloroethane | 5.68 | 3.00 | 0.200 | ug/l | 10.0 | | 57 | 35-120 | | | |
| Indeno(1,2,3-cd)pyrene | 10.1 | 2.00 | 0.100 | ug/l | 10.0 | | 101 | 45-135 | | | |
| Isophorone | 8.80 | 1.00 | 0.100 | ug/l | 10.0 | | 88 | 50-120 | | | |
| Naphthalene | 7.08 | 1.00 | 0.100 | ug/l | 10.0 | | 71 | 55-120 | | | |
| Nitrobenzene | 7.38 | 1.00 | 0.100 | ug/l | 10.0 | | 74 | 55-120 | | | |
| 2-Nitrophenol | 7.06 | 2.00 | 0.100 | ug/l | 10.0 | | 71 | 50-120 | | | |
| 4-Nitrophenol | 9.46 | 5.00 | 2.50 | ug/l | 10.0 | | 95 | 45-120 | | | |
| N-Nitroso-di-n-propylamine | 7.74 | 2.00 | 0.100 | ug/l | 10.0 | | 77 | 45-120 | | | |
| N-Nitrosodimethylamine | 7.26 | 2.00 | 0.100 | ug/l | 10.0 | | 73 | 45-120 | | | |
| N-Nitrosodiphenylamine | 8.86 | 1.00 | 0.100 | ug/l | 10.0 | | 89 | 60-120 | | | |
| Pentachlorophenol | 7.48 | 2.00 | 0.100 | ug/l | 10.0 | | 75 | 24-121 | | | |
| Phenanthrene | 8.62 | 0.500 | 0.100 | ug/l | 10.0 | | 86 | 65-120 | | | |
| Phenol | 7.00 | 1.00 | 0.300 | ug/l | 10.0 | | 70 | 40-120 | | | |
| Pyrene | 9.40 | 0.500 | 0.100 | ug/l | 10.0 | | 94 | 55-125 | | | |
| 1,2,4-Trichlorobenzene | 6.70 | 1.00 | 0.100 | ug/l | 10.0 | | 67 | 45-120 | | | |
| 2,4,6-Trichlorophenol | 8.14 | 1.00 | 0.100 | ug/l | 10.0 | | 81 | 55-120 | | | |
| Surrogate: 2,4,6-Tribromophenol | 17.3 | | | ug/l | 20.0 | | 86 | 40-120 | | | |
| Surrogate: 2-Fluorobiphenyl | 7.46 | | | ug/l | 10.0 | | 75 | 50-120 | | | |
| Surrogate: 2-Fluorophenol | 13.3 | | | ug/l | 20.0 | | 67 | 30-120 | | | |
| Surrogate: Nitrobenzene-d5 | 7.28 | | | ug/l | 10.0 | | 73 | 45-120 | | | |
| Surrogate: Phenol-d6 | 14.5 | | | ug/l | 20.0 | | 72 | 35-120 | | | |
| Surrogate: Terphenyl-d14 | 9.32 | | | ug/l | 10.0 | | 93 | 50-125 | | | |

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11B3517 Extracted: 02/28/11 | | | | | | | | | | | |
| LCS Dup Analyzed: 03/02/2011 (11B3517-BSD1) | | | | | | | | | | | |
| Acenaphthene | 7.18 | 0.500 | 0.100 | ug/l | 10.0 | | 72 | 60-120 | 9 | 20 | |
| Acenaphthylene | 7.90 | 0.500 | 0.100 | ug/l | 10.0 | | 79 | 60-120 | 9 | 20 | |
| Anthracene | 7.92 | 0.500 | 0.100 | ug/l | 10.0 | | 79 | 65-120 | 13 | 20 | |
| Benidine | ND | 5.00 | 5.00 | ug/l | 10.0 | | | 30-160 | | 35 | L6 |
| Benzo(a)anthracene | 8.82 | 5.00 | 0.100 | ug/l | 10.0 | | 88 | 65-120 | 12 | 20 | |
| Benzo(a)pyrene | 8.24 | 2.00 | 0.100 | ug/l | 10.0 | | 82 | 55-130 | 9 | 25 | |
| Benzo(b)fluoranthene | 8.74 | 2.00 | 0.100 | ug/l | 10.0 | | 87 | 55-125 | 12 | 25 | |
| Benzo(g,h,i)perylene | 10.1 | 5.00 | 0.100 | ug/l | 10.0 | | 101 | 45-135 | 0.2 | 25 | |
| Benzo(k)fluoranthene | 8.94 | 0.500 | 0.100 | ug/l | 10.0 | | 89 | 50-125 | 6 | 20 | |
| 4-Bromophenyl phenyl ether | 7.70 | 1.00 | 0.100 | ug/l | 10.0 | | 77 | 60-120 | 14 | 25 | |
| Butyl benzyl phthalate | 8.78 | 5.00 | 0.700 | ug/l | 10.0 | | 88 | 55-130 | 30 | 20 | R-7 |
| 4-Chloro-3-methylphenol | 7.48 | 2.00 | 0.200 | ug/l | 10.0 | | 75 | 60-120 | 6 | 25 | |
| Bis(2-chloroethoxy)methane | 7.48 | 0.500 | 0.100 | ug/l | 10.0 | | 75 | 55-120 | 12 | 20 | |
| Bis(2-chloroethyl)ether | 6.36 | 0.500 | 0.100 | ug/l | 10.0 | | 64 | 50-120 | 6 | 20 | |
| Bis(2-chloroisopropyl)ether | 6.68 | 0.500 | 0.100 | ug/l | 10.0 | | 67 | 45-120 | 7 | 20 | |
| Bis(2-ethylhexyl)phthalate | 9.22 | 5.00 | 1.70 | ug/l | 10.0 | | 92 | 65-130 | 15 | 20 | |
| 2-Chloronaphthalene | 7.32 | 0.500 | 0.100 | ug/l | 10.0 | | 73 | 60-120 | 10 | 20 | |
| 2-Chlorophenol | 6.60 | 1.00 | 0.200 | ug/l | 10.0 | | 66 | 45-120 | 4 | 25 | |
| 4-Chlorophenyl phenyl ether | 7.94 | 0.500 | 0.100 | ug/l | 10.0 | | 79 | 65-120 | 7 | 20 | |
| Chrysene | 8.14 | 0.500 | 0.100 | ug/l | 10.0 | | 81 | 65-120 | 11 | 20 | |
| Dibenz(a,h)anthracene | 8.54 | 0.500 | 0.100 | ug/l | 10.0 | | 85 | 50-135 | 15 | 25 | |
| Di-n-butyl phthalate | 8.32 | 2.00 | 0.200 | ug/l | 10.0 | | 83 | 60-125 | 13 | 20 | |
| 1,2-Dichlorobenzene | 6.18 | 0.500 | 0.100 | ug/l | 10.0 | | 62 | 40-120 | 5 | 25 | |
| 1,3-Dichlorobenzene | 5.80 | 0.500 | 0.100 | ug/l | 10.0 | | 58 | 35-120 | 6 | 25 | |
| 1,4-Dichlorobenzene | 6.02 | 0.500 | 0.200 | ug/l | 10.0 | | 60 | 35-120 | 4 | 25 | |
| 3,3'-Dichlorobenzidine | 6.32 | 5.00 | 5.00 | ug/l | 10.0 | | 63 | 45-135 | 11 | 25 | |
| 2,4-Dichlorophenol | 6.68 | 2.00 | 0.200 | ug/l | 10.0 | | 67 | 55-120 | 9 | 20 | |
| Diethyl phthalate | 7.60 | 1.00 | 0.100 | ug/l | 10.0 | | 76 | 55-120 | 11 | 30 | |
| 2,4-Dimethylphenol | 5.82 | 2.00 | 0.300 | ug/l | 10.0 | | 58 | 40-120 | 15 | 25 | |
| Dimethyl phthalate | 7.42 | 0.500 | 0.100 | ug/l | 10.0 | | 74 | 30-120 | 8 | 30 | |
| 4,6-Dinitro-2-methylphenol | 7.48 | 5.00 | 0.200 | ug/l | 10.0 | | 75 | 45-120 | 18 | 25 | |
| 2,4-Dinitrophenol | 7.34 | 5.00 | 0.900 | ug/l | 10.0 | | 73 | 40-120 | 14 | 25 | |
| 2,4-Dinitrotoluene | 7.78 | 5.00 | 0.200 | ug/l | 10.0 | | 78 | 65-120 | 10 | 20 | |
| 2,6-Dinitrotoluene | 7.56 | 5.00 | 0.100 | ug/l | 10.0 | | 76 | 65-120 | 13 | 20 | |
| Di-n-octyl phthalate | 9.48 | 5.00 | 0.100 | ug/l | 10.0 | | 95 | 65-135 | 9 | 20 | |

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11B3517 Extracted: 02/28/11 | | | | | | | | | | | |
| LCS Dup Analyzed: 03/02/2011 (11B3517-BSD1) | | | | | | | | | | | |
| 1,2-Diphenylhydrazine/Azobenzene | 6.42 | 1.00 | 0.100 | ug/l | 10.0 | | 64 | 60-120 | 15 | 25 | |
| Fluoranthene | 8.70 | 0.500 | 0.100 | ug/l | 10.0 | | 87 | 60-120 | 14 | 20 | |
| Fluorene | 7.70 | 0.500 | 0.100 | ug/l | 10.0 | | 77 | 65-120 | 11 | 20 | |
| Hexachlorobenzene | 7.46 | 1.00 | 0.100 | ug/l | 10.0 | | 75 | 60-120 | 14 | 20 | |
| Hexachlorobutadiene | 5.12 | 2.00 | 0.200 | ug/l | 10.0 | | 51 | 40-120 | 13 | 25 | |
| Hexachlorocyclopentadiene | 4.26 | 5.00 | 0.100 | ug/l | 10.0 | | 43 | 25-120 | 16 | 30 | Ja |
| Hexachloroethane | 5.42 | 3.00 | 0.200 | ug/l | 10.0 | | 54 | 35-120 | 5 | 25 | |
| Indeno(1,2,3-cd)pyrene | 8.66 | 2.00 | 0.100 | ug/l | 10.0 | | 87 | 45-135 | 16 | 25 | |
| Isophorone | 8.08 | 1.00 | 0.100 | ug/l | 10.0 | | 81 | 50-120 | 9 | 20 | |
| Naphthalene | 6.56 | 1.00 | 0.100 | ug/l | 10.0 | | 66 | 55-120 | 8 | 20 | |
| Nitrobenzene | 6.78 | 1.00 | 0.100 | ug/l | 10.0 | | 68 | 55-120 | 8 | 25 | |
| 2-Nitrophenol | 6.52 | 2.00 | 0.100 | ug/l | 10.0 | | 65 | 50-120 | 8 | 25 | |
| 4-Nitrophenol | 8.74 | 5.00 | 2.50 | ug/l | 10.0 | | 87 | 45-120 | 8 | 30 | |
| N-Nitroso-di-n-propylamine | 7.24 | 2.00 | 0.100 | ug/l | 10.0 | | 72 | 45-120 | 7 | 20 | |
| N-Nitrosodimethylamine | 6.92 | 2.00 | 0.100 | ug/l | 10.0 | | 69 | 45-120 | 5 | 20 | |
| N-Nitrosodiphenylamine | 7.86 | 1.00 | 0.100 | ug/l | 10.0 | | 79 | 60-120 | 12 | 20 | |
| Pentachlorophenol | 5.94 | 2.00 | 0.100 | ug/l | 10.0 | | 59 | 24-121 | 23 | 25 | |
| Phenanthrene | 7.58 | 0.500 | 0.100 | ug/l | 10.0 | | 76 | 65-120 | 13 | 20 | |
| Phenol | 6.88 | 1.00 | 0.300 | ug/l | 10.0 | | 69 | 40-120 | 2 | 25 | |
| Pyrene | 8.48 | 0.500 | 0.100 | ug/l | 10.0 | | 85 | 55-125 | 10 | 25 | |
| 1,2,4-Trichlorobenzene | 6.08 | 1.00 | 0.100 | ug/l | 10.0 | | 61 | 45-120 | 10 | 20 | |
| 2,4,6-Trichlorophenol | 7.52 | 1.00 | 0.100 | ug/l | 10.0 | | 75 | 55-120 | 8 | 30 | |
| Surrogate: 2,4,6-Tribromophenol | 14.9 | | | ug/l | 20.0 | | 74 | 40-120 | | | |
| Surrogate: 2-Fluorobiphenyl | 6.72 | | | ug/l | 10.0 | | 67 | 50-120 | | | |
| Surrogate: 2-Fluorophenol | 12.7 | | | ug/l | 20.0 | | 63 | 30-120 | | | |
| Surrogate: Nitrobenzene-d5 | 6.62 | | | ug/l | 10.0 | | 66 | 45-120 | | | |
| Surrogate: Phenol-d6 | 14.1 | | | ug/l | 20.0 | | 70 | 35-120 | | | |
| Surrogate: Terphenyl-d14 | 8.24 | | | ug/l | 10.0 | | 82 | 50-125 | | | |

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|--------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| Batch: 11C0141 Extracted: 03/01/11 | | | | | | | | | | | |
| Blank Analyzed: 03/11/2011 (11C0141-BLK1) | | | | | | | | | | | |
| 4,4'-DDD | ND | 0.0050 | 0.0040 | ug/l | | | | | | | |
| 4,4'-DDE | ND | 0.0050 | 0.0030 | ug/l | | | | | | | |
| 4,4'-DDT | ND | 0.010 | 0.0040 | ug/l | | | | | | | |
| Aldrin | ND | 0.0050 | 0.0015 | ug/l | | | | | | | |
| alpha-BHC | ND | 0.0050 | 0.0025 | ug/l | | | | | | | |
| beta-BHC | ND | 0.010 | 0.0040 | ug/l | | | | | | | |
| delta-BHC | ND | 0.0050 | 0.0035 | ug/l | | | | | | | |
| Dieldrin | ND | 0.0050 | 0.0020 | ug/l | | | | | | | |
| Endosulfan I | ND | 0.0050 | 0.0020 | ug/l | | | | | | | |
| Endosulfan II | ND | 0.0050 | 0.0030 | ug/l | | | | | | | |
| Endosulfan sulfate | ND | 0.010 | 0.0030 | ug/l | | | | | | | |
| Endrin | ND | 0.0050 | 0.0020 | ug/l | | | | | | | |
| Endrin aldehyde | ND | 0.010 | 0.0020 | ug/l | | | | | | | |
| gamma-BHC (Lindane) | ND | 0.020 | 0.0030 | ug/l | | | | | | | |
| Heptachlor | ND | 0.010 | 0.0030 | ug/l | | | | | | | |
| Heptachlor epoxide | ND | 0.0050 | 0.0025 | ug/l | | | | | | | |
| Chlordane | ND | 0.10 | 0.080 | ug/l | | | | | | | |
| Toxaphene | ND | 0.50 | 0.25 | ug/l | | | | | | | |
| Surrogate: Decachlorobiphenyl | 0.340 | | | ug/l | 0.500 | | 68 | 45-120 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.323 | | | ug/l | 0.500 | | 65 | 35-115 | | | |

LCS Analyzed: 03/11/2011 (11C0141-BS1)

MNR1

| | | | | | | | | | | | |
|---------------------|-------|--------|--------|------|-------|--|----|--------|--|--|--|
| 4,4'-DDD | 0.388 | 0.0050 | 0.0040 | ug/l | 0.500 | | 78 | 55-120 | | | |
| 4,4'-DDE | 0.374 | 0.0050 | 0.0030 | ug/l | 0.500 | | 75 | 50-120 | | | |
| 4,4'-DDT | 0.397 | 0.010 | 0.0040 | ug/l | 0.500 | | 79 | 55-120 | | | |
| Aldrin | 0.332 | 0.0050 | 0.0015 | ug/l | 0.500 | | 66 | 40-115 | | | |
| alpha-BHC | 0.354 | 0.0050 | 0.0025 | ug/l | 0.500 | | 71 | 45-115 | | | |
| beta-BHC | 0.338 | 0.010 | 0.0040 | ug/l | 0.500 | | 68 | 55-115 | | | |
| delta-BHC | 0.391 | 0.0050 | 0.0035 | ug/l | 0.500 | | 78 | 55-115 | | | |
| Dieldrin | 0.387 | 0.0050 | 0.0020 | ug/l | 0.500 | | 77 | 55-115 | | | |
| Endosulfan I | 0.364 | 0.0050 | 0.0020 | ug/l | 0.500 | | 73 | 55-115 | | | |
| Endosulfan II | 0.391 | 0.0050 | 0.0030 | ug/l | 0.500 | | 78 | 55-120 | | | |
| Endosulfan sulfate | 0.412 | 0.010 | 0.0030 | ug/l | 0.500 | | 82 | 60-120 | | | |
| Endrin | 0.406 | 0.0050 | 0.0020 | ug/l | 0.500 | | 81 | 55-115 | | | |
| Endrin aldehyde | 0.356 | 0.010 | 0.0020 | ug/l | 0.500 | | 71 | 50-120 | | | |
| gamma-BHC (Lindane) | 0.358 | 0.020 | 0.0030 | ug/l | 0.500 | | 72 | 45-115 | | | |

TestAmerica Irvine

Debby Wilson
Project Manager

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|--------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| Batch: 11C0141 Extracted: 03/01/11 | | | | | | | | | | | |
| LCS Analyzed: 03/11/2011 (11C0141-BS1) | | | | | | | | | | | MNR1 |
| Heptachlor | 0.331 | 0.010 | 0.0030 | ug/l | 0.500 | | 66 | 45-115 | | | |
| Heptachlor epoxide | 0.360 | 0.0050 | 0.0025 | ug/l | 0.500 | | 72 | 55-115 | | | |
| Surrogate: Decachlorobiphenyl | 0.319 | | | ug/l | 0.500 | | 64 | 45-120 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.296 | | | ug/l | 0.500 | | 59 | 35-115 | | | |
| LCS Dup Analyzed: 03/11/2011 (11C0141-BSD1) | | | | | | | | | | | |
| 4,4'-DDD | 0.429 | 0.0050 | 0.0040 | ug/l | 0.500 | | 86 | 55-120 | 10 | 30 | |
| 4,4'-DDE | 0.422 | 0.0050 | 0.0030 | ug/l | 0.500 | | 84 | 50-120 | 12 | 30 | |
| 4,4'-DDT | 0.455 | 0.010 | 0.0040 | ug/l | 0.500 | | 91 | 55-120 | 14 | 30 | |
| Aldrin | 0.387 | 0.0050 | 0.0015 | ug/l | 0.500 | | 77 | 40-115 | 15 | 30 | |
| alpha-BHC | 0.403 | 0.0050 | 0.0025 | ug/l | 0.500 | | 81 | 45-115 | 13 | 30 | |
| beta-BHC | 0.376 | 0.010 | 0.0040 | ug/l | 0.500 | | 75 | 55-115 | 11 | 30 | |
| delta-BHC | 0.435 | 0.0050 | 0.0035 | ug/l | 0.500 | | 87 | 55-115 | 11 | 30 | |
| Dieldrin | 0.432 | 0.0050 | 0.0020 | ug/l | 0.500 | | 86 | 55-115 | 11 | 30 | |
| Endosulfan I | 0.407 | 0.0050 | 0.0020 | ug/l | 0.500 | | 81 | 55-115 | 11 | 30 | |
| Endosulfan II | 0.430 | 0.0050 | 0.0030 | ug/l | 0.500 | | 86 | 55-120 | 9 | 30 | |
| Endosulfan sulfate | 0.460 | 0.010 | 0.0030 | ug/l | 0.500 | | 92 | 60-120 | 11 | 30 | |
| Endrin | 0.455 | 0.0050 | 0.0020 | ug/l | 0.500 | | 91 | 55-115 | 11 | 30 | |
| Endrin aldehyde | 0.397 | 0.010 | 0.0020 | ug/l | 0.500 | | 79 | 50-120 | 11 | 30 | |
| gamma-BHC (Lindane) | 0.408 | 0.020 | 0.0030 | ug/l | 0.500 | | 82 | 45-115 | 13 | 30 | |
| Heptachlor | 0.377 | 0.010 | 0.0030 | ug/l | 0.500 | | 75 | 45-115 | 13 | 30 | |
| Heptachlor epoxide | 0.405 | 0.0050 | 0.0025 | ug/l | 0.500 | | 81 | 55-115 | 12 | 30 | |
| Surrogate: Decachlorobiphenyl | 0.402 | | | ug/l | 0.500 | | 80 | 45-120 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.339 | | | ug/l | 0.500 | | 68 | 35-115 | | | |

TestAmerica Irvine

Debby Wilson
Project Manager

MWH-Pasadena/Boeing
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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 11C0141 Extracted: 03/01/11 | | | | | | | | | | | |
| Blank Analyzed: 03/02/2011 (11C0141-BLK1) | | | | | | | | | | | |
| Aroclor 1016 | ND | 0.50 | 0.25 | ug/l | | | | | | | |
| Aroclor 1221 | ND | 0.50 | 0.25 | ug/l | | | | | | | |
| Aroclor 1232 | ND | 0.50 | 0.25 | ug/l | | | | | | | |
| Aroclor 1242 | ND | 0.50 | 0.25 | ug/l | | | | | | | |
| Aroclor 1248 | ND | 0.50 | 0.25 | ug/l | | | | | | | |
| Aroclor 1254 | ND | 0.50 | 0.25 | ug/l | | | | | | | |
| Aroclor 1260 | ND | 0.50 | 0.25 | ug/l | | | | | | | |
| Surrogate: Decachlorobiphenyl | 0.254 | | | ug/l | 0.500 | | 51 | 45-120 | | | |
| LCS Analyzed: 03/03/2011 (11C0141-BS2) | | | | | | | | | | | |
| Aroclor 1016 | 3.21 | 0.50 | 0.25 | ug/l | 4.00 | | 80 | 50-115 | | | MNR1 |
| Aroclor 1260 | 2.66 | 0.50 | 0.25 | ug/l | 4.00 | | 67 | 60-120 | | | |
| Surrogate: Decachlorobiphenyl | 0.278 | | | ug/l | 0.500 | | 56 | 45-120 | | | |
| LCS Dup Analyzed: 03/03/2011 (11C0141-BSD2) | | | | | | | | | | | |
| Aroclor 1016 | 3.21 | 0.50 | 0.25 | ug/l | 4.00 | | 80 | 50-115 | 0.1 | 30 | |
| Aroclor 1260 | 2.65 | 0.50 | 0.25 | ug/l | 4.00 | | 66 | 60-120 | 0.5 | 25 | |
| Surrogate: Decachlorobiphenyl | 0.279 | | | ug/l | 0.500 | | 56 | 45-120 | | | |

TestAmerica Irvine

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MWH-Pasadena/Boeing
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 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

HEXANE EXTRACTABLE MATERIAL

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 11C1154 Extracted: 03/09/11 | | | | | | | | | | | |
| Blank Analyzed: 03/09/2011 (11C1154-BLK1) | | | | | | | | | | | |
| Hexane Extractable Material (Oil & Grease) | ND | 5.0 | 1.4 | mg/l | | | | | | | |
| LCS Analyzed: 03/09/2011 (11C1154-BS1) | | | | | | | | | | | |
| Hexane Extractable Material (Oil & Grease) | 19.5 | 5.0 | 1.4 | mg/l | 20.0 | | 98 | 78-114 | | | MNR1 |
| LCS Dup Analyzed: 03/09/2011 (11C1154-BSD1) | | | | | | | | | | | |
| Hexane Extractable Material (Oil & Grease) | 19.2 | 5.0 | 1.4 | mg/l | 20.0 | | 96 | 78-114 | 2 | 11 | |

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

METALS

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC %REC | Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|-------|-------|-------------|---------------|-----------|--------|-----|-----------|-----------------|
| Batch: 11C0501 Extracted: 03/03/11 | | | | | | | | | | | |
| Blank Analyzed: 03/04/2011 (11C0501-BLK1) | | | | | | | | | | | |
| Antimony | 0.413 | 2.0 | 0.30 | ug/l | | | | | | | Ja |
| Cadmium | ND | 1.0 | 0.10 | ug/l | | | | | | | |
| Copper | ND | 2.00 | 0.500 | ug/l | | | | | | | |
| Lead | ND | 1.0 | 0.20 | ug/l | | | | | | | |
| Selenium | ND | 2.0 | 0.50 | ug/l | | | | | | | |
| Silver | ND | 1.0 | 0.10 | ug/l | | | | | | | |
| Thallium | ND | 1.0 | 0.20 | ug/l | | | | | | | |
| LCS Analyzed: 03/04/2011 (11C0501-BS1) | | | | | | | | | | | |
| Antimony | 82.7 | 2.0 | 0.30 | ug/l | 80.0 | | 103 | 85-115 | | | |
| Cadmium | 83.9 | 1.0 | 0.10 | ug/l | 80.0 | | 105 | 85-115 | | | |
| Copper | 79.1 | 2.00 | 0.500 | ug/l | 80.0 | | 99 | 85-115 | | | |
| Lead | 87.9 | 1.0 | 0.20 | ug/l | 80.0 | | 110 | 85-115 | | | |
| Selenium | 76.0 | 2.0 | 0.50 | ug/l | 80.0 | | 95 | 85-115 | | | |
| Silver | 85.3 | 1.0 | 0.10 | ug/l | 80.0 | | 107 | 85-115 | | | |
| Thallium | 84.2 | 1.0 | 0.20 | ug/l | 80.0 | | 105 | 85-115 | | | |
| Matrix Spike Analyzed: 03/04/2011 (11C0501-MS1) Source: IUC0095-07 | | | | | | | | | | | |
| Antimony | 81.5 | 2.0 | 0.30 | ug/l | 80.0 | ND | 102 | 70-130 | | | |
| Cadmium | 80.6 | 1.0 | 0.10 | ug/l | 80.0 | ND | 101 | 70-130 | | | |
| Copper | 72.3 | 2.00 | 0.500 | ug/l | 80.0 | 2.55 | 87 | 70-130 | | | |
| Lead | 85.0 | 1.0 | 0.20 | ug/l | 80.0 | ND | 106 | 70-130 | | | |
| Selenium | 75.8 | 2.0 | 0.50 | ug/l | 80.0 | 0.659 | 94 | 70-130 | | | |
| Silver | 79.8 | 1.0 | 0.10 | ug/l | 80.0 | ND | 100 | 70-130 | | | |
| Thallium | 81.7 | 1.0 | 0.20 | ug/l | 80.0 | ND | 102 | 70-130 | | | |
| Matrix Spike Analyzed: 03/04/2011 (11C0501-MS2) Source: IUC0095-01 | | | | | | | | | | | |
| Antimony | 84.1 | 2.0 | 0.30 | ug/l | 80.0 | ND | 105 | 70-130 | | | |
| Cadmium | 80.3 | 1.0 | 0.10 | ug/l | 80.0 | 0.112 | 100 | 70-130 | | | |
| Copper | 71.1 | 2.00 | 0.500 | ug/l | 80.0 | 2.29 | 86 | 70-130 | | | |
| Lead | 86.4 | 1.0 | 0.20 | ug/l | 80.0 | ND | 108 | 70-130 | | | |
| Selenium | 78.9 | 2.0 | 0.50 | ug/l | 80.0 | 2.23 | 96 | 70-130 | | | |
| Silver | 77.9 | 1.0 | 0.10 | ug/l | 80.0 | ND | 97 | 70-130 | | | |
| Thallium | 83.7 | 1.0 | 0.20 | ug/l | 80.0 | ND | 105 | 70-130 | | | |

TestAmerica Irvine

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

METHOD BLANK/QC DATA

METALS

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|--------|-------|-------------|---------------------------|------|-------------|------|-----------|-----------------|
| <u>Batch: 11C0501 Extracted: 03/03/11</u> | | | | | | | | | | | |
| Matrix Spike Dup Analyzed: 03/04/2011 (11C0501-MSD1) | | | | | | Source: IUC0095-07 | | | | | |
| Antimony | 83.3 | 2.0 | 0.30 | ug/l | 80.0 | ND | 104 | 70-130 | 2 | 20 | |
| Cadmium | 80.9 | 1.0 | 0.10 | ug/l | 80.0 | ND | 101 | 70-130 | 0.4 | 20 | |
| Copper | 73.0 | 2.00 | 0.500 | ug/l | 80.0 | 2.55 | 88 | 70-130 | 1 | 20 | |
| Lead | 85.5 | 1.0 | 0.20 | ug/l | 80.0 | ND | 107 | 70-130 | 0.7 | 20 | |
| Selenium | 74.7 | 2.0 | 0.50 | ug/l | 80.0 | 0.659 | 93 | 70-130 | 1 | 20 | |
| Silver | 79.8 | 1.0 | 0.10 | ug/l | 80.0 | ND | 100 | 70-130 | 0.04 | 20 | |
| Thallium | 82.1 | 1.0 | 0.20 | ug/l | 80.0 | ND | 103 | 70-130 | 0.6 | 20 | |
| <u>Batch: 11C0578 Extracted: 03/03/11</u> | | | | | | | | | | | |
| Blank Analyzed: 03/04/2011 (11C0578-BLK1) | | | | | | | | | | | |
| Mercury | ND | 0.20 | 0.10 | ug/l | | | | | | | |
| LCS Analyzed: 03/04/2011 (11C0578-BS1) | | | | | | | | | | | |
| Mercury | 7.85 | 0.20 | 0.10 | ug/l | 8.00 | | 98 | 85-115 | | | |
| Matrix Spike Analyzed: 03/04/2011 (11C0578-MS1) | | | | | | Source: IUB2824-07 | | | | | |
| Mercury | 7.75 | 0.20 | 0.10 | ug/l | 8.00 | ND | 97 | 70-130 | | | |
| Matrix Spike Dup Analyzed: 03/04/2011 (11C0578-MSD1) | | | | | | Source: IUB2824-07 | | | | | |
| Mercury | 7.56 | 0.20 | 0.10 | ug/l | 8.00 | ND | 95 | 70-130 | 3 | 20 | |
| <u>Batch: 11C0795 Extracted: 03/06/11</u> | | | | | | | | | | | |
| Blank Analyzed: 03/09/2011-03/12/2011 (11C0795-BLK1) | | | | | | | | | | | |
| Arsenic | ND | 10 | 7.0 | ug/l | | | | | | | |
| Barium | ND | 0.010 | 0.0060 | mg/l | | | | | | | |
| Beryllium | ND | 2.0 | 0.90 | ug/l | | | | | | | |
| Boron | ND | 0.050 | 0.020 | mg/l | | | | | | | |
| Chromium | ND | 5.00 | 2.00 | ug/l | | | | | | | |
| Cobalt | ND | 10 | 2.0 | ug/l | | | | | | | |
| Iron | ND | 0.040 | 0.015 | mg/l | | | | | | | |
| Manganese | ND | 20 | 7.0 | ug/l | | | | | | | |
| Nickel | ND | 10 | 2.0 | ug/l | | | | | | | |
| Vanadium | ND | 10 | 3.0 | ug/l | | | | | | | |
| Zinc | 15.0 | 20.0 | 6.00 | ug/l | | | | | | | Ja |

TestAmerica Irvine

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Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11C0795 Extracted: 03/06/11 | | | | | | | | | | | |
| LCS Analyzed: 03/09/2011-03/12/2011 (11C0795-BS1) | | | | | | | | | | | |
| Arsenic | 496 | 10 | 7.0 | ug/l | 500 | | 99 | 85-115 | | | |
| Barium | 0.479 | 0.010 | 0.0060 | mg/l | 0.500 | | 96 | 85-115 | | | |
| Beryllium | 546 | 2.0 | 0.90 | ug/l | 500 | | 109 | 85-115 | | | |
| Boron | 0.523 | 0.050 | 0.020 | mg/l | 0.500 | | 105 | 85-115 | | | |
| Chromium | 540 | 5.00 | 2.00 | ug/l | 500 | | 108 | 85-115 | | | |
| Cobalt | 500 | 10 | 2.0 | ug/l | 500 | | 100 | 85-115 | | | |
| Iron | 0.493 | 0.040 | 0.015 | mg/l | 0.500 | | 99 | 85-115 | | | |
| Manganese | 506 | 20 | 7.0 | ug/l | 500 | | 101 | 85-115 | | | |
| Nickel | 522 | 10 | 2.0 | ug/l | 500 | | 104 | 85-115 | | | |
| Vanadium | 501 | 10 | 3.0 | ug/l | 500 | | 100 | 85-115 | | | |
| Zinc | 501 | 20.0 | 6.00 | ug/l | 500 | | 100 | 85-115 | | | |

Matrix Spike Analyzed: 03/09/2011-03/12/2011 (11C0795-MS1)

Source: IUB2621-03

| | | | | | | | | | | | |
|-----------|-------|-------|--------|------|-------|---------|-----|--------|--|--|--|
| Arsenic | 512 | 10 | 7.0 | ug/l | 500 | ND | 102 | 70-130 | | | |
| Barium | 0.479 | 0.010 | 0.0060 | mg/l | 0.500 | 0.00808 | 94 | 70-130 | | | |
| Beryllium | 545 | 2.0 | 0.90 | ug/l | 500 | ND | 109 | 70-130 | | | |
| Boron | 0.584 | 0.050 | 0.020 | mg/l | 0.500 | 0.0639 | 104 | 70-130 | | | |
| Chromium | 533 | 5.00 | 2.00 | ug/l | 500 | ND | 107 | 70-130 | | | |
| Cobalt | 491 | 10 | 2.0 | ug/l | 500 | ND | 98 | 70-130 | | | |
| Iron | 0.584 | 0.040 | 0.015 | mg/l | 0.500 | 0.0746 | 102 | 70-130 | | | |
| Manganese | 498 | 20 | 7.0 | ug/l | 500 | ND | 100 | 70-130 | | | |
| Nickel | 512 | 10 | 2.0 | ug/l | 500 | 2.94 | 102 | 70-130 | | | |
| Vanadium | 505 | 10 | 3.0 | ug/l | 500 | ND | 101 | 70-130 | | | |
| Zinc | 547 | 20.0 | 6.00 | ug/l | 500 | 42.5 | 101 | 70-130 | | | |

Matrix Spike Analyzed: 03/09/2011-03/12/2011 (11C0795-MS2)

Source: IUC0056-03

| | | | | | | | | | | | |
|-----------|-------|-------|--------|------|-------|----|-----|--------|--|--|--|
| Arsenic | 477 | 10 | 7.0 | ug/l | 500 | ND | 95 | 70-130 | | | |
| Barium | 0.475 | 0.010 | 0.0060 | mg/l | 0.500 | ND | 95 | 70-130 | | | |
| Beryllium | 530 | 2.0 | 0.90 | ug/l | 500 | ND | 106 | 70-130 | | | |
| Boron | 0.504 | 0.050 | 0.020 | mg/l | 0.500 | ND | 101 | 70-130 | | | |
| Chromium | 525 | 5.00 | 2.00 | ug/l | 500 | ND | 105 | 70-130 | | | |
| Cobalt | 490 | 10 | 2.0 | ug/l | 500 | ND | 98 | 70-130 | | | |
| Iron | 0.510 | 0.040 | 0.015 | mg/l | 0.500 | ND | 102 | 70-130 | | | |
| Manganese | 495 | 20 | 7.0 | ug/l | 500 | ND | 99 | 70-130 | | | |
| Nickel | 510 | 10 | 2.0 | ug/l | 500 | ND | 102 | 70-130 | | | |
| Vanadium | 495 | 10 | 3.0 | ug/l | 500 | ND | 99 | 70-130 | | | |

TestAmerica Irvine

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Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

METALS

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|--------|-------|-------------|---------------------------|------|-------------|-----|-----------|-----------------|
| Batch: 11C0795 Extracted: 03/06/11 | | | | | | | | | | | |
| Matrix Spike Analyzed: 03/09/2011-03/12/2011 (11C0795-MS2) | | | | | | Source: IUC0056-03 | | | | | |
| Zinc | 490 | 20.0 | 6.00 | ug/l | 500 | ND | 98 | 70-130 | | | |
| Matrix Spike Dup Analyzed: 03/09/2011-03/12/2011 (11C0795-MSD1) | | | | | | Source: IUB2621-03 | | | | | |
| Arsenic | 509 | 10 | 7.0 | ug/l | 500 | ND | 102 | 70-130 | 0.5 | 20 | |
| Barium | 0.483 | 0.010 | 0.0060 | mg/l | 0.500 | 0.00808 | 95 | 70-130 | 0.7 | 20 | |
| Beryllium | 543 | 2.0 | 0.90 | ug/l | 500 | ND | 109 | 70-130 | 0.2 | 20 | |
| Boron | 0.580 | 0.050 | 0.020 | mg/l | 0.500 | 0.0639 | 103 | 70-130 | 0.8 | 20 | |
| Chromium | 531 | 5.00 | 2.00 | ug/l | 500 | ND | 106 | 70-130 | 0.4 | 20 | |
| Cobalt | 495 | 10 | 2.0 | ug/l | 500 | ND | 99 | 70-130 | 0.9 | 20 | |
| Iron | 0.581 | 0.040 | 0.015 | mg/l | 0.500 | 0.0746 | 101 | 70-130 | 0.5 | 20 | |
| Manganese | 504 | 20 | 7.0 | ug/l | 500 | ND | 101 | 70-130 | 1 | 20 | |
| Nickel | 516 | 10 | 2.0 | ug/l | 500 | 2.94 | 103 | 70-130 | 0.7 | 20 | |
| Vanadium | 506 | 10 | 3.0 | ug/l | 500 | ND | 101 | 70-130 | 0.2 | 20 | |
| Zinc | 544 | 20.0 | 6.00 | ug/l | 500 | 42.5 | 100 | 70-130 | 0.4 | 20 | |

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

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: 11B3548 Extracted: 02/28/11 | | | | | | | | | | | |
| Blank Analyzed: 03/02/2011 (11B3548-BLK1) | | | | | | | | | | | |
| Arsenic | ND | 10 | 7.0 | ug/l | | | | | | | |
| Barium | ND | 0.010 | 0.0060 | mg/l | | | | | | | |
| Beryllium | ND | 2.0 | 0.90 | ug/l | | | | | | | |
| Boron | ND | 0.050 | 0.020 | mg/l | | | | | | | |
| Calcium | ND | 0.10 | 0.050 | mg/l | | | | | | | |
| Chromium | ND | 5.0 | 2.0 | ug/l | | | | | | | |
| Cobalt | ND | 10 | 2.0 | ug/l | | | | | | | |
| Iron | ND | 0.040 | 0.015 | mg/l | | | | | | | |
| Magnesium | ND | 0.020 | 0.012 | mg/l | | | | | | | |
| Manganese | ND | 20 | 7.0 | ug/l | | | | | | | |
| Nickel | ND | 10 | 2.0 | ug/l | | | | | | | |
| Vanadium | ND | 10 | 3.0 | ug/l | | | | | | | |
| Zinc | ND | 20.0 | 6.00 | ug/l | | | | | | | |
| LCS Analyzed: 03/02/2011 (11B3548-BS1) | | | | | | | | | | | |
| Arsenic | 507 | 10 | 7.0 | ug/l | 500 | | 101 | 85-115 | | | |
| Barium | 0.509 | 0.010 | 0.0060 | mg/l | 0.500 | | 102 | 85-115 | | | |
| Beryllium | 511 | 2.0 | 0.90 | ug/l | 500 | | 102 | 85-115 | | | |
| Boron | 0.525 | 0.050 | 0.020 | mg/l | 0.500 | | 105 | 85-115 | | | |
| Calcium | 2.57 | 0.10 | 0.050 | mg/l | 2.50 | | 103 | 85-115 | | | |
| Chromium | 517 | 5.0 | 2.0 | ug/l | 500 | | 103 | 85-115 | | | |
| Cobalt | 483 | 10 | 2.0 | ug/l | 500 | | 97 | 85-115 | | | |
| Iron | 0.510 | 0.040 | 0.015 | mg/l | 0.500 | | 102 | 85-115 | | | |
| Magnesium | 2.61 | 0.020 | 0.012 | mg/l | 2.50 | | 104 | 85-115 | | | |
| Manganese | 513 | 20 | 7.0 | ug/l | 500 | | 103 | 85-115 | | | |
| Nickel | 499 | 10 | 2.0 | ug/l | 500 | | 100 | 85-115 | | | |
| Vanadium | 506 | 10 | 3.0 | ug/l | 500 | | 101 | 85-115 | | | |
| Zinc | 507 | 20.0 | 6.00 | ug/l | 500 | | 101 | 85-115 | | | |

TestAmerica Irvine

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11B3548 Extracted: 02/28/11 | | | | | | | | | | | |
| Matrix Spike Analyzed: 03/02/2011 (11B3548-MS1) | | | | | | Source: IUB2647-01 | | | | | |
| Arsenic | 508 | 10 | 7.0 | ug/l | 500 | ND | 102 | 70-130 | | | |
| Barium | 0.533 | 0.010 | 0.0060 | mg/l | 0.500 | 0.0382 | 99 | 70-130 | | | |
| Beryllium | 508 | 2.0 | 0.90 | ug/l | 500 | ND | 102 | 70-130 | | | |
| Boron | 0.545 | 0.050 | 0.020 | mg/l | 0.500 | 0.0313 | 103 | 70-130 | | | |
| Calcium | 68.4 | 0.10 | 0.050 | mg/l | 2.50 | 67.0 | 53 | 70-130 | | | MHA |
| Chromium | 516 | 5.0 | 2.0 | ug/l | 500 | 3.31 | 102 | 70-130 | | | |
| Cobalt | 468 | 10 | 2.0 | ug/l | 500 | ND | 94 | 70-130 | | | |
| Iron | 0.501 | 0.040 | 0.015 | mg/l | 0.500 | ND | 100 | 70-130 | | | |
| Magnesium | 12.3 | 0.020 | 0.012 | mg/l | 2.50 | 9.87 | 97 | 70-130 | | | |
| Manganese | 498 | 20 | 7.0 | ug/l | 500 | ND | 100 | 70-130 | | | |
| Nickel | 473 | 10 | 2.0 | ug/l | 500 | ND | 95 | 70-130 | | | |
| Vanadium | 502 | 10 | 3.0 | ug/l | 500 | 5.00 | 99 | 70-130 | | | |
| Zinc | 496 | 20.0 | 6.00 | ug/l | 500 | ND | 99 | 70-130 | | | |
| Matrix Spike Analyzed: 03/07/2011 (11B3548-MS2) | | | | | | Source: IUB2630-01 | | | | | |
| Arsenic | 499 | 20 | 14 | ug/l | 500 | ND | 100 | 70-130 | | | |
| Barium | 0.486 | 0.020 | 0.012 | mg/l | 0.500 | 0.0129 | 95 | 70-130 | | | |
| Beryllium | 490 | 4.0 | 1.8 | ug/l | 500 | ND | 98 | 70-130 | | | |
| Boron | 0.602 | 0.10 | 0.040 | mg/l | 0.500 | 0.120 | 96 | 70-130 | | | |
| Calcium | 621 | 0.20 | 0.10 | mg/l | 2.50 | 681 | -2390 | 70-130 | | | MHA |
| Chromium | 475 | 10 | 4.0 | ug/l | 500 | ND | 95 | 70-130 | | | |
| Cobalt | 438 | 20 | 4.0 | ug/l | 500 | ND | 88 | 70-130 | | | |
| Iron | 0.431 | 0.080 | 0.030 | mg/l | 0.500 | ND | 86 | 70-130 | | | |
| Magnesium | 104 | 0.040 | 0.024 | mg/l | 2.50 | 109 | -198 | 70-130 | | | MHA |
| Manganese | 502 | 40 | 14 | ug/l | 500 | 36.3 | 93 | 70-130 | | | |
| Nickel | 464 | 20 | 4.0 | ug/l | 500 | 13.0 | 90 | 70-130 | | | |
| Vanadium | 489 | 20 | 6.0 | ug/l | 500 | ND | 98 | 70-130 | | | |
| Zinc | 461 | 40.0 | 12.0 | ug/l | 500 | ND | 92 | 70-130 | | | |

TestAmerica Irvine

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Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

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: 11B3548 Extracted: 02/28/11 | | | | | | | | | | | |
| Matrix Spike Dup Analyzed: 03/02/2011 (11B3548-MSD1) | | | | | | Source: IUB2647-01 | | | | | |
| Arsenic | 503 | 10 | 7.0 | ug/l | 500 | ND | 101 | 70-130 | 0.8 | 20 | |
| Barium | 0.532 | 0.010 | 0.0060 | mg/l | 0.500 | 0.0382 | 99 | 70-130 | 0.3 | 20 | |
| Beryllium | 504 | 2.0 | 0.90 | ug/l | 500 | ND | 101 | 70-130 | 0.9 | 20 | |
| Boron | 0.544 | 0.050 | 0.020 | mg/l | 0.500 | 0.0313 | 102 | 70-130 | 0.3 | 20 | |
| Calcium | 69.2 | 0.10 | 0.050 | mg/l | 2.50 | 67.0 | 87 | 70-130 | 1 | 20 | MHA |
| Chromium | 509 | 5.0 | 2.0 | ug/l | 500 | 3.31 | 101 | 70-130 | 1 | 20 | |
| Cobalt | 462 | 10 | 2.0 | ug/l | 500 | ND | 92 | 70-130 | 1 | 20 | |
| Iron | 0.500 | 0.040 | 0.015 | mg/l | 0.500 | ND | 100 | 70-130 | 0.3 | 20 | |
| Magnesium | 12.3 | 0.020 | 0.012 | mg/l | 2.50 | 9.87 | 97 | 70-130 | 0.002 | 20 | |
| Manganese | 497 | 20 | 7.0 | ug/l | 500 | ND | 99 | 70-130 | 0.2 | 20 | |
| Nickel | 467 | 10 | 2.0 | ug/l | 500 | ND | 93 | 70-130 | 1 | 20 | |
| Vanadium | 500 | 10 | 3.0 | ug/l | 500 | 5.00 | 99 | 70-130 | 0.4 | 20 | |
| Zinc | 492 | 20.0 | 6.00 | ug/l | 500 | ND | 98 | 70-130 | 0.8 | 20 | |

Batch: 11C0168 Extracted: 03/01/11

Blank Analyzed: 03/02/2011 (11C0168-BLK1)

| | | | | |
|---------|----|------|------|------|
| Mercury | ND | 0.20 | 0.10 | ug/l |
|---------|----|------|------|------|

LCS Analyzed: 03/02/2011 (11C0168-BS1)

| | | | | | | | |
|---------|------|------|------|------|------|----|--------|
| Mercury | 7.30 | 0.20 | 0.10 | ug/l | 8.00 | 91 | 85-115 |
|---------|------|------|------|------|------|----|--------|

Matrix Spike Analyzed: 03/02/2011 (11C0168-MS1)

Source: IUB2647-01

| | | | | | | | | |
|---------|------|------|------|------|------|----|----|--------|
| Mercury | 7.27 | 0.20 | 0.10 | ug/l | 8.00 | ND | 91 | 70-130 |
|---------|------|------|------|------|------|----|----|--------|

Matrix Spike Dup Analyzed: 03/02/2011 (11C0168-MSD1)

Source: IUB2647-01

| | | | | | | | | | | |
|---------|------|------|------|------|------|----|----|--------|-----|----|
| Mercury | 7.31 | 0.20 | 0.10 | ug/l | 8.00 | ND | 91 | 70-130 | 0.4 | 20 |
|---------|------|------|------|------|------|----|----|--------|-----|----|

TestAmerica Irvine

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 Project Manager

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Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

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: 11C0285 Extracted: 03/02/11 | | | | | | | | | | | |
| Blank Analyzed: 03/03/2011 (11C0285-BLK1) | | | | | | | | | | | |
| Antimony | ND | 2.0 | 0.30 | ug/l | | | | | | | |
| Cadmium | ND | 1.0 | 0.10 | ug/l | | | | | | | |
| Copper | ND | 2.00 | 0.500 | ug/l | | | | | | | |
| Lead | ND | 1.0 | 0.20 | ug/l | | | | | | | |
| Selenium | ND | 2.0 | 0.50 | ug/l | | | | | | | |
| Silver | ND | 1.0 | 0.10 | ug/l | | | | | | | |
| Thallium | ND | 1.0 | 0.20 | ug/l | | | | | | | |
| LCS Analyzed: 03/03/2011 (11C0285-BS1) | | | | | | | | | | | |
| Antimony | 86.7 | 2.0 | 0.30 | ug/l | 80.0 | | 108 | 85-115 | | | |
| Cadmium | 81.9 | 1.0 | 0.10 | ug/l | 80.0 | | 102 | 85-115 | | | |
| Copper | 80.2 | 2.00 | 0.500 | ug/l | 80.0 | | 100 | 85-115 | | | |
| Lead | 82.5 | 1.0 | 0.20 | ug/l | 80.0 | | 103 | 85-115 | | | |
| Selenium | 80.8 | 2.0 | 0.50 | ug/l | 80.0 | | 101 | 85-115 | | | |
| Silver | 84.3 | 1.0 | 0.10 | ug/l | 80.0 | | 105 | 85-115 | | | |
| Thallium | 79.3 | 1.0 | 0.20 | ug/l | 80.0 | | 99 | 85-115 | | | |
| Matrix Spike Analyzed: 03/03/2011 (11C0285-MS1) Source: IUB2862-01 | | | | | | | | | | | |
| Antimony | 88.0 | 2.0 | 0.30 | ug/l | 80.0 | 0.480 | 109 | 70-130 | | | |
| Cadmium | 80.4 | 1.0 | 0.10 | ug/l | 80.0 | ND | 101 | 70-130 | | | |
| Copper | 79.3 | 2.00 | 0.500 | ug/l | 80.0 | ND | 99 | 70-130 | | | |
| Lead | 77.4 | 1.0 | 0.20 | ug/l | 80.0 | ND | 97 | 70-130 | | | |
| Selenium | 80.9 | 2.0 | 0.50 | ug/l | 80.0 | ND | 101 | 70-130 | | | |
| Silver | 80.9 | 1.0 | 0.10 | ug/l | 80.0 | ND | 101 | 70-130 | | | |
| Thallium | 74.6 | 1.0 | 0.20 | ug/l | 80.0 | ND | 93 | 70-130 | | | |
| Matrix Spike Analyzed: 03/03/2011 (11C0285-MS2) Source: IUB2647-01 | | | | | | | | | | | |
| Antimony | 87.7 | 2.0 | 0.30 | ug/l | 80.0 | 0.505 | 109 | 70-130 | | | |
| Cadmium | 80.1 | 1.0 | 0.10 | ug/l | 80.0 | ND | 100 | 70-130 | | | |
| Copper | 79.0 | 2.00 | 0.500 | ug/l | 80.0 | ND | 99 | 70-130 | | | |
| Lead | 78.3 | 1.0 | 0.20 | ug/l | 80.0 | ND | 98 | 70-130 | | | |
| Selenium | 79.1 | 2.0 | 0.50 | ug/l | 80.0 | ND | 99 | 70-130 | | | |
| Silver | 80.3 | 1.0 | 0.10 | ug/l | 80.0 | ND | 100 | 70-130 | | | |
| Thallium | 74.8 | 1.0 | 0.20 | ug/l | 80.0 | ND | 94 | 70-130 | | | |

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

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: 11C0285 Extracted: 03/02/11 | | | | | | | | | | | |
| Matrix Spike Dup Analyzed: 03/03/2011 (11C0285-MSD1) | | | | | | Source: IUB2862-01 | | | | | |
| Antimony | 88.4 | 2.0 | 0.30 | ug/l | 80.0 | 0.480 | 110 | 70-130 | 0.4 | 20 | |
| Cadmium | 80.5 | 1.0 | 0.10 | ug/l | 80.0 | ND | 101 | 70-130 | 0.04 | 20 | |
| Copper | 78.4 | 2.00 | 0.500 | ug/l | 80.0 | ND | 98 | 70-130 | 1 | 20 | |
| Lead | 78.6 | 1.0 | 0.20 | ug/l | 80.0 | ND | 98 | 70-130 | 1 | 20 | |
| Selenium | 80.6 | 2.0 | 0.50 | ug/l | 80.0 | ND | 101 | 70-130 | 0.3 | 20 | |
| Silver | 80.5 | 1.0 | 0.10 | ug/l | 80.0 | ND | 101 | 70-130 | 0.5 | 20 | |
| Thallium | 75.0 | 1.0 | 0.20 | ug/l | 80.0 | ND | 94 | 70-130 | 0.6 | 20 | |

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

DISSOLVED INORGANICS

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|-------|-------|-------------|---------------------------|------|-------------|-----|-----------|-----------------|
| Batch: 11B3306 Extracted: 02/25/11 | | | | | | | | | | | |
| Blank Analyzed: 02/25/2011 (11B3306-BLK1) | | | | | | | | | | | |
| Chromium VI | ND | 1.00 | 0.250 | ug/l | | | | | | | |
| LCS Analyzed: 02/25/2011 (11B3306-BS1) | | | | | | | | | | | |
| Chromium VI | 48.6 | 1.00 | 0.250 | ug/l | 50.0 | | 97 | 90-110 | | | |
| Matrix Spike Analyzed: 02/25/2011 (11B3306-MS1) | | | | | | | | | | | |
| | | | | | | Source: IUB2750-01 | | | | | |
| Chromium VI | 49.7 | 1.00 | 0.250 | ug/l | 50.0 | ND | 99 | 90-110 | | | |
| Matrix Spike Dup Analyzed: 02/25/2011 (11B3306-MSD1) | | | | | | | | | | | |
| | | | | | | Source: IUB2750-01 | | | | | |
| Chromium VI | 50.5 | 1.00 | 0.250 | ug/l | 50.0 | ND | 101 | 90-110 | 2 | 10 | |

TestAmerica Irvine

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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.

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Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11B3246 Extracted: 02/25/11 | | | | | | | | | | | |
| Blank Analyzed: 02/25/2011 (11B3246-BLK1) | | | | | | | | | | | |
| 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 | 0.30 | mg/l | | | | | | | |
| LCS Analyzed: 02/25/2011 (11B3246-BS1) | | | | | | | | | | | |
| Nitrate-N | 1.03 | 0.11 | 0.060 | mg/l | 1.13 | | 91 | 90-110 | | | |
| Nitrite-N | 1.47 | 0.15 | 0.090 | mg/l | 1.52 | | 97 | 90-110 | | | |
| Sulfate | 9.97 | 0.50 | 0.30 | mg/l | 10.0 | | 100 | 90-110 | | | |
| Matrix Spike Analyzed: 02/25/2011 (11B3246-MS1) | | | | | | Source: IUB2663-03 | | | | | |
| Nitrate-N | 16.1 | 1.1 | 0.60 | mg/l | 11.3 | 4.73 | 101 | 80-120 | | | |
| Nitrite-N | 16.8 | 1.5 | 0.90 | mg/l | 15.2 | ND | 110 | 80-120 | | | |
| Sulfate | 301 | 5.0 | 3.0 | mg/l | 100 | 197 | 104 | 80-120 | | | |
| Matrix Spike Analyzed: 02/25/2011 (11B3246-MS2) | | | | | | Source: IUB2663-04 | | | | | |
| Nitrate-N | 18.1 | 1.1 | 0.60 | mg/l | 11.3 | 7.44 | 94 | 80-120 | | | |
| Nitrite-N | 16.5 | 1.5 | 0.90 | mg/l | 15.2 | ND | 109 | 80-120 | | | |
| Sulfate | 320 | 5.0 | 3.0 | mg/l | 100 | 221 | 99 | 80-120 | | | |
| Matrix Spike Dup Analyzed: 02/25/2011 (11B3246-MSD1) | | | | | | Source: IUB2663-03 | | | | | |
| Nitrate-N | 15.0 | 1.1 | 0.60 | mg/l | 11.3 | 4.73 | 91 | 80-120 | 7 | 20 | |
| Nitrite-N | 15.5 | 1.5 | 0.90 | mg/l | 15.2 | ND | 102 | 80-120 | 8 | 20 | |
| Sulfate | 291 | 5.0 | 3.0 | mg/l | 100 | 197 | 94 | 80-120 | 3 | 20 | |
| Batch: 11B3363 Extracted: 02/26/11 | | | | | | | | | | | |
| Blank Analyzed: 02/26/2011 (11B3363-BLK1) | | | | | | | | | | | |
| Perchlorate | ND | 1.0 | 0.90 | ug/l | | | | | | | |

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Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11B3363 Extracted: 02/26/11</u> | | | | | | | | | | | |
| LCS Analyzed: 02/26/2011 (11B3363-BS1) | | | | | | | | | | | |
| Perchlorate | 25.4 | 1.0 | 0.90 | ug/l | 25.0 | | 102 | 85-115 | | | |
| Matrix Spike Analyzed: 02/26/2011 (11B3363-MS1) | | | | | | | | | | | |
| | | | | | | Source: IUB2772-01 | | | | | |
| Perchlorate | 32.8 | 1.0 | 0.90 | ug/l | 25.0 | 6.96 | 103 | 80-120 | | | |
| Matrix Spike Dup Analyzed: 02/26/2011 (11B3363-MSD1) | | | | | | | | | | | |
| | | | | | | Source: IUB2772-01 | | | | | |
| Perchlorate | 31.2 | 1.0 | 0.90 | ug/l | 25.0 | 6.96 | 97 | 80-120 | 5 | 20 | |
| <u>Batch: 11B3411 Extracted: 02/26/11</u> | | | | | | | | | | | |
| Blank Analyzed: 02/26/2011 (11B3411-BLK1) | | | | | | | | | | | |
| Turbidity | ND | 1.0 | 0.040 | NTU | | | | | | | |
| Duplicate Analyzed: 02/26/2011 (11B3411-DUP1) | | | | | | | | | | | |
| | | | | | | Source: IUB2753-01 | | | | | |
| Turbidity | 3.78 | 1.0 | 0.040 | NTU | | 3.76 | | | 0.5 | 20 | |
| <u>Batch: 11B3423 Extracted: 02/26/11</u> | | | | | | | | | | | |
| Blank Analyzed: 03/03/2011 (11B3423-BLK1) | | | | | | | | | | | |
| Biochemical Oxygen Demand | ND | 2.0 | 0.50 | mg/l | | | | | | | |
| LCS Analyzed: 03/03/2011 (11B3423-BS1) | | | | | | | | | | | |
| Biochemical Oxygen Demand | 200 | 100 | 25 | mg/l | 198 | | 101 | 85-115 | | | |
| LCS Dup Analyzed: 03/03/2011 (11B3423-BSD1) | | | | | | | | | | | |
| Biochemical Oxygen Demand | 202 | 100 | 25 | mg/l | 198 | | 102 | 85-115 | 1 | 20 | |

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Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11B3430 Extracted: 02/26/11</u> | | | | | | | | | | | |
| Blank Analyzed: 02/26/2011 (11B3430-BLK1) | | | | | | | | | | | |
| Surfactants (MBAS) | ND | 0.10 | 0.050 | mg/l | | | | | | | |
| LCS Analyzed: 02/26/2011 (11B3430-BS1) | | | | | | | | | | | |
| Surfactants (MBAS) | 0.251 | 0.10 | 0.050 | mg/l | 0.250 | | 100 | 90-110 | | | |
| Matrix Spike Analyzed: 02/26/2011 (11B3430-MS1) | | | | | | | | | | | |
| | | | | | | Source: IUB2753-01 | | | | | |
| Surfactants (MBAS) | 0.303 | 0.10 | 0.050 | mg/l | 0.250 | ND | 121 | 50-125 | | | |
| Matrix Spike Dup Analyzed: 02/26/2011 (11B3430-MSD1) | | | | | | | | | | | |
| | | | | | | Source: IUB2753-01 | | | | | |
| Surfactants (MBAS) | 0.289 | 0.10 | 0.050 | mg/l | 0.250 | ND | 115 | 50-125 | 5 | 20 | |
| <u>Batch: 11B3475 Extracted: 02/28/11</u> | | | | | | | | | | | |
| Blank Analyzed: 02/28/2011 (11B3475-BLK1) | | | | | | | | | | | |
| Fluoride | ND | 0.10 | 0.020 | mg/l | | | | | | | |
| LCS Analyzed: 02/28/2011 (11B3475-BS1) | | | | | | | | | | | |
| Fluoride | 1.04 | 0.10 | 0.020 | mg/l | 1.00 | | 104 | 90-110 | | | |
| Matrix Spike Analyzed: 02/28/2011 (11B3475-MS1) | | | | | | | | | | | |
| | | | | | | Source: IUB2480-01 | | | | | |
| Fluoride | 1.67 | 0.10 | 0.020 | mg/l | 1.00 | 0.697 | 98 | 80-120 | | | |
| Matrix Spike Dup Analyzed: 02/28/2011 (11B3475-MSD1) | | | | | | | | | | | |
| | | | | | | Source: IUB2480-01 | | | | | |
| Fluoride | 1.65 | 0.10 | 0.020 | mg/l | 1.00 | 0.697 | 96 | 80-120 | 1 | 20 | |
| <u>Batch: 11B3530 Extracted: 02/28/11</u> | | | | | | | | | | | |
| Blank Analyzed: 02/28/2011 (11B3530-BLK1) | | | | | | | | | | | |
| Chloride | ND | 0.50 | 0.30 | mg/l | | | | | | | |

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

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: 11B3530 Extracted: 02/28/11</u> | | | | | | | | | | | |
| LCS Analyzed: 02/28/2011 (11B3530-BS1) | | | | | | | | | | | |
| Chloride | 4.83 | 0.50 | 0.30 | mg/l | 5.00 | | 97 | 90-110 | | | |
| Matrix Spike Analyzed: 02/28/2011 (11B3530-MS1) | | | | | | | | | | | |
| Chloride | 31.6 | 1.0 | 0.60 | mg/l | 10.0 | 20.9 | 107 | 80-120 | | | |
| Matrix Spike Analyzed: 02/28/2011 (11B3530-MS2) | | | | | | | | | | | |
| Chloride | 87.6 | 2.5 | 1.5 | mg/l | 5.00 | 83.8 | 76 | 80-120 | | | MHA |
| Matrix Spike Dup Analyzed: 02/28/2011 (11B3530-MSD1) | | | | | | | | | | | |
| Chloride | 31.8 | 1.0 | 0.60 | mg/l | 10.0 | 20.9 | 109 | 80-120 | 0.9 | 20 | |
| <u>Batch: 11B3624 Extracted: 02/28/11</u> | | | | | | | | | | | |
| Blank Analyzed: 02/28/2011 (11B3624-BLK1) | | | | | | | | | | | |
| Total Suspended Solids | ND | 10 | 1.0 | mg/l | | | | | | | |
| LCS Analyzed: 02/28/2011 (11B3624-BS1) | | | | | | | | | | | |
| Total Suspended Solids | 984 | 10 | 1.0 | mg/l | 1000 | | 98 | 85-115 | | | |
| Duplicate Analyzed: 02/28/2011 (11B3624-DUP1) | | | | | | | | | | | |
| Total Suspended Solids | 59.0 | 10 | 1.0 | mg/l | | 60.0 | | | 2 | 10 | |
| <u>Batch: 11C0150 Extracted: 03/01/11</u> | | | | | | | | | | | |
| Blank Analyzed: 03/01/2011 (11C0150-BLK1) | | | | | | | | | | | |
| Ammonia-N (Distilled) | ND | 0.500 | 0.500 | mg/l | | | | | | | |

TestAmerica Irvine

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

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: 11C0150 Extracted: 03/01/11</u> | | | | | | | | | | | |
| LCS Analyzed: 03/01/2011 (11C0150-BS1) | | | | | | | | | | | |
| Ammonia-N (Distilled) | 9.80 | 0.500 | 0.500 | mg/l | 10.0 | | 98 | 80-115 | | | |
| Matrix Spike Analyzed: 03/01/2011 (11C0150-MS1) Source: IUB2621-03 | | | | | | | | | | | |
| Ammonia-N (Distilled) | 9.80 | 0.500 | 0.500 | mg/l | 10.0 | ND | 98 | 70-120 | | | |
| Matrix Spike Dup Analyzed: 03/01/2011 (11C0150-MSD1) Source: IUB2621-03 | | | | | | | | | | | |
| Ammonia-N (Distilled) | 9.80 | 0.500 | 0.500 | mg/l | 10.0 | ND | 98 | 70-120 | 0 | 15 | |
| <u>Batch: 11C0158 Extracted: 03/01/11</u> | | | | | | | | | | | |
| Blank Analyzed: 03/01/2011 (11C0158-BLK1) | | | | | | | | | | | |
| Total Cyanide | ND | 5.0 | 2.2 | ug/l | | | | | | | |
| LCS Analyzed: 03/01/2011 (11C0158-BS1) | | | | | | | | | | | |
| Total Cyanide | 196 | 5.0 | 2.2 | ug/l | 196 | | 100 | 90-110 | | | |
| Matrix Spike Analyzed: 03/01/2011 (11C0158-MS1) Source: IUB2819-03 | | | | | | | | | | | |
| Total Cyanide | 201 | 5.0 | 2.2 | ug/l | 196 | ND | 102 | 70-115 | | | |
| Matrix Spike Dup Analyzed: 03/01/2011 (11C0158-MSD1) Source: IUB2819-03 | | | | | | | | | | | |
| Total Cyanide | 199 | 5.0 | 2.2 | ug/l | 196 | ND | 101 | 70-115 | 0.9 | 15 | |
| <u>Batch: 11C0204 Extracted: 03/02/11</u> | | | | | | | | | | | |
| Blank Analyzed: 03/02/2011 (11C0204-BLK1) | | | | | | | | | | | |
| Total Dissolved Solids | ND | 10 | 1.0 | mg/l | | | | | | | |

TestAmerica Irvine

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

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: 11C0204 Extracted: 03/02/11</u> | | | | | | | | | | | |
| LCS Analyzed: 03/02/2011 (11C0204-BS1) | | | | | | | | | | | |
| Total Dissolved Solids | 1020 | 10 | 1.0 | mg/l | 1000 | | 102 | 90-110 | | | |
| Duplicate Analyzed: 03/02/2011 (11C0204-DUP1) | | | | | | | | | | | |
| Total Dissolved Solids | 365 | 10 | 1.0 | mg/l | | 352 | | | 4 | 10 | |
| <u>Batch: 11C0822 Extracted: 03/07/11</u> | | | | | | | | | | | |
| Blank Analyzed: 03/07/2011 (11C0822-BLK1) | | | | | | | | | | | |
| Total Organic Carbon | ND | 1.0 | 0.50 | mg/l | | | | | | | |
| LCS Analyzed: 03/07/2011 (11C0822-BS1) | | | | | | | | | | | |
| Total Organic Carbon | 9.11 | 1.0 | 0.50 | mg/l | 10.0 | | 91 | 90-110 | | | |
| Matrix Spike Analyzed: 03/07/2011 (11C0822-MS1) | | | | | | | | | | | |
| Total Organic Carbon | 6.41 | 1.0 | 0.50 | mg/l | 5.00 | 1.96 | 89 | 80-120 | | | |
| Matrix Spike Dup Analyzed: 03/07/2011 (11C0822-MSD1) | | | | | | | | | | | |
| Total Organic Carbon | 6.58 | 1.0 | 0.50 | mg/l | 5.00 | 1.96 | 92 | 80-120 | 3 | 20 | |

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

8670

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 8670 Extracted: 03/15/11 | | | | | | | | | | | |
| LCS Analyzed: 03/15/2011 (S103013-03) | | | | | | | | | | | |
| Uranium, Total | 53.9 | 1 | N/A | pCi/L | 56.5 | | 95 | 80-120 | | | |
| Blank Analyzed: 03/15/2011 (S103013-04) | | | | | | | | | | | |
| Uranium, Total | ND | 1 | N/A | pCi/L | | | | - | | | U |
| Duplicate Analyzed: 03/15/2011 (S103013-05) | | | | | | | | | | | |
| Uranium, Total | 0.574 | 1 | N/A | pCi/L | | | | - | 7 | | Jb |

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 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

900

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 8670 Extracted: 03/11/11 | | | | | | | | | | | |
| LCS Analyzed: 03/14/2011 (S103013-03) | | | | | | | | | | | |
| Gross Alpha | 107 | 3 | N/A | pCi/L | 101 | | 106 | 70-130 | | | |
| Gross Beta | 86.8 | 4 | N/A | pCi/L | 87.2 | | 100 | 70-130 | | | |
| Blank Analyzed: 03/14/2011 (S103013-04) | | | | | | | | | | | |
| Gross Alpha | 0.089 | 3 | N/A | pCi/L | | | | - | | | U |
| Gross Beta | 0.136 | 4 | N/A | pCi/L | | | | - | | | U |
| Duplicate Analyzed: 03/14/2011 (S103013-05) | | | | | | | | | | | |
| Gross Alpha | 1.44 | 3 | N/A | pCi/L | | | | - | 32 | | Jb |
| Gross Beta | 3.86 | 4 | N/A | pCi/L | | | | - | 12 | | Jb |

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

901.1

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|-------|-------------|----------------|------|-------------|-----|-----------|-----------------|
| Batch: 8670 Extracted: 03/03/11 | | | | | | | | | | | |
| LCS Analyzed: 03/08/2011 (S103013-03) | | | | | | Source: | | | | | |
| Cobalt-60 | 123 | 10 | N/A | pCi/L | 126 | | 98 | 80-120 | | | |
| Cesium-137 | 116 | 20 | N/A | pCi/L | 110 | | 106 | 80-120 | | | |
| Blank Analyzed: 03/08/2011 (S103013-04) | | | | | | Source: | | | | | |
| Cesium-137 | ND | 20 | N/A | pCi/L | | | | - | | | U |
| Potassium-40 | ND | 25 | N/A | pCi/L | | | | - | | | U |
| Duplicate Analyzed: 03/10/2011 (S103013-05) | | | | | | Source: | | | | | |
| Cesium-137 | ND | 20 | N/A | pCi/L | | | | - | 0 | | U |
| Potassium-40 | ND | 25 | N/A | pCi/L | | | | - | 0 | | U |

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Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

903.1

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 8670 Extracted: 03/25/11 | | | | | | | | | | | |
| LCS Analyzed: 03/25/2011 (S103013-03) | | | | | | | | | | | |
| Radium-226 | 59.5 | 1 | N/A | pCi/L | 55.7 | | 107 | 80-120 | | | |
| Blank Analyzed: 03/19/2011 (S103013-04) | | | | | | | | | | | |
| Radium-226 | 0.156 | 1 | N/A | pCi/L | | | | - | | | U |
| Duplicate Analyzed: 03/19/2011 (S103013-05) | | | | | | | | | | | |
| Radium-226 | 0.467 | 1 | N/A | pCi/L | | | | - | 0 | | U |

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Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

904

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 8670 Extracted: 03/18/11 | | | | | | | | | | | |
| LCS Analyzed: 03/18/2011 (S103013-03) | | | | | | | | | | | |
| Radium-228 | 16.1 | 1 | N/A | pCi/L | 15.1 | | 107 | 60-140 | | | |
| Blank Analyzed: 03/18/2011 (S103013-04) | | | | | | | | | | | |
| Radium-228 | -0.11 | 1 | N/A | pCi/L | | | | - | | | U |
| Duplicate Analyzed: 03/18/2011 (S103013-05) | | | | | | | | | | | |
| Radium-228 | 0.062 | 1 | N/A | pCi/L | | | | - | 0 | | U |

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Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

905

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 8670 Extracted: 03/15/11 | | | | | | | | | | | |
| LCS Analyzed: 03/16/2011 (S103013-03) | | | | | | | | | | | |
| Strontium-90 | 20.3 | 2 | N/A | pCi/L | 17.4 | | 117 | 80-120 | | | |
| Blank Analyzed: 03/16/2011 (S103013-04) | | | | | | | | | | | |
| Strontium-90 | -0.258 | 2 | N/A | pCi/L | | | | | | | U |
| Duplicate Analyzed: 03/16/2011 (S103013-05) | | | | | | | | | | | |
| Strontium-90 | -0.199 | 2 | N/A | pCi/L | | | | | 0 | | U |

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 Received: 02/24/11

METHOD BLANK/QC DATA

906

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 8670 Extracted: 03/19/11 | | | | | | | | | | | |
| LCS Analyzed: 03/22/2011 (S103013-03) | | | | | | | | | | | |
| Tritium | 2780 | 500 | N/A | pCi/L | 2940 | | 95 | 80-120 | | | |
| Blank Analyzed: 03/22/2011 (S103013-04) | | | | | | | | | | | |
| Tritium | -28 | 500 | N/A | pCi/L | | | | | | | U |
| Duplicate Analyzed: 03/22/2011 (S103013-05) | | | | | | | | | | | |
| Tritium | -42.1 | 500 | N/A | pCi/L | | | | | 0 | | U |

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Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|----------|-----------------|-----------|-------|-------------|----------------|-----------|-------------|-----|-----------|-----------------|
| Batch: 1060411 Extracted: 03/01/11 | | | | | | | | | | | |
| Blank Analyzed: 03/02/2011 (G1C010000411B) | | | | | | Source: | | | | | |
| 1,2,3,4,6,7,8-HpCDD | ND | 0.00005 | 0.0000028 | ug/L | | | | - | | | |
| 1,2,3,4,6,7,8-HpCDF | ND | 0.00005 | 0.0000022 | ug/L | | | | - | | | |
| 1,2,3,4,7,8,9-HpCDF | ND | 0.00005 | 0.0000032 | ug/L | | | | - | | | |
| 1,2,3,4,7,8-HxCDD | ND | 0.00005 | 0.0000026 | ug/L | | | | - | | | |
| 1,2,3,4,7,8-HxCDF | ND | 0.00005 | 0.0000028 | ug/L | | | | - | | | |
| 1,2,3,6,7,8-HxCDD | ND | 0.00005 | 0.0000024 | ug/L | | | | - | | | |
| 1,2,3,6,7,8-HxCDF | ND | 0.00005 | 0.0000026 | ug/L | | | | - | | | |
| 1,2,3,7,8,9-HxCDD | ND | 0.00005 | 0.0000021 | ug/L | | | | - | | | |
| 1,2,3,7,8,9-HxCDF | ND | 0.00005 | 0.0000033 | ug/L | | | | - | | | |
| 1,2,3,7,8-PeCDD | ND | 0.00005 | 0.0000071 | ug/L | | | | - | | | |
| 1,2,3,7,8-PeCDF | ND | 0.00005 | 0.0000093 | ug/L | | | | - | | | |
| 2,3,4,6,7,8-HxCDF | ND | 0.00005 | 0.0000024 | ug/L | | | | - | | | |
| 2,3,4,7,8-PeCDF | ND | 0.00005 | 0.0000095 | ug/L | | | | - | | | |
| 2,3,7,8-TCDD | ND | 0.00001 | 0.0000095 | ug/L | | | | - | | | |
| 2,3,7,8-TCDF | ND | 0.00001 | 0.000003 | ug/L | | | | - | | | |
| OCDD | 4.4e-006 | 0.0001 | 0.0000071 | ug/L | | | | - | | | J |
| OCDF | ND | 0.0001 | 0.0000042 | ug/L | | | | - | | | |
| Total HpCDD | ND | 0.00005 | 0.0000028 | ug/L | | | | - | | | |
| Total HpCDF | ND | 0.00005 | 0.0000022 | ug/L | | | | - | | | |
| Total HxCDD | ND | 0.00005 | 0.0000021 | ug/L | | | | - | | | |
| Total HxCDF | ND | 0.00005 | 0.0000024 | ug/L | | | | - | | | |
| Total PeCDD | ND | 0.00005 | 0.0000071 | ug/L | | | | - | | | |
| Total PeCDF | ND | 0.00005 | 0.0000093 | ug/L | | | | - | | | |
| Total TCDD | ND | 0.00001 | 0.0000095 | ug/L | | | | - | | | |
| Total TCDF | ND | 0.00001 | 0.000003 | ug/L | | | | - | | | |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDD | 0.0018 | | | ug/L | 0.002 | | 88 | 23-140 | | | |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDF | 0.0021 | | | ug/L | 0.002 | | 106 | 28-143 | | | |
| Surrogate: 13C-1,2,3,4,7,8,9-HpCDF | 0.0021 | | | ug/L | 0.002 | | 104 | 26-138 | | | |
| Surrogate: 13C-1,2,3,4,7,8-HxCDD | 0.0017 | | | ug/L | 0.002 | | 85 | 32-141 | | | |
| Surrogate: 13C-1,2,3,4,7,8-HxCDF | 0.0019 | | | ug/L | 0.002 | | 95 | 26-152 | | | |
| Surrogate: 13C-1,2,3,6,7,8-HxCDD | 0.0018 | | | ug/L | 0.002 | | 92 | 28-130 | | | |
| Surrogate: 13C-1,2,3,6,7,8-HxCDF | 0.0018 | | | ug/L | 0.002 | | 92 | 26-123 | | | |
| Surrogate: 13C-1,2,3,7,8,9-HxCDF | 0.0019 | | | ug/L | 0.002 | | 96 | 29-147 | | | |
| Surrogate: 13C-1,2,3,7,8-PeCDD | 0.0016 | | | ug/L | 0.002 | | 78 | 25-181 | | | |
| Surrogate: 13C-1,2,3,7,8-PeCDF | 0.0017 | | | ug/L | 0.002 | | 85 | 24-185 | | | |

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Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|----------|-----------------|-----------|-------|-------------|----------------|-----------|-------------|-----|-----------|-----------------|
| Batch: 1060411 Extracted: 03/01/11 | | | | | | | | | | | |
| Blank Analyzed: 03/02/2011 (G1C010000411B) | | | | | | Source: | | | | | |
| Surrogate: 13C-2,3,4,6,7,8-HxCDF | 0.002 | | | ug/L | 0.002 | | 102 | 28-136 | | | |
| Surrogate: 13C-2,3,4,7,8-PeCDF | 0.0018 | | | ug/L | 0.002 | | 89 | 21-178 | | | |
| Surrogate: 13C-2,3,7,8-TCDD | 0.0014 | | | ug/L | 0.002 | | 71 | 25-164 | | | |
| Surrogate: 13C-2,3,7,8-TCDF | 0.0016 | | | ug/L | 0.002 | | 82 | 24-169 | | | |
| Surrogate: 13C-OCDD | 0.0039 | | | ug/L | 0.004 | | 97 | 17-157 | | | |
| Surrogate: 37Cl4-2,3,7,8-TCDD | 0.00073 | | | ug/L | 0.0008 | | 91 | 35-197 | | | |
| LCS Analyzed: 03/02/2011 (G1C010000411C) | | | | | | Source: | | | | | |
| 1,2,3,4,6,7,8-HpCDD | 0.00122 | 0.00005 | 0.0000078 | ug/L | 0.001 | | 122 | 70-140 | | | |
| 1,2,3,4,6,7,8-HpCDF | 0.0011 | 0.00005 | 0.000011 | ug/L | 0.001 | | 110 | 82-122 | | | |
| 1,2,3,4,7,8,9-HpCDF | 0.00112 | 0.00005 | 0.000016 | ug/L | 0.001 | | 112 | 78-138 | | | |
| 1,2,3,4,7,8-HxCDD | 0.00115 | 0.00005 | 0.000002 | ug/L | 0.001 | | 115 | 70-164 | | | |
| 1,2,3,4,7,8-HxCDF | 0.00121 | 0.00005 | 0.0000034 | ug/L | 0.001 | | 121 | 72-134 | | | |
| 1,2,3,6,7,8-HxCDD | 0.00113 | 0.00005 | 0.0000017 | ug/L | 0.001 | | 113 | 76-134 | | | |
| 1,2,3,6,7,8-HxCDF | 0.00124 | 0.00005 | 0.0000031 | ug/L | 0.001 | | 124 | 84-130 | | | |
| 1,2,3,7,8,9-HxCDD | 0.00117 | 0.00005 | 0.0000015 | ug/L | 0.001 | | 117 | 64-162 | | | |
| 1,2,3,7,8,9-HxCDF | 0.00129 | 0.00005 | 0.0000041 | ug/L | 0.001 | | 129 | 78-130 | | | |
| 1,2,3,7,8-PeCDD | 0.00128 | 0.00005 | 0.0000081 | ug/L | 0.001 | | 128 | 70-142 | | | |
| 1,2,3,7,8-PeCDF | 0.00122 | 0.00005 | 0.000016 | ug/L | 0.001 | | 122 | 80-134 | | | |
| 2,3,4,6,7,8-HxCDF | 0.00119 | 0.00005 | 0.0000028 | ug/L | 0.001 | | 119 | 70-156 | | | |
| 2,3,4,7,8-PeCDF | 0.00121 | 0.00005 | 0.000016 | ug/L | 0.001 | | 121 | 68-160 | | | |
| 2,3,7,8-TCDD | 0.000306 | 0.00001 | 0.0000093 | ug/L | 0.0002 | | 153 | 67-158 | | | |
| 2,3,7,8-TCDF | 0.000289 | 0.000013 | 0.000013 | ug/L | 0.0002 | | 145 | 75-158 | | | G |
| OCDD | 0.00222 | 0.0001 | 0.000016 | ug/L | 0.002 | | 111 | 78-144 | | | B |
| OCDF | 0.00258 | 0.0001 | 0.0000072 | ug/L | 0.002 | | 129 | 63-170 | | | |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDD | 0.00175 | | | ug/L | 0.002 | | 88 | 26-166 | | | |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDF | 0.00211 | | | ug/L | 0.002 | | 105 | 21-158 | | | |
| Surrogate: 13C-1,2,3,4,7,8,9-HpCDF | 0.00203 | | | ug/L | 0.002 | | 102 | 20-186 | | | |
| Surrogate: 13C-1,2,3,4,7,8-HxCDD | 0.00167 | | | ug/L | 0.002 | | 84 | 21-193 | | | |
| Surrogate: 13C-1,2,3,4,7,8-HxCDF | 0.00186 | | | ug/L | 0.002 | | 93 | 19-202 | | | |
| Surrogate: 13C-1,2,3,6,7,8-HxCDD | 0.00191 | | | ug/L | 0.002 | | 96 | 25-163 | | | |
| Surrogate: 13C-1,2,3,6,7,8-HxCDF | 0.00188 | | | ug/L | 0.002 | | 94 | 21-159 | | | |
| Surrogate: 13C-1,2,3,7,8,9-HxCDF | 0.002 | | | ug/L | 0.002 | | 100 | 17-205 | | | |
| Surrogate: 13C-1,2,3,7,8-PeCDD | 0.0016 | | | ug/L | 0.002 | | 80 | 21-227 | | | |
| Surrogate: 13C-1,2,3,7,8-PeCDF | 0.00175 | | | ug/L | 0.002 | | 87 | 21-192 | | | |
| Surrogate: 13C-2,3,4,6,7,8-HxCDF | 0.00207 | | | ug/L | 0.002 | | 103 | 22-176 | | | |

TestAmerica Irvine

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 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|----------|-----------------|-----------|-------|-------------|----------------|-----------|-------------|-----|-----------|-----------------|
| Batch: 1060411 Extracted: 03/01/11 | | | | | | | | | | | |
| LCS Analyzed: 03/02/2011 (G1C010000411C) | | | | | | Source: | | | | | |
| Surrogate: 13C-2,3,4,7,8-PeCDF | 0.00182 | | | ug/L | 0.002 | | 91 | 13-328 | | | |
| Surrogate: 13C-2,3,7,8-TCDD | 0.00155 | | | ug/L | 0.002 | | 78 | 20-175 | | | |
| Surrogate: 13C-2,3,7,8-TCDF | 0.00177 | | | ug/L | 0.002 | | 88 | 22-152 | | | |
| Surrogate: 13C-OCDD | 0.00377 | | | ug/L | 0.004 | | 94 | 13-199 | | | |
| Surrogate: 37Cl4-2,3,7,8-TCDD | 0.000729 | | | ug/L | 0.0008 | | 91 | 31-191 | | | |
| LCS Dup Analyzed: 03/02/2011 (G1C010000411L) | | | | | | Source: | | | | | |
| 1,2,3,4,6,7,8-HpCDD | 0.00114 | 0.00005 | 0.0000082 | ug/L | 0.001 | | 114 | 70-140 | 6.5 | 50 | |
| 1,2,3,4,6,7,8-HpCDF | 0.00101 | 0.00005 | 0.0000011 | ug/L | 0.001 | | 101 | 82-122 | 8.6 | 50 | |
| 1,2,3,4,7,8,9-HpCDF | 0.00104 | 0.00005 | 0.0000016 | ug/L | 0.001 | | 104 | 78-138 | 7.1 | 50 | |
| 1,2,3,4,7,8-HxCDD | 0.00101 | 0.00005 | 0.0000021 | ug/L | 0.001 | | 101 | 70-164 | 13 | 50 | |
| 1,2,3,4,7,8-HxCDF | 0.00107 | 0.00005 | 0.0000035 | ug/L | 0.001 | | 107 | 72-134 | 12 | 50 | |
| 1,2,3,6,7,8-HxCDD | 0.00101 | 0.00005 | 0.0000019 | ug/L | 0.001 | | 101 | 76-134 | 11 | 50 | |
| 1,2,3,6,7,8-HxCDF | 0.00108 | 0.00005 | 0.0000032 | ug/L | 0.001 | | 108 | 84-130 | 14 | 50 | |
| 1,2,3,7,8,9-HxCDD | 0.00101 | 0.00005 | 0.0000017 | ug/L | 0.001 | | 101 | 64-162 | 14 | 50 | |
| 1,2,3,7,8,9-HxCDF | 0.00105 | 0.00005 | 0.0000044 | ug/L | 0.001 | | 105 | 78-130 | 21 | 50 | |
| 1,2,3,7,8-PeCDD | 0.00108 | 0.00005 | 0.0000083 | ug/L | 0.001 | | 108 | 70-142 | 17 | 50 | |
| 1,2,3,7,8-PeCDF | 0.00105 | 0.00005 | 0.0000012 | ug/L | 0.001 | | 105 | 80-134 | 15 | 50 | |
| 2,3,4,6,7,8-HxCDF | 0.00101 | 0.00005 | 0.0000032 | ug/L | 0.001 | | 101 | 70-156 | 16 | 50 | |
| 2,3,4,7,8-PeCDF | 0.00105 | 0.00005 | 0.0000013 | ug/L | 0.001 | | 105 | 68-160 | 14 | 50 | |
| 2,3,7,8-TCDD | 0.000224 | 0.00001 | 0.0000082 | ug/L | 0.0002 | | 112 | 67-158 | 31 | 50 | |
| 2,3,7,8-TCDF | 0.000213 | 0.000012 | 0.0000012 | ug/L | 0.0002 | | 107 | 75-158 | 30 | 50 | G |
| OCDD | 0.00215 | 0.0001 | 0.0000011 | ug/L | 0.002 | | 107 | 78-144 | 3.3 | 50 | B |
| OCDF | 0.00246 | 0.0001 | 0.0000079 | ug/L | 0.002 | | 123 | 63-170 | 4.7 | 50 | |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDD | 0.00173 | | | ug/L | 0.002 | | 86 | 26-166 | | | |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDF | 0.0021 | | | ug/L | 0.002 | | 105 | 21-158 | | | |
| Surrogate: 13C-1,2,3,4,7,8,9-HpCDF | 0.00203 | | | ug/L | 0.002 | | 102 | 20-186 | | | |
| Surrogate: 13C-1,2,3,4,7,8-HxCDD | 0.00189 | | | ug/L | 0.002 | | 94 | 21-193 | | | |
| Surrogate: 13C-1,2,3,4,7,8-HxCDF | 0.00187 | | | ug/L | 0.002 | | 94 | 19-202 | | | |
| Surrogate: 13C-1,2,3,6,7,8-HxCDD | 0.00183 | | | ug/L | 0.002 | | 92 | 25-163 | | | |
| Surrogate: 13C-1,2,3,6,7,8-HxCDF | 0.00202 | | | ug/L | 0.002 | | 101 | 21-159 | | | |
| Surrogate: 13C-1,2,3,7,8,9-HxCDF | 0.00206 | | | ug/L | 0.002 | | 103 | 17-205 | | | |
| Surrogate: 13C-1,2,3,7,8-PeCDD | 0.00162 | | | ug/L | 0.002 | | 81 | 21-227 | | | |
| Surrogate: 13C-1,2,3,7,8-PeCDF | 0.00178 | | | ug/L | 0.002 | | 89 | 21-192 | | | |
| Surrogate: 13C-2,3,4,6,7,8-HxCDF | 0.00208 | | | ug/L | 0.002 | | 104 | 22-176 | | | |
| Surrogate: 13C-2,3,4,7,8-PeCDF | 0.00184 | | | ug/L | 0.002 | | 92 | 13-328 | | | |

TestAmerica Irvine

Debby Wilson
 Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|----------|--------------------|-----|-------|----------------|------------------|------|----------------|-----|--------------|--------------------|
| Batch: 1060411 Extracted: 03/01/11 | | | | | | | | | | | |
| LCS Dup Analyzed: 03/02/2011 (G1C010000411L) | | | | | | | | | | | |
| Surrogate: 13C-2,3,7,8-TCDD | 0.00157 | | | ug/L | 0.002 | | 78 | 20-175 | | | |
| Surrogate: 13C-2,3,7,8-TCDF | 0.0018 | | | ug/L | 0.002 | | 90 | 22-152 | | | |
| Surrogate: 13C-OCDD | 0.00381 | | | ug/L | 0.004 | | 95 | 13-199 | | | |
| Surrogate: 37Cl4-2,3,7,8-TCDD | 0.000707 | | | ug/L | 0.0008 | | 88 | 31-191 | | | |

TestAmerica Irvine

Debby Wilson
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.

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

| LabNumber | Analysis | Analyte | Units | Result | MRL | Compliance Limit |
|------------|-----------------------------|--|-------|--------|------|------------------|
| IUB2621-01 | 1664-HEM | Hexane Extractable Material (Oil & Greas | mg/l | 0.47 | 4.7 | 15 |
| IUB2621-01 | 624-Reg-X-2+c12DCE, LOW | 1,1-Dichloroethene | ug/l | 0 | 0.50 | 6 |
| IUB2621-01 | 624-Reg-X-2+c12DCE, LOW | 1,2-Dichloroethane | ug/l | 0 | 0.50 | 0.5 |
| IUB2621-01 | 624-Reg-X-2+c12DCE, LOW | Trichloroethene | ug/l | 0 | 0.50 | 5 |
| IUB2621-01 | Settleable Solids - SM2540F | Total Settleable Solids | ml/l | 0 | 0.10 | 0.3 |

Compliance Check

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| LabNumber | Analysis | Analyte | Units | Result | MRL | Compliance Limit |
|------------|-------------------------|--------------------|-------|--------|------|------------------|
| IUB2621-02 | 624-Reg-X-2+c12DCE, LOW | 1,1-Dichloroethene | ug/l | 0 | 0.50 | 6 |
| IUB2621-02 | 624-Reg-X-2+c12DCE, LOW | 1,2-Dichloroethane | ug/l | 0 | 0.50 | 0.5 |
| IUB2621-02 | 624-Reg-X-2+c12DCE, LOW | Trichloroethene | ug/l | 0 | 0.50 | 5 |

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

| LabNumber | Analysis | Analyte | Units | Result | MRL | Compliance Limit |
|------------|---------------------------------|----------------------------|-------|---------|--------|------------------|
| IUB2621-03 | 608-Pesticides (LL) | alpha-BHC | ug/l | 0.00031 | 0.0047 | 0.03 |
| IUB2621-03 | 625+NDMA, LL | 2,4,6-Trichlorophenol | ug/l | 0 | 0.943 | 13 |
| IUB2621-03 | 625+NDMA, LL | 2,4-Dinitrotoluene | ug/l | 0 | 4.72 | 18 |
| IUB2621-03 | 625+NDMA, LL | Bis(2-ethylhexyl)phthalate | ug/l | 0.19 | 4.72 | 4 |
| IUB2621-03 | 625+NDMA, LL | N-Nitrosodimethylamine | ug/l | 0 | 1.89 | 16 |
| IUB2621-03 | 625+NDMA, LL | Pentachlorophenol | ug/l | 0 | 1.89 | 16.5 |
| IUB2621-03 | Ammonia-N, Titr 4500NH3-C (w/di | Ammonia-N (Distilled) | mg/l | 0 | 0.500 | 10.1 |
| IUB2621-03 | Antimony-200.8 | Antimony | ug/l | 0.14 | 2.0 | 6 |
| IUB2621-03 | Arsenic-200.7 | Arsenic | ug/l | -3 | 10 | 10 |
| IUB2621-03 | Barium-200.7 | Barium | mg/l | 0.0081 | 0.010 | 1 |
| IUB2621-03 | Beryllium-200.7 | Beryllium | ug/l | 0 | 2.0 | 4 |
| IUB2621-03 | BOD - SM5210B | Biochemical Oxygen Demand | mg/l | 1.12 | 2.0 | 30 |
| IUB2621-03 | Cadmium-200.8 | Cadmium | ug/l | 0.023 | 1.0 | 3.1 |
| IUB2621-03 | Chloride - 300.0 | Chloride | mg/l | 107 | 5.0 | 150 |
| IUB2621-03 | Chromium VI-218.6 | Chromium VI | ug/l | 0 | 1.00 | 16 |
| IUB2621-03 | Copper-200.8 | Copper | ug/l | 2.02 | 2.00 | 14 |
| IUB2621-03 | Cyanide, Total-4500CN-E (5ppb) | Total Cyanide | ug/l | -5 | 5.0 | 8.5 |

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
 Annual Outfall 019
 Report Number: IUB2621

Sampled: 02/24/11-02/28/11
 Received: 02/24/11

| | | | | | | |
|------------|--------------------------------|------------------------|------|-------|-------|-----|
| IUB2621-03 | Fluoride SM4500F,C | Fluoride | mg/l | 0.35 | 0.10 | 1.6 |
| IUB2621-03 | Iron-200.7 | Iron | mg/l | 0.075 | 0.040 | 0.3 |
| IUB2621-03 | Lead-200.8 | Lead | ug/l | 0.24 | 1.0 | 5.2 |
| IUB2621-03 | Manganese-200.7 | Manganese | ug/l | 3.33 | 20 | 50 |
| IUB2621-03 | MBAS - SM5540C | Surfactants (MBAS) | mg/l | 0.058 | 0.10 | 0.5 |
| IUB2621-03 | Mercury - 245.1 | Mercury | ug/l | 0 | 0.20 | 0.1 |
| IUB2621-03 | Nickel-200.7 | Nickel | ug/l | 2.94 | 10 | 96 |
| IUB2621-03 | Nitrate-N, 300.0 | Nitrate-N | mg/l | 0.095 | 0.11 | 8 |
| IUB2621-03 | Nitrite-N, 300.0 | Nitrite-N | mg/l | 0 | 0.15 | 1 |
| IUB2621-03 | Nitrogen, NO3+NO2 -N EPA 300.0 | Nitrate/Nitrite-N | mg/l | 0.095 | 0.26 | 8 |
| IUB2621-03 | Perchlorate 314.0 (1ppb_IC6) | Perchlorate | ug/l | 0 | 1.0 | 6 |
| IUB2621-03 | Selenium-200.8 | Selenium | ug/l | 0.65 | 2.0 | 5 |
| IUB2621-03 | Silver-200.8 | Silver | ug/l | 0.026 | 1.0 | 4.1 |
| IUB2621-03 | Sulfate-300.0 | Sulfate | mg/l | 97 | 2.5 | 300 |
| IUB2621-03 | TDS - SM2540C | Total Dissolved Solids | mg/l | 501 | 10 | 950 |
| IUB2621-03 | Thallium-200.8 | Thallium | ug/l | 0.037 | 1.0 | 2 |
| IUB2621-03 | TSS - SM2540D | Total Suspended Solids | mg/l | 1.00 | 10 | 45 |
| IUB2621-03 | Zinc-200.7 | Zinc | ug/l | 42 | 20.0 | 119 |

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

| LabNumber | Analysis | Analyte | Units | Result | MRL | Compliance Limit |
|-----------|----------|---------|-------|--------|-----|------------------|
|-----------|----------|---------|-------|--------|-----|------------------|

TestAmerica Irvine

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Annual Outfall 019
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Sampled: 02/24/11-02/28/11
Received: 02/24/11

DATA QUALIFIERS AND DEFINITIONS

- B** Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- C** Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- G** Elevated reporting limit. The reporting limit is elevated due to matrix interference.
- J** Estimated result. Result is less than the reporting limit.
- Ja** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- Jb** The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.
- L6** Per the EPA methods, benzidine is known to be subject to oxidative losses during solvent concentration.
- MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- Q** Estimated maximum possible concentration (EMPC).
- R-7** LCS/LCSD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
- U** The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

ADDITIONAL COMMENTS

For 1,2-Diphenylhydrazine:

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

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

Debby Wilson
Project Manager

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

Certification Summary

TestAmerica Irvine

| Method | Matrix | Nelac | California |
|----------------|--------|-------|------------|
| EPA 1664A | Water | X | X |
| EPA 180.1 | Water | X | N/A |
| EPA 200.7-Diss | Water | X | N/A |
| EPA 200.7 | Water | X | N/A |
| EPA 200.8-Diss | Water | X | N/A |
| EPA 200.8 | Water | X | N/A |
| EPA 218.6 | Water | X | X |
| EPA 245.1-Diss | Water | X | N/A |
| EPA 245.1 | Water | X | N/A |
| EPA 300.0 | Water | X | N/A |
| EPA 314.0 | Water | X | N/A |
| EPA 608 | 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 | X | X |
| SM 2540D | Water | X | X |
| SM 4500-F-C | Water | X | N/A |
| SM2340B-Diss | Water | | |
| SM2540C | Water | X | N/A |
| SM2540F | Water | X | X |
| SM4500CN-E | Water | X | N/A |
| SM4500NH3-C | Water | X | X |
| SM5210B | Water | X | X |
| SM5310B | Water | X | X |
| SM5540-C | Water | X | N/A |
| SM9221 A,B,C,E | Water | | |

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

Subcontracted Laboratories

Aquatic Testing Laboratories-SUB *California Cert #1775*

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-7 dy Chrnrc

Samples: IUB2621-03

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

Eberline Services - SUB

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gamma Spec
Samples: IUB2621-03, IUB2621-04

Analysis Performed: Gross Alpha
Samples: IUB2621-03, IUB2621-04

Analysis Performed: Gross Beta
Samples: IUB2621-03, IUB2621-04

Analysis Performed: Radium, Combined
Samples: IUB2621-03, IUB2621-04

Analysis Performed: Strontium 90
Samples: IUB2621-03, IUB2621-04

Analysis Performed: Tritium
Samples: IUB2621-03

Analysis Performed: Uranium, Combined
Samples: IUB2621-03, IUB2621-04

TestAmerica Buffalo

10 Hazelwood Drive, Suite 106 - Amherst, NY 14228

Method Performed: 8670
Samples: IUB2621-03, IUB2621-04

Method Performed: 900
Samples: IUB2621-03, IUB2621-04

Method Performed: 901.1
Samples: IUB2621-03, IUB2621-04

Method Performed: 903.1
Samples: IUB2621-03, IUB2621-04

Method Performed: 904
Samples: IUB2621-03, IUB2621-04

Method Performed: 905
Samples: IUB2621-03, IUB2621-04

Method Performed: 906
Samples: IUB2621-03

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Outfall 019
Annual Outfall 019
Report Number: IUB2621

Sampled: 02/24/11-02/28/11
Received: 02/24/11

TestAmerica West Sacramento *NELAC Cert #1119CA, Nevada Cert #CA44*

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B
Samples: IUB2621-03

Truesdail Laboratories-SUB *California Cert #1237*

14201 Franklin Avenue - Tustin, CA 92680

Analysis Performed: Hydrazine
Samples: IUB2621-03

TestAmerica Irvine

Debby Wilson
Project Manager

IUB2621-REV

CHAIN OF CUSTODY FORM

Test America Version 7/19/2010

| Client Name/Address: MWH-Arcadia 618 Michilinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson | | Project: Boeing-SSFL NPDES Annual Outfall 019 GRAB | | Field readings: (Log in and include in report Temp and pH) Temp °F = 10.57 pH = 6.15 DO = 10.97 mg/L Total Residual Chlorine = 0 Time of Reading = 11:00 Comments | | | | | | | | | | | |
|---|---------------|--|------------|---|--------------|--------------------|--|---------------------|-------------------|--------------|-------------------------|------------|--------------------|-------------------------|-----------------|
| Project Manager: Bronwyn Kelly Sampler: Rick Barach | | Phone Number: (626) 568-6691 Fax Number: (626) 568-6515 | | ANALYSIS REQUIRED | | | | | | | | | | | |
| Sample Description | Sample Matrix | Container Type | # of Cont. | Sampling Date/Time | Preservative | Bottle # | VOCs 624 + xylenes + Freon 113, Freon 123A, Cyclohexane + PP | VOCs 624 + A+A+2CVF | Settleable Solids | Conductivity | Oil & Grease (1664-HEM) | 8015 - gas | 8015 - diesel/fuel | Fecal coliform (SM9223) | E coli (SM9223) |
| Outfall 019 | W | VOAs | 5 | 2-27-2011 11:00 | HCl | 1A, 1B, 1C, 1D, 1E | X | | | | | | | | |
| Outfall 019 | W | VOAs | 3 | 2-27-2011 11:00 | None | 2A, 2B, 2C | | X | | | | | | | |
| Outfall 019 | W | 1L Poly | 1 | 2-27-2011 11:00 | None | 3 | | | X | | | | | | |
| Outfall 019 | W | 1L Amber | 2 | 2-27-2011 11:00 | HCl | 5A, 5B | | | | X | | | | | |
| Trip Blanks | W | VOAs | 3 | | HCl | 6A, 6B, 6C | X | | | | | | | | |
| Trip Blanks | W | VOAs | 3 | | None | 7A, 7B, 7C | | X | | | | | | | |
| Outfall 019 | W | VOAs | 1 | | HCl | 8A | | | | | X | | | | |
| Outfall 019 Dup | W | VOAs | 2 | | HCl | 8B, 8C | | | | | X | | | | |
| Outfall 019 | W | 1L Amber | 1 | | None | 9A | | | | | | X | | | |
| Outfall 019 Dup | W | 1L Amber | 1 | | None | 9B | | | | | | | X | | |
| Outfall 019 | W | 125mL Poly | 1 | 2-27-2011 11:00 | Na2S2O3 | 10 | | | | | | | X | | |
| Outfall 019 | W | 125mL Poly | 1 | 2-27-2011 11:00 | Na2S2O3 | 11 | | | | | | | | X | |
| These Samples are the Grab Portion of Outfall 019 for this storm event. Composite samples will follow and are to be added to this work order. | | | | | | | | | | | | | | | |
| Requisitioned By: <i>[Signature]</i> Date/Time: 2-27-2011 11:45 | | Received By: <i>[Signature]</i> Date/Time: 2-27-2011 11:45 | | Turn-around time: (Check) 24 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 5 Day <input type="checkbox"/> | | | | | | | | | | | |
| Relinquished By: <i>[Signature]</i> Date/Time: | | Received By: <i>[Signature]</i> Date/Time: | | Sample Integrity: (Check) Intact <input type="checkbox"/> Cont. <input checked="" type="checkbox"/> | | | | | | | | | | | |
| Relinquished By: | | Received By: | | Date Requirements (Check) No Level IV <input type="checkbox"/> All Level IV <input checked="" type="checkbox"/> | | | | | | | | | | | |

EU0262

| Client Name/Address: | | Project: | | ANALYSIS REQUIRED | | | | | | | | | | Field readings: | | | | | |
|--|---------------|---|------------|---------------------------------|---------------------------------|--------------------|-------------------------|---------------------|--|---|-------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|------------------|--|--|
| MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 | | Boeing-SSFL NPDES Annual Outfall 019 GRAB | | Phone Number: (626) 568-6691 | | Preservative | | Bottle # | | 8015 - gas | | 8015 - diesel/jet fuel | | Fecal coliform (SM9223) | | E. coli (SM9223) | | Temp = 10.5 °C pH = 6.9 DO = 10.97 mg/L Total Residual Chlorine = 0 | |
| Test America Contact: Debby Wilson | | Project Manager: Bronwyn Kelly | | Fax Number: (626) 568-6515 | | Sampling Date/Time | | Date/Time | | Settleable Solids | | Conductivity | | Oil & Grease (1664-HEM) | | 8015 - gas | | Time of readings = 1100 | |
| Sample Description | Sample Matrix | Container Type | # of Cont. | Sampling Date/Time | Preservative | Bottle # | VOCs 624 + xylenes + PP | VOCs 624 + A+A+2CVE | VOCs 624 + xylenes + Freon 113, Freon 123A, Cyclohexane + PP | VOCs 624 + A+A+2CVE | Settleable Solids | Conductivity | Oil & Grease (1664-HEM) | 8015 - gas | 8015 - diesel/jet fuel | Fecal coliform (SM9223) | E. coli (SM9223) | Comments | |
| Outfall 019 | W | VOAs | 5 | 2-24-11 | HCl | 1A, 1B, 1C, 1D, 1E | X | | | | | | | | | | | | |
| Outfall 019 | W | VOAs | 3 | 1100 | None | 2A, 2B, 2C | | X | | | | | | | | | | | |
| Outfall 019 | W | 1L Poly | 1 | | None | 3 | | | | | X | | | | | | | | |
| Outfall 019 | W | 500 mL Poly | 2 | | None | 4A, 4B | | | | | X | | | | | | | | |
| Outfall 019 | W | 1L Amber | 2 | | HCl | 5A, 5B | | | | | | | X | | | | | | |
| Trip Blanks | W | VOAs | 3 | | HCl | 6A, 6B, 6C | X | | | | | | | | | | | | |
| Trip Blanks | W | VOAs | 3 | | None | 7A, 7B, 7C | | X | | | | | | | | | | | |
| Outfall 019 | W | VOAs | 1 | | HCl | 8A | | | | | | | | X | | | | | |
| Outfall 019 Dup | W | VOAs | 2 | | HCl | 8B, 8C | | | | | | | | X | | | | | |
| Outfall 019 | W | 1L Amber | 1 | | None | 9A | | | | | | | | X | | | | | |
| Outfall 019 Dup | W | 1L Amber | 1 | | None | 9B | | | | | | | | X | | | | | |
| Outfall 019 | W | 125mL Poly | 1 | | Na2S2O3 | 10 | | | | | | | | | X | | | | |
| Outfall 019 | W | 125mL Poly | 1 | | Na2S2O3 | 11 | | | | | | | | | | X | | | |
| Relinquished By: <i>Tim B...</i> | | | | Date/Time: 2-24-2011 | Received By: <i>[Signature]</i> | | | | Date/Time: 2-24-11 | Turn-around time: (Check) 24 Hour: <input type="checkbox"/> 72 Hour: <input type="checkbox"/> 48 Hour: <input type="checkbox"/> 5 Day: <input type="checkbox"/> 10 Day: <input type="checkbox"/> Normal: <input checked="" type="checkbox"/> | | | | | | | | | |
| Relinquished By: <i>[Signature]</i> | | | | Date/Time: 2-24-11 1450 | Received By: <i>[Signature]</i> | | | | Date/Time: 2/24/11 | Sample Integrity: (Check) Intact: <input type="checkbox"/> On Ice: <input checked="" type="checkbox"/> | | | | | | | | | |
| Relinquished By: <i>[Signature]</i> | | | | Date/Time: 2-24-11 1450 | Received By: <i>[Signature]</i> | | | | Date/Time: 2/24/11 | Data Requirements: (Check) No Level IV: <input type="checkbox"/> All Level IV: <input checked="" type="checkbox"/> | | | | | | | | | |

#24 ✓ 13 5.4

| | | | | | | | | | | | | | | | | |
|---|--|---|--|---|--|--|---|---|--|--|---|-------------------------------|---------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Client Name/Address: MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson | | Project: Boeing-SSFL NPDES Annual Outfall 019 COMPOSITE | | ANALYSIS REQUIRED Total Recoverable Metals: Cu, Pb, Hg, B, Ba, Fe, Mn, Sb, As, Be, Cd, Ni, Se, Ag, Tl, Zn, Co, V TCDD (and all congeners) BOD ₅ (20 degrees C) Surfactants (MBAS) Cl ⁻ , SO ₄ ²⁻ , NO ₃ ⁻ , NO ₂ ⁻ , N ₂ , F ⁻ , Perchlorate Nitrate-N, Nitrite-N Turbidity, TDS, TSS Ammonia-N (350.2) Alpha BHC (608) + Pesticides + PP 2,4,6 TCF, 2,4 Dinitrofluorene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs 625) + PP | | | | | | | | | | Comments | | |
| Project Manager: Bronwyn Kelly Sampler: Rick BANAGA | | Phone Number: (626) 568-6691 Fax Number: (626) 568-6615 | | Bottle # 12A 12B 13A, 13B 14 15A, 15B 16A, 16B 17 18A, 18B 19 20A, 20B 21A, 21B | Preservative HNO ₃ HNO ₃ None None None None None None H ₂ SO ₄ None None | Sampling Date/Time 2-25-2011 11:22 | # of Cont. 1 1 2 1 2 2 1 2 1 2 2 | Container Type 1L Poly 1L Poly 1L Amber 1L Poly 500 mL Poly 500 mL Poly 500 mL Poly 500 mL Poly 500 mL Poly 500 mL Poly 1L Amber 1L Amber | Sample Matrix W W W W W W W W W W W | Description Outfall 019 Outfall 019 Dup Outfall 019 Outfall 019 Outfall 019 Outfall 019 Outfall 019 Outfall 019 Outfall 019 Outfall 019 Outfall 019 | Date/Time 2-25-2011 12:35 2-25-2011 11:22 | Date/Time 2-25-11 12:35 | Date/Time 2-25-2011 19:00 | Date/Time 2-25-11 19:00 | Date/Time 2-25-11 19:00 | Date/Time 2-25-11 19:00 |
| Relinquished By: <i>Rick Banaga</i> Date/Time: 2-25-2011 12:35 Relinquished By: <i>Debby Wilson</i> Date/Time: 2-25-11 12:35 Relinquished By: <i>Debby Wilson</i> Date/Time: 2-25-2011 19:00 Relinquished By: <i>Debby Wilson</i> Date/Time: 2-25-11 19:00 | | | | | | | | | | | | | | | | |
| COC Page 2 of 3 and Page 3 of 3 are the composite samples for Outfall 019 for this storm event. These must be added to the same work order for COC Page 1 of 3 for Outfall 019 for the same event. | | | | | | | | | | | | | | | | |
| Turn-around time: (Check) 24 Hour: _____ 72 Hour: _____ 10 Day: _____ 48 Hour: _____ 5 Day: _____ Normet: <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |
| Sample Integrity: (Check) In tact: _____ On ice: _____ Data Requirements: (Check) No Level IV: _____ All Level IV: _____ NPDES Level IV: <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |

3.3C 25M03

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------|--|------------|--|--------------|---------------------------|-----------|--|------|----------------------|------------------|---|-----------------|------------------|----------------|---|--|-----------------|--|---------|--|----------------|--|----------|--|
| Client Name/Address: MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 | | Project: Boeing-SSFL NPDES Annual Outfall 019 COMPOSITE | | ANALYSIS REQUIRED | | | | | | | | | | | | | | | | | | | | | |
| Test America Contact: Debby Wilson | | Project Manager: Bronwyn Kelly Sampler: RICK BAVAGA | | Phone Number: (626) 568-6691 Fax Number: (626) 568-6515 | | Total Organic Carbon X | | Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1) | | PCBs | | Monomethyl Hydrazine | | Chronic Toxicity | | Total Dissolved Metals: Cu, Pb, Hg, B, Ba, Fe, Mn, Sb, As, Be, Cd, Ni, Se, Ag, Tl, Zn, Co, V, Hardness as CaCO ₃ | | Cr (VI) (218.6) | | Cyanide | | Acute Toxicity | | Comments | |
| Sample Description | Sample Matrix | Container Type | # of Cont. | Sampling Date/Time | Preservative | Bottle # | 1+Dioxane | Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1) | PCBs | Monomethyl Hydrazine | Chronic Toxicity | Total Dissolved Metals: Cu, Pb, Hg, B, Ba, Fe, Mn, Sb, As, Be, Cd, Ni, Se, Ag, Tl, Zn, Co, V, Hardness as CaCO ₃ | Cr (VI) (218.6) | Cyanide | Acute Toxicity | Comments | | | | | | | | | |
| Outfall 019 | W | VOAs | 3 | 2-25-11 11:22 | HCl | 22A, 22B, 22C | X | | | | | | | | | | | | | | | | | | |
| Outfall 019 | W | 250 mL Glass | 1 | | HCl | 23 | X | | | | | | | | | | | | | | | | | | |
| Outfall 019 | W | 2.5 Gal Cube | 1 | | None | 24A | | X | | | | | | | | Unfiltered and unpreserved analysis | | | | | | | | | |
| Outfall 019 | W | 500 mL Amber | 1 | | None | 24B | | | | | | | | | | | | | | | | | | | |
| Outfall 019 | W | 1L Amber | 2 | | None | 25A, 25B | | | X | | | | | | | | | | | | | | | | |
| Outfall 019 | W | 1L Amber | 2 | | None | 26A, 26B | | | | X | | | | | | | | | | | | | | | |
| Outfall 019 | W | 1 Gal Cube | 1 | | None | 27 | | | | | X | | | | | Only test if first or second rain events of the year | | | | | | | | | |
| Outfall 019 | W | 1L Poly | 1 | | None | 28 | | | | | | X | | | | Filter w/in 24hrs of receipt at lab | | | | | | | | | |
| Outfall 019 | W | 500 mL Poly | 1 | | None | 29 | | | | | | | X | | | | | | | | | | | | |
| Outfall 019 | W | 500 mL Poly | 1 | 2-25-2011 11:22 | NaOH | 30 | | | | | | | | X | | | | | | | | | | | |
| Outfall 019 | W | 1 Gal Cube | 3 | | None | 31 | | | | | | | | | | | | | | | | | | | |

COC Page 2 of 3 and Page 3 of 3 are the composite samples for Outfall 019 for this storm event.
 These must be added to the same work order for COC Page 1 of 3 for Outfall 019 for the same event.

| | | | |
|---------------------------------------|-------------------------------|-----------------------------------|-----------------------------|
| Relinquished By <i>Rick Bavaga</i> | Date/Time: 2-25-2011 12:35 | Received By <i>Mark Conrad</i> | Date/Time: 2-25-11 12:35 |
| Relinquished By <i>Mark Conrad</i> | Date/Time: 2-25-11 19:00 | Received By <i>APR</i> | Date/Time: 2/25/11 1900 |

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

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

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

LABORATORY REPORT



**Aquatic
Testing
Laboratories**

"dedicated to providing quality aquatic toxicity testing"

4350 Transport Street, Unit 107
Ventura, CA 93003
(805) 650-0546 FAX (805) 650-0756
CA DOHS ELAP Cert. No.: 1775

Date: March 4, 2011
Client: TestAmerica, Irvine
17461 Derian Ave., Suite 100
Irvine, CA 92614
Attn: Debby Wilson

Laboratory No.: A-11022505-001
Sample I.D.: IUB2621-03 (Outfall 019)

Sample Control: The sample was received by ATL chilled, within the recommended hold time and with the chain of custody record attached. Testing conducted on only one sample per client instruction (rain runoff sample).

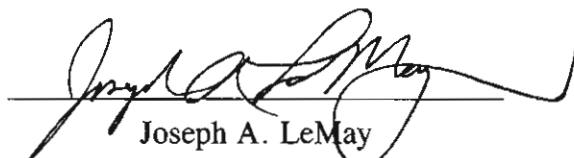
Date Sampled: 02/25/11
Date Received: 02/25/11
Temp. Received: 5.6°C
Chlorine (TRC): 0.0 mg/l
Date Tested: 02/25/11 to 03/04/11

Sample Analysis: The following analyses were performed on your sample:
Ceriodaphnia dubia Survival and Reproduction Test (EPA Method 1002).
Attached are the test data generated from the analysis of your sample.

Result Summary:

| Chronic: | <u>NOEC</u> | <u>TUc</u> |
|-----------------------------------|-------------|------------|
| <i>Ceriodaphnia</i> Survival: | 100% | 1.0 |
| <i>Ceriodaphnia</i> Reproduction: | 100% | 1.0 |

Quality Control: Reviewed and approved by:


Joseph A. LeMay
Laboratory Director

**CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0**



Lab No.: A-11022505-001
Client/ID: Test America - IUB2621-03 (Outfall 019)

Date Tested: 02/25/11 to 03/04/11

TEST SUMMARY

Test type: Daily static-renewal.
Species: *Ceriodaphnia dubia*.
Age: < 24 hrs; all released within 8 hrs.
Test vessel size: 30 ml.
Number of test organisms per vessel: 1.
Temperature: 25 +/- 1°C.
Dilution water: Mod. hard reconstituted (MHRW).
QA/QC Batch No.: RT-110208.

Endpoints: Survival and Reproduction.
Source: In-laboratory culture.
Food: .1 ml YTC, algae per day.
Test solution volume: 15 ml.
Number of replicates: 10.
Photoperiod: 16/8 hrs. light/dark cycle.
Test duration: 7 days.
Statistics: ToxCalc computer program.

RESULTS SUMMARY

| Sample Concentration | Percent Survival | Mean Number of Young Per Female |
|----------------------|------------------|---------------------------------|
| Control | 100% | 26.4 |
| 100% Sample | 100% | 29.4 |

* Sample not statistically significantly less than Control.

CHRONIC TOXICITY

| | |
|-------------------|------|
| Survival NOEC | 100% |
| Survival TUc | 1.0 |
| Reproduction NOEC | 100% |
| Reproduction TUc | 1.0 |

QA/QC TEST ACCEPTABILITY

| Parameter | Result |
|---|--|
| Control survival ≥80% | Pass (100% survival) |
| ≥15 young per surviving control female | Pass (26.4 young) |
| ≥60% surviving controls had 3 broods | Pass (100% with 3 broods) |
| PMSD <47% for reproduction; if >47% and no toxicity at IWC, the test must be repeated | Pass (PMSD = 6.3%) |
| Statistically significantly different concentrations relative difference > 13% | Pass (no concentration significantly different) |
| Concentration response relationship acceptable | Pass (no significant response at concentration tested) |

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

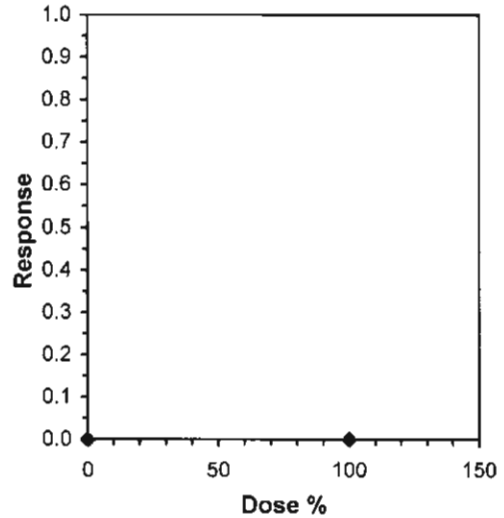
Start Date: 2/25/2011 15:00 Test ID: 11022505c Sample ID: Outfall 019
 End Date: 3/4/2011 14:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: SRW2-Industrial stormwater
 Sample Date: 2/25/2011 14:20 Protocol: FWCH EPA Test Species: CD-Ceriodaphnia dubia
 Comments:

| Conc-% | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| D-Control | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 100 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |

| Conc-% | Mean | N-Mean | Resp | Not Resp | Total | N | Fisher's 1-Tailed | | Isotonic | |
|-----------|--------|--------|------|----------|-------|----|-------------------|----------|----------|--------|
| | | | | | | | Exact P | Critical | Mean | N-Mean |
| D-Control | 1.0000 | 1.0000 | 0 | 10 | 10 | 10 | | | 1.0000 | 1.0000 |
| 100 | 1.0000 | 1.0000 | 0 | 10 | 10 | 10 | 1.0000 | 0.0500 | 1.0000 | 1.0000 |

| Hypothesis Test (1-tail, 0.05) | NOEC | LOEC | ChV | TU |
|--------------------------------|------|------|-----|----|
| Fisher's Exact Test | 100 | >100 | | 1 |
| Treatments vs D-Control | | | | |

| Point | % | SD | Linear Interpolation (200 Resamples) | |
|-------|------|----|--------------------------------------|------|
| | | | 95% CL | Skew |
| IC05 | >100 | | | |
| IC10 | >100 | | | |
| IC15 | >100 | | | |
| IC20 | >100 | | | |
| IC25 | >100 | | | |
| IC40 | >100 | | | |
| IC50 | >100 | | | |



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 2/25/2011 15:00 Test ID: 11022505c Sample ID: Outfall 019
 End Date: 3/4/2011 14:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: SRW2-Industrial stormwater
 Sample Date: 2/25/2011 14:20 Protocol: FWCH EPA Test Species: CD-Ceriodaphnia dubia
 Comments:

| Conc-% | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| D-Control | 31.000 | 26.000 | 27.000 | 24.000 | 26.000 | 31.000 | 24.000 | 26.000 | 23.000 | 26.000 |
| 100 | 30.000 | 29.000 | 28.000 | 29.000 | 31.000 | 28.000 | 29.000 | 32.000 | 30.000 | 28.000 |

| Conc-% | Mean | N-Mean | Transform: Untransformed | | | | | Rank Sum | 1-Tailed Critical | Isotonic | |
|-----------|--------|--------|--------------------------|--------|--------|--------|----|----------|-------------------|----------|--------|
| | | | Mean | Min | Max | CV% | N | | | Mean | N-Mean |
| D-Control | 26.400 | 1.0000 | 26.400 | 23.000 | 31.000 | 10.289 | 10 | 138.00 | 82.00 | 27.900 | 1.0000 |
| 100 | 29.400 | 1.1136 | 29.400 | 28.000 | 32.000 | 4.591 | 10 | | | 27.900 | 1.0000 |

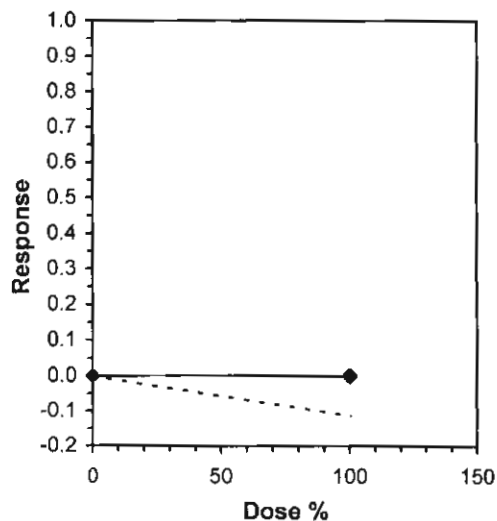
| Auxiliary Tests | Statistic | Critical | Skew | Kurt |
|---|-----------|----------|---------|---------|
| Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05) | 0.90328 | 0.905 | 0.90869 | 0.87255 |
| F-Test indicates equal variances (p = 0.05) | 4.04878 | 6.54109 | | |

Hypothesis Test (1-tail, 0.05)

Wilcoxon Two-Sample Test indicates no significant differences

Treatments vs D-Control

| Point | % | SD | Linear Interpolation (200 Resamples) | |
|-------|------|----|--------------------------------------|------|
| | | | 95% CL | Skew |
| IC05 | >100 | | | |
| IC10 | >100 | | | |
| IC15 | >100 | | | |
| IC20 | >100 | | | |
| IC25 | >100 | | | |
| IC40 | >100 | | | |
| IC50 | >100 | | | |



CERIODAPHNIA DUBIA CHRONIC BIOASSAY
EPA METHOD 1002.0 Raw Data Sheet



Lab No.: A-11022505-001

Client ID: TestAmerica - Outfall 019

Start Date: 02/25/2011

| | | DAY 1 | | DAY 2 | | DAY 3 | | DAY 4 | | DAY 5 | | DAY 6 | | DAY 7 | |
|-------------------|------|-------------|------|-------------|------|-------------|------|-------------|------|-------------|------|-------------|------|-------------|------|
| | | 0 hr | 24hr | 0 hr | 24hr | 0 hr | 24hr | 0 hr | 24hr | 0 hr | 24hr | 0 hr | 24hr | 0 hr | 24hr |
| Analyst Initials: | | [Signature] | | [Signature] | | [Signature] | | [Signature] | | [Signature] | | [Signature] | | [Signature] | |
| Time of Readings: | | 1430 | 1430 | 1430 | 1430 | 1430 | 1430 | 1430 | 1430 | 1430 | 1430 | 1430 | 1430 | 1430 | 1430 |
| Control | DO | 9.1 | 8.8 | 9.0 | 8.2 | 8.3 | 8.2 | 8.9 | 8.6 | 9.5 | 8.6 | 9.2 | 8.4 | 9.1 | 8.4 |
| | pH | 8.0 | 8.1 | 7.8 | 8.1 | 8.0 | 8.0 | 7.9 | 8.0 | 8.0 | 8.0 | 7.9 | 8.0 | 8.0 | 8.1 |
| | Temp | 25.5 | 24.6 | 24.2 | 24.6 | 24.4 | 24.5 | 25.2 | 25.1 | 24.4 | 24.9 | 24.8 | 24.7 | 24.8 | 24.5 |
| 100% | DO | 8.7 | 8.9 | 9.2 | 8.0 | 8.8 | 8.6 | 9.6 | 8.9 | 9.4 | 8.7 | 8.9 | 9.0 | 9.1 | 8.6 |
| | pH | 7.4 | 8.2 | 7.4 | 8.1 | 7.7 | 8.1 | 7.5 | 8.2 | 7.6 | 8.2 | 7.7 | 8.1 | 7.7 | 8.2 |
| | Temp | 25.6 | 24.3 | 25.0 | 24.5 | 24.5 | 24.4 | 24.9 | 25.0 | 25.0 | 24.8 | 25.1 | 24.6 | 24.7 | 24.7 |

| Additional Parameters | Control | 100% Sample |
|--------------------------------------|---------|-------------|
| Conductivity (umohms) | 337 | 808 |
| Alkalinity (mg/l CaCO ₃) | 72 | 131 |
| Hardness (mg/l CaCO ₃) | 93 | 123 |
| Ammonia (mg/l NH ₃ -N) | <0.1 | <0.1 |

| Source of Neonates | | | | | | | | | | | |
|--------------------|----|----|----|----|----|----|----|----|----|----|--|
| Replicate: | A | B | C | D | E | F | G | H | I | J | |
| Brood ID: | 6A | 5B | 6C | 5E | 5F | 5H | 6G | 5I | 4J | 6F | |

| Sample | Day | Number of Young Produced | | | | | | | | | | Total Live Young | No. Live Adults | Analyst Initials |
|---------|-------|--------------------------|----|------|----|------|----|------|----|----|----|------------------|-----------------|------------------|
| | | A | B | C | D | E | F | G | H | I | J | | | |
| Control | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | [Signature] |
| | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | [Signature] |
| | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 7 | 10 | [Signature] |
| | 4 | 4 | 5 | 4 | 4 | 0 | 5 | 0 | 4 | 3 | 0 | 33 | 10 | [Signature] |
| | 5 | 11 | 2 | 9 | 8 | 7 | 9 | 6 | 7 | 7 | 8 | 79 | 10 | [Signature] |
| | 6 | 0 | 0 | 14 | 0 | 16 | 17 | 14 | 15 | 0 | 0 | 76 | 10 | [Signature] |
| | 7 | 16 | 14 | 0 | 12 | (17) | 0 | 0 | 0 | 13 | 14 | 69 | 10 | [Signature] |
| | Total | 31 | 26 | 27 | 24 | 26 | 31 | 24 | 20 | 23 | 26 | 264 | 10 | [Signature] |
| 100% | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | [Signature] |
| | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | [Signature] |
| | 3 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 8 | 10 | [Signature] |
| | 4 | 5 | 4 | 0 | 4 | 5 | 3 | 0 | 3 | 3 | 4 | 31 | 10 | [Signature] |
| | 5 | 9 | 10 | 9 | 8 | 9 | 9 | 10 | 9 | 9 | 7 | 89 | 10 | [Signature] |
| | 6 | 0 | 15 | 15 | 17 | 17 | 16 | 15 | 20 | 18 | 17 | 150 | 10 | [Signature] |
| | 7 | 16 | 0 | (17) | 0 | (16) | 0 | (18) | 0 | 0 | 0 | 16 | 10 | [Signature] |
| | Total | 30 | 29 | 28 | 29 | 31 | 28 | 29 | 32 | 30 | 28 | 294 | 10 | [Signature] |

Circled fourth brood not used in statistical analysis.

7th day only used if <60% of the surviving control females have produced their third brood.



CHAIN OF CUSTODY

SUBCONTRACT ORDER

TestAmerica Irvine

IUB2621

SENDING LABORATORY:

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

RECEIVING LABORATORY:

Aquatic Testing Laboratories-SUB
4350 Transport Street, Unit 107
Ventura, CA 93003
Phone : (805) 650-0546
Fax: (805) 650-0756

| Analysis | Due | Expires | Laboratory ID | Comments |
|---|----------------|-------------------------|---------------|---|
| Sample ID: IUB2621-03 | Water | Sampled: 02/25/11 11:22 | | |
| Bioassay-7 dy Chronic | 03/10/11 12:00 | 02/26/11 23:22 | | Cerio, EPA/821-R02-013, Sub to AqTox Labs |
| Containers Supplied: 1 gal Poly (AB) | | | | |

— *see Attached* —
Released By _____ Date _____ Received By *[Signature]* Date *2-25-11 1420*

Released By _____ Date _____ Received By _____ Date _____

| Client Name/Address: MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 | | | | Project: Boeing-SSFL NPDES Annual Outfall 019 COMPOSITE | | | ANALYSIS REQUIRED | | | | | | | | | | Comments | | |
|--|---------------|-----------------------|--------------|--|-----------------|------------------|-------------------|----------------------|--|------|----------------------|------------------|---|-----------------|---------|----------------|----------|--|--|
| Test America Contact: Debby Wilson | | | | Phone Number: (626) 568-6691 | | | 1,4-Dioxane | Total Organic Carbon | Gross Alpha(900.0), Gross Beta(900.0) Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K- 40, CS-137 (901.0 or 901.1) | PCBs | Monomethyl Hydrazine | Chronic Toxicity | Total Dissolved Metals: Cu, Pb, Hg, B, Ba, Fe, Mn, Sb, As, Be, Cd, Ni, Se, Ag, Tl, Zn, Co, V, Hardness as CaCO ₃ | Cr (VI) (218.6) | Cyanide | Acute Toxicity | | | |
| Project Manager: Bronwyn Kelly | | | | Fax Number: (626) 568-6515 | | | | | | | | | | | | | | | |
| Sampler: <u>RICK BANAGA</u> | | | | | | | | | | | | | | | | | | | |
| Sample Description | Sample Matrix | Container Type | # of Cont | Sampling Date/Time | Preservative | Bottle # | | | | | | | | | | | | | |
| Outfall 019 | W | VOAs | 3 | 2-25-11 11:22 | HCl | 22A, 22B, 22C | X | | | | | | | | | | | | |
| Outfall 019 | W | 250 mL Glass | 1 | | HCl | 23 | | X | | | | | | | | | | | |
| Outfall 019 | W | 2.5 Gal Cube | 1 | | None | 24A | | | | | X | | | | | | | | Unfiltered and unpreserved analysis |
| | | 500 mL Amber | 1 | | None | 24B | | | | | | | | | | | | | |
| Outfall 019 | W | 1L Amber | 2 | | None | 25A, 25B | | | X | | | | | | | | | | |
| Outfall 019 | W | 1L Amber | 2 | | None | 26A, 26B | | | | X | | | | | | | | | |
| Outfall 019 | W | 1 Gal Cube | 1 | | None | 27 | | | | | X | | | | | | | | Only test if first or second rain events of the year |
| Outfall 019 | W | 1L Poly | 1 | | None | 28 | | | | | | X | | | | | | | Filter w/in 24hrs of receipt at lab |
| Outfall 019 | W | 500 mL Poly | 1 | | None | 29 | | | | | | | X | | | | | | |
| Outfall 019 | W | 500 mL Poly | 1 | 2-25-11 11:22 | NaOH | 30 | | | | | | | | X | | | | | |
| Outfall 019 | W | 1 Gal Cube | 3 | | None | 31 | | | | | | | | | | | | | |

COC Page 2 of 3 and Page 3 of 3 are the composite samples for Outfall 019 for this storm event.

These must be added to the same work order for COC Page 1 of 3 for Outfall 019 for the same event.

| | | | | | |
|---|---|-------------------------------------|---|--|--|
| Relinquished By <u>Rick Banaga</u> | Date/Time: <u>2-25-2011</u> <u>12:35</u> | Received By <u>Mark Crandall</u> | Date/Time: <u>2-25-11</u> <u>12:35</u> | Turn-around time (Check): 24 Hour ___ 72 Hour ___ 10 Day ___ 48 Hour ___ 5 Day ___ Normal <u>X</u> | |
| Relinquished By <u>Mark Crandall</u> | Date/Time: <u>2-25-11</u> <u>14:20</u> | Received By <u>Phil My</u> | Date/Time: <u>2-25-11</u> <u>14:20</u> | | Sample Integrity (Check): Inject ___ On Ice ___ |
| Relinquished By | Date/Time | Received By | Date/Time | | Data Requirements (Check): No Level IV ___ All Level IV ___ NPDES Level IV <u>X</u> |



***REFERENCE
TOXICANT
DATA***



Ceriodaphnia dubia
Chronic Toxicity Test
Reference
Toxicant
Data

CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0
REFERENCE TOXICANT - NaCl



QA/QC Batch No.: RT-110208

Date Tested: 02/08/11 to 02/14/11

TEST SUMMARY

Test type: Daily static-renewal.
 Species: *Ceriodaphnia dubia*.
 Age: < 24 hrs; all released within 8 hrs.
 Test vessel size: 30 ml.
 Number of test organisms per vessel: 1.
 Temperature: 25 +/- 1°C.
 Dilution water: Mod. hard reconstituted (MHRW).
 Reference Toxicant: Sodium chloride (NaCl).

Endpoints: Survival and Reproduction.
 Source: In-laboratory culture.
 Food: .1 ml YTC, algae per day.
 Test solution volume: 20 ml.
 Number of replicates: 10.
 Photoperiod: 16/8 hrs. light/dark cycle.
 Test duration: 6 days.
 Statistics: ToxCalc computer program.

RESULTS SUMMARY

| Sample Concentration | Percent Survival | | Mean Number of Young Per Female | |
|----------------------|------------------|---|---------------------------------|----|
| Control | 100% | | 22.7 | |
| 0.25 g/l | 100% | | 24.5 | |
| 0.5 g/l | 100% | | 21.7 | |
| 1.0 g/l | 90% | | 12.8 | * |
| 2.0 g/l | 90% | | 3.5 | * |
| 4.0 g/l | 0% | * | 0 | ** |

* Statistically significantly less than control at P = 0.05 level
 ** Reproduction data from concentrations greater than survival NOEC are excluded from statistical analysis.

CHRONIC TOXICITY

| | |
|-------------------|-----------|
| Survival LC50 | 2.5 g/l |
| Reproduction IC25 | 0.72 mg/l |

QA/QC TEST ACCEPTABILITY

| Parameter | Result |
|--|---|
| Control survival ≥ 80% | Pass (100% Survival) |
| ≥ 15 young per surviving control female | Pass (22.7 young) |
| > 60% surviving controls had 3 broods | Pass (90% with 3 broods) |
| PMSD < 47% for reproduction | Pass (PMSD = 14.2%) |
| Stat. sig. diff. conc. relative difference > 13% | Pass (Stat. sig. diff. conc. Relative difference = 43.6%) |
| Concentration response relationship acceptable | Pass (Response curve normal) |

Ceriodaphnia Survival and Reproduction Test-Survival Day 6

Start Date: 2/8/2011 14:00 Test ID: RT110208c Sample ID: REF-Ref Toxicant
 End Date: 2/14/2011 14:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: NACL-Sodium chloride
 Sample Date: 2/8/2011 Protocol: FWCH EPA Test Species: CD-Ceriodaphnia dubia
 Comments:

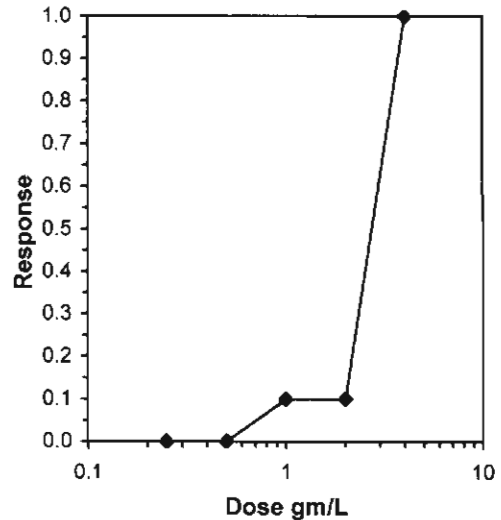
| Conc-gm/L | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| D-Control | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 0.25 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 0.5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 1 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 2 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 4 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| Conc-gm/L | Mean | N-Mean | Resp | Not Resp | Total | N | Fisher's Exact P | 1-Tailed Critical | Number Resp | Total Number |
|-----------|--------|--------|------|----------|-------|----|------------------|-------------------|-------------|--------------|
| D-Control | 1.0000 | 1.0000 | 0 | 10 | 10 | 10 | | | 0 | 10 |
| 0.25 | 1.0000 | 1.0000 | 0 | 10 | 10 | 10 | 1.0000 | 0.0500 | 0 | 10 |
| 0.5 | 1.0000 | 1.0000 | 0 | 10 | 10 | 10 | 1.0000 | 0.0500 | 0 | 10 |
| 1 | 0.9000 | 0.9000 | 1 | 9 | 10 | 10 | 0.5000 | 0.0500 | 1 | 10 |
| 2 | 0.9000 | 0.9000 | 1 | 9 | 10 | 10 | 0.5000 | 0.0500 | 1 | 10 |
| 4 | 0.0000 | 0.0000 | 10 | 0 | 10 | 10 | | | 10 | 10 |

| Hypothesis Test (1-tail, 0.05) | NOEC | LOEC | ChV | TU |
|--------------------------------|------|------|---------|----|
| Fisher's Exact Test | 2 | 4 | 2.82843 | |
| Treatments vs D-Control | | | | |

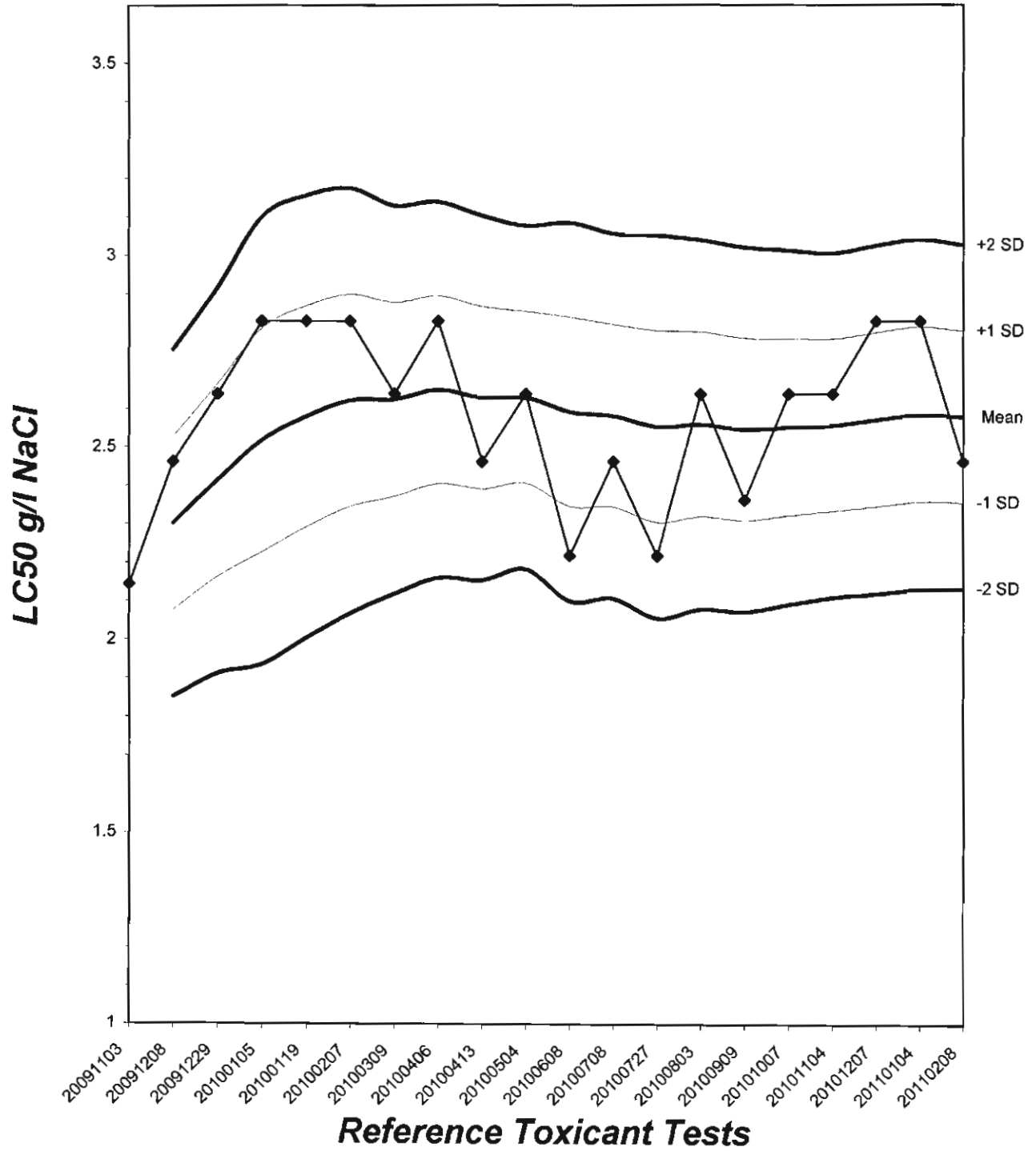
Trimmed Spearman-Kärber

| Trim Level | EC50 | 95% CL | |
|------------|--------|--------|--------|
| 0.0% | 2.4623 | 2.0444 | 2.9656 |
| 5.0% | 2.5965 | 2.1386 | 3.1523 |
| 10.0% | 2.7216 | 2.5094 | 2.9517 |
| 20.0% | 2.7216 | 2.5094 | 2.9517 |
| Auto-0.0% | 2.4623 | 2.0444 | 2.9656 |



Ceriodaphnia dubia Chronic Survival Laboratory Control Chart

CV% = 8.66



Ceriodaphnia Survival and Reproduction Test-Reproduction

| | | |
|----------------------------|------------------------------------|-------------------------------------|
| Start Date: 2/8/2011 14:00 | Test ID: RT110208c | Sample ID: REF-Ref Toxicant |
| End Date: 2/14/2011 14:00 | Lab ID: CAATL-Aquatic Testing Labs | Sample Type: NACL-Sodium chloride |
| Sample Date: 2/8/2011 | Protocol: FWCH EPA | Test Species: CD-Ceriodaphnia dubia |

Comments:

| Conc-gm/L | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| D-Control | 22.000 | 22.000 | 27.000 | 21.000 | 22.000 | 22.000 | 23.000 | 26.000 | 18.000 | 24.000 |
| 0.25 | 25.000 | 26.000 | 27.000 | 25.000 | 27.000 | 25.000 | 21.000 | 24.000 | 23.000 | 22.000 |
| 0.5 | 26.000 | 20.000 | 22.000 | 24.000 | 24.000 | 21.000 | 23.000 | 12.000 | 22.000 | 23.000 |
| 1 | 3.000 | 14.000 | 17.000 | 10.000 | 10.000 | 20.000 | 9.000 | 16.000 | 17.000 | 12.000 |
| 2 | 0.000 | 3.000 | 4.000 | 5.000 | 3.000 | 3.000 | 6.000 | 3.000 | 3.000 | 5.000 |
| 4 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

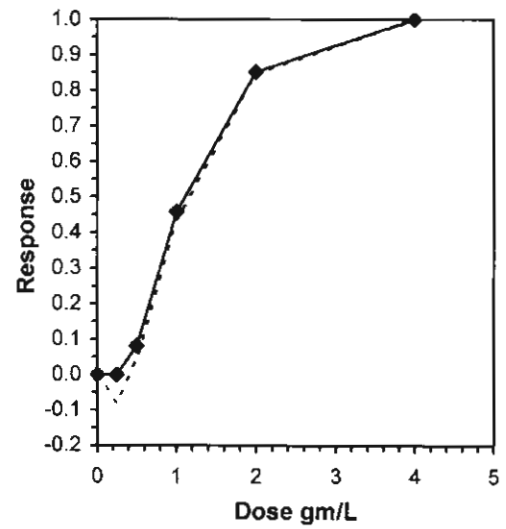
| Conc-gm/L | Mean | N-Mean | Transform: Untransformed | | | | | Rank Sum | 1-Tailed Critical | Isotonic | |
|-----------|--------|--------|--------------------------|--------|--------|--------|----|----------|-------------------|----------|--------|
| | | | Mean | Min | Max | CV% | N | | | Mean | N-Mean |
| D-Control | 22.700 | 1.0000 | 22.700 | 18.000 | 27.000 | 11.193 | 10 | | | 23.600 | 1.0000 |
| 0.25 | 24.500 | 1.0793 | 24.500 | 21.000 | 27.000 | 8.220 | 10 | 126.00 | 76.00 | 23.600 | 1.0000 |
| 0.5 | 21.700 | 0.9559 | 21.700 | 12.000 | 26.000 | 17.521 | 10 | 102.00 | 76.00 | 21.700 | 0.9195 |
| *1 | 12.800 | 0.5639 | 12.800 | 3.000 | 20.000 | 39.115 | 10 | 56.00 | 76.00 | 12.800 | 0.5424 |
| *2 | 3.500 | 0.1542 | 3.500 | 0.000 | 6.000 | 47.140 | 10 | 55.00 | 76.00 | 3.500 | 0.1483 |
| 4 | 0.000 | 0.0000 | 0.000 | 0.000 | 0.000 | 0.000 | 10 | | | 0.000 | 0.0000 |

| Auxiliary Tests | Statistic | Critical | Skew | Kurt |
|---|-----------|----------|---------|---------|
| Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05) | 0.93185 | 0.947 | -0.9406 | 2.62377 |
| Bartlett's Test indicates unequal variances (p = 7.37E-03) | 13.9773 | 13.2767 | | |

| Hypothesis Test (1-tail, 0.05) | NOEC | LOEC | ChV | TU |
|--------------------------------|------|------|---------|----|
| Steel's Many-One Rank Test | 0.5 | 1 | 0.70711 | |

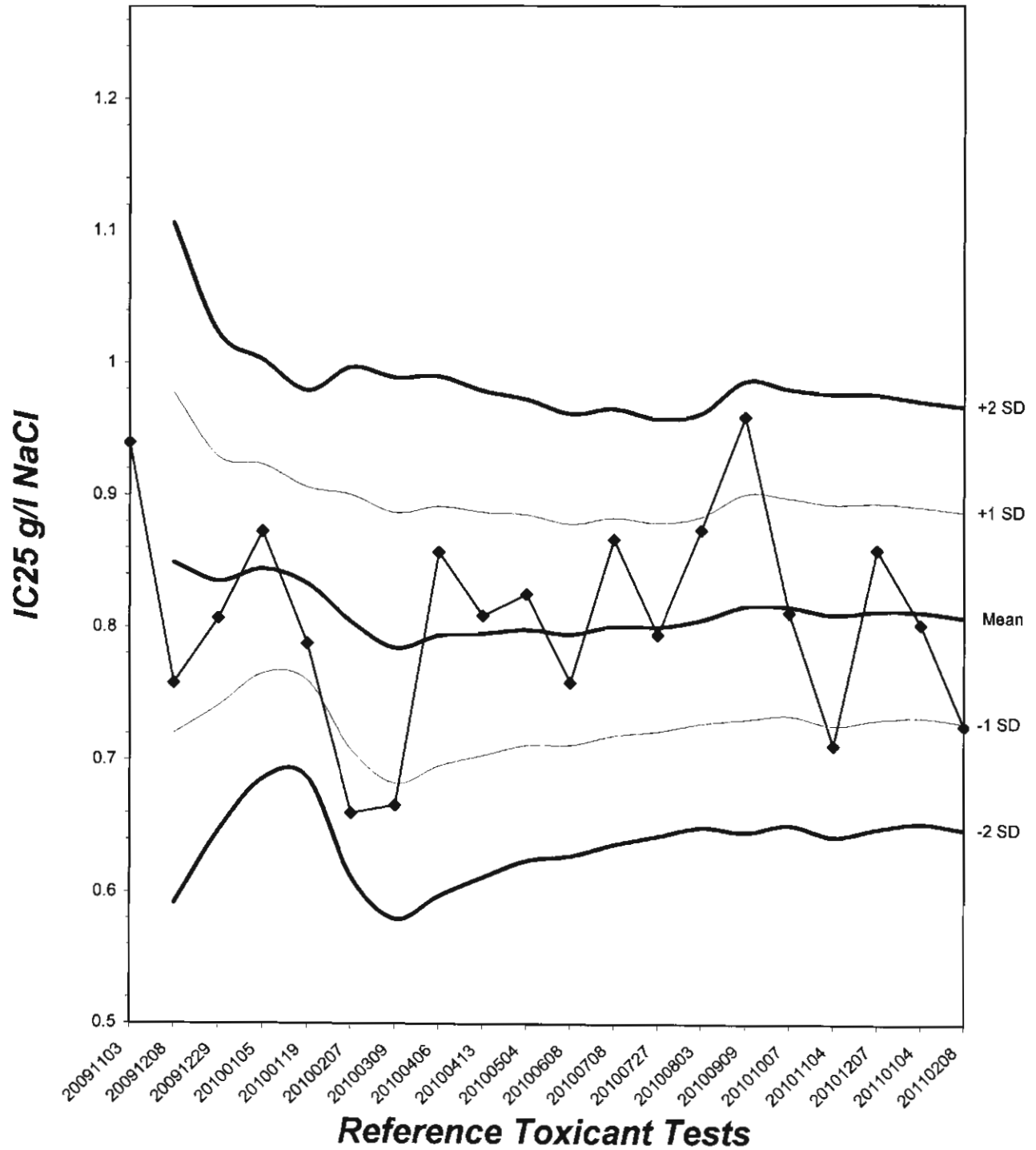
Treatments vs D-Control

| Linear Interpolation (200 Resamples) | | | | | |
|--------------------------------------|--------|--------|--------|--------|---------|
| Point | gm/L | SD | 95% CL | | Skew |
| IC05 | 0.4053 | 0.0808 | 0.3089 | 0.5614 | 0.1046 |
| IC10 | 0.5258 | 0.0669 | 0.3923 | 0.6229 | -0.4943 |
| IC15 | 0.5921 | 0.0605 | 0.4653 | 0.6927 | -0.5050 |
| IC20 | 0.6584 | 0.0577 | 0.5400 | 0.7643 | -0.3444 |
| IC25 | 0.7247 | 0.0565 | 0.6167 | 0.8564 | 0.0715 |
| IC40 | 0.9236 | 0.0739 | 0.8175 | 1.1269 | 0.8628 |
| IC50 | 1.1075 | 0.1074 | 0.9314 | 1.3257 | 0.1508 |



Ceriodaphnia dubia Chronic Reproduction Laboratory Control Chart

CV% = 9.91



CERIODAPHNIA DUBIA CHRONIC BIOASSAY
Reference Toxicant - NaCl
Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-110208

Start Date: 02/08/2011

| Sample | Day | Number of Young Produced | | | | | | | | | | Total Live Young | No. Live Adults | Analyst Initials |
|----------|-------|--------------------------|----|----|----|----|----|----|----|----|----|------------------|------------------------|------------------------|
| | | A | B | C | D | E | F | G | H | I | J | | | |
| Control | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | [Handwritten initials] |
| | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | |
| | 3 | 3 | 0 | 0 | 4 | 4 | 0 | 5 | 3 | 0 | 4 | 23 | 10 | |
| | 4 | 7 | 3 | 4 | 7 | 6 | 3 | 7 | 0 | 4 | 0 | 41 | 10 | |
| | 5 | 12 | 8 | 8 | 0 | 0 | 9 | 0 | 9 | 0 | 8 | 54 | 10 | |
| | 6 | 0 | 11 | 15 | 10 | 12 | 10 | 11 | 14 | 14 | 12 | 109 | 10 | |
| | 7 | - | - | - | - | - | - | - | - | - | - | - | - | |
| | Total | 22 | 22 | 27 | 21 | 22 | 22 | 23 | 26 | 18 | 24 | 227 | 10 | |
| 0.25 g/l | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | [Handwritten initials] | |
| | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | | |
| | 3 | 4 | 0 | 5 | 4 | 4 | 0 | 0 | 0 | 5 | 4 | 26 | | 10 |
| | 4 | 7 | 5 | 7 | 8 | 0 | 4 | 4 | 5 | 7 | 0 | 47 | | 10 |
| | 5 | 14 | 9 | 15 | 0 | 8 | 7 | 7 | 9 | 0 | 8 | 77 | | 10 |
| | 6 | 0 | 12 | 0 | 13 | 15 | 14 | 10 | 10 | 11 | 10 | 95 | | 10 |
| | 7 | - | - | - | - | - | - | - | - | - | - | - | | - |
| | Total | 25 | 26 | 27 | 25 | 27 | 25 | 21 | 24 | 23 | 22 | 245 | | 10 |
| 0.5 g/l | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | [Handwritten initials] | |
| | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | | |
| | 3 | 5 | 0 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 4 | 16 | | 10 |
| | 4 | 6 | 3 | 4 | 0 | 7 | 4 | 3 | 5 | 4 | 0 | 36 | | 10 |
| | 5 | 15 | 7 | 7 | 8 | 14 | 7 | 7 | 7 | 6 | 9 | 87 | | 10 |
| | 6 | 0 | 10 | 11 | 12 | 0 | 10 | 13 | 0 | 12 | 10 | 78 | | 10 |
| | 7 | - | - | - | - | - | - | - | - | - | - | - | | - |
| | Total | 26 | 20 | 22 | 24 | 24 | 21 | 23 | 12 | 22 | 23 | 217 | | 10 |

Circled fourth brood not used in statistical analysis.

7th day only used if <60% of the surviving control females have produced their third brood.

CERIODAPHNIA DUBIA CHRONIC BIOASSAY
Reference Toxicant - NaCl
Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-110208

Start Date:02/08/2011

| Sample | Day | Number of Young Produced | | | | | | | | | | Total Live Young | No. Live Adults | Analyst Initials |
|---------|-------|--------------------------|----|----|----|----|----|---|----|----|----|------------------|-----------------|------------------|
| | | A | B | C | D | E | F | G | H | I | J | | | |
| 1.0 g/l | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | h |
| | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | h |
| | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 6 | 10 | h |
| | 4 | 3 | 4 | 3 | 5 | 3 | 4 | 4 | 0 | 0 | 4 | 30 | 10 | h |
| | 5 | 0 | 4 | 6 | 5 | 0 | 6 | 0 | 7 | 7 | 0 | 35 | 10 | h |
| | 6 | X | 6 | 8 | 0 | 7 | 10 | 5 | 6 | 7 | 8 | 57 | 9 | h |
| | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Total | 3 | 14 | 17 | 10 | 10 | 20 | 9 | 16 | 17 | 12 | 128 | 9 | h |
| 2.0 g/l | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | h | |
| | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | h | |
| | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | h | |
| | 4 | 0 | 0 | 2 | 3 | 0 | 0 | 3 | 0 | 3 | 3 | 14 | 10 | h |
| | 5 | 0 | 3 | 0 | 0 | 3 | 0 | 3 | 3 | 0 | 0 | 12 | 10 | h |
| | 6 | X | 0 | 2 | 2 | 0 | 3 | 0 | 0 | 0 | 2 | 9 | 9 | h |
| | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Total | 0 | 3 | 4 | 5 | 3 | 3 | 6 | 3 | 3 | 5 | 35 | 9 | h |
| 4.0 g/l | 1 | X | X | X | X | X | X | X | X | X | 0 | 0 | h | |
| | 2 | - | - | - | - | - | - | - | - | - | - | - | - | |
| | 3 | - | - | - | - | - | - | - | - | - | - | - | - | |
| | 4 | - | - | - | - | - | - | - | - | - | - | - | - | |
| | 5 | - | - | - | - | - | - | - | - | - | - | - | - | |
| | 6 | - | - | - | - | - | - | - | - | - | - | - | - | |
| | 7 | - | - | - | - | - | - | - | - | - | - | - | - | |
| | Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | h |

Circled fourth brood not used in statistical analysis.
 7th day only used if <60% of the surviving control females have produced their third brood.

CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl

Water Chemistries Raw Data Sheet



QA/QC No.: RT-110208

Start Date: 02/08/2011

| | | DAY 1 | | DAY 2 | | DAY 3 | | DAY 4 | | DAY 5 | | DAY 6 | | DAY 7 | |
|-------------------|------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|---------|-------|
| | | Initial | Final | Initial | Final | Initial | Final | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| Analyst Initials: | | [Signature] | | [Signature] | | [Signature] | | [Signature] | | [Signature] | | [Signature] | | — — | |
| Time of Readings: | | 1400 1400 | | 1400 1330 | | 1330 1330 | | 1330 1300 | | 1300 1300 | | 1300 1400 | | — — | |
| Control | DO | 8.3 | 8.4 | 7.9 | 8.2 | 8.6 | 8.1 | 9.0 | 8.2 | 8.4 | 8.1 | 8.4 | 8.2 | — | — |
| | pH | 8.2 | 8.3 | 8.2 | 8.1 | 8.1 | 8.1 | 8.0 | 8.0 | 7.9 | 7.9 | 7.9 | 7.4 | — | — |
| | Temp | 24.7 | 24.7 | 25.0 | 24.2 | 24.7 | 24.4 | 25.6 | 24.2 | 24.6 | 24.4 | 25.1 | 24.9 | — | — |
| 0.25 g/l | DO | 8.6 | 8.8 | 8.4 | 8.1 | 8.7 | 8.2 | 8.8 | 8.3 | 8.5 | 8.4 | 8.5 | 8.4 | — | — |
| | pH | 8.2 | 8.3 | 8.3 | 8.1 | 8.1 | 8.1 | 8.0 | 8.0 | 8.0 | 7.9 | 8.0 | 7.4 | — | — |
| | Temp | 24.7 | 24.4 | 24.8 | 24.3 | 24.8 | 24.1 | 25.6 | 24.5 | 25.2 | 24.3 | 24.7 | 24.6 | — | — |
| 0.5 g/l | DO | 8.5 | 8.7 | 8.4 | 8.1 | 8.7 | 8.6 | 8.0 | 8.5 | 8.5 | 8.8 | 8.7 | 8.6 | — | — |
| | pH | 8.2 | 8.4 | 8.3 | 8.1 | 8.1 | 8.0 | 8.0 | 7.9 | 8.0 | 7.9 | 8.0 | 7.6 | — | — |
| | Temp | 24.6 | 24.3 | 25.0 | 24.2 | 24.8 | 24.6 | 25.6 | 24.8 | 25.4 | 24.3 | 24.6 | 25.1 | — | — |
| 1.0 g/l | DO | 8.5 | 8.6 | 8.4 | 8.2 | 8.8 | 8.6 | 9.2 | 8.4 | 8.6 | 8.6 | 8.9 | 8.6 | — | — |
| | pH | 8.2 | 8.3 | 8.3 | 8.1 | 8.1 | 7.9 | 8.0 | 7.9 | 8.0 | 7.9 | 8.0 | 7.7 | — | — |
| | Temp | 24.8 | 24.2 | 24.9 | 24.3 | 25.0 | 24.4 | 25.6 | 24.9 | 25.0 | 24.4 | 24.3 | 25.0 | — | — |
| 2.0 g/l | DO | 8.4 | 8.8 | 8.4 | 8.2 | 8.6 | 8.4 | 9.1 | 8.2 | 8.4 | 8.5 | 8.2 | 8.0 | — | — |
| | pH | 8.2 | 8.3 | 8.2 | 8.0 | 8.1 | 7.9 | 8.0 | 7.9 | 8.0 | 7.9 | 7.9 | 7.7 | — | — |
| | Temp | 24.9 | 24.3 | 24.9 | 24.2 | 25.1 | 24.5 | 25.6 | 24.7 | 24.8 | 24.1 | 24.5 | 25.1 | — | — |
| 4.0 g/l | DO | 7.6 | 8.2 | — | — | — | — | — | — | — | — | — | — | — | — |
| | pH | 8.2 | 8.3 | — | — | — | — | — | — | — | — | — | — | — | — |
| | Temp | 25.6 | 24.3 | 25 | — | — | — | — | — | — | — | — | — | — | — |

Dissolved Oxygen (DO) readings are in mg/l O₂; Temperature (Temp) readings are in °C.

| Additional Parameters | Control | | | High Concentration | | |
|--------------------------------------|---------|-------|-------|--------------------|-------|-------|
| | Day 1 | Day 3 | Day 5 | Day 1 | Day 3 | Day 5 |
| Conductivity (µS) | 332 | 343 | 350 | 6880 | 4340 | 4200 |
| Alkalinity (mg/l CaCO ₃) | 68 | 70 | 71 | 70 | 70 | 71 |
| Hardness (mg/l CaCO ₃) | 92 | 92 | 91 | 92 | 92 | 92 |

Source of Neonates

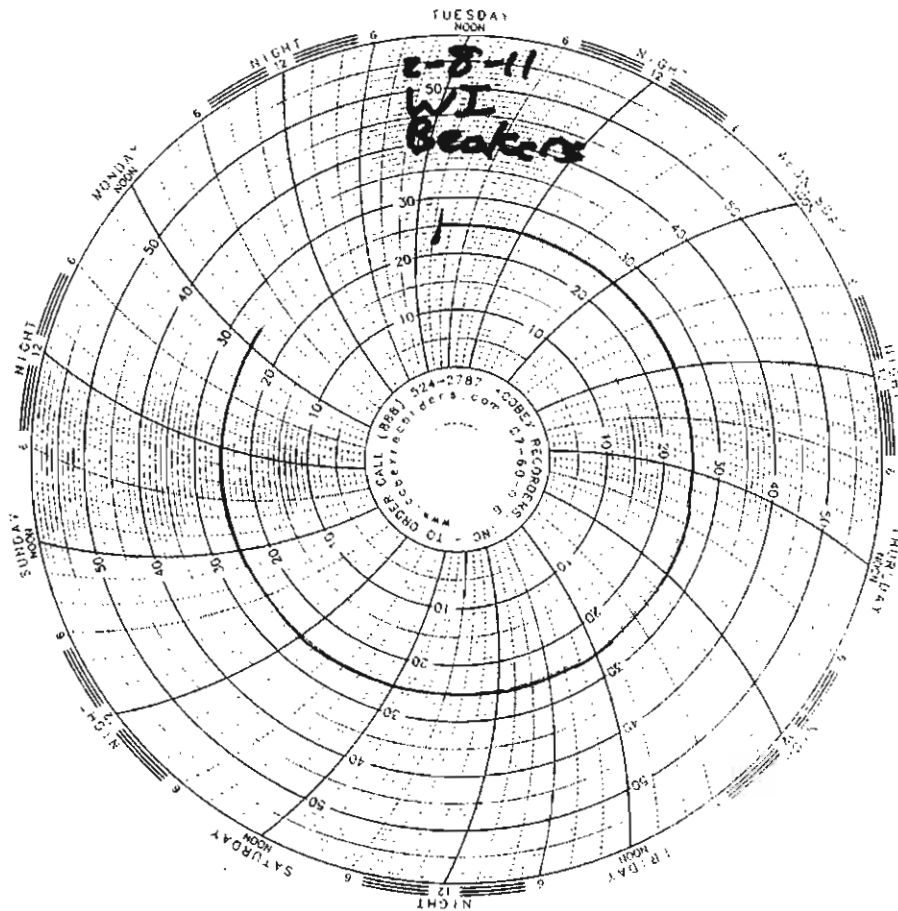
| Replicate: | A | B | C | D | E | F | G | H | I | J |
|------------|----|----|----|----|----|----|----|----|----|----|
| Brood ID: | 2A | 3B | 1C | 4D | 1E | 1F | 2G | 3H | 1I | 3J |

Test Temperature Chart

Test No: RT-110208

Date Tested: 02/08/11 to 02/14/11

Acceptable Range: 25 \pm 1 $^{\circ}$ C





EBERLINE

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Richmond, California 94804-3849
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Toll Free (800) 841-5487
www.eberlineservices.com

March 31, 2011

Ms. Debby Wilson
Test America Irvine
17461 Derian Ave., Ste. 100
Irvine, CA 92614

**Reference: Test America-Irvine IUB2621
Eberline Analytical Report S103018-8670
Sample Delivery Group 8670**

Dear Ms. Wilson:

Enclosed is a Level IV CLP-like data package (on CD) for two water samples received under Test America Job No. IUB2621. The samples were received on March 1, 2011.

Please call me, if you have any questions concerning the enclosed report.

Sincerely,

N. Joseph Verville
Client Services Manager

NJV/ljb

Enclosure: *Level IV CLP-like Data Package CD*

1.0 General Comments

Sample delivery group 8670 consists of the analytical results and supporting documentation for two water samples. Sample ID's and reference dates/times are given in the Sample Summary section of the Summary Data report. The sample was received as stated on the chain-of-custody document. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist. No holding times were exceeded.

Tritium and gamma analyses were performed on the sample as received i.e. the sample was not filtered. The analytical volumes for all other analyses were subjected to a full nitric acid/hydrofluoric acid dissolution, and analyses were performed on the dissolution volumes.

2.0 Quality Control

Samples IUB2621-03 and IUB2621-04 (Trip Blank) were analyzed in a common prep batch with other outfall samples from this project. The QC samples from that common prep batch were assigned to SDG 8665 and are also reported herein. Quality Control Samples consisted of laboratory control samples (LCS), method blanks, duplicate analyses and matrix spike analyses. Included in the data package are copies of the Eberline Analytical radiometrics data sheets. The radiometrics data sheets for the QC LCS and QC blank samples indicate Eberline Analytical's standard QC aliquot of 1.0 sample; results for those QC types are calculated as pCi/sample. The QC LCS and QC blank sample results reported in the Summary Data Section have been divided by the appropriate method specific aliquot (see the Lab Method Summaries for specific aliquots) in order to make the results comparable to the field sample results. All QC sample results were within required control limits.

3.0 Method Errors

The error for each result is an estimate of the significant random uncertainties incurred in the measurement process. These are propagated to each final result. They include the counting (Poisson) uncertainty, as well as those intrinsic errors due to carrier or tracer standardization, aliquoting, counter efficiencies, weights, or volumes. The following method errors were propagated to the count error to calculate the 2σ error (Total):

| Analysis | Method Error |
|----------------|--------------|
| Gross alpha | 20.6% |
| Gross beta | 11.0% |
| Tritium | 10.0% |
| Sr-90 | 10.4% |
| Ra-226 | 16.4% |
| Ra-228 | 10.4% |
| Uranium, Total | |
| Gamma Spec. | 7.0% |

4.0 Analysis Notes

- 4.1 **Gross Alpha/Gross Beta Analysis** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.2 **Tritium Analysis** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.3 **Strontium-90 Analysis** – No other problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.4 **Radium-226 Analysis** - The initial Ra-226 QC LCS recovery was less than the lower control limit of 80% therefore the LCS was re-emanated and recounted. The LCS recovery after the rework was within control limits and is reported herein. No other problems were encountered during the processing of the samples.
- 4.5 **Radium-228 Analysis** - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.6 **Total Uranium Analysis** - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.7 **Gamma Spectroscopy** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

5.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."



N. Joseph Verville
Client Services Manager

3/31/11

Date

EBERLINE ANALYTICAL
SDG 8670

SDG 8670
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUB2621

S U M M A R Y D A T A S E C T I O N

T A B L E O F C O N T E N T S

| | | |
|---------------------|---------|----|
| About this section | | 1 |
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UB

Prepared by

njv

Reviewed by

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-TOC
Version 3.06
Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUB2621

ABOUT THE DATA SUMMARY SECTION

The Data Summary Section of a Data Package has all data, in several useful orders, necessary for first level, routine review of the data package for a Sample Delivery Group (SDG). This section follows the Data Package Narrative, which has an overview of the data package and a discussion of special problems. It is followed by the Raw Data Section, which has full details.

The Data Summary Section has several groups of reports:

SAMPLE SUMMARIES

The Sample and QC Summary Reports show all samples, including QC samples, reported in one SDG. These reports cross-reference client and lab sample identifiers.

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches (lab groupings reflecting how work was organized) relevant to the reported SDG with information necessary to check the completeness and consistency of the SDG.

WORK SUMMARY

The Work Summary Report shows all samples and work done on them relevant to the reported SDG.

METHOD BLANKS

The Method Blank Reports, one for each Method Blank relevant to the SDG, show all results and primary supporting information for the blanks.

LAB CONTROL SAMPLES

The Lab Control Sample Reports, one for each Lab Control Sample relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DUPLICATES

REPORT GUIDES

Page 1

SUMMARY DATA SECTION

Page 1

Lab id EAS
Protocol TA
Version Ver 1.0
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Version 3.06
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EBERLINE ANALYTICAL

SDG 8670

SDG 8670
Contact N. Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract IUB2621

ABOUT THE DATA SUMMARY SECTION

The Duplicate Reports, one for each Duplicate and Original sample pair relevant to the SDG, show all results, differences and primary supporting information for these QC samples.

MATRIX SPIKES

The Matrix Spike Reports, one for each Spiked and Original sample pair relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DATA SHEETS

The Data Sheet Reports, one for each client sample in the SDG, show all results and primary supporting information for these samples.

METHOD SUMMARIES

The Method Summary Reports, one for each test used in the SDG, show all results, QC and method performance data for one analyte on one or two pages. (A test is a short code for the method used to do certain work to the client's specification.)

REPORT GUIDES

The Report Guides, one for each of the above groups of reports, have documentation on how to read the associated reports.

REPORT GUIDES

Page 2

SUMMARY DATA SECTION

Page 2

Lab id EAS
Protocol TA
Version Ver 1.0
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EBERLINE ANALYTICAL

SDG 8670

LAB SAMPLE SUMMARY

SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

| LAB | CLIENT SAMPLE ID | LOCATION | MATRIX | LEVEL | SAS NO | CHAIN OF CUSTODY | COLLECTED |
|------------|-------------------------|---------------|--------|-------|--------|------------------|----------------|
| S103013-03 | Lab Control Sample | | WATER | | | | |
| S103013-04 | Method Blank | | WATER | | | | |
| S103013-05 | Duplicate (S103013-01) | Boeing - SSFL | WATER | | | | 02/26/11 20:26 |
| S103018-01 | IUB2621-03 | Boeing - SSFL | WATER | | | IUB2621 | 02/25/11 11:22 |
| S103018-02 | IUB2621-04 (TRIP-BLANK) | Boeing - SSFL | WATER | | | IUB2621 | 02/25/11 11:22 |

LAB SUMMARY

Page 1

SUMMARY DATA SECTION

Page 3

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

QC SUMMARY

| QC BATCH | CHAIN OF CUSTODY | CLIENT SAMPLE ID | MATRIX | MOIST | SAMPLE AMOUNT | BASIS AMOUNT | DAYS SINCE RECEIVED | LAB COLL | LAB SAMPLE ID | DEPARTMENT SAMPLE ID |
|----------|------------------|-------------------------|--------|-------|---------------|--------------|---------------------|----------|---------------|----------------------|
| 8665 | | Method Blank | WATER | | | | | | S103013-04 | 8665-004 |
| | | Lab Control Sample | WATER | | | | | | S103013-03 | 8665-003 |
| | | Duplicate (S103013-01) | WATER | | 10.0 L | | 03/01/11 | 3 | S103013-05 | 8665-005 |
| 8670 | IUB2621 | IUB2621-03 | WATER | | 10.0 L | | 03/01/11 | 4 | S103018-01 | 8670-001 |
| | | IUB2621-04 (TRIP-BLANK) | WATER | | 10.0 L | | 03/01/11 | 4 | S103018-02 | 8670-002 |

QC SUMMARY

Page 1

SUMMARY DATA SECTION

Page 4

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-QS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670
 Contact N. Joseph Verville

PREP BATCH SUMMARY

Client Test America, Inc.
 Contract IUB2621

| TEST | MATRIX | METHOD | PREPARATION ERROR | | | PLANCHETS ANALYZED | | | QUALI- |
|-------------------------------|--------|-------------------------|-------------------|------|-------------|--------------------|-------|-------|--------|
| | | | BATCH | 2σ % | CLIENT MORE | RE | BLANK | LCS | |
| Beta Counting | | | | | | | | | |
| AC | WATER | Radium-228 in Water | 7281-046 | 10.4 | 2 | 1 | 1 | 1/0/1 | |
| SR | WATER | Strontium-90 in Water | 7281-046 | 10.4 | 2 | 1 | 1 | 1/0/1 | |
| Gas Proportional Counting | | | | | | | | | |
| 80A | WATER | Gross Alpha in Water | 7281-046 | 20.6 | 2 | 1 | 1 | 1/0/1 | |
| 80B | WATER | Gross Beta in Water | 7281-046 | 11.0 | 2 | 1 | 1 | 1/0/1 | |
| Gamma Spectroscopy | | | | | | | | | |
| GAM | WATER | Gamma Emitters in Water | 7281-046 | 7.0 | 2 | 1 | 1 | 1/0/1 | |
| Kinetic Phosphorimetry, ug | | | | | | | | | |
| U_T | WATER | Uranium, Total | 7281-046 | | 2 | 1 | 1 | 1/0/1 | |
| Liquid Scintillation Counting | | | | | | | | | |
| H | WATER | Tritium in Water | 7281-046 | 10.0 | 1 | 1 | 1 | 1/0/1 | |
| Radon Counting | | | | | | | | | |
| RA | WATER | Radium-226 in Water | 7281-046 | 16.4 | 2 | 1 | 1 | 1/0/1 | |

Blank, LCS, Duplicate and Spike planchets are those in the same preparation batch as some Client sample.
 In counts like 'a/b/c', 'a' = QC planchets, 'b' = Originals in this SDG, 'c' = Originals in other SDGs.

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-PBS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670

Contact N. Joseph Verville

Client Test America, Inc.

Contract IUB2621

LAB WORK SUMMARY

| LAB SAMPLE | CLIENT SAMPLE ID | | | | | | | | | |
|------------|--|--------|----------|--------|------|----------|----------|-----|-------------------------|--|
| COLLECTED | LOCATION | MATRIX | | | SUP- | | | | | |
| RECEIVED | CUSTODY | SAS no | PLANCHET | TEST | FIX | ANALYZED | REVIEWED | BY | METHOD | |
| S103013-03 | Lab Control Sample | WATER | 8665-003 | 80A/80 | | 03/14/11 | 03/15/11 | BW | Gross Alpha in Water | |
| | | | 8665-003 | 80B/80 | | 03/14/11 | 03/15/11 | BW | Gross Beta in Water | |
| | | | 8665-003 | AC | | 03/18/11 | 03/21/11 | BW | Radium-228 in Water | |
| | | | 8665-003 | GAM | | 03/08/11 | 03/15/11 | MWT | Gamma Emitters in Water | |
| | | | 8665-003 | H | | 03/22/11 | 03/25/11 | BW | Tritium in Water | |
| | | | 8665-003 | RA | R1 | 03/25/11 | 03/28/11 | BW | Radium-226 in Water | |
| | | | 8665-003 | SR | | 03/16/11 | 03/22/11 | BW | Strontium-90 in Water | |
| | | | 8665-003 | U_T | | 03/15/11 | 03/16/11 | BW | Uranium, Total | |
| S103013-04 | Method Blank | WATER | 8665-004 | 80A/80 | | 03/14/11 | 03/15/11 | BW | Gross Alpha in Water | |
| | | | 8665-004 | 80B/80 | | 03/14/11 | 03/15/11 | BW | Gross Beta in Water | |
| | | | 8665-004 | AC | | 03/18/11 | 03/21/11 | BW | Radium-228 in Water | |
| | | | 8665-004 | GAM | | 03/08/11 | 03/15/11 | MWT | Gamma Emitters in Water | |
| | | | 8665-004 | H | | 03/22/11 | 03/25/11 | BW | Tritium in Water | |
| | | | 8665-004 | RA | | 03/19/11 | 03/28/11 | BW | Radium-226 in Water | |
| | | | 8665-004 | SR | | 03/16/11 | 03/22/11 | BW | Strontium-90 in Water | |
| | | | 8665-004 | U_T | | 03/15/11 | 03/16/11 | BW | Uranium, Total | |
| S103013-05 | Duplicate (S103013-01) 02/26/11 Boeing - SSFL 03/01/11 | WATER | 8665-005 | 80A/80 | | 03/14/11 | 03/15/11 | BW | Gross Alpha in Water | |
| | | | 8665-005 | 80B/80 | | 03/14/11 | 03/15/11 | BW | Gross Beta in Water | |
| | | | 8665-005 | AC | | 03/18/11 | 03/21/11 | BW | Radium-228 in Water | |
| | | | 8665-005 | GAM | | 03/10/11 | 03/15/11 | MWT | Gamma Emitters in Water | |
| | | | 8665-005 | H | | 03/22/11 | 03/25/11 | BW | Tritium in Water | |
| | | | 8665-005 | RA | | 03/19/11 | 03/28/11 | BW | Radium-226 in Water | |
| | | | 8665-005 | SR | | 03/16/11 | 03/22/11 | BW | Strontium-90 in Water | |
| | | | 8665-005 | U_T | | 03/15/11 | 03/16/11 | BW | Uranium, Total | |
| S103018-01 | IUB2621-03 02/25/11 Boeing - SSFL 03/01/11 IUB2621 | WATER | 8670-001 | 80A/80 | | 03/15/11 | 03/16/11 | BW | Gross Alpha in Water | |
| | | | 8670-001 | 80B/80 | | 03/15/11 | 03/16/11 | BW | Gross Beta in Water | |
| | | | 8670-001 | AC | | 03/18/11 | 03/21/11 | BW | Radium-228 in Water | |
| | | | 8670-001 | GAM | | 03/11/11 | 03/15/11 | MWT | Gamma Emitters in Water | |
| | | | 8670-001 | H | | 03/22/11 | 03/25/11 | BW | Tritium in Water | |
| | | | 8670-001 | RA | | 03/19/11 | 03/28/11 | BW | Radium-226 in Water | |
| | | | 8670-001 | SR | | 03/16/11 | 03/22/11 | BW | Strontium-90 in Water | |
| | | | 8670-001 | U_T | | 03/15/11 | 03/16/11 | BW | Uranium, Total | |

WORK SUMMARY

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SUMMARY DATA SECTION

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Lab id EAS

Protocol TA

Version Ver 1.0

Form DVD-LWS

Version 3.06

Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

WORK SUMMARY, cont.

SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

| LAB SAMPLE | CLIENT SAMPLE ID | | | | | | | | | |
|------------|-------------------------|--------|----------|--------|-----|----------|----------|-----|-------------------------|--|
| COLLECTED | LOCATION | MATRIX | | SUF- | | | | | | |
| RECEIVED | CUSTODY | SAS no | PLANCHET | TEST | FIX | ANALYZED | REVIEWED | BY | METHOD | |
| S103018-02 | IUB2621-04 (TRIP-BLANK) | | 8670-002 | 80A/80 | | 03/15/11 | 03/16/11 | BW | Gross Alpha in Water | |
| 02/25/11 | Boeing - SSFL | WATER | 8670-002 | 80B/80 | | 03/15/11 | 03/16/11 | BW | Gross Beta in Water | |
| 03/01/11 | IUB2621 | | 8670-002 | AC | | 03/18/11 | 03/21/11 | BW | Radium-228 in Water | |
| | | | 8670-002 | GAM | | 03/11/11 | 03/15/11 | MWT | Gamma Emitters in Water | |
| | | | 8670-002 | RA | | 03/19/11 | 03/28/11 | BW | Radium-226 in Water | |
| | | | 8670-002 | SR | | 03/16/11 | 03/22/11 | BW | Strontium-90 in Water | |
| | | | 8670-002 | U_T | | 03/15/11 | 03/16/11 | BW | Uranium, Total | |

COUNTS OF TESTS BY SAMPLE TYPE

| TEST | SAS no | METHOD | REFERENCE | CLIENT | MORE | RE | BLANK | LCS | DUP SPIKE | TOTAL |
|---------------|--------|-------------------------|-----------|-----------|------|----|----------|----------|-----------|-----------|
| 80A/80 | | Gross Alpha in Water | 900.0 | 2 | | | 1 | 1 | 1 | 5 |
| 80B/80 | | Gross Beta in Water | 900.0 | 2 | | | 1 | 1 | 1 | 5 |
| AC | | Radium-228 in Water | 904.0 | 2 | | | 1 | 1 | 1 | 5 |
| GAM | | Gamma Emitters in Water | 901.1 | 2 | | | 1 | 1 | 1 | 5 |
| H | | Tritium in Water | 906.0 | 1 | | | 1 | 1 | 1 | 4 |
| RA | | Radium-226 in Water | 903.1 | 2 | | | 1 | 1 | 1 | 5 |
| SR | | Strontium-90 in Water | 905.0 | 2 | | | 1 | 1 | 1 | 5 |
| U_T | | Uranium, Total | D5174 | 2 | | | 1 | 1 | 1 | 5 |
| TOTALS | | | | 15 | | | 8 | 8 | 8 | 39 |

WORK SUMMARY

Page 2

SUMMARY DATA SECTION

Page 7

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LWS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

8665-004

Method Blank

METHOD BLANK

| | |
|-----------------------------------|--------------------------------------|
| SDG <u>8670</u> | Client <u>Test America, Inc.</u> |
| Contact <u>N. Joseph Verville</u> | Contract <u>IUB2621</u> |
| Lab sample id <u>S103013-04</u> | Client sample id <u>Method Blank</u> |
| Dept sample id <u>8665-004</u> | Material/Matrix <u>WATER</u> |

| ANALYTE | CAS NO | RESULT pCi/L | 2σ ERR (COUNT) | MDA pCi/L | RDL pCi/L | QUALI- FIERS | TEST |
|----------------|----------|-----------------|-------------------|--------------|--------------|-----------------|------|
| Gross Alpha | 12587461 | 0.089 | 0.90 | 1.62 | 3.00 | U | 80A |
| Gross Beta | 12587472 | 0.136 | 1.7 | 2.78 | 4.00 | U | 80B |
| Tritium | 10028178 | -28.0 | 98 | 167 | 500 | U | H |
| Radium-226 | 13982633 | 0.156 | 0.38 | 0.661 | 1.00 | U | RA |
| Radium-228 | 15262201 | -0.110 | 0.17 | 0.430 | 1.00 | U | AC |
| Strontium-90 | 10098972 | -0.258 | 0.38 | 1.04 | 2.00 | U | SR |
| Uranium, Total | | 0 | 0.010 | 0.022 | 1.00 | U | U_T |
| Potassium-40 | 13966002 | U | | 23.0 | 25.0 | U | GAM |
| Cesium-137 | 10045973 | U | | 1.53 | 20.0 | U | GAM |

QC-BLANK #77580

EBERLINE ANALYTICAL

SDG 8670

8665-003

Lab Control Sample

LAB CONTROL SAMPLE

| | |
|-----------------------------------|--|
| SDG <u>8670</u> | Client <u>Test America, Inc.</u> |
| Contact <u>N. Joseph Verville</u> | Contract <u>IUB2621</u> |
| Lab sample id <u>S103013-03</u> | Client sample id <u>Lab Control Sample</u> |
| Dept sample id <u>8665-003</u> | Material/Matrix <u> </u> <u>WATER</u> |

| ANALYTE | RESULT pCi/L | 2σ ERR (COUNT) | MDA pCi/L | RDL pCi/L | QUALI- FIERS TEST | ADDED pCi/L | 2σ ERR pCi/L | REC % | 2σ LMTS (TOTAL) | PROTOCOL LIMITS |
|----------------|-----------------|-------------------|--------------|--------------|----------------------|----------------|-----------------|----------|--------------------|--------------------|
| Gross Alpha | 107 | 5.7 | 1.56 | 3.00 | 80A | 101 | 4.0 | 106 | 77-123 | 70-130 |
| Gross Beta | 86.8 | 3.5 | 2.39 | 4.00 | 80B | 87.2 | 3.5 | 100 | 88-112 | 70-130 |
| Tritium | 2780 | 160 | 168 | 500 | H | 2940 | 120 | 95 | 88-112 | 80-120 |
| Radium-226 | 59.5 | 2.4 | 0.867 | 1.00 | RA | 55.7 | 2.2 | 107 | 82-118 | 80-120 |
| Radium-228 | 16.1 | 0.55 | 0.429 | 1.00 | AC | 15.1 | 0.60 | 107 | 88-112 | 60-140 |
| Strontium-90 | 20.3 | 1.8 | 0.961 | 2.00 | SR | 17.4 | 0.70 | 117 | 84-116 | 80-120 |
| Uranium, Total | 53.9 | 6.4 | 0.223 | 1.00 | U_T | 56.5 | 2.3 | 95 | 88-112 | 80-120 |
| Cobalt-60 | 123 | 4.6 | 2.31 | 10.0 | GAM | 126 | 5.0 | 98 | 91-109 | 80-120 |
| Cesium-137 | 116 | 4.0 | 2.64 | 20.0 | GAM | 110 | 4.4 | 106 | 91-109 | 80-120 |

QC-LCS #77579

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LCS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

8665-005

IUB2814-03

DUPLICATE

| | | |
|-----------------------------------|----------------------------------|--|
| SDG <u>8670</u> | Client <u>Test America, Inc.</u> | |
| Contact <u>N. Joseph Verville</u> | Contract <u>IUB2621</u> | |
| DUPLICATE | ORIGINAL | |
| Lab sample id <u>S103013-05</u> | Lab sample id <u>S103013-01</u> | Client sample id <u>IUB2814-03</u> |
| Dept sample id <u>8665-005</u> | Dept sample id <u>8665-001</u> | Location/Matrix <u>Boeing - SSFL</u> <u>WATER</u> |
| | Received <u>03/01/11</u> | Collected/Volume <u>02/26/11 20:26</u> <u>10.0 L</u> |
| | | Chain of custody id <u>IUB2814</u> |

| ANALYTE | DUPLICATE pCi/L | 2σ ERR (COUNT) | MDA pCi/L | RDL pCi/L | QUALI- FIERS | TEST | ORIGINAL pCi/L | 2σ ERR (COUNT) | MDA pCi/L | QUALI- FIERS | RPD % | 3σ TOT | DER σ |
|----------------|--------------------|-------------------|--------------|--------------|-----------------|------|-------------------|-------------------|--------------|-----------------|----------|-----------|----------|
| Gross Alpha | 1.44 | 0.58 | 0.572 | 3.00 | J | 80A | 1.04 | 0.53 | 0.645 | J | 32 | 105 | 0.9 |
| Gross Beta | 3.86 | 0.91 | 1.35 | 4.00 | J | 80B | 4.34 | 0.69 | 0.934 | | 12 | 48 | 0.7 |
| Tritium | -42.1 | 99 | 170 | 500 | U | H | -106 | 98 | 172 | U | - | | 0.9 |
| Radium-226 | 0.467 | 0.39 | 0.618 | 1.00 | U | RA | 0.436 | 0.36 | 0.562 | U | - | | 0.1 |
| Radium-228 | 0.062 | 0.16 | 0.406 | 1.00 | U | AC | 0.016 | 0.17 | 0.421 | U | - | | 0.4 |
| Strontium-90 | -0.199 | 0.43 | 1.10 | 2.00 | U | SR | -0.031 | 0.62 | 1.35 | U | - | | 0.4 |
| Uranium, Total | 0.574 | 0.065 | 0.022 | 1.00 | J | U_T | 0.618 | 0.070 | 0.022 | J | 7 | 24 | 0.9 |
| Potassium-40 | U | | 24.8 | 25.0 | U | GAM | U | | 19.0 | U | - | | 0.4 |
| Cesium-137 | U | | 1.52 | 20.0 | U | GAM | U | | 1.67 | U | - | | 0.1 |

QC-DUP#1 77581

DUPLICATES

Page 1

SUMMARY DATA SECTION

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| |
|-----------------------------|
| Lab id <u>EAS</u> |
| Protocol <u>TA</u> |
| Version <u>Ver 1.0</u> |
| Form <u>DVD-DUP</u> |
| Version <u>3.06</u> |
| Report date <u>03/30/11</u> |

EBERLINE ANALYTICAL
SDG 8670

8670-001

IUB2621-03

DATA SHEET

| | |
|-----------------------------------|--|
| SDG <u>8670</u> | Client <u>Test America, Inc.</u> |
| Contact <u>N. Joseph Verville</u> | Contract <u>IUB2621</u> |
| Lab sample id <u>S103018-01</u> | Client sample id <u>IUB2621-03</u> |
| Dept sample id <u>8670-001</u> | Location/Matrix <u>Boeing - SSFL</u> <u>WATER</u> |
| Received <u>03/01/11</u> | Collected/Volume <u>02/25/11 11:22</u> <u>10.0 L</u> |
| | Chain of custody id <u>IUB2621</u> |

| ANALYTE | CAS NO | RESULT pCi/L | 2 σ ERR (COUNT) | MDA pCi/L | RDL pCi/L | QUALI- FIERS | TEST |
|----------------|----------|-----------------|---------------------------|--------------|--------------|-----------------|------|
| Gross Alpha | 12587461 | 1.10 | 1.0 | 1.46 | 3.00 | U | 80A |
| Gross Beta | 12587472 | 3.76 | 1.1 | 1.65 | 4.00 | J | 80B |
| Tritium | 10028178 | -56.2 | 100 | 172 | 500 | U | H |
| Radium-226 | 13982633 | 0.503 | 0.47 | 0.749 | 1.00 | U | RA |
| Radium-228 | 15262201 | 0.052 | 0.31 | 0.413 | 1.00 | U | AC |
| Strontium-90 | 10098972 | -0.281 | 0.34 | 0.924 | 2.00 | U | SR |
| Uranium, Total | | 0.159 | 0.025 | 0.022 | 1.00 | J | U_T |
| Potassium-40 | 13966002 | U | | 18.0 | 25.0 | U | GAM |
| Cesium-137 | 10045973 | U | | 1.18 | 20.0 | U | GAM |

| |
|-----------------------------|
| Lab id <u>EAS</u> |
| Protocol <u>TA</u> |
| Version <u>Ver 1.0</u> |
| Form <u>DVD-DS</u> |
| Version <u>3.06</u> |
| Report date <u>03/30/11</u> |

EBERLINE ANALYTICAL

SDG 8670

8670-002

IUB2621-04 (TRIP-BLANK)

DATA SHEET

| | |
|-----------------------------------|--|
| SDG <u>8670</u> | Client <u>Test America, Inc.</u> |
| Contact <u>N. Joseph Verville</u> | Contract <u>IUB2621</u> |
| Lab sample id <u>S103018-02</u> | Client sample id <u>IUB2621-04 (TRIP-BLANK)</u> |
| Dept sample id: <u>8670-002</u> | Location/Matrix <u>Boeing - SSFL</u> <u>WATER</u> |
| Received <u>03/01/11</u> | Collected/Volume <u>02/25/11 11:22</u> <u>10.0 L</u> |
| | Chain of custody id <u>IUB2621</u> |

| ANALYTE | CAS NO | RESULT pCi/L | 2σ ERR (COUNT) | MDA pCi/L | RDL pCi/L | QUALI- FIERS | TEST |
|----------------|----------|-----------------|-------------------|--------------|--------------|-----------------|------|
| Gross Alpha | 12587461 | 0.008 | 0.13 | 0.240 | 3.00 | U | 80A |
| Gross Beta | 12587472 | 0.579 | 0.78 | 1.25 | 4.00 | U | 80B |
| Radium-226 | 13982633 | 0.099 | 0.37 | 0.668 | 1.00 | U | RA |
| Radium-228 | 15262201 | -0.118 | 0.16 | 0.421 | 1.00 | U | AC |
| Strontium-90 | 10098972 | -0.173 | 0.39 | 1.02 | 2.00 | U | SR |
| Uranium, Total | | 0 | 0.010 | 0.022 | 1.00 | U | U_T |
| Potassium-40 | 13966002 | U | | 17.0 | 25.0 | U | GAM |
| Cesium-137 | 10045973 | U | | 1.14 | 20.0 | U | GAM |

| |
|-----------------------------|
| Lab id <u>EAS</u> |
| Protocol <u>TA</u> |
| Version <u>Ver 1.0</u> |
| Form <u>DVD-DS</u> |
| Version <u>3.06</u> |
| Report date <u>03/30/11</u> |

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

RADIUM-228 IN WATER

BETA COUNTING

Test AC Matrix WATER
 SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

RESULTS

LAB RAW SUP-
 SAMPLE ID TEST FIX PLANCHET CLIENT SAMPLE ID Radium-228

Preparation batch 7281-046

| | | | |
|------------|----------|-------------------------|-----|
| S103013-03 | 8665-003 | Lab Control Sample | ok |
| S103013-04 | 8665-004 | Method Blank | U |
| S103013-05 | 8665-005 | Duplicate (S103013-01) | - U |
| S103018-01 | 8670-001 | IUB2621-03 | U |
| S103018-02 | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |

Nominal values and limits from method RDLs (pCi/L) 1.00

METHOD PERFORMANCE

LAB RAW SUP- MDA ALIQ PREP DILU- YIELD EPF COUNT FWHM DRIFT DAYS ANAL-
 SAMPLE ID TEST FIX CLIENT SAMPLE ID pCi/L L FAC TION % % min keV KeV HELD PREPARED YZED DETECTOR

Preparation batch 7281-046 2σ prep error 10.4 % Reference Lab Notebook No. 7281 pg 046

| | | | | | | | | |
|------------|-------------------------|-------|------|----|-----|-------------|-------|---------|
| S103013-03 | Lab Control Sample | 0.429 | 1.80 | 81 | 150 | 03/18/11 | 03/18 | GRB-220 |
| S103013-04 | Method Blank | 0.430 | 1.80 | 78 | 150 | 03/18/11 | 03/18 | GRB-221 |
| S103013-05 | Duplicate (S103013-01) | 0.406 | 1.80 | 78 | 150 | 20 03/18/11 | 03/18 | GRB-222 |
| S103018-01 | IUB2621-03 | 0.413 | 1.80 | 80 | 150 | 21 03/18/11 | 03/18 | GRB-203 |
| S103018-02 | IUB2621-04 (TRIP-BLANK) | 0.421 | 1.80 | 81 | 150 | 21 03/18/11 | 03/18 | GRB-204 |

Nominal values and limits from method 1.00 1.80 30-105 50 180

PROCEDURES REFERENCE 904.0
 DWP-894 Sequential Separation of Actinium-228 and Radium-226 in Drinking Water (>1 Liter Aliquot), rev 5

AVERAGES ± 2 SD MDA 0.420 ± 0.021
 FOR 5 SAMPLES YIELD 80 ± 3

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

STRONTIUM-90 IN WATER

BETA COUNTING

Test SR Matrix WATER
 SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

RESULTS

| | | | | |
|------------------|-----------------|-----------------|-------------------------|---------------------|
| LAB | RAW | SUF- | | |
| SAMPLE ID | TEST FIX | PLANCHET | CLIENT SAMPLE ID | Strontium-90 |

Preparation batch 7281-046

| | | | |
|------------|----------|-------------------------|-----|
| S103013-03 | 8665-003 | Lab Control Sample | ok |
| S103013-04 | 8665-004 | Method Blank | U |
| S103013-05 | 8665-005 | Duplicate (S103013-01) | - U |
| S103018-01 | 8670-001 | IUB2621-03 | U |
| S103018-02 | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |

Nominal values and limits from method RDLs (pCi/L) 2.00

METHOD PERFORMANCE

| | | | | | | | | | | | | | | | |
|------------------|-----------------|-------------------------|--------------|-------------|-------------|--------------|--------------|------------|--------------|-------------|--------------|-------------|-----------------|-------------|-----------------|
| LAB | RAW | SUF- | MDA | ALIQ | PREP | DILU- | YIELD | EFF | COUNT | FWHM | DRIFT | DAYS | ANAL- | | |
| SAMPLE ID | TEST FIX | CLIENT SAMPLE ID | pCi/L | L | FAC | TION | % | % | min | keV | KeV | HELD | PREPARED | YZED | DETECTOR |

Preparation batch 7281-046 2σ prep error 10.4 % Reference Lab Notebook No. 7281 pg 046

| | | | | | | | | | | | | | | |
|------------|-------------------------|-------|-------|--|--|--|----|----|----|----------|-------|----------|-------|---------|
| S103013-03 | Lab Control Sample | 0.961 | 0.500 | | | | 76 | 50 | | | | 03/15/11 | 03/16 | GRB-229 |
| S103013-04 | Method Blank | 1.04 | 0.500 | | | | 82 | 50 | | | | 03/15/11 | 03/16 | GRB-230 |
| S103013-05 | Duplicate (S103013-01) | 1.10 | 0.500 | | | | 84 | 50 | 18 | 03/15/11 | 03/16 | 03/16 | 03/16 | GRB-231 |
| S103018-01 | IUB2621-03 | 0.924 | 0.500 | | | | 83 | 50 | 19 | 03/16/11 | 03/16 | 03/16 | 03/16 | GRB-231 |
| S103018-02 | IUB2621-04 (TRIP-BLANK) | 1.02 | 0.500 | | | | 70 | 50 | 19 | 03/16/11 | 03/16 | 03/16 | 03/16 | GRB-232 |

Nominal values and limits from method 2.00 0.500 30-105 50 180

PROCEDURES REFERENCE 905.0
 DWP-380 Strontium in Drinking Water, rev 8

AVERAGES ± 2 SD MDA 1.01 ± 0.137
 FOR 5 SAMPLES YIELD 79 ± 12

METHOD SUMMARIES

Page 2

SUMMARY DATA SECTION

Page 14

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

GROSS ALPHA IN WATER

GAS PROPORTIONAL COUNTING

Test 80A Matrix WATER
 SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

RESULTS

| LAB | RAW | SUF- | | |
|-----------|----------|----------|------------------|-------------|
| SAMPLE ID | TEST FIX | PLANCHET | CLIENT SAMPLE ID | Gross Alpha |

Preparation batch 7281-046

| | | | | |
|------------|----|----------|-------------------------|------|
| S103013-03 | 80 | 8665-003 | Lab Control Sample | ok |
| S103013-04 | 80 | 8665-004 | Method Blank | U |
| S103013-05 | 80 | 8665-005 | Duplicate (S103013-01) | ok J |
| S103018-01 | 80 | 8670-001 | IUB2621-03 | U |
| S103018-02 | 80 | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |

Nominal values and limits from method RDLs (pCi/L) 3.00

METHOD PERFORMANCE

| LAB | RAW | SUF- | MDA | ALIQ | PREP | DILU- | RBSID | EFF | COUNT | FWHM | DRIFT | DAYS | ANAL- |
|-----------|----------|------------------|-------|------|------|-------|-------|-----|-------|------|-------|---------------|---------------|
| SAMPLE ID | TEST FIX | CLIENT SAMPLE ID | pCi/L | L | FAC | TION | mg | % | min | keV | KeV | HELD PREPARED | YZED DETECTOR |

Preparation batch 7281-046 2σ prep error 20.6 % Reference Lab Notebook No. 7281 pg 046

| | | | | | | | | | | | | | |
|------------|----|-------------------------|-------|-------|--|--|-----|--|-----|--|--|-------------|---------------|
| S103013-03 | 80 | Lab Control Sample | 1.56 | 0.100 | | | 59 | | 400 | | | 03/11/11 | 03/14 GRB-104 |
| S103013-04 | 80 | Method Blank | 1.62 | 0.100 | | | 58 | | 400 | | | 03/11/11 | 03/14 GRB-105 |
| S103013-05 | 80 | Duplicate (S103013-01) | 0.572 | 0.300 | | | 91 | | 400 | | | 16 03/11/11 | 03/14 GRB-107 |
| S103018-01 | 80 | IUB2621-03 | 1.46 | 0.175 | | | 105 | | 400 | | | 18 03/11/11 | 03/15 GRB-105 |
| S103018-02 | 80 | IUB2621-04 (TRIP-BLANK) | 0.240 | 0.300 | | | 0 | | 400 | | | 18 03/11/11 | 03/15 GRB-107 |

Nominal values and limits from method 3.00 0.100 0-200 100 180

PROCEDURES REFERENCE 900.0
 DWP-121 Gross Alpha and Gross Beta in Drinking Water,
 rev 10

AVERAGES ± 2 SD MDA 1.09 ± 1.28
 FOR 5 SAMPLES RESIDUE 63 ± 81

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

GROSS BETA IN WATER
GAS PROPORTIONAL COUNTING

Test 80B Matrix WATER
SDG 8670
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUB2621

RESULTS

| LAB | RAW | SUF- | | | |
|---------------------------------------|------|------|--------------|-------------------------|------------|
| SAMPLE ID | TEST | FIX | PLANCHET | CLIENT SAMPLE ID | Gross Beta |
| Preparation batch 7281-046 | | | | | |
| S103013-03 | 80 | | 8665-003 | Lab Control Sample | ok |
| S103013-04 | 80 | | 8665-004 | Method Blank | U |
| S103013-05 | 80 | | 8665-005 | Duplicate (S103013-01) | ok J |
| S103018-01 | 80 | | 8670-001 | IUB2621-03 | 3.76 J |
| S103018-02 | 80 | | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |
| Nominal values and limits from method | | | RDLs (pCi/L) | 4.00 | |

METHOD PERFORMANCE

| LAB | RAW | SUF- | MDA | ALIQ | PREP | DILU- | RESID | EFF | COUNT | FWHM | DRIFT | DAYS | ANAL- | | | |
|---------------------------------------|------|------|---|-------|-------|-------|-------|-----|-------|------|-------|------|----------|----------|---------|----------|
| SAMPLE ID | TEST | FIX | CLIENT SAMPLE ID | pCi/L | L | FAC | TION | mg | % | min | keV | KeV | HELD | PREPARED | YZED | DETECTOR |
| Preparation batch 7281-046 | | | 2σ prep error 11.0 % Reference Lab Notebook No. 7281 pg 046 | | | | | | | | | | | | | |
| S103013-03 | 80 | | Lab Control Sample | 2.39 | 0.100 | | | 59 | 400 | | | | 03/11/11 | 03/14 | GRB-104 | |
| S103013-04 | 80 | | Method Blank | 2.78 | 0.100 | | | 58 | 400 | | | | 03/11/11 | 03/14 | GRB-105 | |
| S103013-05 | 80 | | Duplicate (S103013-01) | 1.35 | 0.300 | | | 91 | 400 | 16 | | | 03/11/11 | 03/14 | GRB-107 | |
| S103018-01 | 80 | | IUB2621-03 | 1.65 | 0.175 | | | 105 | 400 | 18 | | | 03/11/11 | 03/15 | GRB-105 | |
| S103018-02 | 80 | | IUB2621-04 (TRIP-BLANK) | 1.25 | 0.300 | | | 0 | 400 | 18 | | | 03/11/11 | 03/15 | GRB-107 | |
| Nominal values and limits from method | | | 4.00 | 0.100 | | | 0-200 | 100 | | 180 | | | | | | |

PROCEDURES REFERENCE 900.0
DWP-121 Gross Alpha and Gross Beta in Drinking Water,
rev 10

AVERAGES ± 2 SD MDA 1.88 ± 1.34
FOR 5 SAMPLES RESIDUE 63 ± 81

METHOD SUMMARIES

Page 4

SUMMARY DATA SECTION

Page 16

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

GAMMA EMITTERS IN WATER
GAMMA SPECTROSCOPY

Test GAM Matrix WATER
SDG 8670
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUB2621

RESULTS

| LAB | RAW | SUF- | | | |
|----------------------------|----------|----------|-------------------------|-----------|------------|
| SAMPLE ID | TEST FIX | PLANCHET | CLIENT SAMPLE ID | Cobalt-60 | Cesium-137 |
| Preparation batch 7281-046 | | | | | |
| S103013-03 | | 8665-003 | Lab Control Sample | ok | ok |
| S103013-04 | | 8665-004 | Method Blank | | U |
| S103013-05 | | 8665-005 | Duplicate (S103013-01) | | - U |
| S103018-01 | | 8670-001 | IUB2621-03 | | U |
| S103018-02 | | 8670-002 | IUB2621-04 (TRIP-BLANK) | | U |

Nominal values and limits from method RDLs (pCi/L) 10.0 20.0

METHOD PERFORMANCE

| LAB | RAW | SUF- | MDA | ALIQ | PREP | DILU- | YIELD | EPF | COUNT | FWHM | DRIFT | DAYS | ANAL- | | |
|---|----------|-------------------------|-------|------|------|-------|-------|-----|-------|------|-------|------|----------|-------|----------|
| SAMPLE ID | TEST FIX | CLIENT SAMPLE ID | pCi/L | L | FAC | TION | % | % | min | keV | KeV | HELD | PREPARED | YZED | DETECTOR |
| Preparation batch 7281-046 2σ prep error 7.0 % Reference Lab Notebook No. 7281 pg 046 | | | | | | | | | | | | | | | |
| S103013-03 | | Lab Control Sample | 2.00 | | | | | | 508 | | | | 03/03/11 | 03/08 | 01,02,00 |
| S103013-04 | | Method Blank | 2.00 | | | | | | 508 | | | | 03/03/11 | 03/08 | 01,04,00 |
| S103013-05 | | Duplicate (S103013-01) | 2.00 | | | | | | 402 | | | 12 | 03/03/11 | 03/10 | 01,03,00 |
| S103018-01 | | IUB2621-03 | 2.00 | | | | | | 807 | | | 14 | 03/03/11 | 03/11 | 01,04,00 |
| S103018-02 | | IUB2621-04 (TRIP-BLANK) | 2.00 | | | | | | 807 | | | 14 | 03/03/11 | 03/11 | 01,03,00 |

Nominal values and limits from method 6.00 2.00 400 180

PROCEDURES REFERENCE 901.1
DWP-100 Preparation of Drinking Water Samples for Gamma Spectroscopy, rev 5

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

URANIUM, TOTAL

KINETIC PHOSPHORIMETRY, UG

Test U T Matrix WATER
 SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

RESULTS

| LAB | RAW | SUF- | | Uranium, |
|----------------------------|----------|----------|-------------------------|----------|
| SAMPLE ID | TEST FIX | PLANCHET | CLIENT SAMPLE ID | Total |
| Preparation batch 7281-046 | | | | |
| S103013-03 | | 8665-003 | Lab Control Sample | ok |
| S103013-04 | | 8665-004 | Method Blank | U |
| S103013-05 | | 8665-005 | Duplicate (S103013-01) | ok J |
| S103018-01 | | 8670-001 | IUB2621-03 | 0.159 J |
| S103018-02 | | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |

Nominal values and limits from method RDLs (pCi/L) 1.00

METHOD PERFORMANCE

| LAB | RAW | SUF- | MDA | ALIQ | PREP | DILU- | YIELD | EFF | COUNT | FWHM | DRIFT | DAYS | ANAL- |
|----------------------------|----------|-------------------------|--|--------|------|-------|-------|-----|-------|------|-------|---------------|---------------|
| SAMPLE ID | TEST FIX | CLIENT SAMPLE ID | pCi/L | L | FAC | TION | % | % | min | keV | KeV | HELD PREPARED | YZED DETECTOR |
| Preparation batch 7281-046 | | 2σ prep error | Reference Lab Notebook No. 7281 pg 046 | | | | | | | | | | |
| S103013-03 | | Lab Control Sample | 0.223 | 0.0200 | | | | | | | | 03/15/11 | 03/15 KPA-001 |
| S103013-04 | | Method Blank | 0.022 | 0.0200 | | | | | | | | 03/15/11 | 03/15 KPA-001 |
| S103013-05 | | Duplicate (S103013-01) | 0.022 | 0.0200 | | | | | | | | 17 03/15/11 | 03/15 KPA-001 |
| S103018-01 | | IUB2621-03 | 0.022 | 0.0200 | | | | | | | | 18 03/15/11 | 03/15 KPA-001 |
| S103018-02 | | IUB2621-04 (TRIP-BLANK) | 0.022 | 0.0200 | | | | | | | | 18 03/15/11 | 03/15 KPA-001 |

Nominal values and limits from method 1.00 0.0200 180

PROCEDURES REFERENCE D5174

AVERAGES ± 2 SD MDA 0.062 ± 0.180
 FOR 5 SAMPLES YIELD _____ ± _____

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

TRITIUM IN WATER

LIQUID SCINTILLATION COUNTING

Test H Matrix WATER
 SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

RESULTS

LAB RAW SUP-
 SAMPLE ID TEST FIX PLANCHET CLIENT SAMPLE ID Tritium

Preparation batch 7281-046

| | | | | |
|------------|--|----------|------------------------|-----|
| S103013-03 | | 8665-003 | Lab Control Sample | ok |
| S103013-04 | | 8665-004 | Method Blank | U |
| S103013-05 | | 8665-005 | Duplicate (S103013-01) | - U |
| S103018-01 | | 8670-001 | IUB2621-03 | U |

Nominal values and limits from method RDLs (pCi/L) 500

METHOD PERFORMANCE

LAB RAW SUP- MDA ALIQ PREP DILU- YIELD EFF COUNT FWHM DRIFT DAYS ANAL-
 SAMPLE ID TEST FIX CLIENT SAMPLE ID pCi/L L FAC TION % % min keV KeV HELD PREPARED YZED DETECTOR

Preparation batch 7281-046 20 prep error 10.0 % Reference Lab Notebook No. 7281 pg 046

| | | | | | | | | | | | | | |
|------------|--|------------------------|-----|--------|--|--|-----|-----|--|----|----------|-------|---------|
| S103013-03 | | Lab Control Sample | 168 | 0.100 | | | 10 | 150 | | | 03/19/11 | 03/22 | LSC-004 |
| S103013-04 | | Method Blank | 167 | 0.100 | | | 10 | 150 | | | 03/19/11 | 03/22 | LSC-004 |
| S103013-05 | | Duplicate (S103013-01) | 170 | 0.0100 | | | 100 | 150 | | 24 | 03/19/11 | 03/22 | LSC-004 |
| S103018-01 | | IUB2621-03 | 172 | 0.0100 | | | 100 | 150 | | 25 | 03/19/11 | 03/22 | LSC-004 |

Nominal values and limits from method 500 0.0100 100 180

PROCEDURES REFERENCE 906.0
 DWP-212 Tritium in Drinking Water by Distillation, rev 8

AVERAGES ± 2 SD MDA 169 ± 4.43
 FOR 4 SAMPLES YIELD 55 ± 104

METHOD SUMMARIES

Page 7

SUMMARY DATA SECTION

Page 19

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

RADIUM-226 IN WATER
RADON COUNTING

Test RA Matrix WATER
SDG 8670
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUB2621

RESULTS

| | | | | |
|------------|------------|-------------|------------------|------------|
| LAB | RAW | SUF- | | |
| SAMPLE ID | TEST FIX | PLANCHET | CLIENT SAMPLE ID | Radium-226 |

Preparation batch 7281-046

| | | | | |
|------------|----|----------|-------------------------|-----|
| S103013-03 | R1 | 8665-003 | Lab Control Sample | ok |
| S103013-04 | | 8665-004 | Method Blank | U |
| S103013-05 | | 8665-005 | Duplicate (S103013-01) | - U |
| S103018-01 | | 8670-001 | IUB2621-03 | U |
| S103018-02 | | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |

Nominal values and limits from method RDLs (pCi/L) 1.00

METHOD PERFORMANCE

| | | | | | | | | | | | | | | | | |
|------------|------------|------------------|--|------------|-------------|-------------|--------------|--------------|------------|--------------|-------------|--------------|-------------|----------|--------------|----------|
| LAB | RAW | SUF- | | MDA | ALIQ | PREP | DILU- | YIELD | EFF | COUNT | FWHM | DRIFT | DAYS | | ANAL- | |
| SAMPLE ID | TEST FIX | CLIENT SAMPLE ID | | pCi/L | L | FAC | TION | % | % | min | keV | KeV | HELD | PREPARED | YZED | DETECTOR |

Preparation batch 7281-046 2σ prep error 16.4 % Reference Lab Notebook No. 7281 pg 046

| | | | | | | | | | | | | | | | | |
|------------|----|-------------------------|-------|-------|--|--|--|-----|--|-----|--|--|----|----------|-------|--------|
| S103013-03 | R1 | Lab Control Sample | 0.867 | 0.100 | | | | 100 | | 140 | | | | 03/25/11 | 03/25 | RN-009 |
| S103013-04 | | Method Blank | 0.661 | 0.100 | | | | 100 | | 103 | | | | 03/19/11 | 03/19 | RN-010 |
| S103013-05 | | Duplicate (S103013-01) | 0.618 | 0.100 | | | | 100 | | 103 | | | 21 | 03/19/11 | 03/19 | RN-016 |
| S103018-01 | | IUB2621-03 | 0.749 | 0.100 | | | | 100 | | 100 | | | 22 | 03/19/11 | 03/19 | RN-015 |
| S103018-02 | | IUB2621-04 (TRIP-BLANK) | 0.668 | 0.100 | | | | 100 | | 100 | | | 22 | 03/19/11 | 03/19 | RN-016 |

Nominal values and limits from method 1.00 0.100 100 180

PROCEDURES REFERENCE 903.1
DWP-881A Ra-226 Screening in Drinking Water, rev 6

AVERAGES ± 2 SD MDA 0.713 ± 0.197
FOR 5 SAMPLES YIELD 100 ± 0

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670
 Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
 Contract IUB2621

SAMPLE SUMMARY

The Sample and QC Summary Reports show all samples, including QC samples, reported in one Sample Delivery Group (SDG).

The Sample Summary Report fully identifies client samples and gives the corresponding lab sample identification. The QC Summary Report shows at the sample level how the lab organized the samples into batches and generated QC samples. The Preparation Batch and Method Summary Reports show this at the analysis level.

The following notes apply to these reports:

- * LAB SAMPLE ID is the lab's primary identification for a sample.
- * DEPARTMENT SAMPLE ID is an alternate lab id, for example one assigned by a radiochemistry department in a lab.
- * CLIENT SAMPLE ID is the client's primary identification for a sample. It includes any sample preparation done by the client that is necessary to identify the sample.
- * QC BATCH is a lab assigned code that groups samples to be processed and QCed together. These samples should have similar matrices.

QC BATCH is not necessarily the same as SDG, which reflects samples received and reported together.

- * All Lab Control Samples, Method Blanks, Duplicates and Matrix Spikes are shown that QC any of the samples. Due to possible reanalyses, not all results for all these QC samples may be relevant to the SDG. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

REPORT GUIDES

Page 1

SUMMARY DATA SECTION

Page 21

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-RG
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

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 Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
 Contract IUB2621

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches in one Sample Delivery Group (SDG) with information necessary to check the completeness and consistency of the SDG.

The following notes apply to this report:

- * The preparation batches are shown in the same order as the Method Summary Reports are printed.
- * Only analyses of planchets relevant to the SDG are included.
- * Each preparation batch should have at least one Method Blank and LCS in it to validate client sample results.
- * The QUALIFIERS shown are all qualifiers other than U, J, B, L and H that occur on any analysis in the preparation batch. The Method Summary Report has these qualifiers on a per sample basis.

These qualifiers should be reviewed as follows:

- X Some data has been manually entered or modified. Transcription errors are possible.
- P One or more results are 'preliminary'. The data is not ready for final reporting.
- 2 There were two or more results for one analyte on one planchet imported at one time. The results in DVD may not be the same as on the raw data sheets.

Other lab defined qualifiers may occur. In general, these should be addressed in the SDG narrative.

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WORK SUMMARY

The Work Summary Report shows all samples, including QC samples, and all relevant analyses in one Sample Delivery Group (SDG). This report is often useful as supporting documentation for an invoice.

The following notes apply to this report:

- * TEST is a code for the method used to measure associated analytes. Results and related information for each analyte are on the Data Sheet Report. In special cases, a test code used in the summary data section is not the same as in associated raw data. In this case, both codes are shown on the Work Summary.
- * SUFFIX is the lab's code to distinguish multiple analyses (recounts, reworks, reanalyses) of a fraction of the sample. The suffix indicates which result is being reported. An empty suffix normally identifies the first attempt to analyze the sample.
- * The LAB SAMPLE ID, TEST and SUFFIX uniquely identify all supporting data for a result. The Method Summary Report for each TEST has method performance data, such as yield, for each lab sample id and suffix and procedures used in the method.
- * PLANCHET is an alternate lab identifier for work done for one test. It, combined with the TEST and SUFFIX, may be the best link to raw data.
- * For QC samples, only analyses that directly QC some regular sample are shown. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.
- * The SAS (Special Analytical Services) Number is a client or lab assigned code that reflects special processing for samples, such as rapid turn around. Counts of tests done are lists by SAS number since it is likely to affect prices.

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DATA SHEET

The Data Sheet Report shows all results and primary supporting information for one client sample or Method Blank. This report corresponds to both the CLP Inorganics and Organics Data Sheet.

The following notes apply to this report:

- * TEST is a code for the method used to measure an analyte. If the TEST is empty, no data is available; the analyte was not analyzed for.
- * The LAB SAMPLE ID and TEST uniquely identify work within the Summary Data Section of a Data Package. The Work Summary and Method Summary Reports further identify raw data that underlies this work.

The Method Summary Report for each TEST has method performance data, such as yield, for each Lab Sample ID and a list of procedures used in the method.

- * ERRORS can be labeled TOTAL or COUNT. TOTAL implies a preparation (non-counting method) error has been added, as square root of sum of squares, to the counting error denoted by COUNT. The preparation errors, which may vary by preparation batch, are shown on the Method Summary Report.
- * A RESULT can be 'N.R.' (Not Reported). This means the lab did this work but chooses not to report it now, possibly because it was reported at another time.
- * When reporting a Method Blank, a RESULT can be 'N.A.' (Not Applicable). This means there is no reported client sample work in the same preparation batch as the Blank's result. This is likely to occur when the Method Blank is associated with reanalyses of selected work for a few samples in the SDG.

The following qualifiers are defined by the DVD system:

- U The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.

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- J The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.
 - B A Method Blank associated with this sample had a result without a U flag and, after correcting for possibly different aliquots, that result is greater than or equal to the MDA for this sample.
- Normally, B is not assigned if U is. When method blank subtraction is shown on this report, B flags are assigned based on the unsubtracted values while U's are assigned based on the subtracted ones. Both flags can be assigned in this case.
- For each sample result, all Method Blank results in the same preparation batch are compared. The Method Summary Report documents this and other QC relationships.
- L Some Lab Control Sample that QC's this sample had a low recovery. The lab can disable assignment of this qualifier.
 - H Similar to 'L' except the recovery was high.
 - P The RESULT is 'preliminary'.
 - X Some data necessary to compute the RESULT, ERROR or MDA was manually entered or modified.
 - 2 There were two or more results available for this analyte. The reported result may not be the same as in the raw data.

Other qualifiers are lab defined. Definitions should be in the SDG narrative.

The following values are underlined to indicate possible problems:

- * An MDA is underlined if it is bigger than its RDL.
- * An ERROR is underlined if the 1.645 sigma counting error is bigger than both the MDA and the RESULT, implying that the MDA

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may not be a good estimate of the 'real' minimum detectable activity.

- * A negative RESULT is underlined if it is less than the negative of its 2 sigma counting ERROR.
- * When reporting a Method Blank, a RESULT is underlined if greater than its MDA. If the MDA is blank, the 2 sigma counting error is used in the comparison.

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LAB CONTROL SAMPLE

The Lab Control Sample Report shows all results, recoveries and primary supporting information for one Lab Control Sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. Refer to its Report Guide for details.
- * An amount ADDED is the lab's value for the actual amount spiked into this sample with its ERROR an estimate of the error of this amount.

An amount added is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

- * REC (Recovery) is RESULT divided by ADDED expressed as a percent.
- * The first, computed limits for the recovery reflect:
 1. The error of RESULT, including that introduced by rounding the result prior to printing.

If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.
 2. The error of ADDED.
 3. A lab specified, per analyte bias. The bias changes the center of the computed limits.
- * The second limits are protocol defined upper and lower QC limits for the recovery.
- * The recovery is underlined if it is outside either of these ranges.

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DUPLICATE

The Duplicate Report shows all results, differences and primary supporting information for one Duplicate and associated Original sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. This applies both to the Duplicate and Original sample data. Refer to the Data Sheet Report Guide for details.

If the Duplicate has data for a TEST and the lab did not do this test to the Original, the Original's RESULTS are underlined.

- * The RPD (Relative Percent Difference) is the absolute value of the difference of the RESULTS divided by their average expressed as a percent.

If both RESULTS are less than their MDAs, no RPD is computed and a '-' is printed.

For an analyte, if the lab did work for both samples but has data for only one, the MDA from the sample with data is used as the other's result in the RPD.

- * The first, computed limit is the sum, as square root of sum of squares, of the errors of the results divided by the average result as a percent, hence the relative error of the difference rather than the error of the relative difference. The errors include those introduced by rounding the RESULTS prior to printing.

If this limit is labeled TOT, it includes the preparation error in the RESULTS. If labeled CNT, it does not.

This value reported for this limit is at most 999.

- * The second limit for the RPD is the larger of:
 1. A fixed percentage specified in the protocol.

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2. A protocol factor (typically 2) times the average MDA as a percent of the average result. This limit applies when the results are close to the MDAs.

- * The RPD is underlined if it is greater than either limit.
- * If specified by the lab, the second limit column is replaced by the Difference Error Ratio (DER), which is the absolute value of the difference of the results divided by the quadratic sum of their one sigma errors, the same errors as used in the first limit.

Except for differences due to rounding, the DER is the same as the RPD divided by the first RPD limit with the limit scaled to 1 sigma.

- * The DER is underlined if it is greater than the sigma factor, typically 2 or 3, shown in the header for the first RPD limit.

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MATRIX SPIKE

The Matrix Spike Report shows all results, recoveries and primary supporting information for one Matrix Spike and associated Original sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. This applies both to the Spiked and Original sample data. Refer to the Data Sheet Report Guide for details.

If the Spike has data for a TEST and the lab did not do this test to the Original, the Original's RESULTS are underlined.

- * An amount ADDED is the lab's value for the actual amount spiked into the Spike sample with its ERROR an estimate of the error of this amount.

An amount is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

- * REC (Recovery) is the Spike RESULT minus the Original RESULT divided by ADDED expressed as a percent.
- * The first, computed limits for the recovery reflect:
 1. The errors of the two RESULTS, including those introduced by rounding them prior to printing.

If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.
 2. The error of ADDED.
 3. A lab specified, per analyte bias. The bias changes the center of the computed limits.
- * The second limits are protocol defined upper and lower QC limits for the recovery.

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MATRIX SPIKE

These limits are left blank if the Original RESULT is more than a protocol defined factor (typically 4) times ADDED. This is a way of accounting for that when the spike is small compared to the amount in the original sample, the recovery is unreliable.

- * The recovery is underlined (out of spec) if it is outside either of these ranges.

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METHOD SUMMARY

The Method Summary Report has two tables. One shows up to five results measured using one method. The other has performance data for the method. There is one report for each TEST, as used on the Data Sheet Report.

The following notes apply to this report:

- * Each table is subdivided into sections, one for each preparation batch. A preparation batch is a group of aliquots prepared at roughly the same time in one work area of the lab using the same method.

There should be Lab Control Sample and Method Blank results in each preparation batch since this close correspondence makes the QC meaningful. Depending on lab policy, Duplicates need not occur in each batch since they QC sample dependencies such as matrix effects.

- * The RAW TEST column shows the test code used in the raw data to identify a particular analysis if it is different than the test code in the header of the report. This occurs in special cases due to method specific details about how the lab labels work.

The Lab Sample or Planchet ID combined with the (Raw) Test Code and Suffix uniquely identify the raw data for each analysis.

- * If a result is less than both its MDA and RDL, it is replaced by just 'U' on this report. If it is greater than or equal to the RDL but less than the MDA, the result is shown with a 'U' flag.

The J and X flags are as on the data sheet.

- * Non-U results for Method Blanks are underlined to indicate possible contamination of other samples in the preparation batch. The Method Blank Report has supporting data.
- * Lab Control Sample and Matrix Spike results are shown as: ok, No data, LOW or HIGH, with the last two underlined. 'No data' means no amount ADDED was specified. 'LOW' and 'HIGH'

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correspond to when the recovery is underlined on the Lab Control Sample or Matrix Spike Report. See these reports for supporting data.

- * Duplicate sample results are shown as: ok, No data, or OUT, with the last two underlined. 'No data' means there was no original sample data found for this duplicate. 'OUT' corresponds to when the RPD is underlined on the Duplicate Report. See this report for supporting data.
 - * If the MDA column is labeled 'MAX MDA', there was more than one result measured by the reported method and the MDA shown is the largest MDA. If not all these results have the same RDL, the MAX MDA reflects only those results with RDL equal to the smallest one.
- MDAs are underlined if greater than the printed RDL.
- * Aliquots are underlined if less than the nominal value specified for the method.
 - * Preparation factors are underlined if greater than the nominal value specified for the method.
 - * Dilution factors are underlined if greater than the nominal value specified for the method.
 - * Residues are underlined if outside the range specified for the method. Residues are not printed if yields are.
 - * Yields, which may be gravimetric, radiometric or some type of recovery depending on the method, are underlined if outside the range specified for the method.
 - * Efficiencies are underlined if outside the range specified for the method. Efficiencies are detector and geometry dependent so this test is only approximate.
 - * Count times are underlined if less than the nominal value

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specified for the method.

- * Resolutions (as FWHM; Full Width at Half Max) are underlined if greater than the method specified limit.
- * Tracer drifts are underlined if their absolute values are greater than the method specified limit. Tracer drifts are not printed if percent moistures are.
- * Days Held are underlined if greater than the holding time specified in the protocol.
- * Analysis dates are underlined if before their planchet's preparation date or, if a limit is specified, too far after it.

For some methods, ratios as percentages and error estimates for them are computed for pairs of results. A ratio column header like '1+3' means the ratio of the first result column and the third result column.

Ratios are not computed for Lab Control Sample, Method Blank or Matrix Spike results since their matrices are not necessarily similar to client samples'.

The error estimate for a ratio of results from one planchet reflects only counting errors since other errors should be correlated. For a ratio involving different planchets, if QC limits are computed based on total errors, the error for the ratio allows for the preparation errors for the planchets.

The ratio is underlined (out of spec) if the absolute value of its difference from the nominal value is greater than its error estimate. If no nominal value is specified, this test is not done.

For Gross Alpha or Gross Beta results, there may be a column showing the sum of other Alpha or Beta emitters. This sum includes all relevant results in the DVD database, whether reported or not. Results in the sum are weighted by a particles/decay value specified by the lab for each relevant analyte. Results less than their MDA are not included.

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No sums are computed for Lab Control, Method Blank or Matrix Spike samples since their various planchets may not be physically related.

If a ratio of total isotopic to Gross Alpha or Beta is shown, the error for the ratio reflects both the error in the Gross result and the sum, as square root of sum of squares, of the errors in the isotopic results.

For total elemental uranium or thorium results, there may be a column showing the total weight computed from associated isotopic results. Ignoring results less than their MDAs, this is a weighted sum of the isotopic results. The weights depend on the molecular weight and half-life of each isotope so as to convert activities (decays) to weight (atoms).

If a ratio of total computed to measured elemental uranium or thorium is shown, the error for the ratio reflects the errors in all the measurements.

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SUBCONTRACT ORDER

TestAmerica Irvine


IUB2621

SENDING LABORATORY:

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


RECEIVING LABORATORY:

Eberline Services - SUB
 2030 Wright Avenue
 Richmond, CA 94804
 Phone : (510) 235-2633
 Fax: (510) 235-0438

| Analysis | Due | Expires | Laboratory ID | Comments |
|------------------------------|----------------|--------------------------------|--|---|
| Sample ID: IUB2621-03 | Water | Sampled: 02/25/11 11:22 |  | |
| Uranium, Combined-O | 03/10/11 12:00 | 02/25/12 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Tritium-O | 03/10/11 12:00 | 02/25/12 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Strontium 90-O | 03/10/11 12:00 | 02/25/12 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Radium, Combined-O | 03/10/11 12:00 | 02/25/12 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gross Beta-O | 03/10/11 12:00 | 08/24/11 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gross Alpha-O | 03/10/11 12:00 | 08/24/11 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gamma Spec-O | 03/10/11 12:00 | 02/25/12 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |

Containers Supplied:

2.5 gal Poly (V) 500 mL Amber (W)

| | | | | |
|------------------------------|----------------|--------------------------------|--|---|
| Sample ID: IUB2621-04 | Water | Sampled: 02/28/11 00:00 |  | |
| Uranium, Combined-O | 03/10/11 12:00 | 02/28/12 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Strontium 90-O | 03/10/11 12:00 | 02/28/12 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Radium, Combined-O | 03/10/11 12:00 | 02/28/12 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gross Beta-O | 03/10/11 12:00 | 08/27/11 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gross Alpha-O | 03/10/11 12:00 | 08/27/11 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gamma Spec-O | 03/10/11 12:00 | 02/28/12 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |

Containers Supplied:

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
| | | | |

Subcontract Order - TestAmerica Irvine (IUB2621)

SENDING LABORATORY:

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

RECEIVING LABORATORY:

Eberline Services - SUB
 2030 Wright Avenue
 Richmond, CA 94804
 Phone: (510) 235-2633
 Fax: (510) 235-0438
 Project Location: California
 Receipt Temperature: _____ °C

8670

Ice: Y / N

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

| Analysis | Units | Expires | Comments |
|----------|-------|---------|----------|
|----------|-------|---------|----------|

Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water)

Sampled: 02/25/11 11:22

| | | | |
|---------------------|-------|----------------|---|
| Gamma Spec-O | pCi/L | 02/25/12 11:22 | Outeberline, k-40 and cs-137 only, DO NOT FILTER! |
| Gross Alpha-O | pCi/L | 08/24/11 11:22 | Out eberline, Boeing permit, DO NOT FILTER! |
| Gross Beta-O | pCi/L | 08/24/11 11:22 | Out eberline, Boeing permit, DO NOT FILTER! |
| Radium, Combined-O | pCi/L | 02/25/12 11:22 | Outeberline Boeing permit, DO NOT FILTER! |
| Strontium 90-O | pCi/L | 02/25/12 11:22 | Out eberline, Boeing permit, DO NOT FILTER! |
| Tritium-O | pCi/L | 02/25/12 11:22 | Out eberline, Boeing permit, DO NOT FILTER! |
| Uranium, Combined-O | pCi/L | 02/25/12 11:22 | Out eberline, Boeing permit, DO NOT FILTER! |

Containers Supplied:

2.5 gal Poly (V) 500 mL Amber (W)

Received Also:
 IUB2621 (TRIP Blank #2)
 for Complete Analysis
 3/2/11
 See ATTACHED Comment
 on Sample Receipt Check
 List

Released By _____

Date/Time _____

Received By *Phy*

Date/Time 03/01/11 0940

Released By _____

Date/Time _____

Received By _____

Date/Time _____



RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA

Date/Time received 03/01/11 0940 CoC No. 1UB2621

Container I.D. No. GE CHEST #4 Requested TAT (Days) STD P.O. Received Yes [] No []

INSPECTION

- 1. Custody seals on shipping container intact? Yes No [] N/A []
- 2. Custody seals on shipping container dated & signed? Yes No [] N/A []
- 3. Custody seals on sample containers intact? Yes [] No [] N/A
- 4. Custody seals on sample containers dated & signed? Yes [] No [] N/A

5. Packing material is: Wet [] Dry

6. Number of samples in shipping container: 2 Sample Matrix W

7. Number of containers per sample: 2 (Or see CoC)

8. Samples are in correct container Yes No []

9. Paperwork agrees with samples? Yes [] No

10. Samples have: Tape [] Hazard labels [] Rad labels [] Appropriate sample labels

11. Samples are: In good condition Leaking [] Broken Container [] Missing []

12. Samples are: Preserved Not preserved pH 2.2 / N/A Preservative HNO₃

13. Describe any anomalies:

ADDITIONAL/EXTRA SAMPLE - MARKED BLK # 2: 1- 2.5 GAL POLY
client's COC. has no released signature & 1- 500 ML AMPER
NOT LISTED ON COC.

14. Was P.M. notified of any anomalies? Yes [] No [] Date

15. Inspected by Date: Time:

| Customer Sample No. | Beta/Gamma cpm | Ion Chamber mR/hr | Wipe | Customer Sample No. | Beta/Gamma cpm | Ion Chamber mR/hr | wipe |
|---------------------|----------------|-------------------|------|---------------------|----------------|-------------------|------|
| <u>AW SAMPLES</u> | <u>L60</u> | | | | | | |
| | | | | | | | |
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| | | | | | | | |

Ion Chamber Ser. No.

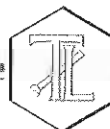
Calibration date

Alpha Meter Ser. No.

Calibration date

Beta/Gamma Meter Ser. No. 100482

Calibration date 24 SEP 10



REPORT

Client: Test America - Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

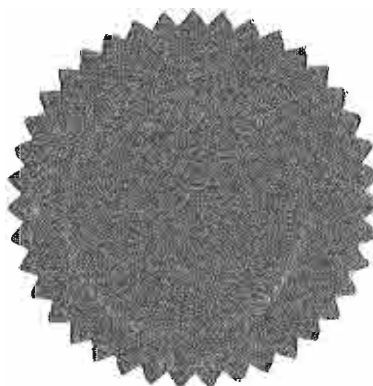
Attention: Debby Wilson
Sample: Water / 1 Sample
Project Name: IUB2621
Project Number: IUB2621
Method Number: EPA 8315 (Modified)
Investigation: Hydrazines

Laboratory No: 993874
Report Date: March 4, 2011
Sampling Date: February 25, 2011
Receiving Date: February 28, 2011
Extraction Date: February 28, 2010
Analysis Date: March 1, 2011
Units: µg/L
Reported By: JS

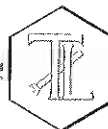
Analytical Results

| Sample ID | Sample Description | Sample Amount (mL) | Dilution Factor | Monomethyl Hydrazine | u-Dimethyl Hydrazine | Hydrazine | Qualifier Codes |
|-------------------------|--------------------|--------------------|-----------------|----------------------|----------------------|-----------|-----------------|
| 709298-MB | Method Blank | 100 | 1 | ND | ND | ND | None |
| 993874 | IUB2621-03 | 100 | 1 | ND | ND | ND | None |
| MDL | | | | 1.77 | 1.13 | 0.439 | |
| PQL | | | | 5.0 | 5.0 | 1.00 | |
| Sample Reporting Limits | | | | 5.0 | 5.0 | 1.00 | |

Note: Results based on detector #1 (UV=365nm) data.



Jeff Lee, Project Manager
Analytical Services, Truesdail Laboratories, Inc.



Client: Test America - Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Client Contact: Debby Wilson
Sample: Water / 1 Sample
Project Number: IUB2621
Method Number: EPA 8315 (Modified)
Investigation: Hydrazines
Run Batch No.: Extraction: 5472; Analysis: 698

QC Lab. No.: 709298
Project Lab. No.: 993874
Spiked Sample ID: 993874
Report Date: March 4, 2011
Sampling Date: February 25, 2011
Receiving Date: February 28, 2011
Extraction Date: February 28, 2010
Analysis Date: March 1, 2011
Reported By: JS

Quality Control/Quality Assurance Calibration Report

ICV

| Parameter | Theoretical Value (ug/L) | Measured Value (ug/L) | Percent Recovery | Control Limits | Flag |
|----------------------|--------------------------|-----------------------|------------------|----------------|------|
| Monomethyl Hydrazine | 25.0 | 25.9 | 103 | 85-115 | PASS |
| u-Dimethyl Hydrazine | 25.0 | 25.6 | 102 | 85-115 | PASS |
| Hydrazine | 5.0 | 4.87 | 97.4 | 85-115 | PASS |

QCS

| Parameter | Theoretical Value (ug/L) | Measured Value (ug/L) | Percent Recovery | Control Limits | Flag |
|----------------------|--------------------------|-----------------------|------------------|----------------|------|
| Monomethyl Hydrazine | 50.0 | 47.1 | 94.2 | 85-115 | PASS |
| u-Dimethyl Hydrazine | 50.0 | 48.8 | 97.5 | 85-115 | PASS |
| Hydrazine | 10.0 | 9.16 | 91.6 | 85-115 | PASS |

Quality Control/Quality Assurance Spikes Report

LCS/LCSD

| Parameter | Spiked Conc. ug/L | Recovered Concentration | | | Percent Recovery (%) | | LCS/LCSD RPD | Flag | Control Limits | |
|----------------------|-------------------|-------------------------|------|-----|----------------------|------|--------------|------|----------------|--------|
| | | LCS | LCSD | MB | LCS | LCSD | | | %D | % Rec. |
| Monomethyl Hydrazine | 50.0 | 52.7 | 47.9 | 0.0 | 105 | 95.8 | 9.59% | PASS | 20 | 50-150 |
| u-Dimethyl Hydrazine | 50.0 | 51.9 | 47.8 | 0.0 | 104 | 95.6 | 8.23% | PASS | 20 | 50-150 |
| Hydrazine | 10.0 | 10.3 | 9.54 | 0.0 | 103 | 95.4 | 7.99% | PASS | 20 | 50-150 |

Note: Results based on detector #1 (UV=365nm) data.

Jeff Lee, Project Manager
Analytical Services, Truesdail Laboratories, Inc.



EBERLINE

SERVICES

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www.eberlineservices.com

March 31, 2011

Ms. Debby Wilson
Test America Irvine
17461 Derian Ave., Ste. 100
Irvine, CA 92614

**Reference: Test America-Irvine IUB2621
Eberline Analytical Report S103018-8670
Sample Delivery Group 8670**

Dear Ms. Wilson:

Enclosed is a Level IV CLP-like data package (on CD) for two water samples received under Test America Job No. IUB2621. The samples were received on March 1, 2011.

Please call me, if you have any questions concerning the enclosed report.

Sincerely,

N. Joseph Verville
Client Services Manager

NJV/ljb

Enclosure: Level IV CLP-like Data Package CD

1.0 General Comments

Sample delivery group 8670 consists of the analytical results and supporting documentation for two water samples. Sample ID's and reference dates/times are given in the Sample Summary section of the Summary Data report. The sample was received as stated on the chain-of-custody document. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist. No holding times were exceeded.

Tritium and gamma analyses were performed on the sample as received i.e. the sample was not filtered. The analytical volumes for all other analyses were subjected to a full nitric acid/hydrofluoric acid dissolution, and analyses were performed on the dissolution volumes.

2.0 Quality Control

Samples IUB2621-03 and IUB2621-04 (Trip Blank) were analyzed in a common prep batch with other outfall samples from this project. The QC samples from that common prep batch were assigned to SDG 8665 and are also reported herein. Quality Control Samples consisted of laboratory control samples (LCS), method blanks, duplicate analyses and matrix spike analyses. Included in the data package are copies of the Eberline Analytical radiometrics data sheets. The radiometrics data sheets for the QC LCS and QC blank samples indicate Eberline Analytical's standard QC aliquot of 1.0 sample; results for those QC types are calculated as pCi/sample. The QC LCS and QC blank sample results reported in the Summary Data Section have been divided by the appropriate method specific aliquot (see the Lab Method Summaries for specific aliquots) in order to make the results comparable to the field sample results. All QC sample results were within required control limits.

3.0 Method Errors

The error for each result is an estimate of the significant random uncertainties incurred in the measurement process. These are propagated to each final result. They include the counting (Poisson) uncertainty, as well as those intrinsic errors due to carrier or tracer standardization, aliquoting, counter efficiencies, weights, or volumes. The following method errors were propagated to the count error to calculate the 2σ error (Total):

| Analysis | Method Error |
|----------------|--------------|
| Gross alpha | 20.6% |
| Gross beta | 11.0% |
| Tritium | 10.0% |
| Sr-90 | 10.4% |
| Ra-226 | 16.4% |
| Ra-228 | 10.4% |
| Uranium, Total | |
| Gamma Spec. | 7.0% |

4.0 Analysis Notes

- 4.1 **Gross Alpha/Gross Beta Analysis** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.2 **Tritium Analysis** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.3 **Strontium-90 Analysis** – No other problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.4 **Radium-226 Analysis** - The initial Ra-226 QC LCS recovery was less than the lower control limit of 80% therefore the LCS was re-emanated and recounted. The LCS recovery after the rework was within control limits and is reported herein. No other problems were encountered during the processing of the samples.
- 4.5 **Radium-228 Analysis** - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.6 **Total Uranium Analysis** - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.7 **Gamma Spectroscopy** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

5.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."



N. Joseph Verville
Client Services Manager

3/31/11

Date

EBERLINE ANALYTICAL
SDG 8670

SDG 8670
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUB2621

S U M M A R Y D A T A S E C T I O N

T A B L E O F C O N T E N T S

| | | |
|---------------------|---------|----|
| About this section | | 1 |
| Sample Summaries | | 3 |
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UB

Prepared by

n. J. Verville

Reviewed by

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-TOC
Version 3.06
Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUB2621

ABOUT THE DATA SUMMARY SECTION

The Data Summary Section of a Data Package has all data, in several useful orders, necessary for first level, routine review of the data package for a Sample Delivery Group (SDG). This section follows the Data Package Narrative, which has an overview of the data package and a discussion of special problems. It is followed by the Raw Data Section, which has full details.

The Data Summary Section has several groups of reports:

SAMPLE SUMMARIES

The Sample and QC Summary Reports show all samples, including QC samples, reported in one SDG. These reports cross-reference client and lab sample identifiers.

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches (lab groupings reflecting how work was organized) relevant to the reported SDG with information necessary to check the completeness and consistency of the SDG.

WORK SUMMARY

The Work Summary Report shows all samples and work done on them relevant to the reported SDG.

METHOD BLANKS

The Method Blank Reports, one for each Method Blank relevant to the SDG, show all results and primary supporting information for the blanks.

LAB CONTROL SAMPLES

The Lab Control Sample Reports, one for each Lab Control Sample relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DUPLICATES

REPORT GUIDES

Page 1

SUMMARY DATA SECTION

Page 1

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670
Contact N. Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract IUB2621

ABOUT THE DATA SUMMARY SECTION

The Duplicate Reports, one for each Duplicate and Original sample pair relevant to the SDG, show all results, differences and primary supporting information for these QC samples.

MATRIX SPIKES

The Matrix Spike Reports, one for each Spiked and Original sample pair relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DATA SHEETS

The Data Sheet Reports, one for each client sample in the SDG, show all results and primary supporting information for these samples.

METHOD SUMMARIES

The Method Summary Reports, one for each test used in the SDG, show all results, QC and method performance data for one analyte on one or two pages. (A test is a short code for the method used to do certain work to the client's specification.)

REPORT GUIDES

The Report Guides, one for each of the above groups of reports, have documentation on how to read the associated reports.

REPORT GUIDES

Page 2

SUMMARY DATA SECTION

Page 2

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB SAMPLE SUMMARY

SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

| LAB | CLIENT SAMPLE ID | LOCATION | MATRIX | LEVEL | SAS NO | CHAIN OF CUSTODY | COLLECTED |
|------------|-------------------------|---------------|--------|-------|--------|------------------|----------------|
| S103013-03 | Lab Control Sample | | WATER | | | | |
| S103013-04 | Method Blank | | WATER | | | | |
| S103013-05 | Duplicate (S103013-01) | Boeing - SSFL | WATER | | | | 02/26/11 20:26 |
| S103018-01 | IUB2621-03 | Boeing - SSFL | WATER | | | IUB2621 | 02/25/11 11:22 |
| S103018-02 | IUB2621-04 (TRIP-BLANK) | Boeing - SSFL | WATER | | | IUB2621 | 02/25/11 11:22 |

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

QC SUMMARY

| QC BATCH | CHAIN OF CUSTODY | CLIENT SAMPLE ID | MATRIX | MOIST | SAMPLE AMOUNT | BASIS AMOUNT | DAYS SINCE RECEIVED | LAB COLL SAMPLE ID | DEPARTMENT SAMPLE ID |
|----------|------------------|-------------------------|--------|-------|---------------|--------------|---------------------|--------------------|----------------------|
| 8665 | | Method Blank | WATER | | | | | S103013-04 | 8665-004 |
| | | Lab Control Sample | WATER | | | | | S103013-03 | 8665-003 |
| | | Duplicate (S103013-01) | WATER | | 10.0 L | | 03/01/11 3 | S103013-05 | 8665-005 |
| 8670 | IUB2621 | IUB2621-03 | WATER | | 10.0 L | | 03/01/11 4 | S103018-01 | 8670-001 |
| | | IUB2621-04 (TRIP-BLANK) | WATER | | 10.0 L | | 03/01/11 4 | S103018-02 | 8670-002 |

QC SUMMARY

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SUMMARY DATA SECTION

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Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-QS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670
 Contact N. Joseph Verville

PREP BATCH SUMMARY

Client Test America, Inc.
 Contract IUB2621

| TEST | MATRIX | METHOD | PREPARATION ERROR | | | PLANCHETS ANALYZED | | | QUALI- |
|-------------------------------|--------|-------------------------|-------------------|------|-------------|--------------------|-------|-------|--------|
| | | | BATCH | 2σ % | CLIENT MORE | RE | BLANK | LCS | |
| Beta Counting | | | | | | | | | |
| AC | WATER | Radium-228 in Water | 7281-046 | 10.4 | 2 | 1 | 1 | 1/0/1 | |
| SR | WATER | Strontium-90 in Water | 7281-046 | 10.4 | 2 | 1 | 1 | 1/0/1 | |
| Gas Proportional Counting | | | | | | | | | |
| 80A | WATER | Gross Alpha in Water | 7281-046 | 20.6 | 2 | 1 | 1 | 1/0/1 | |
| 80B | WATER | Gross Beta in Water | 7281-046 | 11.0 | 2 | 1 | 1 | 1/0/1 | |
| Gamma Spectroscopy | | | | | | | | | |
| GAM | WATER | Gamma Emitters in Water | 7281-046 | 7.0 | 2 | 1 | 1 | 1/0/1 | |
| Kinetic Phosphorimetry, ug | | | | | | | | | |
| U_T | WATER | Uranium, Total | 7281-046 | | 2 | 1 | 1 | 1/0/1 | |
| Liquid Scintillation Counting | | | | | | | | | |
| H | WATER | Tritium in Water | 7281-046 | 10.0 | 1 | 1 | 1 | 1/0/1 | |
| Radon Counting | | | | | | | | | |
| RA | WATER | Radium-226 in Water | 7281-046 | 16.4 | 2 | 1 | 1 | 1/0/1 | |

Blank, LCS, Duplicate and Spike planchets are those in the same preparation batch as some Client sample.
 In counts like 'a/b/c', 'a' = QC planchets, 'b' = Originals in this SDG, 'c' = Originals in other SDGs.

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-PBS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670

Contact N. Joseph Verville

Client Test America, Inc.

Contract IUB2621

LAB WORK SUMMARY

| LAB SAMPLE | CLIENT SAMPLE ID | | | | | | | | | |
|------------|--|--------|----------|--------|------|----------|----------|-----|-------------------------|--|
| COLLECTED | LOCATION | MATRIX | | | SUP- | | | | | |
| RECEIVED | CUSTODY | SAS no | PLANCHET | TEST | FIX | ANALYZED | REVIEWED | BY | METHOD | |
| S103013-03 | Lab Control Sample | WATER | 8665-003 | 80A/80 | | 03/14/11 | 03/15/11 | BW | Gross Alpha in Water | |
| | | | 8665-003 | 80B/80 | | 03/14/11 | 03/15/11 | BW | Gross Beta in Water | |
| | | | 8665-003 | AC | | 03/18/11 | 03/21/11 | BW | Radium-228 in Water | |
| | | | 8665-003 | GAM | | 03/08/11 | 03/15/11 | MWT | Gamma Emitters in Water | |
| | | | 8665-003 | H | | 03/22/11 | 03/25/11 | BW | Tritium in Water | |
| | | | 8665-003 | RA | R1 | 03/25/11 | 03/28/11 | BW | Radium-226 in Water | |
| | | | 8665-003 | SR | | 03/16/11 | 03/22/11 | BW | Strontium-90 in Water | |
| | | | 8665-003 | U_T | | 03/15/11 | 03/16/11 | BW | Uranium, Total | |
| S103013-04 | Method Blank | WATER | 8665-004 | 80A/80 | | 03/14/11 | 03/15/11 | BW | Gross Alpha in Water | |
| | | | 8665-004 | 80B/80 | | 03/14/11 | 03/15/11 | BW | Gross Beta in Water | |
| | | | 8665-004 | AC | | 03/18/11 | 03/21/11 | BW | Radium-228 in Water | |
| | | | 8665-004 | GAM | | 03/08/11 | 03/15/11 | MWT | Gamma Emitters in Water | |
| | | | 8665-004 | H | | 03/22/11 | 03/25/11 | BW | Tritium in Water | |
| | | | 8665-004 | RA | | 03/19/11 | 03/28/11 | BW | Radium-226 in Water | |
| | | | 8665-004 | SR | | 03/16/11 | 03/22/11 | BW | Strontium-90 in Water | |
| | | | 8665-004 | U_T | | 03/15/11 | 03/16/11 | BW | Uranium, Total | |
| S103013-05 | Duplicate (S103013-01) 02/26/11 Boeing - SSFL 03/01/11 | WATER | 8665-005 | 80A/80 | | 03/14/11 | 03/15/11 | BW | Gross Alpha in Water | |
| | | | 8665-005 | 80B/80 | | 03/14/11 | 03/15/11 | BW | Gross Beta in Water | |
| | | | 8665-005 | AC | | 03/18/11 | 03/21/11 | BW | Radium-228 in Water | |
| | | | 8665-005 | GAM | | 03/10/11 | 03/15/11 | MWT | Gamma Emitters in Water | |
| | | | 8665-005 | H | | 03/22/11 | 03/25/11 | BW | Tritium in Water | |
| | | | 8665-005 | RA | | 03/19/11 | 03/28/11 | BW | Radium-226 in Water | |
| | | | 8665-005 | SR | | 03/16/11 | 03/22/11 | BW | Strontium-90 in Water | |
| | | | 8665-005 | U_T | | 03/15/11 | 03/16/11 | BW | Uranium, Total | |
| S103018-01 | IUB2621-03 02/25/11 Boeing - SSFL 03/01/11 IUB2621 | WATER | 8670-001 | 80A/80 | | 03/15/11 | 03/16/11 | BW | Gross Alpha in Water | |
| | | | 8670-001 | 80B/80 | | 03/15/11 | 03/16/11 | BW | Gross Beta in Water | |
| | | | 8670-001 | AC | | 03/18/11 | 03/21/11 | BW | Radium-228 in Water | |
| | | | 8670-001 | GAM | | 03/11/11 | 03/15/11 | MWT | Gamma Emitters in Water | |
| | | | 8670-001 | H | | 03/22/11 | 03/25/11 | BW | Tritium in Water | |
| | | | 8670-001 | RA | | 03/19/11 | 03/28/11 | BW | Radium-226 in Water | |
| | | | 8670-001 | SR | | 03/16/11 | 03/22/11 | BW | Strontium-90 in Water | |
| | | | 8670-001 | U_T | | 03/15/11 | 03/16/11 | BW | Uranium, Total | |

WORK SUMMARY

Page 1

SUMMARY DATA SECTION

Page 6

Lab id EAS

Protocol TA

Version Ver 1.0

Form DVD-LWS

Version 3.06

Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

WORK SUMMARY, cont.

SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

| LAB SAMPLE | CLIENT SAMPLE ID | | | | | | | | | |
|------------|-------------------------|--------|----------|--------|-----|----------|----------|-----|-------------------------|--|
| COLLECTED | LOCATION | MATRIX | | SUF- | | | | | | |
| RECEIVED | CUSTODY | SAS no | PLANCHET | TEST | FIX | ANALYZED | REVIEWED | BY | METHOD | |
| S103018-02 | IUB2621-04 (TRIP-BLANK) | | 8670-002 | 80A/80 | | 03/15/11 | 03/16/11 | BW | Gross Alpha in Water | |
| 02/25/11 | Boeing - SSFL | WATER | 8670-002 | 80B/80 | | 03/15/11 | 03/16/11 | BW | Gross Beta in Water | |
| 03/01/11 | IUB2621 | | 8670-002 | AC | | 03/18/11 | 03/21/11 | BW | Radium-228 in Water | |
| | | | 8670-002 | GAM | | 03/11/11 | 03/15/11 | MWT | Gamma Emitters in Water | |
| | | | 8670-002 | RA | | 03/19/11 | 03/28/11 | BW | Radium-226 in Water | |
| | | | 8670-002 | SR | | 03/16/11 | 03/22/11 | BW | Strontium-90 in Water | |
| | | | 8670-002 | U_T | | 03/15/11 | 03/16/11 | BW | Uranium, Total | |

COUNTS OF TESTS BY SAMPLE TYPE

| TEST | SAS no | METHOD | REFERENCE | CLIENT | MORE | RE | BLANK | LCS | DUP SPIKE | TOTAL |
|---------------|--------|-------------------------|-----------|-----------|------|----|----------|----------|-----------|-----------|
| 80A/80 | | Gross Alpha in Water | 900.0 | 2 | | | 1 | 1 | 1 | 5 |
| 80B/80 | | Gross Beta in Water | 900.0 | 2 | | | 1 | 1 | 1 | 5 |
| AC | | Radium-228 in Water | 904.0 | 2 | | | 1 | 1 | 1 | 5 |
| GAM | | Gamma Emitters in Water | 901.1 | 2 | | | 1 | 1 | 1 | 5 |
| H | | Tritium in Water | 906.0 | 1 | | | 1 | 1 | 1 | 4 |
| RA | | Radium-226 in Water | 903.1 | 2 | | | 1 | 1 | 1 | 5 |
| SR | | Strontium-90 in Water | 905.0 | 2 | | | 1 | 1 | 1 | 5 |
| U_T | | Uranium, Total | D5174 | 2 | | | 1 | 1 | 1 | 5 |
| TOTALS | | | | 15 | | | 8 | 8 | 8 | 39 |

WORK SUMMARY

Page 2

SUMMARY DATA SECTION

Page 7

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LWS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

8665-004

Method Blank

METHOD BLANK

| | |
|-----------------------------------|--------------------------------------|
| SDG <u>8670</u> | Client <u>Test America, Inc.</u> |
| Contact <u>N. Joseph Verville</u> | Contract <u>IUB2621</u> |
| Lab sample id <u>S103013-04</u> | Client sample id <u>Method Blank</u> |
| Dept sample id <u>8665-004</u> | Material/Matrix <u>WATER</u> |

| ANALYTE | CAS NO | RESULT pCi/L | 2σ ERR (COUNT) | MDA pCi/L | RDL pCi/L | QUALI- FIERS | TEST |
|----------------|----------|-----------------|-------------------|--------------|--------------|-----------------|------|
| Gross Alpha | 12587461 | 0.089 | 0.90 | 1.62 | 3.00 | U | 80A |
| Gross Beta | 12587472 | 0.136 | 1.7 | 2.78 | 4.00 | U | 80B |
| Tritium | 10028178 | -28.0 | 98 | 167 | 500 | U | H |
| Radium-226 | 13982633 | 0.156 | 0.38 | 0.661 | 1.00 | U | RA |
| Radium-228 | 15262201 | -0.110 | 0.17 | 0.430 | 1.00 | U | AC |
| Strontium-90 | 10098972 | -0.258 | 0.38 | 1.04 | 2.00 | U | SR |
| Uranium, Total | | 0 | 0.010 | 0.022 | 1.00 | U | U_T |
| Potassium-40 | 13966002 | U | | 23.0 | 25.0 | U | GAM |
| Cesium-137 | 10045973 | U | | 1.53 | 20.0 | U | GAM |

QC-BLANK #77580

EBERLINE ANALYTICAL

SDG 8670

8665-005

IUB2814-03

DUPLICATE

| | | |
|-----------------------------------|----------------------------------|--|
| SDG <u>8670</u> | Client <u>Test America, Inc.</u> | |
| Contact <u>N. Joseph Verville</u> | Contract <u>IUB2621</u> | |
| DUPLICATE | ORIGINAL | |
| Lab sample id <u>S103013-05</u> | Lab sample id <u>S103013-01</u> | Client sample id <u>IUB2814-03</u> |
| Dept sample id <u>8665-005</u> | Dept sample id <u>8665-001</u> | Location/Matrix <u>Boeing - SSFL</u> <u>WATER</u> |
| | Received <u>03/01/11</u> | Collected/Volume <u>02/26/11 20:26</u> <u>10.0 L</u> |
| | | Chain of custody id <u>IUB2814</u> |

| ANALYTE | DUPLICATE pCi/L | 2σ ERR (COUNT) | MDA pCi/L | RDL pCi/L | QUALI- FIERS | TEST | ORIGINAL pCi/L | 2σ ERR (COUNT) | MDA pCi/L | QUALI- FIERS | RPD % | 3σ TOT | DER σ |
|----------------|--------------------|-------------------|--------------|--------------|-----------------|------|-------------------|-------------------|--------------|-----------------|----------|-----------|----------|
| Gross Alpha | 1.44 | 0.58 | 0.572 | 3.00 | J | 80A | 1.04 | 0.53 | 0.645 | J | 32 | 105 | 0.9 |
| Gross Beta | 3.86 | 0.91 | 1.35 | 4.00 | J | 80B | 4.34 | 0.69 | 0.934 | | 12 | 48 | 0.7 |
| Tritium | -42.1 | 99 | 170 | 500 | U | H | -106 | 98 | 172 | U | - | | 0.9 |
| Radium-226 | 0.467 | 0.39 | 0.618 | 1.00 | U | RA | 0.436 | 0.36 | 0.562 | U | - | | 0.1 |
| Radium-228 | 0.062 | 0.16 | 0.406 | 1.00 | U | AC | 0.016 | 0.17 | 0.421 | U | - | | 0.4 |
| Strontium-90 | -0.199 | 0.43 | 1.10 | 2.00 | U | SR | -0.031 | 0.62 | 1.35 | U | - | | 0.4 |
| Uranium, Total | 0.574 | 0.065 | 0.022 | 1.00 | J | U_T | 0.618 | 0.070 | 0.022 | J | 7 | 24 | 0.9 |
| Potassium-40 | U | | 24.8 | 25.0 | U | GAM | U | | 19.0 | U | - | | 0.4 |
| Cesium-137 | U | | 1.52 | 20.0 | U | GAM | U | | 1.67 | U | - | | 0.1 |

QC-DUP#1 77581

DUPLICATES

Page 1

SUMMARY DATA SECTION

Page 10

| |
|-----------------------------|
| Lab id <u>EAS</u> |
| Protocol <u>TA</u> |
| Version <u>Ver 1.0</u> |
| Form <u>DVD-DUP</u> |
| Version <u>3.06</u> |
| Report date <u>03/30/11</u> |

EBERLINE ANALYTICAL
SDG 8670

8670-001

IUB2621-03

DATA SHEET

| | |
|-----------------------------------|--|
| SDG <u>8670</u> | Client <u>Test America, Inc.</u> |
| Contact <u>N. Joseph Verville</u> | Contract <u>IUB2621</u> |
| Lab sample id <u>S103018-01</u> | Client sample id <u>IUB2621-03</u> |
| Dept sample id <u>8670-001</u> | Location/Matrix <u>Boeing - SSFL</u> <u>WATER</u> |
| Received <u>03/01/11</u> | Collected/Volume <u>02/25/11 11:22</u> <u>10.0 L</u> |
| | Chain of custody id <u>IUB2621</u> |

| ANALYTE | CAS NO | RESULT pCi/L | 2σ ERR (COUNT) | MDA pCi/L | RDL pCi/L | QUALI- FIERS | TEST |
|----------------|----------|-----------------|-------------------|--------------|--------------|-----------------|------|
| Gross Alpha | 12587461 | 1.10 | 1.0 | 1.46 | 3.00 | U | 80A |
| Gross Beta | 12587472 | 3.76 | 1.1 | 1.65 | 4.00 | J | 80B |
| Tritium | 10028178 | -56.2 | 100 | 172 | 500 | U | H |
| Radium-226 | 13982633 | 0.503 | 0.47 | 0.749 | 1.00 | U | RA |
| Radium-228 | 15262201 | 0.052 | 0.31 | 0.413 | 1.00 | U | AC |
| Strontium-90 | 10098972 | -0.281 | 0.34 | 0.924 | 2.00 | U | SR |
| Uranium, Total | | 0.159 | 0.025 | 0.022 | 1.00 | J | U_T |
| Potassium-40 | 13966002 | U | | 18.0 | 25.0 | U | GAM |
| Cesium-137 | 10045973 | U | | 1.18 | 20.0 | U | GAM |

| |
|-----------------------------|
| Lab id <u>EAS</u> |
| Protocol <u>TA</u> |
| Version <u>Ver 1.0</u> |
| Form <u>DVD-DS</u> |
| Version <u>3.06</u> |
| Report date <u>03/30/11</u> |

EBERLINE ANALYTICAL

SDG 8670

8670-002

IUB2621-04 (TRIP-BLANK)

DATA SHEET

| | |
|-----------------------------------|--|
| SDG <u>8670</u> | Client <u>Test America, Inc.</u> |
| Contact <u>N. Joseph Verville</u> | Contract <u>IUB2621</u> |
| Lab sample id <u>S103018-02</u> | Client sample id <u>IUB2621-04 (TRIP-BLANK)</u> |
| Dept sample id: <u>8670-002</u> | Location/Matrix <u>Boeing - SSFL</u> <u>WATER</u> |
| Received <u>03/01/11</u> | Collected/Volume <u>02/25/11 11:22</u> <u>10.0 L</u> |
| | Chain of custody id <u>IUB2621</u> |

| ANALYTE | CAS NO | RESULT pCi/L | 2σ ERR (COUNT) | MDA pCi/L | RDL pCi/L | QUALI- FIERS | TEST |
|----------------|----------|-----------------|-------------------|--------------|--------------|-----------------|------|
| Gross Alpha | 12587461 | 0.008 | 0.13 | 0.240 | 3.00 | U | 80A |
| Gross Beta | 12587472 | 0.579 | 0.78 | 1.25 | 4.00 | U | 80B |
| Radium-226 | 13982633 | 0.099 | 0.37 | 0.668 | 1.00 | U | RA |
| Radium-228 | 15262201 | -0.118 | 0.16 | 0.421 | 1.00 | U | AC |
| Strontium-90 | 10098972 | -0.173 | 0.39 | 1.02 | 2.00 | U | SR |
| Uranium, Total | | 0 | 0.010 | 0.022 | 1.00 | U | U_T |
| Potassium-40 | 13966002 | U | | 17.0 | 25.0 | U | GAM |
| Cesium-137 | 10045973 | U | | 1.14 | 20.0 | U | GAM |

| |
|-----------------------------|
| Lab id <u>EAS</u> |
| Protocol <u>TA</u> |
| Version <u>Ver 1.0</u> |
| Form <u>DVD-DS</u> |
| Version <u>3.06</u> |
| Report date <u>03/30/11</u> |

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

RADIUM-228 IN WATER

BETA COUNTING

Test AC Matrix WATER
 SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

RESULTS

| | | | | |
|------------|------------|-------------|------------------|------------|
| LAB | RAW | SUF- | | |
| SAMPLE ID | TEST FIX | PLANCHET | CLIENT SAMPLE ID | Radium-228 |

Preparation batch 7281-046

| | | | |
|------------|----------|-------------------------|-----|
| S103013-03 | 8665-003 | Lab Control Sample | ok |
| S103013-04 | 8665-004 | Method Blank | U |
| S103013-05 | 8665-005 | Duplicate (S103013-01) | - U |
| S103018-01 | 8670-001 | IUB2621-03 | U |
| S103018-02 | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |

Nominal values and limits from method RDLs (pCi/L) 1.00

METHOD PERFORMANCE

| | | | | | | | | | | | | | | | | |
|------------|------------|------------------|--|------------|-------------|-------------|--------------|--------------|------------|--------------|-------------|--------------|-------------|----------|--------------|----------|
| LAB | RAW | SUF- | | MDA | ALIQ | PREP | DILU- | YIELD | EPF | COUNT | FWHM | DRIFT | DAYS | | ANAL- | |
| SAMPLE ID | TEST FIX | CLIENT SAMPLE ID | | pCi/L | L | FAC | TION | % | % | min | keV | KeV | HELD | PREPARED | YZED | DETECTOR |

Preparation batch 7281-046 2σ prep error 10.4 % Reference Lab Notebook No. 7281 pg 046

| | | | | | | | | | | | | | | | |
|------------|-------------------------|-------|------|----|-----|--|--|--|--|----|--|--|----------|-------|---------|
| S103013-03 | Lab Control Sample | 0.429 | 1.80 | 81 | 150 | | | | | | | | 03/18/11 | 03/18 | GRB-220 |
| S103013-04 | Method Blank | 0.430 | 1.80 | 78 | 150 | | | | | | | | 03/18/11 | 03/18 | GRB-221 |
| S103013-05 | Duplicate (S103013-01) | 0.406 | 1.80 | 78 | 150 | | | | | 20 | | | 03/18/11 | 03/18 | GRB-222 |
| S103018-01 | IUB2621-03 | 0.413 | 1.80 | 80 | 150 | | | | | 21 | | | 03/18/11 | 03/18 | GRB-203 |
| S103018-02 | IUB2621-04 (TRIP-BLANK) | 0.421 | 1.80 | 81 | 150 | | | | | 21 | | | 03/18/11 | 03/18 | GRB-204 |

Nominal values and limits from method 1.00 1.80 30-105 50 180

PROCEDURES REFERENCE 904.0
 DWP-894 Sequential Separation of Actinium-228 and
 Radium-226 in Drinking Water (>1 Liter Aliquot),
 rev 5

AVERAGES ± 2 SD MDA 0.420 ± 0.021
 FOR 5 SAMPLES YIELD 80 ± 3

METHOD SUMMARIES

Page 1

SUMMARY DATA SECTION

Page 13

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

STRONTIUM-90 IN WATER

BETA COUNTING

Test SR Matrix WATER
 SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

RESULTS

| | | | | |
|------------------|-----------------|-----------------|-------------------------|---------------------|
| LAB | RAW | SUF- | | |
| SAMPLE ID | TEST FIX | PLANCHET | CLIENT SAMPLE ID | Strontium-90 |

Preparation batch 7281-046

| | | | |
|------------|----------|-------------------------|-----|
| S103013-03 | 8665-003 | Lab Control Sample | ok |
| S103013-04 | 8665-004 | Method Blank | U |
| S103013-05 | 8665-005 | Duplicate (S103013-01) | - U |
| S103018-01 | 8670-001 | IUB2621-03 | U |
| S103018-02 | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |

Nominal values and limits from method RDLs (pCi/L) 2.00

METHOD PERFORMANCE

| | | | | | | | | | | | | | | | |
|------------------|-----------------|-------------------------|--------------|-------------|-------------|--------------|--------------|------------|--------------|-------------|--------------|-------------|-----------------|-------------|-----------------|
| LAB | RAW | SUF- | MDA | ALIQ | PREP | DILU- | YIELD | EFF | COUNT | FWHM | DRIFT | DAYS | ANAL- | | |
| SAMPLE ID | TEST FIX | CLIENT SAMPLE ID | pCi/L | L | FAC | TION | % | % | min | keV | KeV | HELD | PREPARED | YZED | DETECTOR |

Preparation batch 7281-046 2σ prep error 10.4 % Reference Lab Notebook No. 7281 pg 046

| | | | | | | | | | | | | | | |
|------------|-------------------------|-------|-------|--|--|--|----|----|----|----------|-------|----------|-------|---------|
| S103013-03 | Lab Control Sample | 0.961 | 0.500 | | | | 76 | 50 | | | | 03/15/11 | 03/16 | GRB-229 |
| S103013-04 | Method Blank | 1.04 | 0.500 | | | | 82 | 50 | | | | 03/15/11 | 03/16 | GRB-230 |
| S103013-05 | Duplicate (S103013-01) | 1.10 | 0.500 | | | | 84 | 50 | 18 | 03/15/11 | 03/16 | 03/16 | 03/16 | GRB-231 |
| S103018-01 | IUB2621-03 | 0.924 | 0.500 | | | | 83 | 50 | 19 | 03/16/11 | 03/16 | 03/16 | 03/16 | GRB-231 |
| S103018-02 | IUB2621-04 (TRIP-BLANK) | 1.02 | 0.500 | | | | 70 | 50 | 19 | 03/16/11 | 03/16 | 03/16 | 03/16 | GRB-232 |

Nominal values and limits from method 2.00 0.500 30-105 50 180

PROCEDURES REFERENCE 905.0
 DWP-380 Strontium in Drinking Water, rev 8

AVERAGES ± 2 SD MDA 1.01 ± 0.137
 FOR 5 SAMPLES YIELD 79 ± 12

METHOD SUMMARIES

Page 2

SUMMARY DATA SECTION

Page 14

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

GROSS ALPHA IN WATER

GAS PROPORTIONAL COUNTING

Test 80A Matrix WATER
 SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

RESULTS

| LAB | RAW | SUF- | | |
|-----------|------|------|----------|------------------|
| SAMPLE ID | TEST | FIX | PLANCHET | CLIENT SAMPLE ID |

Preparation batch 7281-046

| SAMPLE ID | TEST | FIX | PLANCHET | CLIENT SAMPLE ID | Gross Alpha |
|------------|------|-----|----------|-------------------------|-------------|
| S103013-03 | 80 | | 8665-003 | Lab Control Sample | ok |
| S103013-04 | 80 | | 8665-004 | Method Blank | U |
| S103013-05 | 80 | | 8665-005 | Duplicate (S103013-01) | ok J |
| S103018-01 | 80 | | 8670-001 | IUB2621-03 | U |
| S103018-02 | 80 | | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |

Nominal values and limits from method RDLs (pCi/L) 3.00

METHOD PERFORMANCE

| LAB | RAW | SUF- | MDA | ALIQ | PREP | DILU- | RBSID | EFF | COUNT | FWHM | DRIFT | DAYS | ANAL- |
|-----------|------|------|------------------|-------|------|-------|-------|-----|-------|------|-------|------|-------|
| SAMPLE ID | TEST | FIX | CLIENT SAMPLE ID | pCi/L | L | FAC | TION | mg | % | min | keV | KeV | HELD |

Preparation batch 7281-046 2σ prep error 20.6 % Reference Lab Notebook No. 7281 pg 046

| SAMPLE ID | TEST | FIX | CLIENT SAMPLE ID | MDA | ALIQ | PREP | DILU- | RBSID | EFF | COUNT | FWHM | DRIFT | DAYS | ANAL- |
|------------|------|-----|-------------------------|-------|-------|------|-------|-------|-----|-------|------|-------|----------|-------|
| S103013-03 | 80 | | Lab Control Sample | 1.56 | 0.100 | | | 59 | 400 | | | | 03/11/11 | 03/14 |
| S103013-04 | 80 | | Method Blank | 1.62 | 0.100 | | | 58 | 400 | | | | 03/11/11 | 03/14 |
| S103013-05 | 80 | | Duplicate (S103013-01) | 0.572 | 0.300 | | | 91 | 400 | | | 16 | 03/11/11 | 03/14 |
| S103018-01 | 80 | | IUB2621-03 | 1.46 | 0.175 | | | 105 | 400 | | | 18 | 03/11/11 | 03/15 |
| S103018-02 | 80 | | IUB2621-04 (TRIP-BLANK) | 0.240 | 0.300 | | | 0 | 400 | | | 18 | 03/11/11 | 03/15 |

Nominal values and limits from method 3.00 0.100 0-200 100 180

PROCEDURES REFERENCE 900.0
 DWP-121 Gross Alpha and Gross Beta in Drinking Water,
 rev 10

AVERAGES ± 2 SD MDA 1.09 ± 1.28
 FOR 5 SAMPLES RESIDUE 63 ± 81

METHOD SUMMARIES

Page 3

SUMMARY DATA SECTION

Page 15

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

GROSS BETA IN WATER
GAS PROPORTIONAL COUNTING

Test 80B Matrix WATER
SDG 8670
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUB2621

RESULTS

| LAB | RAW | SUF- | | | |
|---------------------------------------|------|------|--------------|-------------------------|------------|
| SAMPLE ID | TEST | FIX | PLANCHET | CLIENT SAMPLE ID | Gross Beta |
| Preparation batch 7281-046 | | | | | |
| S103013-03 | 80 | | 8665-003 | Lab Control Sample | ok |
| S103013-04 | 80 | | 8665-004 | Method Blank | U |
| S103013-05 | 80 | | 8665-005 | Duplicate (S103013-01) | ok J |
| S103018-01 | 80 | | 8670-001 | IUB2621-03 | 3.76 J |
| S103018-02 | 80 | | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |
| Nominal values and limits from method | | | RDLs (pCi/L) | 4.00 | |

METHOD PERFORMANCE

| LAB | RAW | SUF- | MDA | ALIQ | PREP | DILU- | RESID | EFF | COUNT | FWHM | DRIFT | DAYS | ANAL- | | | |
|--|------|------|-------------------------|-------|-------|-------|-------|-----|-------|------|-------|------|----------|----------|---------|----------|
| SAMPLE ID | TEST | FIX | CLIENT SAMPLE ID | pCi/L | L | FAC | TION | mg | % | min | keV | KeV | HELD | PREPARED | YZED | DETECTOR |
| Preparation batch 7281-046 2σ prep error 11.0 % Reference Lab Notebook No. 7281 pg 046 | | | | | | | | | | | | | | | | |
| S103013-03 | 80 | | Lab Control Sample | 2.39 | 0.100 | | | 59 | 400 | | | | 03/11/11 | 03/14 | GRB-104 | |
| S103013-04 | 80 | | Method Blank | 2.78 | 0.100 | | | 58 | 400 | | | | 03/11/11 | 03/14 | GRB-105 | |
| S103013-05 | 80 | | Duplicate (S103013-01) | 1.35 | 0.300 | | | 91 | 400 | | | 16 | 03/11/11 | 03/14 | GRB-107 | |
| S103018-01 | 80 | | IUB2621-03 | 1.65 | 0.175 | | | 105 | 400 | | | 18 | 03/11/11 | 03/15 | GRB-105 | |
| S103018-02 | 80 | | IUB2621-04 (TRIP-BLANK) | 1.25 | 0.300 | | | 0 | 400 | | | 18 | 03/11/11 | 03/15 | GRB-107 | |
| Nominal values and limits from method | | | 4.00 | 0.100 | | | 0-200 | 100 | | | 180 | | | | | |

PROCEDURES REFERENCE 900.0
DWP-121 Gross Alpha and Gross Beta in Drinking Water,
rev 10

AVERAGES ± 2 SD MDA 1.88 ± 1.34
FOR 5 SAMPLES RESIDUE 63 ± 81

METHOD SUMMARIES

Page 4

SUMMARY DATA SECTION

Page 16

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

GAMMA EMITTERS IN WATER
GAMMA SPECTROSCOPY

Test GAM Matrix WATER
SDG 8670
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUB2621

RESULTS

| LAB | RAW | SUF- | | | |
|----------------------------|----------|----------|-------------------------|-----------|------------|
| SAMPLE ID | TEST FIX | PLANCHET | CLIENT SAMPLE ID | Cobalt-60 | Cesium-137 |
| Preparation batch 7281-046 | | | | | |
| S103013-03 | | 8665-003 | Lab Control Sample | ok | ok |
| S103013-04 | | 8665-004 | Method Blank | | U |
| S103013-05 | | 8665-005 | Duplicate (S103013-01) | | - U |
| S103018-01 | | 8670-001 | IUB2621-03 | | U |
| S103018-02 | | 8670-002 | IUB2621-04 (TRIP-BLANK) | | U |

Nominal values and limits from method RDLs (pCi/L) 10.0 20.0

METHOD PERFORMANCE

| LAB | RAW | SUF- | MDA | ALIQ | PREP | DILU- | YIELD | EPF | COUNT | FWHM | DRIFT | DAYS | ANAL- | | |
|---|----------|-------------------------|-------|------|------|-------|-------|-----|-------|------|-------|------|----------|-------|----------|
| SAMPLE ID | TEST FIX | CLIENT SAMPLE ID | pCi/L | L | FAC | TION | % | % | min | keV | KeV | HELD | PREPARED | YZED | DETECTOR |
| Preparation batch 7281-046 2σ prep error 7.0 % Reference Lab Notebook No. 7281 pg 046 | | | | | | | | | | | | | | | |
| S103013-03 | | Lab Control Sample | 2.00 | | | | | | 508 | | | | 03/03/11 | 03/08 | 01,02,00 |
| S103013-04 | | Method Blank | 2.00 | | | | | | 508 | | | | 03/03/11 | 03/08 | 01,04,00 |
| S103013-05 | | Duplicate (S103013-01) | 2.00 | | | | | | 402 | | | 12 | 03/03/11 | 03/10 | 01,03,00 |
| S103018-01 | | IUB2621-03 | 2.00 | | | | | | 807 | | | 14 | 03/03/11 | 03/11 | 01,04,00 |
| S103018-02 | | IUB2621-04 (TRIP-BLANK) | 2.00 | | | | | | 807 | | | 14 | 03/03/11 | 03/11 | 01,03,00 |

Nominal values and limits from method 6.00 2.00 400 180

PROCEDURES REFERENCE 901.1
DWP-100 Preparation of Drinking Water Samples for Gamma Spectroscopy, rev 5

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

Test U T Matrix WATER
 SDG 8670
 Contact N. Joseph Verville

LAB METHOD SUMMARY

URANIUM, TOTAL
 KINETIC PHOSPHORIMETRY, UG

Client Test America, Inc.
 Contract IUB2621

RESULTS

| LAB | RAW | SUF- | | Uranium, |
|----------------------------|----------|----------|-------------------------|----------|
| SAMPLE ID | TEST FIX | PLANCHET | CLIENT SAMPLE ID | Total |
| Preparation batch 7281-046 | | | | |
| S103013-03 | | 8665-003 | Lab Control Sample | ok |
| S103013-04 | | 8665-004 | Method Blank | U |
| S103013-05 | | 8665-005 | Duplicate (S103013-01) | ok J |
| S103018-01 | | 8670-001 | IUB2621-03 | 0.159 J |
| S103018-02 | | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |

Nominal values and limits from method RDLs (pCi/L) 1.00

METHOD PERFORMANCE

| LAB | RAW | SUF- | MDA | ALIQ | PREP | DILU- | YIELD | EFF | COUNT | FWHM | DRIFT | DAYS | ANAL- |
|----------------------------|----------|-------------------------|--|--------|------|-------|-------|-----|-------|------|-------|---------------|---------------|
| SAMPLE ID | TEST FIX | CLIENT SAMPLE ID | pCi/L | L | PAC | TION | % | % | min | keV | KeV | HELD PREPARED | YZED DETECTOR |
| Preparation batch 7281-046 | | 2σ prep error | Reference Lab Notebook No. 7281 pg 046 | | | | | | | | | | |
| S103013-03 | | Lab Control Sample | 0.223 | 0.0200 | | | | | | | | 03/15/11 | 03/15 KPA-001 |
| S103013-04 | | Method Blank | 0.022 | 0.0200 | | | | | | | | 03/15/11 | 03/15 KPA-001 |
| S103013-05 | | Duplicate (S103013-01) | 0.022 | 0.0200 | | | | | | | | 17 03/15/11 | 03/15 KPA-001 |
| S103018-01 | | IUB2621-03 | 0.022 | 0.0200 | | | | | | | | 18 03/15/11 | 03/15 KPA-001 |
| S103018-02 | | IUB2621-04 (TRIP-BLANK) | 0.022 | 0.0200 | | | | | | | | 18 03/15/11 | 03/15 KPA-001 |

Nominal values and limits from method 1.00 0.0200 180

PROCEDURES REFERENCE D5174

AVERAGES ± 2 SD MDA 0.062 ± 0.180
 FOR 5 SAMPLES YIELD _____ ± _____

METHOD SUMMARIES

Page 6

SUMMARY DATA SECTION

Page 18

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

TRITIUM IN WATER

LIQUID SCINTILLATION COUNTING

Test H Matrix WATER
 SDG 8670
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUB2621

RESULTS

LAB RAW SUP-
 SAMPLE ID TEST FIX PLANCHET CLIENT SAMPLE ID Tritium

Preparation batch 7281-046

| | | | | |
|------------|--|----------|------------------------|-----|
| S103013-03 | | 8665-003 | Lab Control Sample | ok |
| S103013-04 | | 8665-004 | Method Blank | U |
| S103013-05 | | 8665-005 | Duplicate (S103013-01) | - U |
| S103018-01 | | 8670-001 | IUB2621-03 | U |

Nominal values and limits from method RDLs (pCi/L) 500

METHOD PERFORMANCE

LAB RAW SUP- MDA ALIQ PREP DILU- YIELD EFF COUNT FWHM DRIFT DAYS ANAL-
 SAMPLE ID TEST FIX CLIENT SAMPLE ID pCi/L L FAC TION % % min keV KeV HELD PREPARED YZED DETECTOR

Preparation batch 7281-046 20 prep error 10.0 % Reference Lab Notebook No. 7281 pg 046

| | | | | | | | | | | | | | | |
|------------|--|------------------------|-----|--------|--|--|-----|-----|--|--|----|----------|-------|---------|
| S103013-03 | | Lab Control Sample | 168 | 0.100 | | | 10 | 150 | | | | 03/19/11 | 03/22 | LSC-004 |
| S103013-04 | | Method Blank | 167 | 0.100 | | | 10 | 150 | | | | 03/19/11 | 03/22 | LSC-004 |
| S103013-05 | | Duplicate (S103013-01) | 170 | 0.0100 | | | 100 | 150 | | | 24 | 03/19/11 | 03/22 | LSC-004 |
| S103018-01 | | IUB2621-03 | 172 | 0.0100 | | | 100 | 150 | | | 25 | 03/19/11 | 03/22 | LSC-004 |

Nominal values and limits from method 500 0.0100 100 180

PROCEDURES REFERENCE 906.0
 DWP-212 Tritium in Drinking Water by Distillation, rev 8

AVERAGES ± 2 SD MDA 169 ± 4.43
 FOR 4 SAMPLES YIELD 55 ± 104

METHOD SUMMARIES

Page 7

SUMMARY DATA SECTION

Page 19

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

LAB METHOD SUMMARY

RADIUM-226 IN WATER
RADON COUNTING

Test RA Matrix WATER
SDG 8670
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUB2621

RESULTS

LAB RAW SUP-
SAMPLE ID TEST FIX PLANCHET CLIENT SAMPLE ID Radium-226

Preparation batch 7281-046

| | | | | |
|------------|----|----------|-------------------------|-----|
| S103013-03 | R1 | 8665-003 | Lab Control Sample | ok |
| S103013-04 | | 8665-004 | Method Blank | U |
| S103013-05 | | 8665-005 | Duplicate (S103013-01) | - U |
| S103018-01 | | 8670-001 | IUB2621-03 | U |
| S103018-02 | | 8670-002 | IUB2621-04 (TRIP-BLANK) | U |

Nominal values and limits from method RDLs (pCi/L) 1.00

METHOD PERFORMANCE

LAB RAW SUP- MDA ALIQ PREP DILU- YIELD EFF COUNT FWHM DRIFT DAYS ANAL-
SAMPLE ID TEST FIX CLIENT SAMPLE ID pCi/L L FAC TION % % min keV KeV HELD PREPARED YZED DETECTOR

Preparation batch 7281-046 2σ prep error 16.4 % Reference Lab Notebook No. 7281 pg 046

| | | | | | | | | | | | | | | | | |
|------------|----|-------------------------|-------|-------|--|--|--|-----|-----|--|--|----|----------|----------|--------|--------|
| S103013-03 | R1 | Lab Control Sample | 0.867 | 0.100 | | | | 100 | 140 | | | | 03/25/11 | 03/25 | RN-009 | |
| S103013-04 | | Method Blank | 0.661 | 0.100 | | | | 100 | 103 | | | | 03/19/11 | 03/19 | RN-010 | |
| S103013-05 | | Duplicate (S103013-01) | 0.618 | 0.100 | | | | 100 | 103 | | | 21 | 03/19/11 | 03/19 | RN-016 | |
| S103018-01 | | IUB2621-03 | 0.749 | 0.100 | | | | 100 | 100 | | | | 22 | 03/19/11 | 03/19 | RN-015 |
| S103018-02 | | IUB2621-04 (TRIP-BLANK) | 0.668 | 0.100 | | | | 100 | 100 | | | | 22 | 03/19/11 | 03/19 | RN-016 |

Nominal values and limits from method 1.00 0.100 100 180

PROCEDURES REFERENCE 903.1
DWP-881A Ra-226 Screening in Drinking Water, rev 6

AVERAGES ± 2 SD MDA 0.713 ± 0.197
FOR 5 SAMPLES YIELD 100 ± 0

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 03/30/11

EBERLINE ANALYTICAL

SDG 8670

SDG 8670
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUB2621

SAMPLE SUMMARY

The Sample and QC Summary Reports show all samples, including QC samples, reported in one Sample Delivery Group (SDG).

The Sample Summary Report fully identifies client samples and gives the corresponding lab sample identification. The QC Summary Report shows at the sample level how the lab organized the samples into batches and generated QC samples. The Preparation Batch and Method Summary Reports show this at the analysis level.

The following notes apply to these reports:

- * LAB SAMPLE ID is the lab's primary identification for a sample.
- * DEPARTMENT SAMPLE ID is an alternate lab id, for example one assigned by a radiochemistry department in a lab.
- * CLIENT SAMPLE ID is the client's primary identification for a sample. It includes any sample preparation done by the client that is necessary to identify the sample.
- * QC BATCH is a lab assigned code that groups samples to be processed and QCed together. These samples should have similar matrices.

QC BATCH is not necessarily the same as SDG, which reflects samples received and reported together.

- * All Lab Control Samples, Method Blanks, Duplicates and Matrix Spikes are shown that QC any of the samples. Due to possible reanalyses, not all results for all these QC samples may be relevant to the SDG. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

REPORT GUIDES

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Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 03/30/11

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PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches in one Sample Delivery Group (SDG) with information necessary to check the completeness and consistency of the SDG.

The following notes apply to this report:

- * The preparation batches are shown in the same order as the Method Summary Reports are printed.
- * Only analyses of planchets relevant to the SDG are included.
- * Each preparation batch should have at least one Method Blank and LCS in it to validate client sample results.
- * The QUALIFIERS shown are all qualifiers other than U, J, B, L and H that occur on any analysis in the preparation batch. The Method Summary Report has these qualifiers on a per sample basis.

These qualifiers should be reviewed as follows:

- X Some data has been manually entered or modified. Transcription errors are possible.
- P One or more results are 'preliminary'. The data is not ready for final reporting.
- 2 There were two or more results for one analyte on one planchet imported at one time. The results in DVD may not be the same as on the raw data sheets.

Other lab defined qualifiers may occur. In general, these should be addressed in the SDG narrative.

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REPORT GUIDE

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WORK SUMMARY

The Work Summary Report shows all samples, including QC samples, and all relevant analyses in one Sample Delivery Group (SDG). This report is often useful as supporting documentation for an invoice.

The following notes apply to this report:

- * TEST is a code for the method used to measure associated analytes. Results and related information for each analyte are on the Data Sheet Report. In special cases, a test code used in the summary data section is not the same as in associated raw data. In this case, both codes are shown on the Work Summary.
- * SUFFIX is the lab's code to distinguish multiple analyses (recounts, reworks, reanalyses) of a fraction of the sample. The suffix indicates which result is being reported. An empty suffix normally identifies the first attempt to analyze the sample.
- * The LAB SAMPLE ID, TEST and SUFFIX uniquely identify all supporting data for a result. The Method Summary Report for each TEST has method performance data, such as yield, for each lab sample id and suffix and procedures used in the method.
- * PLANCHET is an alternate lab identifier for work done for one test. It, combined with the TEST and SUFFIX, may be the best link to raw data.
- * For QC samples, only analyses that directly QC some regular sample are shown. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.
- * The SAS (Special Analytical Services) Number is a client or lab assigned code that reflects special processing for samples, such as rapid turn around. Counts of tests done are lists by SAS number since it is likely to affect prices.

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SUMMARY DATA SECTION

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Lab id EAS
Protocol TA
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Form DVD-RG
Version 3.06
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DATA SHEET

The Data Sheet Report shows all results and primary supporting information for one client sample or Method Blank. This report corresponds to both the CLP Inorganics and Organics Data Sheet.

The following notes apply to this report:

- * TEST is a code for the method used to measure an analyte. If the TEST is empty, no data is available; the analyte was not analyzed for.
- * The LAB SAMPLE ID and TEST uniquely identify work within the Summary Data Section of a Data Package. The Work Summary and Method Summary Reports further identify raw data that underlies this work.

The Method Summary Report for each TEST has method performance data, such as yield, for each Lab Sample ID and a list of procedures used in the method.

- * ERRORS can be labeled TOTAL or COUNT. TOTAL implies a preparation (non-counting method) error has been added, as square root of sum of squares, to the counting error denoted by COUNT. The preparation errors, which may vary by preparation batch, are shown on the Method Summary Report.
- * A RESULT can be 'N.R.' (Not Reported). This means the lab did this work but chooses not to report it now, possibly because it was reported at another time.
- * When reporting a Method Blank, a RESULT can be 'N.A.' (Not Applicable). This means there is no reported client sample work in the same preparation batch as the Blank's result. This is likely to occur when the Method Blank is associated with reanalyses of selected work for a few samples in the SDG.

The following qualifiers are defined by the DVD system:

- U The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.

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Protocol TA
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DATA SHEET

- J The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.
- B A Method Blank associated with this sample had a result without a U flag and, after correcting for possibly different aliquots, that result is greater than or equal to the MDA for this sample.

 Normally, B is not assigned if U is. When method blank subtraction is shown on this report, B flags are assigned based on the unsubtracted values while U's are assigned based on the subtracted ones. Both flags can be assigned in this case.

 For each sample result, all Method Blank results in the same preparation batch are compared. The Method Summary Report documents this and other QC relationships.
- L Some Lab Control Sample that QC's this sample had a low recovery. The lab can disable assignment of this qualifier.
- H Similar to 'L' except the recovery was high.
- P The RESULT is 'preliminary'.
- X Some data necessary to compute the RESULT, ERROR or MDA was manually entered or modified.
- 2 There were two or more results available for this analyte. The reported result may not be the same as in the raw data.

Other qualifiers are lab defined. Definitions should be in the SDG narrative.

The following values are underlined to indicate possible problems:

- * An MDA is underlined if it is bigger than its RDL.
- * An ERROR is underlined if the 1.645 sigma counting error is bigger than both the MDA and the RESULT, implying that the MDA

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SUMMARY DATA SECTION

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 Protocol TA
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DATA SHEET

may not be a good estimate of the 'real' minimum detectable activity.

- * A negative RESULT is underlined if it is less than the negative of its 2 sigma counting ERROR.
- * When reporting a Method Blank, a RESULT is underlined if greater than its MDA. If the MDA is blank, the 2 sigma counting error is used in the comparison.

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LAB CONTROL SAMPLE

The Lab Control Sample Report shows all results, recoveries and primary supporting information for one Lab Control Sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. Refer to its Report Guide for details.
- * An amount ADDED is the lab's value for the actual amount spiked into this sample with its ERROR an estimate of the error of this amount.

An amount added is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

- * REC (Recovery) is RESULT divided by ADDED expressed as a percent.
- * The first, computed limits for the recovery reflect:
 1. The error of RESULT, including that introduced by rounding the result prior to printing.

If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.
 2. The error of ADDED.
 3. A lab specified, per analyte bias. The bias changes the center of the computed limits.
- * The second limits are protocol defined upper and lower QC limits for the recovery.
- * The recovery is underlined if it is outside either of these ranges.

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Lab id EAS
 Protocol TA
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 Version 3.06
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DUPLICATE

The Duplicate Report shows all results, differences and primary supporting information for one Duplicate and associated Original sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. This applies both to the Duplicate and Original sample data. Refer to the Data Sheet Report Guide for details.

If the Duplicate has data for a TEST and the lab did not do this test to the Original, the Original's RESULTS are underlined.

- * The RPD (Relative Percent Difference) is the absolute value of the difference of the RESULTS divided by their average expressed as a percent.

If both RESULTS are less than their MDAs, no RPD is computed and a '-' is printed.

For an analyte, if the lab did work for both samples but has data for only one, the MDA from the sample with data is used as the other's result in the RPD.

- * The first, computed limit is the sum, as square root of sum of squares, of the errors of the results divided by the average result as a percent, hence the relative error of the difference rather than the error of the relative difference. The errors include those introduced by rounding the RESULTS prior to printing.

If this limit is labeled TOT, it includes the preparation error in the RESULTS. If labeled CNT, it does not.

This value reported for this limit is at most 999.

- * The second limit for the RPD is the larger of:
 1. A fixed percentage specified in the protocol.

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DUPLICATE

2. A protocol factor (typically 2) times the average MDA as a percent of the average result. This limit applies when the results are close to the MDAs.

- * The RPD is underlined if it is greater than either limit.
- * If specified by the lab, the second limit column is replaced by the Difference Error Ratio (DER), which is the absolute value of the difference of the results divided by the quadratic sum of their one sigma errors, the same errors as used in the first limit.

Except for differences due to rounding, the DER is the same as the RPD divided by the first RPD limit with the limit scaled to 1 sigma.

- * The DER is underlined if it is greater than the sigma factor, typically 2 or 3, shown in the header for the first RPD limit.

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MATRIX SPIKE

The Matrix Spike Report shows all results, recoveries and primary supporting information for one Matrix Spike and associated Original sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. This applies both to the Spiked and Original sample data. Refer to the Data Sheet Report Guide for details.

If the Spike has data for a TEST and the lab did not do this test to the Original, the Original's RESULTS are underlined.

- * An amount ADDED is the lab's value for the actual amount spiked into the Spike sample with its ERROR an estimate of the error of this amount.

An amount is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

- * REC (Recovery) is the Spike RESULT minus the Original RESULT divided by ADDED expressed as a percent.
- * The first, computed limits for the recovery reflect:
 1. The errors of the two RESULTS, including those introduced by rounding them prior to printing.

If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.
 2. The error of ADDED.
 3. A lab specified, per analyte bias. The bias changes the center of the computed limits.
- * The second limits are protocol defined upper and lower QC limits for the recovery.

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MATRIX SPIKE

These limits are left blank if the Original RESULT is more than a protocol defined factor (typically 4) times ADDED. This is a way of accounting for that when the spike is small compared to the amount in the original sample, the recovery is unreliable.

- * The recovery is underlined (out of spec) if it is outside either of these ranges.

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METHOD SUMMARY

The Method Summary Report has two tables. One shows up to five results measured using one method. The other has performance data for the method. There is one report for each TEST, as used on the Data Sheet Report.

The following notes apply to this report:

- * Each table is subdivided into sections, one for each preparation batch. A preparation batch is a group of aliquots prepared at roughly the same time in one work area of the lab using the same method.

There should be Lab Control Sample and Method Blank results in each preparation batch since this close correspondence makes the QC meaningful. Depending on lab policy, Duplicates need not occur in each batch since they QC sample dependencies such as matrix effects.

- * The RAW TEST column shows the test code used in the raw data to identify a particular analysis if it is different than the test code in the header of the report. This occurs in special cases due to method specific details about how the lab labels work.

The Lab Sample or Planchet ID combined with the (Raw) Test Code and Suffix uniquely identify the raw data for each analysis.

- * If a result is less than both its MDA and RDL, it is replaced by just 'U' on this report. If it is greater than or equal to the RDL but less than the MDA, the result is shown with a 'U' flag.

The J and X flags are as on the data sheet.

- * Non-U results for Method Blanks are underlined to indicate possible contamination of other samples in the preparation batch. The Method Blank Report has supporting data.
- * Lab Control Sample and Matrix Spike results are shown as: ok, No data, LOW or HIGH, with the last two underlined. 'No data' means no amount ADDED was specified. 'LOW' and 'HIGH'

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correspond to when the recovery is underlined on the Lab Control Sample or Matrix Spike Report. See these reports for supporting data.

- * Duplicate sample results are shown as: ok, No data, or OUT, with the last two underlined. 'No data' means there was no original sample data found for this duplicate. 'OUT' corresponds to when the RPD is underlined on the Duplicate Report. See this report for supporting data.
 - * If the MDA column is labeled 'MAX MDA', there was more than one result measured by the reported method and the MDA shown is the largest MDA. If not all these results have the same RDL, the MAX MDA reflects only those results with RDL equal to the smallest one.
- MDAs are underlined if greater than the printed RDL.
- * Aliquots are underlined if less than the nominal value specified for the method.
 - * Preparation factors are underlined if greater than the nominal value specified for the method.
 - * Dilution factors are underlined if greater than the nominal value specified for the method.
 - * Residues are underlined if outside the range specified for the method. Residues are not printed if yields are.
 - * Yields, which may be gravimetric, radiometric or some type of recovery depending on the method, are underlined if outside the range specified for the method.
 - * Efficiencies are underlined if outside the range specified for the method. Efficiencies are detector and geometry dependent so this test is only approximate.
 - * Count times are underlined if less than the nominal value

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METHOD SUMMARY

specified for the method.

- * Resolutions (as FWHM; Full Width at Half Max) are underlined if greater than the method specified limit.
- * Tracer drifts are underlined if their absolute values are greater than the method specified limit. Tracer drifts are not printed if percent moistures are.
- * Days Held are underlined if greater than the holding time specified in the protocol.
- * Analysis dates are underlined if before their planchet's preparation date or, if a limit is specified, too far after it.

For some methods, ratios as percentages and error estimates for them are computed for pairs of results. A ratio column header like '1+3' means the ratio of the first result column and the third result column.

Ratios are not computed for Lab Control Sample, Method Blank or Matrix Spike results since their matrices are not necessarily similar to client samples'.

The error estimate for a ratio of results from one planchet reflects only counting errors since other errors should be correlated. For a ratio involving different planchets, if QC limits are computed based on total errors, the error for the ratio allows for the preparation errors for the planchets.

The ratio is underlined (out of spec) if the absolute value of its difference from the nominal value is greater than its error estimate. If no nominal value is specified, this test is not done.

For Gross Alpha or Gross Beta results, there may be a column showing the sum of other Alpha or Beta emitters. This sum includes all relevant results in the DVD database, whether reported or not. Results in the sum are weighted by a particles/decay value specified by the lab for each relevant analyte. Results less than their MDA are not included.

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METHOD SUMMARY

No sums are computed for Lab Control, Method Blank or Matrix Spike samples since their various planchets may not be physically related.

If a ratio of total isotopic to Gross Alpha or Beta is shown, the error for the ratio reflects both the error in the Gross result and the sum, as square root of sum of squares, of the errors in the isotopic results.

For total elemental uranium or thorium results, there may be a column showing the total weight computed from associated isotopic results. Ignoring results less than their MDAs, this is a weighted sum of the isotopic results. The weights depend on the molecular weight and half-life of each isotope so as to convert activities (decays) to weight (atoms).

If a ratio of total computed to measured elemental uranium or thorium is shown, the error for the ratio reflects the errors in all the measurements.

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SUMMARY DATA SECTION

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Lab id EAS
Protocol TA
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SUBCONTRACT ORDER

TestAmerica Irvine


IUB2621

SENDING LABORATORY:

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


RECEIVING LABORATORY:

Eberline Services - SUB
 2030 Wright Avenue
 Richmond, CA 94804
 Phone : (510) 235-2633
 Fax: (510) 235-0438

| Analysis | Due | Expires | Laboratory ID | Comments |
|------------------------------|----------------|--------------------------------|--|---|
| Sample ID: IUB2621-03 | Water | Sampled: 02/25/11 11:22 |  | |
| Uranium, Combined-O | 03/10/11 12:00 | 02/25/12 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Tritium-O | 03/10/11 12:00 | 02/25/12 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Strontium 90-O | 03/10/11 12:00 | 02/25/12 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Radium, Combined-O | 03/10/11 12:00 | 02/25/12 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gross Beta-O | 03/10/11 12:00 | 08/24/11 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gross Alpha-O | 03/10/11 12:00 | 08/24/11 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gamma Spec-O | 03/10/11 12:00 | 02/25/12 11:22 | | Out eberline, Boeing permit, DO NOT FILTER! |

Containers Supplied:

2.5 gal Poly (V) 500 mL Amber (W)

| | | | | |
|------------------------------|----------------|--------------------------------|--|---|
| Sample ID: IUB2621-04 | Water | Sampled: 02/28/11 00:00 |  | |
| Uranium, Combined-O | 03/10/11 12:00 | 02/28/12 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Strontium 90-O | 03/10/11 12:00 | 02/28/12 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Radium, Combined-O | 03/10/11 12:00 | 02/28/12 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gross Beta-O | 03/10/11 12:00 | 08/27/11 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gross Alpha-O | 03/10/11 12:00 | 08/27/11 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |
| Gamma Spec-O | 03/10/11 12:00 | 02/28/12 00:00 | | Out eberline, Boeing permit, DO NOT FILTER! |

Containers Supplied:

| | | | |
|-------------|------|-------------|------|
| Released By | Date | Received By | Date |
| | | | |

Subcontract Order - TestAmerica Irvine (IUB2621)

SENDING LABORATORY:

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

RECEIVING LABORATORY:

Eberline Services - SUB
 2030 Wright Avenue
 Richmond, CA 94804
 Phone: (510) 235-2633
 Fax: (510) 235-0438
 Project Location: California
 Receipt Temperature: _____ °C

8670

Ice: Y / N

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

| Analysis | Units | Expires | Comments |
|----------|-------|---------|----------|
|----------|-------|---------|----------|

Sample ID: IUB2621-03 (Outfall 019 (Composite) - Water)

Sampled: 02/25/11 11:22

| | | | |
|---------------------|-------|----------------|---|
| Gamma Spec-O | pCi/L | 02/25/12 11:22 | Outeberline, k-40 and cs-137 only, DO NOT FILTER! |
| Gross Alpha-O | pCi/L | 08/24/11 11:22 | Out eberline, Boeing permit, DO NOT FILTER! |
| Gross Beta-O | pCi/L | 08/24/11 11:22 | Out eberline, Boeing permit, DO NOT FILTER! |
| Radium, Combined-O | pCi/L | 02/25/12 11:22 | Outeberline Boeing permit, DO NOT FILTER! |
| Strontium 90-O | pCi/L | 02/25/12 11:22 | Out eberline, Boeing permit, DO NOT FILTER! |
| Tritium-O | pCi/L | 02/25/12 11:22 | Out eberline, Boeing permit, DO NOT FILTER! |
| Uranium, Combined-O | pCi/L | 02/25/12 11:22 | Out eberline, Boeing permit, DO NOT FILTER! |

Containers Supplied:

2.5 gal Poly (V) 500 mL Amber (W)

Received Also:
 IUB2621 (TRIP Blank #2)
 for Complete Analysis
 3/2/11
 See ATTACHED Comment
 on Sample Receipt Check
 List

Released By _____

Date/Time _____

Received By *Phy*

Date/Time 03/01/11 0940

Released By _____

Date/Time _____

Received By _____

Date/Time _____



RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA

Date/Time received 03/01/11 0940 CoC No. 1UB2621

Container I.D. No. GE CHEST #4 Requested TAT (Days) STD P.O. Received Yes [] No []

INSPECTION

1. Custody seals on shipping container intact? Yes No [] N/A []
2. Custody seals on shipping container dated & signed? Yes No [] N/A []
3. Custody seals on sample containers intact? Yes [] No [] N/A
4. Custody seals on sample containers dated & signed? Yes [] No [] N/A
5. Packing material is: Wet [] Dry
6. Number of samples in shipping container: 2 Sample Matrix W
7. Number of containers per sample: 2 (Or see CoC)
8. Samples are in correct container Yes No []
9. Paperwork agrees with samples? Yes [] No
10. Samples have: Tape [] Hazard labels [] Rad labels [] Appropriate sample labels
11. Samples are: In good condition Leaking [] Broken Container [] Missing []
12. Samples are: Preserved Not preserved pH 2.2 / N/A Preservative HNO₃
13. Describe any anomalies:
ADDITIONAL/EXTRA SAMPLE - MARKED BLK # 2: 1- 2.5 GAL POLY
client's COC. has no released signature & 1- 500 ML AMPER
NOT LISTED ON COC.
14. Was P.M. notified of any anomalies? Yes [] No [] Date
15. Inspected by Date: Time:

| Customer Sample No. | Beta/Gamma cpm | Ion Chamber mR/hr | Wipe | Customer Sample No. | Beta/Gamma cpm | Ion Chamber mR/hr | wipe |
|---------------------|----------------|-------------------|------|---------------------|----------------|-------------------|------|
| <u>AN SAMPLES</u> | <u>L60</u> | | | | | | |
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Ion Chamber Ser. No. Calibration date
 Alpha Meter Ser. No. Calibration date
 Beta/Gamma Meter Ser. No. 100482 Calibration date 24 SEP 10

APPENDIX G

Section 59

Arroyo Simi Receiving Water – February 24, 2011

MEC^X Data Validation Report



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IUB2615

Prepared by

MEC^x, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
 Contract Task Order: 1261.100D.00
 Sample Delivery Group: IUB2615
 Project Manager: B. Kelly
 Matrix: Water
 QC Level: III and 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 |
|-------------------|---------------|-------------------|--------|------------------|--|
| Arroyo-Simi FP | IUB2615-03 | G1B260427-001 | Water | 2/24/10 09:40 | 200.7, 525.2, 1613B, SM2340B, SM2540D, SM9221 |

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at TestAmerica-West Sacramento below the temperature limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. The samples in this SDG were received at the remaining laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact upon receipt at TestAmerica-West Sacramento. As the sample was couriered to TestAmerica-Irvine, no custody seals were required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

| Qualifier | Organics | Inorganics |
|-----------|---|---|
| U | The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners. | The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only. |
| J | The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. | The associated value is an estimated quantity. |
| N | The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification." | Not applicable. |
| NJ | The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. | Not applicable. |
| UJ | The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. | The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise. |
| R | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. |

Qualification Code Reference Table

| Qualifier | Organics | Inorganics |
|-----------|--|---|
| H | Holding times were exceeded. | Holding times were exceeded. |
| S | Surrogate recovery was outside QC limits. | The sequence or number of standards used for the calibration was incorrect |
| C | Calibration %RSD or %D was noncompliant. | Correlation coefficient is <0.995. |
| R | Calibration RRF was <0.05. | %R for calibration is not within control limits. |
| B | Presumed contamination as indicated by the preparation (method) blank results. | Presumed contamination as indicated by the preparation (method) or calibration blank results. |
| L | Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits. | Laboratory Control Sample %R was not within control limits. |
| Q | MS/MSD recovery was poor or RPD high. | MS recovery was poor. |
| E | Not applicable. | Duplicates showed poor agreement. |
| I | Internal standard performance was unsatisfactory. | ICP ICS results were unsatisfactory. |
| A | Not applicable. | ICP Serial Dilution %D were not within control limits. |
| M | Tuning (BFB or DFTPP) was noncompliant. | Not applicable. |
| T | Presumed contamination as indicated by the trip blank results. | Not applicable. |
| + | False positive – reported compound was not present. | Not applicable. |
| - | False negative – compound was present but not reported. | Not applicable. |
| F | Presumed contamination as indicated by the FB or ER results. | Presumed contamination as indicated by the FB or ER results. |
| \$ | Reported result or other information was incorrect. | Reported result or other information was incorrect. |
| ? | TIC identity or reported retention time has been changed. | Not applicable. |

Qualification Code Reference Table Cont.

| | | |
|-----------|--|--|
| D | The analysis with this flag should not be used because another more technically sound analysis is available. | The analysis with this flag should not be used because another more technically sound analysis is available. |
| P | Instrument performance for pesticides was poor. | Post Digestion Spike recovery was not within control limits. |
| DNQ | The reported result is above the method detection limit but is less than the reporting limit. | The reported result is above the method detection limit but is less than the reporting limit. |
| *II, *III | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. |

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin

Date Reviewed: March 25, 2011

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 analyzed prior to the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.
 - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.
- Calibration: Calibration criteria were met.
 - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq 20\%$ for the 15 native compounds (calibration by isotope dilution) and $\leq 35\%$ for the two native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.
 - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.
- Blanks: The method blank had detects between the EDL and the RL for 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8-HpCDF, OCDD, and totals for HpCDD, HpCDF, and PeCDF. The sample results for the individual isomers were qualified as nondetected, "U," at the level of contamination. The result for total HpCDD was qualified as nondetected, "U," as the total consisted only of the same peaks present in the method blank total. Totals for HpCDF and

PeCDF were qualified as estimated, "J," as only a portion of the total result was considered method blank contamination.

- Blank Spikes and Laboratory Control Samples: LCS 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 in the sample were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.
- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of reportable sample results. EMPCs not previously qualified as method blank contamination were qualified as estimated nondetects, "UJ," at the level of the EMPC. Reportable totals containing EMPCs were qualified as estimated, "J." Any detects reported between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the EDL.

B. EPA METHOD 200.7—Metals

Reviewed By: P. Meeks

Date Reviewed: March 31, 2011

The sample listed in Table 1 for these analyses 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 Method 200.7*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: The analytical holding time, six months for ICP metals, was met.
- Tuning: Not applicable to these analyses.
- Calibration: Calibration criteria were met. All initial and continuing calibration recoveries were within 90-110% and the CRDL recoveries were within the control limits of 70-130%.

- Blanks: Method blanks and CCBs had no applicable detects.
- Interference Check Samples: Recoveries were within 80-120%.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: A matrix spike was performed on the sample in this SDG; however, as the native concentrations exceeded the spike amount by more than 4×, the matrix spike results were not assessed.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: Not applicable to these analyses.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either “J+” or “J-”; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- 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 525.2—Semivolatile Organic Compounds (SVOCs)

Reviewed By: P. Meeks

Date Reviewed: March 31, 2011

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0)*, *EPA Method 525.2*, and the *National Functional Guidelines for Organic Data Review (10/99)*.

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted within 24 hours of collection and analyzed within 30 days of extraction.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The sample was analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria were met. The initial calibration average RRFs were ≥ 0.05 and %RSDs $\leq 35\%$. The second source verification and continuing calibration RRFs were ≥ 0.05 and recoveries were within the method QC limits of 70-130%. The chlorpyrifos reporting limit check standard recovery was above the control limit; however, the compound was not detected in the site sample.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy and precision were evaluated based on the LCS/D results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the method control limits established by the continuing calibration standards of $-50\%/+100\%$ for internal standard areas and ± 30 seconds for retention times.
- Compound Identification: Compound identification is not verified at Level III validation.
- Compound Quantification and Reported Detection Limits: Compound quantification is not verified at Level III validation. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this analysis.

- System Performance: System performance is not evaluated at a Level III validation.

D. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: March 31, 2011

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)*, *Standard Methods SM2540D and SM9221*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: The analytical holding time, seven days from collection, was met.
- Calibration: The balance calibration logs were acceptable.
- Blanks: The method blank had no detects.
- Blank Spikes and Laboratory Control Samples: The recovery was within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analysis was performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either “J+” or “J-”; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms IUB2615

Analysis Method EPA 200.7

Sample Name Arroyo Simi-FP **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: IUB2615-01 **Sample Date:** 2/24/2011 9:40:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|-----------|-----------|--------------|-------|-------|--------------|---------------|----------------------|------------------|
| Calcium | 7440-70-2 | 260 | 0.10 | 0.050 | mg/l | MHA | | |
| Magnesium | 7439-95-4 | 76 | 0.020 | 0.012 | mg/l | MHA | | |

Analysis Method EPA 525.2

Sample Name Arroyo Simi-FP **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: IUB2615-01 **Sample Date:** 2/24/2011 9:40:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|--------------|-----------|--------------|------|-------|--------------|---------------|----------------------|------------------|
| Chlorpyrifos | 2921-88-2 | ND | 1.0 | 0.010 | ug/l | | U | |
| Diazinon | 333-41-5 | ND | 0.25 | 0.10 | ug/l | | U | |

Analysis Method EPA-5 1613B

Sample Name Arroyo Simi-FP **Matrix Type:** WATER **Validation Level:** IV
Lab Sample Name: IUB2615-01RE1 **Sample Date:** 2/24/2011 9:40:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|---------------------|------------|--------------|---------|-----------|--------------|---------------|----------------------|------------------|
| 1,2,3,4,6,7,8-HpCDD | 35822-46-9 | ND | 0.00007 | 0.0000033 | ug/L | J, Q, B | U | B |
| 1,2,3,4,6,7,8-HpCDF | 67562-39-4 | ND | 0.00007 | 0.0000036 | ug/L | J, Q, B | U | B |
| 1,2,3,4,7,8,9-HpCDF | 55673-89-7 | ND | 0.00007 | 0.0000055 | ug/L | | U | |
| 1,2,3,4,7,8-HxCDD | 39227-28-6 | 3.6e-006 | 0.00007 | 0.0000017 | ug/L | J | J | DNQ |
| 1,2,3,4,7,8-HxCDF | 70648-26-9 | ND | 0.00007 | 0.0000015 | ug/L | J, Q | UJ | *III |
| 1,2,3,6,7,8-HxCDD | 57653-85-7 | ND | 0.00007 | 0.0000016 | ug/L | J, Q | UJ | *III |
| 1,2,3,6,7,8-HxCDF | 57117-44-9 | ND | 0.00007 | 0.0000013 | ug/L | J, Q | UJ | *III |
| 1,2,3,7,8,9-HxCDD | 19408-74-3 | 2.7e-006 | 0.00007 | 0.0000014 | ug/L | J | J | DNQ |
| 1,2,3,7,8,9-HxCDF | 72918-21-9 | 3.2e-006 | 0.00007 | 0.0000017 | ug/L | J | J | DNQ |
| 1,2,3,7,8-PeCDD | 40321-76-4 | ND | 0.00007 | 0.0000016 | ug/L | J, Q | UJ | *III |
| 1,2,3,7,8-PeCDF | 57117-41-6 | ND | 0.00007 | 0.0000009 | ug/L | J, Q | UJ | *III |
| 2,3,4,6,7,8-HxCDF | 60851-34-5 | 4.4e-006 | 0.00007 | 0.0000013 | ug/L | J | J | DNQ |
| 2,3,4,7,8-PeCDF | 57117-31-4 | 4.9e-006 | 0.00007 | 0.000001 | ug/L | J | J | DNQ |
| 2,3,7,8-TCDD | 1746-01-6 | ND | 0.00001 | 0.0000017 | ug/L | | U | |
| 2,3,7,8-TCDF | 51207-31-9 | ND | 0.00001 | 0.0000007 | ug/L | | U | |
| OCDD | 3268-87-9 | ND | 0.00013 | 0.0000046 | ug/L | J, B | U | B |
| OCDF | 39001-02-0 | 1.3e-005 | 0.00013 | 0.0000023 | ug/L | J | J | DNQ |
| Total HpCDD | 37871-00-4 | ND | 0.00007 | 0.0000033 | ug/L | J, Q, B | U | B |
| Total HpCDF | 38998-75-3 | 2e-005 | 0.00007 | 0.0000044 | ug/L | J, Q, B | J | B, DNQ, *III |
| Total HxCDD | 34465-46-8 | 9.1e-006 | 0.00007 | 0.0000015 | ug/L | J, Q | J | DNQ, *III |
| Total HxCDF | 55684-94-1 | 1.8e-005 | 0.00007 | 0.0000014 | ug/L | J, Q | J | DNQ, *III |
| Total PeCDD | 36088-22-9 | 3.1e-006 | 0.00007 | 0.0000016 | ug/L | J, Q | J | DNQ, *III |
| Total PeCDF | 30402-15-4 | 8.7e-006 | 0.00007 | 0.0000012 | ug/L | J, Q, B | J | B, DNQ, *III |
| Total TCDD | 41903-57-5 | ND | 0.00001 | 0.0000017 | ug/L | | U | |
| Total TCDF | 55722-27-5 | ND | 0.00001 | 0.0000007 | ug/L | | U | |

Analysis Method SM 2540D

Sample Name Arroyo Simi-FP **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUB2615-01 **Sample Date:** 2/24/2011 9:40:00 AM

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

Analysis Method **SM2340B**

Sample Name Arroyo Simi-FP **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: IUB2615-01 **Sample Date:** 2/24/2011 9:40:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|---------------------|---------------|---------------------|-----------|------------|---------------------|----------------------|-----------------------------|-------------------------|
| Hardness (as CaCO3) | NA | 950 | 0.33 | 0.17 | mg/l | | | |

| | | |
|---|--|---|
| MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly | Project ID: Annual Arroyo Simi-Frontier Park Annual Arroyo Simi-Frontier Park Report Number: IUB2615 | Sampled: 02/24/11 Received: 02/24/11 |
|---|--|---|

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|----------------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2615-01 (Arroyo Simi-FP - Water) - cont. | | | | | | | | | |
| Reporting Units: MPN/100 ml | | | | | | | | | |
| Fecal Coliform | SM9221 A,B,C,E | 11B3162 | 2.00 | 2.00 | 300 | 1 | AK | 02/27/11 | |
| E. Coli | SM9221 A,B,C,E | 11B3162 | 2.00 | 2.00 | 300 | 1 | AK | 02/27/11 | |

LEVEL IV

***Analysis not validated**

TestAmerica Irvine
Debby Wilson
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.

IUB2615 <Page 7 of 20>



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IUB2653

Prepared by

MEC^x, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
Contract Task Order: 1261.100D.00
Sample Delivery Group: IUB2653
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 |
|----------------|---------------|-------------------|--------|--------------------------|------------------|
| Arroyo Simi-FP | IUB2653-01 | N/A | Solid | 2/24/2011 10:00:00 AM | SM4500NH3-D MOD. |

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the remaining laboratories within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to TestAmerica-Irvine, no custody seals were required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

| Qualifier | Organics | Inorganics |
|-----------|---|---|
| U | The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners. | The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only. |
| J | The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. | The associated value is an estimated quantity. |
| N | The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification." | Not applicable. |
| NJ | The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. | Not applicable. |
| UJ | The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. | The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise. |
| R | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. |

Qualification Code Reference Table

| Qualifier | Organics | Inorganics |
|-----------|--|---|
| H | Holding times were exceeded. | Holding times were exceeded. |
| S | Surrogate recovery was outside QC limits. | The sequence or number of standards used for the calibration was incorrect |
| C | Calibration %RSD or %D was noncompliant. | Correlation coefficient is <0.995. |
| R | Calibration RRF was <0.05. | %R for calibration is not within control limits. |
| B | Presumed contamination as indicated by the preparation (method) blank results. | Presumed contamination as indicated by the preparation (method) or calibration blank results. |
| L | Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits. | Laboratory Control Sample %R was not within control limits. |
| Q | MS/MSD recovery was poor or RPD high. | MS recovery was poor. |
| E | Not applicable. | Duplicates showed poor agreement. |
| I | Internal standard performance was unsatisfactory. | ICP ICS results were unsatisfactory. |
| A | Not applicable. | ICP Serial Dilution %D were not within control limits. |
| M | Tuning (BFB or DFTPP) was noncompliant. | Not applicable. |
| T | Presumed contamination as indicated by the trip blank results. | Not applicable. |
| + | False positive – reported compound was not present. | Not applicable. |
| - | False negative – compound was present but not reported. | Not applicable. |
| F | Presumed contamination as indicated by the FB or ER results. | Presumed contamination as indicated by the FB or ER results. |
| \$ | Reported result or other information was incorrect. | Reported result or other information was incorrect. |
| ? | TIC identity or reported retention time has been changed. | Not applicable. |

Qualification Code Reference Table Cont.

| | | |
|-----------|--|--|
| D | The analysis with this flag should not be used because another more technically sound analysis is available. | The analysis with this flag should not be used because another more technically sound analysis is available. |
| P | Instrument performance for pesticides was poor. | Post Digestion Spike recovery was not within control limits. |
| DNQ | The reported result is above the method detection limit but is less than the reporting limit. | The reported result is above the method detection limit but is less than the reporting limit. |
| *II, *III | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. |

III. Method Analyses

A. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: April 11, 2011

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)*, *Standard Method 4500NH3-D*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: Analytical holding times were met.
- Calibration: Calibration criteria were met. Initial calibration r^2 values were ≥ 0.995 . All initial and continuing calibration recoveries were within 90-110%.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG. Recoveries and RPDs were within the laboratory-established control limits.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms IUB2653

Analysis Method *SM4500NH3-D, MOD.*

Sample Name Arroyo Simi-FP **Matrix Type:** Solid **Validation Level:** IV

Lab Sample Name: IUB2653-01 **Sample Date:** 2/24/2011 10:00:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|----------------|---------------|---------------------|-----------|------------|---------------------|----------------------|-----------------------------|-------------------------|
| Ammonia-N | 7664-41-7 | 2.0 | 4.9 | 2.0 | mg/kg | J | J | DNQ |

APPENDIX G

Section 60

Arroyo Simi Receiving Water – February 24, 2011
Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park

Sampled: 02/24/11
Received: 02/24/11
Issued: 03/14/11 17:44

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

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 of Custody, 1 page, is included and is 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:

WATER, 1613B, Dioxins/Furans with Totals

Sample: 1

Some analytes in these samples and the associated method blank have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

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

LABORATORY ID

IUB2615-01

CLIENT ID

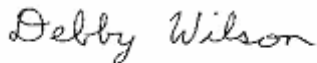
Arroyo Simi-FP

MATRIX

Water

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:



TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Arroyo Simi-Frontier Park
 Annual Arroyo Simi-Frontier Park
 Report Number: IUB2615

Sampled: 02/24/11
 Received: 02/24/11

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|-----------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2615-01 (Arroyo Simi-FP - Water) | | | | | | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Chlorpyrifos | EPA 525.2 | 11B3321 | 0.010 | 1.0 | ND | 1 | JM | 03/01/11 | |
| Diazinon | EPA 525.2 | 11B3321 | 0.10 | 0.25 | ND | 1 | JM | 03/01/11 | |
| <i>Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)</i> | | | | | 109 % | | | | |
| <i>Surrogate: Triphenylphosphate (70-130%)</i> | | | | | 124 % | | | | |
| <i>Surrogate: Perylene-d12 (70-130%)</i> | | | | | 97 % | | | | |

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 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: Annual Arroyo Simi-Frontier Park
 Annual Arroyo Simi-Frontier Park
 Report Number: IUB2615

Sampled: 02/24/11
 Received: 02/24/11

ORGANOCHLORINE PESTICIDES (EPA 608)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|---------|---------|-----------|-----------------|---------------|-----------------|-----------|---------------|-----------------|
| Sample ID: IUB2615-01 (Arroyo Simi-FP - Water) - cont. | | | | | | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| 4,4'-DDD | EPA 608 | 11C0141 | 0.0043 | 0.0053 | ND | 1.06 | CN | 03/11/11 | |
| 4,4'-DDE | EPA 608 | 11C0141 | 0.0032 | 0.0053 | ND | 1.06 | CN | 03/11/11 | |
| 4,4'-DDT | EPA 608 | 11C0141 | 0.0043 | 0.011 | ND | 1.06 | CN | 03/11/11 | |
| Dieldrin | EPA 608 | 11C0141 | 0.0021 | 0.0053 | ND | 1.06 | CN | 03/11/11 | |
| Chlordane | EPA 608 | 11C0141 | 0.085 | 0.11 | ND | 1.06 | CN | 03/11/11 | |
| Toxaphene | EPA 608 | 11C0141 | 0.27 | 0.53 | ND | 1.06 | CN | 03/11/11 | |
| <i>Surrogate: Decachlorobiphenyl (45-120%)</i> | | | | | <i>149 %</i> | | <i>Z2</i> | | |
| <i>Surrogate: Tetrachloro-m-xylene (35-115%)</i> | | | | | <i>146 %</i> | | <i>Z2</i> | | |

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 Attention: Bronwyn Kelly

Project ID: Annual Arroyo Simi-Frontier Park
 Annual Arroyo Simi-Frontier Park
 Report Number: IUB2615

Sampled: 02/24/11
 Received: 02/24/11

TOTAL PCBS (EPA 608)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|---------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2615-01 (Arroyo Simi-FP - Water) - cont. | | | | | | | | | |
| Reporting Units: ug/l | | | | | | | | | |
| Aroclor 1016 | EPA 608 | 11C0141 | 0.27 | 0.53 | ND | 1.06 | CN | 03/03/11 | |
| Aroclor 1221 | EPA 608 | 11C0141 | 0.27 | 0.53 | ND | 1.06 | CN | 03/03/11 | |
| Aroclor 1232 | EPA 608 | 11C0141 | 0.27 | 0.53 | ND | 1.06 | CN | 03/03/11 | |
| Aroclor 1242 | EPA 608 | 11C0141 | 0.27 | 0.53 | ND | 1.06 | CN | 03/03/11 | |
| Aroclor 1248 | EPA 608 | 11C0141 | 0.27 | 0.53 | ND | 1.06 | CN | 03/03/11 | |
| Aroclor 1254 | EPA 608 | 11C0141 | 0.27 | 0.53 | ND | 1.06 | CN | 03/03/11 | |
| Aroclor 1260 | EPA 608 | 11C0141 | 0.27 | 0.53 | ND | 1.06 | CN | 03/03/11 | |
| <i>Surrogate: Decachlorobiphenyl (45-120%)</i> | | | | | <i>108 %</i> | | | | |

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Attention: Bronwyn Kelly

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUB2615

Sampled: 02/24/11
Received: 02/24/11

METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|-----------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2615-01 (Arroyo Simi-FP - Water) - cont. | | | | | | | | | |
| Reporting Units: mg/l | | | | | | | | | |
| Hardness (as CaCO ₃) | SM2340B | [CALC] | | 0.33 | 950 | 1 | DP | 03/01/11 | |
| Calcium | EPA 200.7 | 11C0105 | 0.050 | 0.10 | 260 | 1 | DP | 03/01/11 | MHA |
| Magnesium | EPA 200.7 | 11C0105 | 0.012 | 0.020 | 76 | 1 | DP | 03/01/11 | MHA |

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MWH-Pasadena/Boeing
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Attention: Bronwyn Kelly

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUB2615

Sampled: 02/24/11
Received: 02/24/11

INORGANICS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|----------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2615-01 (Arroyo Simi-FP - Water) - cont. | | | | | | | | | |
| Reporting Units: mg/l | | | | | | | | | |
| Total Suspended Solids | SM 2540D | 11B3624 | 1.0 | 10 | 10 | 1 | DK1 | 02/28/11 | |

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 Attention: Bronwyn Kelly

Project ID: Annual Arroyo Simi-Frontier Park
 Annual Arroyo Simi-Frontier Park
 Report Number: IUB2615

Sampled: 02/24/11
 Received: 02/24/11

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|----------------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2615-01 (Arroyo Simi-FP - Water) - cont. | | | | | | | | | |
| Reporting Units: MPN/100 ml | | | | | | | | | |
| Fecal Coliform | SM9221 A,B,C,E | 11B3162 | 2.00 | 2.00 | 300 | 1 | AK | 02/27/11 | |
| E. Coli | SM9221 A,B,C,E | 11B3162 | 2.00 | 2.00 | 300 | 1 | AK | 02/27/11 | |

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Attention: Bronwyn Kelly

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUB2615

Sampled: 02/24/11
Received: 02/24/11

EPA-5 1613Bx

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|--|-------------|---------|------------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2615-01RE1 (Arroyo Simi-FP - Water) - cont. | | | | | | | | | |
| Reporting Units: ug/L | | | | | | | | | |
| 1,2,3,4,6,7,8-HpCDD | EPA-5 1613B | 1066351 | 0.0000033 | 0.00007 | 6.4e-006 | 1.32 | LH | 03/08/11 | J, Q, B |
| 1,2,3,4,6,7,8-HpCDF | EPA-5 1613B | 1066351 | 0.0000036 | 0.00007 | 7.8e-006 | 1.32 | LH | 03/08/11 | J, Q, B |
| 1,2,3,4,7,8,9-HpCDF | EPA-5 1613B | 1066351 | 0.0000055 | 0.00007 | ND | 1.32 | LH | 03/08/11 | |
| 1,2,3,4,7,8-HxCDD | EPA-5 1613B | 1066351 | 0.0000017 | 0.00007 | 3.6e-006 | 1.32 | LH | 03/08/11 | J |
| 1,2,3,4,7,8-HxCDF | EPA-5 1613B | 1066351 | 0.0000015 | 0.00007 | 4e-006 | 1.32 | LH | 03/08/11 | J, Q |
| 1,2,3,6,7,8-HxCDD | EPA-5 1613B | 1066351 | 0.0000016 | 0.00007 | 2.7e-006 | 1.32 | LH | 03/08/11 | J, Q |
| 1,2,3,6,7,8-HxCDF | EPA-5 1613B | 1066351 | 0.0000013 | 0.00007 | 4.4e-006 | 1.32 | LH | 03/08/11 | J, Q |
| 1,2,3,7,8,9-HxCDD | EPA-5 1613B | 1066351 | 0.0000014 | 0.00007 | 2.7e-006 | 1.32 | LH | 03/08/11 | J |
| 1,2,3,7,8,9-HxCDF | EPA-5 1613B | 1066351 | 0.0000017 | 0.00007 | 3.2e-006 | 1.32 | LH | 03/08/11 | J |
| 1,2,3,7,8-PeCDD | EPA-5 1613B | 1066351 | 0.0000016 | 0.00007 | 3.1e-006 | 1.32 | LH | 03/08/11 | J, Q |
| 1,2,3,7,8-PeCDF | EPA-5 1613B | 1066351 | 0.00000096 | 0.00007 | 3.8e-006 | 1.32 | LH | 03/08/11 | J, Q |
| 2,3,4,6,7,8-HxCDF | EPA-5 1613B | 1066351 | 0.0000013 | 0.00007 | 4.4e-006 | 1.32 | LH | 03/08/11 | J |
| 2,3,4,7,8-PeCDF | EPA-5 1613B | 1066351 | 0.000001 | 0.00007 | 4.9e-006 | 1.32 | LH | 03/08/11 | J |
| 2,3,7,8-TCDD | EPA-5 1613B | 1066351 | 0.0000017 | 0.00001 | ND | 1.32 | LH | 03/08/11 | |
| 2,3,7,8-TCDF | EPA-5 1613B | 1066351 | 0.00000073 | 0.00001 | ND | 1.32 | LH | 03/08/11 | |
| OCDD | EPA-5 1613B | 1066351 | 0.0000046 | 0.00013 | 3.4e-005 | 1.32 | LH | 03/08/11 | J, B |
| OCDF | EPA-5 1613B | 1066351 | 0.0000023 | 0.00013 | 1.3e-005 | 1.32 | LH | 03/08/11 | J |
| Total HpCDD | EPA-5 1613B | 1066351 | 0.0000033 | 0.00007 | 1.1e-005 | 1.32 | LH | 03/08/11 | J, Q, B |
| Total HpCDF | EPA-5 1613B | 1066351 | 0.0000044 | 0.00007 | 2e-005 | 1.32 | LH | 03/08/11 | J, Q, B |
| Total HxCDD | EPA-5 1613B | 1066351 | 0.0000015 | 0.00007 | 9.1e-006 | 1.32 | LH | 03/08/11 | J, Q |
| Total HxCDF | EPA-5 1613B | 1066351 | 0.0000014 | 0.00007 | 1.8e-005 | 1.32 | LH | 03/08/11 | J, Q |
| Total PeCDD | EPA-5 1613B | 1066351 | 0.0000016 | 0.00007 | 3.1e-006 | 1.32 | LH | 03/08/11 | J, Q |
| Total PeCDF | EPA-5 1613B | 1066351 | 0.0000012 | 0.00007 | 8.7e-006 | 1.32 | LH | 03/08/11 | J, Q, B |
| Total TCDD | EPA-5 1613B | 1066351 | 0.0000017 | 0.00001 | ND | 1.32 | LH | 03/08/11 | |
| Total TCDF | EPA-5 1613B | 1066351 | 0.00000073 | 0.00001 | ND | 1.32 | LH | 03/08/11 | |

| | |
|--|------|
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%) | 81 % |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%) | 84 % |
| Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%) | 74 % |
| Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%) | 97 % |
| Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%) | 89 % |
| Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%) | 89 % |
| Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%) | 93 % |
| Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%) | 90 % |
| Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%) | 87 % |
| Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%) | 80 % |
| Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%) | 95 % |
| Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%) | 81 % |
| Surrogate: 13C-2,3,7,8-TCDD (25-164%) | 77 % |
| Surrogate: 13C-2,3,7,8-TCDF (24-169%) | 81 % |
| Surrogate: 13C-OCDD (17-157%) | 72 % |
| Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%) | 87 % |

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Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUB2615

Sampled: 02/24/11
Received: 02/24/11

SHORT HOLD TIME DETAIL REPORT

| | Hold Time (in days) | Date/Time Sampled | Date/Time Received | Date/Time Extracted | Date/Time Analyzed |
|---|--------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------------------|
| Sample ID: Arroyo Simi-FP (IUB2615-01) - Water | | | | | |
| EPA 525.2 | 1 | 02/24/2011 09:40 | 02/24/2011 14:50 | 02/25/2011 15:14 | 03/01/2011 23:22 |
| SM9221 A,B,C,E | 0 | 02/24/2011 09:40 | 02/24/2011 14:50 | 02/24/2011 15:11 | 02/27/2011 10:50 |

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Project ID: Annual Arroyo Simi-Frontier Park
 Annual Arroyo Simi-Frontier Park
 Report Number: IUB2615

Sampled: 02/24/11
 Received: 02/24/11

METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-------|-------------|---------------|------|-------------|------|-----------|-----------------|
| Batch: 11B3321 Extracted: 02/25/11 | | | | | | | | | | |
| Blank Analyzed: 03/01/2011 (11B3321-BLK1) | | | | | | | | | | |
| Chlorpyrifos | ND | 1.0 | ug/l | | | | | | | |
| Diazinon | ND | 0.25 | ug/l | | | | | | | |
| Surrogate: 1,3-Dimethyl-2-nitrobenzene | 5.40 | | ug/l | 5.00 | | 108 | 70-130 | | | |
| Surrogate: Triphenylphosphate | 5.52 | | ug/l | 5.00 | | 110 | 70-130 | | | |
| Surrogate: Perylene-d12 | 4.32 | | ug/l | 5.00 | | 86 | 70-130 | | | |
| LCS Analyzed: 03/01/2011 (11B3321-BS1) | | | | | | | | | | |
| Chlorpyrifos | 5.13 | 1.0 | ug/l | 5.00 | | 103 | 70-130 | | | MNR1 |
| Diazinon | 5.68 | 0.25 | ug/l | 5.00 | | 114 | 70-130 | | | |
| Surrogate: 1,3-Dimethyl-2-nitrobenzene | 4.37 | | ug/l | 5.00 | | 87 | 70-130 | | | |
| Surrogate: Triphenylphosphate | 5.40 | | ug/l | 5.00 | | 108 | 70-130 | | | |
| Surrogate: Perylene-d12 | 4.53 | | ug/l | 5.00 | | 91 | 70-130 | | | |
| LCS Dup Analyzed: 03/01/2011 (11B3321-BSD1) | | | | | | | | | | |
| Chlorpyrifos | 5.00 | 1.0 | ug/l | 5.00 | | 100 | 70-130 | 3 | 30 | |
| Diazinon | 5.69 | 0.25 | ug/l | 5.00 | | 114 | 70-130 | 0.09 | 30 | |
| Surrogate: 1,3-Dimethyl-2-nitrobenzene | 4.96 | | ug/l | 5.00 | | 99 | 70-130 | | | |
| Surrogate: Triphenylphosphate | 5.04 | | ug/l | 5.00 | | 101 | 70-130 | | | |
| Surrogate: Perylene-d12 | 4.62 | | ug/l | 5.00 | | 92 | 70-130 | | | |

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Annual Arroyo Simi-Frontier Park
Report Number: IUB2615

Sampled: 02/24/11
Received: 02/24/11

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 11C0141 Extracted: 03/01/11 | | | | | | | | | | |
| Blank Analyzed: 03/11/2011 (11C0141-BLK1) | | | | | | | | | | |
| 4,4'-DDD | ND | 0.0050 | ug/l | | | | | | | |
| 4,4'-DDE | ND | 0.0050 | ug/l | | | | | | | |
| 4,4'-DDT | ND | 0.010 | ug/l | | | | | | | |
| Dieldrin | ND | 0.0050 | ug/l | | | | | | | |
| Chlordane | ND | 0.10 | ug/l | | | | | | | |
| Toxaphene | ND | 0.50 | ug/l | | | | | | | |
| Surrogate: Decachlorobiphenyl | 0.340 | | ug/l | 0.500 | | 68 | 45-120 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.323 | | ug/l | 0.500 | | 65 | 35-115 | | | |
| LCS Analyzed: 03/11/2011 (11C0141-BS1) | | | | | | | | | | |
| 4,4'-DDD | 0.388 | 0.0050 | ug/l | 0.500 | | 78 | 55-120 | | | MNR1 |
| 4,4'-DDE | 0.374 | 0.0050 | ug/l | 0.500 | | 75 | 50-120 | | | |
| 4,4'-DDT | 0.397 | 0.010 | ug/l | 0.500 | | 79 | 55-120 | | | |
| Dieldrin | 0.387 | 0.0050 | ug/l | 0.500 | | 77 | 55-115 | | | |
| Surrogate: Decachlorobiphenyl | 0.319 | | ug/l | 0.500 | | 64 | 45-120 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.296 | | ug/l | 0.500 | | 59 | 35-115 | | | |
| LCS Dup Analyzed: 03/11/2011 (11C0141-BS1) | | | | | | | | | | |
| 4,4'-DDD | 0.429 | 0.0050 | ug/l | 0.500 | | 86 | 55-120 | 10 | 30 | |
| 4,4'-DDE | 0.422 | 0.0050 | ug/l | 0.500 | | 84 | 50-120 | 12 | 30 | |
| 4,4'-DDT | 0.455 | 0.010 | ug/l | 0.500 | | 91 | 55-120 | 14 | 30 | |
| Dieldrin | 0.432 | 0.0050 | ug/l | 0.500 | | 86 | 55-115 | 11 | 30 | |
| Surrogate: Decachlorobiphenyl | 0.402 | | ug/l | 0.500 | | 80 | 45-120 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.339 | | ug/l | 0.500 | | 68 | 35-115 | | | |

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Arroyo Simi-Frontier Park
 Annual Arroyo Simi-Frontier Park
 Report Number: IUB2615

Sampled: 02/24/11
 Received: 02/24/11

METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 11C0141 Extracted: 03/01/11 | | | | | | | | | | |
| Blank Analyzed: 03/02/2011 (11C0141-BLK1) | | | | | | | | | | |
| Aroclor 1016 | ND | 0.50 | ug/l | | | | | | | |
| Aroclor 1221 | ND | 0.50 | ug/l | | | | | | | |
| Aroclor 1232 | ND | 0.50 | ug/l | | | | | | | |
| Aroclor 1242 | ND | 0.50 | ug/l | | | | | | | |
| Aroclor 1248 | ND | 0.50 | ug/l | | | | | | | |
| Aroclor 1254 | ND | 0.50 | ug/l | | | | | | | |
| Aroclor 1260 | ND | 0.50 | ug/l | | | | | | | |
| Surrogate: Decachlorobiphenyl | 0.254 | | ug/l | 0.500 | | 51 | 45-120 | | | |
| LCS Analyzed: 03/03/2011 (11C0141-BS2) | | | | | | | | | | |
| Aroclor 1016 | 3.21 | 0.50 | ug/l | 4.00 | | 80 | 50-115 | | | MNR1 |
| Aroclor 1260 | 2.66 | 0.50 | ug/l | 4.00 | | 67 | 60-120 | | | |
| Surrogate: Decachlorobiphenyl | 0.278 | | ug/l | 0.500 | | 56 | 45-120 | | | |
| LCS Dup Analyzed: 03/03/2011 (11C0141-BSD2) | | | | | | | | | | |
| Aroclor 1016 | 3.21 | 0.50 | ug/l | 4.00 | | 80 | 50-115 | 0.1 | 30 | |
| Aroclor 1260 | 2.65 | 0.50 | ug/l | 4.00 | | 66 | 60-120 | 0.5 | 25 | |
| Surrogate: Decachlorobiphenyl | 0.279 | | ug/l | 0.500 | | 56 | 45-120 | | | |

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 Annual Arroyo Simi-Frontier Park
 Report Number: IUB2615

Sampled: 02/24/11
 Received: 02/24/11

METHOD BLANK/QC DATA

METALS

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| Batch: 11C0105 Extracted: 03/01/11 | | | | | | | | | | |
| Blank Analyzed: 03/01/2011 (11C0105-BLK1) | | | | | | | | | | |
| Calcium | ND | 0.10 | mg/l | | | | | | | |
| Magnesium | ND | 0.020 | mg/l | | | | | | | |
| LCS Analyzed: 03/01/2011 (11C0105-BS1) | | | | | | | | | | |
| Calcium | 2.56 | 0.10 | mg/l | 2.50 | | 102 | 85-115 | | | |
| Magnesium | 2.56 | 0.020 | mg/l | 2.50 | | 103 | 85-115 | | | |
| Matrix Spike Analyzed: 03/01/2011 (11C0105-MS1) Source: IUB2647-01 | | | | | | | | | | |
| Calcium | 71.3 | 0.10 | mg/l | 2.50 | 67.9 | 137 | 70-130 | | | MHA |
| Magnesium | 12.5 | 0.020 | mg/l | 2.50 | 9.85 | 108 | 70-130 | | | |
| Matrix Spike Analyzed: 03/01/2011 (11C0105-MS2) Source: IUB2615-01 | | | | | | | | | | |
| Calcium | 258 | 0.10 | mg/l | 2.50 | 256 | 71 | 70-130 | | | MHA |
| Magnesium | 79.1 | 0.020 | mg/l | 2.50 | 75.7 | 136 | 70-130 | | | MHA |
| Matrix Spike Dup Analyzed: 03/01/2011 (11C0105-MSD1) Source: IUB2647-01 | | | | | | | | | | |
| Calcium | 68.9 | 0.10 | mg/l | 2.50 | 67.9 | 39 | 70-130 | 4 | 20 | MHA |
| Magnesium | 12.3 | 0.020 | mg/l | 2.50 | 9.85 | 97 | 70-130 | 2 | 20 | |

TestAmerica Irvine

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 Annual Arroyo Simi-Frontier Park
 Report Number: IUB2615

Sampled: 02/24/11
 Received: 02/24/11

METHOD BLANK/QC DATA

INORGANICS

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| Batch: 11B3624 Extracted: 02/28/11 | | | | | | | | | | |
| Blank Analyzed: 02/28/2011 (11B3624-BLK1) | | | | | | | | | | |
| Total Suspended Solids | ND | 10 | mg/l | | | | | | | |
| LCS Analyzed: 02/28/2011 (11B3624-BS1) | | | | | | | | | | |
| Total Suspended Solids | 984 | 10 | mg/l | 1000 | | 98 | 85-115 | | | |
| Duplicate Analyzed: 02/28/2011 (11B3624-DUP1) | | | | | | | | | | |
| Total Suspended Solids | 59.0 | 10 | mg/l | | 60.0 | | | 2 | 10 | |

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Annual Arroyo Simi-Frontier Park
Report Number: IUB2615

Sampled: 02/24/11
Received: 02/24/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|----------|-----------------|-------|-------------|----------------|------|-------------|-----|-----------|-----------------|
| Batch: 1066351 Extracted: 03/07/11 | | | | | | | | | | |
| Blank Analyzed: 03/08/2011 (G1C070000351B) | | | | | Source: | | | | | |
| 1,2,3,4,6,7,8-HpCDD | 1.9e-006 | 0.00005 | ug/L | | | | - | | | J |
| 1,2,3,4,6,7,8-HpCDF | 1.9e-006 | 0.00005 | ug/L | | | | - | | | J, Q |
| 1,2,3,4,7,8,9-HpCDF | ND | 0.00005 | ug/L | | | | - | | | |
| 1,2,3,4,7,8-HxCDD | ND | 0.00005 | ug/L | | | | - | | | |
| 1,2,3,4,7,8-HxCDF | ND | 0.00005 | ug/L | | | | - | | | |
| 1,2,3,6,7,8-HxCDD | ND | 0.00005 | ug/L | | | | - | | | |
| 1,2,3,6,7,8-HxCDF | ND | 0.00005 | ug/L | | | | - | | | |
| 1,2,3,7,8,9-HxCDD | ND | 0.00005 | ug/L | | | | - | | | |
| 1,2,3,7,8,9-HxCDF | ND | 0.00005 | ug/L | | | | - | | | |
| 1,2,3,7,8-PeCDD | ND | 0.00005 | ug/L | | | | - | | | |
| 1,2,3,7,8-PeCDF | ND | 0.00005 | ug/L | | | | - | | | |
| 2,3,4,6,7,8-HxCDF | ND | 0.00005 | ug/L | | | | - | | | |
| 2,3,4,7,8-PeCDF | ND | 0.00005 | ug/L | | | | - | | | |
| 2,3,7,8-TCDD | ND | 0.00001 | ug/L | | | | - | | | |
| 2,3,7,8-TCDF | ND | 0.00001 | ug/L | | | | - | | | |
| OCDD | 7.1e-006 | 0.0001 | ug/L | | | | - | | | J |
| OCDF | ND | 0.0001 | ug/L | | | | - | | | |
| Total HpCDD | 3.8e-006 | 0.00005 | ug/L | | | | - | | | J, Q |
| Total HpCDF | 1.9e-006 | 0.00005 | ug/L | | | | - | | | J, Q |
| Total HxCDD | ND | 0.00005 | ug/L | | | | - | | | |
| Total HxCDF | ND | 0.00005 | ug/L | | | | - | | | |
| Total PeCDD | ND | 0.00005 | ug/L | | | | - | | | |
| Total PeCDF | 1e-006 | 0.00005 | ug/L | | | | - | | | J, Q |
| Total TCDD | ND | 0.00001 | ug/L | | | | - | | | |
| Total TCDF | ND | 0.00001 | ug/L | | | | - | | | |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDD | 0.0016 | | ug/L | 0.002 | | 80 | 23-140 | | | |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDF | 0.0015 | | ug/L | 0.002 | | 77 | 28-143 | | | |
| Surrogate: 13C-1,2,3,4,7,8,9-HpCDF | 0.0014 | | ug/L | 0.002 | | 68 | 26-138 | | | |
| Surrogate: 13C-1,2,3,4,7,8-HxCDD | 0.0015 | | ug/L | 0.002 | | 77 | 32-141 | | | |
| Surrogate: 13C-1,2,3,4,7,8-HxCDF | 0.0014 | | ug/L | 0.002 | | 68 | 26-152 | | | |
| Surrogate: 13C-1,2,3,6,7,8-HxCDD | 0.0016 | | ug/L | 0.002 | | 81 | 28-130 | | | |
| Surrogate: 13C-1,2,3,6,7,8-HxCDF | 0.0016 | | ug/L | 0.002 | | 81 | 26-123 | | | |
| Surrogate: 13C-1,2,3,7,8,9-HxCDF | 0.0015 | | ug/L | 0.002 | | 75 | 29-147 | | | |
| Surrogate: 13C-1,2,3,7,8-PeCDD | 0.0012 | | ug/L | 0.002 | | 60 | 25-181 | | | |
| Surrogate: 13C-1,2,3,7,8-PeCDF | 0.00098 | | ug/L | 0.002 | | 49 | 24-185 | | | |
| Surrogate: 13C-2,3,4,6,7,8-HxCDF | 0.0017 | | ug/L | 0.002 | | 84 | 28-136 | | | |

TestAmerica Irvine

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Project Manager

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618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUB2615

Sampled: 02/24/11
Received: 02/24/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|----------|-----------------|-------|-------------|----------------|------|-------------|-----|-----------|-----------------|
| Batch: 1066351 Extracted: 03/07/11 | | | | | | | | | | |
| Blank Analyzed: 03/08/2011 (G1C070000351B) | | | | | Source: | | | | | |
| Surrogate: 13C-2,3,4,7,8-PeCDF | 0.0011 | | ug/L | 0.002 | | 55 | 21-178 | | | |
| Surrogate: 13C-2,3,7,8-TCDD | 0.001 | | ug/L | 0.002 | | 52 | 25-164 | | | |
| Surrogate: 13C-2,3,7,8-TCDF | 0.0011 | | ug/L | 0.002 | | 55 | 24-169 | | | |
| Surrogate: 13C-OCDD | 0.0027 | | ug/L | 0.004 | | 69 | 17-157 | | | |
| Surrogate: 37Cl4-2,3,7,8-TCDD | 0.00069 | | ug/L | 0.0008 | | 86 | 35-197 | | | |
| LCS Analyzed: 03/08/2011 (G1C070000351C) | | | | | Source: | | | | | |
| 1,2,3,4,6,7,8-HpCDD | 0.00101 | 0.00005 | ug/L | 0.001 | | 101 | 70-140 | | | B |
| 1,2,3,4,6,7,8-HpCDF | 0.00104 | 0.00005 | ug/L | 0.001 | | 104 | 82-122 | | | B |
| 1,2,3,4,7,8,9-HpCDF | 0.00102 | 0.00005 | ug/L | 0.001 | | 102 | 78-138 | | | |
| 1,2,3,4,7,8-HxCDD | 0.00104 | 0.00005 | ug/L | 0.001 | | 104 | 70-164 | | | |
| 1,2,3,4,7,8-HxCDF | 0.00104 | 0.00005 | ug/L | 0.001 | | 104 | 72-134 | | | |
| 1,2,3,6,7,8-HxCDD | 0.00104 | 0.00005 | ug/L | 0.001 | | 104 | 76-134 | | | |
| 1,2,3,6,7,8-HxCDF | 0.00104 | 0.00005 | ug/L | 0.001 | | 104 | 84-130 | | | |
| 1,2,3,7,8,9-HxCDD | 0.00113 | 0.00005 | ug/L | 0.001 | | 113 | 64-162 | | | |
| 1,2,3,7,8,9-HxCDF | 0.000927 | 0.00005 | ug/L | 0.001 | | 93 | 78-130 | | | |
| 1,2,3,7,8-PeCDD | 0.000948 | 0.00005 | ug/L | 0.001 | | 95 | 70-142 | | | |
| 1,2,3,7,8-PeCDF | 0.000995 | 0.00005 | ug/L | 0.001 | | 100 | 80-134 | | | |
| 2,3,4,6,7,8-HxCDF | 0.000996 | 0.00005 | ug/L | 0.001 | | 100 | 70-156 | | | |
| 2,3,4,7,8-PeCDF | 0.00101 | 0.00005 | ug/L | 0.001 | | 101 | 68-160 | | | |
| 2,3,7,8-TCDD | 0.000211 | 0.00001 | ug/L | 0.0002 | | 105 | 67-158 | | | |
| 2,3,7,8-TCDF | 0.000204 | 0.00001 | ug/L | 0.0002 | | 102 | 75-158 | | | |
| OCDD | 0.00209 | 0.0001 | ug/L | 0.002 | | 104 | 78-144 | | | B |
| OCDF | 0.00213 | 0.0001 | ug/L | 0.002 | | 107 | 63-170 | | | |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDD | 0.0015 | | ug/L | 0.002 | | 75 | 26-166 | | | |
| Surrogate: 13C-1,2,3,4,6,7,8-HpCDF | 0.00157 | | ug/L | 0.002 | | 78 | 21-158 | | | |
| Surrogate: 13C-1,2,3,4,7,8,9-HpCDF | 0.00139 | | ug/L | 0.002 | | 70 | 20-186 | | | |
| Surrogate: 13C-1,2,3,4,7,8-HxCDD | 0.00148 | | ug/L | 0.002 | | 74 | 21-193 | | | |
| Surrogate: 13C-1,2,3,4,7,8-HxCDF | 0.00157 | | ug/L | 0.002 | | 79 | 19-202 | | | |
| Surrogate: 13C-1,2,3,6,7,8-HxCDD | 0.00181 | | ug/L | 0.002 | | 91 | 25-163 | | | |
| Surrogate: 13C-1,2,3,6,7,8-HxCDF | 0.0019 | | ug/L | 0.002 | | 95 | 21-159 | | | |
| Surrogate: 13C-1,2,3,7,8,9-HxCDF | 0.00181 | | ug/L | 0.002 | | 90 | 17-205 | | | |
| Surrogate: 13C-1,2,3,7,8-PeCDD | 0.00164 | | ug/L | 0.002 | | 82 | 21-227 | | | |
| Surrogate: 13C-1,2,3,7,8-PeCDF | 0.00151 | | ug/L | 0.002 | | 76 | 21-192 | | | |
| Surrogate: 13C-2,3,4,6,7,8-HxCDF | 0.00192 | | ug/L | 0.002 | | 96 | 22-176 | | | |
| Surrogate: 13C-2,3,4,7,8-PeCDF | 0.00154 | | ug/L | 0.002 | | 77 | 13-328 | | | |

TestAmerica Irvine

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Project Manager

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Project ID: Annual Arroyo Simi-Frontier Park
 Annual Arroyo Simi-Frontier Park
 Report Number: IUB2615

Sampled: 02/24/11
 Received: 02/24/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|----------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 1066351 Extracted: 03/07/11 | | | | | | | | | | |
| LCS Analyzed: 03/08/2011 (G1C070000351C) | | | | | | | | | | |
| Surrogate: 13C-2,3,7,8-TCDD | 0.00133 | | ug/L | 0.002 | | 67 | 20-175 | | | |
| Surrogate: 13C-2,3,7,8-TCDF | 0.0014 | | ug/L | 0.002 | | 70 | 22-152 | | | |
| Surrogate: 13C-OCDD | 0.00273 | | ug/L | 0.004 | | 68 | 13-199 | | | |
| Surrogate: 37Cl4-2,3,7,8-TCDD | 0.000709 | | ug/L | 0.0008 | | 89 | 31-191 | | | |

TestAmerica Irvine

Debby Wilson
 Project Manager

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

Project ID: Annual Arroyo Simi-Frontier Park
 Annual Arroyo Simi-Frontier Park
 Report Number: IUB2615

Sampled: 02/24/11
 Received: 02/24/11

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

| LabNumber | Analysis | Analyte | Units | Result | MRL | Compliance Limit |
|------------|---------------------|--------------|-------|----------|--------|------------------|
| IUB2615-01 | 608-PCB (LL) | Aroclor 1016 | ug/l | 0 | 0.53 | 0.5 |
| IUB2615-01 | 608-PCB (LL) | Aroclor 1221 | ug/l | 0 | 0.53 | 0.5 |
| IUB2615-01 | 608-PCB (LL) | Aroclor 1232 | ug/l | 0 | 0.53 | 0.5 |
| IUB2615-01 | 608-PCB (LL) | Aroclor 1242 | ug/l | 0 | 0.53 | 0.5 |
| IUB2615-01 | 608-PCB (LL) | Aroclor 1248 | ug/l | 0 | 0.53 | 0.5 |
| IUB2615-01 | 608-PCB (LL) | Aroclor 1254 | ug/l | 0 | 0.53 | 0.5 |
| IUB2615-01 | 608-PCB (LL) | Aroclor 1260 | ug/l | 0 | 0.53 | 0.5 |
| IUB2615-01 | 608-Pesticides (LL) | 4,4'-DDD | ug/l | 0 | 0.0053 | 0.005 |
| IUB2615-01 | 608-Pesticides (LL) | 4,4'-DDE | ug/l | 0.000080 | 0.0053 | 0.005 |
| IUB2615-01 | 608-Pesticides (LL) | 4,4'-DDT | ug/l | 0.00067 | 0.011 | 0.01 |
| IUB2615-01 | 608-Pesticides (LL) | Chlordane | ug/l | 0 | 0.11 | 0.1 |
| IUB2615-01 | 608-Pesticides (LL) | Dieldrin | ug/l | 0.00028 | 0.0053 | 0.005 |
| IUB2615-01 | 608-Pesticides (LL) | Toxaphene | ug/l | 0 | 0.53 | 0.1 |

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

| LabNumber | Analysis | Analyte | Units | Result | MRL | Compliance Limit |
|-----------|----------|---------|-------|--------|-----|------------------|
|-----------|----------|---------|-------|--------|-----|------------------|

TestAmerica Irvine

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 Project Manager

MWH-Pasadena/Boeing
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Attention: Bronwyn Kelly

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUB2615

Sampled: 02/24/11
Received: 02/24/11

DATA QUALIFIERS AND DEFINITIONS

- B** Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J** Estimated result. Result is less than the reporting limit.
- MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- Q** Estimated maximum possible concentration (EMPC).
- Z2** Surrogate recovery was above the acceptance limits. Data not impacted.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Debby Wilson
Project Manager

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IUB2615 <Page 19 of 20>

MWH-Pasadena/Boeing
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Annual Arroyo Simi-Frontier Park
Report Number: IUB2615

Sampled: 02/24/11
Received: 02/24/11

Certification Summary

TestAmerica Irvine

| Method | Matrix | Nelac | California |
|----------------|--------|-------|------------|
| EDD + Level 4 | Water | N/A | N/A |
| EPA 200.7 | Water | X | X |
| EPA 525.2 | Water | X | X |
| EPA 608 | Water | X | X |
| SM 2540D | Water | X | X |
| SM2340B | Water | X | X |
| SM9221 A,B,C,E | Water | | |

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

Subcontracted Laboratories

TestAmerica West Sacramento *NELAC Cert #1119CA, Nevada Cert #CA44*

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B
Samples: IUB2615-01RE1

TestAmerica Irvine

Debby Wilson
Project Manager

LABORATORY REPORT

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

Project: Annual Sediment Arroyo
Simi-Frontier Park
Boeing SSFL NPDES
Sampled: 02/24/11
Received: 02/24/11
Issued: 03/31/11 15:13

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

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 of Custody, 1 page, is included and is 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.

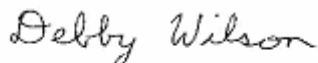
LABORATORY ID
IUB2653-01

CLIENT ID
Arroyo Simi-FP

MATRIX
Solid

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:



TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Sediment Arroyo Simi-Frontier Park
 Boeing SSFL NPDES
 Report Number: IUB2653

Sampled: 02/24/11
 Received: 02/24/11

ORGANOCHLORINE PESTICIDES (EPA 8081A)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|-----------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2653-01 (Arroyo Simi-FP - Solid) | | | | | | | | | |
| Reporting Units: ug/kg | | | | | | | | | |
| 4,4'-DDD | EPA 8081A | 11C0122 | 1.5 | 5.0 | ND | 0.999 | CN | 03/02/11 | |
| 4,4'-DDE | EPA 8081A | 11C0122 | 1.5 | 5.0 | ND | 0.999 | CN | 03/02/11 | |
| 4,4'-DDT | EPA 8081A | 11C0122 | 1.5 | 5.0 | ND | 0.999 | CN | 03/02/11 | |
| Dieldrin | EPA 8081A | 11C0122 | 1.5 | 5.0 | ND | 0.999 | CN | 03/02/11 | |
| Chlordane | EPA 8081A | 11C0122 | 10 | 50 | ND | 0.999 | CN | 03/02/11 | |
| Toxaphene | EPA 8081A | 11C0122 | 50 | 200 | ND | 0.999 | CN | 03/02/11 | |
| <i>Surrogate: Decachlorobiphenyl (45-120%)</i> | | | | | 95 % | | | | |
| <i>Surrogate: Tetrachloro-m-xylene (35-115%)</i> | | | | | 79 % | | | | |

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 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: Annual Sediment Arroyo Simi-Frontier Park
 Boeing SSFL NPDES
 Report Number: IUB2653

Sampled: 02/24/11
 Received: 02/24/11

POLYCHLORINATED BIPHENYLS (EPA 3545/8082)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|----------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2653-01 (Arroyo Simi-FP - Solid) - cont. | | | | | | | | | |
| Reporting Units: ug/kg | | | | | | | | | |
| Aroclor 1016 | EPA 8082 | 11C0494 | 14 | 75 | ND | 1.5 | JSM | 03/05/11 | RL1 |
| Aroclor 1221 | EPA 8082 | 11C0494 | 14 | 75 | ND | 1.5 | JSM | 03/05/11 | |
| Aroclor 1232 | EPA 8082 | 11C0494 | 14 | 75 | ND | 1.5 | JSM | 03/05/11 | |
| Aroclor 1242 | EPA 8082 | 11C0494 | 14 | 75 | ND | 1.5 | JSM | 03/05/11 | |
| Aroclor 1248 | EPA 8082 | 11C0494 | 14 | 75 | ND | 1.5 | JSM | 03/05/11 | |
| Aroclor 1254 | EPA 8082 | 11C0494 | 14 | 75 | ND | 1.5 | JSM | 03/05/11 | |
| Aroclor 1260 | EPA 8082 | 11C0494 | 14 | 75 | ND | 1.5 | JSM | 03/05/11 | |
| <i>Surrogate: Decachlorobiphenyl (45-120%)</i> | | | | | 56 % | | | | |

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618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Sediment Arroyo Simi-Frontier Park
Boeing SSFL NPDES
Report Number: IUB2653

Sampled: 02/24/11
Received: 02/24/11

INORGANICS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|-------------------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUB2653-01 (Arroyo Simi-FP - Solid) - cont. | | | | | | | | | |
| Reporting Units: % | | | | | | | | | |
| Percent Moisture | EPA 160.3 | 11B3596 | 0.10 | 0.10 | 22 | 1 | DK1 | 02/28/11 | |
| Sample ID: IUB2653-01 (Arroyo Simi-FP - Solid) | | | | | | | | | |
| Reporting Units: mg/kg | | | | | | | | | |
| Ammonia-N | SM4500NH3-D, MOD. | 11B3585 | 2.0 | 4.9 | 2.0 | 0.99 | TMK | 02/28/11 | J |

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Project Manager

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IUB2653 <Page 4 of 11>

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

Project ID: Annual Sediment Arroyo Simi-Frontier Park
Boeing SSFL NPDES
Report Number: IUB2653

Sampled: 02/24/11
Received: 02/24/11

TOTAL ORGANIC CARBON (EPA 9060A MOD.)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|----------------|---------|--------------|--------------------|------------------|--------------------|---------|------------------|--------------------|
| Sample ID: IUB2653-01 (Arroyo Simi-FP - Solid) - cont. | | | | | | | | | |
| Reporting Units: mg/kg | | | | | | | | | |
| Total Organic Carbon | EPA 9060A MOD. | 11C1146 | 1700 | 5000 | ND | 0.997 | FZ | 03/09/11 | |

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IUB2653 <Page 5 of 11>

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

Project ID: Annual Sediment Arroyo Simi-Frontier Park
Boeing SSFL NPDES
Report Number: IUB2653

Sampled: 02/24/11
Received: 02/24/11

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 8081A)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|-----|-------|-------------|---------------------------|-----------|-------------|-----|-----------|-----------------|
| Batch: 11C0122 Extracted: 03/01/11 | | | | | | | | | | | |
| Blank Analyzed: 03/02/2011 (11C0122-BLK1) | | | | | | | | | | | |
| 4,4'-DDD | ND | 5.0 | 1.5 | ug/kg | | | | | | | |
| 4,4'-DDE | ND | 5.0 | 1.5 | ug/kg | | | | | | | |
| 4,4'-DDT | ND | 5.0 | 1.5 | ug/kg | | | | | | | |
| Dieldrin | ND | 5.0 | 1.5 | ug/kg | | | | | | | |
| Chlordane | ND | 50 | 10 | ug/kg | | | | | | | |
| Toxaphene | ND | 200 | 50 | ug/kg | | | | | | | |
| Surrogate: Decachlorobiphenyl | 32.7 | | | ug/kg | 33.3 | | 98 | 45-120 | | | |
| Surrogate: Tetrachloro-m-xylene | 29.7 | | | ug/kg | 33.3 | | 89 | 35-115 | | | |
| LCS Analyzed: 03/02/2011 (11C0122-BS1) | | | | | | | | | | | |
| 4,4'-DDD | 35.9 | 5.0 | 1.5 | ug/kg | 33.3 | | 108 | 60-120 | | | |
| 4,4'-DDE | 34.3 | 5.0 | 1.5 | ug/kg | 33.3 | | 103 | 60-120 | | | |
| 4,4'-DDT | 39.7 | 5.0 | 1.5 | ug/kg | 33.3 | | 119 | 65-120 | | | |
| Dieldrin | 35.0 | 5.0 | 1.5 | ug/kg | 33.3 | | 105 | 65-115 | | | |
| Surrogate: Decachlorobiphenyl | 33.9 | | | ug/kg | 33.3 | | 102 | 45-120 | | | |
| Surrogate: Tetrachloro-m-xylene | 29.6 | | | ug/kg | 33.3 | | 89 | 35-115 | | | |
| Matrix Spike Analyzed: 03/02/2011 (11C0122-MS1) | | | | | | Source: IUB2653-01 | | | | | |
| 4,4'-DDD | 30.8 | 15 | 4.5 | ug/kg | 33.3 | ND | 93 | 40-130 | | | |
| 4,4'-DDE | 30.8 | 15 | 4.5 | ug/kg | 33.3 | ND | 92 | 35-130 | | | |
| 4,4'-DDT | 33.5 | 15 | 4.5 | ug/kg | 33.3 | ND | 101 | 35-130 | | | |
| Dieldrin | 30.7 | 15 | 4.5 | ug/kg | 33.3 | ND | 92 | 40-125 | | | |
| Surrogate: Decachlorobiphenyl | 29.9 | | | ug/kg | 33.3 | | 90 | 45-120 | | | |
| Surrogate: Tetrachloro-m-xylene | 26.7 | | | ug/kg | 33.3 | | 80 | 35-115 | | | |
| Matrix Spike Dup Analyzed: 03/02/2011 (11C0122-MSD1) | | | | | | Source: IUB2653-01 | | | | | |
| 4,4'-DDD | 30.5 | 15 | 4.5 | ug/kg | 33.3 | ND | 91 | 40-130 | 1 | 30 | |
| 4,4'-DDE | 30.4 | 15 | 4.5 | ug/kg | 33.3 | ND | 91 | 35-130 | 1 | 30 | |
| 4,4'-DDT | 32.6 | 15 | 4.5 | ug/kg | 33.3 | ND | 98 | 35-130 | 3 | 30 | |
| Dieldrin | 29.6 | 15 | 4.5 | ug/kg | 33.3 | ND | 89 | 40-125 | 4 | 30 | |
| Surrogate: Decachlorobiphenyl | 29.5 | | | ug/kg | 33.3 | | 89 | 45-120 | | | |
| Surrogate: Tetrachloro-m-xylene | 25.7 | | | ug/kg | 33.3 | | 77 | 35-115 | | | |

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Sediment Arroyo Simi-Frontier Park
 Boeing SSFL NPDES
 Report Number: IUB2653

Sampled: 02/24/11
 Received: 02/24/11

METHOD BLANK/QC DATA

POLYCHLORINATED BIPHENYLS (EPA 3545/8082)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|-----|-------|-------------|---------------------------|-----------|-------------|-----|-----------|-----------------|
| Batch: 11C0494 Extracted: 03/03/11 | | | | | | | | | | | |
| Blank Analyzed: 03/04/2011 (11C0494-BLK1) | | | | | | | | | | | |
| Aroclor 1016 | ND | 50 | 9.2 | ug/kg | | | | | | | |
| Aroclor 1221 | ND | 50 | 9.2 | ug/kg | | | | | | | |
| Aroclor 1232 | ND | 50 | 9.2 | ug/kg | | | | | | | |
| Aroclor 1242 | ND | 50 | 9.2 | ug/kg | | | | | | | |
| Aroclor 1248 | ND | 50 | 9.2 | ug/kg | | | | | | | |
| Aroclor 1254 | ND | 50 | 9.2 | ug/kg | | | | | | | |
| Aroclor 1260 | ND | 50 | 9.2 | ug/kg | | | | | | | |
| Surrogate: Decachlorobiphenyl | 28.3 | | | ug/kg | 33.3 | | 85 | 45-120 | | | |
| LCS Analyzed: 03/04/2011 (11C0494-BS1) | | | | | | | | | | | |
| Aroclor 1016 | 218 | 50 | 9.2 | ug/kg | 267 | | 82 | 65-115 | | | |
| Aroclor 1260 | 210 | 50 | 9.2 | ug/kg | 267 | | 79 | 65-115 | | | |
| Surrogate: Decachlorobiphenyl | 28.7 | | | ug/kg | 33.3 | | 86 | 45-120 | | | |
| Matrix Spike Analyzed: 03/04/2011 (11C0494-MS1) | | | | | | Source: IUB2653-01 | | | | | |
| Aroclor 1016 | 354 | 75 | 14 | ug/kg | 400 | ND | 88 | 50-120 | | | |
| Aroclor 1260 | 337 | 75 | 14 | ug/kg | 400 | ND | 84 | 50-125 | | | |
| Surrogate: Decachlorobiphenyl | 43.1 | | | ug/kg | 50.0 | | 86 | 45-120 | | | |
| Matrix Spike Dup Analyzed: 03/04/2011 (11C0494-MSD1) | | | | | | Source: IUB2653-01 | | | | | |
| Aroclor 1016 | 353 | 75 | 14 | ug/kg | 400 | ND | 88 | 50-120 | 0.2 | 30 | |
| Aroclor 1260 | 336 | 75 | 14 | ug/kg | 400 | ND | 84 | 50-125 | 0.5 | 30 | |
| Surrogate: Decachlorobiphenyl | 42.3 | | | ug/kg | 50.0 | | 85 | 45-120 | | | |

TestAmerica Irvine

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Project ID: Annual Sediment Arroyo Simi-Frontier Park
 Boeing SSFL NPDES
 Report Number: IUB2653

Sampled: 02/24/11
 Received: 02/24/11

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: 11B3585 Extracted: 02/28/11</u> | | | | | | | | | | | |
| Blank Analyzed: 02/28/2011 (11B3585-BLK1) | | | | | | | | | | | |
| Ammonia-N | ND | 5.0 | 2.0 | mg/kg | | | | | | | |
| LCS Analyzed: 02/28/2011 (11B3585-BS1) | | | | | | | | | | | |
| Ammonia-N | 48.4 | 5.0 | 2.0 | mg/kg | 50.0 | | 97 | 85-115 | | | |
| Matrix Spike Analyzed: 02/28/2011 (11B3585-MS1) | | | | | | | | | | | |
| Ammonia-N | 195 | 5.0 | 2.0 | mg/kg | 200 | ND | 98 | 75-125 | | | |
| Matrix Spike Dup Analyzed: 02/28/2011 (11B3585-MSD1) | | | | | | | | | | | |
| Ammonia-N | 195 | 5.0 | 2.0 | mg/kg | 199 | ND | 98 | 75-125 | 0.2 | 15 | |
| <u>Batch: 11B3596 Extracted: 02/28/11</u> | | | | | | | | | | | |
| Duplicate Analyzed: 02/28/2011 (11B3596-DUP1) | | | | | | | | | | | |
| Percent Moisture | 50.4 | 0.10 | 0.10 | % | | | | | 1 | 20 | |

TestAmerica Irvine

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 Attention: Bronwyn Kelly

Project ID: Annual Sediment Arroyo Simi-Frontier Park
 Boeing SSFL NPDES
 Report Number: IUB2653

Sampled: 02/24/11
 Received: 02/24/11

METHOD BLANK/QC DATA

TOTAL ORGANIC CARBON (EPA 9060A MOD.)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| Batch: 11C1146 Extracted: 03/09/11 | | | | | | | | | | | |
| Blank Analyzed: 03/09/2011 (11C1146-BLK1) | | | | | | | | | | | |
| Total Organic Carbon | ND | 5000 | 1700 | mg/kg | | | | | | | |
| LCS Analyzed: 03/09/2011 (11C1146-BS1) | | | | | | | | | | | |
| Total Organic Carbon | 9820 | 5000 | 1700 | mg/kg | 10000 | | 98 | 90-110 | | | |
| Matrix Spike Analyzed: 03/09/2011 (11C1146-MS1) Source: IUB2653-01 | | | | | | | | | | | |
| Total Organic Carbon | 18800 | 5000 | 1700 | mg/kg | 19900 | ND | 94 | 70-130 | | | |
| Matrix Spike Dup Analyzed: 03/09/2011 (11C1146-MSD1) Source: IUB2653-01 | | | | | | | | | | | |
| Total Organic Carbon | 20000 | 5000 | 1700 | mg/kg | 19900 | ND | 101 | 70-130 | 6 | 30 | |

TestAmerica Irvine

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 Project Manager

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Boeing SSFL NPDES
Report Number: IUB2653

Sampled: 02/24/11
Received: 02/24/11

DATA QUALIFIERS AND DEFINITIONS

- 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.
- RL1** Reporting limit raised due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

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Debby Wilson
Project Manager

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IUB2653 <Page 10 of 11>

MWH-Pasadena/Boeing
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Attention: Bronwyn Kelly

Project ID: Annual Sediment Arroyo Simi-Frontier Park
Boeing SSFL NPDES
Report Number: IUB2653

Sampled: 02/24/11
Received: 02/24/11

Certification Summary

TestAmerica Irvine

| Method | Matrix | Nelac | California |
|-------------------|--------|-------|------------|
| EDD + Level 4 | Solid | N/A | N/A |
| EPA 160.3 | Solid | | |
| EPA 8081A | Solid | | |
| EPA 8082 | Solid | X | X |
| EPA 9060A MOD. | Solid | N/A | N/A |
| SM4500NH3-D, MOD. | Solid | | |

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

ABC Laboratories California Cert #1907

29 N. Olive Street - Ventura, CA 93001

Analysis Performed: Bioassay-Haz. Waste
Samples: IUB2653-01

Analysis Performed: Bioassay-Haz. Waste Def
Samples: IUB2653-01

Analysis Performed: Level 4 Data Package
Samples: IUB2653-01

PTS Labs-SUB

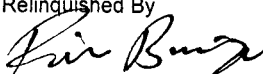
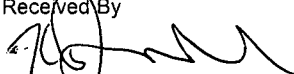

8100 Secura Way - Santa Fe Springs, CA 90670

Analysis Performed: Level 4 Data Package
Samples: IUB2653-01

Analysis Performed: Particlesize
Samples: IUB2653-01

TestAmerica Irvine

Debby Wilson
Project Manager

| Client Name/Address: MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 | | | | Project: Boeing-SSFL NPDES Annual Sediment Arroyo Simi - Frontier Park | | | ANALYSIS REQUIRED | | | | | | | | | | | | |
|--|---------------|-----------------------|------------|---|----------------|----------------|---|---|---------------|------------|---------------------------------|----------------------|------------|---|--|---|--|--|--|
| Test America Contact: Debby Wilson Project Manager: Bronwyn Kelly Sampler: RICK BANAB | | | | Phone Number: (626) 568-6691 Fax Number: (626) 568-6515 | | | Field readings: Temp = 9.41 9.91°C pH = 7.8 7.8 DO = 8.51 8.51 mg/L Conductivity = 1.23 mS/cm Water Velocity (ft/sec) = 1/60 Time of readings = 0940 Comments: Keep sample in cooler in the dark until delivered to ABC Labs | | | | | | | | | | | | |
| Sample Description | Sample Matrix | Container Type | # of Cont. | Sampling Date/Time | Preservative | Bottle # | Chronic 10-day eohaustorius toxicity | 48-hour Bivalve Embryo toxicity (Mytilus edulis or Crassostrea gigas) | Total Ammonia | % Moisture | Particle Size Distribution | Total Organic Carbon | PCBs (608) | Chlordane, Dieldrin, Toxaphene (608), 4,4-DDD, 4,4-DDE, 4,4-DDT | | | | | |
| Arroyo Simi-FP | S | 1L wide mouth Plastic | 4 | 2-24-2011 10:00 | 4C in the Dark | 1A, 1B, 1C, 1D | X | X | | | | | | | | | | | |
| Arroyo Simi-FP | S | 9 oz Jar | 1 | | 4 deg C | 2A | | | X | | | | | | | | | | |
| Arroyo Simi-FP | S | 9 oz Jar | 1 | | 4 deg C | 3A | | | X | | X | | | | | | | | |
| Arroyo Simi-FP | S | 9 oz Jar | 1 | | 4 deg C | 4A | | | | X | | | | | | | | | |
| Arroyo Simi-FP | S | 9 oz Jar | 1 | 2-24-2011 10:00 | 4 deg C | 5A | | | | | | X | X | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| Relinquished By:  | | | | Date/Time: 2-24-2011 | | | Received By:  | | | | Date/Time: 2-24-11 11:00 | | | | | Turn around Time: (check) 24 Hours _____ 5 Days _____ | | | |
| Relinquished By:  | | | | Date/Time: 2-24-11 1450 | | | Received By: _____ | | | | Date/Time: _____ | | | | | 48 Hours _____ 10 Days _____ 72 Hours _____ Normal X | | | |
| Relinquished By: _____ | | | | Date/Time: _____ | | | Received By: V. Banab | | | | Date/Time: 2/24/11 14:50 | | | | | Sample Integrity: (check) Intact _____ On Ice: X Data Requirements: (check) No Level IV _____ All Level IV _____ NPDES Level IV X On Ice: _____ | | | |

0.0
2/24/11
7:00

#24V14 5.4C



March 23rd, 2011

Debby Wilson
TestAmerica Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Dear Ms. Wilson:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, EPA/R-95/136*. Results were as follows:

| | |
|----------------|-------------------------------------|
| CLIENT: | TestAmerica Irvine |
| SAMPLE I.D.: | IUB2653-01 (Arroyo Simi-FP – Solid) |
| DATE RECEIVED: | 2/25/2011 |
| ABC LAB. NO.: | TAM0211.302 |

CHRONIC EOHAUSTORIUS SURVIVAL BIOASSAY

NOEC = 100.00 %

TUc = 1.00

IC25 = >100.00 %

IC50 = >100.00 %

Yours very truly,

For: Thomas (Tim) Mikel
Laboratory Director

CETIS Summary Report

Report Date: 23 Mar-11 11:05 (p 1 of 1)
 Test Code: 19-0252-5279/TAM0211302eoh

Eohaustorius 10-d Survival and Reburial Sediment Test

Aqualic Bioassay & Consulting Labs, Inc.

Batch ID: 04-7275-8477 Test Type: Survival-Reburial Analyst:
 Start Date: 07 Mar-11 13:14 Protocol: EPA/600/R-94/025 (1994) Diluent: Laboratory Seawater
 Ending Date: 17 Mar-11 14:00 Species: Eohaustorius estuarius Brine: Not Applicable
 Duration: 10d 1h Source: Northwestern Aquatic Science, OR Age:

Sample ID: 06-7062-1763 Code: TAM0211302e Client: Test America Irvine
 Sample Date: 24 Feb-11 10:00 Material: Sediment Project: IUB2653
 Receive Date: 25 Feb-11 14:00 Source: Bioassay Report
 Sample Age: 11d 3h (4 °C) Station: IUB2653-01 (Arroyo Simi-FP - Solid)

Comparison Summary

| Analysis ID | Endpoint | NOEL | LOEL | TOEL | PMSD | TU | Method |
|--------------|---------------|------|------|------|-------|----|----------------------------------|
| 15-9353-3825 | Survival Rate | 100 | >100 | N/A | 7.19% | 1 | Equal Variance t Two-Sample Test |

Point Estimate Summary

| Analysis ID | Endpoint | Level | % | 95% LCL | 95% UCL | TU | Method |
|--------------|---------------|-------|------|---------|---------|----|------------------------------|
| 08-6502-4974 | Survival Rate | EC5 | >100 | N/A | N/A | <1 | Linear Interpolation (ICPIN) |
| | | EC10 | >100 | N/A | N/A | <1 | |
| | | EC15 | >100 | N/A | N/A | <1 | |
| | | EC20 | >100 | N/A | N/A | <1 | |
| | | EC25 | >100 | N/A | N/A | <1 | |
| | | EC40 | >100 | N/A | N/A | <1 | |
| | | EC50 | >100 | N/A | N/A | <1 | |

Test Acceptability

| Analysis ID | Endpoint | Attribute | Test Stat | TAC Limits | Overlap | Decision |
|--------------|---------------|--------------|-----------|------------|---------|----------------------|
| 08-6502-4974 | Survival Rate | Control Resp | 0.92 | 0.9 - NL | Yes | Result Within Limits |
| 15-9353-3825 | Survival Rate | Control Resp | 0.92 | 0.9 - NL | Yes | Result Within Limits |

Survival Rate Summary

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | Diff% |
|--------|------------------|-------|------|---------|---------|------|-----|----------|---------|-------|--------|
| 0 | Negative Control | 5 | 0.92 | 0.8987 | 0.9413 | 0.85 | 1 | 0.01041 | 0.05701 | 6.2% | 0.0% |
| 100 | | 5 | 0.94 | 0.9244 | 0.9556 | 0.9 | 1 | 0.007638 | 0.04183 | 4.45% | -2.17% |

Survival Rate Detail

| Conc-% | Control Type | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|--------|------------------|-------|-------|-------|-------|-------|
| 0 | Negative Control | 0.9 | 0.85 | 0.95 | 0.9 | 1 |
| 100 | | 0.95 | 0.9 | 0.95 | 1 | 0.9 |

CETIS Analytical Report

Report Date: 23 Mar-11 11:05 (p 1 of 2)
 Test Code: 19-0252-5279/TAM0211302eoh

| | | | | | |
|--|--|------------------------------|---|--|--|
| Eohaustorius 10-d Survival and Reburial Sediment Test | | | Aquatic Bioassay & Consulting Labs, Inc. | | |
| Analysis ID: 15-9353-3925 | Endpoint: Survival Rate | CETIS Version: CETISv1.7.0 | | | |
| Analyzed: 23 Mar-11 11:05 | Analysis: Parametric-Two Sample | Official Results: Yes | | | |
| Batch ID: 04-7275-8477 | Test Type: Survival-Reburial | Analyst: | | | |
| Start Date: 07 Mar-11 13:14 | Protocol: EPA/600/R-94/025 (1994) | Diluent: Laboratory Seawater | | | |
| Ending Date: 17 Mar-11 14:00 | Species: Eohaustorius estuarius | Brine: Not Applicable | | | |
| Duration: 10d 1h | Source: Northwestern Aquatic Science, OR | Age: | | | |
| Sample ID: 06-7062-1763 | Code: TAM0211302e | Client: Test America Irvine | | | |
| Sample Date: 24 Feb-11 10:00 | Material: Sediment | Project: IUB2653 | | | |
| Receive Date: 25 Feb-11 14:00 | Source: Bioassay Report | | | | |
| Sample Age: 11d 3h (4 °C) | Station: IUB2653-01 (Arroyo Simi-FP - Solid) | | | | |

| Data Transform | Zeta | Alt Hyp | Monte Carlo | NOEL | LOEL | TOEL | TU | PMSD |
|---------------------|------|---------|-------------|------|------|------|----|-------|
| Angular (Corrected) | 0 | C > T | Not Run | 100 | >100 | N/A | 1 | 7.19% |

| Equal Variance t Two-Sample Test | | | | | | | |
|---|----|--------|-----------|----------|--------|---------|------------------------|
| Control | vs | Conc-% | Test Stat | Critical | MSD | P-Value | Decision(5%) |
| Negative Control | | 100 | -0.5494 | 1.86 | 0.1166 | 0.7011 | Non-Significant Effect |

| Test Acceptability | | | | |
|---------------------------|-----------|------------|---------|----------------------|
| Attribute | Test Stat | TAC Limits | Overlap | Decision |
| Control Resp | 0.92 | 0.9 - NL | Yes | Result Within Limits |

| Auxiliary Tests | | | | | |
|------------------------|-----------------------|-----------|----------|---------|----------------------|
| Attribute | Test | Test Stat | Critical | P-Value | Decision |
| Extreme Value | Grubbs Single Outlier | 1.752 | 2.29 | 0.5813 | No Outliers Detected |

| ANOVA Table | | | | | | |
|--------------------|-------------|-------------|----|--------|---------|------------------------|
| Source | Sum Squares | Mean Square | DF | F Stat | P-Value | Decision(5%) |
| Between | 0.002964802 | 0.002964802 | 1 | 0.3018 | 0.5977 | Non-Significant Effect |
| Error | 0.07858098 | 0.009822623 | 8 | | | |
| Total | 0.08154579 | 0.01278742 | 9 | | | |

| ANOVA Assumptions | | | | | |
|--------------------------|---------------------------------|-----------|----------|---------|---------------------|
| Attribute | Test | Test Stat | Critical | P-Value | Decision(1%) |
| Variances | Variance Ratio F | 1.606 | 23.15 | 0.6574 | Equal Variances |
| Variances | Mod Levene Equality of Variance | 0.1416 | 13.75 | 0.7196 | Equal Variances |
| Distribution | Shapiro-Wilk Normality | 0.9343 | | 0.4912 | Normal Distribution |
| Distribution | Kolmogorov-Smirnov | 0.1887 | 0.3025 | 0.4417 | Normal Distribution |
| Distribution | D'Agostino Skewness | 0.9242 | 2.576 | 0.3554 | Normal Distribution |

| Survival Rate Summary | | | | | | | | | | | |
|------------------------------|------------------|-------|------|---------|---------|------|-----|----------|---------|-------|--------|
| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | Diff% |
| 0 | Negative Control | 5 | 0.92 | 0.8983 | 0.9417 | 0.85 | 1 | 0.01059 | 0.05701 | 6.2% | 0.0% |
| 100 | | 5 | 0.94 | 0.9241 | 0.9559 | 0.9 | 1 | 0.007768 | 0.04183 | 4.45% | -2.17% |

| Angular (Corrected) Transformed Summary | | | | | | | | | | | |
|--|----------------|-------|-------|---------|---------|-------|-------|---------|---------|-------|--------|
| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | Diff% |
| 0 | Negative Contr | 5 | 1.295 | 1.253 | 1.337 | 1.173 | 1.459 | 0.02043 | 0.11 | 8.5% | 0.0% |
| 100 | | 5 | 1.329 | 1.296 | 1.363 | 1.249 | 1.459 | 0.01612 | 0.08682 | 6.53% | -2.66% |

CETIS Analytical Report

Report Date: 23 Mar-11 11:05 (p 2 of 2)
 Test Code: 19-0252-5279/TAM0211302eoh

Eohaustorius 10-d Survival and Reburial Sediment Test

Aquatic Bioassay & Consulting Labs, Inc.

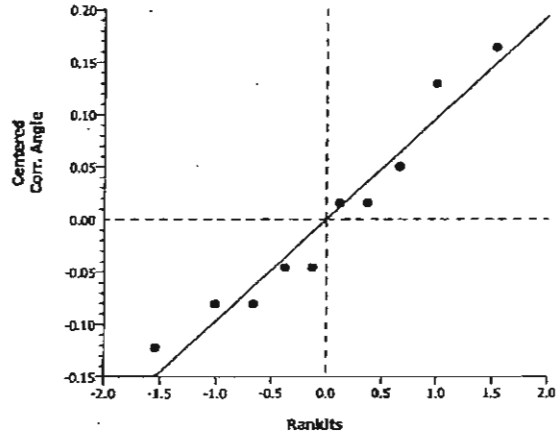
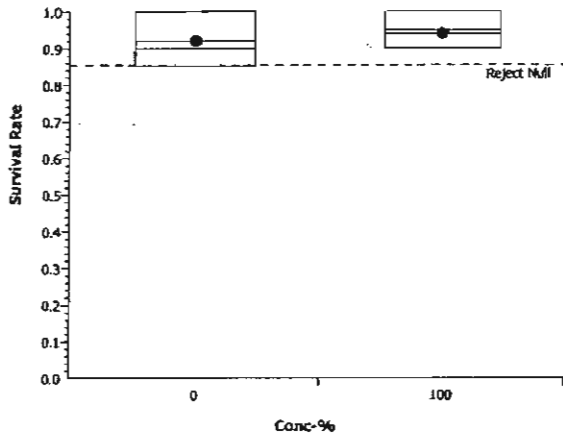
Analysis ID: 15-9353-3825 Endpoint: Survival Rate
 Analyzed: 23 Mar-11 11:05 Analysis: Parametric-Two Sample

CETIS Version: CETISv1.7.0
 Official Results: Yes

Survival Rate Detail

| Conc-% | Control Type | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|--------|------------------|-------|-------|-------|-------|-------|
| 0 | Negative Control | 0.9 | 0.85 | 0.95 | 0.9 | 1 |
| 100 | | 0.95 | 0.9 | 0.95 | 1 | 0.9 |

Graphics



CETIS Analytical Report

Report Date: 23 Mar-11 11:05 (p 2 of 2)
Test Code: 19-0252-5279/TAM0211302eoh

Eohaustorius 10-d Survival and Reburial Sediment Test

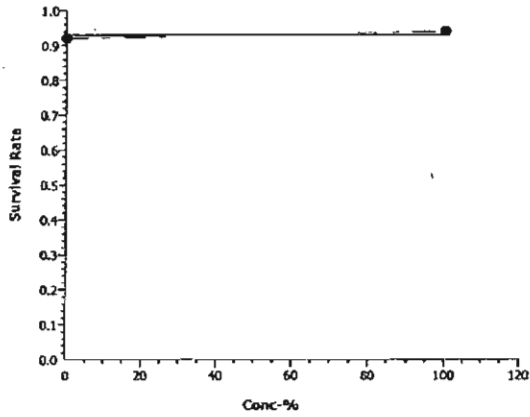
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 08-6502-4974
Analyzed: 23 Mar-11 11:05

Endpoint: Survival Rate
Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.7.0
Official Results: Yes

Graphics



CETIS Measurement Report

Report Date: 23 Mar-11 11:05 (p 1 of 2)
 Test Code: 19-0252-5279/TAM0211302eoh

Eohaustorius 10-d Survival and Reburial Sediment Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 04-7275-8477 Test Type: Survival-Reburial Analyst:
 Start Date: 07 Mar-11 13:14 Protocol: EPA/600/R-94/025 (1994) Diluent: Laboratory Seawater
 Ending Date: 17 Mar-11 14:00 Species: Eohaustorius estuarius Brine: Not Applicable
 Duration: 10d 1h Source: Northwestern Aquatic Science, OR Age:

Sample ID: 06-7062-1763 Code: TAM0211302e Client: Test America Irvine
 Sample Date: 24 Feb-11 10:00 Material: Sediment Project: IUB2653
 Receive Date: 25 Feb-11 14:00 Source: Bioassay Report
 Sample Age: 11d 3h (4 °C) Station: IUB2653-01 (Arroyo Simi-FP - Solid)

Dissolved Oxygen-mg/L

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|---------|----------------|-------|------|---------|---------|-----|-----|---------|---------|-------|----------|
| 0 | Negative Contr | 2 | 9.85 | 9.826 | 9.874 | 9.8 | 9.9 | 0.01178 | 0.0707 | 0.72% | 0 |
| 100 | | 2 | 9.95 | 9.926 | 9.974 | 9.9 | 10 | 0.01179 | 0.07073 | 0.71% | 0 |
| Overall | | 4 | 9.9 | | | 9.8 | 10 | | | | 0 (0%) |

Total Ammonia (N)-mg/L

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|---------|----------------|-------|------|---------|---------|-----|-----|---------|---------|-----|----------|
| 0 | Negative Contr | 1 | 0 | | | 0 | 0 | 0 | 0 | | 0 |
| 100 | | 1 | 0 | | | 0 | 0 | 0 | 0 | | 0 |
| Overall | | 2 | 0 | | | 0 | 0 | | | | 0 (0%) |

pH-Units

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|---------|----------------|-------|-------|---------|---------|-----|-----|---------|---------|-------|----------|
| 0 | Negative Contr | 2 | 7.75 | 7.726 | 7.774 | 7.7 | 7.8 | 0.01179 | 0.07072 | 0.91% | 0 |
| 100 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| Overall | | 4 | 7.775 | | | 7.7 | 7.8 | | | | 0 (0%) |

Salinity-ppt

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|---------|----------------|-------|------|---------|---------|-----|-----|---------|---------|------|----------|
| 0 | Negative Contr | 2 | 20 | 20 | 20 | 20 | 20 | 0 | 0 | 0.0% | 0 |
| 100 | | 2 | 20 | 20 | 20 | 20 | 20 | 0 | 0 | 0.0% | 0 |
| Overall | | 4 | 20 | | | 20 | 20 | | | | 0 (0%) |

Temperature-°C

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|---------|----------------|-------|-------|---------|---------|------|------|---------|---------|-------|----------|
| 0 | Negative Contr | 2 | 14.85 | 14.83 | 14.87 | 14.8 | 14.9 | 0.0118 | 0.07077 | 0.48% | 0 |
| 100 | | 2 | 14.75 | 14.73 | 14.77 | 14.7 | 14.8 | 0.01179 | 0.07075 | 0.48% | 0 |
| Overall | | 4 | 14.8 | | | 14.7 | 14.9 | | | | 0 (0%) |

CETIS Measurement Report

Report Date: 23 Mar-11 11:05 (p 2 of 2)

Test Code: 19-0252-5279/TAM0211302eoh

Eohaustorius 10-d Survival and Reburial Sediment Test

Aquatic Bioassay & Consulting Labs, Inc.

Dissolved Oxygen-mg/L

| Conc-% | Control Type | 1 | 2 |
|--------|----------------|-----|-----|
| 0 | Negative Contr | 9.8 | 9.9 |
| 100 | | 10 | 9.9 |

Total Ammonia (N)-mg/L

| Conc-% | Control Type | 1 | 2 |
|--------|----------------|---|---|
| 0 | Negative Contr | 0 | |
| 100 | | 0 | |

pH-Units

| Conc-% | Control Type | 1 | 2 |
|--------|----------------|-----|-----|
| 0 | Negative Contr | 7.7 | 7.8 |
| 100 | | 7.8 | 7.8 |

Salinity-ppt

| Conc-% | Control Type | 1 | 2 |
|--------|----------------|----|----|
| 0 | Negative Contr | 20 | 20 |
| 100 | | 20 | 20 |

Temperature-°C

| Conc-% | Control Type | 1 | 2 |
|--------|----------------|------|------|
| 0 | Negative Contr | 14.8 | 14.9 |
| 100 | | 14.8 | 14.7 |



March 23rd, 2011

Debby Wilson
TestAmerica Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Dear Ms. Wilson:

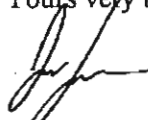
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, EPA/R-95/136*. Results were as follows:

| | |
|----------------|-------------------------------------|
| CLIENT: | TestAmerica Irvine |
| SAMPLE I.D.: | IUB2653-01 (Arroyo Simi-FP – Solid) |
| DATE RECEIVED: | 2/25/2011 |
| ABC LAB. NO.: | TAM0211.302 |

CHRONIC MYTILUS DEVELOPMENT BIOASSAY

| | |
|-------------------|-----------|
| NOEC = | 100.00 % |
| TU _c = | 1.00 |
| IC25 = | >100.00 % |
| IC50 = | >100.00 % |

Yours very truly,


for Thomas (Tim) Mikel
Laboratory Director

CETIS Summary Report

Report Date: 23 Mar-11 11:21 (p 1 of 1)
 Test Code: 17-0821-4172/TAM0211302myt

Mussel Shell Development Test

Aquatic Bioassay & Consulting Labs, Inc.

| | | |
|-------------------------------|--|-----------------------------|
| Batch ID: 01-0105-6248 | Test Type: Development-Survival | Analyst: |
| Start Date: 07 Mar-11 13:14 | Protocol: EPA/600/R-95/136 (1995) | Diluent: Laboratory Water |
| Ending Date: 17 Mar-11 14:00 | Species: Mytilis galloprovincialis | Brine: |
| Duration: 10d 1h | Source: Carlsbad Aquafarms CA | Age: |
| Sample ID: 09-7898-4094 | Code: TAM0211302m | Client: Test America Irvine |
| Sample Date: 24 Feb-11 10:00 | Material: Sediment | Project: IUB2653 |
| Receive Date: 25 Feb-11 14:00 | Source: Bioassay Report | |
| Sample Age: 11d 3h (4 °C) | Station: IUB2653-01 (Arroyo Simi-FP - Solid) | |

Comparison Summary

| Analysis ID | Endpoint | NOEL | LOEL | TOEL | PMSD | TU | Method |
|--------------|--------------------------|------|------|------|-------|----|----------------------------------|
| 04-7653-3275 | Combined Proportion Norm | 100 | >100 | N/A | 4.28% | 1 | Equal Variance t Two-Sample Test |

Point Estimate Summary

| Analysis ID | Endpoint | Level | % | 95% LCL | 95% UCL | TU | Method |
|--------------|--------------------------|-------|------|---------|---------|----|------------------------------|
| 05-7766-5297 | Combined Proportion Norm | EC5 | >100 | N/A | N/A | <1 | Linear Interpolation (ICPIN) |
| | | EC10 | >100 | N/A | N/A | <1 | |
| | | EC15 | >100 | N/A | N/A | <1 | |
| | | EC20 | >100 | N/A | N/A | <1 | |
| | | EC25 | >100 | N/A | N/A | <1 | |
| | | EC40 | >100 | N/A | N/A | <1 | |
| | | EC50 | >100 | N/A | N/A | <1 | |

Test Acceptability

| Analysis ID | Endpoint | Attribute | Test Stat | TAC Limits | Overlap | Decision |
|--------------|--------------------------|-----------|-----------|------------|---------|----------------------|
| 04-7653-3275 | Combined Proportion Norm | PMSD | 0.04281 | NL - 0.25 | No | Result Within Limits |

Combined Proportion Normal Summary

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | Diff% |
|--------|------------------|-------|--------|---------|---------|--------|--------|----------|---------|-------|--------|
| 0 | Negative Control | 5 | 0.9417 | 0.9349 | 0.9485 | 0.9193 | 0.9686 | 0.003326 | 0.01822 | 1.93% | 0.0% |
| 100 | | 5 | 0.9641 | 0.9525 | 0.9758 | 0.9238 | 0.991 | 0.005702 | 0.03123 | 3.24% | -2.38% |

Combined Proportion Normal Detail

| Conc-% | Control Type | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|--------|------------------|--------|--------|--------|--------|--------|
| 0 | Negative Control | 0.9462 | 0.9327 | 0.9686 | 0.9417 | 0.9193 |
| 100 | | 0.9372 | 0.991 | 0.9238 | 0.9821 | 0.9865 |

CETIS Analytical Report

Report Date: 23 Mar-11 11:21 (p 1 of 2)
 Test Code: 17-0621-4172/TAM0211302myt

| | | | | | |
|--------------------------------------|--|-----------------------------|---|--|--|
| Mussel Shell Development Test | | | Aquatic Bioassay & Consulting Labs, Inc. | | |
| Analysis ID: 04-7653-3275 | Endpoint: Combined Proportion Normal | CETIS Version: CETISv1.7.0 | | | |
| Analyzed: 23 Mar-11 11:21 | Analysls: Parametric-Two Sample | Official Results: Yes | | | |
| Batch ID: 01-0105-6248 | Test Type: Development-Survival | Analyst: | | | |
| Start Date: 07 Mar-11 13:14 | Protocol: EPA/600/R-95/136 (1995) | Diluent: Laboratory Water | | | |
| Ending Date: 17 Mar-11 14:00 | Species: Mytilis galloprovincialis | Brine: | | | |
| Duration: 10d 1h | Source: Carlsbad Aquafarms CA | Age: | | | |
| Sample ID: 09-7898-4094 | Code: TAM0211302m | Client: Test America Irvine | | | |
| Sample Date: 24 Feb-11 10:00 | Material: Sediment | Project: IUB2653 | | | |
| Receive Date: 25 Feb-11 14:00 | Source: Bioassay Report | | | | |
| Sample Age: 11d 3h (4 °C) | Station: IUB2653-01 (Arroyo Simi-FP - Solid) | | | | |

| Data Transform | Zeta | Alt Hyp | Monte Carlo | NOEL | LOEL | TOEL | TU | PMSD |
|---------------------|------|---------|-------------|------|------|------|----|-------|
| Angular (Corrected) | 0 | C > T | Not Run | 100 | >100 | N/A | 1 | 4.28% |

| Equal Variance t Two-Sample Test | | | | | | | |
|----------------------------------|----|--------|-----------|----------|---------|---------|------------------------|
| Control | vs | Conc-% | Test Stat | Critical | MSD | P-Value | Decision(5%) |
| Negative Control | | 100 | -1.562 | 1.86 | 0.07813 | 0.9215 | Non-Significant Effect |

| Test Acceptability | | | | |
|--------------------|-----------|------------|---------|----------------------|
| Attribute | Test Stat | TAC Limits | Overlap | Decision |
| PMSD | 0.04281 | NL - 0.25 | No | Result Within Limits |

| Auxiliary Tests | | | | | | |
|-----------------|-----------------------|-----------|----------|---------|----------------------|--|
| Attribute | Test | Test Stat | Critical | P-Value | Decision | |
| Extreme Value | Grubbs Single Outlier | 1.661 | 2.29 | 0.7644 | No Outliers Detected | |

| ANOVA Table | | | | | | |
|-------------|-------------|-------------|----|--------|---------|------------------------|
| Source | Sum Squares | Mean Square | DF | F Stat | P-Value | Decision(5%) |
| Between | 0.01076369 | 0.01076369 | 1 | 2.439 | 0.1570 | Non-Significant Effect |
| Error | 0.03530457 | 0.004413071 | 8 | | | |
| Total | 0.04606825 | 0.01517676 | 9 | | | |

| ANOVA Assumptions | | | | | | |
|-------------------|---------------------------------|-----------|----------|---------|---------------------|--|
| Attribute | Test | Test Stat | Critical | P-Value | Decision(1%) | |
| Variances | Variance Ratio F | 4.283 | 23.15 | 0.1878 | Equal Variances | |
| Variances | Mod Levene Equality of Variance | 1.916 | 13.75 | 0.2155 | Equal Variances | |
| Distribution | Shapiro-Wilk Normality | 0.9507 | | 0.6764 | Normal Distribution | |
| Distribution | Kolmogorov-Smirnov | 0.1454 | 0.3025 | 1.0000 | Normal Distribution | |
| Distribution | D'Agostino Skewness | 0.5471 | 2.576 | 0.5843 | Normal Distribution | |

| Combined Proportion Normal Summary | | | | | | | | | | | |
|------------------------------------|------------------|-------|--------|---------|---------|--------|--------|----------|---------|-------|--------|
| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | Diff% |
| 0 | Negative Control | 5 | 0.9417 | 0.9348 | 0.9486 | 0.9193 | 0.9686 | 0.003383 | 0.01822 | 1.93% | 0.0% |
| 100 | | 5 | 0.9641 | 0.9522 | 0.976 | 0.9238 | 0.991 | 0.005799 | 0.03123 | 3.24% | -2.38% |

| Angular (Corrected) Transformed Summary | | | | | | | | | | | |
|---|----------------|-------|-------|---------|---------|-------|-------|---------|---------|-------|--------|
| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | Diff% |
| 0 | Negative Contr | 5 | 1.329 | 1.314 | 1.345 | 1.283 | 1.393 | 0.00759 | 0.04087 | 3.07% | 0.0% |
| 100 | | 5 | 1.395 | 1.363 | 1.427 | 1.291 | 1.476 | 0.01571 | 0.08459 | 6.06% | -4.94% |

CETIS Measurement Report

Report Date: 23 Mar-11 11:21 (p 1 of 2)
 Test Code: 17-0621-4172/TAM0211302myl

Mussel Shell Development Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 01-0105-6248 Test Type: Development-Survival Analyst:
 Start Date: 07 Mar-11 13:14 Protocol: EPA/600/R-95/136 (1995) Diluent: Laboratory Water
 Ending Date: 17 Mar-11 14:00 Species: Mytilis galloprovincialis Brine:
 Duration: 10d 1h Source: Carlsbad Aquafarms CA Age:

Sample ID: 09-7898-4094 Code: TAM0211302m Client: Test America Irvine
 Sample Date: 24 Feb-11 10:00 Material: Sediment Project: IUB2653
 Receive Date: 25 Feb-11 14:00 Source: Bioassay Report
 Sample Age: 11d 3h (4 °C) Station: IUB2653-01 (Arroyo Simi-FP - Solid)

Dissolved Oxygen-mg/L

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|---------|----------------|-------|------|---------|---------|-----|-----|---------|---------|-------|----------|
| 0 | Negative Contr | 2 | 8.9 | 8.804 | 8.996 | 8.7 | 9.1 | 0.04714 | 0.2828 | 3.18% | 0 |
| 100 | | 2 | 9.1 | 9.004 | 9.196 | 8.9 | 9.3 | 0.04714 | 0.2828 | 3.11% | 0 |
| Overall | | 4 | 9 | | | 8.7 | 9.3 | | | | 0 (0%) |

Total Ammonia (N)-mg/L

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|---------|----------------|-------|------|---------|---------|-----|-----|---------|---------|-----|----------|
| 0 | Negative Contr | 1 | 0 | | | 0 | 0 | 0 | 0 | | 0 |
| 100 | | 1 | 0 | | | 0 | 0 | 0 | 0 | | 0 |
| Overall | | 2 | 0 | | | 0 | 0 | | | | 0 (0%) |

pH-Units

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|---------|----------------|-------|------|---------|---------|-----|-----|---------|---------|------|----------|
| 0 | Negative Contr | 2 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 0 | 0 | 0.0% | 0 |
| 100 | | 2 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 0 | 0 | 0.0% | 0 |
| Overall | | 4 | 7.7 | | | 7.7 | 7.7 | | | | 0 (0%) |

Salinity-ppt

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|---------|----------------|-------|------|---------|---------|-----|-----|---------|---------|------|----------|
| 0 | Negative Contr | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 100 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| Overall | | 4 | 34 | | | 34 | 34 | | | | 0 (0%) |

Temperature-°C

| Conc-% | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|---------|----------------|-------|-------|---------|---------|------|------|---------|---------|-------|----------|
| 0 | Negative Contr | 2 | 14.85 | 14.83 | 14.87 | 14.8 | 14.9 | 0.0118 | 0.07077 | 0.48% | 0 |
| 100 | | 2 | 14.85 | 14.83 | 14.87 | 14.8 | 14.9 | 0.0118 | 0.07077 | 0.48% | 0 |
| Overall | | 4 | 14.85 | | | 14.8 | 14.9 | | | | 0 (0%) |

Subcontract Order - TestAmerica Irvine (IUB2653)

SENDING LABORATORY:

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

RECEIVING LABORATORY:


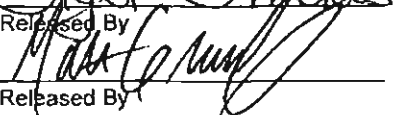
ABC Laboratories-SUB
 29 N. Olive Street
 Ventura, CA 93001
 Phone: (805) 643-5621
 Fax: (805) 643-2930
 Project Location: California
 Receipt Temperature: _____ °C Ice: Y / N

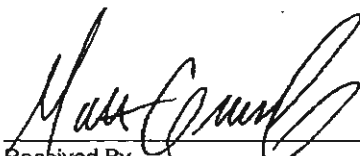
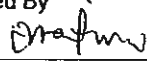
Standard TAT is requested unless specific due date is requested. => Due Date: _____ Initials: _____

| Analysis | Units | Expires | Comments |
|---|------------------|------------------|--|
| Sample ID: IUB2653-01 (Arroyo Simi-FP - Solid) Sampled: 02/24/11 10:00 Temp=9.91, pH=7.8, DO=8.51, Conductivity | | | |
| Bioassay-Haz. Waste | N/A | 03/03/11 10:00 | Chronic 10 day(eohaustorius) Out to ABC Labs |
| Bioassay-Haz. Waste Def | N/A | 03/03/11 10:00 | 48hr Bivalve Embryo TOX(mytilus edulis) Out to ABC |
| Level 4 Data Package | N/A | 03/24/11 10:00 | |
| <i>Containers Supplied:</i> | | | |
| 1 L Poly W/M (E) | 1 L Poly W/M (F) | 1 L Poly W/M (G) | 1 L Poly W/M (H) |

Eoh & Mytilus - sed tox.

TAM0211.302


 Released By _____

 Released By _____
 2-25-11/7:30
 Date/Time
 2-25-11/14:00
 Date/Time


 Received By _____

 Received By _____
 2-25-11/7:30
 Date/Time
 2-25-11 14:00
 Date/Time



96 Hour *Eohaustorius estuarius* Survival Bioassay - Standard Toxicant

DATE: 3/7/2011

STANDARD TOXICANT: Ammonium Chloride

ENDPOINT: SURVIVAL

UNIONIZED AMMONIA

NOEC = 0.365 mg/L

IC25 = 0.605 mg/L

IC50 = 0.995 mg/L

Yours very truly,

for Thomas (Tim) Mikel
Laboratory Director

CETIS Summary Report

Report Date: 23 Mar-11 10:49 (p 1 of 1)
 Test Code: 12-5949-3736/EOH030711eoh

Reference Toxicant 96-h Acute Survival Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 15-2222-4633 Test Type: Survival Analyst:
 Start Date: 07 Mar-11 13:13 Protocol: EPA/600/R-94/025 (1994) Diluent: Laboratory Seawater
 Ending Date: 11 Mar-11 14:00 Species: Eohaustorius estuarius Brine: Not Applicable
 Duration: 4d 1h Source: Northwestern Aquatic Science, OR Age:

Sample ID: 00-8195-6193 Code: EOH030711e Client: Internal Lab
 Sample Date: 07 Mar-11 Material: Ammonia (Unionized) Project:
 Receive Date: 07 Mar-11 Source: Reference Toxicant
 Sample Age: 13h Station:

Comparison Summary

| Analysis ID | Endpoint | NOEL | LOEL | TOEL | PMSD | TU | Method |
|--------------|---------------|-------|-------|--------|--------|----|------------------------------------|
| 03-1925-4393 | Survival Rate | 0.365 | 0.679 | 0.4978 | 14.49% | | Dunnett's Multiple Comparison Test |

Point Estimate Summary

| Analysis ID | Endpoint | Level | mg/L | 95% LCL | 95% UCL | TU | Method |
|--------------|---------------|--------|--------|---------|---------|----|------------------------------|
| 17-5586-8074 | Survival Rate | EC5 | 0.2836 | 0.1656 | 0.4934 | | Linear Interpolation (ICPIN) |
| | | EC10 | 0.3787 | 0.2197 | 0.5251 | | |
| | | EC15 | 0.4543 | 0.2638 | 0.5738 | | |
| | | EC20 | 0.5299 | 0.3331 | 0.6291 | | |
| | | EC25 | 0.6054 | 0.451 | 0.7127 | | |
| | | EC40 | 0.8379 | 0.7227 | 1.01 | | |
| EC50 | 0.9948 | 0.8416 | 1.296 | | | | |

Survival Rate Summary

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | Diff% |
|-----------|------------------|-------|-------|---------|---------|-----|-----|----------|---------|--------|--------|
| 0 | Negative Control | 4 | 0.95 | 0.9284 | 0.9716 | 0.9 | 1 | 0.01054 | 0.05774 | 6.08% | 0.0% |
| 0.184 | | 4 | 0.975 | 0.9563 | 0.9937 | 0.9 | 1 | 0.009129 | 0.05 | 5.13% | -2.63% |
| 0.365 | | 4 | 0.875 | 0.8392 | 0.9108 | 0.8 | 1 | 0.01748 | 0.09574 | 10.94% | 7.9% |
| 0.679 | | 4 | 0.675 | 0.6563 | 0.6937 | 0.6 | 0.7 | 0.009129 | 0.05 | 7.41% | 28.95% |
| 1.331 | | 4 | 0.275 | 0.2112 | 0.3388 | 0.1 | 0.5 | 0.03118 | 0.1708 | 62.1% | 71.05% |
| 2.774 | | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 100.0% |

Survival Rate Detail

| Conc-mg/L | Control Type | Rep 1 | Rep 2 | Rep 3 | Rep 4 |
|-----------|------------------|-------|-------|-------|-------|
| 0 | Negative Control | 1 | 0.9 | 1 | 0.9 |
| 0.184 | | 1 | 1 | 0.9 | 1 |
| 0.365 | | 1 | 0.8 | 0.9 | 0.8 |
| 0.679 | | 0.7 | 0.6 | 0.7 | 0.7 |
| 1.331 | | 0.5 | 0.1 | 0.2 | 0.3 |
| 2.774 | | 0 | 0 | 0 | 0 |

CETIS Analytical Report

Report Date: 23 Mar-11 10:48 (p 1 of 2)
 Test Code: 12-5949-3736/EOH030711eoh

| | | | | | |
|---|--|----------------------------|--|------------------------------|--|
| Reference Toxicant 96-h Acute Survival Test | | | Aquatic Bioassay & Consulting Labs, Inc. | | |
| Analysis ID: 17-5586-8074 | Endpoint: Survival Rate | CETIS Version: CETISv1.7.0 | | Official Results: Yes | |
| Analyzed: 23 Mar-11 10:48 | Analysis: Linear Interpolation (ICPIN) | | | | |
| Batch ID: 15-2222-4633 | Test Type: Survival | Analyst: | | Diluent: Laboratory Seawater | |
| Start Date: 07 Mar-11 13:13 | Protocol: EPA/600/R-94/025 (1994) | Brine: Not Applicable | | Age: | |
| Ending Date: 11 Mar-11 14:00 | Species: Eohaustorius estuarius | | | | |
| Duration: 4d 1h | Source: Northwestern Aquatic Science, OR | | | | |
| Sample ID: 00-8195-6193 | Code: EOH030711e | Client: Internal Lab | | Project: | |
| Sample Date: 07 Mar-11 | Material: Ammonia (Unionized) | | | | |
| Receive Date: 07 Mar-11 | Source: Reference Toxicant | | | | |
| Sample Age: 13h | Station: | | | | |

| Linear Interpolation Options | | | | | |
|------------------------------|-------------|---------|-----------|------------|-------------------------|
| X Transform | Y Transform | Seed | Resamples | Exp 95% CL | Method |
| Linear | Linear | 7055475 | 280 | Yes | Two-Point Interpolation |

| Residual Analysis | | | | | |
|-------------------|----------------------|-----------|----------|---------|----------------------|
| Attribute | Method | Test Stat | Critical | P-Value | Decision(5%) |
| Extreme Value | Grubbs Extreme Value | 2.461 | 2.802 | 0.2053 | No Outliers Detected |

| Point Estimates | | | |
|-----------------|--------|---------|---------|
| Level | mg/L | 95% LCL | 95% UCL |
| EC5 | 0.2836 | 0.1656 | 0.4934 |
| EC10 | 0.3787 | 0.2197 | 0.5251 |
| EC15 | 0.4543 | 0.2638 | 0.5738 |
| EC20 | 0.5299 | 0.3331 | 0.6291 |
| EC25 | 0.6054 | 0.451 | 0.7127 |
| EC40 | 0.8379 | 0.7227 | 1.01 |
| EC50 | 0.9948 | 0.8416 | 1.296 |

| Survival Rate Summary | | | Calculated Variate(A/B) | | | | | | | | |
|-----------------------|------------------|-------|-------------------------|-----|-----|----------|---------|--------|--------|----|----|
| Conc-mg/L | Control Type | Count | Mean | Min | Max | Std Err | Std Dev | CV% | Diff% | A | B |
| 0 | Negative Control | 4 | 0.95 | 0.9 | 1 | 0.01054 | 0.05773 | 6.08% | 0.0% | 38 | 40 |
| 0.184 | | 4 | 0.975 | 0.9 | 1 | 0.009129 | 0.05 | 5.13% | -2.63% | 39 | 40 |
| 0.365 | | 4 | 0.875 | 0.8 | 1 | 0.01748 | 0.09574 | 10.94% | 7.9% | 35 | 40 |
| 0.679 | | 4 | 0.675 | 0.6 | 0.7 | 0.009129 | 0.05 | 7.41% | 28.95% | 27 | 40 |
| 1.331 | | 4 | 0.275 | 0.1 | 0.5 | 0.03118 | 0.1708 | 62.1% | 71.05% | 11 | 40 |
| 2.774 | | 4 | 0 | 0 | 0 | 0 | 0 | | 100.0% | 0 | 40 |

| Survival Rate Detail | | | | | |
|----------------------|------------------|-------|-------|-------|-------|
| Conc-mg/L | Control Type | Rep 1 | Rep 2 | Rep 3 | Rep 4 |
| 0 | Negative Control | 1 | 0.9 | 1 | 0.9 |
| 0.184 | | 1 | 1 | 0.9 | 1 |
| 0.365 | | 1 | 0.8 | 0.9 | 0.8 |
| 0.679 | | 0.7 | 0.6 | 0.7 | 0.7 |
| 1.331 | | 0.5 | 0.1 | 0.2 | 0.3 |
| 2.774 | | 0 | 0 | 0 | 0 |

CETIS Analytical Report

Report Date: 23 Mar-11 10:48 (p 2 of 2)
Test Code: 12-5949-3736/EOH030711eoh

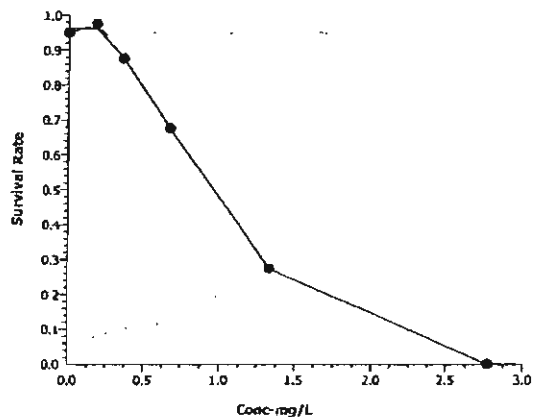
Reference Toxicant 96-h Acute Survival Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 17-5586-8074 Endpoint: Survival Rate
Analyzed: 23 Mar-11 10:48 Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.7.0
Official Results: Yes

Graphics



CETIS Measurement Report

Report Date: 23 Mar-11 10:48 (p 1 of 2)
 Test Code: 12-5949-3736/EOH030711eoh

Reference Toxicant 96-h Acute Survival Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 15-2222-4633 Test Type: Survival Analyst:
 Start Date: 07 Mar-11 13:13 Protocol: EPA/600/R-94/025 (1994) Diluent: Laboratory Seawater
 Ending Date: 11 Mar-11 14:00 Species: Eohaustorius estuarius Brine: Not Applicable
 Duration: 4d 1h Source: Northwestern Aquatic Science, OR Age:

Sample ID: 00-8195-6193 Code: EOH030711e Client: Internal Lab
 Sample Date: 07 Mar-11 Material: Ammonia (Unionized) Project:
 Receive Date: 07 Mar-11 Source: Reference Toxicant
 Sample Age: 13h Station:

Dissolved Oxygen-mg/L

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|-----------|----------------|-------|-------|---------|---------|-----|-----|---------|---------|-------|----------|
| 0 | Negative Contr | 2 | 6.75 | 6.726 | 6.774 | 6.7 | 6.8 | 0.01178 | 0.07069 | 1.05% | 0 |
| 0.184 | | 2 | 6.6 | 6.552 | 6.648 | 6.5 | 6.7 | 0.02357 | 0.1414 | 2.14% | 0 |
| 0.365 | | 2 | 6.55 | 6.43 | 6.67 | 6.3 | 6.8 | 0.05893 | 0.3536 | 5.4% | 0 |
| 0.679 | | 2 | 6.55 | 6.43 | 6.67 | 6.3 | 6.8 | 0.05893 | 0.3536 | 5.4% | 0 |
| 1.331 | | 2 | 6.65 | 6.578 | 6.722 | 6.5 | 6.8 | 0.03536 | 0.2121 | 3.19% | 0 |
| 2.774 | | 2 | 6.6 | 6.456 | 6.744 | 6.3 | 6.9 | 0.07071 | 0.4243 | 6.43% | 0 |
| Overall | | 12 | 6.617 | | | 6.3 | 6.9 | | | | 0 (0%) |

Total Ammonia (N)-mg/L

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|-----------|----------------|-------|-------|---------|---------|------|------|---------|---------|------|----------|
| 0 | Negative Contr | 1 | 0 | | | 0 | 0 | 0 | 0 | 0.0% | 0 |
| 0.184 | | 1 | 12.4 | | | 12.4 | 12.4 | 0 | 0 | 0.0% | 0 |
| 0.365 | | 1 | 24.6 | | | 24.6 | 24.6 | 0 | 0 | 0.0% | 0 |
| 0.679 | | 1 | 45.8 | | | 45.8 | 45.8 | 0 | 0 | 0.0% | 0 |
| 1.331 | | 1 | 89.7 | | | 89.7 | 89.7 | 0 | 0 | 0.0% | 0 |
| 2.774 | | 1 | 187 | | | 187 | 187 | 0 | 0 | 0.0% | 0 |
| Overall | | 6 | 59.92 | | | 0 | 187 | | | | 0 (0%) |

pH-Units

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|-----------|----------------|-------|------|---------|---------|-----|-----|---------|---------|------|----------|
| 0 | Negative Contr | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| 0.184 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| 0.365 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| 0.679 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| 1.331 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| 2.774 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| Overall | | 12 | 7.8 | | | 7.8 | 7.8 | | | | 0 (0%) |

Salinity-ppt

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|-----------|----------------|-------|------|---------|---------|-----|-----|---------|---------|------|----------|
| 0 | Negative Contr | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 0.184 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 0.365 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 0.679 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 1.331 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 2.774 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| Overall | | 12 | 34 | | | 34 | 34 | | | | 0 (0%) |

Temperature-°C

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|-----------|----------------|-------|-------|---------|---------|------|------|---------|---------|-------|----------|
| 0 | Negative Contr | 2 | 14.7 | 14.65 | 14.75 | 14.6 | 14.8 | 0.02357 | 0.1414 | 0.96% | 0 |
| 0.184 | | 2 | 14.75 | 14.68 | 14.82 | 14.6 | 14.9 | 0.03535 | 0.2121 | 1.44% | 0 |
| 0.365 | | 2 | 14.75 | 14.68 | 14.82 | 14.6 | 14.9 | 0.03535 | 0.2121 | 1.44% | 0 |
| 0.679 | | 2 | 14.75 | 14.68 | 14.82 | 14.6 | 14.9 | 0.03535 | 0.2121 | 1.44% | 0 |
| 1.331 | | 2 | 14.75 | 14.68 | 14.82 | 14.6 | 14.9 | 0.03535 | 0.2121 | 1.44% | 0 |
| 2.774 | | 2 | 14.75 | 14.68 | 14.82 | 14.6 | 14.9 | 0.03535 | 0.2121 | 1.44% | 0 |
| Overall | | 12 | 14.74 | | | 14.6 | 14.9 | | | | 0 (0%) |



CHRONIC MYTILUS DEVELOPMENT BIOASSAY

DATE: 3/7/2011

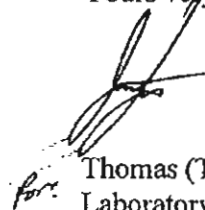
STANDARD TOXICANT: Unionized Ammonia

NOEC = 0.059 mg/l

IC25 = 0.079 mg/l

IC50 = 0.088 mg/l

Yours very truly,



Thomas (Tim) Mikel
Laboratory Director

CETIS Summary Report

Report Date: 23 Mar-11 11:15 (p 1 of 1)
 Test Code: 00-8678-7675/MYT030711myt

Mussel Shell Development Test

Aquatic Bioassay & Consulting Labs, Inc.

| | | |
|------------------------------|------------------------------------|------------------------------|
| Batch ID: 06-9145-4963 | Test Type: Development-Survival | Analyst: |
| Start Date: 07 Mar-11 13:13 | Protocol: EPA/600/R-95/136 (1995) | Diluent: Laboratory Seawater |
| Ending Date: 09 Mar-11 14:00 | Species: Mytilis galloprovincialis | Brine: Not Applicable |
| Duration: 49h | Source: Carlsbad Aquafarms CA | Age: |
| Sample ID: 11-5173-5910 | Code: MYT030711m | Client: Internal Lab |
| Sample Date: 07 Mar-11 | Material: Ammonia (Unionized) | Project: |
| Receive Date: 07 Mar-11 | Source: Reference Toxicant | |
| Sample Age: 13h | Station: | |

Comparison Summary

| Analysis ID | Endpoint | NOEL | LOEL | TOEL | PMSD | TU | Method |
|--------------|--------------------------|-------|-------|---------|-------|----|------------------------------------|
| 00-8035-4111 | Combined Proportion Norm | 0.059 | 0.076 | 0.06696 | 5.71% | | Dunnell's Multiple Comparison Test |

Point Estimate Summary

| Analysis ID | Endpoint | Level | mg/L | 95% LCL | 95% UCL | TU | Method |
|--------------|--------------------------|-------|---------|---------|---------|----|------------------------------|
| 06-6857-1675 | Combined Proportion Norm | EC5 | 0.06393 | 0.06238 | 0.06583 | | Linear Interpolation (ICPIN) |
| | | EC10 | 0.06887 | 0.06592 | 0.07266 | | |
| | | EC15 | 0.0738 | 0.0695 | 0.07774 | | |
| | | EC20 | 0.07697 | 0.07388 | 0.07863 | | |
| | | EC25 | 0.07873 | 0.0767 | 0.08022 | | |
| | | EC40 | 0.08399 | 0.08264 | 0.08518 | | |
| | | EC50 | 0.08749 | 0.08634 | 0.08867 | | |

Test Acceptability

| Analysis ID | Endpoint | Attribute | Test Stat | TAC Limits | Overlap | Decision |
|--------------|--------------------------|-----------|-----------|------------|---------|----------------------|
| 00-8035-4111 | Combined Proportion Norm | PMSD | 0.05705 | NL - 0.25 | No | Result Within Limits |

Combined Proportion Normal Summary

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | Diff% |
|-----------|------------------|-------|--------|---------|---------|--------|--------|----------|---------|-------|--------|
| 0 | Negative Control | 5 | 0.943 | 0.9387 | 0.9472 | 0.9321 | 0.9548 | 0.002074 | 0.01136 | 1.2% | 0.0% |
| 0.022 | | 5 | 0.9638 | 0.9525 | 0.9751 | 0.9321 | 1 | 0.005511 | 0.03018 | 3.13% | -2.21% |
| 0.039 | | 5 | 0.9611 | 0.9531 | 0.9691 | 0.9321 | 0.991 | 0.003901 | 0.02137 | 2.22% | -1.92% |
| 0.059 | | 5 | 0.9719 | 0.9628 | 0.9811 | 0.9412 | 1 | 0.004464 | 0.02445 | 2.52% | -3.07% |
| 0.076 | | 5 | 0.7946 | 0.7768 | 0.8123 | 0.733 | 0.8416 | 0.008676 | 0.04752 | 5.98% | 15.74% |
| 0.092 | | 5 | 0.3566 | 0.3454 | 0.3677 | 0.3167 | 0.3982 | 0.005461 | 0.02991 | 8.39% | 62.19% |

Combined Proportion Normal Detail

| Conc-mg/L | Control Type | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|-----------|------------------|--------|--------|--------|--------|--------|
| 0 | Negative Control | 0.9321 | 0.9548 | 0.9412 | 0.9548 | 0.9321 |
| 0.022 | | 1 | 0.991 | 0.9321 | 0.9412 | 0.9548 |
| 0.039 | | 0.9683 | 0.9548 | 0.9593 | 0.991 | 0.9321 |
| 0.059 | | 0.9412 | 0.9548 | 0.991 | 0.9729 | 1 |
| 0.076 | | 0.7602 | 0.8009 | 0.8371 | 0.8416 | 0.733 |
| 0.092 | | 0.3982 | 0.3439 | 0.3575 | 0.3665 | 0.3167 |

CETIS Analytical Report

Report Date: 23 Mar-11 11:15 (p 1 of 2)
 Test Code: 00-8678-7675/MYT030711myt

| | | | | | |
|--------------------------------------|--|------------------------------|---|--|--|
| Mussel Shell Development Test | | | Aquatic Bioassay & Consulting Labs, Inc. | | |
| Analysis ID: 00-8035-4111 | Endpoint: Combined Proportion Normal | CETIS Version: CETISv1.7.0 | | | |
| Analyzed: 23 Mar-11 11:15 | Analysis: Parametric-Control vs Treatments | Official Results: Yes | | | |
| Batch ID: 06-9145-4963 | Test Type: Development-Survival | Analyst: | | | |
| Start Date: 07 Mar-11 13:13 | Protocol: EPA/600/R-95/136 (1995) | Diluent: Laboratory Seawater | | | |
| Ending Date: 09 Mar-11 14:00 | Species: Mytilis galloprovincialis | Brine: Not Applicable | | | |
| Duration: 49h | Source: Carlsbad Aquafarms CA | Age: | | | |
| Sample ID: 11-5173-5910 | Code: MYT030711m | Client: Internal Lab | | | |
| Sample Date: 07 Mar-11 | Material: Ammonia (Unionized) | Project: | | | |
| Receive Date: 07 Mar-11 | Source: Reference Toxicant | | | | |
| Sample Age: 13h | Station: | | | | |

| Data Transform | Zeta | Alt Hyp | Monte Carlo | NOEL | LOEL | TOEL | TU | PMSD |
|---------------------|------|---------|-------------|-------|-------|---------|----|-------|
| Angular (Corrected) | 0 | C > T | Not Run | 0.059 | 0.076 | 0.06696 | | 5.71% |

| Control | vs | Conc-mg/L | Test Stat | Critical | MSD | P-Value | Decision(5%) |
|------------------|----|-----------|-----------|----------|--------|---------|------------------------|
| Negative Control | | 0.022 | -1.662 | 2.362 | 0.0992 | 0.9978 | Non-Significant Effect |
| | | 0.039 | -1.169 | 2.362 | 0.0992 | 0.9897 | Non-Significant Effect |
| | | 0.059 | -2.129 | 2.362 | 0.0992 | 0.9995 | Non-Significant Effect |
| | | 0.076* | 5.434 | 2.362 | 0.0992 | <0.0001 | Significant Effect |
| | | 0.092* | 16.45 | 2.362 | 0.0992 | <0.0001 | Significant Effect |

| Attribute | Test Stat | TAC Limits | Overlap | Decision |
|-----------|-----------|------------|---------|----------------------|
| PMSD | 0.05705 | NL - 0.25 | No | Result Within Limits |

| Attribute | Test | Test Stat | Critical | P-Value | Decision |
|---------------|-----------------------|-----------|----------|---------|----------------------|
| Extreme Value | Grubbs Single Outlier | 2.263 | 2.908 | 0.5544 | No Outliers Detected |

| Source | Sum Squares | Mean Square | DF | F Stat | P-Value | Decision(5%) |
|---------|-------------|-------------|----|--------|---------|--------------------|
| Between | 2.302786 | 0.4605572 | 5 | 104.4 | <0.0001 | Significant Effect |
| Error | 0.1058567 | 0.004410695 | 24 | | | |
| Total | 2.408643 | 0.4649678 | 29 | | | |

| Attribute | Test | Test Stat | Critical | P-Value | Decision(1%) |
|--------------|---------------------------------|-----------|----------|---------|---------------------|
| Variances | Bartlett Equality of Variance | 9.163 | 15.09 | 0.1027 | Equal Variances |
| Variances | Mod Levene Equality of Variance | 2.309 | 4.248 | 0.0871 | Equal Variances |
| Distribution | Shapiro-Wilk Normality | 0.9688 | | 0.5074 | Normal Distribution |
| Distribution | Kolmogorov-Smirnov | 0.08705 | 0.1853 | 0.8719 | Normal Distribution |
| Distribution | D'Agostino Skewness | 1.101 | 2.576 | 0.2707 | Normal Distribution |
| Distribution | D'Agostino Kurtosis | 0.1735 | 2.576 | 0.8622 | Normal Distribution |
| Distribution | D'Agostino Omnibus | 1.243 | 9.21 | 0.5371 | Normal Distribution |

CETIS Analytical Report

Report Date: 23 Mar-11 11:15 (p 2 of 2)
 Test Code: 00-8678-7675/MYT030711myl

Mussel Shell Development Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 00-8035-4111 Endpoint: Combined Proportion Normal
 Analyzed: 23 Mar-11 11:15 Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.7.0
 Official Results: Yes

Combined Proportion Normal Summary

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | Diff% |
|-----------|------------------|-------|--------|---------|---------|--------|--------|----------|---------|-------|--------|
| 0 | Negative Control | 5 | 0.943 | 0.9387 | 0.9473 | 0.9321 | 0.9548 | 0.002109 | 0.01136 | 1.2% | 0.0% |
| 0.022 | | 5 | 0.9638 | 0.9523 | 0.9753 | 0.9321 | 1 | 0.005605 | 0.03018 | 3.13% | -2.21% |
| 0.039 | | 5 | 0.9611 | 0.953 | 0.9692 | 0.9321 | 0.991 | 0.003968 | 0.02137 | 2.22% | -1.92% |
| 0.059 | | 5 | 0.9719 | 0.9626 | 0.9812 | 0.9412 | 1 | 0.00454 | 0.02445 | 2.52% | -3.07% |
| 0.076 | | 5 | 0.7946 | 0.7765 | 0.8126 | 0.733 | 0.8416 | 0.008825 | 0.04752 | 5.98% | 15.74% |
| 0.092 | | 5 | 0.3566 | 0.3452 | 0.3679 | 0.3167 | 0.3982 | 0.005555 | 0.02991 | 8.39% | 62.19% |

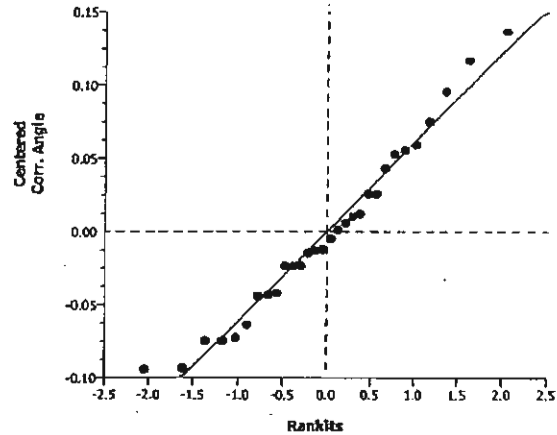
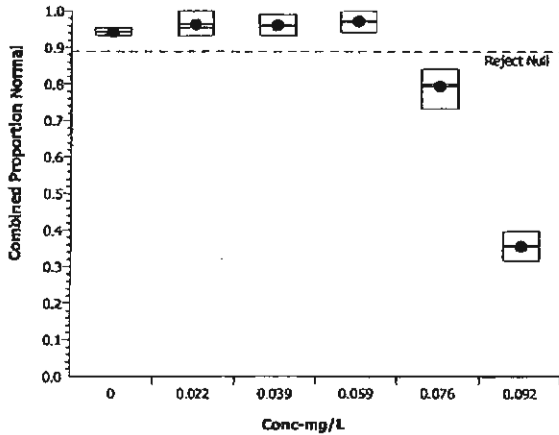
Angular (Corrected) Transformed Summary

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | Diff% |
|-----------|----------------|-------|--------|---------|---------|--------|--------|----------|---------|-------|--------|
| 0 | Negative Contr | 5 | 1.331 | 1.321 | 1.34 | 1.307 | 1.356 | 0.004596 | 0.02475 | 1.66% | 0.0% |
| 0.022 | | 5 | 1.4 | 1.362 | 1.439 | 1.307 | 1.537 | 0.01869 | 0.1006 | 7.19% | -5.25% |
| 0.039 | | 5 | 1.38 | 1.356 | 1.403 | 1.307 | 1.476 | 0.01147 | 0.06178 | 4.48% | -3.69% |
| 0.059 | | 5 | 1.42 | 1.387 | 1.453 | 1.326 | 1.537 | 0.01606 | 0.08651 | 6.09% | -6.72% |
| 0.076 | | 5 | 1.102 | 1.08 | 1.125 | 1.028 | 1.162 | 0.0109 | 0.05868 | 5.32% | 17.15% |
| 0.092 | | 5 | 0.6397 | 0.6278 | 0.6516 | 0.5978 | 0.6829 | 0.005803 | 0.03125 | 4.89% | 51.93% |

Combined Proportion Normal Detail

| Conc-mg/L | Control Type | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|-----------|------------------|--------|--------|--------|--------|--------|
| 0 | Negative Control | 0.9321 | 0.9548 | 0.9412 | 0.9548 | 0.9321 |
| 0.022 | | 1 | 0.991 | 0.9321 | 0.9412 | 0.9548 |
| 0.039 | | 0.9683 | 0.9548 | 0.9593 | 0.991 | 0.9321 |
| 0.059 | | 0.9412 | 0.9548 | 0.991 | 0.9729 | 1 |
| 0.076 | | 0.7602 | 0.8009 | 0.8371 | 0.8416 | 0.733 |
| 0.092 | | 0.3982 | 0.3439 | 0.3575 | 0.3665 | 0.3167 |

Graphics



CETIS Analytical Report

Report Date: 23 Mar-11 11:15 (p 1 of 2)
 Test Code: 00-8678-7675/MYT030711myt

| | | | | | |
|--------------------------------------|--|------------------------------|---|--|--|
| Mussel Shell Development Test | | | Aquatic Bioassay & Consulting Labs, Inc. | | |
| Analysis ID: 06-6857-1675 | Endpoint: Combined Proportion Normal | CETIS Version: CETISv1.7.0 | | | |
| Analyzed: 23 Mar-11 11:15 | Analysis: Linear Interpolation (ICPIN) | Official Results: Yes | | | |
| Batch ID: 06-9145-4963 | Test Type: Development-Survival | Analyst: | | | |
| Start Date: 07 Mar-11 13:13 | Protocol: EPA/600/R-95/136 (1995) | Diluent: Laboratory Seawater | | | |
| Ending Date: 09 Mar-11 14:00 | Species: Mytilis galloprovincialis | Brine: Not Applicable | | | |
| Duration: 49h | Source: Carlsbad Aquafarms CA | Age: | | | |
| Sample ID: 11-5173-5910 | Code: MYT030711m | Client: Internal Lab | | | |
| Sample Date: 07 Mar-11 | Material: Ammonia (Unionized) | Project: | | | |
| Receive Date: 07 Mar-11 | Source: Reference Toxicant | | | | |
| Sample Age: 13h | Station: | | | | |

Linear Interpolation Options

| X Transform | Y Transform | Seed | Resamples | Exp 95% CL | Method |
|-------------|-------------|---------|-----------|------------|-------------------------|
| Linear | Linear | 5795186 | 280 | Yes | Two-Point Interpolation |

Residual Analysis

| Attribute | Method | Test Stat | Critical | P-Value | Decision(5%) |
|---------------|----------------------|-----------|----------|---------|----------------------|
| Extreme Value | Grubbs Extreme Value | 2.263 | 2.908 | 0.5544 | No Outliers Detected |

Point Estimates

| Level | mg/L | 95% LCL | 95% UCL |
|-------|---------|---------|---------|
| EC5 | 0.06393 | 0.06238 | 0.06583 |
| EC10 | 0.06887 | 0.06592 | 0.07266 |
| EC15 | 0.0738 | 0.0695 | 0.07774 |
| EC20 | 0.07697 | 0.07388 | 0.07863 |
| EC25 | 0.07873 | 0.0767 | 0.08022 |
| EC40 | 0.08399 | 0.08264 | 0.08518 |
| EC50 | 0.08749 | 0.08634 | 0.08867 |

Combined Proportion Normal Summary

| Conc-mg/L | Control Type | Count | Calculated Variate(A/B) | | | | | | | | |
|-----------|------------------|-------|-------------------------|--------|--------|----------|---------|-------|--------|------|------|
| | | | Mean | Min | Max | Std Err | Std Dev | CV% | Diff% | A | B |
| 0 | Negative Control | 5 | 0.943 | 0.9321 | 0.9548 | 0.002074 | 0.01136 | 1.2% | 0.0% | 1042 | 1105 |
| 0.022 | | 5 | 0.9638 | 0.9321 | 1 | 0.005511 | 0.03018 | 3.13% | -2.21% | 1065 | 1105 |
| 0.039 | | 5 | 0.9611 | 0.9321 | 0.991 | 0.003901 | 0.02137 | 2.22% | -1.92% | 1062 | 1105 |
| 0.059 | | 5 | 0.9719 | 0.9412 | 1 | 0.004464 | 0.02445 | 2.52% | -3.07% | 1074 | 1105 |
| 0.076 | | 5 | 0.7946 | 0.733 | 0.8416 | 0.008676 | 0.04752 | 5.98% | 15.74% | 878 | 1105 |
| 0.092 | | 5 | 0.3566 | 0.3167 | 0.3982 | 0.005461 | 0.02991 | 8.39% | 62.19% | 394 | 1105 |

Combined Proportion Normal Detail

| Conc-mg/L | Control Type | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|-----------|------------------|--------|--------|--------|--------|--------|
| 0 | Negative Control | 0.9321 | 0.9548 | 0.9412 | 0.9548 | 0.9321 |
| 0.022 | | 1 | 0.991 | 0.9321 | 0.9412 | 0.9548 |
| 0.039 | | 0.9683 | 0.9548 | 0.9593 | 0.991 | 0.9321 |
| 0.059 | | 0.9412 | 0.9548 | 0.991 | 0.9729 | 1 |
| 0.076 | | 0.7602 | 0.8009 | 0.8371 | 0.8416 | 0.733 |
| 0.092 | | 0.3982 | 0.3439 | 0.3575 | 0.3665 | 0.3167 |

CETIS Measurement Report

Report Date: 23 Mar-11 11:15 (p 1 of 2)
 Test Code: 00-8578-7675/MYT030711myl

Mussel Shell Development Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 06-9145-4963 Test Type: Development-Survival Analyst:
 Start Date: 07 Mar-11 13:13 Protocol: EPA/600/R-95/136 (1995) Diluent: Laboratory Seawater
 Ending Date: 09 Mar-11 14:00 Species: Mytilus galloprovincialis Brine: Not Applicable
 Duration: 49h Source: Carlsbad Aquatorium CA, USA Age:

Sample ID: 11-5173-5910 Code: MYT030711m Client: Internal Lab
 Sample Date: 07 Mar-11 Material: Ammonia (Unionized) Project:
 Receive Date: 07 Mar-11 Source: Reference Toxicant
 Sample Age: 13h Station:

Dissolved Oxygen-mg/L

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|-----------|----------------|-------|-------|---------|---------|-----|-----|---------|---------|-------|----------|
| 0 | Negative Contr | 2 | 6.35 | 6.23 | 6.47 | 6.1 | 6.6 | 0.05893 | 0.3536 | 5.57% | 0 |
| 0.022 | | 2 | 6.4 | 6.209 | 6.591 | 6 | 6.8 | 0.09428 | 0.5657 | 8.84% | 0 |
| 0.039 | | 2 | 6.4 | 6.256 | 6.544 | 6.1 | 6.7 | 0.07071 | 0.4243 | 6.63% | 0 |
| 0.059 | | 2 | 6.5 | 6.356 | 6.644 | 6.2 | 6.8 | 0.07071 | 0.4243 | 6.53% | 0 |
| 0.076 | | 2 | 6.5 | 6.309 | 6.691 | 6.1 | 6.9 | 0.09428 | 0.5657 | 8.7% | 0 |
| 0.092 | | 2 | 6.5 | 6.309 | 6.691 | 6.1 | 6.9 | 0.09428 | 0.5657 | 8.7% | 0 |
| Overall | | 12 | 6.442 | | | 6 | 6.9 | | | | 0 (0%) |

Total Ammonia (N)-mg/L

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|-----------|----------------|-------|-------|---------|---------|------|------|---------|---------|------|----------|
| 0 | Negative Contr | 1 | 0 | | | 0 | 0 | 0 | 0 | 0.0% | 0 |
| 0.022 | | 1 | 1.61 | | | 1.61 | 1.61 | 0 | 0 | 0.0% | 0 |
| 0.039 | | 1 | 2.89 | | | 2.89 | 2.89 | 0 | 0 | 0.0% | 0 |
| 0.059 | | 1 | 4.33 | | | 4.33 | 4.33 | 0 | 0 | 0.0% | 0 |
| 0.076 | | 1 | 5.61 | | | 5.61 | 5.61 | 0 | 0 | 0.0% | 0 |
| 0.092 | | 1 | 6.82 | | | 6.82 | 6.82 | 0 | 0 | 0.0% | 0 |
| Overall | | 6 | 3.543 | | | 0 | 6.82 | | | | 0 (0%) |

pH-Units

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|-----------|----------------|-------|------|---------|---------|-----|-----|---------|---------|------|----------|
| 0 | Negative Contr | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| 0.022 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| 0.039 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| 0.059 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| 0.076 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| 0.092 | | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 | 0.0% | 0 |
| Overall | | 12 | 7.8 | | | 7.8 | 7.8 | | | | 0 (0%) |

Salinity-ppt

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|-----------|----------------|-------|------|---------|---------|-----|-----|---------|---------|------|----------|
| 0 | Negative Contr | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 0.022 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 0.039 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 0.059 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 0.076 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| 0.092 | | 2 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0.0% | 0 |
| Overall | | 12 | 34 | | | 34 | 34 | | | | 0 (0%) |

Temperature-°C

| Conc-mg/L | Control Type | Count | Mean | 95% LCL | 95% UCL | Min | Max | Std Err | Std Dev | CV% | QA Count |
|-----------|----------------|-------|-------|---------|---------|------|------|---------|---------|-------|----------|
| 0 | Negative Contr | 2 | 14.85 | 14.83 | 14.87 | 14.8 | 14.9 | 0.0118 | 0.07077 | 0.48% | 0 |
| 0.022 | | 2 | 14.85 | 14.83 | 14.87 | 14.8 | 14.9 | 0.0118 | 0.07077 | 0.48% | 0 |
| 0.039 | | 2 | 14.85 | 14.83 | 14.87 | 14.8 | 14.9 | 0.0118 | 0.07077 | 0.48% | 0 |
| 0.059 | | 2 | 14.85 | 14.83 | 14.87 | 14.8 | 14.9 | 0.0118 | 0.07077 | 0.48% | 0 |
| 0.076 | | 2 | 14.85 | 14.83 | 14.87 | 14.8 | 14.9 | 0.0118 | 0.07077 | 0.48% | 0 |
| 0.092 | | 2 | 14.85 | 14.83 | 14.87 | 14.8 | 14.9 | 0.0118 | 0.07077 | 0.48% | 0 |
| Overall | | 12 | 14.85 | | | 14.8 | 14.9 | | | | 0 (0%) |

CETIS Measurement Report

Report Date: 23 Mar-11 11:15 (p 2 of 2)
 Test Code: 00-8678-7675/MYT030711myl

Mussel Shell Development Test

Aquatic Bioassay & Consulting Labs, Inc.

Dissolved Oxygen-mg/L

| Conc-mg/L | Control Type | 1 | 2 |
|-----------|----------------|-----|-----|
| 0 | Negative Contr | 6.6 | 6.1 |
| 0.022 | | 6.8 | 6 |
| 0.039 | | 6.7 | 6.1 |
| 0.059 | | 6.8 | 6.2 |
| 0.076 | | 6.9 | 6.1 |
| 0.092 | | 6.9 | 6.1 |

Total Ammonia (N)-mg/L

| Conc-mg/L | Control Type | 1 |
|-----------|----------------|------|
| 0 | Negative Contr | 0 |
| 0.022 | | 1.61 |
| 0.039 | | 2.89 |
| 0.059 | | 4.33 |
| 0.076 | | 5.61 |
| 0.092 | | 6.82 |

pH-Units

| Conc-mg/L | Control Type | 1 | 2 |
|-----------|----------------|-----|-----|
| 0 | Negative Contr | 7.8 | 7.8 |
| 0.022 | | 7.8 | 7.8 |
| 0.039 | | 7.8 | 7.8 |
| 0.059 | | 7.8 | 7.8 |
| 0.076 | | 7.8 | 7.8 |
| 0.092 | | 7.8 | 7.8 |

Salinity-ppt

| Conc-mg/L | Control Type | 1 | 2 |
|-----------|----------------|----|----|
| 0 | Negative Contr | 34 | 34 |
| 0.022 | | 34 | 34 |
| 0.039 | | 34 | 34 |
| 0.059 | | 34 | 34 |
| 0.076 | | 34 | 34 |
| 0.092 | | 34 | 34 |

Temperature-°C

| Conc-mg/L | Control Type | 1 | 2 |
|-----------|----------------|------|------|
| 0 | Negative Contr | 14.9 | 14.8 |
| 0.022 | | 14.8 | 14.9 |
| 0.039 | | 14.8 | 14.9 |
| 0.059 | | 14.8 | 14.9 |
| 0.076 | | 14.8 | 14.9 |
| 0.092 | | 14.8 | 14.9 |



8100 Secura Way • Santa Fe Springs, CA 90670
Telephone (562) 347-2500 • Fax (562) 907-3610

March 15, 2011

Debby Wilson
TestAmerica
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Re: PTS File No: 41116
Physical Properties Data
IUB2653

Dear Ms. Wilson:

Please find enclosed report for Physical Properties analyses conducted upon the sample received from your IUB2653 project. All analyses were performed by applicable ASTM, EPA, or API methodologies. An electronic version of the report has previously been sent to your attention via the internet. The sample is currently in storage and will be retained for thirty days past completion of testing at no charge. Please note that the sample will be disposed of at that time. You may contact me regarding storage, disposal, or return of the sample.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please give Rachel Spitz a call at (562) 347-2504.

Sincerely,
PTS Laboratories

For Rachel SS

Michael Mark Brady, P.G.
District Manager

Encl.

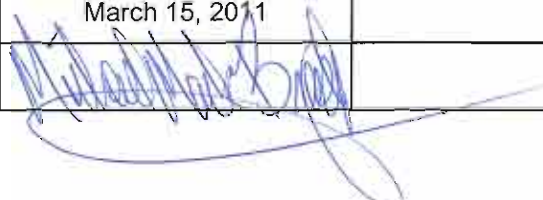


PTS File No: 41116

DC- 2 Data Package Inventory Checklist

| | | |
|----------------------------------|-----------------|-------------------------|
| Lab Name: PTS Laboratories, Inc. | DAS Number: N/A | SDG Number: 41116 |
| City: Santa Fe Springs | State: CA | Zip Code: 90670 |
| Order Number: N/A | | Parameter: Geotechnical |

| Inventory Item | Page Numbers | | Check | |
|--------------------------------|--------------|----|-------|-----|
| | From | To | Lab | EPA |
| Inventory Sheet | NA | NA | ✓ | |
| SDG Narrative | 1 | 2 | ✓ | |
| SDG Cover Sheet/Traffic Report | 3 | 3 | ✓ | |
| QC Data | 4 | 8 | ✓ | |
| Sample Data | 9 | 13 | ✓ | |
| Standard Data | | | | |
| Blank Data | | | | |
| Raw Data | 14 | 16 | ✓ | |
| Subcontractor Data | | | | |
| Preparation Logs | | | | |
| Clean-up Logs | | | | |
| Analysis Logs | | | | |
| Internal Chain of Custody Logs | | | | |
| Shipping / Receiving Documents | 17 | 20 | ✓ | |
| Telephone / e-mail Logs | 21 | 23 | ✓ | |
| Other Records | | | | |

| | | | |
|--------------|---|------------------|--------------|
| Organization | Lab Inventory | Region 3 Auditor | EPA Verifier |
| Print Name | Michael Mark Brady, P.G. | | |
| Title | District Manager | | |
| Date | March 15, 2011 | | |
| Signature |  | | |

PTS Laboratories

Project Name: N/A
 Project Number: IUB2653

PTS File No: 41116
 Client: TestAmerica

TEST PROGRAM

| CORE ID | Depth ft. | Core Recovery ft. | Grain Size Analysis ASTM D4464M | Notes |
|----------------|-----------|-------------------|---------------------------------|-------|
| | | Plugs: | Grab | |
| IUB2653-01 | N/A | N/A | X | |
| TOTALS: | 1 jar | | 1 | |

Laboratory Test Program Notes

Grain Size Analysis

79
 \$79

\$79.00

Test Program Acknowledgement

Electronic Signature: 
 Date: 3-3-11



PTS File No: 41116

SAMPLE DATA SUMMARY PACKAGE COVER PAGE

Date of Report: March 15, 2011

Laboratory Name & Code: PTS Laboratories, Inc.

EPA Region ___ Agreement No: N/A

DAS Order No: N/A

| EPA Region ___ Sample Numbers: | <u>Sample No.</u> | <u>TAG No.</u> | <u>Laboratory ID</u> |
|--------------------------------|-------------------|----------------|----------------------|
| | 1 | N/A | IUB2653-01 |





PTS File No: 41116

QC DATA

Dry Sieve Controls NIST 8010 Reference Material - March 2011

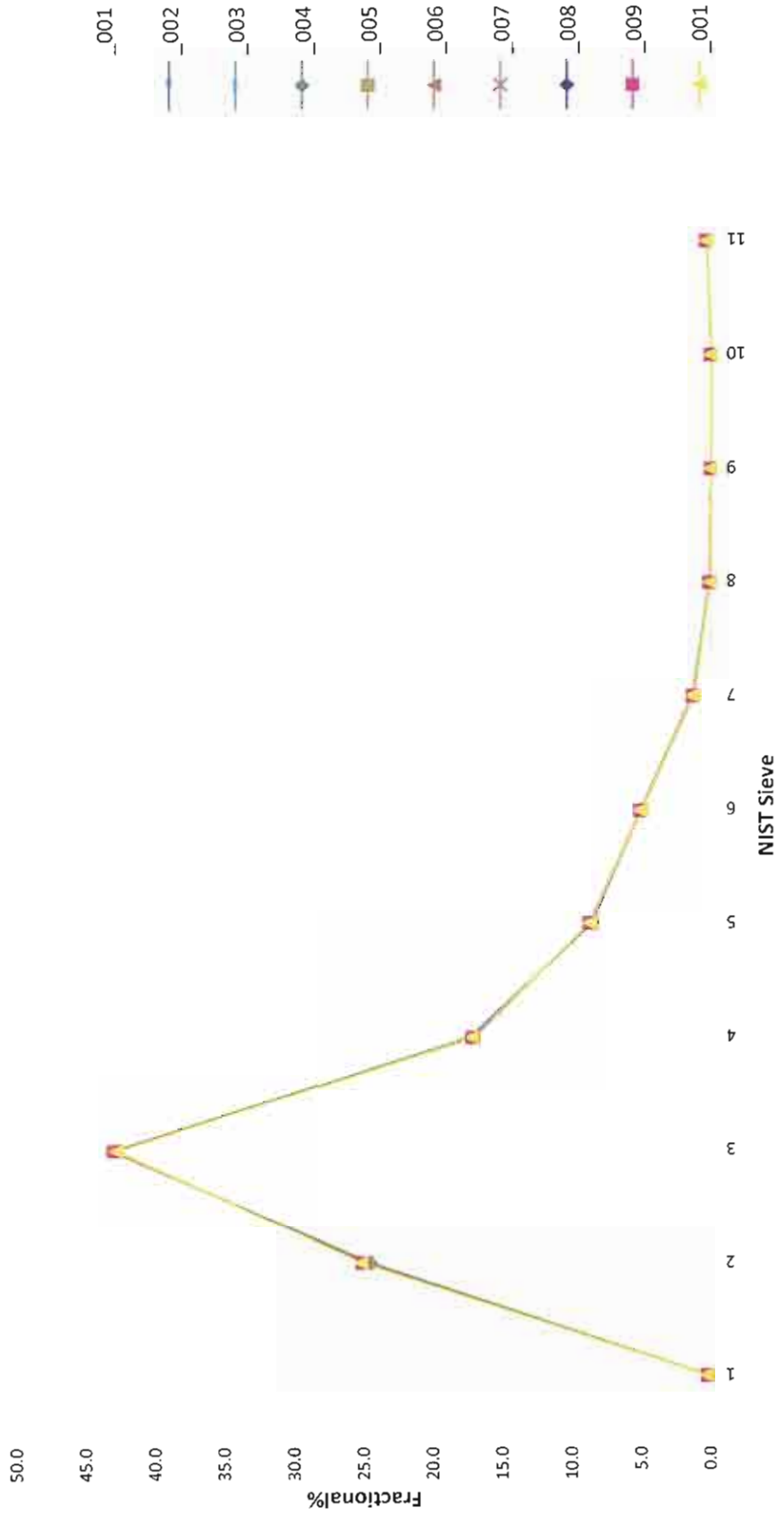
| Date | Run | RUN DATA | | | | | | | | | | CONTROL LIMITS CALCULATIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|-----|----------------|------|------|------|-----|-----|-----|------|-------|-------|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | SIZE FRACTIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 30 | 40 | 50 | 70 | 100 | 140 | 200 | 270 | 325 | Pan | Average | UCL | LCL | Aver | UCL | LCL | Aver | UCL | LCL | Aver | UCL | LCL | | | | | | | | | | | | | | | | | | | |
| 2/7_001 | 0.1 | 24.9 | 42.7 | 17.3 | 8.6 | 5.0 | 1.3 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | |
| 2/8_002 | 0.2 | 24.5 | 43.0 | 17.3 | 8.6 | 5.0 | 1.4 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | |
| 2/9_003 | 0.1 | 24.5 | 42.9 | 17.3 | 8.6 | 5.0 | 1.3 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | |
| 2/11_004 | 0.2 | 24.4 | 43.1 | 17.2 | 8.7 | 5.0 | 1.4 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | |
| 2/14_005 | 0.1 | 24.6 | 43.0 | 17.1 | 8.7 | 5.0 | 1.3 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | |
| 2/15_006 | 0.1 | 24.8 | 42.8 | 17.2 | 8.6 | 5.0 | 1.3 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | |
| 2/16_007 | 0.2 | 25.0 | 42.7 | 17.2 | 8.6 | 5.0 | 1.3 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | |
| 2/23_008 | 0.1 | 24.9 | 42.8 | 17.2 | 8.6 | 5.0 | 1.3 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | |
| 2/24_009 | 0.1 | 25.0 | 42.8 | 17.0 | 8.7 | 5.0 | 1.3 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | |
| 3/11_001 | 0.2 | 25.0 | 42.7 | 17.1 | 8.7 | 5.0 | 1.3 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | |
| Average | | 0.1 | 24.8 | 42.8 | 17.2 | 8.6 | 5.0 | 1.3 | 0.1 | 0.0 | 0.3 | 0.1 | 0.2 | 0.1 | 24.8 | 25.6 | 24.0 | 42.8 | 43.4 | 42.2 | 17.2 | 17.5 | 16.9 | 8.6 | 8.8 | 8.5 | 5.0 | 5.1 | 4.9 | 1.3 | 1.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 |
| Std Dev | | 0.0 | 0.3 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| RSD | | 9.7 | 1.1 | 0.4 | 0.6 | 0.6 | 0.5 | 2.4 | 12.5 | 138.7 | 126.2 | 0.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NIST Reference Material 8010

| Sieve No. | Mass Fraction % | Uncertainty ± % | ACTUAL RESULTS | | NIST DATA | | LPSA DATA | |
|-----------|-----------------|-----------------|----------------|------|-----------|-------|-----------|---|
| | | | Run 03 | 001 | SIZE | % | % | % |
| 30 | 0.3 | 0.3 | 0.2 | 0.2 | N. Sand | 22.7 | 25.0 | |
| 40 | 22.4 | 6.0 | 25.0 | 25.0 | F. Sand | 77.2 | 74.9 | |
| 50 | 42.0 | 7.1 | 42.7 | 42.7 | Silt | 0.2 | 0.1 | |
| 70 | 19.5 | 3.9 | 17.1 | 17.1 | Clay | 0.1 | 0.0 | |
| 100 | 9.2 | 4.5 | 8.7 | 8.7 | 100 | 9.2 | 8.6 | |
| 140 | 5.0 | 0.7 | 5.0 | 5.0 | 325 | 5.0 | 5.0 | |
| 200 | 1.5 | 0.3 | 1.3 | 1.3 | Pan | 0.1 | 0.0 | |
| 270 | 0.2 | 0.2 | 0.1 | 0.1 | Median | 0.335 | 0.343 | |
| 325 | 0.0 | 0.1 | 0.0 | 0.0 | | | | |
| Pan | 0.1 | 0.2 | 0.0 | 0.0 | | | | |

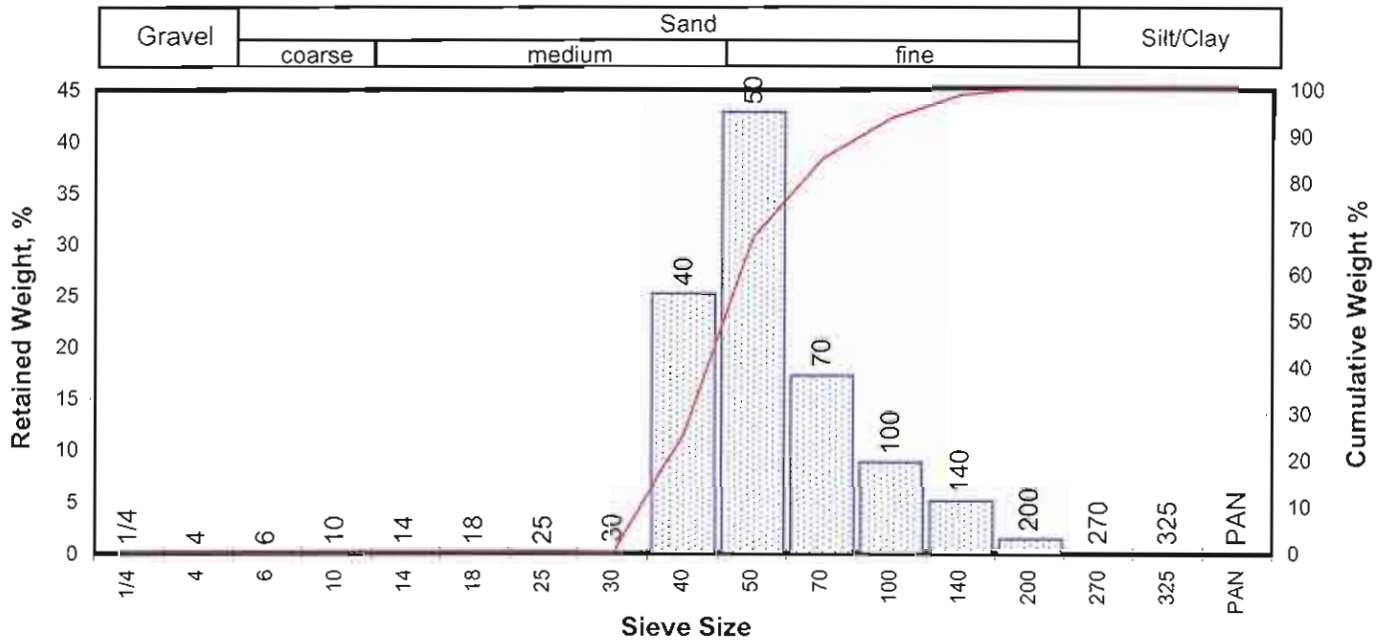
Med Sand = 12-40 sieves
 Fine Sand = 45-200 sieves
 Silt = 230-325 sieves
 Clay = Pan
 140 = 120+140 sieve fraction
 325 = 325 sieve fraction
 Clay = Pan
 Median = calculated from NIST data, mm

Overlay Graph



Client: Internal QC
 Project: Multiple QC
 Project No: Multiple QC

PTS File No: 41000
 Sample ID: Run 03_001; Matl. A
 Depth, ft: N/A



| Opening | | Phi of Screen | U.S. Sieve No. | Sample Weight grams | Incremental Weight, percent | Cumulative Weight, percent |
|---------------|-------------|---------------|----------------|---------------------|-----------------------------|----------------------------|
| Inches | Millimeters | | | | | |
| 0.2500 | 6.351 | -2.67 | 1/4 | 0.00 | 0.00 | 0.00 |
| 0.1873 | 4.757 | -2.25 | 4 | 0.00 | 0.00 | 0.00 |
| 0.1324 | 3.364 | -1.75 | 6 | 0.00 | 0.00 | 0.00 |
| 0.0787 | 2.000 | -1.00 | 10 | 0.00 | 0.00 | 0.00 |
| 0.0557 | 1.414 | -0.50 | 14 | 0.00 | 0.00 | 0.00 |
| 0.0394 | 1.000 | 0.00 | 18 | 0.00 | 0.00 | 0.00 |
| 0.0278 | 0.707 | 0.50 | 25 | 0.00 | 0.00 | 0.00 |
| 0.0234 | 0.595 | 0.75 | 30 | 0.17 | 0.16 | 0.16 |
| 0.0166 | 0.420 | 1.25 | 40 | 26.90 | 25.03 | 25.19 |
| 0.0117 | 0.297 | 1.75 | 50 | 45.91 | 42.72 | 67.91 |
| 0.0083 | 0.210 | 2.25 | 70 | 18.37 | 17.09 | 85.00 |
| 0.0059 | 0.149 | 2.75 | 100 | 9.32 | 8.67 | 93.67 |
| 0.0041 | 0.105 | 3.25 | 140 | 5.34 | 4.97 | 98.64 |
| 0.0029 | 0.074 | 3.75 | 200 | 1.39 | 1.29 | 99.93 |
| 0.0021 | 0.053 | 4.25 | 270 | 0.07 | 0.07 | 100.00 |
| 0.0017 | 0.044 | 4.50 | 325 | 0.00 | 0.00 | 100.00 |
| | | | PAN | 0.00 | 0.00 | 100.00 |
| TOTALS | | | | 107.47 | 100.00 | 100.00 |

| Cumulative Weight Percent greater than | | | |
|--|-----------|---------------|-------------|
| Weight percent | Phi Value | Particle Size | |
| | | Inches | Millimeters |
| 5 | 0.85 | 0.0219 | 0.556 |
| 10 | 0.95 | 0.0204 | 0.519 |
| 16 | 1.07 | 0.0188 | 0.477 |
| 25 | 1.25 | 0.0166 | 0.422 |
| 40 | 1.42 | 0.0147 | 0.373 |
| 50 | 1.54 | 0.0135 | 0.344 |
| 60 | 1.66 | 0.0125 | 0.317 |
| 75 | 1.96 | 0.0101 | 0.257 |
| 84 | 2.22 | 0.0084 | 0.215 |
| 90 | 2.54 | 0.0068 | 0.172 |
| 95 | 2.88 | 0.0053 | 0.136 |

| Measure | Trask | Inman | Folk-Ward |
|--|--------------------------------------|--------|-----------|
| Median, phi | 1.54 | 1.54 | 1.54 |
| Median, in. | 0.0135 | 0.0135 | 0.0135 |
| Median, mm | 0.344 | 0.344 | 0.344 |
| Mean, phi | 1.56 | 1.64 | 1.61 |
| Mean, in. | 0.0134 | 0.0126 | 0.0129 |
| Mean, mm | 0.340 | 0.320 | 0.328 |
| Sorting | 0.782 | 0.577 | 0.597 |
| Skewness | 0.958 | 0.179 | 0.249 |
| Kurtosis | 0.237 | 0.765 | 1.174 |
| Grain Size Description (ASTM-USCS Scale) | Fine sand (based on Mean from Trask) | | |

| Description | Retained on Sieve # | Weight Percent |
|--------------|---------------------|----------------|
| Gravel | 4 | 0.00 |
| Coarse Sand | 10 | 0.00 |
| Medium Sand | 40 | 25.19 |
| Fine Sand | 200 | 74.75 |
| Silt/Clay | <200 | 0.07 |
| Total | | 100 |

PTS Laboratories, Inc.

DRY SIEVE DATA SHEET - QA/QC STACK for NIST 8010 SRM

PTS File No: 41000
 Company: _____
 Project Name: N/A - QC Standard
 Project Number: _____
 Run No.: SS-05-001 Sample ID: ASTM Material A
 Depth: N/A

Date: 3/10/11
 Tech: RG

- Note 1:** List all file numbers ran in QC batch.
- Note 2:** Project number cannot have "/", "#", or "*" in it.
- Note 3:** Run No. = MM_XXX, where M = Month and X = Sequential #

| US Sieve No. NIST 8010 SRM STACK | Tare Weight, gm | Total Weight, gm |
|--|-----------------------|------------------------|
| 30 | 298.55 | 298.72 |
| 40 | 275.01 | 301.91 |
| 50 | 248.60 | 294.51 |
| 70 | 250.62 | 268.99 |
| 100 | 232.68 | 242.00 |
| 140 | 212.51 | 217.85 |
| 200 | 221.82 | 223.21 |
| 270 | 214.95 | 215.02 |
| 325 | 214.74 | 214.74 |
| PAN | 350.12 | 350.12 |

| QUALITY CONTROL | | | |
|----------------------------|---------|-----------|---------|
| Screens Visually Inspected | | | |
| Tech | Date | | |
| RG | 3/10/11 | | |
| Screen Weights Checked: | | | |
| Tech | Date | Lab Supv | Date |
| RG | 3/10/11 | SS | 3/11/11 |
| Raw Data Review | | | |
| Tech | Date | Lab Supv. | Date |
| RG | 3/10/11 | SS | 3/11/11 |
| Data Entry | | | |
| Initials: | SS | Date: | 3/11/11 |

| Ro-Tap Shake Time | Initials |
|----------------------|----------|
| Duration: 15 minutes | RG |

Corrective Actions Taken / Observations:

| Date | Observation / Problem / Corrective Action | Initials |
|---------|---|----------|
| 3/10/11 | SAMPLE USED 107.42 ROTAP #2 | RG |
| | | |
| | | |



PTS File No: 41116

SAMPLE DATA

Subcontract Order - TestAmerica Irvine (IUB2653)

4116

SENDING LABORATORY:

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

RECEIVING LABORATORY:

PTS Labs-SUB
 8100 Secura Way
 Santa Fe Springs, CA 90670
 Phone: (562) 907-3607
 Fax: (562) 907-3610
 Project Location: California
 Receipt Temperature: 31°F °C Ice: CYD N

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

| Analysis | Units | Expires | Comments |
|---|-------------|----------------|-----------------------------|
| Sample ID: IUB2653-01 (Arroyo Simi-FP - Solid) Sampled: 02/24/11 10:00 Temp=9.91, pH=7.8, DO=8.51, Conductivity | | | |
| Level 4 Data Package - Out | N/A | 03/24/11 10:00 | |
| Particulate-OUT | % by Weight | 03/24/11 10:00 | Boeing, J flags, OUT to PTS |
| Containers Supplied: | | | |
| 9 oz Jar (D) | | | |

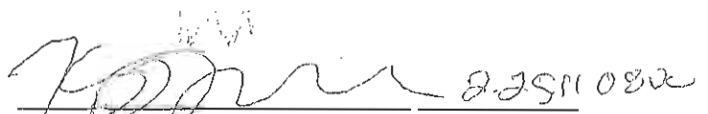


Released By

Date/Time

2.25.11 1010

Date/Time



Received By

Date/Time

2/15/11 1010

Received By

Date/Time

Project Name: N/A
 Project Number: IUB2653

PTS File No: 41116
 Client: TestAmerica

TEST PROGRAM

| CORE ID | Depth ft. | Core Recovery ft. | Grain Size Analysis ASTM D4464M | Notes |
|----------------|-----------|-------------------|---------------------------------|-------|
| | | Plugs: | Grab | |
| IUB2653-01 | N/A | N/A | X | |
| TOTALS: | 1 jar | | 1 | |

Laboratory Test Program Notes

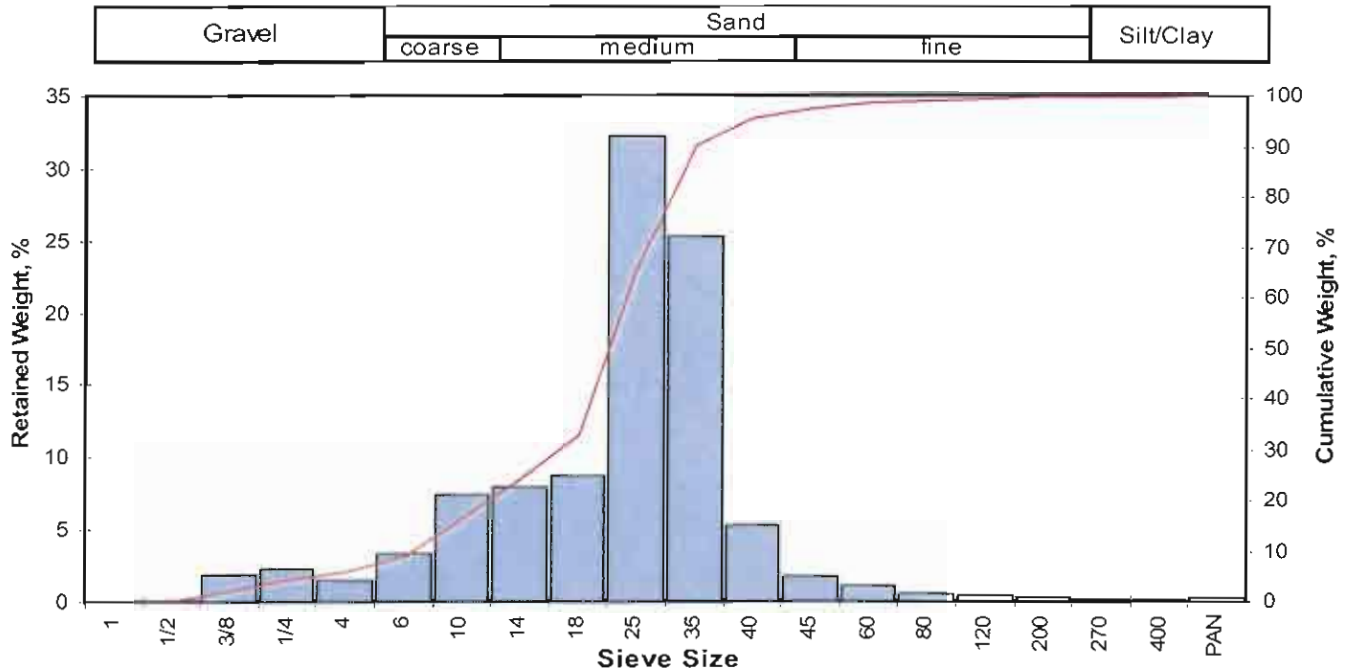
PARTICLE SIZE SUMMARY
(METHODODOLOGY: ASTM D422)

PROJECT NAME: N/A
PROJECT NO: IUB2653

| Sample ID | Depth, ft. | Description USCS/ASTM (1) | Median Grain Size, mm | Gravel | Particle Size Distribution, wt. percent | | | |
|------------|------------|---------------------------------|-----------------------------|--------|---|--------|------|------|
| | | | | | Coarse | Medium | Fine | |
| IUB2653-01 | N/A | Medium sand | 0.832 | 5.49 | 10.72 | 79.39 | 3.95 | 0.44 |

Client: TestAmerica
 Project: N/A
 Project No: IUB2653

PTS File No: 41116
 Sample ID: IUB2653-01
 Depth, ft: N/A



| Opening | | Phi of Screen | U.S. Sieve No. | Sample Weight grams | Incremental Weight, percent | Cumulative Weight, percent |
|---------------|-------------|---------------|----------------|---------------------|-----------------------------|----------------------------|
| Inches | Millimeters | | | | | |
| 0.9844 | 25.002 | -4.64 | 1 | 0.00 | 0.00 | 0.00 |
| 0.4922 | 12.501 | -3.64 | 1/2 | 0.00 | 0.00 | 0.00 |
| 0.3740 | 9.500 | -3.25 | 3/8 | 1.19 | 1.82 | 1.82 |
| 0.2500 | 6.351 | -2.67 | 1/4 | 1.46 | 2.23 | 4.05 |
| 0.1873 | 4.757 | -2.25 | 4 | 0.94 | 1.44 | 5.49 |
| 0.1324 | 3.364 | -1.75 | 6 | 2.16 | 3.30 | 8.80 |
| 0.0787 | 2.000 | -1.00 | 10 | 4.85 | 7.42 | 16.22 |
| 0.0557 | 1.414 | -0.50 | 14 | 5.19 | 7.94 | 24.15 |
| 0.0394 | 1.000 | 0.00 | 18 | 5.72 | 8.75 | 32.91 |
| 0.0278 | 0.707 | 0.50 | 25 | 21.09 | 32.26 | 65.17 |
| 0.0197 | 0.500 | 1.00 | 35 | 16.45 | 25.16 | 90.33 |
| 0.0166 | 0.420 | 1.25 | 40 | 3.45 | 5.28 | 95.61 |
| 0.0139 | 0.354 | 1.50 | 45 | 1.15 | 1.76 | 97.37 |
| 0.0098 | 0.250 | 2.00 | 60 | 0.67 | 1.02 | 98.39 |
| 0.0070 | 0.177 | 2.50 | 80 | 0.31 | 0.47 | 98.87 |
| 0.0049 | 0.125 | 3.00 | 120 | 0.25 | 0.38 | 99.25 |
| 0.0029 | 0.074 | 3.75 | 200 | 0.20 | 0.31 | 99.56 |
| 0.0021 | 0.053 | 4.25 | 270 | 0.10 | 0.15 | 99.71 |
| 0.0015 | 0.037 | 4.75 | 400 | 0.05 | 0.08 | 99.79 |
| | | | PAN | 0.14 | 0.21 | 100.00 |
| TOTALS | | | | 65.37 | 100.00 | 100.00 |

| Cumulative Weight Percent greater than | | | |
|--|-----------|---------------|-------------|
| Weight percent | Phi Value | Particle Size | |
| | | Inches | Millimeters |
| 5 | -2.39 | 0.2067 | 5.251 |
| 10 | -1.63 | 0.1217 | 3.091 |
| 16 | -1.02 | 0.0799 | 2.030 |
| 25 | -0.45 | 0.0538 | 1.368 |
| 40 | 0.11 | 0.0365 | 0.927 |
| 50 | 0.26 | 0.0328 | 0.832 |
| 60 | 0.42 | 0.0294 | 0.747 |
| 75 | 0.70 | 0.0243 | 0.618 |
| 84 | 0.87 | 0.0215 | 0.546 |
| 90 | 0.99 | 0.0198 | 0.502 |
| 95 | 1.22 | 0.0169 | 0.429 |

| Measure | Trask | Inman | Folk-Ward |
|-------------|--------|--------|-----------|
| Median, phi | 0.26 | 0.26 | 0.26 |
| Median, in. | 0.0328 | 0.0328 | 0.0328 |
| Median, mm | 0.832 | 0.832 | 0.832 |
| Mean, phi | 0.01 | -0.07 | 0.04 |
| Mean, in. | 0.0391 | 0.0414 | 0.0383 |
| Mean, mm | 0.993 | 1.052 | 0.973 |
| Sorting | 1.488 | 0.948 | 1.022 |
| Skewness | 1.104 | -0.357 | -0.414 |
| Kurtosis | 0.145 | 0.906 | 1.291 |

Grain Size Description Medium sand
 (ASTM-USCS Scale) (based on Mean from Trask)

| Description | Retained on Sieve # | Weight Percent |
|--------------|---------------------|----------------|
| Gravel | 4 | 5.49 |
| Coarse Sand | 10 | 10.72 |
| Medium Sand | 40 | 79.39 |
| Fine Sand | 200 | 3.95 |
| Silt/Clay | <200 | 0.44 |
| Total | | 100 |

RAW DATA

DRY SIEVE DATA SHEET - ASTM D422M

PTS File No: 41116
 Company: TestAmerica
 Project Name: N/A
 Project Number: IUB2653
 Sample ID: IUB2653-01
 Depth: N/A

Date: 3/10¹¹ RG
 Tech: RG

- Note:** 1. Project number cannot have "/", "#", or "*" in it.
 2. If no depth is listed then enter N/A for the depth.

| PRE-SCREEN DATA | | | |
|-----------------|-------------|--------------|------------|
| Screen Size | Tare wt, gm | Total wt, gm | Net wt, gm |
| | | | |
| PAN | | | |

| QUALITY CONTROL | | | |
|----------------------------|---------|----------|---------|
| Screens Visually Inspected | | | |
| Tech | Date | | |
| RG | 3/10/11 | | |
| Screen Weights Checked: | | | |
| Tech | Date | Lab Supv | Date |
| RG | 3/10/11 | JAL | 3/11/11 |
| Raw Data Review | | | |
| Tech | Date | Lab Supv | Date |
| RG | 3/11/11 | JAL | 3/11/11 |
| Data Entry | | | |
| Initials: | TB | Date: | 3-14-11 |

| US Sieve No. | | Tare Weight, gm | Total Weight, gm |
|----------------|--------------|-----------------|------------------|
| Standard Stack | Custom Stack | | |
| 1" | N/S | 572.49 | 572.49 |
| 1/2" | N/S | 529.37 | 529.37 |
| 3/8" | | 776.44 | 777.63 |
| 1/4" | | 108.27 | 109.73 |
| 4 | | 84.64 | 85.58 |
| 6 | | 144.12 | 146.28 |
| 10 | | 139.07 | 143.92 |
| 14 | | 74.93 | 80.12 |
| 18 | | 70.69 | 76.41 |
| 25 | | 121.50 | 142.59 |
| 35 | | 118.18 | 134.63 |
| 40 | | 67.11 | 70.56 |
| 45 | | 61.69 | 62.84 |
| 60 | | 108.01 | 108.68 |
| 80 | | 106.97 | 107.28 |
| 120 | | 104.78 | 105.03 |
| 200 | | 104.60 | 104.80 |
| 270 | | 102.46 | 102.56 |
| 400 | | 57.13 | 57.18 |
| PAN | | 68.69 | 68.83 |

| Ro-Tap Shake Time | Initials |
|----------------------|----------|
| Duration: 15 minutes | RG |

Corrective Actions Taken / Observations:

| Date | Observation / Problem / Corrective Action | Initials |
|---------|---|----------|
| 3/11/11 | N/S = NO SAMPLE ROTAP #2 | RG |
| | | |
| | | |




PTS File No: 41116

SHIPPING / RECEIVING DOCUMENTS

SAMPLE LOG-IN SHEET

LOG-IN DATE: 2/25/2011
 LAB NAME: PTS Laboratories
 RECEIVED BY: J. Perez

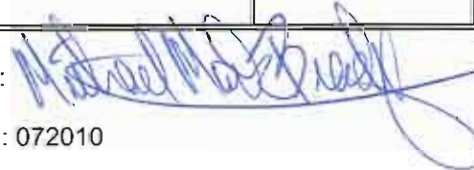
DAS NO: N/A
 SDG NO: 41116

SIGNATURE: 

CHECK THE APPROPRIATE RESPONSE:

| | PRESENT | ABSENT | INTACT | BROKEN |
|---|-----------|--------|--------|--------|
| CUSTODY SEAL(S) | | X | | |
| CHAIN OF CUSTODY (COC) RECORD | X | | | |
| TRAFFIC REPORT OR PACKING LIST | | X | | |
| AIRBILL / STICKER | | X | | |
| SAMPLE TAGS | X | | | |
| SAMPLE TAG NUMBERS ON CHAIN OF CUSTODY | X | | | |
| DATE RECEIVED BY LAB: | 2/25/2011 | | | |
| TIME RECEIVED: | 1010 | | | |
| DOES INFORMATION AGREE ON C O C, AND TAGS | Y | | | |
| AIRBILL NUMBER | | X | | |

| SAMPLE TRANSFER | | |
|-----------------|------|----|
| FRACTION | DATE | BY |
| | | |

REVIEWED BY:  DATE: February 25, 2011
 LOGBOOK NO.: 072010 LOGBOOK PAGE NO.: 17

SAMPLE LOG-IN SHEET

| CALTEST SAMPLE # | SAMPLE TAG # | LAB ASSIGNED # | CUSTODY SEAL # | SAMPLE CONDITION |
|------------------|--------------|----------------|----------------|------------------|
| IUB2653-01 | N/A | IUB2653-01 | N/A | INTACT |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



PTS File No: 41116

TELEPHONE / EMAIL LOGS

Rachel Spitz

From: Wilson, Debby [Debby.Wilson@testamericainc.com]
Sent: Friday, March 04, 2011 8:48 AM
To: Rachel Spitz
Subject: RE: Test Program and COC for IUB2653; PTS File No.: 41116
Attachments: PTS ACK-IUB2653.pdf

Hi Rachel,
Attached is the signed Ack. Yes I need a level IV data package on this sample and agree to the 25% surcharge. Please provide results by 3/10. Please provide level IV by 3/20.

Thanks

DEBBY WILSON
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue, Suite 100
Irvine, CA 92614
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Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: [Project Feedback](#)

From: Rachel Spitz [mailto:rspitz@ptslabs.com]
Sent: Tuesday, March 01, 2011 10:32 AM
To: Wilson, Debby
Subject: Test Program and COC for IUB2653; PTS File No.: 41116

Dear Debby:

Please find attached Adobe PDF and MS Excel files containing the COC and Test Program for Physical Properties analyses to be conducted upon samples received from the above referenced project. Please sign and date the test program (electronic signature is acceptable). Please note that PTS Laboratories will not commence analysis until the test program is authorized. Failure to sign may result in delay of job completion.

By acknowledging this test program you represent that you are authorized to commit to this scope of work and appropriate signed contract/purchase order.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information please give me a call at (562) 347-2504 or you may reply to this email.

Sincerely,

PTS Laboratories, Inc.

Rachel Spitz
Project Manager

8100 Secura Way
Santa Fe Springs, CA 90670

Direct Line (562) 347-2504
CA Tel. (562) 347-2500 ext. 704
CA FAX (562) 907-3610
Mobile: (714) 264-3984
PTS Laboratories has a new main number.
www.ptslabs.com

Coming together is a beginning. Keeping together is progress. Working together is success. ~Henry Ford

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Please consider the environment before printing this e-mail.

APPENDIX G

Section 61

Arroyo Simi Receiving Water – March 9, 2011

MEC^X Data Validation Report



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IUC1215

Prepared by

MEC^x, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
Contract Task Order: 1261.100D.00
Sample Delivery Group: IUC1215
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 |
|----------------|---------------|-------------------|--------|--------------|--------|
| Arroyo-Simi FP | IUC1215-01 | N/A | Water | 3/9/11 13:45 | SM9221 |

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered to TestAmerica-Irvine, no custody seals were required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

| Qualifier | Organics | Inorganics |
|-----------|---|---|
| U | The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners. | The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only. |
| J | The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. | The associated value is an estimated quantity. |
| N | The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification." | Not applicable. |
| NJ | The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. | Not applicable. |
| UJ | The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. | The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise. |
| R | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. |

Qualification Code Reference Table

| Qualifier | Organics | Inorganics |
|-----------|--|---|
| H | Holding times were exceeded. | Holding times were exceeded. |
| S | Surrogate recovery was outside QC limits. | The sequence or number of standards used for the calibration was incorrect |
| C | Calibration %RSD or %D was noncompliant. | Correlation coefficient is <0.995. |
| R | Calibration RRF was <0.05. | %R for calibration is not within control limits. |
| B | Presumed contamination as indicated by the preparation (method) blank results. | Presumed contamination as indicated by the preparation (method) or calibration blank results. |
| L | Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits. | Laboratory Control Sample %R was not within control limits. |
| Q | MS/MSD recovery was poor or RPD high. | MS recovery was poor. |
| E | Not applicable. | Duplicates showed poor agreement. |
| I | Internal standard performance was unsatisfactory. | ICP ICS results were unsatisfactory. |
| A | Not applicable. | ICP Serial Dilution %D were not within control limits. |
| M | Tuning (BFB or DFTPP) was noncompliant. | Not applicable. |
| T | Presumed contamination as indicated by the trip blank results. | Not applicable. |
| + | False positive – reported compound was not present. | Not applicable. |
| - | False negative – compound was present but not reported. | Not applicable. |
| F | Presumed contamination as indicated by the FB or ER results. | Presumed contamination as indicated by the FB or ER results. |
| \$ | Reported result or other information was incorrect. | Reported result or other information was incorrect. |
| ? | TIC identity or reported retention time has been changed. | Not applicable. |

Qualification Code Reference Table Cont.

| | | |
|-----------|--|--|
| D | The analysis with this flag should not be used because another more technically sound analysis is available. | The analysis with this flag should not be used because another more technically sound analysis is available. |
| P | Instrument performance for pesticides was poor. | Post Digestion Spike recovery was not within control limits. |
| DNQ | The reported result is above the method detection limit but is less than the reporting limit. | The reported result is above the method detection limit but is less than the reporting limit. |
| *II, *III | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. |

III. Method Analyses

A. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: April 18, 2011

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)*, *Standard Method SM9221*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: The analytical holding time is listed as immediate. As the sample was prepared within four hours of collection, no qualifications were required.
- Calibration: The control results were acceptable.
- Blanks: Not applicable to this method.
- Blank Spikes and Laboratory Control Samples: Not applicable to this method.
- Laboratory Duplicates: No laboratory duplicate analysis was performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this method.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either “J+” or “J-”; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms IUC1215

Analysis Method *SM9221 A,B,C,E*

Sample Name Arroyo Simi-FP **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: IUC1215-01 **Sample Date:** 3/9/2011 1:45:00 PM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|----------------|---------------|---------------------|-----------|------------|---------------------|----------------------|-----------------------------|-------------------------|
| E. Coli | NA | 220 | 2.00 | 2.00 | MPN/10 | | | |
| Fecal Coliform | NA | 220 | 2.00 | 2.00 | MPN/10 | | | |

APPENDIX G

Section 62

Arroyo Simi Receiving Water – March 9, 2011

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park

Sampled: 03/09/11
Received: 03/09/11
Issued: 03/23/11 17:59

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

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 of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

LABORATORY ID

IUC1215-01

CLIENT ID

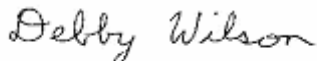
Arroyo Simi-FP

MATRIX

Water

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:



TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC1215

Sampled: 03/09/11
Received: 03/09/11

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|----------------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUC1215-01 (Arroyo Simi-FP - Water) | | | | | | | | | |
| Reporting Units: MPN/100 ml | | | | | | | | | |
| Fecal Coliform | SM9221 A,B,C,E | 11C1327 | 2.00 | 2.00 | 220 | 1 | SK | 03/12/11 | |
| E. Coli | SM9221 A,B,C,E | 11C1327 | 2.00 | 2.00 | 220 | 1 | SK | 03/12/11 | |

TestAmerica Irvine

Debby Wilson
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.

IUC1215 <Page 2 of 6>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC1215

Sampled: 03/09/11
Received: 03/09/11

SHORT HOLD TIME DETAIL REPORT

| | Hold Time (in days) | Date/Time Sampled | Date/Time Received | Date/Time Extracted | Date/Time Analyzed |
|---|--------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------------------|
| Sample ID: Arroyo Simi-FP (IUC1215-01) - Water SM9221 A,B,C,E | 0 | 03/09/2011 13:45 | 03/09/2011 16:40 | 03/09/2011 17:30 | 03/12/2011 12:44 |

TestAmerica Irvine

Debby Wilson
Project Manager

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IUC1215 <Page 3 of 6>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC1215

Sampled: 03/09/11
Received: 03/09/11

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

| LabNumber | Analysis | Analyte | Units | Result | MRL | Compliance Limit |
|------------------|-----------------|----------------|--------------|---------------|------------|-----------------------------|
|------------------|-----------------|----------------|--------------|---------------|------------|-----------------------------|

TestAmerica Irvine

Debby Wilson
Project Manager

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IUC1215 <Page 4 of 6>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC1215

Sampled: 03/09/11
Received: 03/09/11

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD Relative Percent Difference

TestAmerica Irvine

Debby Wilson
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.

IUC1215 <Page 5 of 6>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC1215

Sampled: 03/09/11
Received: 03/09/11

Certification Summary

TestAmerica Irvine

| Method | Matrix | Nelac | California |
|----------------|--------|-------|------------|
| SM9221 A,B,C,E | Water | | |

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

TestAmerica Irvine

Debby Wilson
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.

APPENDIX G

Section 63

Arroyo Simi Receiving Water – March 14, 2011

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park

Sampled: 03/14/11
Received: 03/14/11
Issued: 03/29/11 18:01

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

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 of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 5°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: Results that fall between the MDL and RL are 'J' flagged.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

LABORATORY ID

IUC1552-01

CLIENT ID

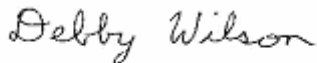
Arroyo Simi-FP

MATRIX

Water

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:



TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC1552

Sampled: 03/14/11
Received: 03/14/11

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|----------------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUC1552-01 (Arroyo Simi-FP - Water) | | | | | | | | | |
| Reporting Units: MPN/100 ml | | | | | | | | | |
| Fecal Coliform | SM9221 A,B,C,E | 11C1948 | 2.00 | 2.00 | 23.0 | 1 | AK | 03/17/11 | |
| E. Coli | SM9221 A,B,C,E | 11C1948 | 2.00 | 2.00 | 23.0 | 1 | AK | 03/17/11 | |

TestAmerica Irvine

Debby Wilson
Project Manager

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IUC1552 <Page 2 of 5>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC1552

Sampled: 03/14/11
Received: 03/14/11

SHORT HOLD TIME DETAIL REPORT

| | Hold Time (in days) | Date/Time Sampled | Date/Time Received | Date/Time Extracted | Date/Time Analyzed |
|---|--------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------------------|
| Sample ID: Arroyo Simi-FP (IUC1552-01) - Water SM9221 A,B,C,E | 0 | 03/14/2011 11:35 | 03/14/2011 16:11 | 03/14/2011 16:30 | 03/17/2011 12:10 |

TestAmerica Irvine

Debby Wilson
Project Manager

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IUC1552 <Page 3 of 5>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC1552

Sampled: 03/14/11
Received: 03/14/11

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD Relative Percent Difference

TestAmerica Irvine

Debby Wilson
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.

IUC1552 <Page 4 of 5>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC1552

Sampled: 03/14/11
Received: 03/14/11

Certification Summary

TestAmerica Irvine

| Method | Matrix | Nelac | California |
|----------------|--------|-------|------------|
| SM9221 A,B,C,E | Water | | |

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

TestAmerica Irvine

Debby Wilson
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.

APPENDIX G

Section 64

Arroyo Simi Receiving Water – March 19, 2011

MEC^X Data Validation Report



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IUC2127

Prepared by

MECX, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
Contract Task Order: 1261.100D.00
Sample Delivery Group: IUC2127
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 |
|----------------|---------------|-------------------|--------|---------------|--------|
| Arroyo-Simi FP | IUC2127-01 | N/A | Water | 3/19/11 11:25 | SM9221 |

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered to TestAmerica-Irvine, no custody seals were required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

| Qualifier | Organics | Inorganics |
|-----------|---|---|
| U | The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners. | The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only. |
| J | The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. | The associated value is an estimated quantity. |
| N | The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification." | Not applicable. |
| NJ | The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. | Not applicable. |
| UJ | The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. | The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise. |
| R | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. |

Qualification Code Reference Table

| Qualifier | Organics | Inorganics |
|-----------|--|---|
| H | Holding times were exceeded. | Holding times were exceeded. |
| S | Surrogate recovery was outside QC limits. | The sequence or number of standards used for the calibration was incorrect |
| C | Calibration %RSD or %D was noncompliant. | Correlation coefficient is <0.995. |
| R | Calibration RRF was <0.05. | %R for calibration is not within control limits. |
| B | Presumed contamination as indicated by the preparation (method) blank results. | Presumed contamination as indicated by the preparation (method) or calibration blank results. |
| L | Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits. | Laboratory Control Sample %R was not within control limits. |
| Q | MS/MSD recovery was poor or RPD high. | MS recovery was poor. |
| E | Not applicable. | Duplicates showed poor agreement. |
| I | Internal standard performance was unsatisfactory. | ICP ICS results were unsatisfactory. |
| A | Not applicable. | ICP Serial Dilution %D were not within control limits. |
| M | Tuning (BFB or DFTPP) was noncompliant. | Not applicable. |
| T | Presumed contamination as indicated by the trip blank results. | Not applicable. |
| + | False positive – reported compound was not present. | Not applicable. |
| - | False negative – compound was present but not reported. | Not applicable. |
| F | Presumed contamination as indicated by the FB or ER results. | Presumed contamination as indicated by the FB or ER results. |
| \$ | Reported result or other information was incorrect. | Reported result or other information was incorrect. |
| ? | TIC identity or reported retention time has been changed. | Not applicable. |

Qualification Code Reference Table Cont.

| | | |
|-----------|--|--|
| D | The analysis with this flag should not be used because another more technically sound analysis is available. | The analysis with this flag should not be used because another more technically sound analysis is available. |
| P | Instrument performance for pesticides was poor. | Post Digestion Spike recovery was not within control limits. |
| DNQ | The reported result is above the method detection limit but is less than the reporting limit. | The reported result is above the method detection limit but is less than the reporting limit. |
| *II, *III | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. |

III. Method Analyses

A. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: April 18, 2011

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)*, *Standard Method SM9221*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: The analytical holding time is listed as immediate. As the sample was prepared within four hours of collection, no qualifications were required.
- Calibration: The control results were acceptable.
- Blanks: Not applicable to this method.
- Blank Spikes and Laboratory Control Samples: Not applicable to this method.
- Laboratory Duplicates: No laboratory duplicate analysis was performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this method.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either “J+” or “J-”; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms IUC2127

Analysis Method *SM9221 A,B,C,E*

Sample Name Arroyo Simi-FP **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: IUC2127-01 **Sample Date:** 3/19/2011 11:25:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|----------------|---------------|---------------------|-----------|------------|---------------------|----------------------|-----------------------------|-------------------------|
| E. Coli | NA | >=1600 | 2.00 | 2.00 | MPN/10 | | | |
| Fecal Coliform | NA | >=1600 | 2.00 | 2.00 | MPN/10 | | | |

APPENDIX G

Section 65

Arroyo Simi Receiving Water – March 19, 2011

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park

Sampled: 03/19/11
Received: 03/19/11
Issued: 04/04/11 17:46

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

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 of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

LABORATORY ID

IUC2127-01

CLIENT ID

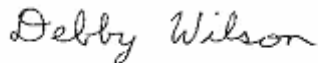
Arroyo Simi-FP

MATRIX

Water

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:



TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC2127

Sampled: 03/19/11
Received: 03/19/11

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|----------------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUC2127-01 (Arroyo Simi-FP - Water) | | | | | | | | | |
| Reporting Units: MPN/100 ml | | | | | | | | | |
| Fecal Coliform | SM9221 A,B,C,E | 11C2629 | 2.00 | 2.00 | >=1600 | 1 | AK | 03/22/11 | |
| E. Coli | SM9221 A,B,C,E | 11C2629 | 2.00 | 2.00 | >=1600 | 1 | AK | 03/22/11 | |

TestAmerica Irvine

Debby Wilson
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.

IUC2127 <Page 2 of 5>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC2127

Sampled: 03/19/11
Received: 03/19/11

SHORT HOLD TIME DETAIL REPORT

| | Hold Time (in days) | Date/Time Sampled | Date/Time Received | Date/Time Extracted | Date/Time Analyzed |
|---|--------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------------------|
| Sample ID: Arroyo Simi-FP (IUC2127-01) - Water SM9221 A,B,C,E | 0 | 03/19/2011 11:25 | 03/19/2011 14:10 | 03/19/2011 15:38 | 03/22/2011 11:50 |

TestAmerica Irvine

Debby Wilson
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.

IUC2127 <Page 3 of 5>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC2127

Sampled: 03/19/11
Received: 03/19/11

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD Relative Percent Difference

TestAmerica Irvine

Debby Wilson
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.

IUC2127 <Page 4 of 5>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC2127

Sampled: 03/19/11
Received: 03/19/11

Certification Summary

TestAmerica Irvine

| Method | Matrix | Nelac | California |
|----------------|--------|-------|------------|
| SM9221 A,B,C,E | Water | | |

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

TestAmerica Irvine

Debby Wilson
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.

APPENDIX G

Section 66

Arroyo Simi Receiving Water – March 24, 2011

MEC^X Data Validation Report



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IUC2627

Prepared by

MEC^x, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
Contract Task Order: 1261.100D.00
Sample Delivery Group: IUC2627
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 |
|----------------|---------------|-------------------|--------|---------------|--------|
| Arroyo-Simi FP | IUC2627-01 | N/A | Water | 3/24/11 09:45 | SM9221 |

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered to TestAmerica-Irvine, no custody seals were required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

| Qualifier | Organics | Inorganics |
|-----------|---|---|
| U | The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners. | The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only. |
| J | The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. | The associated value is an estimated quantity. |
| N | The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification." | Not applicable. |
| NJ | The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. | Not applicable. |
| UJ | The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. | The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise. |
| R | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. | The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified. |

Qualification Code Reference Table

| Qualifier | Organics | Inorganics |
|-----------|--|---|
| H | Holding times were exceeded. | Holding times were exceeded. |
| S | Surrogate recovery was outside QC limits. | The sequence or number of standards used for the calibration was incorrect |
| C | Calibration %RSD or %D was noncompliant. | Correlation coefficient is <0.995. |
| R | Calibration RRF was <0.05. | %R for calibration is not within control limits. |
| B | Presumed contamination as indicated by the preparation (method) blank results. | Presumed contamination as indicated by the preparation (method) or calibration blank results. |
| L | Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits. | Laboratory Control Sample %R was not within control limits. |
| Q | MS/MSD recovery was poor or RPD high. | MS recovery was poor. |
| E | Not applicable. | Duplicates showed poor agreement. |
| I | Internal standard performance was unsatisfactory. | ICP ICS results were unsatisfactory. |
| A | Not applicable. | ICP Serial Dilution %D were not within control limits. |
| M | Tuning (BFB or DFTPP) was noncompliant. | Not applicable. |
| T | Presumed contamination as indicated by the trip blank results. | Not applicable. |
| + | False positive – reported compound was not present. | Not applicable. |
| - | False negative – compound was present but not reported. | Not applicable. |
| F | Presumed contamination as indicated by the FB or ER results. | Presumed contamination as indicated by the FB or ER results. |
| \$ | Reported result or other information was incorrect. | Reported result or other information was incorrect. |
| ? | TIC identity or reported retention time has been changed. | Not applicable. |

Qualification Code Reference Table Cont.

| | | |
|-----------|--|--|
| D | The analysis with this flag should not be used because another more technically sound analysis is available. | The analysis with this flag should not be used because another more technically sound analysis is available. |
| P | Instrument performance for pesticides was poor. | Post Digestion Spike recovery was not within control limits. |
| DNQ | The reported result is above the method detection limit but is less than the reporting limit. | The reported result is above the method detection limit but is less than the reporting limit. |
| *II, *III | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. | Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found. |

III. Method Analyses

A. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: April 18, 2011

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)*, *Standard Method SM9221*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: The analytical holding time is listed as immediate. As the sample was prepared within four hours of collection, no qualifications were required.
- Calibration: The control results were acceptable.
- Blanks: Not applicable to this method.
- Blank Spikes and Laboratory Control Samples: Not applicable to this method.
- Laboratory Duplicates: No laboratory duplicate analysis was performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this method.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either “J+” or “J-”; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms IUC2627

Analysis Method *SM9221 A,B,C,E*

Sample Name Arroyo Simi-FP **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: IUC2627-01 **Sample Date:** 3/24/2011 9:45:00 AM

| Analyte | CAS No | Result Value | RL | MDL | Result Units | Lab Qualifier | Validation Qualifier | Validation Notes |
|----------------|---------------|---------------------|-----------|------------|---------------------|----------------------|-----------------------------|-------------------------|
| E. Coli | NA | >=1600 | 2.00 | 2.00 | MPN/10 | | | |
| Fecal Coliform | NA | >=1600 | 2.00 | 2.00 | MPN/10 | | | |

APPENDIX G

Section 67

Arroyo Simi Receiving Water – March 24, 2011

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park

Sampled: 03/24/11
Received: 03/24/11
Issued: 03/31/11 15:30

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

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 of Custody, 1 page, is included and is 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.

LABORATORY ID

IUC2627-01

CLIENT ID

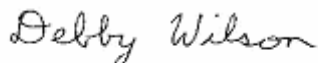
Arroyo Simi-FP

MATRIX

Water

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:



TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC2627

Sampled: 03/24/11
Received: 03/24/11

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|----------------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUC2627-01 (Arroyo Simi-FP - Water) | | | | | | | | | |
| Reporting Units: MPN/100 ml | | | | | | | | | |
| Fecal Coliform | SM9221 A,B,C,E | 11C3300 | 2.00 | 2.00 | >=1600 | 1 | AK | 03/27/11 | |
| E. Coli | SM9221 A,B,C,E | 11C3300 | 2.00 | 2.00 | >=1600 | 1 | AK | 03/27/11 | |

TestAmerica Irvine

Debby Wilson
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.

IUC2627 <Page 2 of 5>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC2627

Sampled: 03/24/11
Received: 03/24/11

SHORT HOLD TIME DETAIL REPORT

| | Hold Time (in days) | Date/Time Sampled | Date/Time Received | Date/Time Extracted | Date/Time Analyzed |
|---|--------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------------------|
| Sample ID: Arroyo Simi-FP (IUC2627-01) - Water SM9221 A,B,C,E | 0 | 03/24/2011 09:45 | 03/24/2011 13:01 | 03/24/2011 13:32 | 03/27/2011 11:30 |

TestAmerica Irvine

Debby Wilson
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.

IUC2627 <Page 3 of 5>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC2627

Sampled: 03/24/11
Received: 03/24/11

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD Relative Percent Difference

TestAmerica Irvine

Debby Wilson
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.

IUC2627 <Page 4 of 5>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC2627

Sampled: 03/24/11
Received: 03/24/11

Certification Summary

TestAmerica Irvine

| Method | Matrix | Nelac | California |
|----------------|--------|-------|------------|
| SM9221 A,B,C,E | Water | | |

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

EMSL Analytical-Cinnaminson, NJ

Analysis Performed: Level 4 Data Package
Samples: IUC2627-01

Analysis Performed: Outside Analysis
Samples: IUC2627-01

TestAmerica Irvine

Debby Wilson
Project Manager

EMSL Analytical, Inc.

200 Route 130 N, Cinnaminson, NJ 08077, Tel: 800-220-3675, Fax: 856-786-0262



Client: TestAmerica
17461 Derian Ave, Suite 100
Irvine, CA 92614

Attn: Debby Wilson

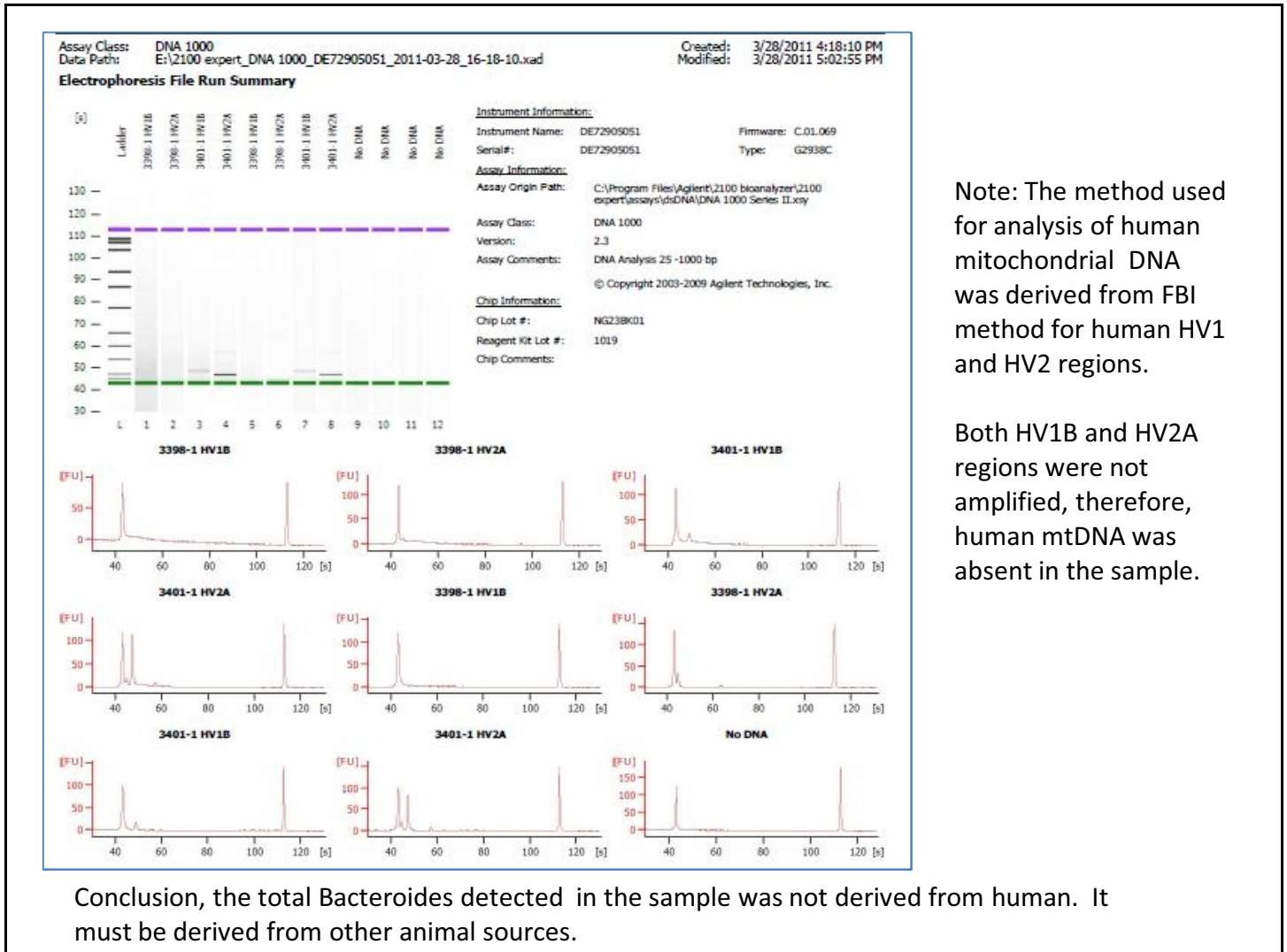
Project: Arroyo Simi-FP-Water

EMSL Order ID: 371103398

Date Received: 3/25/2011

Date Analyzed: 3/28/2011

Date Reported: 3/29/2011



Note: The method used for analysis of human mitochondrial DNA was derived from FBI method for human HV1 and HV2 regions.

Both HV1B and HV2A regions were not amplified, therefore, human mtDNA was absent in the sample.

Conclusion, the total Bacteroides detected in the sample was not derived from human. It must be derived from other animal sources.

USEPA License No: 0240-02

Quanyi "Charlie" Li, Ph.D.
Director, PCR and DNA Analysis Lab
EMSL Analytical, Inc.

APPENDIX G

Section 68

Arroyo Simi Receiving Water – March 29, 2011

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park

Sampled: 03/29/11
Received: 03/29/11
Issued: 04/08/11 14:25

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

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 of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

ADDITIONAL
INFORMATION:

Revised report to correct ecoli results. During data package review, a data entry error was discovered.

LABORATORY ID
IUC3014-01

CLIENT ID
Arroyo Simi-FP

MATRIX
Water

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:

Debby Wilson

TestAmerica Irvine

Debby Wilson
Project Manager

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC3014

Sampled: 03/29/11
Received: 03/29/11

COLIFORMS BY MULTIPLE TUBE FERMENTATION - MPN (SM9221/40 CFR 141.21(f)(6)(i))

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Analyst | Date Analyzed | Data Qualifiers |
|---|----------------|---------|-----------|-----------------|---------------|-----------------|---------|---------------|-----------------|
| Sample ID: IUC3014-01 (Arroyo Simi-FP - Water) | | | | | | | | | |
| Reporting Units: MPN/100 ml | | | | | | | | | |
| Fecal Coliform | SM9221 A,B,C,E | 11C3857 | 2.00 | 2.00 | 140 | 1 | SK | 04/01/11 | |
| E. Coli | SM9221 A,B,C,E | 11C3857 | 2.00 | 2.00 | 70.0 | 1 | SK | 04/01/11 | |

TestAmerica Irvine

Debby Wilson
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.

IUC3014 <Page 2 of 6>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC3014

Sampled: 03/29/11
Received: 03/29/11

SHORT HOLD TIME DETAIL REPORT

| | Hold Time (in days) | Date/Time Sampled | Date/Time Received | Date/Time Extracted | Date/Time Analyzed |
|---|--------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------------------|
| Sample ID: Arroyo Simi-FP (IUC3014-01) - Water SM9221 A,B,C,E | 0 | 03/29/2011 13:40 | 03/29/2011 17:40 | 03/29/2011 18:20 | 04/01/2011 14:03 |

TestAmerica Irvine

Debby Wilson
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.

IUC3014 <Page 3 of 6>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC3014

Sampled: 03/29/11
Received: 03/29/11

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

| LabNumber | Analysis | Analyte | Units | Result | MRL | Compliance Limit |
|------------|-------------------------------|----------------|------------|--------|------|------------------|
| IUC3014-01 | IRV_9221 (MTF) E. Coli | E. Coli | MPN/100 ml | 70 | 2.00 | 235 |
| IUC3014-01 | IRV_9221 (MTF) Fecal Coliform | Fecal Coliform | MPN/100 ml | 140 | 2.00 | 400 |

TestAmerica Irvine

Debby Wilson
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.

IUC3014 <Page 4 of 6>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC3014

Sampled: 03/29/11
Received: 03/29/11

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD Relative Percent Difference

TestAmerica Irvine

Debby Wilson
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.

IUC3014 <Page 5 of 6>

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

Project ID: Annual Arroyo Simi-Frontier Park
Annual Arroyo Simi-Frontier Park
Report Number: IUC3014

Sampled: 03/29/11
Received: 03/29/11

Certification Summary

TestAmerica Irvine

| Method | Matrix | Nelac | California |
|----------------|--------|-------|------------|
| Level 4 | Water | | |
| SM9221 A,B,C,E | Water | | |

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

TestAmerica Irvine

Debby Wilson
Project Manager

