

# **APPENDIX G**

## **Section 1**

Outfall 001, January 25, 2008

MEC<sup>X</sup> Data Validation Reports



# DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRA2506

Prepared by

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**I. INTRODUCTION**

Task Order Title: Boeing SSFL NPDES  
 Contract Task Order: 1261.100D.00  
 Sample Delivery Group: IRA2506  
 Project Manager: B. Kelly  
 Matrix: Soil  
 QC Level: IV  
 No. of Samples: 2  
 No. of Reanalyses/Dilutions: 0  
 Laboratory: TestAmerica-Irvine

**Table 1. Sample Identification**

| Client ID   | Laboratory ID | Sub-Laboratory ID                   | Matrix | Collected     | Method   |
|-------------|---------------|-------------------------------------|--------|---------------|--|
| Outfall 001 | IRA2506-01    | 8691-001<br>30212-001<br>8012805-01 | Water  | 01/25/08 1345 | 120.1, 160.2, 160.5,<br>180.1, 200.8, 245.1,<br>624, 625, 900.0,<br>901.1, 903.0, 904.0,<br>905.0, 906.0, 1613,<br>ASTM D-5174 |
| Trip Blank  | IRA2506-02    | N/A                                 | Water  | N/A           | 624  |

**II. Sample Management**

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine within the temperature limits of 4°C ±2°C. The sample was received below the temperature limit at Vista; however, the sample was not noted to have been frozen. The sample was received above the temperature limit at Eberline; however, radiological samples are not required to be chilled. The sample was received above the temperature limit at Weck; however, mercury is not considered volatile. According to the case narrative for this SDG, the sample was received intact at all laboratories. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to TestAmerica-Irvine, custody seals were not required. Custody seals were intact upon arrival at Eberline and Vista. Custody seals were not present on the cooler received at Weck. If necessary, the client ID was added to the sample result summary by the reviewer.

### Data Qualifier Reference Table

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

### Qualification Code Reference Table

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

**Qualification Code Reference Table Cont.**

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|           |  |  |
|-----------|--|--|
| 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. |

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### III. Method Analyses

#### A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight  
Date Reviewed: March 9, 2008

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

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
  - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was not analyzed prior to the initial calibration sequence or at the beginning of each analytical sequence; however, the first and last eluting congeners and isomer specificity compounds were added to the midpoint of the initial calibration and to the continuing calibration standards. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.
  - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.
- Calibration: Calibration criteria were met.
  - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs  $\leq 20\%$  for the 16 native compounds (calibration by isotope dilution) and  $\leq 35\%$  for the one native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.
  - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.
- Blanks: Total HpCDD was detected in the method blank above the EDL. The result in the sample was qualified as estimated, "J," as a portion of the reported total HpCDD was

considered to be method blank contamination. The method blank had no other target compound detects above the EDL.

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

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

Reviewed By: P. Meeks

Date Reviewed: March 10, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC<sup>x</sup> Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Methods 200.8 and 245.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding times, 6 months for metals and 28 days for mercury, were met.
- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were  $\leq 5\%$ , and all masses of interest were calibrated to  $\leq 0.1$  amu and  $\leq 0.9$  amu at 10% peak height.

- Calibration: Calibration criteria were met. Mercury initial calibration  $r^2$  values were  $\geq 0.995$  and all initial and continuing calibration recoveries were within 90-110% for the ICP-MS metals and 85-115% for mercury. The mercury MDL check standard was recovered at 66%; therefore, nondetected mercury in the sample was qualified as estimated, "UJ." The remaining CRI recoveries were within 70-130%.
- Blanks: There were no applicable detects in the method blanks or CCBs.
- Interference Check Samples: ICSA/B analyses were performed in association with the metals analyses. Recoveries were within the method-established control limits. Most analytes were reported in the ICSA solutions; however, the reviewer was not able to ascertain if the detection was indicative of matrix interference.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Evaluation of method accuracy was based on LCS results.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. The bracketing CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.

## C. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: March 5, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174, and the National Functional Guidelines for Inorganic Data Review (2/94)*.

- **Holding Times:** The tritium sample was analyzed within 180 days of collection. Aliquots for gross alpha and, gross beta were prepared within the five-day analytical holding time for unpreserved samples. The aliquots for radium-226, radium-228, strontium-90, gamma spectroscopy, and total uranium were prepared beyond the five-day holding time for unpreserved samples; therefore, these results were qualified as estimated, "J," for detects and, "UJ," for nondetects.
- **Calibration:** The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

The gross alpha detector efficiency was less than 20%; therefore, gross alpha detected in the sample was qualified as an estimated detect, "J." The gross beta detector efficiency was greater than 20%.

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. The tritium detector efficiency for the sample was at least 20% and was considered acceptable. The internal spike efficiency to default efficiency ratios was near 1, indicating that quenching did not occur.

The strontium chemical yield was at least 70% and was considered acceptable. The strontium continuing calibration results were within the laboratory control limits.

The radium-226 cell efficiencies were determined in September 2006. The radium-226 continuing calibration results were within the laboratory-established control limits. The radium-228 calibration utilized actinium-228 and was verified in February 2001. The radium-228 tracer, yttrium oxalate yields were greater than 70%.

The gamma spectroscopy geometry-specific, detector efficiencies were determined in September 1999 and February 2007. All analytes were determined at the maximum photopeak energy.

The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All calibration check standard recoveries were within 90-110% and were deemed acceptable.

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

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

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

Reviewed By: L. Calvin

Date Reviewed: March 9, 2008

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

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted within seven days of collection and analyzed within 40 days of extraction.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. Samples were analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria were met. Initial calibration average RRFs were  $\geq 0.05$  and %RSDs  $\leq 35\%$ . Continuing calibration RRFs were  $\geq 0.05$  and %Ds  $\leq 20\%$ .
- Blanks: The method blank had no target compound detects above the MDL.

- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the sample of this SDG. Evaluation of method accuracy and precision was based on LSC/LSCD results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the control limits established by the continuing calibration standards: -50%/+100% for internal standard areas and  $\pm 30$  seconds for retention times.
- Compound Identification: Compound identification was verified. The laboratory analyzed for five semivolatile compounds by EPA Method 625. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Any results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review of the raw data indicated no problems with system performance.

## E. EPA METHOD 624—Volatile Organic Compounds (VOCs)

Reviewed By: L. Calvin

Date Reviewed: March 9, 2008

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC<sup>X</sup> Data Validation Procedure for Volatile Organics (DVP-2, Rev. 0)*, *EPA Method 8260B*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Analytical holding times were met. The preserved water samples were analyzed within 14 days of collection.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. Samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria were met. For applicable target compounds, initial calibration average RRFs were  $\geq 0.05$  and %RSDs  $\leq 35\%$ . Continuing calibration RRFs were  $\geq 0.05$  and %Ds  $\leq 20\%$ .
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on site sample Outfall 001. Recoveries and RPDs were within laboratory-established QC limits.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Trip Blanks: Sample Trip Blank was the trip blank associated with site sample Outfall 001. The trip blank had no target compound detects above the MDL.
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the control limits established by the continuing calibration standards:  $-50\%/+100\%$  for internal standard areas and  $\pm 30$  seconds for retention times.

- **Compound Identification:** Compound identification was verified. The laboratory analyzed for 15 volatile target compounds by EPA Method 624. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Any results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- **Tentatively Identified Compounds:** TICs were not reported by the laboratory for this SDG.
- **System Performance:** Review of the raw data indicated no problems with system performance.

## F. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: March 7, 2008

The sample listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC<sup>X</sup> Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 120.1, 160.2, 160.5, 180.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- **Holding Times:** Analytical holding times, 24 hours for conductivity, 48 hours for settleable solids and turbidity, and seven days for TSS, were met.
- **Calibration:** The conductivity and turbidity check standard recoveries were acceptable. The balance calibration logs were acceptable. Calibration is not applicable to settleable solids.
- **Blanks:** Turbidity was detected in the method blank but not at a concentration sufficient to qualify the site samples. Method blanks and CCBs had no other detects.
- **Blank Spikes and Laboratory Control Samples:** Recoveries were within laboratory-established QC limits. The LCS is not applicable to settleable solids or turbidity.
- **Laboratory Duplicates:** No laboratory duplicate analyses were performed for the sample in this SDG.
- **Matrix Spike/Matrix Spike Duplicate:** No MS/MSD analyses were performed on the sample in this SDG. For the applicable methods, method accuracy was evaluated based on the LCS results.

- Sample Result Verification: Review is not applicable at a Level V validation. Nondetects are valid to the reporting limit.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.

Sample ID: IRA2506-01 Outfall ~~88~~ 001

EPA Method 1613

| Client Data     |                         | Sample Data  |         | Laboratory Data     |           |                       |           |
|-----------------|-------------------------|--------------|---------|---------------------|-----------|-----------------------|-----------|
| Name:           | Test America-Irvine, CA | Matrix:      | Aqueous | Lab Sample:         | 30212-001 | Date Received:        | 29-Jan-08 |
| Project:        | IRA2506                 | Sample Size: | 1.01 L  | QC Batch No.:       | 9921      | Date Extracted:       | 2-Feb-08  |
| Date Collected: | 25-Jan-08               |              |         | Date Analyzed DB-5: | 7-Feb-08  | Date Analyzed DB-225: | NA        |
| Time Collected: | 1345                    |              |         |                     |           |                       |           |

| Analyte             | Conc. (ug/L) | DL <sup>a</sup> | EMPC <sup>b</sup> | Qualifiers | Labeled Standard                              | %R   | LCL-UCL <sup>d</sup> | Qualifiers |
|---------------------|--------------|-----------------|-------------------|------------|---|------|----------------------|------------|
| 2,3,7,8-TCDD        | ND           | 0.00000100      |                   |            | 13C-2,3,7,8-TCDD                              | 77.5 | 25 - 164             |            |
| 1,2,3,7,8-PeCDD     | ND           | 0.00000107      |                   |            | 13C-1,2,3,7,8-PeCDD                           | 64.4 | 25 - 181             |            |
| 1,2,3,4,7,8-HxCDD   | ND           | 0.00000276      |                   |            | 13C-1,2,3,4,7,8-HxCDD                         | 69.5 | 32 - 141             |            |
| 1,2,3,6,7,8-HxCDD   | ND           | 0.00000279      |                   |            | 13C-1,2,3,6,7,8-HxCDD                         | 73.2 | 28 - 130             |            |
| 1,2,3,7,8,9-HxCDD   | ND           | 0.00000266      |                   |            | 13C-1,2,3,4,6,7,8-HpCDD                       | 75.1 | 23 - 140             |            |
| 1,2,3,4,6,7,8-HpCDD | 0.0000239    |                 |                   | J          | 13C-OCDD                                      | 63.6 | 17 - 157             |            |
| OCDD                | 0.000225     |                 |                   |            | 13C-2,3,7,8-TCDF                              | 83.8 | 24 - 169             |            |
| 2,3,7,8-TCDF        | ND           | 0.000000699     |                   |            | 13C-1,2,3,7,8-TCDF                            | 71.0 | 24 - 185             |            |
| 1,2,3,7,8-PeCDF     | ND           | 0.00000104      |                   |            | 13C-2,3,4,7,8-PeCDF                           | 61.0 | 21 - 178             |            |
| 2,3,4,7,8-PeCDF     | ND           | 0.00000114      |                   |            | 13C-1,2,3,4,7,8-HxCDF                         | 80.5 | 26 - 152             |            |
| 1,2,3,4,7,8-HxCDF   | ND           | 0.000000923     |                   |            | 13C-1,2,3,6,7,8-HxCDF                         | 68.6 | 26 - 123             |            |
| 1,2,3,6,7,8-HxCDF   | ND           | 0.00000128      |                   |            | 13C-2,3,4,6,7,8-HxCDF                         | 65.1 | 28 - 136             |            |
| 2,3,4,6,7,8-HxCDF   | ND           | 0.000000730     |                   |            | 13C-1,2,3,7,8,9-HxCDF                         | 69.9 | 29 - 147             |            |
| 1,2,3,7,8,9-HxCDF   | ND           | 0.000000917     |                   |            | 13C-1,2,3,4,6,7,8-HpCDF                       | 63.6 | 28 - 143             |            |
| 1,2,3,4,6,7,8-HpCDF | ND           |                 | 0.00000460        |            | 13C-1,2,3,4,7,8,9-HpCDF                       | 69.1 | 26 - 138             |            |
| 1,2,3,4,7,8,9-HpCDF | ND           | 0.00000131      |                   |            | 13C-OCDF                                      | 65.8 | 17 - 157             |            |
| OCDF                | 0.0000146    |                 |                   | J          | CRS 37Cl,2,3,7,8-TCDD                         | 79.8 | 35 - 197             |            |
| <b>Totals</b>       |              |                 |                   |            | <b>Footnotes</b>                              |      |                      |            |
| Total TCDD          | ND           | 0.00000100      |                   |            | a. Sample specific estimated detection limit. |      |                      |            |
| Total PeCDD         | ND           | 0.00000213      |                   |            | b. Estimated maximum possible concentration.  |      |                      |            |
| Total HxCDD         | 0.00000153   |                 |                   |            | c. Method detection limit.                    |      |                      |            |
| Total HpCDD         | 0.00000499   |                 |                   | B          | d. Lower control limit - upper control limit. |      |                      |            |
| Total TCDF          | ND           | 0.000000699     |                   |            |   |      |                      |            |
| Total PeCDF         | ND           | 0.000000726     |                   |            |   |      |                      |            |
| Total HxCDF         | 0.00000182   |                 | 0.00000351        |            |   |      |                      |            |
| Total HpCDF         | 0.0000101    |                 | 0.0000147         |            |   |      |                      |            |

Analyst: MAS

Level IV

Approved By:

William J. Luksemburg 08-Feb-2008 12:18

pm 4/5/08

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

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

Project ID: Routine Outfall 001  
Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## METALS

| Analyte  | Method    | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |           |                 |               |                 |                |               |                 |
| Reporting Units: mg/l                                      |           |         |           |                 |               |                 |                |               |                 |
| Iron   | EPA 200.7 | 8A26028 | 0.015     | 0.040           | 5.7           | 1               | 01/26/08       | 01/28/08      |                 |
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water)</b>         |           |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                                      |           |         |           |                 |               |                 |                |               |                 |
| Cadmium J/DNQ  | EPA 200.8 | 8A26027 | 0.11      | 1.0             | 0.12          | 1               | 01/26/08       | 01/26/08      | J               |
| Copper   | EPA 200.8 | 8A26027 | 0.75      | 2.0             | 4.8           | 1               | 01/26/08       | 01/26/08      |                 |
| Lead   | EPA 200.8 | 8A26027 | 0.30      | 1.0             | 3.4           | 1               | 01/26/08       | 01/26/08      |                 |
| Manganese  | EPA 200.7 | 8A26028 | 7.0       | 20              | 71            | 1               | 01/26/08       | 01/28/08      |                 |
| Selenium U   | EPA 200.8 | 8A26027 | 0.30      | 2.0             | ND            | 1               | 01/26/08       | 01/26/08      |                 |
| Zinc   | EPA 200.7 | 8A26028 | 6.0       | 20              | 28            | 1               | 01/26/08       | 01/28/08      |                 |

LEVEL 1U

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## DISSOLVED METALS

| Analyte  | Method         | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|----------------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |                |         |           |                 |               |                 |                |               |                 |
| Reporting Units: mg/l                                      |                |         |           |                 |               |                 |                |               |                 |
| Iron   | EPA 200.7-Diss | 8A25155 | 0.015     | 0.040           | 0.26          | 1               | 01/25/08       | 01/26/08      |                 |
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water)</b>         |                |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                                      |                |         |           |                 |               |                 |                |               |                 |
| Cadmium U  | EPA 200.8-Diss | 8A25156 | 0.11      | 1.0             | ND            | 1               | 01/25/08       | 01/26/08      |                 |
| Copper   | EPA 200.8-Diss | 8A25156 | 0.75      | 2.0             | 2.2           | 1               | 01/25/08       | 01/26/08      |                 |
| Lead U   | EPA 200.8-Diss | 8A25156 | 0.30      | 1.0             | ND            | 1               | 01/25/08       | 01/26/08      |                 |
| Manganese J/DNQ  | EPA 200.7-Diss | 8A25155 | 7.0       | 20              | 8.2           | 1               | 01/25/08       | 01/26/08      | J               |
| Selenium U   | EPA 200.8-Diss | 8A25156 | 0.30      | 2.0             | ND            | 1               | 01/25/08       | 01/26/08      |                 |
| Zinc U   | EPA 200.7-Diss | 8A25155 | 6.0       | 20              | ND            | 1               | 01/25/08       | 01/26/08      |                 |

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

### Metals by EPA 200 Series Methods

| Analyte   | Method    | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont. |           |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                               |           |         |           |                 |               |                 |                |               |                 |
| Mercury, Dissolved                                  | EPA 245.1 | W8A1034 | 0.050     | 0.20            | ND            | 1               | 01/29/08       | 01/30/08      |                 |
| Mercury, Total                                      | EPA 245.1 | W8A1034 | 0.050     | 0.20            | ND            | 1               | 01/29/08       | 01/30/08      |                 |

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

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

| Analyte                                     | Method  | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| Sample ID: IRA2506-01 (OUTFALL 001 - Water) |         |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                       |         |         |           |                 |               |                 |                |               |                 |
| Bis(2-ethylhexyl)phthalate                  | EPA 625 | 8A29057 | 1.6       | 4.8             | ND            | 0.962           | 01/29/08       | 01/31/08      |                 |
| 2,4-Dinitrotoluene                          | EPA 625 | 8A29057 | 0.19      | 8.7             | ND            | 0.962           | 01/29/08       | 01/31/08      |                 |
| N-Nitrosodimethylamine                      | EPA 625 | 8A29057 | 0.096     | 7.7             | ND            | 0.962           | 01/29/08       | 01/31/08      |                 |
| Pentachlorophenol                           | EPA 625 | 8A29057 | 0.096     | 7.7             | ND            | 0.962           | 01/29/08       | 01/31/08      |                 |
| 2,4,6-Trichlorophenol                       | EPA 625 | 8A29057 | 0.096     | 5.8             | ND            | 0.962           | 01/29/08       | 01/31/08      |                 |
| Surrogate: 2-Fluorophenol (30-120%)         |         |         |           |                 | 67 %          |                 |                |               |                 |
| Surrogate: Phenol-d6 (35-120%)              |         |         |           |                 | 72 %          |                 |                |               |                 |
| Surrogate: 2,4,6-Tribromophenol (40-120%)   |         |         |           |                 | 108 %         |                 |                |               |                 |
| Surrogate: Nitrobenzene-d5 (45-120%)        |         |         |           |                 | 82 %          |                 |                |               |                 |
| Surrogate: 2-Fluorobiphenyl (50-120%)       |         |         |           |                 | 82 %          |                 |                |               |                 |
| Surrogate: Terphenyl-d14 (50-125%)          |         |         |           |                 | 99 %          |                 |                |               |                 |

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## PURGEABLES BY GC/MS (EPA 624)

| Analyte  | Method  | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|---------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water)</b> |         |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                              |         |         |           |                 |               |                 |                |               |                 |
| Benzene  | EPA 624 | 8A30025 | 0.28      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Carbon tetrachloride                               | EPA 624 | 8A30025 | 0.28      | 5.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Chloroform   | EPA 624 | 8A30025 | 0.33      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| 1,1-Dichloroethane                                 | EPA 624 | 8A30025 | 0.27      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| 1,2-Dichloroethane                                 | EPA 624 | 8A30025 | 0.28      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| 1,1-Dichloroethene                                 | EPA 624 | 8A30025 | 0.42      | 3.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Ethylbenzene                                       | EPA 624 | 8A30025 | 0.25      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Tetrachloroethene                                  | EPA 624 | 8A30025 | 0.32      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Toluene  | EPA 624 | 8A30025 | 0.36      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| 1,1,1-Trichloroethane                              | EPA 624 | 8A30025 | 0.30      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| 1,1,2-Trichloroethane                              | EPA 624 | 8A30025 | 0.30      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Trichloroethene                                    | EPA 624 | 8A30025 | 0.26      | 5.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Trichlorofluoromethane                             | EPA 624 | 8A30025 | 0.34      | 5.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Vinyl chloride                                     | EPA 624 | 8A30025 | 0.30      | 5.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Xylenes, Total                                     | EPA 624 | 8A30025 | 0.90      | 4.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Surrogate: Dibromofluoromethane (80-120%)          |         |         |           |                 | 110 %         |                 |                |               |                 |
| Surrogate: Toluene-d8 (80-120%)                    |         |         |           |                 | 101 %         |                 |                |               |                 |
| Surrogate: 4-Bromofluorobenzene (80-120%)          |         |         |           |                 | 90 %          |                 |                |               |                 |

|   |         |         |      |     |       |   |          |          |  |
|---|---------|---------|------|-----|-------|---|----------|----------|--|
| <b>Sample ID: IRA2506-02 (TRIP BLANK - Water)</b> |         |         |      |     |       |   |          |          |  |
| Reporting Units: ug/l                             |         |         |      |     |       |   |          |          |  |
| Benzene   | EPA 624 | 8A31036 | 0.28 | 2.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| Carbon tetrachloride                              | EPA 624 | 8A31036 | 0.28 | 5.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| Chloroform  | EPA 624 | 8A31036 | 0.33 | 2.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| 1,1-Dichloroethane                                | EPA 624 | 8A31036 | 0.27 | 2.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| 1,2-Dichloroethane                                | EPA 624 | 8A31036 | 0.28 | 2.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| 1,1-Dichloroethene                                | EPA 624 | 8A31036 | 0.42 | 3.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| Ethylbenzene                                      | EPA 624 | 8A31036 | 0.25 | 2.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| Tetrachloroethene                                 | EPA 624 | 8A31036 | 0.32 | 2.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| Toluene   | EPA 624 | 8A31036 | 0.36 | 2.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| 1,1,1-Trichloroethane                             | EPA 624 | 8A31036 | 0.30 | 2.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| 1,1,2-Trichloroethane                             | EPA 624 | 8A31036 | 0.30 | 2.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| Trichloroethene                                   | EPA 624 | 8A31036 | 0.26 | 5.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| Trichlorofluoromethane                            | EPA 624 | 8A31036 | 0.34 | 5.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| Vinyl chloride                                    | EPA 624 | 8A31036 | 0.30 | 5.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| Xylenes, Total                                    | EPA 624 | 8A31036 | 0.90 | 4.0 | ND    | 1 | 01/31/08 | 01/31/08 |  |
| Surrogate: Dibromofluoromethane (80-120%)         |         |         |      |     | 107 % |   |          |          |  |
| Surrogate: Toluene-d8 (80-120%)                   |         |         |      |     | 101 % |   |          |          |  |
| Surrogate: 4-Bromofluorobenzene (80-120%)         |         |         |      |     | 91 %  |   |          |          |  |

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## INORGANICS

| Analyte  | Method    | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |           |                 |               |                 |                |               |                 |
| <b>Reporting Units: mg/l</b>                               |           |         |           |                 |               |                 |                |               |                 |
| Hexane Extractable Material (Oil & Grease) *               | EPA 1664A | 8B04061 | 1.4       | 4.9             | ND            | 1               | 02/04/08       | 02/04/08      |                 |
| Ammonia-N (Distilled)                                      | EPA 350.2 | 8A29110 | 0.30      | 0.50            | ND            | 1               | 01/29/08       | 01/29/08      |                 |
| <b>Biochemical Oxygen Demand</b>                           | EPA 405.1 | 8A25151 | 0.59      | 2.0             | <b>1.9</b>    | 1               | 01/25/08       | 01/30/08      | J               |
| <b>Chloride</b>  | EPA 300.0 | 8A25053 | 0.25      | 0.50            | <b>11</b>     | 1               | 01/25/08       | 01/25/08      |                 |
| <b>Nitrate-N</b>   | EPA 300.0 | 8A25053 | 0.060     | 0.11            | <b>3.8</b>    | 1               | 01/25/08       | 01/25/08      |                 |
| Nitrite-N  | EPA 300.0 | 8A25053 | 0.090     | 0.15            | ND            | 1               | 01/25/08       | 01/25/08      |                 |
| <b>Nitrate/Nitrite-N</b>                                   | EPA 300.0 | 8A25053 | 0.15      | 0.26            | <b>3.8</b>    | 1               | 01/25/08       | 01/25/08      |                 |
| <b>Sulfate</b>   | EPA 300.0 | 8A25053 | 0.20      | 0.50            | <b>22</b>     | 1               | 01/25/08       | 01/25/08      |                 |
| Surfactants (MBAS)   | SM5540-C  | 8A25148 | 0.044     | 0.10            | ND            | 1               | 01/25/08       | 01/25/08      |                 |
| <b>Total Dissolved Solids</b>                              | SM2540C   | 8A31077 | 10        | 10              | <b>170</b>    | 1               | 01/31/08       | 01/31/08      |                 |
| <b>Total Suspended Solids</b>                              | EPA 160.2 | 8A30131 | 10        | 10              | <b>57</b>     | 1               | 01/30/08       | 01/30/08      |                 |

\*Analysis not validated

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## INORGANICS

| Analyte  | Method    | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ml/l/hr                                   |           |         |           |                 |               |                 |                |               |                 |
| Total Settleable Solids                                    | EPA 160.5 | 8A26035 | 0.10      | 0.10            | 0.10          | 1               | 01/26/08       | 01/26/08      |                 |

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

Project ID: Routine Outfall 001  
Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## INORGANICS

| Analyte  | Method    | Batch   | MDL<br>Limit | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|--|-----------|---------|--------------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |              |                    |                  |                    |                   |                  |                    |
| Reporting Units: NTU                                       |           |         |              |                    |                  |                    |                   |                  |                    |
| Turbidity  | EPA 180.1 | 8A26036 | 0.040        | 1.0                | 18               | 1                  | 01/26/08          | 01/26/08         |                    |

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

Project ID: Routine Outfall 001  
Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## INORGANICS

| Analyte  | Method    | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |           |                 |               |                 |                |               |                 |
| Reporting Units: umhos/cm                                  |           |         |           |                 |               |                 |                |               |                 |
| Specific Conductance                                       | EPA 120.1 | 8A31072 | 1.0       | 1.0             | 190           | 1               | 01/31/08       | 01/31/08      |                 |

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# **APPENDIX G**

## **Section 2**

Outfall 001, January 25, 2008

Test America Analytical Laboratory Report

## LABORATORY REPORT

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

Project: Routine Outfall 001

Sampled: 01/25/08  
Received: 01/25/08  
Issued: 02/28/08 11:51

NELAP #01108CA California ELAP#1197 CSDLAC #10256

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

*This entire report was reviewed and approved for release.*

### CASE NARRATIVE

**SAMPLE RECEIPT:** Samples were received intact, at 2°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.

**ADDITIONAL INFORMATION:** This is a final report to include all subcontract data.

#### LABORATORY ID

IRA2506-01  
IRA2506-02

#### CLIENT ID

OUTFALL 001  
TRIP BLANK

#### MATRIX

Water  
Water

Reviewed By:



**TestAmerica Irvine**

Joseph Doak  
Project Manager

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## PURGEABLES BY GC/MS (EPA 624)

| Analyte  | Method  | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|---------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water)</b> |         |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                              |         |         |           |                 |               |                 |                |               |                 |
| Benzene  | EPA 624 | 8A30025 | 0.28      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Carbon tetrachloride                               | EPA 624 | 8A30025 | 0.28      | 5.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Chloroform   | EPA 624 | 8A30025 | 0.33      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| 1,1-Dichloroethane                                 | EPA 624 | 8A30025 | 0.27      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| 1,2-Dichloroethane                                 | EPA 624 | 8A30025 | 0.28      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| 1,1-Dichloroethene                                 | EPA 624 | 8A30025 | 0.42      | 3.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Ethylbenzene                                       | EPA 624 | 8A30025 | 0.25      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Tetrachloroethene                                  | EPA 624 | 8A30025 | 0.32      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Toluene  | EPA 624 | 8A30025 | 0.36      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| 1,1,1-Trichloroethane                              | EPA 624 | 8A30025 | 0.30      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| 1,1,2-Trichloroethane                              | EPA 624 | 8A30025 | 0.30      | 2.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Trichloroethene                                    | EPA 624 | 8A30025 | 0.26      | 5.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Trichlorofluoromethane                             | EPA 624 | 8A30025 | 0.34      | 5.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Vinyl chloride                                     | EPA 624 | 8A30025 | 0.30      | 5.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Xylenes, Total                                     | EPA 624 | 8A30025 | 0.90      | 4.0             | ND            | 1               | 01/30/08       | 01/30/08      |                 |
| Surrogate: Dibromofluoromethane (80-120%)          |         |         |           |                 | 110 %         |                 |                |               |                 |
| Surrogate: Toluene-d8 (80-120%)                    |         |         |           |                 | 101 %         |                 |                |               |                 |
| Surrogate: 4-Bromofluorobenzene (80-120%)          |         |         |           |                 | 90 %          |                 |                |               |                 |
| <b>Sample ID: IRA2506-02 (TRIP BLANK - Water)</b>  |         |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                              |         |         |           |                 |               |                 |                |               |                 |
| Benzene  | EPA 624 | 8A31036 | 0.28      | 2.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| Carbon tetrachloride                               | EPA 624 | 8A31036 | 0.28      | 5.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| Chloroform   | EPA 624 | 8A31036 | 0.33      | 2.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| 1,1-Dichloroethane                                 | EPA 624 | 8A31036 | 0.27      | 2.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| 1,2-Dichloroethane                                 | EPA 624 | 8A31036 | 0.28      | 2.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| 1,1-Dichloroethene                                 | EPA 624 | 8A31036 | 0.42      | 3.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| Ethylbenzene                                       | EPA 624 | 8A31036 | 0.25      | 2.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| Tetrachloroethene                                  | EPA 624 | 8A31036 | 0.32      | 2.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| Toluene  | EPA 624 | 8A31036 | 0.36      | 2.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| 1,1,1-Trichloroethane                              | EPA 624 | 8A31036 | 0.30      | 2.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| 1,1,2-Trichloroethane                              | EPA 624 | 8A31036 | 0.30      | 2.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| Trichloroethene                                    | EPA 624 | 8A31036 | 0.26      | 5.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| Trichlorofluoromethane                             | EPA 624 | 8A31036 | 0.34      | 5.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| Vinyl chloride                                     | EPA 624 | 8A31036 | 0.30      | 5.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| Xylenes, Total                                     | EPA 624 | 8A31036 | 0.90      | 4.0             | ND            | 1               | 01/31/08       | 01/31/08      |                 |
| Surrogate: Dibromofluoromethane (80-120%)          |         |         |           |                 | 107 %         |                 |                |               |                 |
| Surrogate: Toluene-d8 (80-120%)                    |         |         |           |                 | 101 %         |                 |                |               |                 |
| Surrogate: 4-Bromofluorobenzene (80-120%)          |         |         |           |                 | 91 %          |                 |                |               |                 |

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 Arcadia, CA 91007  
 Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

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

| Analyte  | Method  | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|---------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water)</b> |         |         |           |                 |               |                 |                |               |                 |
| <b>Reporting Units: ug/l</b>                       |         |         |           |                 |               |                 |                |               |                 |
| Bis(2-ethylhexyl)phthalate                         | EPA 625 | 8A29057 | 1.6       | 4.8             | ND            | 0.962           | 01/29/08       | 01/31/08      |                 |
| 2,4-Dinitrotoluene                                 | EPA 625 | 8A29057 | 0.19      | 8.7             | ND            | 0.962           | 01/29/08       | 01/31/08      |                 |
| N-Nitrosodimethylamine                             | EPA 625 | 8A29057 | 0.096     | 7.7             | ND            | 0.962           | 01/29/08       | 01/31/08      |                 |
| Pentachlorophenol                                  | EPA 625 | 8A29057 | 0.096     | 7.7             | ND            | 0.962           | 01/29/08       | 01/31/08      |                 |
| 2,4,6-Trichlorophenol                              | EPA 625 | 8A29057 | 0.096     | 5.8             | ND            | 0.962           | 01/29/08       | 01/31/08      |                 |
| Surrogate: 2-Fluorophenol (30-120%)                |         |         |           |                 | 67 %          |                 |                |               |                 |
| Surrogate: Phenol-d6 (35-120%)                     |         |         |           |                 | 72 %          |                 |                |               |                 |
| Surrogate: 2,4,6-Tribromophenol (40-120%)          |         |         |           |                 | 108 %         |                 |                |               |                 |
| Surrogate: Nitrobenzene-d5 (45-120%)               |         |         |           |                 | 82 %          |                 |                |               |                 |
| Surrogate: 2-Fluorobiphenyl (50-120%)              |         |         |           |                 | 82 %          |                 |                |               |                 |
| Surrogate: Terphenyl-d14 (50-125%)                 |         |         |           |                 | 99 %          |                 |                |               |                 |

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## ORGANOCHLORINE PESTICIDES (EPA 608)

| Analyte  | Method  | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|---------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |         |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                                      |         |         |           |                 |               |                 |                |               |                 |
| alpha-BHC  | EPA 608 | 8A29059 | 0.0024    | 0.0094          | ND            | 0.943           | 01/29/08       | 01/29/08      |                 |
| Surrogate: Decachlorobiphenyl (45-120%)                    |         |         |           |                 | 79 %          |                 |                |               |                 |
| Surrogate: Tetrachloro-m-xylene (35-115%)                  |         |         |           |                 | 67 %          |                 |                |               |                 |

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## METALS

| Analyte  | Method    | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |           |                 |               |                 |                |               |                 |
| Reporting Units: mg/l                                      |           |         |           |                 |               |                 |                |               |                 |
| Iron   | EPA 200.7 | 8A26028 | 0.015     | 0.040           | 5.7           | 1               | 01/26/08       | 01/28/08      |                 |
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water)</b>         |           |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                                      |           |         |           |                 |               |                 |                |               |                 |
| Cadmium  | EPA 200.8 | 8A26027 | 0.11      | 1.0             | <b>0.12</b>   | 1               | 01/26/08       | 01/26/08      | J               |
| Copper   | EPA 200.8 | 8A26027 | 0.75      | 2.0             | <b>4.8</b>    | 1               | 01/26/08       | 01/26/08      |                 |
| Lead   | EPA 200.8 | 8A26027 | 0.30      | 1.0             | <b>3.4</b>    | 1               | 01/26/08       | 01/26/08      |                 |
| Manganese  | EPA 200.7 | 8A26028 | 7.0       | 20              | <b>71</b>     | 1               | 01/26/08       | 01/28/08      |                 |
| Selenium   | EPA 200.8 | 8A26027 | 0.30      | 2.0             | ND            | 1               | 01/26/08       | 01/26/08      |                 |
| Zinc   | EPA 200.7 | 8A26028 | 6.0       | 20              | <b>28</b>     | 1               | 01/26/08       | 01/28/08      |                 |

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## DISSOLVED METALS

| Analyte  | Method         | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|----------------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |                |         |           |                 |               |                 |                |               |                 |
| Reporting Units: mg/l                                      |                |         |           |                 |               |                 |                |               |                 |
| Iron   | EPA 200.7-Diss | 8A25155 | 0.015     | 0.040           | <b>0.26</b>   | 1               | 01/25/08       | 01/26/08      |                 |
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water)</b>         |                |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                                      |                |         |           |                 |               |                 |                |               |                 |
| Cadmium  | EPA 200.8-Diss | 8A25156 | 0.11      | 1.0             | ND            | 1               | 01/25/08       | 01/26/08      |                 |
| Copper   | EPA 200.8-Diss | 8A25156 | 0.75      | 2.0             | <b>2.2</b>    | 1               | 01/25/08       | 01/26/08      |                 |
| Lead   | EPA 200.8-Diss | 8A25156 | 0.30      | 1.0             | ND            | 1               | 01/25/08       | 01/26/08      |                 |
| Manganese  | EPA 200.7-Diss | 8A25155 | 7.0       | 20              | <b>8.2</b>    | 1               | 01/25/08       | 01/26/08      | J               |
| Selenium   | EPA 200.8-Diss | 8A25156 | 0.30      | 2.0             | ND            | 1               | 01/25/08       | 01/26/08      |                 |
| Zinc   | EPA 200.7-Diss | 8A25155 | 6.0       | 20              | ND            | 1               | 01/25/08       | 01/26/08      |                 |

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## INORGANICS

| Analyte  | Method    | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |           |                 |               |                 |                |               |                 |
| <b>Reporting Units: mg/l</b>                               |           |         |           |                 |               |                 |                |               |                 |
| Hexane Extractable Material (Oil & Grease)                 | EPA 1664A | 8B04061 | 1.4       | 4.9             | ND            | 1               | 02/04/08       | 02/04/08      |                 |
| Ammonia-N (Distilled)                                      | EPA 350.2 | 8A29110 | 0.30      | 0.50            | ND            | 1               | 01/29/08       | 01/29/08      |                 |
| <b>Biochemical Oxygen Demand</b>                           | EPA 405.1 | 8A25151 | 0.59      | 2.0             | <b>1.9</b>    | 1               | 01/25/08       | 01/30/08      | J               |
| <b>Chloride</b>  | EPA 300.0 | 8A25053 | 0.25      | 0.50            | <b>11</b>     | 1               | 01/25/08       | 01/25/08      |                 |
| <b>Nitrate-N</b>   | EPA 300.0 | 8A25053 | 0.060     | 0.11            | <b>3.8</b>    | 1               | 01/25/08       | 01/25/08      |                 |
| Nitrite-N  | EPA 300.0 | 8A25053 | 0.090     | 0.15            | ND            | 1               | 01/25/08       | 01/25/08      |                 |
| <b>Nitrate/Nitrite-N</b>                                   | EPA 300.0 | 8A25053 | 0.15      | 0.26            | <b>3.8</b>    | 1               | 01/25/08       | 01/25/08      |                 |
| <b>Sulfate</b>   | EPA 300.0 | 8A25053 | 0.20      | 0.50            | <b>22</b>     | 1               | 01/25/08       | 01/25/08      |                 |
| Surfactants (MBAS)   | SM5540-C  | 8A25148 | 0.044     | 0.10            | ND            | 1               | 01/25/08       | 01/25/08      |                 |
| <b>Total Dissolved Solids</b>                              | SM2540C   | 8A31077 | 10        | 10              | <b>170</b>    | 1               | 01/31/08       | 01/31/08      |                 |
| <b>Total Suspended Solids</b>                              | EPA 160.2 | 8A30131 | 10        | 10              | <b>57</b>     | 1               | 01/30/08       | 01/30/08      |                 |

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08

Received: 01/25/08

## INORGANICS

| Analyte  | Method    | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ml/l/hr                                   |           |         |           |                 |               |                 |                |               |                 |
| Total Settleable Solids                                    | EPA 160.5 | 8A26035 | 0.10      | 0.10            | <b>0.10</b>   | 1               | 01/26/08       | 01/26/08      |                 |

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08

Received: 01/25/08

## INORGANICS

| Analyte  | Method    | Batch   | MDL<br>Limit | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|--|-----------|---------|--------------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |              |                    |                  |                    |                   |                  |                    |
| Reporting Units: NTU                                       |           |         |              |                    |                  |                    |                   |                  |                    |
| Turbidity  | EPA 180.1 | 8A26036 | 0.040        | 1.0                | 18               | 1                  | 01/26/08          | 01/26/08         |                    |

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NPDES - 36

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08

Received: 01/25/08

## INORGANICS

| Analyte  | Method    | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                                      |           |         |           |                 |               |                 |                |               |                 |
| Total Cyanide  | EPA 335.2 | 8A28126 | 2.2       | 5.0             | ND            | 1               | 01/28/08       | 01/28/08      |                 |
| Perchlorate  | EPA 314.0 | 8A28071 | 1.5       | 4.0             | ND            | 1               | 01/28/08       | 01/28/08      |                 |

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**NPDES - 37**

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08

Received: 01/25/08

## INORGANICS

| Analyte  | Method    | Batch   | MDL<br>Limit | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|--|-----------|---------|--------------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |              |                    |                  |                    |                   |                  |                    |
| Reporting Units: umhos/cm                                  |           |         |              |                    |                  |                    |                   |                  |                    |
| Specific Conductance                                       | EPA 120.1 | 8A31072 | 1.0          | 1.0                | <b>190</b>       | 1                  | 01/31/08          | 01/31/08         |                    |

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NPDES - 38

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08

Received: 01/25/08

## Metals by EPA 200 Series Methods

| Analyte  | Method    | Batch   | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|--|-----------|---------|-----------|-----------------|---------------|-----------------|----------------|---------------|-----------------|
| <b>Sample ID: IRA2506-01 (OUTFALL 001 - Water) - cont.</b> |           |         |           |                 |               |                 |                |               |                 |
| Reporting Units: ug/l                                      |           |         |           |                 |               |                 |                |               |                 |
| Mercury, Dissolved   | EPA 245.1 | W8A1034 | 0.050     | 0.20            | ND            | 1               | 01/29/08       | 01/30/08      |                 |
| Mercury, Total   | EPA 245.1 | W8A1034 | 0.050     | 0.20            | ND            | 1               | 01/29/08       | 01/30/08      |                 |

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NPDES - 39

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## SHORT HOLD TIME DETAIL REPORT

|  | <b>Hold Time<br/>(in days)</b> | <b>Date/Time<br/>Sampled</b> | <b>Date/Time<br/>Received</b> | <b>Date/Time<br/>Extracted</b> | <b>Date/Time<br/>Analyzed</b> |
|--|--------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------------------|
| <b>Sample ID: OUTFALL 001 (IRA2506-01) - Water</b> |                                |                              |                               |                                |                               |
| EPA 160.5  | 2                              | 01/25/2008 13:45             | 01/25/2008 18:20              | 01/26/2008 13:00               | 01/26/2008 13:00              |
| EPA 180.1  | 2                              | 01/25/2008 13:45             | 01/25/2008 18:20              | 01/26/2008 16:00               | 01/26/2008 16:00              |
| EPA 300.0  | 2                              | 01/25/2008 13:45             | 01/25/2008 18:20              | 01/25/2008 20:00               | 01/25/2008 21:56              |
| EPA 405.1  | 2                              | 01/25/2008 13:45             | 01/25/2008 18:20              | 01/25/2008 20:58               | 01/30/2008 15:00              |
| SM5540-C   | 2                              | 01/25/2008 13:45             | 01/25/2008 18:20              | 01/25/2008 20:08               | 01/25/2008 22:33              |

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**NPDES - 40**

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

| Analyte  | Result | Reporting Limit | MDL  | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A30025 Extracted: 01/30/08</b>        |        |                 |      |       |             |               |      |             |     |           |                 |
| <b>Blank Analyzed: 01/30/2008 (8A30025-BLK1)</b> |        |                 |      |       |             |               |      |             |     |           |                 |
| Benzene  | ND     | 2.0             | 0.28 | ug/l  |             |               |      |             |     |           |                 |
| Carbon tetrachloride                             | ND     | 5.0             | 0.28 | ug/l  |             |               |      |             |     |           |                 |
| Chloroform                                       | ND     | 2.0             | 0.33 | ug/l  |             |               |      |             |     |           |                 |
| 1,1-Dichloroethane                               | ND     | 2.0             | 0.27 | ug/l  |             |               |      |             |     |           |                 |
| 1,2-Dichloroethane                               | ND     | 2.0             | 0.28 | ug/l  |             |               |      |             |     |           |                 |
| 1,1-Dichloroethene                               | ND     | 3.0             | 0.42 | ug/l  |             |               |      |             |     |           |                 |
| Ethylbenzene                                     | ND     | 2.0             | 0.25 | ug/l  |             |               |      |             |     |           |                 |
| Tetrachloroethene                                | ND     | 2.0             | 0.32 | ug/l  |             |               |      |             |     |           |                 |
| Toluene  | ND     | 2.0             | 0.36 | ug/l  |             |               |      |             |     |           |                 |
| 1,1,1-Trichloroethane                            | ND     | 2.0             | 0.30 | ug/l  |             |               |      |             |     |           |                 |
| 1,1,2-Trichloroethane                            | ND     | 2.0             | 0.30 | ug/l  |             |               |      |             |     |           |                 |
| Trichloroethene                                  | ND     | 5.0             | 0.26 | ug/l  |             |               |      |             |     |           |                 |
| Trichlorofluoromethane                           | ND     | 5.0             | 0.34 | ug/l  |             |               |      |             |     |           |                 |
| Vinyl chloride                                   | ND     | 5.0             | 0.30 | ug/l  |             |               |      |             |     |           |                 |
| Xylenes, Total                                   | ND     | 4.0             | 0.90 | ug/l  |             |               |      |             |     |           |                 |
| Surrogate: Dibromofluoromethane                  | 26.2   |                 |      | ug/l  | 25.0        |               | 105  | 80-120      |     |           |                 |
| Surrogate: Toluene-d8                            | 25.2   |                 |      | ug/l  | 25.0        |               | 101  | 80-120      |     |           |                 |
| Surrogate: 4-Bromofluorobenzene                  | 22.5   |                 |      | ug/l  | 25.0        |               | 90   | 80-120      |     |           |                 |
| <b>LCS Analyzed: 01/30/2008 (8A30025-BS1)</b>    |        |                 |      |       |             |               |      |             |     |           |                 |
| Benzene  | 24.9   | 2.0             | 0.28 | ug/l  | 25.0        |               | 99   | 70-120      |     |           |                 |
| Carbon tetrachloride                             | 26.1   | 5.0             | 0.28 | ug/l  | 25.0        |               | 104  | 65-140      |     |           |                 |
| Chloroform                                       | 27.8   | 2.0             | 0.33 | ug/l  | 25.0        |               | 111  | 70-130      |     |           |                 |
| 1,1-Dichloroethane                               | 27.4   | 2.0             | 0.27 | ug/l  | 25.0        |               | 110  | 70-125      |     |           |                 |
| 1,2-Dichloroethane                               | 24.9   | 2.0             | 0.28 | ug/l  | 25.0        |               | 99   | 60-140      |     |           |                 |
| 1,1-Dichloroethene                               | 24.0   | 3.0             | 0.42 | ug/l  | 25.0        |               | 96   | 70-125      |     |           |                 |
| Ethylbenzene                                     | 25.7   | 2.0             | 0.25 | ug/l  | 25.0        |               | 103  | 75-125      |     |           |                 |
| Tetrachloroethene                                | 21.7   | 2.0             | 0.32 | ug/l  | 25.0        |               | 87   | 70-125      |     |           |                 |
| Toluene  | 24.8   | 2.0             | 0.36 | ug/l  | 25.0        |               | 99   | 70-120      |     |           |                 |
| 1,1,1-Trichloroethane                            | 27.4   | 2.0             | 0.30 | ug/l  | 25.0        |               | 110  | 65-135      |     |           |                 |
| 1,1,2-Trichloroethane                            | 25.0   | 2.0             | 0.30 | ug/l  | 25.0        |               | 100  | 70-125      |     |           |                 |
| Trichloroethene                                  | 23.7   | 5.0             | 0.26 | ug/l  | 25.0        |               | 95   | 70-125      |     |           |                 |
| Trichlorofluoromethane                           | 29.4   | 5.0             | 0.34 | ug/l  | 25.0        |               | 117  | 65-145      |     |           |                 |
| Vinyl chloride                                   | 25.4   | 5.0             | 0.30 | ug/l  | 25.0        |               | 102  | 55-135      |     |           |                 |
| Xylenes, Total                                   | 74.1   | 4.0             | 0.90 | ug/l  | 75.0        |               | 99   | 70-125      |     |           |                 |
| Surrogate: Dibromofluoromethane                  | 27.5   |                 |      | ug/l  | 25.0        |               | 110  | 80-120      |     |           |                 |

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Joseph Doak  
 Project Manager

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

| Analyte  | Result | Reporting Limit | MDL  | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A30025 Extracted: 01/30/08</b>                                      |        |                 |      |       |             |               |           |             |     |           |                 |
| <b>LCS Analyzed: 01/30/2008 (8A30025-BS1)</b>                                  |        |                 |      |       |             |               |           |             |     |           |                 |
| Surrogate: Toluene-d8  | 25.6   |                 |      | ug/l  | 25.0        |               | 102       | 80-120      |     |           |                 |
| Surrogate: 4-Bromofluorobenzene  | 25.1   |                 |      | ug/l  | 25.0        |               | 100       | 80-120      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/30/2008 (8A30025-MS1) Source: IRA2506-01</b>      |        |                 |      |       |             |               |           |             |     |           |                 |
| Benzene  | 27.6   | 2.0             | 0.28 | ug/l  | 25.0        | ND            | 110       | 65-125      |     |           |                 |
| Carbon tetrachloride   | 29.2   | 5.0             | 0.28 | ug/l  | 25.0        | ND            | 117       | 65-140      |     |           |                 |
| Chloroform   | 31.2   | 2.0             | 0.33 | ug/l  | 25.0        | ND            | 125       | 65-135      |     |           |                 |
| 1,1-Dichloroethane   | 30.4   | 2.0             | 0.27 | ug/l  | 25.0        | ND            | 122       | 65-130      |     |           |                 |
| 1,2-Dichloroethane   | 27.6   | 2.0             | 0.28 | ug/l  | 25.0        | ND            | 111       | 60-140      |     |           |                 |
| 1,1-Dichloroethene   | 26.7   | 3.0             | 0.42 | ug/l  | 25.0        | ND            | 107       | 60-130      |     |           |                 |
| Ethylbenzene   | 28.4   | 2.0             | 0.25 | ug/l  | 25.0        | ND            | 114       | 65-130      |     |           |                 |
| Tetrachloroethene  | 24.1   | 2.0             | 0.32 | ug/l  | 25.0        | ND            | 96        | 65-130      |     |           |                 |
| Toluene  | 27.2   | 2.0             | 0.36 | ug/l  | 25.0        | ND            | 109       | 70-125      |     |           |                 |
| 1,1,1-Trichloroethane  | 30.8   | 2.0             | 0.30 | ug/l  | 25.0        | ND            | 123       | 65-140      |     |           |                 |
| 1,1,2-Trichloroethane  | 28.2   | 2.0             | 0.30 | ug/l  | 25.0        | ND            | 113       | 65-130      |     |           |                 |
| Trichloroethene  | 25.9   | 5.0             | 0.26 | ug/l  | 25.0        | ND            | 104       | 65-125      |     |           |                 |
| Trichlorofluoromethane   | 33.5   | 5.0             | 0.34 | ug/l  | 25.0        | ND            | 134       | 60-145      |     |           |                 |
| Vinyl chloride   | 28.2   | 5.0             | 0.30 | ug/l  | 25.0        | ND            | 113       | 45-140      |     |           |                 |
| Xylenes, Total   | 80.2   | 4.0             | 0.90 | ug/l  | 75.0        | ND            | 107       | 60-130      |     |           |                 |
| Surrogate: Dibromofluoromethane  | 26.9   |                 |      | ug/l  | 25.0        |               | 108       | 80-120      |     |           |                 |
| Surrogate: Toluene-d8  | 25.2   |                 |      | ug/l  | 25.0        |               | 101       | 80-120      |     |           |                 |
| Surrogate: 4-Bromofluorobenzene  | 24.7   |                 |      | ug/l  | 25.0        |               | 99        | 80-120      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/30/2008 (8A30025-MSD1) Source: IRA2506-01</b> |        |                 |      |       |             |               |           |             |     |           |                 |
| Benzene  | 27.4   | 2.0             | 0.28 | ug/l  | 25.0        | ND            | 110       | 65-125      | 1   | 20        |                 |
| Carbon tetrachloride   | 28.3   | 5.0             | 0.28 | ug/l  | 25.0        | ND            | 113       | 65-140      | 3   | 25        |                 |
| Chloroform   | 30.5   | 2.0             | 0.33 | ug/l  | 25.0        | ND            | 122       | 65-135      | 2   | 20        |                 |
| 1,1-Dichloroethane   | 30.0   | 2.0             | 0.27 | ug/l  | 25.0        | ND            | 120       | 65-130      | 1   | 20        |                 |
| 1,2-Dichloroethane   | 26.8   | 2.0             | 0.28 | ug/l  | 25.0        | ND            | 107       | 60-140      | 3   | 20        |                 |
| 1,1-Dichloroethene   | 26.6   | 3.0             | 0.42 | ug/l  | 25.0        | ND            | 106       | 60-130      | 1   | 20        |                 |
| Ethylbenzene   | 27.8   | 2.0             | 0.25 | ug/l  | 25.0        | ND            | 111       | 65-130      | 2   | 20        |                 |
| Tetrachloroethene  | 23.9   | 2.0             | 0.32 | ug/l  | 25.0        | ND            | 96        | 65-130      | 1   | 20        |                 |
| Toluene  | 27.0   | 2.0             | 0.36 | ug/l  | 25.0        | ND            | 108       | 70-125      | 1   | 20        |                 |
| 1,1,1-Trichloroethane  | 29.8   | 2.0             | 0.30 | ug/l  | 25.0        | ND            | 119       | 65-140      | 3   | 20        |                 |
| 1,1,2-Trichloroethane  | 28.0   | 2.0             | 0.30 | ug/l  | 25.0        | ND            | 112       | 65-130      | 1   | 25        |                 |
| Trichloroethene  | 26.0   | 5.0             | 0.26 | ug/l  | 25.0        | ND            | 104       | 65-125      | 0   | 20        |                 |

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Joseph Doak  
Project Manager

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

| Analyte   | Result | Reporting Limit | MDL  | Units | Spike Level | Source Result             | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|------|-------|-------------|---------------------------|------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A30025 Extracted: 01/30/08</b>                   |        |                 |      |       |             |                           |      |             |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/30/2008 (8A30025-MSD1)</b> |        |                 |      |       |             | <b>Source: IRA2506-01</b> |      |             |     |           |                 |
| Trichlorofluoromethane                                      | 31.9   | 5.0             | 0.34 | ug/l  | 25.0        | ND                        | 128  | 60-145      | 5   | 25        |                 |
| Vinyl chloride  | 28.9   | 5.0             | 0.30 | ug/l  | 25.0        | ND                        | 116  | 45-140      | 2   | 30        |                 |
| Xylenes, Total  | 78.8   | 4.0             | 0.90 | ug/l  | 75.0        | ND                        | 105  | 60-130      | 2   | 20        |                 |
| Surrogate: Dibromofluoromethane                             | 27.0   |                 |      | ug/l  | 25.0        |                           | 108  | 80-120      |     |           |                 |
| Surrogate: Toluene-d8                                       | 25.5   |                 |      | ug/l  | 25.0        |                           | 102  | 80-120      |     |           |                 |
| Surrogate: 4-Bromofluorobenzene                             | 24.5   |                 |      | ug/l  | 25.0        |                           | 98   | 80-120      |     |           |                 |

### **Batch: 8A31036 Extracted: 01/31/08**

#### **Blank Analyzed: 01/31/2008 (8A31036-BLK1)**

|                                 |      |     |      |      |      |  |     |        |  |  |  |
|---------------------------------|------|-----|------|------|------|--|-----|--------|--|--|--|
| Benzene                         | ND   | 2.0 | 0.28 | ug/l |      |  |     |        |  |  |  |
| Carbon tetrachloride            | ND   | 5.0 | 0.28 | ug/l |      |  |     |        |  |  |  |
| Chloroform                      | ND   | 2.0 | 0.33 | ug/l |      |  |     |        |  |  |  |
| 1,1-Dichloroethane              | ND   | 2.0 | 0.27 | ug/l |      |  |     |        |  |  |  |
| 1,2-Dichloroethane              | ND   | 2.0 | 0.28 | ug/l |      |  |     |        |  |  |  |
| 1,1-Dichloroethene              | ND   | 3.0 | 0.42 | ug/l |      |  |     |        |  |  |  |
| Ethylbenzene                    | ND   | 2.0 | 0.25 | ug/l |      |  |     |        |  |  |  |
| Tetrachloroethene               | ND   | 2.0 | 0.32 | ug/l |      |  |     |        |  |  |  |
| Toluene                         | ND   | 2.0 | 0.36 | ug/l |      |  |     |        |  |  |  |
| 1,1,1-Trichloroethane           | ND   | 2.0 | 0.30 | ug/l |      |  |     |        |  |  |  |
| 1,1,2-Trichloroethane           | ND   | 2.0 | 0.30 | ug/l |      |  |     |        |  |  |  |
| Trichloroethene                 | ND   | 5.0 | 0.26 | ug/l |      |  |     |        |  |  |  |
| Trichlorofluoromethane          | ND   | 5.0 | 0.34 | ug/l |      |  |     |        |  |  |  |
| Vinyl chloride                  | ND   | 5.0 | 0.30 | ug/l |      |  |     |        |  |  |  |
| Xylenes, Total                  | ND   | 4.0 | 0.90 | ug/l |      |  |     |        |  |  |  |
| Surrogate: Dibromofluoromethane | 26.8 |     |      | ug/l | 25.0 |  | 107 | 80-120 |  |  |  |
| Surrogate: Toluene-d8           | 25.4 |     |      | ug/l | 25.0 |  | 102 | 80-120 |  |  |  |
| Surrogate: 4-Bromofluorobenzene | 22.6 |     |      | ug/l | 25.0 |  | 90  | 80-120 |  |  |  |

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Project Manager

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

| Analyte                                       | Result | Reporting Limit | MDL  | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A31036 Extracted: 01/31/08</b>     |        |                 |      |       |             |               |           |             |     |           |                 |
| <b>LCS Analyzed: 01/31/2008 (8A31036-BS1)</b> |        |                 |      |       |             |               |           |             |     |           |                 |
| Benzene                                       | 26.5   | 2.0             | 0.28 | ug/l  | 25.0        |               | 106       | 70-120      |     |           |                 |
| Carbon tetrachloride                          | 27.6   | 5.0             | 0.28 | ug/l  | 25.0        |               | 110       | 65-140      |     |           |                 |
| Chloroform                                    | 29.6   | 2.0             | 0.33 | ug/l  | 25.0        |               | 118       | 70-130      |     |           |                 |
| 1,1-Dichloroethane                            | 29.0   | 2.0             | 0.27 | ug/l  | 25.0        |               | 116       | 70-125      |     |           |                 |
| 1,2-Dichloroethane                            | 26.2   | 2.0             | 0.28 | ug/l  | 25.0        |               | 105       | 60-140      |     |           |                 |
| 1,1-Dichloroethene                            | 26.0   | 3.0             | 0.42 | ug/l  | 25.0        |               | 104       | 70-125      |     |           |                 |
| Ethylbenzene                                  | 26.8   | 2.0             | 0.25 | ug/l  | 25.0        |               | 107       | 75-125      |     |           |                 |
| Tetrachloroethene                             | 22.6   | 2.0             | 0.32 | ug/l  | 25.0        |               | 90        | 70-125      |     |           |                 |
| Toluene                                       | 26.2   | 2.0             | 0.36 | ug/l  | 25.0        |               | 105       | 70-120      |     |           |                 |
| 1,1,1-Trichloroethane                         | 29.2   | 2.0             | 0.30 | ug/l  | 25.0        |               | 117       | 65-135      |     |           |                 |
| 1,1,2-Trichloroethane                         | 25.7   | 2.0             | 0.30 | ug/l  | 25.0        |               | 103       | 70-125      |     |           |                 |
| Trichloroethene                               | 25.0   | 5.0             | 0.26 | ug/l  | 25.0        |               | 100       | 70-125      |     |           |                 |
| Trichlorofluoromethane                        | 32.5   | 5.0             | 0.34 | ug/l  | 25.0        |               | 130       | 65-145      |     |           |                 |
| Vinyl chloride                                | 28.6   | 5.0             | 0.30 | ug/l  | 25.0        |               | 114       | 55-135      |     |           |                 |
| Xylenes, Total                                | 77.5   | 4.0             | 0.90 | ug/l  | 75.0        |               | 103       | 70-125      |     |           |                 |
| Surrogate: Dibromofluoromethane               | 27.8   |                 |      | ug/l  | 25.0        |               | 111       | 80-120      |     |           |                 |
| Surrogate: Toluene-d8                         | 25.7   |                 |      | ug/l  | 25.0        |               | 103       | 80-120      |     |           |                 |
| Surrogate: 4-Bromofluorobenzene               | 24.9   |                 |      | ug/l  | 25.0        |               | 99        | 80-120      |     |           |                 |

### Matrix Spike Analyzed: 01/31/2008 (8A31036-MS1)

Source: IRA2513-02

|                                 |      |     |      |      |      |       |     |        |  |  |  |
|---------------------------------|------|-----|------|------|------|-------|-----|--------|--|--|--|
| Benzene                         | 26.8 | 2.0 | 0.28 | ug/l | 25.0 | ND    | 107 | 65-125 |  |  |  |
| Carbon tetrachloride            | 28.2 | 5.0 | 0.28 | ug/l | 25.0 | ND    | 113 | 65-140 |  |  |  |
| Chloroform                      | 31.1 | 2.0 | 0.33 | ug/l | 25.0 | 0.740 | 122 | 65-135 |  |  |  |
| 1,1-Dichloroethane              | 29.8 | 2.0 | 0.27 | ug/l | 25.0 | ND    | 119 | 65-130 |  |  |  |
| 1,2-Dichloroethane              | 26.2 | 2.0 | 0.28 | ug/l | 25.0 | ND    | 105 | 60-140 |  |  |  |
| 1,1-Dichloroethene              | 26.4 | 3.0 | 0.42 | ug/l | 25.0 | ND    | 106 | 60-130 |  |  |  |
| Ethylbenzene                    | 27.8 | 2.0 | 0.25 | ug/l | 25.0 | ND    | 111 | 65-130 |  |  |  |
| Tetrachloroethene               | 23.5 | 2.0 | 0.32 | ug/l | 25.0 | ND    | 94  | 65-130 |  |  |  |
| Toluene                         | 26.6 | 2.0 | 0.36 | ug/l | 25.0 | ND    | 106 | 70-125 |  |  |  |
| 1,1,1-Trichloroethane           | 29.9 | 2.0 | 0.30 | ug/l | 25.0 | ND    | 120 | 65-140 |  |  |  |
| 1,1,2-Trichloroethane           | 26.4 | 2.0 | 0.30 | ug/l | 25.0 | ND    | 105 | 65-130 |  |  |  |
| Trichloroethene                 | 25.2 | 5.0 | 0.26 | ug/l | 25.0 | ND    | 101 | 65-125 |  |  |  |
| Trichlorofluoromethane          | 33.5 | 5.0 | 0.34 | ug/l | 25.0 | ND    | 134 | 60-145 |  |  |  |
| Vinyl chloride                  | 29.4 | 5.0 | 0.30 | ug/l | 25.0 | ND    | 118 | 45-140 |  |  |  |
| Xylenes, Total                  | 79.8 | 4.0 | 0.90 | ug/l | 75.0 | ND    | 106 | 60-130 |  |  |  |
| Surrogate: Dibromofluoromethane | 27.4 |     |      | ug/l | 25.0 |       | 109 | 80-120 |  |  |  |

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Joseph Doak  
Project Manager

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 618 Michillinda Avenue, Suite 200  
 Arcadia, CA 91007  
 Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

| Analyte   | Result | Reporting Limit | MDL  | Units | Spike Level | Source Result             | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|------|-------|-------------|---------------------------|------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A31036 Extracted: 01/31/08</b>                   |        |                 |      |       |             |                           |      |             |     |           |                 |
| <b>Matrix Spike Analyzed: 01/31/2008 (8A31036-MS1)</b>      |        |                 |      |       |             | <b>Source: IRA2513-02</b> |      |             |     |           |                 |
| Surrogate: Toluene-d8                                       | 25.2   |                 |      | ug/l  | 25.0        |                           | 101  | 80-120      |     |           |                 |
| Surrogate: 4-Bromofluorobenzene                             | 24.8   |                 |      | ug/l  | 25.0        |                           | 99   | 80-120      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/31/2008 (8A31036-MSD1)</b> |        |                 |      |       |             | <b>Source: IRA2513-02</b> |      |             |     |           |                 |
| Benzene   | 27.6   | 2.0             | 0.28 | ug/l  | 25.0        | ND                        | 110  | 65-125      | 3   | 20        |                 |
| Carbon tetrachloride  | 29.0   | 5.0             | 0.28 | ug/l  | 25.0        | ND                        | 116  | 65-140      | 3   | 25        |                 |
| Chloroform  | 30.9   | 2.0             | 0.33 | ug/l  | 25.0        | 0.740                     | 121  | 65-135      | 1   | 20        |                 |
| 1,1-Dichloroethane  | 30.2   | 2.0             | 0.27 | ug/l  | 25.0        | ND                        | 121  | 65-130      | 1   | 20        |                 |
| 1,2-Dichloroethane  | 26.7   | 2.0             | 0.28 | ug/l  | 25.0        | ND                        | 107  | 60-140      | 2   | 20        |                 |
| 1,1-Dichloroethene  | 27.1   | 3.0             | 0.42 | ug/l  | 25.0        | ND                        | 109  | 60-130      | 3   | 20        |                 |
| Ethylbenzene  | 28.2   | 2.0             | 0.25 | ug/l  | 25.0        | ND                        | 113  | 65-130      | 1   | 20        |                 |
| Tetrachloroethene   | 24.0   | 2.0             | 0.32 | ug/l  | 25.0        | ND                        | 96   | 65-130      | 2   | 20        |                 |
| Toluene   | 27.4   | 2.0             | 0.36 | ug/l  | 25.0        | ND                        | 110  | 70-125      | 3   | 20        |                 |
| 1,1,1-Trichloroethane                                       | 30.1   | 2.0             | 0.30 | ug/l  | 25.0        | ND                        | 120  | 65-140      | 1   | 20        |                 |
| 1,1,2-Trichloroethane                                       | 26.7   | 2.0             | 0.30 | ug/l  | 25.0        | ND                        | 107  | 65-130      | 1   | 25        |                 |
| Trichloroethene   | 26.0   | 5.0             | 0.26 | ug/l  | 25.0        | ND                        | 104  | 65-125      | 3   | 20        |                 |
| Trichlorofluoromethane                                      | 33.7   | 5.0             | 0.34 | ug/l  | 25.0        | ND                        | 135  | 60-145      | 1   | 25        |                 |
| Vinyl chloride  | 30.6   | 5.0             | 0.30 | ug/l  | 25.0        | ND                        | 122  | 45-140      | 4   | 30        |                 |
| Xylenes, Total  | 81.5   | 4.0             | 0.90 | ug/l  | 75.0        | ND                        | 109  | 60-130      | 2   | 20        |                 |
| Surrogate: Dibromofluoromethane                             | 26.8   |                 |      | ug/l  | 25.0        |                           | 107  | 80-120      |     |           |                 |
| Surrogate: Toluene-d8                                       | 25.6   |                 |      | ug/l  | 25.0        |                           | 102  | 80-120      |     |           |                 |
| Surrogate: 4-Bromofluorobenzene                             | 24.3   |                 |      | ug/l  | 25.0        |                           | 97   | 80-120      |     |           |                 |

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## METHOD BLANK/QC DATA

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

| Analyte  | Result | Reporting Limit | MDL  | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A29057 Extracted: 01/29/08</b>          |        |                 |      |       |             |               |           |             |     |           |                 |
| <b>Blank Analyzed: 01/31/2008 (8A29057-BLK1)</b>   |        |                 |      |       |             |               |           |             |     |           |                 |
| Bis(2-ethylhexyl)phthalate                         | ND     | 5.0             | 1.7  | ug/l  |             |               |           |             |     |           |                 |
| 2,4-Dinitrotoluene                                 | ND     | 9.0             | 0.20 | ug/l  |             |               |           |             |     |           |                 |
| N-Nitrosodimethylamine                             | ND     | 8.0             | 0.10 | ug/l  |             |               |           |             |     |           |                 |
| Pentachlorophenol                                  | ND     | 8.0             | 0.10 | ug/l  |             |               |           |             |     |           |                 |
| 2,4,6-Trichlorophenol                              | ND     | 6.0             | 0.10 | ug/l  |             |               |           |             |     |           |                 |
| Surrogate: 2-Fluorophenol                          | 14.9   |                 |      | ug/l  | 20.0        |               | 75        | 30-120      |     |           |                 |
| Surrogate: Phenol-d6                               | 16.3   |                 |      | ug/l  | 20.0        |               | 81        | 35-120      |     |           |                 |
| Surrogate: 2,4,6-Tribromophenol                    | 18.4   |                 |      | ug/l  | 20.0        |               | 92        | 40-120      |     |           |                 |
| Surrogate: Nitrobenzene-d5                         | 8.42   |                 |      | ug/l  | 10.0        |               | 84        | 45-120      |     |           |                 |
| Surrogate: 2-Fluorobiphenyl                        | 8.88   |                 |      | ug/l  | 10.0        |               | 89        | 50-120      |     |           |                 |
| Surrogate: Terphenyl-d14                           | 10.6   |                 |      | ug/l  | 10.0        |               | 106       | 50-125      |     |           |                 |
| <b>LCS Analyzed: 01/31/2008 (8A29057-BS1)</b>      |        |                 |      |       |             |               |           |             |     |           |                 |
| Bis(2-ethylhexyl)phthalate                         | 11.3   | 5.0             | 1.7  | ug/l  | 10.0        |               | 113       | 65-130      |     |           |                 |
| 2,4-Dinitrotoluene                                 | 11.2   | 9.0             | 0.20 | ug/l  | 10.0        |               | 112       | 65-120      |     |           |                 |
| N-Nitrosodimethylamine                             | 8.42   | 8.0             | 0.10 | ug/l  | 10.0        |               | 84        | 45-120      |     |           |                 |
| Pentachlorophenol                                  | 8.90   | 8.0             | 0.10 | ug/l  | 10.0        |               | 89        | 50-120      |     |           |                 |
| 2,4,6-Trichlorophenol                              | 8.46   | 6.0             | 0.10 | ug/l  | 10.0        |               | 85        | 55-120      |     |           |                 |
| Surrogate: 2-Fluorophenol                          | 15.6   |                 |      | ug/l  | 20.0        |               | 78        | 30-120      |     |           |                 |
| Surrogate: Phenol-d6                               | 17.1   |                 |      | ug/l  | 20.0        |               | 86        | 35-120      |     |           |                 |
| Surrogate: 2,4,6-Tribromophenol                    | 21.2   |                 |      | ug/l  | 20.0        |               | 106       | 40-120      |     |           |                 |
| Surrogate: Nitrobenzene-d5                         | 8.44   |                 |      | ug/l  | 10.0        |               | 84        | 45-120      |     |           |                 |
| Surrogate: 2-Fluorobiphenyl                        | 8.82   |                 |      | ug/l  | 10.0        |               | 88        | 50-120      |     |           |                 |
| Surrogate: Terphenyl-d14                           | 9.24   |                 |      | ug/l  | 10.0        |               | 92        | 50-125      |     |           |                 |
| <b>LCS Dup Analyzed: 01/31/2008 (8A29057-BSD1)</b> |        |                 |      |       |             |               |           |             |     |           |                 |
| Bis(2-ethylhexyl)phthalate                         | 11.3   | 5.0             | 1.7  | ug/l  | 10.0        |               | 113       | 65-130      | 1   | 20        |                 |
| 2,4-Dinitrotoluene                                 | 10.2   | 9.0             | 0.20 | ug/l  | 10.0        |               | 102       | 65-120      | 9   | 20        |                 |
| N-Nitrosodimethylamine                             | 7.74   | 8.0             | 0.10 | ug/l  | 10.0        |               | 77        | 45-120      | 8   | 20        | J               |
| Pentachlorophenol                                  | 8.24   | 8.0             | 0.10 | ug/l  | 10.0        |               | 82        | 50-120      | 8   | 25        |                 |
| 2,4,6-Trichlorophenol                              | 8.06   | 6.0             | 0.10 | ug/l  | 10.0        |               | 81        | 55-120      | 5   | 30        |                 |
| Surrogate: 2-Fluorophenol                          | 14.4   |                 |      | ug/l  | 20.0        |               | 72        | 30-120      |     |           |                 |
| Surrogate: Phenol-d6                               | 16.3   |                 |      | ug/l  | 20.0        |               | 82        | 35-120      |     |           |                 |
| Surrogate: 2,4,6-Tribromophenol                    | 19.6   |                 |      | ug/l  | 20.0        |               | 98        | 40-120      |     |           |                 |
| Surrogate: Nitrobenzene-d5                         | 7.74   |                 |      | ug/l  | 10.0        |               | 77        | 45-120      |     |           |                 |
| Surrogate: 2-Fluorobiphenyl                        | 7.68   |                 |      | ug/l  | 10.0        |               | 77        | 50-120      |     |           |                 |

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08

Received: 01/25/08

## METHOD BLANK/QC DATA

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

| Analyte  | Result | Reporting<br>Limit | MDL | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Data<br>Qualifiers |
|--|--------|--------------------|-----|-------|----------------|------------------|------|----------------|-----|--------------|--------------------|
| <b>Batch: 8A29057 Extracted: 01/29/08</b>          |        |                    |     |       |                |                  |      |                |     |              |                    |
| <b>LCS Dup Analyzed: 01/31/2008 (8A29057-BSD1)</b> |        |                    |     |       |                |                  |      |                |     |              |                    |
| Surrogate: Terphenyl-d14                           | 8.94   |                    |     | ug/l  | 10.0           |                  | 89   | 50-125         |     |              |                    |

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## 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 |
|--|--------|-----------------|--------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A29059 Extracted: 01/29/08</b>          |        |                 |        |       |             |               |           |             |     |           |                 |
| <b>Blank Analyzed: 01/29/2008 (8A29059-BLK1)</b>   |        |                 |        |       |             |               |           |             |     |           |                 |
| alpha-BHC  | ND     | 0.010           | 0.0025 | ug/l  |             |               |           |             |     |           |                 |
| Surrogate: Decachlorobiphenyl                      | 0.417  |                 |        | ug/l  | 0.500       |               | 83        | 45-120      |     |           |                 |
| Surrogate: Tetrachloro-m-xylene                    | 0.376  |                 |        | ug/l  | 0.500       |               | 75        | 35-115      |     |           |                 |
| <b>LCS Analyzed: 01/29/2008 (8A29059-BS1)</b>      |        |                 |        |       |             |               |           |             |     |           |                 |
| alpha-BHC  | 0.450  | 0.010           | 0.0025 | ug/l  | 0.500       |               | 90        | 45-115      |     |           | MNR1            |
| Surrogate: Decachlorobiphenyl                      | 0.459  |                 |        | ug/l  | 0.500       |               | 92        | 45-120      |     |           |                 |
| Surrogate: Tetrachloro-m-xylene                    | 0.392  |                 |        | ug/l  | 0.500       |               | 78        | 35-115      |     |           |                 |
| <b>LCS Dup Analyzed: 01/29/2008 (8A29059-BSD1)</b> |        |                 |        |       |             |               |           |             |     |           |                 |
| alpha-BHC  | 0.341  | 0.010           | 0.0025 | ug/l  | 0.500       |               | 68        | 45-115      | 28  | 30        |                 |
| Surrogate: Decachlorobiphenyl                      | 0.338  |                 |        | ug/l  | 0.500       |               | 68        | 45-120      |     |           |                 |
| Surrogate: Tetrachloro-m-xylene                    | 0.302  |                 |        | ug/l  | 0.500       |               | 60        | 35-115      |     |           |                 |

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Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## METHOD BLANK/QC DATA

### METALS

| Analyte  | Result | Reporting Limit | MDL  | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A26027 Extracted: 01/26/08</b>                                      |        |                 |      |       |             |               |           |             |     |           |                 |
| <b>Blank Analyzed: 01/26/2008 (8A26027-BLK1)</b>                               |        |                 |      |       |             |               |           |             |     |           |                 |
| Cadmium  | ND     | 1.0             | 0.11 | ug/l  |             |               |           |             |     |           |                 |
| Copper   | ND     | 2.0             | 0.75 | ug/l  |             |               |           |             |     |           |                 |
| Lead   | ND     | 1.0             | 0.30 | ug/l  |             |               |           |             |     |           |                 |
| Selenium   | ND     | 2.0             | 0.30 | ug/l  |             |               |           |             |     |           |                 |
| <b>LCS Analyzed: 01/26/2008 (8A26027-BS1)</b>                                  |        |                 |      |       |             |               |           |             |     |           |                 |
| Cadmium  | 85.7   | 1.0             | 0.11 | ug/l  | 80.0        |               | 107       | 85-115      |     |           |                 |
| Copper   | 86.0   | 2.0             | 0.75 | ug/l  | 80.0        |               | 108       | 85-115      |     |           |                 |
| Lead   | 90.0   | 1.0             | 0.30 | ug/l  | 80.0        |               | 112       | 85-115      |     |           |                 |
| Selenium   | 86.9   | 2.0             | 0.30 | ug/l  | 80.0        |               | 109       | 85-115      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/26/2008 (8A26027-MS1) Source: IRA2496-01</b>      |        |                 |      |       |             |               |           |             |     |           |                 |
| Cadmium  | 80.7   | 1.0             | 0.11 | ug/l  | 80.0        | 0.182         | 101       | 70-130      |     |           |                 |
| Copper   | 89.3   | 2.0             | 0.75 | ug/l  | 80.0        | 8.44          | 101       | 70-130      |     |           |                 |
| Lead   | 93.9   | 1.0             | 0.30 | ug/l  | 80.0        | 7.12          | 108       | 70-130      |     |           |                 |
| Selenium   | 79.5   | 2.0             | 0.30 | ug/l  | 80.0        | ND            | 99        | 70-130      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/26/2008 (8A26027-MSD1) Source: IRA2496-01</b> |        |                 |      |       |             |               |           |             |     |           |                 |
| Cadmium  | 79.0   | 1.0             | 0.11 | ug/l  | 80.0        | 0.182         | 98        | 70-130      | 2   | 20        |                 |
| Copper   | 88.0   | 2.0             | 0.75 | ug/l  | 80.0        | 8.44          | 99        | 70-130      | 1   | 20        |                 |
| Lead   | 91.7   | 1.0             | 0.30 | ug/l  | 80.0        | 7.12          | 106       | 70-130      | 2   | 20        |                 |
| Selenium   | 75.9   | 2.0             | 0.30 | ug/l  | 80.0        | ND            | 95        | 70-130      | 5   | 20        |                 |

**Batch: 8A26028 Extracted: 01/26/08**

**Blank Analyzed: 01/28/2008 (8A26028-BLK1)**

|           |    |       |       |      |  |  |  |  |  |  |  |
|-----------|----|-------|-------|------|--|--|--|--|--|--|--|
| Iron      | ND | 0.040 | 0.015 | mg/l |  |  |  |  |  |  |  |
| Manganese | ND | 20    | 7.0   | ug/l |  |  |  |  |  |  |  |
| Zinc      | ND | 20    | 6.0   | ug/l |  |  |  |  |  |  |  |

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## METHOD BLANK/QC DATA

### METALS

| Analyte  | Result | Reporting Limit | MDL   | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A26028 Extracted: 01/26/08</b>                                      |        |                 |       |       |             |               |      |             |     |           |                 |
| <b>LCS Analyzed: 01/28/2008 (8A26028-BS1)</b>                                  |        |                 |       |       |             |               |      |             |     |           |                 |
| Iron   | 0.521  | 0.040           | 0.015 | mg/l  | 0.500       |               | 104  | 85-115      |     |           |                 |
| Manganese  | 507    | 20              | 7.0   | ug/l  | 500         |               | 101  | 85-115      |     |           |                 |
| Zinc   | 500    | 20              | 6.0   | ug/l  | 500         |               | 100  | 85-115      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/28/2008 (8A26028-MS1) Source: IRA2498-01</b>      |        |                 |       |       |             |               |      |             |     |           |                 |
| Iron   | 0.722  | 0.040           | 0.015 | mg/l  | 0.500       | 0.156         | 113  | 70-130      |     |           |                 |
| Manganese  | 505    | 20              | 7.0   | ug/l  | 500         | ND            | 101  | 70-130      |     |           |                 |
| Zinc   | 702    | 20              | 6.0   | ug/l  | 500         | 216           | 97   | 70-130      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/28/2008 (8A26028-MSD1) Source: IRA2498-01</b> |        |                 |       |       |             |               |      |             |     |           |                 |
| Iron   | 0.732  | 0.040           | 0.015 | mg/l  | 0.500       | 0.156         | 115  | 70-130      | 1   | 20        |                 |
| Manganese  | 511    | 20              | 7.0   | ug/l  | 500         | ND            | 102  | 70-130      | 1   | 20        |                 |
| Zinc   | 717    | 20              | 6.0   | ug/l  | 500         | 216           | 100  | 70-130      | 2   | 20        |                 |

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Sampled: 01/25/08  
 Received: 01/25/08

## METHOD BLANK/QC DATA

### DISSOLVED METALS

| Analyte  | Result | Reporting Limit | MDL   | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A25155 Extracted: 01/25/08</b>                                      |        |                 |       |       |             |               |           |             |     |           |                 |
| <b>Blank Analyzed: 01/26/2008 (8A25155-BLK1)</b>                               |        |                 |       |       |             |               |           |             |     |           |                 |
| Iron   | ND     | 0.040           | 0.015 | mg/l  |             |               |           |             |     |           |                 |
| Manganese  | ND     | 20              | 7.0   | ug/l  |             |               |           |             |     |           |                 |
| Zinc   | ND     | 20              | 6.0   | ug/l  |             |               |           |             |     |           |                 |
| <b>LCS Analyzed: 01/26/2008 (8A25155-BS1)</b>                                  |        |                 |       |       |             |               |           |             |     |           |                 |
| Iron   | 1.02   | 0.040           | 0.015 | mg/l  | 1.00        |               | 102       | 85-115      |     |           |                 |
| Manganese  | 1010   | 20              | 7.0   | ug/l  | 1000        |               | 101       | 85-115      |     |           |                 |
| Zinc   | 1000   | 20              | 6.0   | ug/l  | 1000        |               | 100       | 85-115      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/26/2008 (8A25155-MS1) Source: IRA2496-01</b>      |        |                 |       |       |             |               |           |             |     |           |                 |
| Iron   | 1.14   | 0.040           | 0.015 | mg/l  | 1.00        | 0.104         | 104       | 70-130      |     |           |                 |
| Manganese  | 1030   | 20              | 7.0   | ug/l  | 1000        | ND            | 103       | 70-130      |     |           |                 |
| Zinc   | 1020   | 20              | 6.0   | ug/l  | 1000        | ND            | 102       | 70-130      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/26/2008 (8A25155-MSD1) Source: IRA2496-01</b> |        |                 |       |       |             |               |           |             |     |           |                 |
| Iron   | 1.11   | 0.040           | 0.015 | mg/l  | 1.00        | 0.104         | 101       | 70-130      | 3   | 20        |                 |
| Manganese  | 1000   | 20              | 7.0   | ug/l  | 1000        | ND            | 100       | 70-130      | 3   | 20        |                 |
| Zinc   | 985    | 20              | 6.0   | ug/l  | 1000        | ND            | 99        | 70-130      | 3   | 20        |                 |

**Batch: 8A25156 Extracted: 01/25/08**

**Blank Analyzed: 01/26/2008 (8A25156-BLK1)**

|          |    |     |      |      |  |  |  |  |  |  |  |
|----------|----|-----|------|------|--|--|--|--|--|--|--|
| Cadmium  | ND | 1.0 | 0.11 | ug/l |  |  |  |  |  |  |  |
| Copper   | ND | 2.0 | 0.75 | ug/l |  |  |  |  |  |  |  |
| Lead     | ND | 1.0 | 0.30 | ug/l |  |  |  |  |  |  |  |
| Selenium | ND | 2.0 | 0.30 | ug/l |  |  |  |  |  |  |  |

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Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## METHOD BLANK/QC DATA

### DISSOLVED METALS

| Analyte  | Result | Reporting Limit | MDL  | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A25156 Extracted: 01/25/08</b>                                      |        |                 |      |       |             |               |      |             |     |           |                 |
| <b>LCS Analyzed: 01/26/2008 (8A25156-BS1)</b>                                  |        |                 |      |       |             |               |      |             |     |           |                 |
| Cadmium  | 80.4   | 1.0             | 0.11 | ug/l  | 80.0        |               | 101  | 85-115      |     |           |                 |
| Copper   | 80.8   | 2.0             | 0.75 | ug/l  | 80.0        |               | 101  | 85-115      |     |           |                 |
| Lead   | 84.6   | 1.0             | 0.30 | ug/l  | 80.0        |               | 106  | 85-115      |     |           |                 |
| Selenium   | 84.8   | 2.0             | 0.30 | ug/l  | 80.0        |               | 106  | 85-115      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/26/2008 (8A25156-MS1) Source: IRA2497-01</b>      |        |                 |      |       |             |               |      |             |     |           |                 |
| Cadmium  | 83.4   | 1.0             | 0.11 | ug/l  | 80.0        | ND            | 104  | 70-130      |     |           |                 |
| Copper   | 85.3   | 2.0             | 0.75 | ug/l  | 80.0        | 2.94          | 103  | 70-130      |     |           |                 |
| Lead   | 84.7   | 1.0             | 0.30 | ug/l  | 80.0        | 0.920         | 105  | 70-130      |     |           |                 |
| Selenium   | 91.8   | 2.0             | 0.30 | ug/l  | 80.0        | ND            | 115  | 70-130      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/26/2008 (8A25156-MSD1) Source: IRA2497-01</b> |        |                 |      |       |             |               |      |             |     |           |                 |
| Cadmium  | 83.4   | 1.0             | 0.11 | ug/l  | 80.0        | ND            | 104  | 70-130      | 0   | 20        |                 |
| Copper   | 83.7   | 2.0             | 0.75 | ug/l  | 80.0        | 2.94          | 101  | 70-130      | 2   | 20        |                 |
| Lead   | 86.0   | 1.0             | 0.30 | ug/l  | 80.0        | 0.920         | 106  | 70-130      | 2   | 20        |                 |
| Selenium   | 90.0   | 2.0             | 0.30 | ug/l  | 80.0        | ND            | 112  | 70-130      | 2   | 20        |                 |

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## METHOD BLANK/QC DATA

### INORGANICS

| Analyte  | Result | Reporting Limit | MDL   | Units | Spike Level | Source Result | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-------|-------|-------------|---------------|-----------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A25053 Extracted: 01/25/08</b>                                      |        |                 |       |       |             |               |           |             |     |           |                 |
| <b>Blank Analyzed: 01/25/2008 (8A25053-BLK1)</b>                               |        |                 |       |       |             |               |           |             |     |           |                 |
| Chloride   | ND     | 0.50            | 0.25  | mg/l  |             |               |           |             |     |           |                 |
| Nitrate-N  | ND     | 0.11            | 0.060 | mg/l  |             |               |           |             |     |           |                 |
| Nitrite-N  | ND     | 0.15            | 0.090 | mg/l  |             |               |           |             |     |           |                 |
| Nitrate/Nitrite-N  | ND     | 0.26            | 0.15  | mg/l  |             |               |           |             |     |           |                 |
| Sulfate  | ND     | 0.50            | 0.20  | mg/l  |             |               |           |             |     |           |                 |
| <b>LCS Analyzed: 01/25/2008 (8A25053-BS1)</b>                                  |        |                 |       |       |             |               |           |             |     |           |                 |
| Chloride   | 4.93   | 0.50            | 0.25  | mg/l  | 5.00        |               | 99        | 90-110      |     |           |                 |
| Nitrate-N  | 1.18   | 0.11            | 0.060 | mg/l  | 1.13        |               | 105       | 90-110      |     |           |                 |
| Nitrite-N  | 1.53   | 0.15            | 0.090 | mg/l  | 1.52        |               | 101       | 90-110      |     |           |                 |
| Sulfate  | 10.2   | 0.50            | 0.20  | mg/l  | 10.0        |               | 102       | 90-110      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/25/2008 (8A25053-MS1) Source: IRA2375-01</b>      |        |                 |       |       |             |               |           |             |     |           |                 |
| Chloride   | 9.73   | 0.50            | 0.25  | mg/l  | 5.00        | 4.99          | 95        | 80-120      |     |           |                 |
| Nitrate-N  | 4.04   | 0.11            | 0.060 | mg/l  | 1.13        | 2.87          | 104       | 80-120      |     |           |                 |
| Nitrite-N  | 1.53   | 0.15            | 0.090 | mg/l  | 1.52        | ND            | 100       | 80-120      |     |           |                 |
| Sulfate  | 25.6   | 0.50            | 0.20  | mg/l  | 10.0        | 15.9          | 96        | 80-120      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/25/2008 (8A25053-MS2) Source: IRA2478-01</b>      |        |                 |       |       |             |               |           |             |     |           |                 |
| Chloride   | 12.3   | 0.50            | 0.25  | mg/l  | 5.00        | 7.60          | 95        | 80-120      |     |           |                 |
| Nitrate-N  | 3.39   | 0.11            | 0.060 | mg/l  | 1.13        | 2.15          | 110       | 80-120      |     |           |                 |
| Nitrite-N  | 1.58   | 0.15            | 0.090 | mg/l  | 1.52        | ND            | 104       | 80-120      |     |           |                 |
| Sulfate  | 19.9   | 0.50            | 0.20  | mg/l  | 10.0        | 9.44          | 104       | 80-120      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/25/2008 (8A25053-MSD1) Source: IRA2375-01</b> |        |                 |       |       |             |               |           |             |     |           |                 |
| Chloride   | 9.76   | 0.50            | 0.25  | mg/l  | 5.00        | 4.99          | 95        | 80-120      | 0   | 20        |                 |
| Nitrate-N  | 4.05   | 0.11            | 0.060 | mg/l  | 1.13        | 2.87          | 104       | 80-120      | 0   | 20        |                 |
| Nitrite-N  | 1.53   | 0.15            | 0.090 | mg/l  | 1.52        | ND            | 100       | 80-120      | 0   | 20        |                 |
| Sulfate  | 25.7   | 0.50            | 0.20  | mg/l  | 10.0        | 15.9          | 98        | 80-120      | 1   | 20        |                 |

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## METHOD BLANK/QC DATA

### INORGANICS

| Analyte   | Result | Reporting Limit | MDL   | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|-------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| <b><u>Batch: 8A25148 Extracted: 01/25/08</u></b>            |        |                 |       |       |             |               |      |             |     |           |                 |
| <b>Blank Analyzed: 01/25/2008 (8A25148-BLK1)</b>            |        |                 |       |       |             |               |      |             |     |           |                 |
| Surfactants (MBAS)  | ND     | 0.10            | 0.044 | mg/l  |             |               |      |             |     |           |                 |
| <b>LCS Analyzed: 01/25/2008 (8A25148-BS1)</b>               |        |                 |       |       |             |               |      |             |     |           |                 |
| Surfactants (MBAS)  | 0.274  | 0.10            | 0.044 | mg/l  | 0.250       |               | 109  | 90-110      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/25/2008 (8A25148-MS1)</b>      |        |                 |       |       |             |               |      |             |     |           |                 |
| Surfactants (MBAS)  | 0.283  | 0.10            | 0.044 | mg/l  | 0.250       | ND            | 113  | 50-125      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/25/2008 (8A25148-MSD1)</b> |        |                 |       |       |             |               |      |             |     |           |                 |
| Surfactants (MBAS)  | 0.276  | 0.10            | 0.044 | mg/l  | 0.250       | ND            | 111  | 50-125      | 3   | 20        |                 |
| <b><u>Batch: 8A25151 Extracted: 01/25/08</u></b>            |        |                 |       |       |             |               |      |             |     |           |                 |
| <b>Blank Analyzed: 01/30/2008 (8A25151-BLK1)</b>            |        |                 |       |       |             |               |      |             |     |           |                 |
| Biochemical Oxygen Demand                                   | ND     | 2.0             | 0.59  | mg/l  |             |               |      |             |     |           |                 |
| <b>LCS Analyzed: 01/30/2008 (8A25151-BS1)</b>               |        |                 |       |       |             |               |      |             |     |           |                 |
| Biochemical Oxygen Demand                                   | 196    | 100             | 30    | mg/l  | 198         |               | 99   | 85-115      |     |           |                 |
| <b>LCS Dup Analyzed: 01/30/2008 (8A25151-BSD1)</b>          |        |                 |       |       |             |               |      |             |     |           |                 |
| Biochemical Oxygen Demand                                   | 198    | 100             | 30    | mg/l  | 198         |               | 100  | 85-115      | 2   | 20        |                 |
| <b><u>Batch: 8A26036 Extracted: 01/26/08</u></b>            |        |                 |       |       |             |               |      |             |     |           |                 |
| <b>Blank Analyzed: 01/26/2008 (8A26036-BLK1)</b>            |        |                 |       |       |             |               |      |             |     |           |                 |
| Turbidity   | 0.0900 | 1.0             | 0.040 | NTU   |             |               |      |             |     |           | J               |

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Project ID: Routine Outfall 001  
Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## METHOD BLANK/QC DATA

### INORGANICS

| Analyte   | Result | Reporting Limit | MDL   | Units | Spike Level | Source Result             | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|-------|-------|-------------|---------------------------|-----------|-------------|-----|-----------|-----------------|
| <b>Batch: 8A26036 Extracted: 01/26/08</b>                   |        |                 |       |       |             |                           |           |             |     |           |                 |
| <b>Duplicate Analyzed: 01/26/2008 (8A26036-DUP1)</b>        |        |                 |       |       |             | <b>Source: IRA2525-03</b> |           |             |     |           |                 |
| Turbidity   | 1.82   | 1.0             | 0.040 | NTU   |             | 1.88                      |           |             | 3   | 20        |                 |
| <b>Batch: 8A28071 Extracted: 01/28/08</b>                   |        |                 |       |       |             |                           |           |             |     |           |                 |
| <b>Blank Analyzed: 01/28/2008 (8A28071-BLK1)</b>            |        |                 |       |       |             |                           |           |             |     |           |                 |
| Perchlorate   | ND     | 4.0             | 1.5   | ug/l  |             |                           |           |             |     |           |                 |
| <b>LCS Analyzed: 01/28/2008 (8A28071-BS1)</b>               |        |                 |       |       |             |                           |           |             |     |           |                 |
| Perchlorate   | 54.0   | 4.0             | 1.5   | ug/l  | 50.0        |                           | 108       | 85-115      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/28/2008 (8A28071-MS1)</b>      |        |                 |       |       |             | <b>Source: IRA2506-01</b> |           |             |     |           |                 |
| Perchlorate   | 55.4   | 4.0             | 1.5   | ug/l  | 50.0        | ND                        | 111       | 80-120      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/28/2008 (8A28071-MSD1)</b> |        |                 |       |       |             | <b>Source: IRA2506-01</b> |           |             |     |           |                 |
| Perchlorate   | 55.2   | 4.0             | 1.5   | ug/l  | 50.0        | ND                        | 110       | 80-120      | 0   | 20        |                 |
| <b>Batch: 8A28126 Extracted: 01/28/08</b>                   |        |                 |       |       |             |                           |           |             |     |           |                 |
| <b>Blank Analyzed: 01/28/2008 (8A28126-BLK1)</b>            |        |                 |       |       |             |                           |           |             |     |           |                 |
| Total Cyanide   | ND     | 5.0             | 2.2   | ug/l  |             |                           |           |             |     |           |                 |
| <b>LCS Analyzed: 01/28/2008 (8A28126-BS1)</b>               |        |                 |       |       |             |                           |           |             |     |           |                 |
| Total Cyanide   | 197    | 5.0             | 2.2   | ug/l  | 200         |                           | 99        | 90-110      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/28/2008 (8A28126-MS1)</b>      |        |                 |       |       |             | <b>Source: IRA2156-01</b> |           |             |     |           |                 |
| Total Cyanide   | 203    | 5.0             | 2.2   | ug/l  | 200         | ND                        | 101       | 70-115      |     |           |                 |

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 001  
Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## METHOD BLANK/QC DATA

### INORGANICS

| Analyte   | Result | Reporting Limit | MDL  | Units | Spike Level | Source Result             | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|--------|-----------------|------|-------|-------------|---------------------------|-----------|-------------|-----|-----------|-----------------|
| <b><u>Batch: 8A28126 Extracted: 01/28/08</u></b>            |        |                 |      |       |             |                           |           |             |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/28/2008 (8A28126-MSD1)</b> |        |                 |      |       |             | <b>Source: IRA2156-01</b> |           |             |     |           |                 |
| Total Cyanide   | 199    | 5.0             | 2.2  | ug/l  | 200         | ND                        | 99        | 70-115      | 2   | 15        |                 |
| <b><u>Batch: 8A29110 Extracted: 01/29/08</u></b>            |        |                 |      |       |             |                           |           |             |     |           |                 |
| <b>Blank Analyzed: 01/29/2008 (8A29110-BLK1)</b>            |        |                 |      |       |             |                           |           |             |     |           |                 |
| Ammonia-N (Distilled)                                       | ND     | 0.50            | 0.30 | mg/l  |             |                           |           |             |     |           |                 |
| <b>LCS Analyzed: 01/29/2008 (8A29110-BS1)</b>               |        |                 |      |       |             |                           |           |             |     |           |                 |
| Ammonia-N (Distilled)                                       | 10.1   | 0.50            | 0.30 | mg/l  | 10.0        |                           | 101       | 80-115      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/29/2008 (8A29110-MS1)</b>      |        |                 |      |       |             | <b>Source: IRA2355-01</b> |           |             |     |           |                 |
| Ammonia-N (Distilled)                                       | 10.4   | 0.50            | 0.30 | mg/l  | 10.0        | ND                        | 104       | 70-120      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/29/2008 (8A29110-MSD1)</b> |        |                 |      |       |             | <b>Source: IRA2355-01</b> |           |             |     |           |                 |
| Ammonia-N (Distilled)                                       | 10.6   | 0.50            | 0.30 | mg/l  | 10.0        | ND                        | 106       | 70-120      | 3   | 15        |                 |
| <b><u>Batch: 8A30131 Extracted: 01/30/08</u></b>            |        |                 |      |       |             |                           |           |             |     |           |                 |
| <b>Blank Analyzed: 01/30/2008 (8A30131-BLK1)</b>            |        |                 |      |       |             |                           |           |             |     |           |                 |
| Total Suspended Solids                                      | ND     | 10              | 10   | mg/l  |             |                           |           |             |     |           |                 |
| <b>LCS Analyzed: 01/30/2008 (8A30131-BS1)</b>               |        |                 |      |       |             |                           |           |             |     |           |                 |
| Total Suspended Solids                                      | 953    | 10              | 10   | mg/l  | 1000        |                           | 95        | 85-115      |     |           |                 |
| <b>Duplicate Analyzed: 01/30/2008 (8A30131-DUP1)</b>        |        |                 |      |       |             | <b>Source: IRA2772-01</b> |           |             |     |           |                 |
| Total Suspended Solids                                      | 3120   | 10              | 10   | mg/l  |             | 3060                      |           |             | 2   | 10        |                 |

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NPDES - 56

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## METHOD BLANK/QC DATA

### INORGANICS

| Analyte  | Result | Reporting Limit | MDL | Units    | Spike Level | Source Result             | %REC %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-----|----------|-------------|---------------------------|-----------|-------------|-----|-----------|-----------------|
| <b><u>Batch: 8A31072 Extracted: 01/31/08</u></b>     |        |                 |     |          |             |                           |           |             |     |           |                 |
| <b>Duplicate Analyzed: 01/31/2008 (8A31072-DUP1)</b> |        |                 |     |          |             | <b>Source: IRA2944-01</b> |           |             |     |           |                 |
| Specific Conductance                                 | 128    | 1.0             | 1.0 | umhos/cm |             | 128                       |           |             | 0   | 5         |                 |
| <b><u>Batch: 8A31077 Extracted: 01/31/08</u></b>     |        |                 |     |          |             |                           |           |             |     |           |                 |
| <b>Blank Analyzed: 01/31/2008 (8A31077-BLK1)</b>     |        |                 |     |          |             |                           |           |             |     |           |                 |
| Total Dissolved Solids                               | ND     | 10              | 10  | mg/l     |             |                           |           |             |     |           |                 |
| <b>LCS Analyzed: 01/31/2008 (8A31077-BS1)</b>        |        |                 |     |          |             |                           |           |             |     |           |                 |
| Total Dissolved Solids                               | 1000   | 10              | 10  | mg/l     | 1000        |                           | 100       | 90-110      |     |           |                 |
| <b>Duplicate Analyzed: 01/31/2008 (8A31077-DUP1)</b> |        |                 |     |          |             | <b>Source: IRA2619-03</b> |           |             |     |           |                 |
| Total Dissolved Solids                               | ND     | 10              | 10  | mg/l     |             | ND                        |           |             |     | 10        |                 |
| <b><u>Batch: 8B04061 Extracted: 02/04/08</u></b>     |        |                 |     |          |             |                           |           |             |     |           |                 |
| <b>Blank Analyzed: 02/04/2008 (8B04061-BLK1)</b>     |        |                 |     |          |             |                           |           |             |     |           |                 |
| Hexane Extractable Material (Oil & Grease)           | 1.40   | 5.0             | 1.4 | mg/l     |             |                           |           |             |     |           | J               |
| <b>LCS Analyzed: 02/04/2008 (8B04061-BS1)</b>        |        |                 |     |          |             |                           |           |             |     |           |                 |
| Hexane Extractable Material (Oil & Grease)           | 19.5   | 5.0             | 1.4 | mg/l     | 20.2        |                           | 97        | 78-114      |     |           | MNR1            |
| <b>LCS Dup Analyzed: 02/04/2008 (8B04061-BSD1)</b>   |        |                 |     |          |             |                           |           |             |     |           |                 |
| Hexane Extractable Material (Oil & Grease)           | 18.2   | 5.0             | 1.4 | mg/l     | 20.2        |                           | 90        | 78-114      | 7   | 11        |                 |

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
 Received: 01/25/08

## METHOD BLANK/QC DATA

### Metals by EPA 200 Series Methods

| Analyte  | Result | Reporting Limit | MDL   | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|--|--------|-----------------|-------|-------|-------------|---------------|------|-------------|-----|-----------|-----------------|
| <b>Batch: W8A1034 Extracted: 01/29/08</b>                                      |        |                 |       |       |             |               |      |             |     |           |                 |
| <b>Blank Analyzed: 01/30/2008 (W8A1034-BLK1)</b>                               |        |                 |       |       |             |               |      |             |     |           |                 |
| Mercury, Dissolved   | ND     | 0.20            | 0.050 | ug/l  |             |               |      |             |     |           |                 |
| Mercury, Total   | ND     | 0.20            | 0.050 | ug/l  |             |               |      |             |     |           |                 |
| <b>LCS Analyzed: 01/30/2008 (W8A1034-BS1)</b>                                  |        |                 |       |       |             |               |      |             |     |           |                 |
| Mercury, Dissolved   | 0.986  | 0.20            | 0.050 | ug/l  | 1.00        |               | 99   | 85-115      |     |           |                 |
| Mercury, Total   | 0.986  | 0.20            | 0.050 | ug/l  | 1.00        |               | 99   | 85-115      |     |           |                 |
| <b>Matrix Spike Analyzed: 01/30/2008 (W8A1034-MS1) Source: 8012803-01</b>      |        |                 |       |       |             |               |      |             |     |           |                 |
| Mercury, Dissolved   | 2.06   | 0.40            | 0.10  | ug/l  | 2.00        | ND            | 103  | 70-130      |     |           |                 |
| Mercury, Total   | 2.06   | 0.40            | 0.10  | ug/l  | 2.00        | ND            | 103  | 70-130      |     |           |                 |
| <b>Matrix Spike Dup Analyzed: 01/30/2008 (W8A1034-MSD1) Source: 8012803-01</b> |        |                 |       |       |             |               |      |             |     |           |                 |
| Mercury, Dissolved   | 2.02   | 0.40            | 0.10  | ug/l  | 2.00        | ND            | 101  | 70-130      | 2   | 20        |                 |
| Mercury, Total   | 2.02   | 0.40            | 0.10  | ug/l  | 2.00        | ND            | 101  | 70-130      | 2   | 20        |                 |

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Received: 01/25/08

## 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 |
|-------------------|--------------------------------|--|----------------|--------------|--------------|------------------|
| IRA2506-01        | 1664-HEM                       | Hexane Extractable Material (Oil & Greas | mg/l           | 0.78         | 4.9          | 10               |
| IRA2506-01        | 608-Pest Boeing 001/002 Q (LL) | alpha-BHC                                | ug/l           | 0            | 0.0094       | 0.01             |
| IRA2506-01        | 625-Boeing 001/002 Q-LL        | 2,4,6-Trichlorophenol                    | ug/l           | 0            | 5.8          | 6.5              |
| IRA2506-01        | 625-Boeing 001/002 Q-LL        | 2,4-Dinitrotoluene                       | ug/l           | 0            | 8.7          | 9.1              |
| IRA2506-01        | 625-Boeing 001/002 Q-LL        | Bis(2-ethylhexyl)phthalate               | ug/l           | 0.77         | 4.8          | 4                |
| IRA2506-01        | 625-Boeing 001/002 Q-LL        | N-Nitrosodimethylamine                   | ug/l           | 0            | 7.7          | 8.1              |
| IRA2506-01        | 625-Boeing 001/002 Q-LL        | Pentachlorophenol                        | ug/l           | 0            | 7.7          | 8.2              |
| IRA2506-01        | Ammonia-N, Titr (350.2) w/dist | Ammonia-N (Distilled)                    | mg/l           | 0.28         | 0.50         | 2                |
| IRA2506-01        | BOD                            | Biochemical Oxygen Demand                | mg/l           | 1.91         | 2.0          | 20               |
| IRA2506-01        | Cadmium-200.8                  | Cadmium                                  | ug/l           | 0.12         | 1.0          | 2                |
| IRA2506-01        | Chloride - 300.0               | Chloride                                 | mg/l           | 11           | 0.50         | 150              |
| IRA2506-01        | Copper-200.8                   | Copper                                   | ug/l           | 4.84         | 2.0          | 7.1              |
| IRA2506-01        | Cyanide-335.2 5ppb             | Total Cyanide                            | ug/l           | 0            | 5.0          | 5                |
| IRA2506-01        | Hg_w 245.1                     | Mercury, Total                           | ug/l           | 0.0070       | 0.20         | 0.2              |
| <b>IRA2506-01</b> | <b>Iron-200.7</b>              | <b>Iron</b>                              | <b>mg/l</b>    | <b>5.70</b>  | <b>0.040</b> | <b>0.3</b>       |
| <b>IRA2506-01</b> | <b>Lead-200.8</b>              | <b>Lead</b>                              | <b>ug/l</b>    | <b>3.41</b>  | <b>1.0</b>   | <b>2.6</b>       |
| <b>IRA2506-01</b> | <b>Manganese-200.7</b>         | <b>Manganese</b>                         | <b>ug/l</b>    | <b>71</b>    | <b>20</b>    | <b>50</b>        |
| IRA2506-01        | MBAS - SM5540-C                | Surfactants (MBAS)                       | mg/l           | 0.030        | 0.10         | 0.5              |
| IRA2506-01        | Nitrate-N, 300.0               | Nitrate-N                                | mg/l           | 3.84         | 0.11         | 8                |
| IRA2506-01        | Nitrite-N, 300.0               | Nitrite-N                                | mg/l           | 0            | 0.15         | 1                |
| IRA2506-01        | Nitrogen, NO3+NO2 -N           | Nitrate/Nitrite-N                        | mg/l           | 3.84         | 0.26         | 8                |
| IRA2506-01        | Perchlorate 314.0-DEFAULT      | Perchlorate                              | ug/l           | 0            | 4.0          | 6                |
| IRA2506-01        | Selenium-200.8                 | Selenium                                 | ug/l           | 0.22         | 2.0          | 4.1              |
| <b>IRA2506-01</b> | <b>Settleable Solids</b>       | <b>Total Settleable Solids</b>           | <b>ml/l/hr</b> | <b>0.100</b> | <b>0.10</b>  | <b>0.1</b>       |
| IRA2506-01        | Sulfate-300.0                  | Sulfate                                  | mg/l           | 22           | 0.50         | 300              |
| IRA2506-01        | TDS - SM 2540C                 | Total Dissolved Solids                   | mg/l           | 172          | 10           | 950              |
| <b>IRA2506-01</b> | <b>TSS - EPA 160.2</b>         | <b>Total Suspended Solids</b>            | <b>mg/l</b>    | <b>57</b>    | <b>10</b>    | <b>15</b>        |
| IRA2506-01        | Zinc-200.7                     | Zinc                                     | ug/l           | 28           | 20           | 54               |

## 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

Joseph Doak  
Project Manager

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## 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.
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

**TestAmerica Irvine**

Joseph Doak  
Project Manager

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

**IRA2506 <Page 33 of 35>**  
**NPDES - 60**

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## Certification Summary

### TestAmerica Irvine

| Method         | Matrix | Nelac | California |
|----------------|--------|-------|------------|
| EPA 120.1      | Water  | X     | X          |
| EPA 160.2      | Water  | X     | X          |
| EPA 160.5      | Water  | X     | X          |
| EPA 1664A      | Water  |       |            |
| EPA 180.1      | Water  | X     | X          |
| EPA 200.7-Diss | Water  | X     | X          |
| EPA 200.7      | Water  | X     | X          |
| EPA 200.8-Diss | Water  | X     | X          |
| EPA 200.8      | Water  | X     | X          |
| EPA 300.0      | Water  | X     | X          |
| EPA 314.0      | Water  | X     | X          |
| EPA 335.2      | Water  | X     | X          |
| EPA 350.2      | Water  |       | X          |
| EPA 405.1      | Water  | X     | X          |
| EPA 608        | Water  | X     | X          |
| EPA 624        | Water  | X     | X          |
| EPA 625        | Water  | X     | X          |
| SM2540C        | Water  | X     |            |
| SM5540-C       | Water  | X     | X          |

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://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 Chnric

Samples: IRA2506-01

### TestAmerica Irvine

Joseph Doak  
Project Manager

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

Project ID: Routine Outfall 001

Report Number: IRA2506

Sampled: 01/25/08  
Received: 01/25/08

## Eberline Services - SUB

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gamma Spec  
Samples: IRA2506-01

Analysis Performed: Gross Alpha  
Samples: IRA2506-01

Analysis Performed: Gross Beta  
Samples: IRA2506-01

Analysis Performed: Radium, Combined  
Samples: IRA2506-01

Analysis Performed: Strontium 90  
Samples: IRA2506-01

Analysis Performed: Tritium  
Samples: IRA2506-01

Analysis Performed: Uranium, Combined  
Samples: IRA2506-01

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

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta  
Samples: IRA2506-01

## Weck Laboratories, Inc

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

Method Performed: EPA 245.1  
Samples: IRA2506-01

## TestAmerica Irvine

Joseph Doak  
Project Manager

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

JPA2906

# CHAIN OF CUSTODY FORM

IRAZSO6

| Client Name/Address:<br><b>MWH-Arcadia</b><br>618 Michillinda Avenue, Suite 200<br>Arcadia, CA 91007 |               | Project:<br>Boeing-SSFL NPDES<br><b>Routine Outfall 001</b>      |            | ANALYSIS REQUIRED<br>Total Recoverable Metals: Cu, Pb, Hg, Cd, Se, Zn, Mn, Te<br>Settleable Solids<br>TCDD (end all congeners)<br>Oil & Grease (1664-HEM)<br>Cyanide (total recoverable)<br>BOD <sub>5</sub> (20 degrees C)<br>Surfactants (MBAS)<br>Cl <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> , NO <sub>3</sub> <sup>-</sup> +NO <sub>2</sub> <sup>-</sup> , Perchlorate<br>Nitrate-N, Nitrite-N<br>Turbidity, TDS, TSS, Conductivity<br>Ammonia-N (350.2)<br>Alpha BHC (608)<br>2,4,6 TCP, 2,4 Dinitrofluorene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs 625) |                                |          |                    |              |                    |           |                           |                           |  | Field readings:<br>Temp = 78<br>pH = 7.7<br>Time of readings = 11:45         |  |
|--|---------------|--|------------|---|--------------------------------|----------|--------------------|--------------|--------------------|-----------|---------------------------|---------------------------|--|--|--|
| Test America Contact: Joseph Doak<br>Project Manager: Bronwyn Kelly<br>Sampler: <i>M. S. R.</i>      |               | Phone Number:<br>(626) 568-6691<br>Fax Number:<br>(626) 568-6515 |            | Total Recoverable Metals: Cu, Pb, Hg, Cd, Se, Zn, Mn, Te<br>Settleable Solids<br>TCDD (end all congeners)<br>Oil & Grease (1664-HEM)<br>Cyanide (total recoverable)<br>BOD <sub>5</sub> (20 degrees C)<br>Surfactants (MBAS)<br>Cl <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> , NO <sub>3</sub> <sup>-</sup> +NO <sub>2</sub> <sup>-</sup> , Perchlorate<br>Nitrate-N, Nitrite-N<br>Turbidity, TDS, TSS, Conductivity<br>Ammonia-N (350.2)<br>Alpha BHC (608)<br>2,4,6 TCP, 2,4 Dinitrofluorene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs 625)                      |                                |          |                    |              |                    |           |                           |                           |  | Comments:<br>24 TAT, Mn and Fe exceeded 2/28/06 and 4/15/06, resp.<br>24 TAT |  |
| Sample Description   | Sample Matrix | Container Type   | # of Cont. | Sampling Date/Time  | Preservative                   | Bottle # | Received By        | Date/Time    | Received By        | Date/Time | Turn around Time: (check) | Sample Integrity: (check) |  |  |  |
| Outfall 001  | W             | 1L Poly  | 1          | 1-25-08 11:45   | HNO <sub>3</sub>               | 1A       | <i>[Signature]</i> | 1/25/08 1510 | <i>[Signature]</i> | 18120     | 24 Hours                  | Intact                    |  |  |  |
| Outfall 001 Dup  | W             | 1L Poly  | 1          |   | HNO <sub>3</sub>               | 1B       |                    |              |                    |           | 48 Hours                  | Normal                    |  |  |  |
| Outfall 001  | W             | 1L Poly  | 1          |   | None                           | 2        |                    |              |                    |           | 72 Hours                  | On Ice                    |  |  |  |
| Outfall 001  | W             | 1L Amber   | 2          |   | None                           | 3A, 3B   |                    |              |                    |           |                           |                           |  |  |  |
| Outfall 001  | W             | 1L Amber   | 2          |   | HCl                            | 4A, 4B   |                    |              |                    |           |                           |                           |  |  |  |
| Outfall 001  | W             | 500 ml Poly  | 1          |   | NaOH                           | 5        |                    |              |                    |           |                           |                           |  |  |  |
| Outfall 001  | W             | 1L Poly  | 1          |   | None                           | 6        |                    |              |                    |           |                           |                           |  |  |  |
| Outfall 001  | W             | 500 ml Poly  | 2          |   | None                           | 7A, 7B   |                    |              |                    |           |                           |                           |  |  |  |
| Outfall 001  | W             | 500 ml Poly  | 2          |   | None                           | 8A, 8B   |                    |              |                    |           |                           |                           |  |  |  |
| Outfall 001  | W             | 500 ml Poly  | 1          |   | None                           | 9        |                    |              |                    |           |                           |                           |  |  |  |
| Outfall 001  | W             | 500 ml Poly  | 2          |   | None                           | 10A, 10B |                    |              |                    |           |                           |                           |  |  |  |
| Outfall 001  | W             | 500 ml Poly  | 1          |   | H <sub>2</sub> SO <sub>4</sub> | 11       |                    |              |                    |           |                           |                           |  |  |  |
| Outfall 001  | W             | 1L Amber   | 2          |   | None                           | 12A, 12B |                    |              |                    |           |                           |                           |  |  |  |
| Outfall 001  | W             | 1L Amber   | 2          |   | None                           | 13A, 13B |                    |              |                    |           |                           |                           |  |  |  |
| Relinquished By  |               |  |            | Date/Time:  |                                |          | Received By        |              | Date/Time:         |           | Turn around Time: (check) |                           |  |  |  |
| <i>[Signature]</i>   |               |  |            | 1-25-08 11:45   |                                |          | <i>[Signature]</i> |              | 1/25/08 1510       |           | 24 Hours                  |                           |  |  |  |
| Relinquished By  |               |  |            | Date/Time:  |                                |          | Received By        |              | Date/Time:         |           | 48 Hours                  |                           |  |  |  |
| <i>[Signature]</i>   |               |  |            | 1-25-08 11:45   |                                |          | <i>[Signature]</i> |              | 1/25/08 1510       |           | 48 Hours                  |                           |  |  |  |
| Relinquished By  |               |  |            | Date/Time:  |                                |          | Received By        |              | Date/Time:         |           | 72 Hours                  |                           |  |  |  |
| <i>[Signature]</i>   |               |  |            | 1-25-08 11:45   |                                |          | <i>[Signature]</i> |              | 1/25/08 1510       |           | 72 Hours                  |                           |  |  |  |
| Relinquished By  |               |  |            | Date/Time:  |                                |          | Received By        |              | Date/Time:         |           | Sample Integrity: (check) |                           |  |  |  |
| <i>[Signature]</i>   |               |  |            | 1-25-08 11:45   |                                |          | <i>[Signature]</i> |              | 1/25/08 1510       |           | Intact                    |                           |  |  |  |

112508  
JPA2906

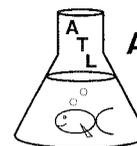
# CHAIN OF CUSTODY FORM

Test America Version 12/20/07

|   |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Client Name/Address:<br><b>MWH-Arcadia</b><br>618 Michillinda Avenue Suite 200<br>Arcadia, CA 91007 |  | Project:<br>Boeing-SSFL NPDES<br><b>Routine Outfall 001</b>  |  | ANALYSIS REQUIRED                                      |  |  |  |
| Test America Contact: Joseph Doak<br>Project Manager: Bronwyn Kelly                                 |  | Phone Number:<br>(626) 568-6691<br>Fax Number:<br>(626) 568-6515   |  | Total Dissolved Metals: Cu, Pb, Hg, Cd, Se, Zn, Mn, Fe |  |  |  |
| Sampler: <i>Maria S. P. J.</i>  |  | 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) |  | Chronic Toxicity                                       |  |  |  |
| Sample Description: Outfall 001   |  | Container Type: VOAs   |  | VOCs 624 + xylenes                                     |  |  |  |
| Sample Matrix: W  |  | # of Cont.: 5  |  | Bottle #: 14A, 14B, 14C, 14D, 14E                      |  |  |  |
| Outfall 001   |  | Preservative: HCl  |  | X  |  | Unfiltered and unpreserved analysis  |  |
| Outfall 001   |  | None   |  | X  |  | Only test if second rain event of the year   |  |
| Outfall 001   |  | None   |  | X  |  | Filter w/in 24hrs of receipt at lab, Mn and Fe exceeded 2/28/06 and 4/15/06, resp. |  |
| Trip Blanks   |  | HCl  |  | X  |  |  |  |
| Relinquished By: <i>Ron Bon</i>   |  | Date/Time: 1-25-08 1510  |  | Received By: <i>Bronwyn Kelly</i>                      |  | Date/Time: 1/25/08 1510  |  |
| Relinquished By: <i>Bronwyn Kelly</i>   |  | Date/Time: 1/25/08 1820  |  | Received By:   |  | Date/Time:   |  |
| Relinquished By:  |  | Date/Time:   |  | Received By: <i>RJ</i>                                 |  | Date/Time: 1/25/08 1820  |  |

Turn around Time: (check)  
 24 Hours  5 Days   
 48 Hours  10 Days   
 72 Hours  Normal   
 Sample Integrity: (check)  
 Intact  On Ice:  4.42.4

# 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:** February 3, 2008  
**Client:** TestAmerica - Irvine  
17461 Derian Ave., Suite 100  
Irvine, CA 92614  
Attn: Joseph Doak

**Laboratory No.:** A-08012608-001  
**Sample ID.:** IRA2506-01 (Outfall 001)

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

Date Sampled: 01/25/08  
Date Received: 01/26/08  
Temp. Received: 6°C  
Chlorine (TRC): 0.0 mg/l  
Date Tested: 01/26/08 to 02/02/08

**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:

| <b>Chronic:</b>                   | <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-08012608-001  
Client/ID: Test America – Outfall 001

Date Tested: 01/26/08 to 02/02/08

**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-080106.

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%             | 24.8                            |
| 100% Sample   | 100%             | 30.6                            |
| Sample not statistically significantly less than Control for either endpoint. |                  |                                 |

**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 (24.8 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 = 8.8%)                                     |
| 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: 1/26/2008 15:30  | Test ID: 8012608                   | Sample ID: OUTFALL 001              |
| End Date: 2/2/2008 14:30     | Lab ID: CAATL-Aquatic Testing Labs | Sample Type: EFF2-Industrial        |
| Sample Date: 1/25/2008 13:45 | Protocol: EPA-821-R-02-013         | Test Species: CD-Ceriodaphnia dubia |

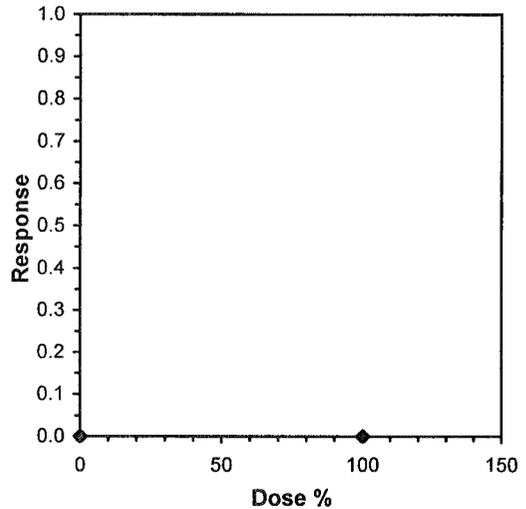
Comments:

| 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 Exact P | 1-Tailed Critical | Isotonic 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**

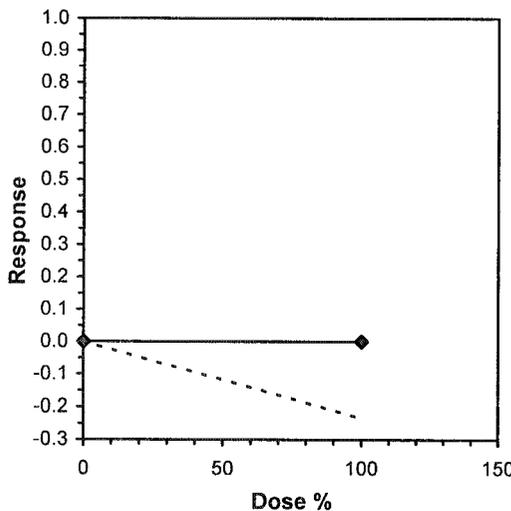
|                              |                                    |                                     |
|------------------------------|------------------------------------|-------------------------------------|
| Start Date: 1/26/2008 15:30  | Test ID: 8012608                   | Sample ID: OUTFALL 001              |
| End Date: 2/2/2008 14:30     | Lab ID: CAATL-Aquatic Testing Labs | Sample Type: EFF2-Industrial        |
| Sample Date: 1/25/2008 13:45 | Protocol: EPA-821-R-02-013         | Test Species: CD-Ceriodaphnia dubia |

| Conc-%    | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| D-Control | 26.000 | 22.000 | 24.000 | 26.000 | 24.000 | 25.000 | 26.000 | 27.000 | 26.000 | 22.000 |
| 100       | 35.000 | 28.000 | 30.000 | 31.000 | 28.000 | 33.000 | 31.000 | 33.000 | 23.000 | 34.000 |

| Conc-%    | Mean   | N-Mean | Transform: Untransformed |        |        |        | N  | t-Stat | 1-Tailed Critical | MSD   | Isotonic |        |
|-----------|--------|--------|--------------------------|--------|--------|--------|----|--------|-------------------|-------|----------|--------|
|           |        |        | Mean                     | Min    | Max    | CV%    |    |        |                   |       | Mean     | N-Mean |
| D-Control | 24.800 | 1.0000 | 24.800                   | 22.000 | 27.000 | 7.061  | 10 |        |                   |       | 27.700   | 1.0000 |
| 100       | 30.600 | 1.2339 | 30.600                   | 23.000 | 35.000 | 11.651 | 10 | -4.617 | 1.734             | 2.178 | 27.700   | 1.0000 |

| Auxiliary Tests  | Statistic | Critical | Skew     | Kurt     |         |       |
|--|-----------|----------|----------|----------|---------|-------|
| Shapiro-Wilk's Test indicates normal distribution (p > 0.05)                         | 0.930817  | 0.905    | -1.00017 | 1.838477 |         |       |
| F-Test indicates equal variances (p = 0.05)  | 4.144928  | 6.541086 |          |          |         |       |
| Hypothesis Test (1-tail, 0.05)   | MSDu      | MSDp     | MSB      | MSE      | F-Prob  | df    |
| Homoscedastic t Test indicates no significant differences<br>Treatments vs D-Control | 2.17815   | 0.087829 | 168.2    | 7.888889 | 2.1E-04 | 1, 18 |

| 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-08012608-001

Client ID: TestAmerica - IRA2506-01 (Outfall 001)

Start Date: 01/26/2008

|                   |      | DAY 1       |      | DAY 2       |      | DAY 3       |      | DAY 4       |      | DAY 5       |      | DAY 6       |      | DAY 7       |      |
|-------------------|------|-------------|------|-------------|------|-------------|------|-------------|------|-------------|------|-------------|------|-------------|------|
|                   |      | 0 hr        | 24hr |
| Analyst Initials: |      | [Signature] |      |
| Time of Readings: |      | 1530        | 147  | 1430        | 1500 | 1500        | 1500 | 1500        | 1500 | 1500        | 1600 | 1600        | 1500 | 1500        | 1470 |
| Control           | DO   | 8.0         | 7.8  | 7.7         | 8.1  | 7.9         | 7.7  | 8.9         | 8.2  | 8.1         | 7.9  | 8.2         | 7.8  | 8.0         | 8.2  |
|                   | pH   | 7.8         | 7.6  | 7.4         | 7.6  | 7.8         | 8.0  | 8.0         | 7.9  | 7.8         | 7.9  | 7.7         | 7.8  | 7.6         | 7.6  |
|                   | Temp | 25.4        | 24.7 | 25.1        | 24.4 | 25.0        | 24.6 | 24.6        | 24.8 | 24.6        | 24.5 | 25.1        | 24.7 | 25.0        | 24.3 |
| 100%              | DO   | 10.8        | 7.7  | 9.8         | 8.2  | 9.2         | 7.8  | 10.4        | 8.5  | 10.0        | 8.1  | 9.6         | 8.3  | 11.5        | 8.5  |
|                   | pH   | 7.2         | 7.3  | 7.0         | 7.2  | 7.1         | 7.2  | 6.9         | 7.2  | 6.9         | 7.1  | 6.8         | 7.1  | 6.7         | 7.2  |
|                   | Temp | 24.6        | 24.5 | 24.8        | 24.2 | 24.7        | 24.8 | 25.0        | 24.5 | 25.1        | 24.4 | 24.7        | 24.8 | 24.9        | 24.4 |

| Additional Parameters                | Control | 100% Sample |
|--------------------------------------|---------|-------------|
| Conductivity (umohms)                | 290     | 172         |
| Alkalinity (mg/l CaCO <sub>3</sub> ) | 66      | 26          |
| Hardness (mg/l CaCO <sub>3</sub> )   | 98      | 68          |
| Ammonia (mg/l NH <sub>3</sub> -N)    | <0.2    | 0.4         |

| Source of Neonates |    |    |    |    |    |    |    |    |    |    |
|--------------------|----|----|----|----|----|----|----|----|----|----|
| Replicate:         | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  |
| Brood ID:          | B1 | E1 | G2 | H2 | I3 | J3 | A6 | C5 | G4 | I5 |

| 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  | 0  | 3  | 4  | 0  | 4  | 0  | 11               | 10              | [Signature]      |
|         | 4     | 4                        | 3  | 5  | 3  | 4  | 0  | 0  | 5  | 0  | 4  | 28               | 10              | [Signature]      |
|         | 5     | 8                        | 7  | 9  | 9  | 8  | 7  | 8  | 9  | 9  | 8  | 82               | 10              | [Signature]      |
|         | 6     | 14                       | 12 | 10 | 0  | 0  | 15 | 0  | 0  | 0  | 0  | 51               | 10              | [Signature]      |
|         | 7     | 0                        | 0  | 0  | 14 | 12 | 0  | 14 | 13 | 13 | 10 | 76               | 10              | [Signature]      |
|         | Total | 26                       | 22 | 24 | 26 | 24 | 25 | 26 | 27 | 26 | 22 | 24.8             | 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     | 5                        | 5  | 0  | 3  | 4  | 3  | 5  | 0  | 0  | 5  | 30               | 10              | [Signature]      |
|         | 4     | 0                        | 0  | 4  | 0  | 0  | 0  | 0  | 3  | 4  | 0  | 11               | 10              | [Signature]      |
|         | 5     | 12                       | 9  | 10 | 12 | 9  | 14 | 10 | 12 | 9  | 14 | 111              | 10              | [Signature]      |
|         | 6     | 18                       | 14 | 16 | 16 | 15 | 0  | 16 | 18 | 10 | 15 | 138              | 10              | [Signature]      |
|         | 7     | 0                        | 0  | 0  | 0  | 0  | 16 | 15 | 0  | 0  | 0  | 16               | 10              | [Signature]      |
|         | Total | 35                       | 28 | 30 | 31 | 28 | 33 | 31 | 33 | 23 | 34 | 290              | 10              | [Signature]      |

Circled fourth brood not used in statistical analysis.

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

30.6%

**SUBCONTRACT ORDER**

**TestAmerica Irvine**

**IRA2506**

**SENDING LABORATORY:**

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

**RECEIVING LABORATORY:**

Aquatic Testing Laboratories-SUB  
4350 Transport Street, Unit 107  
Ventura, CA 93003  
Phone : (805) 650-0546  
Fax: (805) 650-0756  
Project Location: California  
Receipt Temperature: 6 °C Ice: Y N

| Analysis                                       | Units        | Due      | Expires        | Comments                                       |
|--|--------------|----------|----------------|--|
| <b>Sample ID: IRA2506-01</b>                   | <b>Water</b> |          |                | <b>Sampled: 01/25/08 13:45 pH=7.4, temp=48</b> |
| Bioassay-7 dy Chrmic                           | N/A          | 02/05/08 | 01/27/08 01:45 | Cerio, EPA/821-R02-013, Sub to Aquatic testing |
| Level 4 Data Package                           | N/A          | 02/05/08 | 02/22/08 13:45 | Include Std logs                               |
| <i>Containers Supplied:</i><br>1 gal Poly (AD) |              |          |                |  |

[Signature] 1/26/08  
Released By Date/Time  
[Signature] 1/26/08 1445  
Released By Date/Time

[Signature] 1/26/08 12 55  
Received By Date/Time  
[Signature] 1-26-08 1445  
Received By Date/Time Page 1 of 1



# ***REFERENCE TOXICANT DATA***

**CERIODAPHNIA CHRONIC BIOASSAY**  
**EPA METHOD 1002.0**  
**REFERENCE TOXICANT - NaCl**



QA/QC Batch No.: RT-080106

Date Tested: 01/06/08 to 01/12/08

**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%             |   | 20.5                            |    |
| 0.25 g/l             | 100%             |   | 19.5                            |    |
| 0.5 g/l              | 100%             |   | 19.5                            |    |
| 1.0 g/l              | 100%             |   | 14.0                            | *  |
| 2.0 g/l              | 80%              |   | 3.2                             | *  |
| 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 | 0.88 g/l |

**QA/QC TEST ACCEPTABILITY**

| Parameter                                       | Result                                |
|---|---------------------------------------|
| Control survival ≥80%                           | Pass (100% Survival)                  |
| ≥15 young per surviving control female          | Pass (20.5 young)                     |
| ≥60% surviving controls had 3 broods            | Pass (90% with 3 broods)              |
| PMSD <47% for reproduction                      | Pass (PMSD = 19.1%)                   |
| Stat. sig. diff. conc. relative difference >13% | Pass (Stat. sig. diff. conc. = 31.7%) |
| Concentration response relationship acceptable  | Pass (Response curve normal)          |

**Ceriodaphnia Survival and Reproduction Test-Survival Day 6**

Start Date: 1/6/2008 13:00 Test ID: RT-080106c Sample ID: REF-Ref Toxicant  
 End Date: 1/12/2008 13:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: NACL-Sodium chloride  
 Sample Date: 1/6/2008 Protocol: FWCH-EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia  
 Comments:

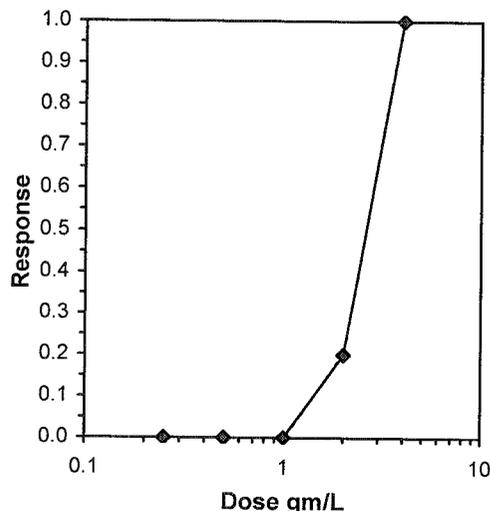
| Conc-gm/L | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| D-Control | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 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         | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 2         | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 |
| 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         | 1.0000 | 1.0000 | 0    | 10       | 10    | 10 | 1.0000           | 0.0500            | 0           | 10           |
| 2         | 0.8000 | 0.8000 | 2    | 8        | 10    | 10 | 0.2368           | 0.0500            | 2           | 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        |      |      |         |    |

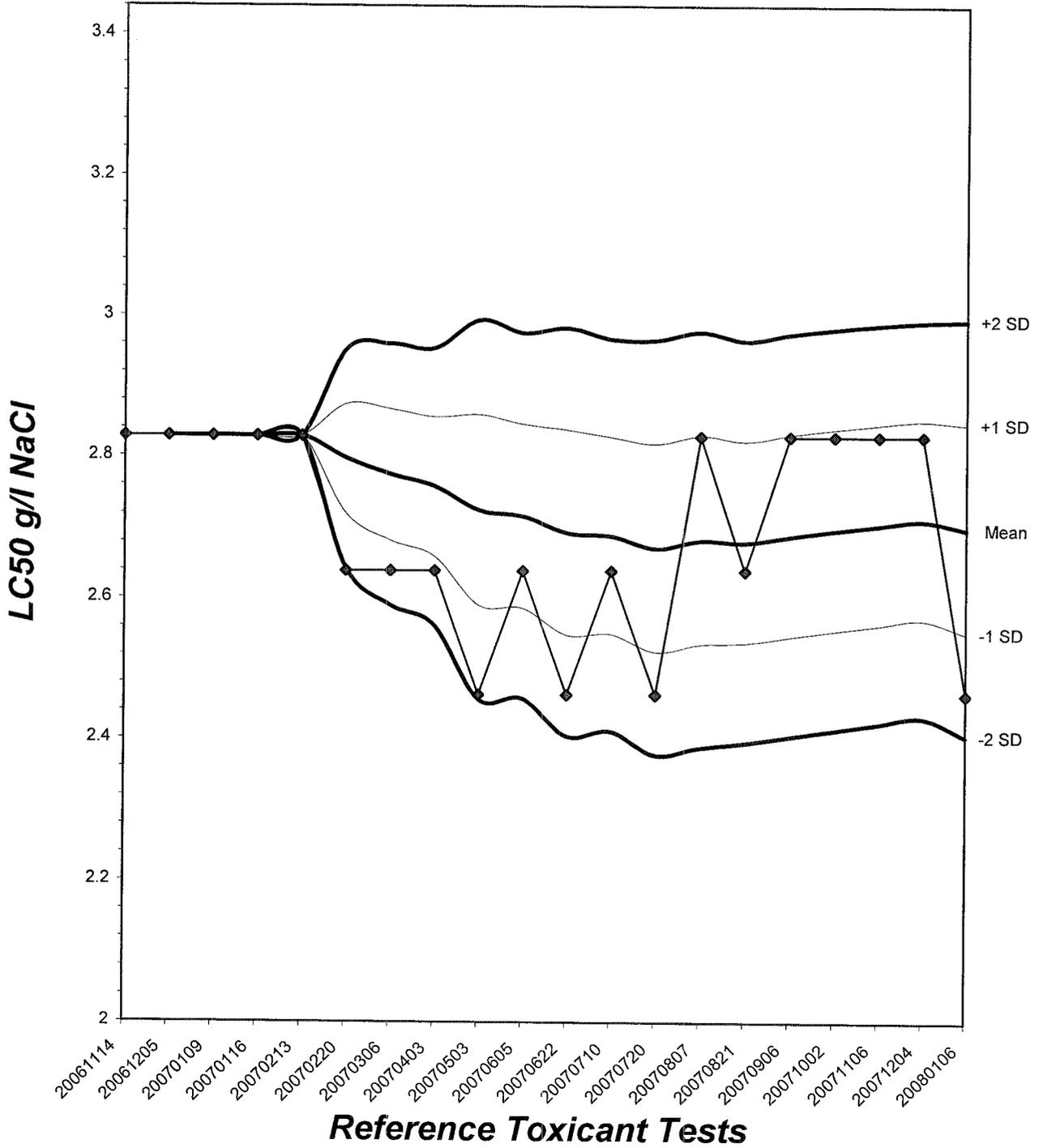
**Trimmed Spearman-Kärber**

| Trim Level | EC50   | 95% CL |        |
|------------|--------|--------|--------|
| 0.0%       | 2.4623 | 2.0663 | 2.9342 |
| 5.0%       | 2.5108 | 2.0545 | 3.0683 |
| 10.0%      | 2.5519 | 1.9976 | 3.2599 |
| 20.0%      | 2.5937 | 2.2616 | 2.9745 |
| Auto-0.0%  | 2.4623 | 2.0663 | 2.9342 |



# Ceriodaphnia dubia Chronic Survival Laboratory Control Chart

CV% = 5.46



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 1/6/2008 13:00 Test ID: RT-080106c Sample ID: REF-Ref Toxicant  
 End Date: 1/12/2008 13:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: NACL-Sodium chloride  
 Sample Date: 1/6/2008 Protocol: FWCH-EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia  
 Comments:

| Conc-gm/L | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| D-Control | 23.000 | 11.000 | 21.000 | 21.000 | 23.000 | 20.000 | 19.000 | 22.000 | 20.000 | 25.000 |
| 0.25      | 12.000 | 24.000 | 19.000 | 22.000 | 9.000  | 20.000 | 21.000 | 21.000 | 22.000 | 25.000 |
| 0.5       | 21.000 | 19.000 | 21.000 | 22.000 | 16.000 | 12.000 | 22.000 | 21.000 | 22.000 | 19.000 |
| 1         | 19.000 | 9.000  | 9.000  | 19.000 | 14.000 | 10.000 | 16.000 | 17.000 | 19.000 | 8.000  |
| 2         | 8.000  | 2.000  | 2.000  | 5.000  | 4.000  | 3.000  | 3.000  | 5.000  | 0.000  | 0.000  |
| 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 | 20.500 | 1.0000 | 20.500                   | 11.000 | 25.000 | 18.432 | 10 |          |                   | 20.500   | 1.0000 |
| 0.25      | 19.500 | 0.9512 | 19.500                   | 9.000  | 25.000 | 26.177 | 10 | 102.00   | 76.00             | 19.500   | 0.9512 |
| 0.5       | 19.500 | 0.9512 | 19.500                   | 12.000 | 22.000 | 16.617 | 10 | 94.50    | 76.00             | 19.500   | 0.9512 |
| *1        | 14.000 | 0.6829 | 14.000                   | 8.000  | 19.000 | 32.819 | 10 | 62.50    | 76.00             | 14.000   | 0.6829 |
| *2        | 3.200  | 0.1561 | 3.200                    | 0.000  | 8.000  | 76.263 | 10 | 55.00    | 76.00             | 3.200    | 0.1561 |
| 4         | 0.000  | 0.0000 | 0.000                    | 0.000  | 0.000  | 0.000  | 10 |          |                   | 0.000    | 0.0000 |

**Auxiliary Tests**

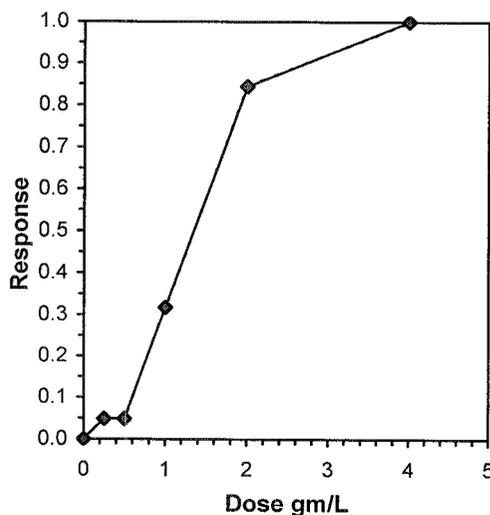
|   | Statistic | Critical | Skew    | Kurt    |
|---|-----------|----------|---------|---------|
| Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05) | 0.91281   | 0.947    | -0.9793 | 0.67912 |
| Bartlett's Test indicates equal variances (p = 0.25)              | 5.39      | 13.2767  |         |         |

**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    |      |      |         |    |

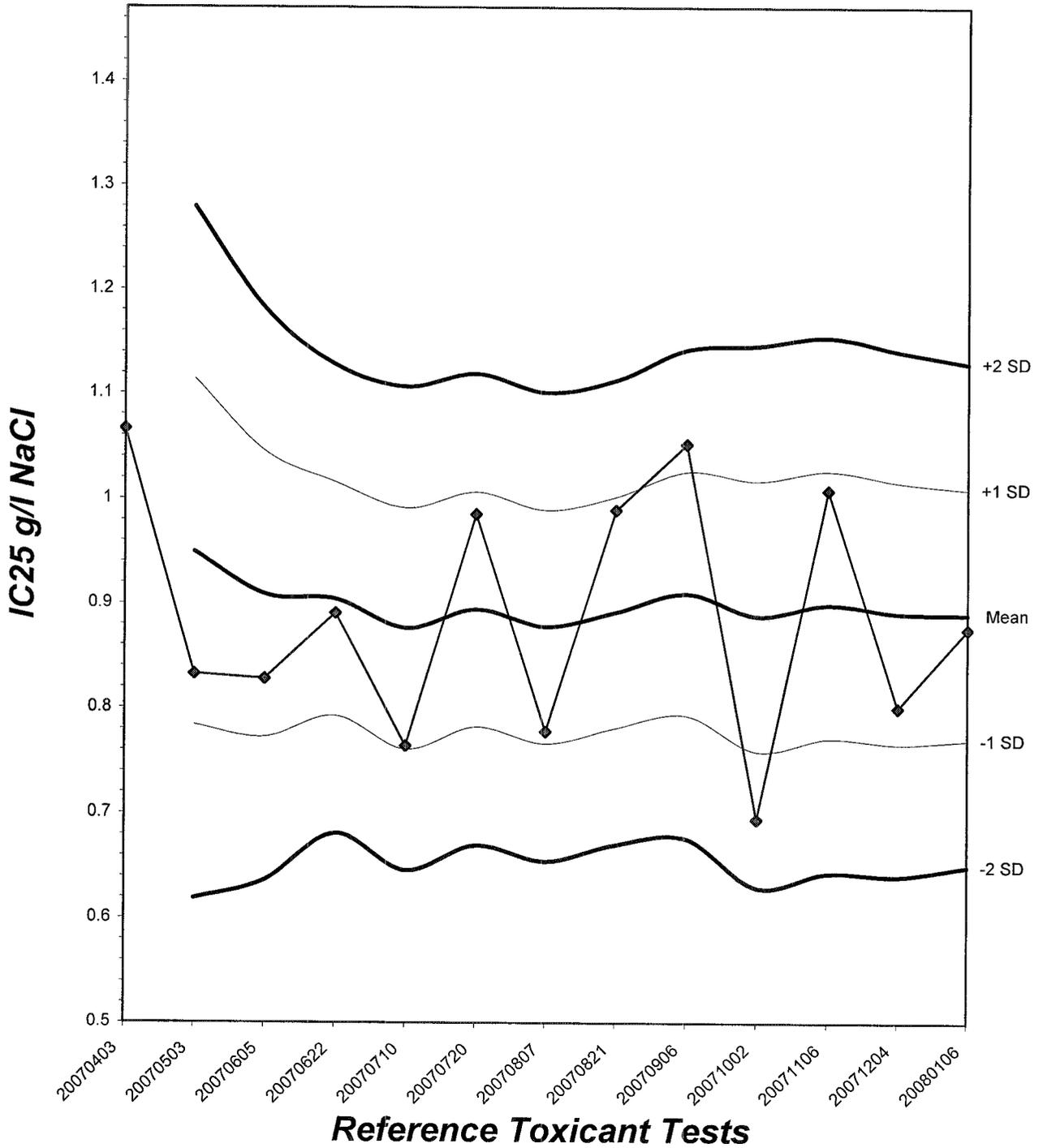
**Linear Interpolation (200 Resamples)**

| Point | gm/L   | SD     | 95% CL        | Skew    |
|-------|--------|--------|---------------|---------|
| IC05  | 0.5023 | 0.1876 | 0.0809 0.6178 | -0.0659 |
| IC10  | 0.5955 | 0.1768 | 0.1617 0.7497 | -0.5184 |
| IC15  | 0.6886 | 0.1424 | 0.2426 0.9253 | -0.5389 |
| IC20  | 0.7818 | 0.1259 | 0.4995 1.0352 | 0.2728  |
| IC25  | 0.8750 | 0.1224 | 0.6413 1.1094 | 0.3153  |
| IC40  | 1.1574 | 0.1139 | 0.9216 1.3331 | -0.0890 |
| IC50  | 1.3472 | 0.0972 | 1.1197 1.4847 | -0.4227 |



# ***Ceriodaphnia dubia* Chronic Reproduction Laboratory Control Chart**

CV% = 13.5



# CERIODAPHNIA DUBIA CHRONIC BIOASSAY

## Reference Toxicant - NaCl

### Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-080106

Start Date: 01/06/2008

| 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              | h                |
|          | 2     | 0                        | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0                | 10              |                  |
|          | 3     | 0                        | 0  | 2  | 0  | 0  | 0  | 3  | 0  | 3  | 0  | 8                | 10              |                  |
|          | 4     | 4                        | 3  | 0  | 4  | 3  | 2  | 0  | 2  | 0  | 3  | 21               | 10              |                  |
|          | 5     | 9                        | 8  | 7  | 7  | 6  | 7  | 6  | 7  | 6  | 7  | 70               | 10              |                  |
|          | 6     | 10                       | 0  | 12 | 10 | 14 | 11 | 10 | 13 | 11 | 15 | 106              | 10              |                  |
|          | 7     | -                        | -  | -  | -  | -  | -  | -  | -  | -  | -  | -                | -               |                  |
|          | Total | 23                       | 11 | 21 | 21 | 23 | 20 | 19 | 22 | 20 | 25 | 205              | 10              |                  |
| 0.25 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              |                  |
|          | 3     | 0                        | 3  | 0  | 3  | 0  | 2  | 0  | 0  | 3  | 0  | 11               | 10              |                  |
|          | 4     | 4                        | 0  | 2  | 0  | 3  | 6  | 4  | 2  | 0  | 3  | 24               | 10              |                  |
|          | 5     | 8                        | 8  | 7  | 5  | 6  | 0  | 7  | 6  | 7  | 8  | 62               | 10              |                  |
|          | 6     | 0                        | 13 | 10 | 14 | 0  | 12 | 10 | 13 | 12 | 14 | 98               | 10              |                  |
|          | 7     | -                        | -  | -  | -  | -  | -  | -  | -  | -  | -  | -                | -               |                  |
|          | Total | 12                       | 24 | 19 | 22 | 9  | 20 | 21 | 21 | 22 | 25 | 195              | 10              |                  |
| 0.5 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              |                  |
|          | 3     | 2                        | 0  | 2  | 0  | 0  | 0  | 3  | 2  | 0  | 0  | 9                | 10              |                  |
|          | 4     | 0                        | 3  | 0  | 3  | 4  | 3  | 0  | 0  | 3  | 3  | 19               | 10              |                  |
|          | 5     | 9                        | 6  | 7  | 7  | 0  | 9  | 8  | 7  | 7  | 6  | 66               | 10              |                  |
|          | 6     | 10                       | 10 | 12 | 12 | 12 | 0  | 11 | 10 | 12 | 10 | 101              | 10              |                  |
|          | 7     | -                        | -  | -  | -  | -  | -  | -  | -  | -  | -  | -                | -               |                  |
|          | Total | 21                       | 19 | 21 | 22 | 16 | 12 | 22 | 21 | 22 | 19 | 195              | 10              |                  |

Circled fourth brood not used in statistical analysis.

7<sup>th</sup> 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-080106

Start Date: 01/06/2008

| 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              |                  |
|         | 3     | 0                        | 0 | 0 | 0  | 0  | 3  | 0  | 0  | 2  | 0 | 5                | 10              |                  |
|         | 4     | 3                        | 2 | 2 | 3  | 0  | 0  | 3  | 2  | 0  | 2 | 17               | 10              |                  |
|         | 5     | 5                        | 7 | 7 | 4  | 5  | 7  | 5  | 4  | 7  | 6 | 57               | 10              |                  |
|         | 6     | 11                       | 0 | 0 | 12 | 9  | 0  | 8  | 11 | 10 | 0 | 61               | 10              |                  |
|         | 7     | -                        | - | - | -  | -  | -  | -  | -  | -  | - | -                | -               |                  |
|         | Total | 19                       | 9 | 9 | 19 | 14 | 10 | 16 | 17 | 19 | 8 | 140              | 10              |                  |
| 2.0 g/l | 1     | 0                        | 0 | 0 | 0  | 0  | 0  | 0  | X  | 0  | 0 | 9                | h               |                  |
|         | 2     | 0                        | 0 | 0 | 0  | 0  | 0  | 0  | -  | 0  | 0 | 9                |                 |                  |
|         | 3     | 0                        | 0 | 0 | 0  | 0  | 0  | 0  | -  | 0  | 0 | 9                |                 |                  |
|         | 4     | 2                        | 0 | 2 | 3  | 0  | 0  | 0  | 2  | -  | 0 | 9                |                 | 9                |
|         | 5     | 3                        | 0 | 0 | 2  | 2  | 3  | 3  | 0  | -  | 0 | 13               |                 | 9                |
|         | 6     | 3                        | 2 | 0 | 0  | 2  | 0  | 0  | 3  | -  | X | 10               |                 | 8                |
|         | 7     | -                        | - | - | -  | -  | -  | -  | -  | -  | - | -                |                 | -                |
|         | Total | 8                        | 2 | 2 | 5  | 4  | 3  | 3  | 5  | 0  | 0 | 32               |                 | 8                |
| 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                |

Circled fourth brood not used in statistical analysis.

7<sup>th</sup> 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-080106

Start Date: 01/06/2008

|                   |      | DAY 1   |       | DAY 2   |       | DAY 3   |       | DAY 4   |       | DAY 5   |       | DAY 6   |       | DAY 7   |       |   |
|-------------------|------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---|
|                   |      | Initial | Final |   |
| Analyst Initials: |      | JK      | JK    | —       | —     |   |
| Time of Readings: |      | 1300    | 1330  | 1330    | 1300  | 1300    | 1230  | 1230    | 1300  | 1300    | 1300  | 1300    | 1300  | 1300    | —     | — |
| Control           | DO   | 7.6     | 7.2   | 7.4     | 7.7   | 7.4     | 7.6   | 7.4     | 7.5   | 8.2     | 7.8   | 7.9     | 7.7   | —       | —     |   |
|                   | pH   | 7.6     | 7.4   | 7.4     | 7.3   | 7.3     | 7.2   | 7.2     | 7.7   | 7.5     | 7.6   | 7.9     | 7.6   | —       | —     |   |
|                   | Temp | 24.3    | 25.1  | 25.4    | 24.8  | 24.1    | 24.9  | 24.9    | 25.1  | 24.4    | 25.0  | 24.6    | 25.1  | —       | —     |   |
| 0.25 g/l          | DO   | 7.5     | 7.3   | 7.5     | 7.5   | 7.5     | 7.7   | 7.3     | 7.4   | 8.2     | 7.8   | 7.9     | 7.7   | —       | —     |   |
|                   | pH   | 7.6     | 7.3   | 7.4     | 7.4   | 7.4     | 7.2   | 7.3     | 7.4   | 7.6     | 7.5   | 7.6     | 7.7   | —       | —     |   |
|                   | Temp | 24.4    | 25.2  | 25.3    | 24.9  | 24.2    | 24.9  | 24.7    | 25.0  | 24.4    | 25.1  | 24.6    | 25.1  | —       | —     |   |
| 0.5 g/l           | DO   | 7.4     | 7.2   | 7.4     | 7.6   | 7.4     | 7.5   | 7.4     | 7.6   | 8.5     | 7.6   | 8.0     | 7.8   | —       | —     |   |
|                   | pH   | 7.5     | 7.3   | 7.4     | 7.4   | 7.4     | 7.2   | 7.3     | 7.5   | 7.6     | 7.5   | 7.7     | 7.7   | —       | —     |   |
|                   | Temp | 24.3    | 25.1  | 25.3    | 24.9  | 24.1    | 25.2  | 24.6    | 24.9  | 24.4    | 24.9  | 24.4    | 24.9  | —       | —     |   |
| 1.0 g/l           | DO   | 7.5     | 7.2   | 7.6     | 7.7   | 7.3     | 7.8   | 7.4     | 7.4   | 8.4     | 7.8   | 7.7     | 7.7   | —       | —     |   |
|                   | pH   | 7.5     | 7.3   | 7.6     | 7.5   | 7.4     | 7.2   | 7.3     | 7.5   | 7.6     | 7.6   | 7.9     | 7.6   | —       | —     |   |
|                   | Temp | 24.4    | 25.2  | 25.1    | 24.7  | 24.2    | 25.2  | 24.6    | 25.0  | 24.4    | 24.9  | 24.6    | 25.0  | —       | —     |   |
| 2.0 g/l           | DO   | 7.4     | 7.4   | 7.6     | 7.5   | 7.4     | 7.8   | 7.2     | 7.6   | 8.2     | 7.6   | 7.6     | 7.7   | —       | —     |   |
|                   | pH   | 7.5     | 7.4   | 7.6     | 7.6   | 7.4     | 7.3   | 7.2     | 7.6   | 7.5     | 7.6   | 7.9     | 7.6   | —       | —     |   |
|                   | Temp | 24.5    | 25.1  | 25.0    | 24.6  | 24.2    | 25.3  | 24.8    | 25.2  | 24.4    | 24.8  | 24.6    | 25.1  | —       | —     |   |
| 4.0 g/l           | DO   | 7.5     | 7.8   | —       | —     | —       | —     | —       | —     | —       | —     | —       | —     | —       | —     |   |
|                   | pH   | 7.6     | 7.8   | —       | —     | —       | —     | —       | —     | —       | —     | —       | —     | —       | —     |   |
|                   | Temp | 24.3    | 24.6  | —       | —     | —       | —     | —       | —     | —       | —     | —       | —     | —       | —     |   |

Dissolved Oxygen (DO) readings are in mg/l O<sub>2</sub>; 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)                    | 350     | 348   | 305   | 6400               | 3100  | 3210  |
| Alkalinity (mg/l CaCO <sub>3</sub> ) | 66      | 65    | 63    | 65                 | 66    | 64    |
| Hardness (mg/l CaCO <sub>3</sub> )   | 98      | 97    | 98    | 98                 | 97    | 98    |

### Source of Neonates

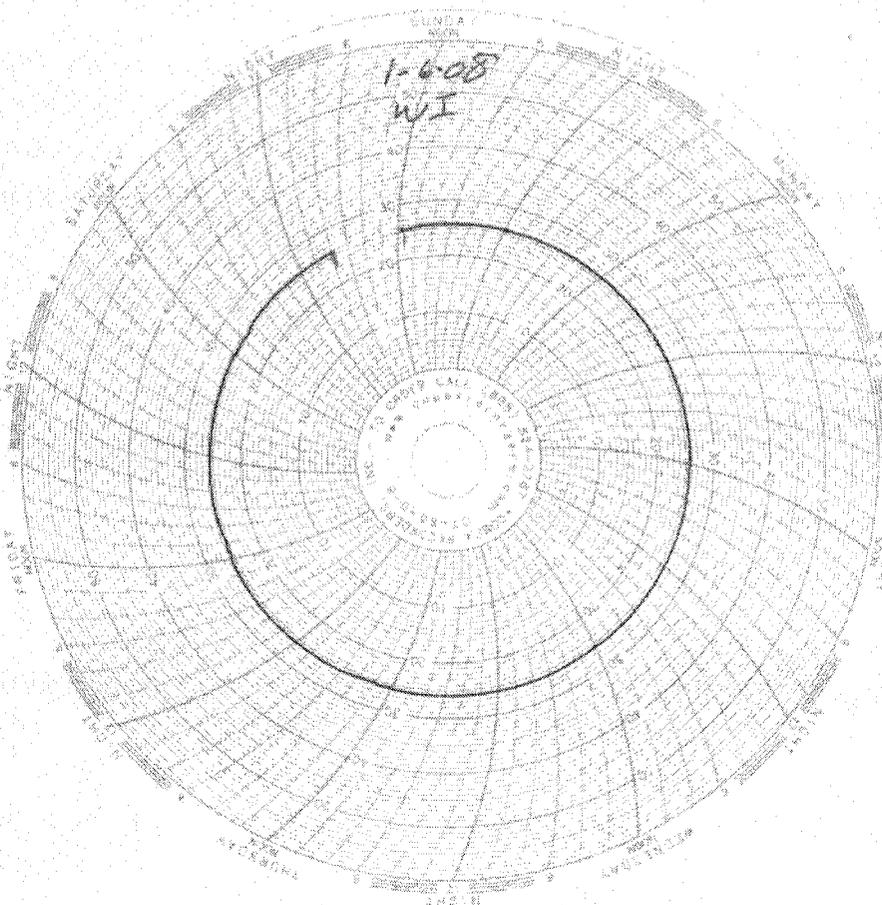
| Replicate: | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  |
|------------|----|----|----|----|----|----|----|----|----|----|
| Brood ID:  | 2B | 1B | 3C | 2C | 2A | 3D | 3E | 2F | 3F | 2G |

# *Laboratory Temperature Chart*

*QA/QC Batch No: RT-080106*

*Date Tested: 01/06/08 to 01/12/08*

*Acceptable Range: 25+/- 1°C*





# EBERLINE SERVICES

February 27 2008

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

Reference: Eberline Services NELAP Cert #01120CA  
Test America Project Nos. IRA2496, IRA2497, IRA2499, IRA2500  
IRA2506, IRA2565  
Eberline Services Reports R801170-8687, R801171-8688, R801172-8689  
R801173-8690, R801174-8691, R801175-8692

Dear Mr. Doak:

Enclosed are results from the analyses of six water samples received on January 29, 2008. The samples were analyzed according to the accompanying Test America Subcontract Order Forms, the requested analyses were: gross alpha/gross beta (EPA 900.0), tritium (H-3, EPA906.0), Sr-90 (EPA905.0), Ra-226 (EPA903.1), Ra-228 (EPA 904.0), total uranium (ASTM D-5174), and gamma spectroscopy (EPA901.1, K-40 and Cs-137 only). The parenthetical G after a nuclide indicates that the result was obtained by gamma spectroscopy; a "U" in the results column indicates that the nuclide was not detected greater than the indicated minimum detectable activity (MDA). The samples were not filtered prior to analysis. The samples were analyzed in batches with common QC samples. All samples were batched with QC samples 8687-002, 003, 004, and 005, except for total uranium analysis; the QC samples for total-U analysis are 8682-002, 003, 004, and 005. Batch quality control samples consisted of LCS's, blank analyses, duplicate analyses, and matrix spike analyses (gross alpha/gross beta, H-3, Ra-226, Total-U only). All QC sample results were within the limits defined in Eberline Services Quality Control Procedures Manual.

Please call me if you have any questions concerning this report.

Regards,

Melissa Mannion  
Senior Program Manager

MCM/njv

Enclosure: Reports/CoC's

Analytical Services  
2030 Wright Avenue  
P.O. Box 4040  
Richmond, California 94804-0040  
(510) 235-2633 Fax (510) 235-0438  
Toll Free (800) 841-5487  
www.eberlineservices.com

# Eberline Services

## ANALYSIS RESULTS

|                               |                                  |
|-------------------------------|----------------------------------|
| SDG <u>8691</u>               | Client <u>TA IRVINE</u>          |
| Work Order <u>R801174-01</u>  | Contract <u>PROJECT# IRA2506</u> |
| Received Date <u>01/29/08</u> | Matrix <u>WATER</u>              |

| <u>Client</u> | <u>Lab</u> | <u>Collected</u> | <u>Analyzed</u> | <u>Nuclide</u> | <u>Results + 2σ</u> | <u>Units</u> | <u>MDA</u> |
|---------------|------------|------------------|-----------------|----------------|---------------------|--------------|------------|
| IRA2506-01    | 8691-001   | 01/25/08         | 02/16/08        | GrossAlpha     | 3.13 ± 0.82         | pCi/L        | 0.81       |
|               |            |                  | 02/16/08        | Gross Beta     | 3.00 ± 0.62         | pCi/L        | 0.90       |
|               |            |                  | 02/20/08        | Ra-228         | 0.265 ± 0.18        | pCi/L        | 0.47       |
|               |            |                  | 02/15/08        | K-40 (G)       | U                   | pCi/L        | 51         |
|               |            |                  | 02/15/08        | Cs-137 (G)     | U                   | pCi/L        | 1.6        |
|               |            |                  | 02/21/08        | H-3            | -101 ± 90           | pCi/L        | 160        |
|               |            |                  | 02/20/08        | Ra-226         | 0.320 ± 0.49        | pCi/L        | 0.83       |
|               |            |                  | 02/14/08        | Sr-90          | -0.002 ± 0.31       | pCi/L        | 0.74       |
|               |            |                  | 02/19/08        | Total U        | 0.210 ± 0.025       | pCi/L        | 0.022      |

|   |
|---|
| Certified by <u></u> |
| Report Date <u>02/27/08</u>   |
| Page 1  |





**SUBCONTRACT ORDER**

TestAmerica Irvine

**IRA2506**

8691

**SENDING LABORATORY:**

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

**RECEIVING LABORATORY:**

Eberline Services - SUB  
 2030 Wright Avenue  
 Richmond, CA 94804  
 Phone : (510) 235-2633  
 Fax: (510) 235-0438  
 Project Location: California  
 Receipt Temperature: 6 °C      Ice: (Y) N

| Analysis                     | Units            | Due      | Expires                        | Comments   |
|------------------------------|------------------|----------|--------------------------------|--|
| <b>Sample ID: IRA2506-01</b> | <b>Water</b>     |          | <b>Sampled: 01/25/08 13:45</b> | <b>ph=7.4, temp=48</b>                             |
| Gamma Spec-O                 | mg/kg            | 02/05/08 | 01/24/09 13:45                 | K-40 and CS-137 only                               |
| Gross Alpha-O                | pCi/L            | 02/05/08 | 07/23/08 13:45                 | Out to Eberline                                    |
| Gross Beta-O                 | pCi/L            | 02/05/08 | 07/23/08 13:45                 | Out to Eberline                                    |
| Level 4 + EDD-OUT            | N/A              | 02/05/08 | 02/22/08 13:45                 | Excel EDD email to pm, Include Std logs for Lvl IV |
| Radium, Combined-O           | pCi/L            | 02/05/08 | 01/24/09 13:45                 | Out to Eberline                                    |
| Strontium 90-O               | pCi/L            | 02/05/08 | 01/24/09 13:45                 | Out to Eberline                                    |
| Tritium-O                    | pCi/L            | 02/05/08 | 01/24/09 13:45                 | Out to Eberline                                    |
| Uranium, Combined-O          | pCi/L            | 02/05/08 | 01/24/09 13:45                 | pCui, Out to Eberline                              |
| <i>Containers Supplied:</i>  |                  |          |                                |  |
| 2.5 gal Poly (AC)            | 500 mL Amber (G) |          |                                |  |

Joseph Doak      1/28/08 17:00  
 Released By      Date/Time

\_\_\_\_\_  
 Released By      Date/Time

FedEx      1/28/08 17:00  
 Received By      Date/Time

[Signature]      01/29/08 10:15  
 Received By      Date/Time

File 1/29/08

Client: TEST AMERICA City: IRVINE State: CA

Date/Time received: 01/21/08 10:15 CoC No: IRA 2506

Container ID No: 16 CHEST Requested TAT (Days): \_\_\_\_\_ P.C. 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: 1 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 label is

11 Samples are in good condition  Leaking  Broken Containers  Missing

12 Samples are Preserved  Not preserved  or \_\_\_\_\_ Preservative \_\_\_\_\_

13 Describe any anomalies \_\_\_\_\_

14 Was F.M. notified of any anomalies? Yes  No  Date \_\_\_\_\_

15 Inspected by: [Signature] Date: 01/29/08 Time: 10:30

| Customer Sample No. | Beta/Gamma con | Ion Chamber mR/hr | Wide | Customer Sample No. | Beta/Gamma con | Ion Chamber mR/hr | Wide |
|---------------------|----------------|-------------------|------|---------------------|----------------|-------------------|------|
| IRA 2506-1          | 460            |                   |      |                     |                |                   |      |
|                     |                |                   |      |                     |                |                   |      |
|                     |                |                   |      |                     |                |                   |      |
|                     |                |                   |      |                     |                |                   |      |
|                     |                |                   |      |                     |                |                   |      |
|                     |                |                   |      |                     |                |                   |      |
|                     |                |                   |      |                     |                |                   |      |
|                     |                |                   |      |                     |                |                   |      |

Ion Chamber Ser. No. \_\_\_\_\_

Calibration date \_\_\_\_\_

Alpha Meter Ser. No. \_\_\_\_\_

Calibration date \_\_\_\_\_

Beta/Gamma Meter Ser. No. 100482

Calibration date 01 MAY 07

February 08, 2008

**Vista Project I.D.: 30212**

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

Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on January 29, 2008 under your Project Name "IRA2506". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

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

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

Sincerely,



Martha M. Maier  
Laboratory Director



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



**Section I: Sample Inventory Report**

**Date Received: 1/29/2008**

Vista Lab. ID

Client Sample ID

30212-001

IRA2506-01

## SECTION II

| Method Blank        |              |                 |                   |             | EPA Method 1613                               |                     |                      |                       |    |
|---------------------|--------------|-----------------|-------------------|-------------|---|---------------------|----------------------|-----------------------|----|
| Matrix:             | Aqueous      | QC Batch No.:   | 9921              | Lab Sample: | 0-MB001                                       | Date Analyzed DB-5: | 6-Feb-08             | Date Analyzed DB-225: | NA |
| Sample Size:        | 1.00 L       | Date Extracted: | 2-Feb-08          |             |   |                     |                      |                       |    |
| Analyte             | Conc. (ug/L) | DL <sup>a</sup> | EMPC <sup>b</sup> | Qualifiers  | Labeled Standard                              | %R                  | LCL-UCL <sup>d</sup> | Qualifiers            |    |
| 2,3,7,8-TCDD        | ND           | 0.00000165      |                   |             | <b>IS</b> 13C-2,3,7,8-TCDD                    | 73.6                | 25 - 164             |                       |    |
| 1,2,3,7,8-PeCDD     | ND           | 0.00000120      |                   |             | 13C-1,2,3,7,8-PeCDD                           | 76.1                | 25 - 181             |                       |    |
| 1,2,3,4,7,8-HxCDD   | ND           | 0.00000316      |                   |             | 13C-1,2,3,4,7,8-HxCDD                         | 74.4                | 32 - 141             |                       |    |
| 1,2,3,6,7,8-HxCDD   | ND           | 0.00000300      |                   |             | 13C-1,2,3,6,7,8-HxCDD                         | 73.5                | 28 - 130             |                       |    |
| 1,2,3,7,8,9-HxCDD   | ND           | 0.00000295      |                   |             | 13C-1,2,3,4,6,7,8-HpCDD                       | 77.2                | 23 - 140             |                       |    |
| 1,2,3,4,6,7,8-HpCDD | ND           | 0.00000197      |                   |             | 13C-OCDD                                      | 65.9                | 17 - 157             |                       |    |
| OCDD                | ND           | 0.00000682      |                   |             | 13C-2,3,7,8-TCDF                              | 72.7                | 24 - 169             |                       |    |
| 2,3,7,8-TCDF        | ND           | 0.000000988     |                   |             | 13C-1,2,3,7,8-PeCDF                           | 80.3                | 24 - 185             |                       |    |
| 1,2,3,7,8-PeCDF     | ND           | 0.00000123      |                   |             | 13C-2,3,4,7,8-PeCDF                           | 66.6                | 21 - 178             |                       |    |
| 2,3,4,7,8-PeCDF     | ND           | 0.00000151      |                   |             | 13C-1,2,3,4,7,8-HxCDF                         | 95.5                | 26 - 152             |                       |    |
| 1,2,3,4,7,8-HxCDF   | ND           | 0.000000596     |                   |             | 13C-1,2,3,6,7,8-HxCDF                         | 77.3                | 26 - 123             |                       |    |
| 1,2,3,6,7,8-HxCDF   | ND           | 0.000000816     |                   |             | 13C-2,3,4,6,7,8-HxCDF                         | 67.6                | 28 - 136             |                       |    |
| 2,3,4,6,7,8-HxCDF   | ND           | 0.000000976     |                   |             | 13C-1,2,3,7,8,9-HxCDF                         | 76.1                | 29 - 147             |                       |    |
| 1,2,3,7,8,9-HxCDF   | ND           | 0.00000111      |                   |             | 13C-1,2,3,4,6,7,8-HpCDF                       | 72.0                | 28 - 143             |                       |    |
| 1,2,3,4,6,7,8-HpCDF | ND           | 0.00000146      |                   |             | 13C-1,2,3,4,7,8,9-HpCDF                       | 75.2                | 26 - 138             |                       |    |
| 1,2,3,4,7,8,9-HpCDF | ND           | 0.00000154      |                   |             | 13C-OCDF                                      | 71.7                | 17 - 157             |                       |    |
| OCDF                | ND           | 0.00000455      |                   |             | <b>CRS</b> 37Cl-2,3,7,8-TCDD                  | 77.0                | 35 - 197             |                       |    |
| Totals              |              |                 |                   |             | Footnotes                                     |                     |                      |                       |    |
| Total TCDD          | ND           | 0.00000165      |                   |             | a. Sample specific estimated detection limit. |                     |                      |                       |    |
| Total PeCDD         | ND           | 0.00000209      |                   |             | b. Estimated maximum possible concentration.  |                     |                      |                       |    |
| Total HxCDD         | ND           | 0.00000304      |                   |             | c. Method detection limit.                    |                     |                      |                       |    |
| Total HpCDD         | 0.00000138   |                 |                   |             | d. Lower control limit - upper control limit. |                     |                      |                       |    |
| Total TCDF          | ND           | 0.000000988     |                   |             |   |                     |                      |                       |    |
| Total PeCDF         | ND           | 0.00000136      |                   |             |   |                     |                      |                       |    |
| Total HxCDF         | ND           | 0.000000843     |                   |             |   |                     |                      |                       |    |
| Total HpCDF         | ND           | 0.00000150      |                   |             |   |                     |                      |                       |    |

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 12:18

| OPR Results         |             |                 |            | EPA Method 1613              |          |                       |           |
|---------------------|-------------|-----------------|------------|------------------------------|----------|-----------------------|-----------|
| Matrix:             | Aqueous     | QC Batch No.:   | 9921       | Lab Sample:                  | 0-OPR001 |                       |           |
| Sample Size:        | 1.00 L      | Date Extracted: | 2-Feb-08   | Date Analyzed DB-5:          | 6-Feb-08 | Date Analyzed DB-225: | NA        |
| Analyte             | Spike Conc. | Conc. (ng/mL)   | OPR Limits | Labeled Standard             | %R       | LCL-UCL               | Qualifier |
| 2,3,7,8-TCDD        | 10.0        | 11.2            | 6.7 - 15.8 | <b>IS</b> 13C-2,3,7,8-TCDD   | 77.8     | 25 - 164              |           |
| 1,2,3,7,8-PeCDD     | 50.0        | 55.0            | 35 - 71    | 13C-1,2,3,7,8-PeCDD          | 74.8     | 25 - 181              |           |
| 1,2,3,4,7,8-HxCDD   | 50.0        | 54.7            | 35 - 82    | 13C-1,2,3,4,7,8-HxCDD        | 74.8     | 32 - 141              |           |
| 1,2,3,6,7,8-HxCDD   | 50.0        | 54.1            | 38 - 67    | 13C-1,2,3,6,7,8-HxCDD        | 75.4     | 28 - 130              |           |
| 1,2,3,7,8,9-HxCDD   | 50.0        | 54.8            | 32 - 81    | 13C-1,2,3,4,6,7,8-HpCDD      | 80.9     | 23 - 140              |           |
| 1,2,3,4,6,7,8-HpCDD | 50.0        | 54.0            | 35 - 70    | 13C-OCDD                     | 71.4     | 17 - 157              |           |
| OCDD                | 100         | 113             | 78 - 144   | 13C-2,3,7,8-TCDF             | 77.3     | 24 - 169              |           |
| 2,3,7,8-TCDF        | 10.0        | 10.7            | 7.5 - 15.8 | 13C-1,2,3,7,8-PeCDF          | 73.3     | 24 - 185              |           |
| 1,2,3,7,8-PeCDF     | 50.0        | 55.0            | 40 - 67    | 13C-2,3,4,7,8-PeCDF          | 66.3     | 21 - 178              |           |
| 2,3,4,7,8-PeCDF     | 50.0        | 55.4            | 34 - 80    | 13C-1,2,3,4,7,8-HxCDF        | 90.2     | 26 - 152              |           |
| 1,2,3,4,7,8-HxCDF   | 50.0        | 54.4            | 36 - 67    | 13C-1,2,3,6,7,8-HxCDF        | 73.1     | 26 - 123              |           |
| 1,2,3,6,7,8-HxCDF   | 50.0        | 56.0            | 42 - 65    | 13C-2,3,4,6,7,8-HxCDF        | 69.8     | 28 - 136              |           |
| 2,3,4,6,7,8-HxCDF   | 50.0        | 56.1            | 35 - 78    | 13C-1,2,3,7,8,9-HxCDF        | 74.7     | 29 - 147              |           |
| 1,2,3,7,8,9-HxCDF   | 50.0        | 55.4            | 39 - 65    | 13C-1,2,3,4,6,7,8-HpCDF      | 71.2     | 28 - 143              |           |
| 1,2,3,4,6,7,8-HpCDF | 50.0        | 55.5            | 41 - 61    | 13C-1,2,3,4,7,8,9-HpCDF      | 77.2     | 26 - 138              |           |
| 1,2,3,4,7,8,9-HpCDF | 50.0        | 55.7            | 39 - 69    | 13C-OCDF                     | 72.9     | 17 - 157              |           |
| OCDF                | 100         | 106             | 63 - 170   | <b>CRS</b> 37Cl-2,3,7,8-TCDD | 86.5     | 35 - 197              |           |

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 12:18

| Sample ID: IRA2506-01 |                         |                 |                   |            | EPA Method 1613                               |           |                       |            |
|-----------------------|-------------------------|-----------------|-------------------|------------|---|-----------|-----------------------|------------|
| Client Data           |                         |                 | Sample Data       |            | Laboratory Data                               |           |                       |            |
| Name:                 | Test America-Irvine, CA |                 | Matrix:           | Aqueous    | Lab Sample:                                   | 30212-001 | Date Received:        | 29-Jan-08  |
| Project:              | IRA2506                 |                 | Sample Size:      | 1.01 L     | QC Batch No.:                                 | 9921      | Date Extracted:       | 2-Feb-08   |
| Date Collected:       | 25-Jan-08               |                 |                   |            | Date Analyzed DB-5:                           | 7-Feb-08  | Date Analyzed DB-225: | NA         |
| Time Collected:       | 1345                    |                 |                   |            |   |           |                       |            |
| Analyte               | Conc. (ug/L)            | DL <sup>a</sup> | EMPC <sup>b</sup> | Qualifiers | Labeled Standard                              | %R        | LCL-UCL <sup>d</sup>  | Qualifiers |
| 2,3,7,8-TCDD          | ND                      | 0.00000100      |                   |            | <b>IS</b> 13C-2,3,7,8-TCDD                    | 77.5      | 25 - 164              |            |
| 1,2,3,7,8-PeCDD       | ND                      | 0.00000107      |                   |            | 13C-1,2,3,7,8-PeCDD                           | 64.4      | 25 - 181              |            |
| 1,2,3,4,7,8-HxCDD     | ND                      | 0.00000276      |                   |            | 13C-1,2,3,4,7,8-HxCDD                         | 69.5      | 32 - 141              |            |
| 1,2,3,6,7,8-HxCDD     | ND                      | 0.00000279      |                   |            | 13C-1,2,3,6,7,8-HxCDD                         | 73.2      | 28 - 130              |            |
| 1,2,3,7,8,9-HxCDD     | ND                      | 0.00000266      |                   |            | 13C-1,2,3,4,6,7,8-HpCDD                       | 75.1      | 23 - 140              |            |
| 1,2,3,4,6,7,8-HpCDD   | 0.0000239               |                 |                   | J          | 13C-OCDD                                      | 63.6      | 17 - 157              |            |
| OCDD                  | 0.000225                |                 |                   |            | 13C-2,3,7,8-TCDF                              | 83.8      | 24 - 169              |            |
| 2,3,7,8-TCDF          | ND                      | 0.000000699     |                   |            | 13C-1,2,3,7,8-PeCDF                           | 71.0      | 24 - 185              |            |
| 1,2,3,7,8-PeCDF       | ND                      | 0.00000104      |                   |            | 13C-2,3,4,7,8-PeCDF                           | 61.0      | 21 - 178              |            |
| 2,3,4,7,8-PeCDF       | ND                      | 0.00000114      |                   |            | 13C-1,2,3,4,7,8-HxCDF                         | 80.5      | 26 - 152              |            |
| 1,2,3,4,7,8-HxCDF     | ND                      | 0.000000923     |                   |            | 13C-1,2,3,6,7,8-HxCDF                         | 68.6      | 26 - 123              |            |
| 1,2,3,6,7,8-HxCDF     | ND                      | 0.00000128      |                   |            | 13C-2,3,4,6,7,8-HxCDF                         | 65.1      | 28 - 136              |            |
| 2,3,4,6,7,8-HxCDF     | ND                      | 0.000000730     |                   |            | 13C-1,2,3,7,8,9-HxCDF                         | 69.9      | 29 - 147              |            |
| 1,2,3,7,8,9-HxCDF     | ND                      | 0.000000917     |                   |            | 13C-1,2,3,4,6,7,8-HpCDF                       | 63.6      | 28 - 143              |            |
| 1,2,3,4,6,7,8-HpCDF   | ND                      |                 | 0.00000460        |            | 13C-1,2,3,4,7,8,9-HpCDF                       | 69.1      | 26 - 138              |            |
| 1,2,3,4,7,8,9-HpCDF   | ND                      | 0.00000131      |                   |            | 13C-OCDF                                      | 65.8      | 17 - 157              |            |
| OCDF                  | 0.0000146               |                 |                   | J          | <b>CRS</b> 37Cl-2,3,7,8-TCDD                  | 79.8      | 35 - 197              |            |
| Totals                |                         |                 |                   |            | Footnotes                                     |           |                       |            |
| Total TCDD            | ND                      | 0.00000100      |                   |            | a. Sample specific estimated detection limit. |           |                       |            |
| Total PeCDD           | ND                      | 0.00000213      |                   |            | b. Estimated maximum possible concentration.  |           |                       |            |
| Total HxCDD           | 0.00000153              |                 |                   |            | c. Method detection limit.                    |           |                       |            |
| Total HpCDD           | 0.0000499               |                 |                   | B          | d. Lower control limit - upper control limit. |           |                       |            |
| Total TCDF            | ND                      | 0.000000699     |                   |            |   |           |                       |            |
| Total PeCDF           | ND                      |                 | 0.000000726       |            |   |           |                       |            |
| Total HxCDF           | 0.00000182              |                 | 0.00000351        |            |   |           |                       |            |
| Total HpCDF           | 0.0000101               |                 | 0.0000147         |            |   |           |                       |            |

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 12:18

## APPENDIX

## DATA QUALIFIERS & ABBREVIATIONS

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

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

## CERTIFICATIONS

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

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2506

30212 1.8°C

SENDING LABORATORY:

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

RECEIVING LABORATORY:

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

| Analysis                    | Units | Due      | Expires        | Comments  |
|-----------------------------|-------|----------|----------------|---|
| Sample ID: IRA2506-01       | Water |          |                | Sampled: 01/25/08 13:45    ph=7.4, temp=48            |
| 1613-Dioxin-HR-Alta         | ug/l  | 02/05/08 | 02/01/08 13:45 | J flags, 17 congeners, no TEQ, ug/L, sub=Vista Boeing |
| Level 4 Data Package - Out  | N/A   | 02/05/08 | 02/22/08 13:45 |   |
| <i>Containers Supplied:</i> |       |          |                |   |
| 1 L Amber (Y)               |       |          | 1 L Amber (Z)  |   |

*Joseph Doak* 1/28/08 17:00  
Released By                      Date/Time

\_\_\_\_\_  
Released By                      Date/Time

*Fedex* 1/28/08 17:00  
Received By                      Date/Time

*Patricia Benedict* 1/29/08 1511  
Received By                      Date/Time

SAMPLE LOG-IN CHECKLIST



Vista Project #: 30212

TAT unspecified

|                  |                                  |                          |                           |
|------------------|----------------------------------|--------------------------|---------------------------|
| Samples Arrival: | Date/Time<br><u>1/29/08 0905</u> | Initials:<br><u>YB/B</u> | Location:<br><u>WR-2</u>  |
|                  |                                  |                          | Shelf/Rack:<br><u>N/A</u> |
| Logged In:       | Date/Time<br><u>1/29/08 1511</u> | Initials:<br><u>YB/B</u> | Location:<br><u>WR-2</u>  |
|                  |                                  |                          | Shelf/Rack:<br><u>C 2</u> |
| Delivered By:    | <u>FedEx</u> UPS                 | Cal                      | DHL                       |
|                  |                                  |                          | Hand Delivered Other      |
| Preservation:    | <u>Ice</u>                       | Blue Ice                 | Dry Ice                   |
|                  |                                  |                          | None                      |
| Temp °C          | <u>1.8°C</u>                     | Time: <u>0911</u>        | Thermometer ID: IR-1      |

|  | YES                                 | NO                                  | NA                                  |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| Adequate Sample Volume Received?                                       | <input checked="" type="checkbox"/> |                                     |                                     |
| Holding Time Acceptable?   | <input checked="" type="checkbox"/> |                                     |                                     |
| Shipping Container(s) Intact?  | <input checked="" type="checkbox"/> |                                     |                                     |
| Shipping Custody Seals Intact?   | <input checked="" type="checkbox"/> |                                     |                                     |
| Shipping Documentation Present?  | <input checked="" type="checkbox"/> |                                     |                                     |
| Airbill  | Trk # <u>7904 34539950</u>          | <input checked="" type="checkbox"/> |                                     |
| Sample Container Intact?   | <input checked="" type="checkbox"/> |                                     |                                     |
| Sample Custody Seals Intact?   |                                     |                                     | <input checked="" type="checkbox"/> |
| Chain of Custody / Sample Documentation Present?                       | <input checked="" type="checkbox"/> |                                     |                                     |
| COC Anomaly/Sample Acceptance Form completed?                          |                                     |                                     | <input checked="" type="checkbox"/> |
| If Chlorinated or Drinking Water Samples, Acceptable Preservation?     |                                     |                                     | <input checked="" type="checkbox"/> |
| Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Preservation Documented? | COC                                 | Sample Container                    | <u>None</u>                         |
| Shipping Container   | Vista                               | <u>Client</u>                       | Retain                              |
|  |                                     |                                     | <u>Return</u>                       |
|  |                                     |                                     | Dispose                             |

Comments:

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2506

8012805

SENDING LABORATORY:

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

RECEIVING LABORATORY:

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

| Analysis                   | Units | Due      | Expires                 | Comments                                    |
|----------------------------|-------|----------|-------------------------|---|
| Sample ID: IRA2506-01      | Water |          | Sampled: 01/25/08 13:45 | ph=7.4, temp=48                             |
| Level 4 Data Package - Wec | N/A   | 02/05/08 | 02/22/08 13:45          | Boeing, permit, J flags                     |
| Mercury - 245.1, Diss -OUT | mg/l  | 01/28/08 | 02/22/08 13:45          | Out to Weck Level 4 Boeing, permit, J flags |
| Mercury - 245.1-OUT        | mg/l  | 01/28/08 | 02/22/08 13:45          | Out to Weck Level 4 Boeing, permit, J flags |

Containers Supplied:

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

*[Signature]* 01/28/08 0700      *[Signature]* 01/28/08 0700  
 Released By      Date/Time      Received By      Date/Time  
*[Signature]* 01/28/08 0700      *[Signature]* 01/28/08  
 Released By      Date/Time      Received By      Date/Time



### CERTIFICATE OF ANALYSIS

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

**Report Date:** 01/30/08 12:54  
**Received Date:** 01/28/08 08:45  
**Turn Around:** 1 day

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

**Work Order #:** 8012805  
**Client Project:** IRA2506

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

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

Dear Joseph Doak :

Enclosed are the results of analyses for samples received 01/28/08 08:45 with the Chain of Custody document. The samples were received in good condition. The samples were received at 7.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Kim G Tu

Project Manager





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

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

Report ID: 8012805  
Project ID: IRA2506

Date Received: 01/28/08 08:45  
Date Reported: 01/30/08 12:54

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID  | Sampled by: | Sample Comments | Laboratory | Matrix | Date Sampled   |
|------------|-------------|-----------------|------------|--------|----------------|
| IRA2506-01 | Client      |                 | 8012805-01 | Water  | 01/25/08 13:45 |



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TestAmerica, Inc. - Irvine  
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Irvine CA, 92614

Report ID: 8012805  
Project ID: IRA2506

Date Received: 01/28/08 08:45  
Date Reported: 01/30/08 12:54

**IRA2506-01 8012805-01 (Water)**

Date Sampled: 01/25/08 13:45

**Metals by EPA 200 Series Methods**

| Analyte            | Result | MDL   | Units | Reporting Limit | Dilution Factor | Method    | Batch Number | Date Prepared | Date Analyzed | Data Qualifiers |
|--------------------|--------|-------|-------|-----------------|-----------------|-----------|--------------|---------------|---------------|-----------------|
| Mercury, Dissolved | ND     | 0.050 | ug/l  | 0.20            | 1               | EPA 245.1 | W8A1034      | 01/29/08      | 01/30/08      | jlp             |
| Mercury, Total     | ND     | 0.050 | ug/l  | 0.20            | 1               | EPA 245.1 | W8A1034      | 01/29/08      | 01/30/08      | jlp             |



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Irvine CA, 92614

Report ID: 8012805  
Project ID: IRA2506

Date Received: 01/28/08 08:45  
Date Reported: 01/30/08 12:54

# QUALITY CONTROL SECTION



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

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

Report ID: 8012805  
 Project ID: IRA2506

Date Received: 01/28/08 08:45  
 Date Reported: 01/30/08 12:54

**Metals by EPA 200 Series Methods - Quality Control**

%REC

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

**Batch W8A1034 - EPA 245.1**

**Blank (W8A1034-BLK1)**

Analyzed: 01/30/08

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

**LCS (W8A1034-BS1)**

Analyzed: 01/30/08

|                    |       |      |      |      |  |    |        |  |  |  |
|--------------------|-------|------|------|------|--|----|--------|--|--|--|
| Mercury, Dissolved | 0.986 | 0.20 | ug/l | 1.00 |  | 99 | 85-115 |  |  |  |
| Mercury, Total     | 0.986 | 0.20 | ug/l | 1.00 |  | 99 | 85-115 |  |  |  |

**Matrix Spike (W8A1034-MS1)**

Source: 8012803-01

Analyzed: 01/30/08

|                    |      |      |      |      |    |     |        |  |  |  |
|--------------------|------|------|------|------|----|-----|--------|--|--|--|
| Mercury, Dissolved | 2.06 | 0.40 | ug/l | 2.00 | ND | 103 | 70-130 |  |  |  |
| Mercury, Total     | 2.06 | 0.40 | ug/l | 2.00 | ND | 103 | 70-130 |  |  |  |

**Matrix Spike Dup (W8A1034-MSD1)**

Source: 8012803-01

Analyzed: 01/30/08

|                    |      |      |      |      |    |     |        |   |    |  |
|--------------------|------|------|------|------|----|-----|--------|---|----|--|
| Mercury, Dissolved | 2.02 | 0.40 | ug/l | 2.00 | ND | 101 | 70-130 | 2 | 20 |  |
| Mercury, Total     | 2.02 | 0.40 | ug/l | 2.00 | ND | 101 | 70-130 | 2 | 20 |  |



Weck Laboratories, Inc.  
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Industry, CA 91745  
Phone 626.336.2139 Fax 626.336.2634

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

Report ID: 8012805  
Project ID: IRA2506

Date Received: 01/28/08 08:45  
Date Reported: 01/30/08 12:54

### Notes and Definitions

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

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

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

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

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