

APPENDIX G

Section 21

Outfall 008, February 16, 2009

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Annual Outfall 008

Sampled: 02/16/09
Received: 02/16/09
Revised: 03/20/09 10:56

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

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

SAMPLE CROSS REFERENCE

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

ADDITIONAL INFORMATION: This report includes 608 Alpha BHC data from a secondary source for confirmation purposes due to contamination in the primary laboratory. Please see corrective action.

This is a revised report to correct the Dissolved Antimony data originally reported from the wrong batch.

LABORATORY ID	CLIENT ID	MATRIX
ISB1787-01	Outfall 008	Water
ISB1787-02	Trip Blanks	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: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

CORRECTIVE ACTION REPORT

Department: Extractions

Date: 02/26/2009

Method: EPA 608

Matrix: Water

QC Batch: 9B20074

Identification and Definition of Problem:

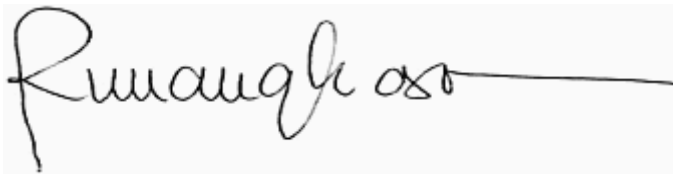
Alpha-BHC was reported as a false positive for samples in batches 9B12048, 9B20074 and 9B23113.

Determination of the Cause of the Problem:

A cause for the error was due to laboratory/equipment contamination during extraction process.

Corrective Action Taken:

The rinsing system for glassware using acid rinse has been established to prevent future carry over from contamination. Also glassware has been ordered as immediate response to solve this issue. All samples were re-extracted and re-analyzed to confirm the contamination level. Samples ISB0755-01, ISB0825-01, ISB1699-01 and ISB1703-01 were re-extracted past the method holding time. All other samples were re-extracted within the holding time. Only samples ISB1699-01, ISB1786-01, ISB1787-01 and ISB2105-01 remained as positive hits. Both results are reported with Corrective Action Report.



Quality Assurance Approval: _____

Rima Angkasa

Date: 03/09/2009 12:36 PM

TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

CORRECTIVE ACTION REPORT

Department: Metals

Date: 03/19/2009

Method: EPA 200.8-Diss

Matrix: Water

QC Batch: 9B20106

Identification and Definition of Problem:

The result for dissolved antimony on samples ISB1787-01 and ISB1796-01 were reported incorrectly.

Determination of the Cause of the Problem:

Due to analyst error, the dissolved results were reported from the total results.

Corrective Action Taken:

The reports were revised to replace the incorrectly reported data. Correct review procedures have been reviewed with analysts.

Quality Assurance Approval:



Dave Dawes

Date: 03/20/2009 10:34 AM

TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09

Received: 02/16/09

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water)									
Reporting Units: ug/l									
Benzene	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
Bromodichloromethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Bromoform	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Bromomethane	EPA 624	9B17010	0.42	1.0	ND	1	02/17/09	02/17/09	
Carbon tetrachloride	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
Chlorobenzene	EPA 624	9B17010	0.36	0.50	ND	1	02/17/09	02/17/09	
Chloroethane	EPA 624	9B17010	0.40	1.0	ND	1	02/17/09	02/17/09	
Chloroform	EPA 624	9B17010	0.33	0.50	ND	1	02/17/09	02/17/09	
Chloromethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Dibromochloromethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichlorobenzene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
1,3-Dichlorobenzene	EPA 624	9B17010	0.35	0.50	ND	1	02/17/09	02/17/09	
1,4-Dichlorobenzene	EPA 624	9B17010	0.37	0.50	ND	1	02/17/09	02/17/09	
1,1-Dichloroethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichloroethane	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
1,1-Dichloroethene	EPA 624	9B17010	0.42	0.50	ND	1	02/17/09	02/17/09	
trans-1,2-Dichloroethene	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichloropropane	EPA 624	9B17010	0.35	0.50	ND	1	02/17/09	02/17/09	
cis-1,3-Dichloropropene	EPA 624	9B17010	0.22	0.50	ND	1	02/17/09	02/17/09	L
trans-1,3-Dichloropropene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
Ethylbenzene	EPA 624	9B17010	0.25	0.50	ND	1	02/17/09	02/17/09	
Methylene chloride	EPA 624	9B17010	0.95	1.0	ND	1	02/17/09	02/17/09	
1,1,2,2-Tetrachloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Tetrachloroethene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
Toluene	EPA 624	9B17010	0.36	0.50	ND	1	02/17/09	02/17/09	
1,1,1-Trichloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
1,1,2-Trichloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Trichloroethene	EPA 624	9B17010	0.26	0.50	ND	1	02/17/09	02/17/09	
Trichlorofluoromethane	EPA 624	9B17010	0.34	0.50	ND	1	02/17/09	02/17/09	
Trichlorotrifluoroethane (Freon 113)	EPA 624	9B17010	0.50	5.0	ND	1	02/17/09	02/17/09	
Vinyl chloride	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Xylenes, Total	EPA 624	9B17010	0.90	1.5	ND	1	02/17/09	02/17/09	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					89 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					101 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					99 %				

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: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09

Received: 02/16/09

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-02 (Trip Blanks - Water)									
Reporting Units: ug/l									
Benzene	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
Bromodichloromethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Bromoform	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Bromomethane	EPA 624	9B17010	0.42	1.0	ND	1	02/17/09	02/17/09	
Carbon tetrachloride	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
Chlorobenzene	EPA 624	9B17010	0.36	0.50	ND	1	02/17/09	02/17/09	
Chloroethane	EPA 624	9B17010	0.40	1.0	ND	1	02/17/09	02/17/09	
Chloroform	EPA 624	9B17010	0.33	0.50	ND	1	02/17/09	02/17/09	
Chloromethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Dibromochloromethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichlorobenzene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
1,3-Dichlorobenzene	EPA 624	9B17010	0.35	0.50	ND	1	02/17/09	02/17/09	
1,4-Dichlorobenzene	EPA 624	9B17010	0.37	0.50	ND	1	02/17/09	02/17/09	
1,1-Dichloroethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichloroethane	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
1,1-Dichloroethene	EPA 624	9B17010	0.42	0.50	ND	1	02/17/09	02/17/09	
trans-1,2-Dichloroethene	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichloropropane	EPA 624	9B17010	0.35	0.50	ND	1	02/17/09	02/17/09	
cis-1,3-Dichloropropene	EPA 624	9B17010	0.22	0.50	ND	1	02/17/09	02/17/09	L
trans-1,3-Dichloropropene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
Ethylbenzene	EPA 624	9B17010	0.25	0.50	ND	1	02/17/09	02/17/09	
Methylene chloride	EPA 624	9B17010	0.95	1.0	ND	1	02/17/09	02/17/09	
1,1,2,2-Tetrachloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Tetrachloroethene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
Toluene	EPA 624	9B17010	0.36	0.50	ND	1	02/17/09	02/17/09	
1,1,1-Trichloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
1,1,2-Trichloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Trichloroethene	EPA 624	9B17010	0.26	0.50	ND	1	02/17/09	02/17/09	
Trichlorofluoromethane	EPA 624	9B17010	0.34	0.50	ND	1	02/17/09	02/17/09	
Trichlorotrifluoroethane (Freon 113)	EPA 624	9B17010	0.50	5.0	ND	1	02/17/09	02/17/09	
Vinyl chloride	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Xylenes, Total	EPA 624	9B17010	0.90	1.5	ND	1	02/17/09	02/17/09	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					90 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					96 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					98 %				

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

PURGEABLES-- GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water)									
Reporting Units: ug/l									
Acrolein	EPA 624	9B18010	4.0	5.0	ND	1	02/18/09	02/18/09	C
Acrylonitrile	EPA 624	9B18010	0.70	2.0	ND	1	02/18/09	02/18/09	C
2-Chloroethyl vinyl ether	EPA 624	9B18010	1.8	5.0	ND	1	02/18/09	02/18/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					87 %				
Surrogate: Dibromofluoromethane (80-120%)					96 %				
Surrogate: Toluene-d8 (80-120%)					98 %				
Sample ID: ISB1787-02 (Trip Blanks - Water)									
Reporting Units: ug/l									
Acrolein	EPA 624	9B18010	4.0	5.0	ND	1	02/18/09	02/18/09	C
Acrylonitrile	EPA 624	9B18010	0.70	2.0	ND	1	02/18/09	02/18/09	C
2-Chloroethyl vinyl ether	EPA 624	9B18010	1.8	5.0	ND	1	02/18/09	02/18/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					87 %				
Surrogate: Dibromofluoromethane (80-120%)					96 %				
Surrogate: Toluene-d8 (80-120%)					98 %				

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

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: ISB1787-01 (Outfall 008 - Water)									
Reporting Units: ug/l									
Acenaphthene	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
Acenaphthylene	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
Aniline	EPA 625	9B17084	3.3	9.6	ND	0.957	02/17/09	02/21/09	
Anthracene	EPA 625	9B17084	2.4	9.6	ND	0.957	02/17/09	02/21/09	
Benzidine	EPA 625	9B17084	9.6	19	ND	0.957	02/17/09	02/21/09	
Benzo(a)anthracene	EPA 625	9B17084	2.4	9.6	ND	0.957	02/17/09	02/21/09	
Benzo(a)pyrene	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
Benzo(b)fluoranthene	EPA 625	9B17084	1.9	9.6	ND	0.957	02/17/09	02/21/09	
Benzo(g,h,i)perylene	EPA 625	9B17084	3.8	9.6	ND	0.957	02/17/09	02/21/09	
Benzo(k)fluoranthene	EPA 625	9B17084	2.4	9.6	ND	0.957	02/17/09	02/21/09	
Benzoic acid	EPA 625	9B17084	9.6	19	ND	0.957	02/17/09	02/21/09	
Benzyl alcohol	EPA 625	9B17084	3.3	19	ND	0.957	02/17/09	02/21/09	
4-Bromophenyl phenyl ether	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
Butyl benzyl phthalate	EPA 625	9B17084	3.8	19	ND	0.957	02/17/09	02/21/09	
4-Chloro-3-methylphenol	EPA 625	9B17084	2.4	19	ND	0.957	02/17/09	02/21/09	
4-Chloroaniline	EPA 625	9B17084	1.9	9.6	ND	0.957	02/17/09	02/21/09	
Bis(2-chloroethoxy)methane	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
Bis(2-chloroethyl)ether	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
Bis(2-chloroisopropyl)ether	EPA 625	9B17084	2.4	9.6	ND	0.957	02/17/09	02/21/09	
Bis(2-ethylhexyl)phthalate	EPA 625	9B17084	3.8	48	ND	0.957	02/17/09	02/21/09	
2-Chloronaphthalene	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
2-Chlorophenol	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
4-Chlorophenyl phenyl ether	EPA 625	9B17084	2.4	9.6	ND	0.957	02/17/09	02/21/09	
Chrysene	EPA 625	9B17084	2.4	9.6	ND	0.957	02/17/09	02/21/09	
Dibenz(a,h)anthracene	EPA 625	9B17084	2.9	19	ND	0.957	02/17/09	02/21/09	
Dibenzofuran	EPA 625	9B17084	3.8	9.6	ND	0.957	02/17/09	02/21/09	
Di-n-butyl phthalate	EPA 625	9B17084	2.9	19	ND	0.957	02/17/09	02/21/09	
1,2-Dichlorobenzene	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
1,3-Dichlorobenzene	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
1,4-Dichlorobenzene	EPA 625	9B17084	2.4	9.6	ND	0.957	02/17/09	02/21/09	
3,3'-Dichlorobenzidine	EPA 625	9B17084	7.2	19	ND	0.957	02/17/09	02/21/09	
2,4-Dichlorophenol	EPA 625	9B17084	3.3	9.6	ND	0.957	02/17/09	02/21/09	
Diethyl phthalate	EPA 625	9B17084	3.3	9.6	ND	0.957	02/17/09	02/21/09	
2,4-Dimethylphenol	EPA 625	9B17084	3.3	19	ND	0.957	02/17/09	02/21/09	
Dimethyl phthalate	EPA 625	9B17084	2.4	9.6	ND	0.957	02/17/09	02/21/09	
4,6-Dinitro-2-methylphenol	EPA 625	9B17084	3.8	19	ND	0.957	02/17/09	02/21/09	
2,4-Dinitrophenol	EPA 625	9B17084	7.7	19	ND	0.957	02/17/09	02/21/09	
2,4-Dinitrotoluene	EPA 625	9B17084	3.3	9.6	ND	0.957	02/17/09	02/21/09	
2,6-Dinitrotoluene	EPA 625	9B17084	1.9	9.6	ND	0.957	02/17/09	02/21/09	
Di-n-octyl phthalate	EPA 625	9B17084	3.3	19	ND	0.957	02/17/09	02/21/09	
1,2-Diphenylhydrazine/Azobenzene	EPA 625	9B17084	2.4	19	ND	0.957	02/17/09	02/21/09	

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Project Manager

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

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: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/l									
Fluoranthene	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
Fluorene	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
Hexachlorobenzene	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
Hexachlorobutadiene	EPA 625	9B17084	3.8	9.6	ND	0.957	02/17/09	02/21/09	
Hexachlorocyclopentadiene	EPA 625	9B17084	4.8	19	ND	0.957	02/17/09	02/21/09	
Hexachloroethane	EPA 625	9B17084	3.3	9.6	ND	0.957	02/17/09	02/21/09	
Indeno(1,2,3-cd)pyrene	EPA 625	9B17084	3.3	19	ND	0.957	02/17/09	02/21/09	
Isophorone	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
2-Methylnaphthalene	EPA 625	9B17084	1.9	9.6	ND	0.957	02/17/09	02/21/09	
2-Methylphenol	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
4-Methylphenol	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
Naphthalene	EPA 625	9B17084	2.9	9.6	ND	0.957	02/17/09	02/21/09	
2-Nitroaniline	EPA 625	9B17084	1.9	19	ND	0.957	02/17/09	02/21/09	
3-Nitroaniline	EPA 625	9B17084	2.9	19	ND	0.957	02/17/09	02/21/09	
4-Nitroaniline	EPA 625	9B17084	3.8	19	ND	0.957	02/17/09	02/21/09	
Nitrobenzene	EPA 625	9B17084	2.9	19	ND	0.957	02/17/09	02/21/09	
2-Nitrophenol	EPA 625	9B17084	3.3	9.6	ND	0.957	02/17/09	02/21/09	
4-Nitrophenol	EPA 625	9B17084	5.3	19	ND	0.957	02/17/09	02/21/09	
N-Nitroso-di-n-propylamine	EPA 625	9B17084	3.3	9.6	ND	0.957	02/17/09	02/21/09	
N-Nitrosodimethylamine	EPA 625	9B17084	2.4	19	ND	0.957	02/17/09	02/21/09	
N-Nitrosodiphenylamine	EPA 625	9B17084	1.9	9.6	ND	0.957	02/17/09	02/21/09	
Pentachlorophenol	EPA 625	9B17084	3.3	19	ND	0.957	02/17/09	02/21/09	
Phenanthrene	EPA 625	9B17084	3.3	9.6	ND	0.957	02/17/09	02/21/09	
Phenol	EPA 625	9B17084	1.9	9.6	ND	0.957	02/17/09	02/21/09	
Pyrene	EPA 625	9B17084	3.8	9.6	ND	0.957	02/17/09	02/21/09	
1,2,4-Trichlorobenzene	EPA 625	9B17084	2.4	9.6	ND	0.957	02/17/09	02/21/09	
2,4,5-Trichlorophenol	EPA 625	9B17084	2.9	19	ND	0.957	02/17/09	02/21/09	
2,4,6-Trichlorophenol	EPA 625	9B17084	4.3	19	ND	0.957	02/17/09	02/21/09	
Surrogate: 2,4,6-Tribromophenol (40-120%)					80 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					71 %				
Surrogate: 2-Fluorophenol (30-120%)					52 %				
Surrogate: Nitrobenzene-d5 (45-120%)					71 %				
Surrogate: Phenol-d6 (35-120%)					46 %				
Surrogate: Terphenyl-d14 (50-125%)					86 %				

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/l									
4,4'-DDD	EPA 608	9B20074	0.0019	0.0047	ND	0.943	02/20/09	02/22/09	
4,4'-DDE	EPA 608	9B20074	0.0028	0.0047	ND	0.943	02/20/09	02/22/09	
4,4'-DDT	EPA 608	9B20074	0.0038	0.0094	ND	0.943	02/20/09	02/22/09	
Aldrin	EPA 608	9B20074	0.0014	0.0047	ND	0.943	02/20/09	02/22/09	
alpha-BHC	EPA 608	9B20074	0.0024	0.0047	0.012	0.943	02/20/09	02/22/09	N2
beta-BHC	EPA 608	9B20074	0.0038	0.0094	0.0052	0.943	02/20/09	02/22/09	Ja
delta-BHC	EPA 608	9B20074	0.0033	0.0047	ND	0.943	02/20/09	02/22/09	
Dieldrin	EPA 608	9B20074	0.0019	0.0047	ND	0.943	02/20/09	02/22/09	
Endosulfan I	EPA 608	9B20074	0.0019	0.0047	ND	0.943	02/20/09	02/22/09	
Endosulfan II	EPA 608	9B20074	0.0028	0.0047	ND	0.943	02/20/09	02/22/09	
Endosulfan sulfate	EPA 608	9B20074	0.0028	0.0094	ND	0.943	02/20/09	02/22/09	
Endrin	EPA 608	9B20074	0.0019	0.0047	ND	0.943	02/20/09	02/22/09	
Endrin aldehyde	EPA 608	9B20074	0.0019	0.0094	0.0027	0.943	02/20/09	02/22/09	C, Ja
Endrin ketone	EPA 608	9B20074	0.0028	0.0094	ND	0.943	02/20/09	02/22/09	
gamma-BHC (Lindane)	EPA 608	9B20074	0.0028	0.019	ND	0.943	02/20/09	02/22/09	
Heptachlor	EPA 608	9B20074	0.0028	0.0094	ND	0.943	02/20/09	02/22/09	
Heptachlor epoxide	EPA 608	9B20074	0.0024	0.0047	ND	0.943	02/20/09	02/22/09	
Methoxychlor	EPA 608	9B20074	0.0033	0.0047	ND	0.943	02/20/09	02/22/09	
Chlordane	EPA 608	9B20074	0.038	0.094	ND	0.943	02/20/09	02/22/09	
Toxaphene	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/22/09	
Surrogate: Decachlorobiphenyl (45-120%)					75 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					67 %				

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01RE1 (Outfall 008 - Water) - cont.									
Reporting Units: ug/l									
4,4'-DDD	EPA 608	9B23113	0.0019	0.0048	ND	0.957	02/23/09	02/25/09	
4,4'-DDE	EPA 608	9B23113	0.0029	0.0048	ND	0.957	02/23/09	02/25/09	
4,4'-DDT	EPA 608	9B23113	0.0038	0.0096	ND	0.957	02/23/09	02/25/09	
Aldrin	EPA 608	9B23113	0.0014	0.0048	ND	0.957	02/23/09	02/25/09	
alpha-BHC	EPA 608	9B23113	0.0024	0.0048	0.0098	0.957	02/23/09	02/25/09	N2
beta-BHC	EPA 608	9B23113	0.0038	0.0096	0.0068	0.957	02/23/09	02/25/09	Ja
delta-BHC	EPA 608	9B23113	0.0033	0.0048	ND	0.957	02/23/09	02/25/09	
Dieldrin	EPA 608	9B23113	0.0019	0.0048	ND	0.957	02/23/09	02/25/09	
Endosulfan I	EPA 608	9B23113	0.0019	0.0048	ND	0.957	02/23/09	02/25/09	
Endosulfan II	EPA 608	9B23113	0.0029	0.0048	ND	0.957	02/23/09	02/25/09	
Endosulfan sulfate	EPA 608	9B23113	0.0029	0.0096	ND	0.957	02/23/09	02/25/09	
Endrin	EPA 608	9B23113	0.0019	0.0048	ND	0.957	02/23/09	02/25/09	
Endrin aldehyde	EPA 608	9B23113	0.0019	0.0096	ND	0.957	02/23/09	02/25/09	
Endrin ketone	EPA 608	9B23113	0.0029	0.0096	ND	0.957	02/23/09	02/25/09	
gamma-BHC (Lindane)	EPA 608	9B23113	0.0029	0.019	ND	0.957	02/23/09	02/25/09	
Heptachlor	EPA 608	9B23113	0.0029	0.0096	ND	0.957	02/23/09	02/25/09	
Heptachlor epoxide	EPA 608	9B23113	0.0024	0.0048	ND	0.957	02/23/09	02/25/09	
Methoxychlor	EPA 608	9B23113	0.0033	0.0048	ND	0.957	02/23/09	02/25/09	
Chlordane	EPA 608	9B23113	0.038	0.096	ND	0.957	02/23/09	02/25/09	
Toxaphene	EPA 608	9B23113	0.24	0.48	ND	0.957	02/23/09	02/25/09	
Surrogate: Decachlorobiphenyl (45-120%)					87 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					81 %				

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Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09

Received: 02/16/09

TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/l									
Aroclor 1016	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1221	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1232	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1242	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1248	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1254	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1260	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Surrogate: Decachlorobiphenyl (45-120%)					90 %				

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09

Received: 02/16/09

HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	9B24074	1.4	4.9	1.8	1	02/24/09	02/24/09	Ja

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09

Received: 02/16/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	66	1	02/23/09	02/24/09	
Boron	EPA 200.7	9B23087	0.020	0.050	0.061	1	02/23/09	02/24/09	
Calcium	EPA 200.7	9B23087	0.050	0.10	20	1	02/23/09	02/24/09	
Iron	EPA 200.7	9B23087	0.015	0.040	3.0	1	02/23/09	02/24/09	
Magnesium	EPA 200.7	9B23087	0.012	0.020	3.9	1	02/23/09	02/24/09	

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Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/l									
Aluminum	EPA 200.7	9B23087	40	50	3100	1	02/23/09	02/24/09	
Arsenic	EPA 200.7	9B23087	7.0	10	ND	1	02/23/09	02/24/09	
Antimony	EPA 200.8	9B23088	0.20	2.0	0.35	1	02/23/09	02/24/09	Ja
Beryllium	EPA 200.7	9B23087	0.90	2.0	ND	1	02/23/09	02/24/09	
Chromium	EPA 200.7	9B23087	2.0	5.0	3.4	1	02/23/09	02/24/09	B, Ja
Nickel	EPA 200.7	9B23087	2.0	10	3.5	1	02/23/09	02/24/09	Ja
Silver	EPA 200.7	9B23087	6.0	10	ND	1	02/23/09	02/24/09	
Cadmium	EPA 200.8	9B23088	0.11	1.0	ND	1	02/23/09	02/24/09	
Vanadium	EPA 200.7	9B23087	3.0	10	6.8	1	02/23/09	02/24/09	Ja
Zinc	EPA 200.7	9B23087	6.0	20	14	1	02/23/09	02/24/09	Ja
Copper	EPA 200.8	9B23088	0.75	2.0	4.1	1	02/23/09	02/24/09	
Lead	EPA 200.8	9B23088	0.30	1.0	2.6	1	02/23/09	02/24/09	
Selenium	EPA 200.8	9B23088	0.30	2.0	ND	1	02/23/09	02/24/09	
Thallium	EPA 200.8	9B23088	0.20	1.0	ND	1	02/23/09	02/24/09	C

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09

Received: 02/16/09

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B-Diss	[CALC]	N/A	0.33	61	1	02/20/09	02/23/09	
Boron	EPA 200.7-Diss	9B20105	0.020	0.050	0.060	1	02/20/09	02/24/09	
Calcium	EPA 200.7-Diss	9B20105	0.050	0.10	19	1	02/20/09	02/23/09	
Iron	EPA 200.7-Diss	9B20105	0.015	0.040	0.14	1	02/20/09	02/23/09	
Magnesium	EPA 200.7-Diss	9B20105	0.012	0.020	3.2	1	02/20/09	02/23/09	

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Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/l									
Aluminum	EPA 200.7-Diss	9B20105	40	50	160	1	02/20/09	02/23/09	
Arsenic	EPA 200.7-Diss	9B20105	7.0	10	ND	1	02/20/09	02/23/09	
Antimony	EPA 200.8-Diss	9B20106	0.20	2.0	0.33	1	02/20/09	02/25/09	Ja
Beryllium	EPA 200.7-Diss	9B20105	0.90	2.0	ND	1	02/20/09	02/23/09	
Chromium	EPA 200.7-Diss	9B20105	2.0	5.0	ND	1	02/20/09	02/23/09	
Nickel	EPA 200.7-Diss	9B20105	2.0	10	ND	1	02/20/09	02/23/09	
Silver	EPA 200.7-Diss	9B20105	6.0	10	ND	1	02/20/09	02/23/09	
Cadmium	EPA 200.8-Diss	9B20106	0.11	1.0	ND	1	02/20/09	02/23/09	C
Vanadium	EPA 200.7-Diss	9B20105	3.0	10	ND	1	02/20/09	02/23/09	
Zinc	EPA 200.7-Diss	9B20105	6.0	20	ND	1	02/20/09	02/23/09	
Copper	EPA 200.8-Diss	9B20106	0.75	2.0	2.0	1	02/20/09	02/23/09	
Lead	EPA 200.8-Diss	9B20106	0.30	1.0	ND	1	02/20/09	02/23/09	
Selenium	EPA 200.8-Diss	9B20106	0.30	2.0	0.68	1	02/20/09	02/23/09	Ja
Thallium	EPA 200.8-Diss	9B20106	0.20	1.0	ND	1	02/20/09	02/23/09	C

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Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: mg/l									
Ammonia-N (Distilled)	SM4500NH3-C	9B24128	0.50	0.50	1.1	1	02/24/09	02/24/09	
Chloride	EPA 300.0	9B16057	0.25	0.50	8.0	1	02/16/09	02/16/09	
Total Cyanide	SM4500-CN-C,E	9B19142	0.0022	0.0050	0.0087	1	02/19/09	02/19/09	
Fluoride	SM 4500-F-C	9B20008	0.020	0.10	0.23	1	02/20/09	02/20/09	B
Nitrate-N	EPA 300.0	9B16057	0.060	0.11	1.9	1	02/16/09	02/16/09	
Nitrite-N	EPA 300.0	9B16057	0.090	0.15	ND	1	02/16/09	02/16/09	
Nitrate/Nitrite-N	EPA 300.0	9B16057	0.15	0.26	1.9	1	02/16/09	02/16/09	
Sulfate	EPA 300.0	9B16057	0.20	0.50	10	1	02/16/09	02/16/09	
Total Dissolved Solids	SM2540C	9B18065	10	10	140	1	02/18/09	02/18/09	
Total Suspended Solids	SM 2540D	9B21068	1.0	10	55	1	02/21/09	02/21/09	

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Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09

Received: 02/16/09

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	9B18099	0.90	4.0	2.5	1	02/18/09	02/19/09	Ja

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NPDES - 1513

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Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/l									
Chlorpyrifos	EPA 525.2	C9B1701	0.10	1.0	ND	1	02/17/09	02/17/09	
Diazinon	EPA 525.2	C9B1701	0.24	0.25	ND	1	02/17/09	02/17/09	
<i>Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)</i>					<i>108 %</i>				
<i>Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)</i>					<i>108 %</i>				
<i>Surrogate: Triphenylphosphate (70-130%)</i>					<i>126 %</i>				
<i>Surrogate: Triphenylphosphate (70-130%)</i>					<i>126 %</i>				
<i>Surrogate: Perylene-d12 (70-130%)</i>					<i>112 %</i>				
<i>Surrogate: Perylene-d12 (70-130%)</i>					<i>112 %</i>				

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Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09

Received: 02/16/09

MCAWW 245.1

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/L									
Mercury	MCAWW 245.1	9065187	0.027	0.2	0.029	1	03/09/09	03/09/09	J

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NPDES - 1515

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

MCAWW 245.1-DISS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/L									
Mercury	MCAWW 245.1-DISS	9050182	0.027	0.2	ND	1	02/19/09	02/19/09	

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NPDES - 1516

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09

Received: 02/16/09

CFR136A 608

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1787-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/L									
alpha-BHC	CFR136A 608	9064381	0.0053	0.05	ND	1	03/05/09	03/10/09	HTV
Surrogate: Decachlorobiphenyl (32-144%)					53 %				
Surrogate: Tetrachloro-m-xylene (52-117%)					86 %				

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NPDES - 1517

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 008 (ISB1787-01) - Water					
EPA 300.0	2	02/16/2009 08:30	02/16/2009 18:20	02/16/2009 16:00	02/16/2009 22:32
EPA 525.2	1	02/16/2009 08:30	02/16/2009 18:20	02/17/2009 06:50	02/17/2009 14:32
EPA 624	3	02/16/2009 08:30	02/16/2009 18:20	02/18/2009 00:00	02/18/2009 13:41
Filtration	1	02/16/2009 08:30	02/16/2009 18:20	02/17/2009 00:29	02/17/2009 00:33
Sample ID: Trip Blanks (ISB1787-02) - Water					
EPA 624	3	02/16/2009 08:30	02/16/2009 18:20	02/18/2009 00:00	02/18/2009 13:11

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NPDES - 1518**

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	Data Qualifiers
Batch: 9B17010 Extracted: 02/17/09										
Blank Analyzed: 02/17/2009 (9B17010-BLK1)										
Bromodichloromethane	ND	0.50	0.30	ug/l						
Bromoform	ND	0.50	0.40	ug/l						
Bromomethane	ND	1.0	0.42	ug/l						
Chlorobenzene	ND	0.50	0.36	ug/l						
Chloroethane	ND	1.0	0.40	ug/l						
Chloromethane	ND	0.50	0.40	ug/l						
Dibromochloromethane	ND	0.50	0.40	ug/l						
1,2-Dichlorobenzene	ND	0.50	0.32	ug/l						
1,3-Dichlorobenzene	ND	0.50	0.35	ug/l						
1,4-Dichlorobenzene	ND	0.50	0.37	ug/l						
trans-1,2-Dichloroethene	ND	0.50	0.30	ug/l						
1,2-Dichloropropane	ND	0.50	0.35	ug/l						
cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l						
trans-1,3-Dichloropropene	ND	0.50	0.32	ug/l						
Methylene chloride	ND	1.0	0.95	ug/l						
1,1,2,2-Tetrachloroethane	ND	0.50	0.30	ug/l						
LCS Analyzed: 02/17/2009 (9B17010-BS1)										
Bromodichloromethane	29.0	0.50	0.30	ug/l	25.0		116	70-135		
Bromoform	26.1	0.50	0.40	ug/l	25.0		104	55-130		
Bromomethane	28.1	1.0	0.42	ug/l	25.0		112	65-140		
Chlorobenzene	25.0	0.50	0.36	ug/l	25.0		100	75-120		
Chloroethane	29.0	1.0	0.40	ug/l	25.0		116	60-140		
Chloromethane	27.8	0.50	0.40	ug/l	25.0		111	50-140		
Dibromochloromethane	28.0	0.50	0.40	ug/l	25.0		112	70-140		
1,2-Dichlorobenzene	24.6	0.50	0.32	ug/l	25.0		98	75-120		
1,3-Dichlorobenzene	25.0	0.50	0.35	ug/l	25.0		100	75-120		
1,4-Dichlorobenzene	22.5	0.50	0.37	ug/l	25.0		90	75-120		
trans-1,2-Dichloroethene	22.0	0.50	0.30	ug/l	25.0		88	70-125		
1,2-Dichloropropane	27.4	0.50	0.35	ug/l	25.0		109	70-125		
cis-1,3-Dichloropropene	32.9	0.50	0.22	ug/l	25.0		132	75-125		L
trans-1,3-Dichloropropene	26.1	0.50	0.32	ug/l	25.0		104	70-125		
Methylene chloride	25.1	1.0	0.95	ug/l	25.0		101	55-130		
1,1,2,2-Tetrachloroethane	27.9	0.50	0.30	ug/l	25.0		112	55-130		
Surrogate: 4-Bromofluorobenzene	23.8			ug/l	25.0		95	80-120		
Surrogate: Dibromofluoromethane	24.0			ug/l	25.0		96	80-120		

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B17010 Extracted: 02/17/09											
LCS Analyzed: 02/17/2009 (9B17010-BS1)											
Surrogate: Toluene-d8	24.5			ug/l	25.0		98	80-120			
Matrix Spike Analyzed: 02/17/2009 (9B17010-MS1)											
						Source: ISB1785-01					
Bromodichloromethane	31.1	0.50	0.30	ug/l	25.0	1.21	120	70-135			
Bromoform	28.0	0.50	0.40	ug/l	25.0	ND	112	55-135			
Bromomethane	28.6	1.0	0.42	ug/l	25.0	ND	114	55-145			
Chlorobenzene	25.7	0.50	0.36	ug/l	25.0	ND	103	75-125			
Chloroethane	29.0	1.0	0.40	ug/l	25.0	ND	116	55-140			
Chloromethane	29.1	0.50	0.40	ug/l	25.0	ND	116	45-145			
Dibromochloromethane	31.1	0.50	0.40	ug/l	25.0	0.980	120	65-140			
1,2-Dichlorobenzene	25.2	0.50	0.32	ug/l	25.0	ND	101	75-125			
1,3-Dichlorobenzene	24.9	0.50	0.35	ug/l	25.0	ND	100	75-125			
1,4-Dichlorobenzene	23.0	0.50	0.37	ug/l	25.0	ND	92	75-125			
trans-1,2-Dichloroethene	22.7	0.50	0.30	ug/l	25.0	ND	91	65-130			
1,2-Dichloropropane	28.7	0.50	0.35	ug/l	25.0	ND	115	65-130			
cis-1,3-Dichloropropene	34.2	0.50	0.22	ug/l	25.0	ND	137	70-130			M7
trans-1,3-Dichloropropene	28.0	0.50	0.32	ug/l	25.0	ND	112	65-135			
Methylene chloride	27.2	1.0	0.95	ug/l	25.0	ND	109	50-135			
1,1,2,2-Tetrachloroethane	29.3	0.50	0.30	ug/l	25.0	ND	117	55-135			
Surrogate: 4-Bromofluorobenzene	24.7			ug/l	25.0		99	80-120			
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Toluene-d8	24.3			ug/l	25.0		97	80-120			
Matrix Spike Dup Analyzed: 02/17/2009 (9B17010-MSD1)											
						Source: ISB1785-01					
Bromodichloromethane	30.2	0.50	0.30	ug/l	25.0	1.21	116	70-135	3	20	
Bromoform	26.4	0.50	0.40	ug/l	25.0	ND	106	55-135	6	25	
Bromomethane	27.5	1.0	0.42	ug/l	25.0	ND	110	55-145	4	25	
Chlorobenzene	25.2	0.50	0.36	ug/l	25.0	ND	101	75-125	2	20	
Chloroethane	28.7	1.0	0.40	ug/l	25.0	ND	115	55-140	1	25	
Chloromethane	27.8	0.50	0.40	ug/l	25.0	ND	111	45-145	5	25	
Dibromochloromethane	29.3	0.50	0.40	ug/l	25.0	0.980	113	65-140	6	25	
1,2-Dichlorobenzene	24.6	0.50	0.32	ug/l	25.0	ND	98	75-125	2	20	
1,3-Dichlorobenzene	24.8	0.50	0.35	ug/l	25.0	ND	99	75-125	1	20	
1,4-Dichlorobenzene	22.4	0.50	0.37	ug/l	25.0	ND	90	75-125	2	20	
trans-1,2-Dichloroethene	22.8	0.50	0.30	ug/l	25.0	ND	91	65-130	0	20	
1,2-Dichloropropane	29.4	0.50	0.35	ug/l	25.0	ND	118	65-130	2	20	

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B17010 Extracted: 02/17/09											
Matrix Spike Dup Analyzed: 02/17/2009 (9B17010-MSD1)						Source: ISB1785-01					
cis-1,3-Dichloropropene	34.4	0.50	0.22	ug/l	25.0	ND	137	70-130	0	20	M7
trans-1,3-Dichloropropene	27.5	0.50	0.32	ug/l	25.0	ND	110	65-135	2	25	
Methylene chloride	26.5	1.0	0.95	ug/l	25.0	ND	106	50-135	2	20	
1,1,2,2-Tetrachloroethane	28.6	0.50	0.30	ug/l	25.0	ND	114	55-135	2	30	
Surrogate: 4-Bromofluorobenzene	24.3			ug/l	25.0		97	80-120			
Surrogate: Dibromofluoromethane	24.6			ug/l	25.0		98	80-120			
Surrogate: Toluene-d8	24.8			ug/l	25.0		99	80-120			

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Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

PURGEABLES-- GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 9B18010 Extracted: 02/18/09											
Blank Analyzed: 02/18/2009 (9B18010-BLK1)											
Acrolein	ND	5.0	4.0	ug/l							
Acrylonitrile	ND	2.0	0.70	ug/l							
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l							
Surrogate: 4-Bromofluorobenzene	21.7			ug/l	25.0		87	80-120			
Surrogate: Dibromofluoromethane	22.1			ug/l	25.0		89	80-120			
Surrogate: Toluene-d8	23.6			ug/l	25.0		95	80-120			
LCS Analyzed: 02/18/2009 (9B18010-BS1)											
2-Chloroethyl vinyl ether	23.9	5.0	1.8	ug/l	25.0		95	25-170			
Surrogate: 4-Bromofluorobenzene	22.6			ug/l	25.0		90	80-120			
Surrogate: Dibromofluoromethane	23.4			ug/l	25.0		94	80-120			
Surrogate: Toluene-d8	23.7			ug/l	25.0		95	80-120			
Matrix Spike Analyzed: 02/18/2009 (9B18010-MS1) Source: ISB1785-01											
2-Chloroethyl vinyl ether	26.3	5.0	1.8	ug/l	25.0	ND	105	25-170			
Surrogate: 4-Bromofluorobenzene	22.8			ug/l	25.0		91	80-120			
Surrogate: Dibromofluoromethane	23.8			ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	24.1			ug/l	25.0		96	80-120			
Matrix Spike Dup Analyzed: 02/18/2009 (9B18010-MSD1) Source: ISB1785-01											
2-Chloroethyl vinyl ether	24.8	5.0	1.8	ug/l	25.0	ND	99	25-170	6	25	
Surrogate: 4-Bromofluorobenzene	22.7			ug/l	25.0		91	80-120			
Surrogate: Dibromofluoromethane	23.8			ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	24.2			ug/l	25.0		97	80-120			

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 9B17084 Extracted: 02/17/09											
Blank Analyzed: 02/20/2009 (9B17084-BLK1)											
Acenaphthene	ND	10	3.0	ug/l							
Acenaphthylene	ND	10	3.0	ug/l							
Aniline	ND	10	3.5	ug/l							
Anthracene	ND	10	2.5	ug/l							
Benzidine	ND	20	10	ug/l							
Benzo(a)anthracene	ND	10	2.5	ug/l							
Benzo(a)pyrene	ND	10	3.0	ug/l							
Benzo(b)fluoranthene	ND	10	2.0	ug/l							
Benzo(g,h,i)perylene	ND	10	4.0	ug/l							
Benzo(k)fluoranthene	ND	10	2.5	ug/l							
Benzoic acid	ND	20	10	ug/l							
Benzyl alcohol	ND	20	3.5	ug/l							
4-Bromophenyl phenyl ether	ND	10	3.0	ug/l							
Butyl benzyl phthalate	ND	20	4.0	ug/l							
4-Chloro-3-methylphenol	ND	20	2.5	ug/l							
4-Chloroaniline	ND	10	2.0	ug/l							
Bis(2-chloroethoxy)methane	ND	10	3.0	ug/l							
Bis(2-chloroethyl)ether	ND	10	3.0	ug/l							
Bis(2-chloroisopropyl)ether	ND	10	2.5	ug/l							
Bis(2-ethylhexyl)phthalate	ND	50	4.0	ug/l							
2-Chloronaphthalene	ND	10	3.0	ug/l							
2-Chlorophenol	ND	10	3.0	ug/l							
4-Chlorophenyl phenyl ether	ND	10	2.5	ug/l							
Chrysene	ND	10	2.5	ug/l							
Dibenz(a,h)anthracene	ND	20	3.0	ug/l							
Dibenzofuran	ND	10	4.0	ug/l							
Di-n-butyl phthalate	ND	20	3.0	ug/l							
1,2-Dichlorobenzene	ND	10	3.0	ug/l							
1,3-Dichlorobenzene	ND	10	3.0	ug/l							
1,4-Dichlorobenzene	ND	10	2.5	ug/l							
3,3'-Dichlorobenzidine	ND	20	7.5	ug/l							
2,4-Dichlorophenol	ND	10	3.5	ug/l							
Diethyl phthalate	ND	10	3.5	ug/l							
2,4-Dimethylphenol	ND	20	3.5	ug/l							
Dimethyl phthalate	ND	10	2.5	ug/l							

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 9B17084 Extracted: 02/17/09											
Blank Analyzed: 02/20/2009 (9B17084-BLK1)											
4,6-Dinitro-2-methylphenol	ND	20	4.0	ug/l							
2,4-Dinitrophenol	ND	20	8.0	ug/l							
2,4-Dinitrotoluene	ND	10	3.5	ug/l							
2,6-Dinitrotoluene	ND	10	2.0	ug/l							
Di-n-octyl phthalate	ND	20	3.5	ug/l							
1,2-Diphenylhydrazine/Azobenzene	ND	20	2.5	ug/l							
Fluoranthene	ND	10	3.0	ug/l							
Fluorene	ND	10	3.0	ug/l							
Hexachlorobenzene	ND	10	3.0	ug/l							
Hexachlorobutadiene	ND	10	4.0	ug/l							
Hexachlorocyclopentadiene	ND	20	5.0	ug/l							
Hexachloroethane	ND	10	3.5	ug/l							
Indeno(1,2,3-cd)pyrene	ND	20	3.5	ug/l							
Isophorone	ND	10	3.0	ug/l							
2-Methylnaphthalene	ND	10	2.0	ug/l							
2-Methylphenol	ND	10	3.0	ug/l							
4-Methylphenol	ND	10	3.0	ug/l							
Naphthalene	ND	10	3.0	ug/l							
2-Nitroaniline	ND	20	2.0	ug/l							
3-Nitroaniline	ND	20	3.0	ug/l							
4-Nitroaniline	ND	20	4.0	ug/l							
Nitrobenzene	ND	20	3.0	ug/l							
2-Nitrophenol	ND	10	3.5	ug/l							
4-Nitrophenol	ND	20	5.5	ug/l							
N-Nitroso-di-n-propylamine	ND	10	3.5	ug/l							
N-Nitrosodimethylamine	ND	20	2.5	ug/l							
N-Nitrosodiphenylamine	ND	10	2.0	ug/l							
Pentachlorophenol	ND	20	3.5	ug/l							
Phenanthrene	ND	10	3.5	ug/l							
Phenol	ND	10	2.0	ug/l							
Pyrene	ND	10	4.0	ug/l							
1,2,4-Trichlorobenzene	ND	10	2.5	ug/l							
2,4,5-Trichlorophenol	ND	20	3.0	ug/l							
2,4,6-Trichlorophenol	ND	20	4.5	ug/l							
Surrogate: 2,4,6-Tribromophenol	157			ug/l	200		79			40-120	

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 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B17084 Extracted: 02/17/09											
Blank Analyzed: 02/20/2009 (9B17084-BLK1)											
Surrogate: 2-Fluorobiphenyl	76.3			ug/l	100		76	50-120			
Surrogate: 2-Fluorophenol	126			ug/l	200		63	30-120			
Surrogate: Nitrobenzene-d5	75.7			ug/l	100		76	45-120			
Surrogate: Phenol-d6	137			ug/l	200		68	35-120			
Surrogate: Terphenyl-d14	84.4			ug/l	100		84	50-125			
LCS Analyzed: 02/20/2009 (9B17084-BS1)											
Acenaphthene	81.9	10	3.0	ug/l	100		82	60-120			MNR1
Acenaphthylene	80.3	10	3.0	ug/l	100		80	60-120			
Aniline	74.1	10	3.5	ug/l	100		74	35-120			
Anthracene	84.1	10	2.5	ug/l	100		84	65-120			
Benzidine	118	20	10	ug/l	100		118	30-160			
Benzo(a)anthracene	82.4	10	2.5	ug/l	100		82	65-120			
Benzo(a)pyrene	84.6	10	3.0	ug/l	100		85	55-130			
Benzo(b)fluoranthene	80.4	10	2.0	ug/l	100		80	55-125			
Benzo(g,h,i)perylene	83.8	10	4.0	ug/l	100		84	45-135			
Benzo(k)fluoranthene	90.0	10	2.5	ug/l	100		90	50-125			
Benzoic acid	60.8	20	10	ug/l	100		61	25-120			
Benzyl alcohol	77.5	20	3.5	ug/l	100		78	50-120			
4-Bromophenyl phenyl ether	84.4	10	3.0	ug/l	100		84	60-120			
Butyl benzyl phthalate	89.1	20	4.0	ug/l	100		89	55-130			
4-Chloro-3-methylphenol	81.9	20	2.5	ug/l	100		82	60-120			
4-Chloroaniline	83.7	10	2.0	ug/l	100		84	55-120			
Bis(2-chloroethoxy)methane	81.2	10	3.0	ug/l	100		81	55-120			
Bis(2-chloroethyl)ether	75.3	10	3.0	ug/l	100		75	50-120			
Bis(2-chloroisopropyl)ether	77.9	10	2.5	ug/l	100		78	45-120			
Bis(2-ethylhexyl)phthalate	94.4	50	4.0	ug/l	100		94	65-130			
2-Chloronaphthalene	79.3	10	3.0	ug/l	100		79	60-120			
2-Chlorophenol	71.2	10	3.0	ug/l	100		71	45-120			
4-Chlorophenyl phenyl ether	81.4	10	2.5	ug/l	100		81	65-120			
Chrysene	83.6	10	2.5	ug/l	100		84	65-120			
Dibenz(a,h)anthracene	83.7	20	3.0	ug/l	100		84	50-135			
Dibenzofuran	83.0	10	4.0	ug/l	100		83	65-120			
Di-n-butyl phthalate	89.7	20	3.0	ug/l	100		90	60-125			
1,2-Dichlorobenzene	63.8	10	3.0	ug/l	100		64	40-120			
1,3-Dichlorobenzene	60.5	10	3.0	ug/l	100		60	35-120			

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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: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B17084 Extracted: 02/17/09											
LCS Analyzed: 02/20/2009 (9B17084-BS1)											
1,4-Dichlorobenzene	61.8	10	2.5	ug/l	100		62	35-120			MNR1
3,3'-Dichlorobenzidine	73.4	20	7.5	ug/l	100		73	45-135			
2,4-Dichlorophenol	77.4	10	3.5	ug/l	100		77	55-120			
Diethyl phthalate	85.5	10	3.5	ug/l	100		85	55-120			
2,4-Dimethylphenol	70.0	20	3.5	ug/l	100		70	40-120			
Dimethyl phthalate	82.9	10	2.5	ug/l	100		83	30-120			
4,6-Dinitro-2-methylphenol	88.6	20	4.0	ug/l	100		89	45-120			
2,4-Dinitrophenol	77.4	20	8.0	ug/l	100		77	40-120			
2,4-Dinitrotoluene	89.2	10	3.5	ug/l	100		89	65-120			
2,6-Dinitrotoluene	83.9	10	2.0	ug/l	100		84	65-120			
Di-n-octyl phthalate	94.0	20	3.5	ug/l	100		94	65-135			
1,2-Diphenylhydrazine/Azobenzene	84.2	20	2.5	ug/l	100		84	60-120			
Fluoranthene	83.8	10	3.0	ug/l	100		84	60-120			
Fluorene	83.1	10	3.0	ug/l	100		83	65-120			
Hexachlorobenzene	84.1	10	3.0	ug/l	100		84	60-120			
Hexachlorobutadiene	66.6	10	4.0	ug/l	100		67	40-120			
Hexachlorocyclopentadiene	68.6	20	5.0	ug/l	100		69	25-120			
Hexachloroethane	56.5	10	3.5	ug/l	100		57	35-120			
Indeno(1,2,3-cd)pyrene	80.5	20	3.5	ug/l	100		81	45-135			
Isophorone	81.6	10	3.0	ug/l	100		82	50-120			
2-Methylnaphthalene	80.4	10	2.0	ug/l	100		80	55-120			
2-Methylphenol	73.4	10	3.0	ug/l	100		73	50-120			
4-Methylphenol	68.7	10	3.0	ug/l	100		69	50-120			
Naphthalene	76.1	10	3.0	ug/l	100		76	55-120			
2-Nitroaniline	86.5	20	2.0	ug/l	100		86	65-120			
3-Nitroaniline	86.1	20	3.0	ug/l	100		86	60-120			
4-Nitroaniline	90.2	20	4.0	ug/l	100		90	55-125			
Nitrobenzene	79.4	20	3.0	ug/l	100		79	55-120			
2-Nitrophenol	77.3	10	3.5	ug/l	100		77	50-120			
4-Nitrophenol	82.5	20	5.5	ug/l	100		82	45-120			
N-Nitroso-di-n-propylamine	78.8	10	3.5	ug/l	100		79	45-120			
N-Nitrosodimethylamine	74.6	20	2.5	ug/l	100		75	45-120			
N-Nitrosodiphenylamine	83.7	10	2.0	ug/l	100		84	60-120			
Pentachlorophenol	86.9	20	3.5	ug/l	100		87	50-120			
Phenanthrene	84.0	10	3.5	ug/l	100		84	65-120			

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B17084 Extracted: 02/17/09											
LCS Analyzed: 02/20/2009 (9B17084-BS1)											
Phenol	68.7	10	2.0	ug/l	100		69	40-120			MNR1
Pyrene	83.6	10	4.0	ug/l	100		84	55-125			
1,2,4-Trichlorobenzene	71.0	10	2.5	ug/l	100		71	45-120			
2,4,5-Trichlorophenol	81.2	20	3.0	ug/l	100		81	55-120			
2,4,6-Trichlorophenol	78.3	20	4.5	ug/l	100		78	55-120			
Surrogate: 2,4,6-Tribromophenol	162			ug/l	200		81	40-120			
Surrogate: 2-Fluorobiphenyl	77.3			ug/l	100		77	50-120			
Surrogate: 2-Fluorophenol	123			ug/l	200		61	30-120			
Surrogate: Nitrobenzene-d5	78.6			ug/l	100		79	45-120			
Surrogate: Phenol-d6	134			ug/l	200		67	35-120			
Surrogate: Terphenyl-d14	86.0			ug/l	100		86	50-125			
LCS Dup Analyzed: 02/20/2009 (9B17084-BSD1)											
Acenaphthene	78.5	10	3.0	ug/l	100		79	60-120	4	20	
Acenaphthylene	77.0	10	3.0	ug/l	100		77	60-120	4	20	
Aniline	70.9	10	3.5	ug/l	100		71	35-120	4	30	
Anthracene	82.4	10	2.5	ug/l	100		82	65-120	2	20	
Benzidine	121	20	10	ug/l	100		121	30-160	3	35	
Benzo(a)anthracene	79.9	10	2.5	ug/l	100		80	65-120	3	20	
Benzo(a)pyrene	82.3	10	3.0	ug/l	100		82	55-130	3	25	
Benzo(b)fluoranthene	76.2	10	2.0	ug/l	100		76	55-125	5	25	
Benzo(g,h,i)perylene	83.3	10	4.0	ug/l	100		83	45-135	1	25	
Benzo(k)fluoranthene	91.4	10	2.5	ug/l	100		91	50-125	2	20	
Benzoic acid	55.9	20	10	ug/l	100		56	25-120	8	30	
Benzyl alcohol	74.8	20	3.5	ug/l	100		75	50-120	4	20	
4-Bromophenyl phenyl ether	80.8	10	3.0	ug/l	100		81	60-120	4	25	
Butyl benzyl phthalate	86.9	20	4.0	ug/l	100		87	55-130	2	20	
4-Chloro-3-methylphenol	76.7	20	2.5	ug/l	100		77	60-120	7	25	
4-Chloroaniline	80.6	10	2.0	ug/l	100		81	55-120	4	25	
Bis(2-chloroethoxy)methane	78.2	10	3.0	ug/l	100		78	55-120	4	20	
Bis(2-chloroethyl)ether	73.1	10	3.0	ug/l	100		73	50-120	3	20	
Bis(2-chloroisopropyl)ether	75.6	10	2.5	ug/l	100		76	45-120	3	20	
Bis(2-ethylhexyl)phthalate	93.1	50	4.0	ug/l	100		93	65-130	1	20	
2-Chloronaphthalene	76.4	10	3.0	ug/l	100		76	60-120	4	20	
2-Chlorophenol	68.4	10	3.0	ug/l	100		68	45-120	4	25	
4-Chlorophenyl phenyl ether	80.5	10	2.5	ug/l	100		81	65-120	1	20	

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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: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B17084 Extracted: 02/17/09											
LCS Dup Analyzed: 02/20/2009 (9B17084-BSD1)											
Chrysene	82.0	10	2.5	ug/l	100	82	65-120	2	20		
Dibenz(a,h)anthracene	83.0	20	3.0	ug/l	100	83	50-135	1	25		
Dibenzofuran	80.2	10	4.0	ug/l	100	80	65-120	3	20		
Di-n-butyl phthalate	88.4	20	3.0	ug/l	100	88	60-125	1	20		
1,2-Dichlorobenzene	61.0	10	3.0	ug/l	100	61	40-120	5	25		
1,3-Dichlorobenzene	58.2	10	3.0	ug/l	100	58	35-120	4	25		
1,4-Dichlorobenzene	59.2	10	2.5	ug/l	100	59	35-120	4	25		
3,3'-Dichlorobenzidine	73.2	20	7.5	ug/l	100	73	45-135	0	25		
2,4-Dichlorophenol	73.1	10	3.5	ug/l	100	73	55-120	6	20		
Diethyl phthalate	82.6	10	3.5	ug/l	100	83	55-120	3	30		
2,4-Dimethylphenol	66.8	20	3.5	ug/l	100	67	40-120	5	25		
Dimethyl phthalate	79.0	10	2.5	ug/l	100	79	30-120	5	30		
4,6-Dinitro-2-methylphenol	84.4	20	4.0	ug/l	100	84	45-120	5	25		
2,4-Dinitrophenol	72.7	20	8.0	ug/l	100	73	40-120	6	25		
2,4-Dinitrotoluene	86.1	10	3.5	ug/l	100	86	65-120	4	20		
2,6-Dinitrotoluene	81.2	10	2.0	ug/l	100	81	65-120	3	20		
Di-n-octyl phthalate	89.4	20	3.5	ug/l	100	89	65-135	5	20		
1,2-Diphenylhydrazine/Azobenzene	80.8	20	2.5	ug/l	100	81	60-120	4	25		
Fluoranthene	83.0	10	3.0	ug/l	100	83	60-120	1	20		
Fluorene	80.0	10	3.0	ug/l	100	80	65-120	4	20		
Hexachlorobenzene	81.6	10	3.0	ug/l	100	82	60-120	3	20		
Hexachlorobutadiene	63.8	10	4.0	ug/l	100	64	40-120	4	25		
Hexachlorocyclopentadiene	64.9	20	5.0	ug/l	100	65	25-120	5	30		
Hexachloroethane	54.2	10	3.5	ug/l	100	54	35-120	4	25		
Indeno(1,2,3-cd)pyrene	77.7	20	3.5	ug/l	100	78	45-135	4	25		
Isophorone	77.4	10	3.0	ug/l	100	77	50-120	5	20		
2-Methylnaphthalene	75.5	10	2.0	ug/l	100	75	55-120	6	20		
2-Methylphenol	70.6	10	3.0	ug/l	100	71	50-120	4	20		
4-Methylphenol	65.8	10	3.0	ug/l	100	66	50-120	4	20		
Naphthalene	72.6	10	3.0	ug/l	100	73	55-120	5	20		
2-Nitroaniline	81.7	20	2.0	ug/l	100	82	65-120	6	20		
3-Nitroaniline	82.3	20	3.0	ug/l	100	82	60-120	5	25		
4-Nitroaniline	85.1	20	4.0	ug/l	100	85	55-125	6	20		
Nitrobenzene	76.0	20	3.0	ug/l	100	76	55-120	4	25		
2-Nitrophenol	73.4	10	3.5	ug/l	100	73	50-120	5	25		

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B17084 Extracted: 02/17/09											
LCS Dup Analyzed: 02/20/2009 (9B17084-BSD1)											
4-Nitrophenol	77.0	20	5.5	ug/l	100	77	77	45-120	7	30	
N-Nitroso-di-n-propylamine	75.7	10	3.5	ug/l	100	76	76	45-120	4	20	
N-Nitrosodimethylamine	72.5	20	2.5	ug/l	100	72	72	45-120	3	20	
N-Nitrosodiphenylamine	79.9	10	2.0	ug/l	100	80	80	60-120	5	20	
Pentachlorophenol	83.3	20	3.5	ug/l	100	83	83	50-120	4	25	
Phenanthrene	81.0	10	3.5	ug/l	100	81	81	65-120	4	20	
Phenol	65.6	10	2.0	ug/l	100	66	66	40-120	5	25	
Pyrene	80.4	10	4.0	ug/l	100	80	80	55-125	4	25	
1,2,4-Trichlorobenzene	67.4	10	2.5	ug/l	100	67	67	45-120	5	20	
2,4,5-Trichlorophenol	76.5	20	3.0	ug/l	100	76	76	55-120	6	30	
2,4,6-Trichlorophenol	75.2	20	4.5	ug/l	100	75	75	55-120	4	30	
Surrogate: 2,4,6-Tribromophenol	153			ug/l	200	76	76	40-120			
Surrogate: 2-Fluorobiphenyl	74.8			ug/l	100	75	75	50-120			
Surrogate: 2-Fluorophenol	119			ug/l	200	60	60	30-120			
Surrogate: Nitrobenzene-d5	74.8			ug/l	100	75	75	45-120			
Surrogate: Phenol-d6	130			ug/l	200	65	65	35-120			
Surrogate: Terphenyl-d14	81.7			ug/l	100	82	82	50-125			

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Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 9B20074 Extracted: 02/20/09											
Blank Analyzed: 02/21/2009 (9B20074-BLK1)											
4,4'-DDD	ND	0.0050	0.0020	ug/l							
4,4'-DDE	ND	0.0050	0.0030	ug/l							
4,4'-DDT	ND	0.010	0.0040	ug/l							
Aldrin	ND	0.0050	0.0015	ug/l							
alpha-BHC	0.00634	0.0050	0.0025	ug/l							B, N2
beta-BHC	ND	0.010	0.0040	ug/l							
delta-BHC	ND	0.0050	0.0035	ug/l							
Dieldrin	ND	0.0050	0.0020	ug/l							
Endosulfan I	ND	0.0050	0.0020	ug/l							
Endosulfan II	ND	0.0050	0.0030	ug/l							
Endosulfan sulfate	ND	0.010	0.0030	ug/l							
Endrin	ND	0.0050	0.0020	ug/l							
Endrin aldehyde	ND	0.010	0.0020	ug/l							
Endrin ketone	ND	0.010	0.0030	ug/l							
gamma-BHC (Lindane)	ND	0.020	0.0030	ug/l							
Heptachlor	ND	0.010	0.0030	ug/l							
Heptachlor epoxide	ND	0.0050	0.0025	ug/l							
Methoxychlor	ND	0.0050	0.0035	ug/l							
Chlordane	ND	0.10	0.040	ug/l							
Toxaphene	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	0.416			ug/l	0.500		83	45-120			
Surrogate: Tetrachloro-m-xylene	0.380			ug/l	0.500		76	35-115			

LCS Analyzed: 02/20/2009 (9B20074-BS1)

MNR1

4,4'-DDD	0.525	0.0050	0.0020	ug/l	0.500		105	55-120			
4,4'-DDE	0.489	0.0050	0.0030	ug/l	0.500		98	50-120			
4,4'-DDT	0.465	0.010	0.0040	ug/l	0.500		93	55-120			
Aldrin	0.424	0.0050	0.0015	ug/l	0.500		85	40-115			
alpha-BHC	0.494	0.0050	0.0025	ug/l	0.500		99	45-115			
beta-BHC	0.482	0.010	0.0040	ug/l	0.500		96	55-115			
delta-BHC	0.500	0.0050	0.0035	ug/l	0.500		100	55-115			
Dieldrin	0.474	0.0050	0.0020	ug/l	0.500		95	55-115			
Endosulfan I	0.438	0.0050	0.0020	ug/l	0.500		88	55-115			
Endosulfan II	0.471	0.0050	0.0030	ug/l	0.500		94	55-120			
Endosulfan sulfate	0.474	0.010	0.0030	ug/l	0.500		95	60-120			
Endrin	0.486	0.0050	0.0020	ug/l	0.500		97	55-115			

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B20074 Extracted: 02/20/09											
LCS Analyzed: 02/20/2009 (9B20074-BS1)											
Endrin aldehyde	0.555	0.010	0.0020	ug/l	0.500		111	50-120			MNR1
Endrin ketone	0.452	0.010	0.0030	ug/l	0.500		90	55-120			
gamma-BHC (Lindane)	0.451	0.020	0.0030	ug/l	0.500		90	45-115			
Heptachlor	0.442	0.010	0.0030	ug/l	0.500		88	45-115			
Heptachlor epoxide	0.440	0.0050	0.0025	ug/l	0.500		88	55-115			
Methoxychlor	0.478	0.0050	0.0035	ug/l	0.500		96	60-120			
Surrogate: Decachlorobiphenyl	0.393			ug/l	0.500		79	45-120			
Surrogate: Tetrachloro-m-xylene	0.359			ug/l	0.500		72	35-115			
LCS Dup Analyzed: 02/20/2009 (9B20074-BSD1)											
4,4'-DDD	0.494	0.0050	0.0020	ug/l	0.500		99	55-120	6	30	
4,4'-DDE	0.453	0.0050	0.0030	ug/l	0.500		91	50-120	8	30	
4,4'-DDT	0.438	0.010	0.0040	ug/l	0.500		88	55-120	6	30	
Aldrin	0.396	0.0050	0.0015	ug/l	0.500		79	40-115	7	30	
alpha-BHC	0.454	0.0050	0.0025	ug/l	0.500		91	45-115	9	30	
beta-BHC	0.438	0.010	0.0040	ug/l	0.500		88	55-115	10	30	
delta-BHC	0.472	0.0050	0.0035	ug/l	0.500		94	55-115	6	30	
Dieldrin	0.452	0.0050	0.0020	ug/l	0.500		90	55-115	5	30	
Endosulfan I	0.419	0.0050	0.0020	ug/l	0.500		84	55-115	4	30	
Endosulfan II	0.454	0.0050	0.0030	ug/l	0.500		91	55-120	4	30	
Endosulfan sulfate	0.453	0.010	0.0030	ug/l	0.500		91	60-120	5	30	
Endrin	0.456	0.0050	0.0020	ug/l	0.500		91	55-115	6	30	
Endrin aldehyde	0.469	0.010	0.0020	ug/l	0.500		94	50-120	17	30	
Endrin ketone	0.436	0.010	0.0030	ug/l	0.500		87	55-120	4	30	
gamma-BHC (Lindane)	0.415	0.020	0.0030	ug/l	0.500		83	45-115	8	30	
Heptachlor	0.410	0.010	0.0030	ug/l	0.500		82	45-115	8	30	
Heptachlor epoxide	0.422	0.0050	0.0025	ug/l	0.500		84	55-115	4	30	
Methoxychlor	0.449	0.0050	0.0035	ug/l	0.500		90	60-120	6	30	
Surrogate: Decachlorobiphenyl	0.378			ug/l	0.500		76	45-120			
Surrogate: Tetrachloro-m-xylene	0.338			ug/l	0.500		68	35-115			

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B23113 Extracted: 02/23/09											
Blank Analyzed: 02/24/2009 (9B23113-BLK1)											
4,4'-DDD	ND	0.0050	0.0020	ug/l							
4,4'-DDE	ND	0.0050	0.0030	ug/l							
4,4'-DDT	ND	0.010	0.0040	ug/l							
Aldrin	ND	0.0050	0.0015	ug/l							
alpha-BHC	ND	0.0050	0.0025	ug/l							
beta-BHC	ND	0.010	0.0040	ug/l							
delta-BHC	ND	0.0050	0.0035	ug/l							
Dieldrin	ND	0.0050	0.0020	ug/l							
Endosulfan I	ND	0.0050	0.0020	ug/l							
Endosulfan II	ND	0.0050	0.0030	ug/l							
Endosulfan sulfate	ND	0.010	0.0030	ug/l							
Endrin	ND	0.0050	0.0020	ug/l							
Endrin aldehyde	ND	0.010	0.0020	ug/l							
Endrin ketone	ND	0.010	0.0030	ug/l							
gamma-BHC (Lindane)	ND	0.020	0.0030	ug/l							
Heptachlor	ND	0.010	0.0030	ug/l							
Heptachlor epoxide	ND	0.0050	0.0025	ug/l							
Methoxychlor	ND	0.0050	0.0035	ug/l							
Chlordane	ND	0.10	0.040	ug/l							
Toxaphene	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	0.456			ug/l	0.500		91	45-120			
Surrogate: Tetrachloro-m-xylene	0.462			ug/l	0.500		92	35-115			

LCS Analyzed: 02/24/2009 (9B23113-BS1)

MNR1

4,4'-DDD	0.501	0.0050	0.0020	ug/l	0.500		100	55-120			
4,4'-DDE	0.510	0.0050	0.0030	ug/l	0.500		102	50-120			
4,4'-DDT	0.531	0.010	0.0040	ug/l	0.500		106	55-120			
Aldrin	0.470	0.0050	0.0015	ug/l	0.500		94	40-115			
alpha-BHC	0.534	0.0050	0.0025	ug/l	0.500		107	45-115			
beta-BHC	0.509	0.010	0.0040	ug/l	0.500		102	55-115			
delta-BHC	0.523	0.0050	0.0035	ug/l	0.500		105	55-115			
Dieldrin	0.493	0.0050	0.0020	ug/l	0.500		99	55-115			
Endosulfan I	0.457	0.0050	0.0020	ug/l	0.500		91	55-115			
Endosulfan II	0.492	0.0050	0.0030	ug/l	0.500		98	55-120			
Endosulfan sulfate	0.486	0.010	0.0030	ug/l	0.500		97	60-120			
Endrin	0.498	0.0050	0.0020	ug/l	0.500		100	55-115			

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B23113 Extracted: 02/23/09											
LCS Analyzed: 02/24/2009 (9B23113-BS1)											
Endrin aldehyde	0.522	0.010	0.0020	ug/l	0.500		104	50-120			MNR1
Endrin ketone	0.469	0.010	0.0030	ug/l	0.500		94	55-120			
gamma-BHC (Lindane)	0.485	0.020	0.0030	ug/l	0.500		97	45-115			
Heptachlor	0.501	0.010	0.0030	ug/l	0.500		100	45-115			
Heptachlor epoxide	0.468	0.0050	0.0025	ug/l	0.500		94	55-115			
Methoxychlor	0.527	0.0050	0.0035	ug/l	0.500		105	60-120			
Surrogate: Decachlorobiphenyl	0.439			ug/l	0.500		88	45-120			
Surrogate: Tetrachloro-m-xylene	0.405			ug/l	0.500		81	35-115			
LCS Dup Analyzed: 02/24/2009 (9B23113-BSD1)											
4,4'-DDD	0.506	0.0050	0.0020	ug/l	0.500		101	55-120	1	30	
4,4'-DDE	0.507	0.0050	0.0030	ug/l	0.500		101	50-120	1	30	
4,4'-DDT	0.530	0.010	0.0040	ug/l	0.500		106	55-120	0	30	
Aldrin	0.467	0.0050	0.0015	ug/l	0.500		93	40-115	1	30	
alpha-BHC	0.510	0.0050	0.0025	ug/l	0.500		102	45-115	5	30	
beta-BHC	0.507	0.010	0.0040	ug/l	0.500		101	55-115	0	30	
delta-BHC	0.520	0.0050	0.0035	ug/l	0.500		104	55-115	1	30	
Dieldrin	0.490	0.0050	0.0020	ug/l	0.500		98	55-115	1	30	
Endosulfan I	0.456	0.0050	0.0020	ug/l	0.500		91	55-115	0	30	
Endosulfan II	0.487	0.0050	0.0030	ug/l	0.500		97	55-120	1	30	
Endosulfan sulfate	0.488	0.010	0.0030	ug/l	0.500		98	60-120	0	30	
Endrin	0.496	0.0050	0.0020	ug/l	0.500		99	55-115	0	30	
Endrin aldehyde	0.525	0.010	0.0020	ug/l	0.500		105	50-120	1	30	
Endrin ketone	0.470	0.010	0.0030	ug/l	0.500		94	55-120	0	30	
gamma-BHC (Lindane)	0.482	0.020	0.0030	ug/l	0.500		96	45-115	1	30	
Heptachlor	0.496	0.010	0.0030	ug/l	0.500		99	45-115	1	30	
Heptachlor epoxide	0.465	0.0050	0.0025	ug/l	0.500		93	55-115	1	30	
Methoxychlor	0.532	0.0050	0.0035	ug/l	0.500		106	60-120	1	30	
Surrogate: Decachlorobiphenyl	0.441			ug/l	0.500		88	45-120			
Surrogate: Tetrachloro-m-xylene	0.401			ug/l	0.500		80	35-115			

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METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 9B20074 Extracted: 02/20/09											
Blank Analyzed: 02/21/2009 (9B20074-BLK1)											
Aroclor 1016	ND	0.50	0.25	ug/l							
Aroclor 1221	ND	0.50	0.25	ug/l							
Aroclor 1232	ND	0.50	0.25	ug/l							
Aroclor 1242	ND	0.50	0.25	ug/l							
Aroclor 1248	ND	0.50	0.25	ug/l							
Aroclor 1254	ND	0.50	0.25	ug/l							
Aroclor 1260	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	0.480			ug/l	0.500		96	45-120			
LCS Analyzed: 02/20/2009 (9B20074-BS2)											
Aroclor 1016	3.62	0.50	0.25	ug/l	4.00		91	50-115			MNR1
Aroclor 1260	3.73	0.50	0.25	ug/l	4.00		93	60-120			
Surrogate: Decachlorobiphenyl	0.476			ug/l	0.500		95	45-120			
LCS Dup Analyzed: 02/20/2009 (9B20074-BSD2)											
Aroclor 1016	3.72	0.50	0.25	ug/l	4.00		93	50-115	3	30	
Aroclor 1260	3.73	0.50	0.25	ug/l	4.00		93	60-120	0	25	
Surrogate: Decachlorobiphenyl	0.476			ug/l	0.500		95	45-120			

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METHOD BLANK/QC DATA

HEXANE EXTRACTABLE MATERIAL

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B24074 Extracted: 02/24/09											
Blank Analyzed: 02/24/2009 (9B24074-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 02/24/2009 (9B24074-BS1)											
Hexane Extractable Material (Oil & Grease)	19.2	5.0	1.4	mg/l	20.0		96	78-114			
LCS Dup Analyzed: 02/24/2009 (9B24074-BSD1)											
Hexane Extractable Material (Oil & Grease)	18.8	5.0	1.4	mg/l	20.0		94	78-114	2	11	
Matrix Spike Analyzed: 02/24/2009 (9B24074-MS1)											
Hexane Extractable Material (Oil & Grease)	21.1	4.8	1.3	mg/l	19.1	3.73	90	78-114			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 9B23087 Extracted: 02/23/09											
Blank Analyzed: 02/24/2009 (9B23087-BLK1)											
Aluminum	ND	50	40	ug/l							
Arsenic	ND	10	7.0	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	ND	0.10	0.050	mg/l							
Chromium	2.93	5.0	2.0	ug/l							Ja
Iron	ND	0.040	0.015	mg/l							
Magnesium	ND	0.020	0.012	mg/l							
Nickel	ND	10	2.0	ug/l							
Silver	ND	10	6.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							

LCS Analyzed: 02/24/2009 (9B23087-BS1)

Aluminum	470	50	40	ug/l	500		94	85-115			
Arsenic	490	10	7.0	ug/l	500		98	85-115			
Beryllium	499	2.0	0.90	ug/l	500		100	85-115			
Boron	0.497	0.050	0.020	mg/l	0.500		99	85-115			
Calcium	2.56	0.10	0.050	mg/l	2.50		102	85-115			
Chromium	501	5.0	2.0	ug/l	500		100	85-115			
Iron	0.511	0.040	0.015	mg/l	0.500		102	85-115			
Magnesium	2.50	0.020	0.012	mg/l	2.50		100	85-115			
Nickel	488	10	2.0	ug/l	500		98	85-115			
Silver	262	10	6.0	ug/l	250		105	85-115			
Vanadium	509	10	3.0	ug/l	500		102	85-115			
Zinc	490	20	6.0	ug/l	500		98	85-115			

Matrix Spike Analyzed: 02/24/2009 (9B23087-MS1)

					Source: ISB1733-01RE1						
Aluminum	1080	50	40	ug/l	500	465	122	70-130			
Arsenic	490	10	7.0	ug/l	500	ND	98	70-130			
Beryllium	500	2.0	0.90	ug/l	500	ND	100	70-130			
Boron	1.06	0.050	0.020	mg/l	0.500	0.576	97	70-130			
Calcium	7.56	0.10	0.050	mg/l	2.50	5.01	102	70-130			
Chromium	507	5.0	2.0	ug/l	500	7.68	100	70-130			
Iron	1.24	0.040	0.015	mg/l	0.500	0.717	105	70-130			
Magnesium	3.28	0.020	0.012	mg/l	2.50	0.754	101	70-130			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 9B23087 Extracted: 02/23/09											
Matrix Spike Analyzed: 02/24/2009 (9B23087-MS1)						Source: ISB1733-01RE1					
Nickel	500	10	2.0	ug/l	500	14.7	97	70-130			
Silver	259	10	6.0	ug/l	250	ND	103	70-130			
Vanadium	504	10	3.0	ug/l	500	3.54	100	70-130			
Zinc	641	20	6.0	ug/l	500	155	97	70-130			
Matrix Spike Analyzed: 02/24/2009 (9B23087-MS2)						Source: ISB1806-01					
Aluminum	573	50	40	ug/l	500	55.5	104	70-130			
Arsenic	471	10	7.0	ug/l	500	ND	94	70-130			
Beryllium	476	2.0	0.90	ug/l	500	ND	95	70-130			
Boron	0.476	0.050	0.020	mg/l	0.500	ND	95	70-130			
Calcium	4.04	0.10	0.050	mg/l	2.50	1.51	101	70-130			
Chromium	484	5.0	2.0	ug/l	500	ND	97	70-130			
Iron	0.631	0.040	0.015	mg/l	0.500	0.128	101	70-130			
Magnesium	2.67	0.020	0.012	mg/l	2.50	0.243	97	70-130			
Nickel	471	10	2.0	ug/l	500	ND	94	70-130			
Silver	255	10	6.0	ug/l	250	ND	102	70-130			
Vanadium	493	10	3.0	ug/l	500	ND	99	70-130			
Zinc	491	20	6.0	ug/l	500	13.8	95	70-130			
Matrix Spike Dup Analyzed: 02/24/2009 (9B23087-MSD1)						Source: ISB1733-01RE1					
Aluminum	1070	50	40	ug/l	500	465	121	70-130	0	20	
Arsenic	490	10	7.0	ug/l	500	ND	98	70-130	0	20	
Beryllium	501	2.0	0.90	ug/l	500	ND	100	70-130	0	20	
Boron	1.10	0.050	0.020	mg/l	0.500	0.576	104	70-130	3	20	
Calcium	7.62	0.10	0.050	mg/l	2.50	5.01	104	70-130	1	20	
Chromium	508	5.0	2.0	ug/l	500	7.68	100	70-130	0	20	
Iron	1.29	0.040	0.015	mg/l	0.500	0.717	114	70-130	3	20	
Magnesium	3.27	0.020	0.012	mg/l	2.50	0.754	101	70-130	0	20	
Nickel	501	10	2.0	ug/l	500	14.7	97	70-130	0	20	
Silver	263	10	6.0	ug/l	250	ND	105	70-130	2	20	
Vanadium	508	10	3.0	ug/l	500	3.54	101	70-130	1	20	
Zinc	645	20	6.0	ug/l	500	155	98	70-130	1	20	

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B23088 Extracted: 02/23/09											
Blank Analyzed: 02/24/2009 (9B23088-BLK1)											
Antimony	ND	2.0	0.20	ug/l							
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	0.402	2.0	0.30	ug/l							Ja
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/24/2009 (9B23088-BS1)											
Antimony	81.2	2.0	0.20	ug/l	80.0		102	85-115			
Cadmium	79.6	1.0	0.11	ug/l	80.0		100	85-115			
Copper	80.0	2.0	0.75	ug/l	80.0		100	85-115			
Lead	83.7	1.0	0.30	ug/l	80.0		105	85-115			
Selenium	77.8	2.0	0.30	ug/l	80.0		97	85-115			
Thallium	83.6	1.0	0.20	ug/l	80.0		104	85-115			
Matrix Spike Analyzed: 02/24/2009 (9B23088-MS1) Source: ISB1530-03											
Antimony	85.5	2.0	0.20	ug/l	80.0	0.241	107	70-130			
Cadmium	84.1	1.0	0.11	ug/l	80.0	ND	105	70-130			
Copper	75.7	2.0	0.75	ug/l	80.0	1.56	93	70-130			
Lead	76.4	1.0	0.30	ug/l	80.0	ND	95	70-130			
Selenium	76.0	2.0	0.30	ug/l	80.0	ND	95	70-130			
Thallium	77.3	1.0	0.20	ug/l	80.0	ND	97	70-130			
Matrix Spike Analyzed: 02/24/2009 (9B23088-MS2) Source: ISB1780-01											
Antimony	82.0	2.0	0.20	ug/l	80.0	ND	102	70-130			
Cadmium	79.0	1.0	0.11	ug/l	80.0	ND	99	70-130			
Copper	74.4	2.0	0.75	ug/l	80.0	1.17	92	70-130			
Lead	77.8	1.0	0.30	ug/l	80.0	0.676	96	70-130			
Selenium	75.3	2.0	0.30	ug/l	80.0	0.988	93	70-130			
Thallium	77.9	1.0	0.20	ug/l	80.0	ND	97	70-130			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B23088 Extracted: 02/23/09											
Matrix Spike Dup Analyzed: 02/24/2009 (9B23088-MSD1)						Source: ISB1530-03					
Antimony	85.0	2.0	0.20	ug/l	80.0	0.241	106	70-130	1	20	
Cadmium	81.7	1.0	0.11	ug/l	80.0	ND	102	70-130	3	20	
Copper	75.5	2.0	0.75	ug/l	80.0	1.56	92	70-130	0	20	
Lead	76.0	1.0	0.30	ug/l	80.0	ND	95	70-130	1	20	
Selenium	74.4	2.0	0.30	ug/l	80.0	ND	93	70-130	2	20	
Thallium	78.0	1.0	0.20	ug/l	80.0	ND	97	70-130	1	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B20105 Extracted: 02/20/09											
Blank Analyzed: 02/21/2009-02/24/2009 (9B20105-BLK1)											
Aluminum	ND	50	40	ug/l							
Arsenic	ND	10	7.0	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	ND	0.10	0.050	mg/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Magnesium	ND	0.020	0.012	mg/l							
Nickel	ND	10	2.0	ug/l							
Silver	ND	10	6.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							

LCS Analyzed: 02/21/2009-02/24/2009 (9B20105-BS1)

Aluminum	465	50	40	ug/l	500		93	85-115			
Arsenic	490	10	7.0	ug/l	500		98	85-115			
Beryllium	479	2.0	0.90	ug/l	500		96	85-115			
Boron	0.473	0.050	0.020	mg/l	0.500		95	85-115			
Calcium	2.54	0.10	0.050	mg/l	2.50		101	85-115			
Chromium	488	5.0	2.0	ug/l	500		98	85-115			
Iron	0.508	0.040	0.015	mg/l	0.500		102	85-115			
Magnesium	2.50	0.020	0.012	mg/l	2.50		100	85-115			
Nickel	483	10	2.0	ug/l	500		97	85-115			
Silver	250	10	6.0	ug/l	250		100	85-115			
Vanadium	484	10	3.0	ug/l	500		97	85-115			
Zinc	477	20	6.0	ug/l	500		95	85-115			

Matrix Spike Analyzed: 02/21/2009-02/24/2009 (9B20105-MS1)

Source: ISB1822-01

Aluminum	510	50	40	ug/l	500	40.2	94	70-130			
Arsenic	470	10	7.0	ug/l	500	ND	94	70-130			
Beryllium	468	2.0	0.90	ug/l	500	ND	94	70-130			
Boron	0.525	0.050	0.020	mg/l	0.500	0.0464	96	70-130			
Calcium	73.3	0.10	0.050	mg/l	2.50	70.6	109	70-130			MHA
Chromium	477	5.0	2.0	ug/l	500	2.34	95	70-130			
Iron	0.532	0.040	0.015	mg/l	0.500	0.0482	97	70-130			
Magnesium	49.5	0.020	0.012	mg/l	2.50	47.2	93	70-130			MHA

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B20105 Extracted: 02/20/09											
Matrix Spike Analyzed: 02/21/2009-02/24/2009 (9B20105-MS1)						Source: ISB1822-01					
Nickel	468	10	2.0	ug/l	500	2.07	93	70-130			
Silver	248	10	6.0	ug/l	250	ND	99	70-130			
Vanadium	475	10	3.0	ug/l	500	ND	95	70-130			
Zinc	461	20	6.0	ug/l	500	ND	92	70-130			
Matrix Spike Analyzed: 02/21/2009-02/24/2009 (9B20105-MS2)						Source: ISB1823-01					
Aluminum	1860	50	40	ug/l	500	976	177	70-130			MI
Arsenic	489	10	7.0	ug/l	500	ND	98	70-130			
Beryllium	479	2.0	0.90	ug/l	500	ND	96	70-130			
Boron	0.484	0.050	0.020	mg/l	0.500	0.0201	93	70-130			
Calcium	9.85	0.10	0.050	mg/l	2.50	7.36	100	70-130			
Chromium	492	5.0	2.0	ug/l	500	ND	98	70-130			
Iron	1.62	0.040	0.015	mg/l	0.500	1.11	103	70-130			
Magnesium	3.78	0.020	0.012	mg/l	2.50	1.29	100	70-130			
Nickel	487	10	2.0	ug/l	500	ND	97	70-130			
Silver	251	10	6.0	ug/l	250	ND	100	70-130			
Vanadium	487	10	3.0	ug/l	500	3.58	97	70-130			
Zinc	478	20	6.0	ug/l	500	ND	96	70-130			
Matrix Spike Dup Analyzed: 02/21/2009-02/24/2009 (9B20105-MSD1)						Source: ISB1822-01					
Aluminum	504	50	40	ug/l	500	40.2	93	70-130	1	20	
Arsenic	476	10	7.0	ug/l	500	ND	95	70-130	1	20	
Beryllium	468	2.0	0.90	ug/l	500	ND	94	70-130	0	20	
Boron	0.522	0.050	0.020	mg/l	0.500	0.0464	95	70-130	1	20	
Calcium	72.8	0.10	0.050	mg/l	2.50	70.6	90	70-130	1	20	MHA
Chromium	484	5.0	2.0	ug/l	500	2.34	96	70-130	1	20	
Iron	0.531	0.040	0.015	mg/l	0.500	0.0482	97	70-130	0	20	
Magnesium	48.9	0.020	0.012	mg/l	2.50	47.2	70	70-130	1	20	MHA
Nickel	474	10	2.0	ug/l	500	2.07	94	70-130	1	20	
Silver	247	10	6.0	ug/l	250	ND	99	70-130	0	20	
Vanadium	475	10	3.0	ug/l	500	ND	95	70-130	0	20	
Zinc	461	20	6.0	ug/l	500	ND	92	70-130	0	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 9B20106 Extracted: 02/20/09											
Blank Analyzed: 02/23/2009 (9B20106-BLK1)											
Antimony	ND	2.0	0.20	ug/l							
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							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/23/2009 (9B20106-BS1)											
Antimony	85.1	2.0	0.20	ug/l	80.0		106	85-115			
Cadmium	83.3	1.0	0.11	ug/l	80.0		104	85-115			
Copper	78.1	2.0	0.75	ug/l	80.0		98	85-115			
Lead	83.7	1.0	0.30	ug/l	80.0		105	85-115			
Selenium	76.6	2.0	0.30	ug/l	80.0		96	85-115			
Thallium	83.4	1.0	0.20	ug/l	80.0		104	85-115			
Matrix Spike Analyzed: 02/23/2009 (9B20106-MS1) Source: ISB1693-01											
Antimony	85.2	2.0	0.20	ug/l	80.0	0.558	106	70-130			
Cadmium	82.0	1.0	0.11	ug/l	80.0	ND	103	70-130			
Copper	78.5	2.0	0.75	ug/l	80.0	1.32	97	70-130			
Lead	83.6	1.0	0.30	ug/l	80.0	ND	105	70-130			
Selenium	74.0	2.0	0.30	ug/l	80.0	ND	92	70-130			
Thallium	83.6	1.0	0.20	ug/l	80.0	ND	105	70-130			
Matrix Spike Analyzed: 02/23/2009 (9B20106-MS2) Source: ISB1694-01											
Antimony	87.7	2.0	0.20	ug/l	80.0	0.567	109	70-130			
Cadmium	82.9	1.0	0.11	ug/l	80.0	ND	104	70-130			
Copper	76.3	2.0	0.75	ug/l	80.0	1.12	94	70-130			
Lead	81.7	1.0	0.30	ug/l	80.0	ND	102	70-130			
Selenium	74.5	2.0	0.30	ug/l	80.0	ND	93	70-130			
Thallium	81.6	1.0	0.20	ug/l	80.0	ND	102	70-130			

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DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B20106 Extracted: 02/20/09											
Matrix Spike Dup Analyzed: 02/23/2009 (9B20106-MSD1)						Source: ISB1693-01					
Antimony	88.4	2.0	0.20	ug/l	80.0	0.558	110	70-130	4	20	
Cadmium	84.3	1.0	0.11	ug/l	80.0	ND	105	70-130	3	20	
Copper	78.9	2.0	0.75	ug/l	80.0	1.32	97	70-130	0	20	
Lead	83.6	1.0	0.30	ug/l	80.0	ND	105	70-130	0	20	
Selenium	75.7	2.0	0.30	ug/l	80.0	ND	95	70-130	2	20	
Thallium	83.1	1.0	0.20	ug/l	80.0	ND	104	70-130	1	20	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 9B16057 Extracted: 02/16/09											
Blank Analyzed: 02/16/2009 (9B16057-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 02/16/2009 (9B16057-BS1)											
Chloride	4.54	0.50	0.25	mg/l	5.00		91	90-110			M-3
Nitrate-N	1.11	0.11	0.060	mg/l	1.13		98	90-110			
Nitrite-N	1.55	0.15	0.090	mg/l	1.52		102	90-110			
Sulfate	9.13	0.50	0.20	mg/l	10.0		91	90-110			
Matrix Spike Analyzed: 02/16/2009 (9B16057-MS1)											
						Source: ISB1719-03					
Nitrate-N	4.50	0.11	0.060	mg/l	1.13	3.20	115	80-120			
Nitrite-N	2.06	0.15	0.090	mg/l	1.52	ND	136	80-120			MI
Sulfate	16.3	0.50	0.20	mg/l	10.0	5.12	112	80-120			
Matrix Spike Analyzed: 02/17/2009 (9B16057-MS2)											
						Source: ISB1806-01					
Chloride	13.9	0.50	0.25	mg/l	5.00	8.38	111	80-120			
Nitrate-N	1.88	0.11	0.060	mg/l	1.13	0.664	108	80-120			
Nitrite-N	1.70	0.15	0.090	mg/l	1.52	ND	112	80-120			
Sulfate	15.8	0.50	0.20	mg/l	10.0	4.54	113	80-120			
Matrix Spike Dup Analyzed: 02/16/2009 (9B16057-MSD1)											
						Source: ISB1719-03					
Nitrate-N	4.51	0.11	0.060	mg/l	1.13	3.20	116	80-120	0	20	
Nitrite-N	2.07	0.15	0.090	mg/l	1.52	ND	136	80-120	1	20	MI
Sulfate	16.0	0.50	0.20	mg/l	10.0	5.12	109	80-120	2	20	

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Received: 02/16/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 9B18065 Extracted: 02/18/09											
Blank Analyzed: 02/18/2009 (9B18065-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 02/18/2009 (9B18065-BS1)											
Total Dissolved Solids	982	10	10	mg/l	1000		98	90-110			
Duplicate Analyzed: 02/18/2009 (9B18065-DUP1)											
Total Dissolved Solids	177	10	10	mg/l		Source: ISB1930-01 172			3	10	
Batch: 9B18099 Extracted: 02/18/09											
Blank Analyzed: 02/18/2009 (9B18099-BLK1)											
Perchlorate	ND	4.0	0.90	ug/l							
LCS Analyzed: 02/18/2009 (9B18099-BS1)											
Perchlorate	25.0	4.0	0.90	ug/l	25.0		100	85-115			
Matrix Spike Analyzed: 02/18/2009 (9B18099-MS1)											
Perchlorate	45.1	4.0	0.90	ug/l	25.0	Source: ISB1727-03 20.3	99	80-120			
Matrix Spike Dup Analyzed: 02/18/2009 (9B18099-MSD1)											
Perchlorate	44.5	4.0	0.90	ug/l	25.0	Source: ISB1727-03 20.3	97	80-120	1	20	
Batch: 9B19142 Extracted: 02/19/09											
Blank Analyzed: 02/19/2009 (9B19142-BLK1)											
Total Cyanide	ND	0.0050	0.0022	mg/l							

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9B19142 Extracted: 02/19/09</u>											
LCS Analyzed: 02/19/2009 (9B19142-BS1)											
Total Cyanide	0.197	0.0050	0.0022	mg/l	0.200		99	90-110			
Matrix Spike Analyzed: 02/19/2009 (9B19142-MS1)											
Total Cyanide	0.175	0.0050	0.0022	mg/l	0.200	0.00351	86	70-115			
Matrix Spike Dup Analyzed: 02/19/2009 (9B19142-MSD1)											
Total Cyanide	0.181	0.0050	0.0022	mg/l	0.200	0.00351	89	70-115	3	15	
<u>Batch: 9B20008 Extracted: 02/20/09</u>											
Blank Analyzed: 02/20/2009 (9B20008-BLK1)											
Fluoride	0.0341	0.10	0.020	mg/l							Ja
LCS Analyzed: 02/20/2009 (9B20008-BS1)											
Fluoride	0.988	0.10	0.020	mg/l	1.00		99	90-110			
Matrix Spike Analyzed: 02/20/2009 (9B20008-MS1)											
Fluoride	1.31	0.10	0.020	mg/l	1.00	0.360	95	80-120			
Matrix Spike Dup Analyzed: 02/20/2009 (9B20008-MSD1)											
Fluoride	1.32	0.10	0.020	mg/l	1.00	0.360	96	80-120	1	20	
<u>Batch: 9B21068 Extracted: 02/21/09</u>											
Blank Analyzed: 02/21/2009 (9B21068-BLK1)											
Total Suspended Solids	ND	10	1.0	mg/l							

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B21068 Extracted: 02/21/09											
LCS Analyzed: 02/21/2009 (9B21068-BS1)											
Total Suspended Solids	990	10	1.0	mg/l	1000		99	85-115			
Duplicate Analyzed: 02/21/2009 (9B21068-DUP1)											
						Source: ISB1750-01					
Total Suspended Solids	105	10	1.0	mg/l		106			1	10	
Batch: 9B24128 Extracted: 02/24/09											
Blank Analyzed: 02/24/2009 (9B24128-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.50	mg/l							
LCS Analyzed: 02/24/2009 (9B24128-BS1)											
Ammonia-N (Distilled)	10.6	0.50	0.50	mg/l	10.0		106	80-115			
Matrix Spike Analyzed: 02/24/2009 (9B24128-MS1)											
						Source: ISB1703-01					
Ammonia-N (Distilled)	10.1	0.50	0.50	mg/l	10.0	0.560	95	70-120			
Matrix Spike Dup Analyzed: 02/24/2009 (9B24128-MSD1)											
						Source: ISB1703-01					
Ammonia-N (Distilled)	10.1	0.50	0.50	mg/l	10.0	0.560	95	70-120	0	15	

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METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C9B1701 Extracted: 02/17/09											
Blank Analyzed: 02/17/2009 (C9B1701-BLK1)											
Chlorpyrifos	ND	1.0	0.10	ug/l							
Diazinon	ND	0.25	0.24	ug/l							
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.05			ug/l	5.00		101	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.05			ug/l	5.00		101	70-130			
Surrogate: Triphenylphosphate	5.85			ug/l	5.00		117	70-130			
Surrogate: Triphenylphosphate	5.85			ug/l	5.00		117	70-130			
Surrogate: Perylene-d12	4.45			ug/l	5.00		89	70-130			
Surrogate: Perylene-d12	4.45			ug/l	5.00		89	70-130			
LCS Analyzed: 02/17/2009 (C9B1701-BS1)											
Chlorpyrifos	5.65	1.0	0.10	ug/l	5.00		113	70-130			MNR1
Diazinon	5.29	0.25	0.24	ug/l	5.00		106	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.78			ug/l	5.00		96	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.78			ug/l	5.00		96	70-130			
Surrogate: Triphenylphosphate	5.44			ug/l	5.00		109	70-130			
Surrogate: Triphenylphosphate	5.44			ug/l	5.00		109	70-130			
Surrogate: Perylene-d12	4.89			ug/l	5.00		98	70-130			
Surrogate: Perylene-d12	4.89			ug/l	5.00		98	70-130			
LCS Dup Analyzed: 02/17/2009 (C9B1701-BSD1)											
Chlorpyrifos	5.89	1.0	0.10	ug/l	5.00		118	70-130	4	10	
Diazinon	5.73	0.25	0.24	ug/l	5.00		115	70-130	8	39	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.89			ug/l	5.00		98	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.89			ug/l	5.00		98	70-130			
Surrogate: Triphenylphosphate	5.58			ug/l	5.00		112	70-130			
Surrogate: Triphenylphosphate	5.58			ug/l	5.00		112	70-130			
Surrogate: Perylene-d12	4.95			ug/l	5.00		99	70-130			
Surrogate: Perylene-d12	4.95			ug/l	5.00		99	70-130			

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METHOD BLANK/QC DATA

MCAWW 245.1

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9065187 Extracted: 03/09/09											
Matrix Spike Dup Analyzed: 03/09/2009 (D9B190131001D)						Source: ISB1787-01					
Mercury	4.26	0.2	0.027	ug/L	5	0.029	85	90-110	2	10	N
Matrix Spike Analyzed: 03/09/2009 (D9B190131001S)						Source: ISB1787-01					
Mercury	4.32	0.2	0.027	ug/L	5	0.029	86	90-110	2	10	N
Blank Analyzed: 03/09/2009 (D9C060000187B)						Source:					
Mercury	ND	0.2	0.027	ug/L				-			
LCS Analyzed: 03/09/2009 (D9C060000187C)						Source:					
Mercury	4.77	0.2	0.027	ug/L	5		95	90-110			

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MCAWW 245.1-DISS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9050182 Extracted: 02/19/09											
Blank Analyzed: 02/19/2009 (D9B190000182B)						Source:					
Mercury	ND	0.2	0.027	ug/L				-			
LCS Analyzed: 02/19/2009 (D9B190000182C)						Source:					
Mercury	4.63	0.2	0.027	ug/L	5		93	90-110			
Matrix Spike Dup Analyzed: 02/19/2009 (D9B190119001D)						Source: D9B190119001					
Mercury	4.55	0.2	0.027	ug/L	5	0.03	90	90-110	0	10	
Matrix Spike Analyzed: 02/19/2009 (D9B190119001S)						Source: D9B190119001					
Mercury	4.57	0.2	0.027	ug/L	5	0.03	91	90-110	0	10	

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 Project Manager

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

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

METHOD BLANK/QC DATA

CFR136A 608

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9064381 Extracted: 03/05/09											
Blank Analyzed: 03/10/2009 (D9C050000381B)											
alpha-BHC	ND	0.05	0.0053	ug/L				-			
Surrogate: Decachlorobiphenyl	0.19			ug/L	0.2		97	32-144			
Surrogate: Tetrachloro-m-xylene	0.13			ug/L	0.2		65	52-117			
LCS Analyzed: 03/10/2009 (D9C050000381C)											
alpha-BHC	0.479	0.05	0.0053	ug/L	0.5		96	66-115	7	50	
Surrogate: Decachlorobiphenyl	0.201			ug/L	0.2		100	68-122			
Surrogate: Tetrachloro-m-xylene	0.111			ug/L	0.2		55	54-115			
LCS Dup Analyzed: 03/10/2009 (D9C050000381L)											
alpha-BHC	0.514	0.05	0.0053	ug/L	0.5		103	66-115	7	50	
Surrogate: Decachlorobiphenyl	0.204			ug/L	0.2		102	68-122			
Surrogate: Tetrachloro-m-xylene	0.16			ug/L	0.2		80	54-115			

TestAmerica Irvine

Joseph Doak
 Project Manager

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09

Received: 02/16/09

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
ISB1787-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	1.84	4.9	15
ISB1787-01	Ammonia-N, Titr 4500NH3-C (w/di:Ammonia-N (Distilled)		mg/l	1.12	0.50	10
ISB1787-01	Antimony-200.8	Antimony	ug/l	0.35	2.0	6
ISB1787-01	Boron-200.7	Boron	mg/l	0.061	0.050	1
ISB1787-01	Cadmium-200.8	Cadmium	ug/l	0.060	1.0	3.1
ISB1787-01	Chloride - 300.0	Chloride	mg/l	8.01	0.50	150
ISB1787-01	Copper-200.8	Copper	ug/l	4.08	2.0	14
ISB1787-01	Fluoride SM4500F,C	Fluoride	mg/l	0.23	0.10	1.6
ISB1787-01	Lead-200.8	Lead	ug/l	2.61	1.0	5.2
ISB1787-01	Nickel-200.7	Nickel	ug/l	3.50	10	100
ISB1787-01	Nitrate-N, 300.0	Nitrate-N	mg/l	1.93	0.11	8
ISB1787-01	Nitrite-N, 300.0	Nitrite-N	mg/l	0	0.15	1
ISB1787-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	1.93	0.26	8
ISB1787-01	Perchlorate 314.0-DEFAULT	Perchlorate	ug/l	2.53	4.0	6
ISB1787-01	Selenium-200.8	Selenium	ug/l	-1	2.0	5
ISB1787-01	Sulfate-300.0	Sulfate	mg/l	10	0.50	300
ISB1787-01	TDS - SM2540C	Total Dissolved Solids	mg/l	142	10	950
ISB1787-01	Thallium-200.8	Thallium	ug/l	0.020	1.0	2
ISB1787-01	Zinc-200.7	Zinc	ug/l	14	20	160

Compliance Check

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LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
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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: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- C** Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- HTV** Holding Time Violation
- J** Estimated Result: Result is less than RL and greater than or equal to the MDL.
- Ja** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- L** Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- M7** The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
- MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- N** Spike sample recovery is outside control limits.
- N2** See corrective action report.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

ADDITIONAL COMMENTS

For 1,2-Diphenylhydrazine:

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

TestAmerica Irvine

Joseph Doak
Project Manager

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ISB1787 <Page 58 of 60>
NPDES - 1553

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

Project ID: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
 Received: 02/16/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 1664A	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 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
Filtration	Water	N/A	N/A
SM 2540D	Water	X	X
SM 4500-F-C	Water	X	X
SM2340B-Diss	Water		
SM2340B	Water	X	X
SM2540C	Water	X	
SM4500-CN-C,E	Water	X	X
SM4500NH3-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

Subcontracted Laboratories

Aquatic Testing Laboratories-SUB *California Cert #1775*

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-7 dy Chrnrc
 Samples: ISB1787-01

Analysis Performed: Bioassay-Acute 96hr
 Samples: ISB1787-01

EMS Laboratories *California Cert #1119*

117 W. Bellevue Drive - Pasadena, CA 91105

Analysis Performed: Asbestos-TEM (100.2 - DW)
 Samples: ISB1787-01

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: Annual Outfall 008

Report Number: ISB1787

Sampled: 02/16/09
Received: 02/16/09

TestAmerica - Ontario, CA *California Cert #1169, Arizona Cert #AZ0062, Nevada Cert #CA-242*

1014 E. Cooley Drive, Suite AB - Colton, CA 92324

Method Performed: EPA 525.2
Samples: ISB1787-01

TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: CFR136A 608
Samples: ISB1787-01

Method Performed: MCAWW 245.1
Samples: ISB1787-01

Method Performed: MCAWW 245.1-DISS
Samples: ISB1787-01

TestAmerica St. Louis

13715 Rider Trail North - Earth City, MO 63045

Analysis Performed: Gamma Spec
Samples: ISB1787-01

Analysis Performed: Gross Alpha
Samples: ISB1787-01

Analysis Performed: Gross Beta
Samples: ISB1787-01

Analysis Performed: Radium, Combined
Samples: ISB1787-01

Analysis Performed: Strontium 90
Samples: ISB1787-01

Analysis Performed: Tritium
Samples: ISB1787-01

Analysis Performed: Uranium, Combined
Samples: ISB1787-01

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

1104 Windfield Way - El Dorado Hills, CA 95762

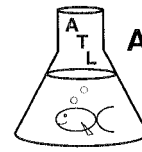
Analysis Performed: 1613-Dioxin-HR-Alta
Samples: ISB1787-01

TestAmerica Irvine

Joseph Doak
Project Manager

Client Name/Address: MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007		Project: SSFL NPDES Boeing-Annual Outfall 008 Stormwater at Happy Valley		ANALYSIS REQUIRED											
Test America Contact: Joseph Doak		Phone Number: (626) 568-6691 Fax Number: (626) 568-6515		Cyanide <input checked="" type="checkbox"/>		Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, B, V, Fe, Al, Ti, Se, Zn, Ni + PP, Hardness as CaCO ₃		VOCs (624), xylenes + PP		VOCs A+A+2CVF		Asbestos (100.2)		Comments	
Project Manager: Bronwyn Kelly Sampler: <i>Marius/Barnes</i>		Sampling Date/Time 2/16/09 8:30		Preservative NaOH		Bottle # 12 •		Filter w/in 24hrs of receipt at lab							
Outfall 008	W	500 ml Poly	1	1L Poly	None	13 •	14A, 14B, 14C								
Outfall 008	W	VOAS	3	VOAS	HCl	15A, 15B, 15C	16								
Outfall 008	W	VOAS	3	VOAS	None	17A, 17B, 17C	18A, 18B, 18C								
Trip Blanks	W	1L Poly	1	1L Poly	None										
Trip Blanks	W	VOAS	3	VOAS	HCl										
Trip Blanks	W	VOAS	3	VOAS	None										
Relinquished By	<i>Joe Manda</i>		Date/Time:	2/16/09 7:45		Received By	<i>Shelly</i>		Date/Time:	2/16/09 15:45		Turn around Time: (check) 24 Hours _____ 5 Days _____ 48 Hours _____ 10 Days _____ 72 Hours _____ Normal <input checked="" type="checkbox"/>			
Relinquished By	<i>Shelly</i>		Date/Time:	2/16/09 18:20		Received By	<i>Joe Manda</i>		Date/Time:	2/16/09 18:20		Sample Integrity: (check) Intact <input checked="" type="checkbox"/> On Ice: <input checked="" type="checkbox"/>			
Relinquished By	<i>Shelly</i>		Date/Time:			Received By			Date/Time:			Data Requirements: (check) No Level IV _____ All Level IV _____ NPDES Level IV <input checked="" type="checkbox"/>			

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 25, 2009

Client: TestAmerica, Irvine
17461 Derian Ave., Suite 100
Irvine, CA 92614
Attn: Joseph Doak

Laboratory No.: A-09021705
Sample I.D.: ISB1787-01 (Outfall 008)

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

Date Sampled: 02/16/09
Date Received: 02/17/09
Temp. Received: 0.5°C
Chlorine (TRC): 0.0 mg/l
Date Tested: 02/17/09 to 02/24/09

Sample Analysis: The following analyses were performed on your sample:

Fathead Minnow 96hr Percent Survival Bioassay (EPA Method 2000.0),
Ceriodaphnia dubia Survival and Reproduction Test (EPA Method 1002).

Attached are the test data generated from the analysis of your sample.

Result Summary:

Acute:	<u>Survival</u>	<u>TUa</u>
Fathead Minnow:	100%	0.0
Chronic:	<u>NOEC</u>	<u>TUc</u>
<i>Ceriodaphnia</i> Survival:	100%	1.0
<i>Ceriodaphnia</i> Reproduction:	100%	1.0

Quality Control: Reviewed and approved by:


Joseph A. LeMay
Laboratory Director

**FATHEAD MINNOW PERCENT SURVIVAL TEST
EPA Method 2000.0**



Lab No.: A-09021705-001
Client/ID: TestAmerica - ISB1787-01

Start Date: 02/17/2009

TEST SUMMARY

Species: *Pimephales promelas*.
Age: 14 (1-14) days.
Regulations: NPDES.
Test solution volume: 250 ml.
Feeding: prior to renewal at 48 hrs.
Number of replicates: 2.
Dilution water: Moderately hard reconstituted water.
Photoperiod: 16/8 hrs light/dark.

Source: In-laboratory Culture.
Test type: Static-Renewal.
Test Protocol: EPA-821-R-02-012.
Endpoints: Percent Survival at 96 hrs.
Test chamber: 600 ml beakers.
Temperature: 20 +/- 1°C.
Number of fish per chamber: 10.
QA/QC Batch No.: RT-090203.

TEST DATA

		°C	DO	pH	# Dead		Analyst & Time of Readings
					A	B	
INITIAL	Control	20.6	8.8	8.0	0	0	Rm
	100%	19.7	10.7	7.6	0	0	1400
24 Hr	Control	19.7	8.4	7.4	0	0	Rm
	100%	19.9	8.0	6.9	0	0	1300
48 Hr	Control	20.0	7.7	7.3	0	0	Rm
	100%	20.1	7.5	6.9	0	0	1300
Renewal	Control	20.4	8.9	7.7	0	0	Rm
	100%	19.2	10.7	6.5	0	0	1300
72 Hr	Control	19.5	8.0	7.3	0	0	Rm
	100%	19.8	7.7	6.8	0	0	1230
96 Hr	Control	20.2	7.9	7.6	0	0	Rm
	100%	20.5	7.9	6.9	0	0	1400

Comments:

Sample as received: Chlorine: 0.0 mg/l; pH: 7.6; Conductivity: 1103 umho; Temp: 0.5°C;
DO: 10.7 mg/l; Alkalinity: 49 mg/l; Hardness: 65 mg/l; NH₃-N: 0.3 mg/l.
Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? Yes / No
Control: Alkalinity: 61 mg/l; Hardness: 94 mg/l; Conductivity: 300 umho.
Test solution aerated (not to exceed 100 bubbles/min) to maintain DO >4.0 mg/l? Yes / No
Sample used for renewal is the original sample kept at 0-6°C with minimal headspace.
Dissolved Oxygen (DO) readings in mg/l O₂.

RESULTS

Percent Survival In:	Control: <u>100</u> %	100% Sample: <u>100</u> %
----------------------	-----------------------	---------------------------

CERIODAPHNIA SURVIVAL AND REPRODUCTION TEST

- *Test and Results Summary*
- *Data Summary and Statistical Analyses*
- *Raw Test Data: Water Quality & Test Organism Measurements*

**CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0**



Lab No.: A-09021705-001
Client/ID: Test America – ISB1787-01 (Outfall 008)

Date Tested: 02/17/09 to 02/24/09

TEST SUMMARY

Test type: Daily static-renewal.	Endpoints: Survival and Reproduction.
Species: <i>Ceriodaphnia dubia</i> .	Source: In-laboratory culture.
Age: < 24 hrs; all released within 8 hrs.	Food: .1 ml YTC, algae per day.
Test vessel size: 30 ml.	Test solution volume: 15 ml.
Number of test organisms per vessel: 1.	Number of replicates: 10.
Temperature: 25 +/- 1°C.	Photoperiod: 16/8 hrs. light/dark cycle.
Dilution water: Mod. hard reconstituted (MHRW).	Test duration: 7 days.
QA/QC Batch No.: RT-090203.	Statistics: ToxCalc computer program.

RESULTS SUMMARY

Sample Concentration	Percent Survival	Mean Number of Young Per Female
Control	100%	17.4
100% Sample	100%	25.1
* Sample not statistically significantly less than Control.		

CHRONIC TOXICITY

Survival NOEC	100%
Survival TUc	1.0
Reproduction NOEC	100%
Reproduction TUc	1.0

QA/QC TEST ACCEPTABILITY

Parameter	Result
Control survival ≥80%	Pass (100% survival)
≥15 young per surviving control female	Pass (17.4 young)
≥60% surviving controls had 3 broods	Pass (80% with 3 broods)
PMSD <47% for reproduction; if >47% and no toxicity at IWC, the test must be repeated	Pass (PMSD = 24.1%)
Statistically significantly different concentrations relative difference > 13%	Pass (no concentration significantly different)
Concentration response relationship acceptable	Pass (no significant response at concentration tested)

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 2/17/2009 15:00 Test ID: 9021705c Sample ID: ISB1787-01
 End Date: 2/24/2009 15:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF2-Industrial
 Sample Date: 2/16/2009 08:30 Protocol: FWCH 4TH-EPA-821-R-02-0 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

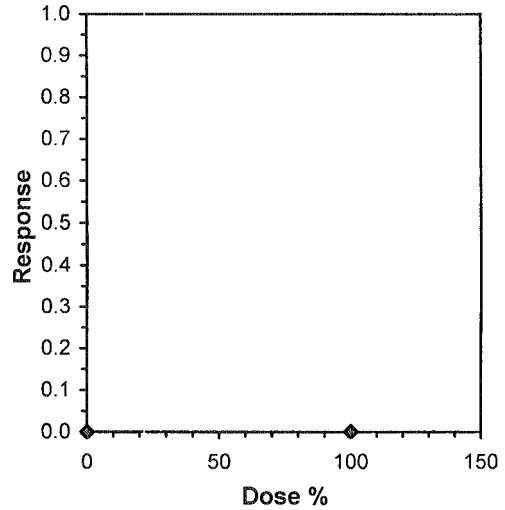
Hypothesis Test (1-tail, 0.05) **NOEC** **LOEC** **ChV** **TU**

Fisher's Exact Test 100 >100 1

Treatments vs D-Control

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 2/17/2009 15:00 Test ID: 9021705c Sample ID: ISB1787-01
 End Date: 2/24/2009 15:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF2-Industrial
 Sample Date: 2/16/2009 08:30 Protocol: FWCH 4TH-EPA-821-R-02-0 Test Species: CD-Ceriodaphnia dubia

Comments:

Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	27.000	18.000	18.000	11.000	17.000	20.000	16.000	16.000	12.000	19.000
100	33.000	29.000	26.000	29.000	22.000	28.000	26.000	10.000	26.000	22.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
D-Control	17.400	1.0000	17.400	11.000	27.000	25.444	10				21.250	1.0000	
100	25.100	1.4425	25.100	10.000	33.000	24.877	10	-3.181	1.734	4.197	21.250	1.0000	

Auxiliary Tests

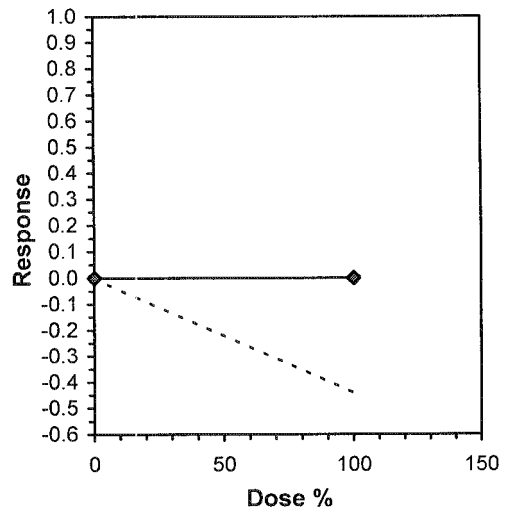
	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.05)	0.92525	0.905	-0.953	2.80913
F-Test indicates equal variances (p = 0.32)	1.98923	6.54109		

Hypothesis Test (1-tail, 0.05)

	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs D-Control	4.19732	0.24123	296.45	29.2944	0.00517	1, 18

Linear Interpolation (200 Resamples)

Point	%	SD	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-09021705-001

Client ID: TestAmerica - ISB1787-01

Start Date: 02/17/2009

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr
Analyst Initials:		Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
Time of Readings:		1500	1400	1400	1500	1500	1500	1500	1600	1600	1500	1500	1600	1600	1500
Control	DO	9.0	9.2	9.2	8.4	8.9	9.3	9.4	9.1	9.6	9.3	8.9	8.8	8.9	8.5
	pH	7.9	7.7	7.7	7.8	7.7	7.8	7.6	7.9	7.6	7.8	7.6	8.0	7.7	7.7
	Temp	25.7	24.5	25.4	24.3	25.5	24.8	25.5	24.4	25.4	24.1	25.4	24.4	25.2	24.2
100%	DO	12.1	8.1	10.3	8.5	9.9	9.3	10.2	9.5	10.4	8.7	9.6	8.2	9.5	8.9
	pH	6.8	7.4	6.7	7.6	6.8	7.7	6.6	7.7	6.6	7.6	6.7	7.5	6.8	7.5
	Temp	25.9	24.0	25.8	24.2	25.9	24.3	25.3	24.2	25.6	24.0	24.7	24.1	24.4	24.0

Additional Parameters	Control	100% Sample
Conductivity (umohms)	300	1163
Alkalinity (mg/l CaCO ₃)	61	49
Hardness (mg/l CaCO ₃)	94	65
Ammonia (mg/l NH ₃ -N)	<0.1	0.3

Source of Neonates											
Replicate:	A	B	C	D	E	F	G	H	I	J	
Brood ID:	A1	B2	C3	D2	E1	F2	G3	H1	I1	J3	

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	Rm
	2	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	3	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	4	4	4	4	0	0	2	3	2	0	3	22	10	Rm
	5	0	0	0	5	4	0	4	5	4	6	28	10	Rm
	6	8	4	6	0	4	6	0	0	0	10	38	10	Rm
	7	15	10	8	6	9	12	9	9	8	0	86	10	Rm
	Total	27	18	18	11	17	20	16	16	12	19	174	10	Rm
100%	1	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	2	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	3	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	4	4	3	4	4	4	5	3	0	5	4	36	10	Rm
	5	11	9	7	9	8	9	6	5	0	6	70	10	Rm
	6	0	0	0	16	10	0	0	5	9	12	52	10	Rm
	7	18	17	15	0	0	14	17	0	12	14	93	10	Rm
	Total	33	29	26	29	22	28	26	10	26	22	251	10	Rm

Circled fourth brood not used in statistical analysis.

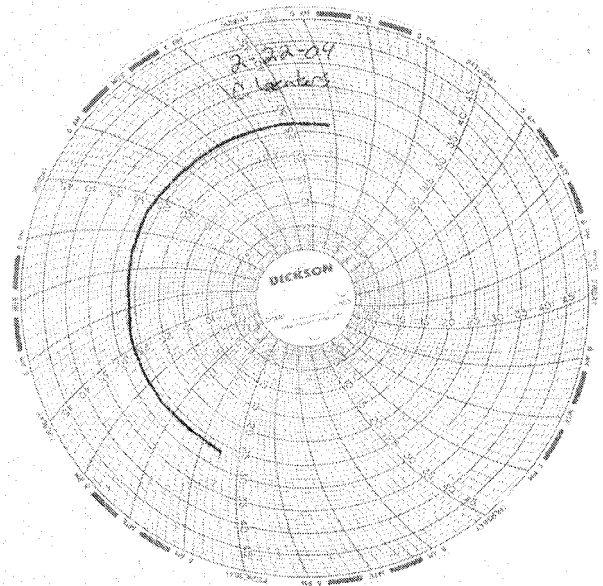
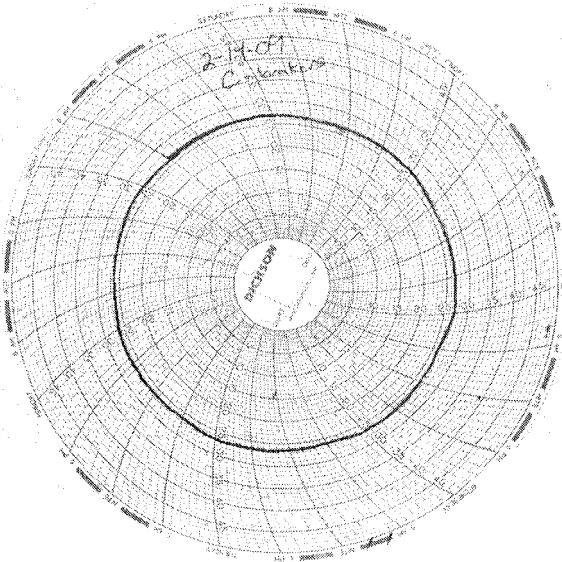
7th day only used if <60% of the surviving control females have produced their third brood.

Test Temperature Chart

Test No: A-090217

Date Tested: 02/17/09 to 02/24/09

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





CHAIN OF CUSTODY

SUBCONTRACT ORDER

TestAmerica Irvine

ISB1787

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: CA - CALIFORNIA
Receipt Temperature: 0-5 °C Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: ISB1787-01				
Water				
Sampled: 02/16/09 08:30				
Bioassay-7 dy Chrnrc	N/A	02/25/09	02/17/09 20:30	Cerio, EPA/821-R02-013, Sub to AqTox Labs
Bioassay-Acute 96hr	% Survival	02/25/09	02/17/09 20:30	FH minnow, EPA/821-R02-012, Sub to AqTox Labs
Level 4 Data Package - Out	N/A	02/25/09	03/16/09 08:30	
<i>Containers Supplied:</i>				
1 gal Poly (S)	1 gal Poly (T)			

Released By

Handwritten Signature
2/17/09

Date/Time

Handwritten Signature

Released By

Date/Time

Received By

Handwritten Signature 2-17-09 745

Date/Time

Received By

Handwritten Signature 2-17-09 1142

Date/Time

NPDES - 1567



***REFERENCE
TOXICANT
DATA***

*Fathead Minnow
Acute Toxicity Test
Reference
Toxicant
Data*

FATHEAD MINNOW ACUTE
Method 2000.0
Reference Toxicant - SDS



QA/QC Batch No.: RT-090203

TEST SUMMARY

Species: *Pimephales promelas*.
 Age: 14 days old.
 Regulations: NPDES.
 Test chamber volume: 250 ml.
 Feeding: Prior to renewal at 48 hrs.
 Temperature: 20 +/- 1°C.
 Number of replicates: 2.
 Dilution water: MHSF.

Source: In-lab culture.
 Test type: Static-Renewal.
 Test Protocol: EPA-821-R-02-012.
 Endpoints: LC50 at 96 hrs.
 Test chamber: 600 ml beakers.
 Aeration: None.
 Number of organisms per chamber: 10.
 Photoperiod: 16/8 hrs light/dark.

TEST DATA

Date/Time:	INITIAL			24 Hr					48 Hr				
	<u>2-3-09 1430</u>			<u>2-4-09 1400</u>					<u>2-5-09 1330</u>				
	<u>Rn</u>			<u>Rn</u>					<u>Rn</u>				
	°C	DO	pH	°C	DO	pH	# Dead		°C	DO	pH	# Dead	
A							B	A				B	
Control	<u>20.7</u>	<u>8.6</u>	<u>7.7</u>	<u>20.2</u>	<u>8.0</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>20.0</u>	<u>7.5</u>	<u>7.9</u>	<u>0</u>	<u>0</u>
1.0 mg/l	<u>20.7</u>	<u>8.6</u>	<u>7.7</u>	<u>20.2</u>	<u>7.8</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>20.0</u>	<u>7.8</u>	<u>7.7</u>	<u>0</u>	<u>0</u>
2.0 mg/l	<u>20.7</u>	<u>8.7</u>	<u>7.7</u>	<u>20.2</u>	<u>7.5</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>20.1</u>	<u>8.0</u>	<u>7.6</u>	<u>0</u>	<u>0</u>
4.0 mg/l	<u>20.7</u>	<u>8.7</u>	<u>7.8</u>	<u>20.2</u>	<u>7.3</u>	<u>7.3</u>	<u>0</u>	<u>0</u>	<u>20.1</u>	<u>7.8</u>	<u>7.6</u>	<u>0</u>	<u>0</u>
8.0 mg/l	<u>20.7</u>	<u>8.7</u>	<u>7.8</u>	<u>20.1</u>	<u>5.9</u>	<u>7.2</u>	<u>10</u>	<u>10</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

Date/Time:	RENEWAL			72 Hr					96 Hr				
	<u>2-5-09 1330</u>			<u>2-6-09 1300</u>					<u>2-7-09 1400</u>				
	<u>Rn</u>			<u>Rn</u>					<u>Rn</u>				
	°C	DO	pH	°C	DO	pH	# Dead		°C	DO	pH	# Dead	
A							B	A				B	
Control	<u>20.8</u>	<u>8.8</u>	<u>7.7</u>	<u>20.1</u>	<u>6.6</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>19.6</u>	<u>6.0</u>	<u>7.4</u>	<u>0</u>	<u>0</u>
1.0 mg/l	<u>20.8</u>	<u>8.8</u>	<u>7.7</u>	<u>20.2</u>	<u>6.9</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>19.5</u>	<u>6.2</u>	<u>7.4</u>	<u>0</u>	<u>0</u>
2.0 mg/l	<u>20.8</u>	<u>8.8</u>	<u>7.8</u>	<u>20.1</u>	<u>6.7</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>19.5</u>	<u>6.1</u>	<u>7.3</u>	<u>0</u>	<u>0</u>
4.0 mg/l	<u>20.8</u>	<u>8.9</u>	<u>7.8</u>	<u>20.2</u>	<u>6.9</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>19.5</u>	<u>6.3</u>	<u>7.3</u>	<u>0</u>	<u>0</u>
8.0 mg/l	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

Comments: Control: Alkalinity: 70 mg/l; Hardness: 92 mg/l; Conductivity: 312 umho.
 SDS: Alkalinity: 71 mg/l; Hardness: 93 mg/l; Conductivity: 318 umho.

Concentration-response relationship acceptable? (see attached computer analysis):

Yes (response curve normal)

No (dose interrupted indicated or non-normal)

Acute Fish Test-96 Hr Survival

Start Date: 2/3/2009 14:30 Test ID: RT-090203 Sample ID: REF-Ref Toxicant
 End Date: 2/7/2009 14:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: SDS-Sodium dodecyl sulfate
 Sample Date: 2/3/2009 Protocol: ACUTE-EPA-821-R-02-012 Test Species: PP-Pimephales promelas
 Comments:

Conc-mg/L	1	2
D-Control	1.0000	1.0000
1	1.0000	1.0000
2	1.0000	1.0000
4	1.0000	1.0000
8	0.0000	0.0000

Transform: Arcsin Square Root

Conc-mg/L	Mean	N-Mean	Transform: Arcsin Square Root					N	Number Resp	Total Number
			Mean	Min	Max	CV%				
D-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20	
1	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20	
2	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20	
4	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20	
8	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20	

Auxiliary Tests

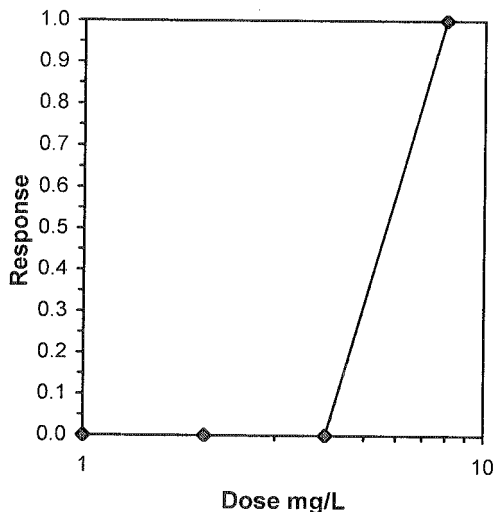
Normality of the data set cannot be confirmed
 Equality of variance cannot be confirmed

Statistic Critical Skew Kurt

Graphical Method

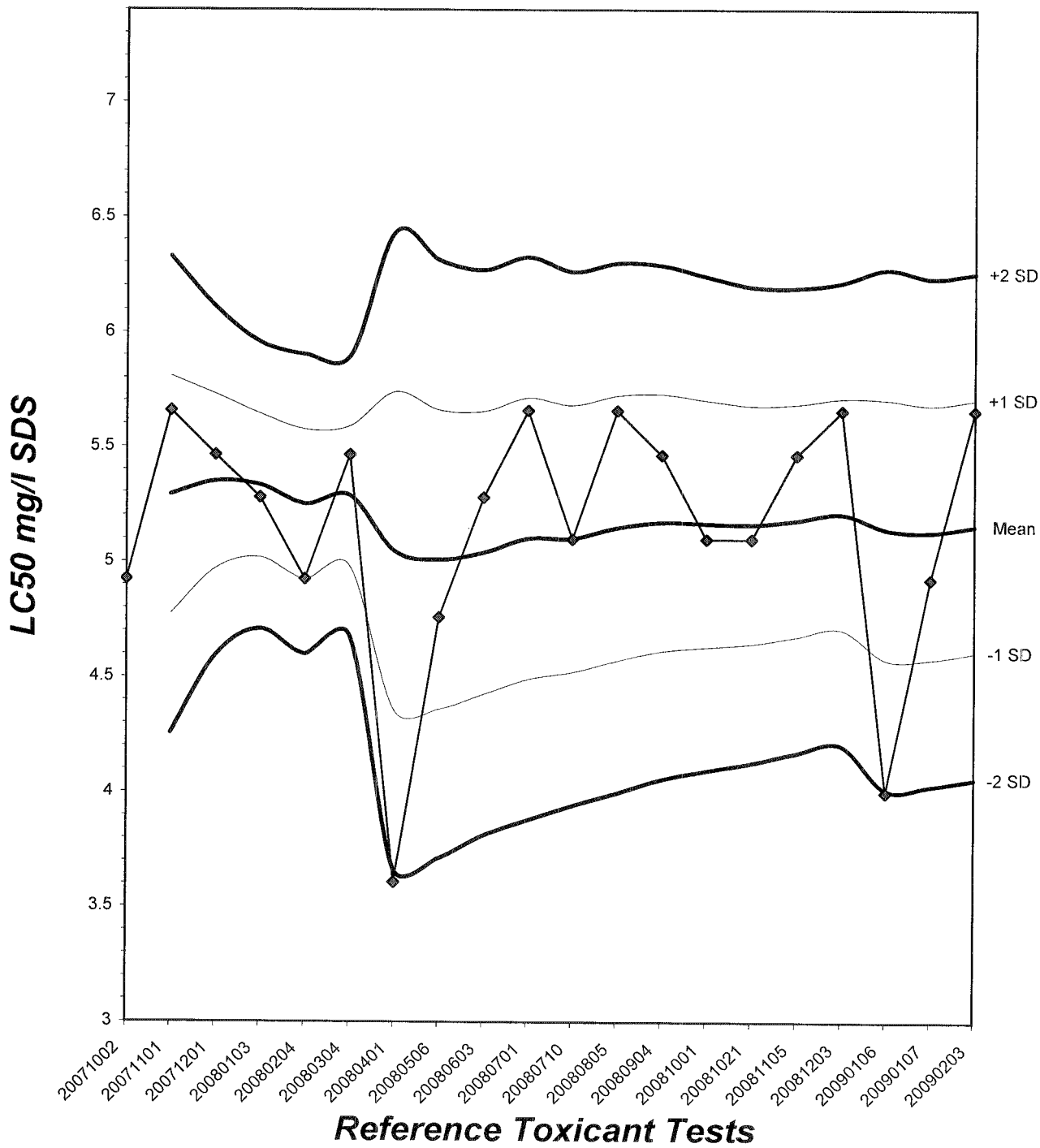
Trim Level EC50
 0.0% 5.6569

5.6569



Fathead Minnow Acute Laboratory Control Chart

CV% = 10.7



TEST ORGANISM LOG



FATHEAD MINNOW - LARVAL (*Pimephales promelas*)

QA/QC BATCH NO.: RT-090203

SOURCE: In-Lab Culture

DATE HATCHED: 1-20-09

APPROXIMATE QUANTITY: 400

GENERAL APPEARANCE: good

MORTALITIES 48 HOURS PRIOR TO
TO USE IN TESTING: 0

DATE USED IN LAB: 2-13-09

AVERAGE FISH WEIGHT: 0.006 gm

LOADING LIMITS: 0.65 gm/liter @ 20°C, 0.40 gm/liter @ 25°C

Approximately 1000 fish per 10 liters limit if held overnight for acclimation without filtration @ 20°C for fish with a mean weight of 0.006 gm.

Approximately 650 fish per 10 liters limit if held overnight for acclimation without filtration @ 25°C for fish with a mean weight of 0.006 gm.

200 ml test solution volume = 0.013 gm mean fish weight limit @ 20°C; 0.008 @ 25°C

250 ml test solution volume = 0.016 gm mean fish weight limit @ 20°C; 0.010 @ 25°C

ACCLIMATION WATER QUALITY:

Temp.: 20.7 °C

pH: 7.7

Ammonia: 401 mg/l NH₃-N

DO: 8.6 mg/l

Alkalinity: 70 mg/l

Hardness: 92 mg/l

READINGS RECORDED BY: [Signature]

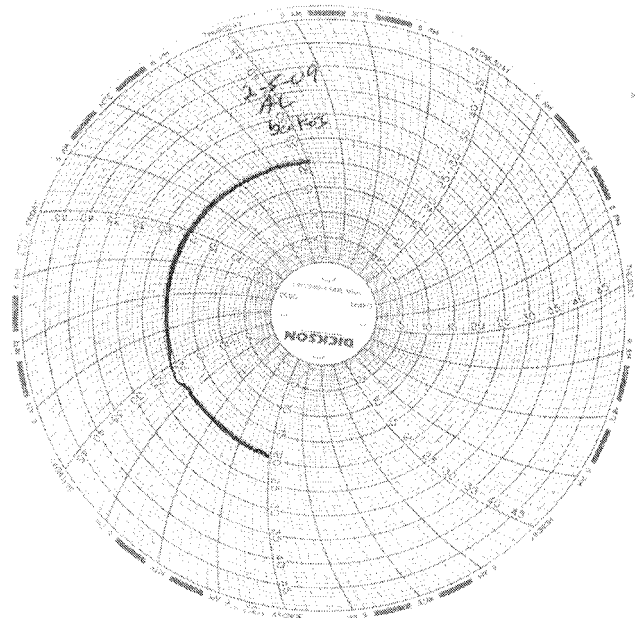
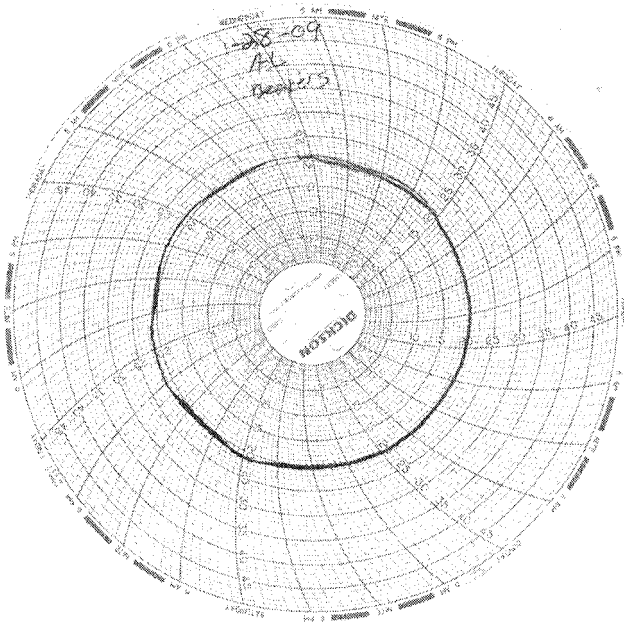
DATE: 2-7-09

Test Temperature Chart

Test No: RT-090203

Date Tested: 02/03/09 to 02/07/09

Acceptable Range: 20 \pm 1 $^{\circ}$ C





Ceriodaphnia dubia
Chronic Toxicity Test
Reference
Toxicant
Data

CERIODAPHNIA CHRONIC BIOASSAY

EPA METHOD 1002.0
REFERENCE TOXICANT - NaCl



QA/QC Batch No.: RT-090203

Date Tested: 02/03/09 to 02/10/09

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: 7 days.
Statistics: ToxCalc computer program.

RESULTS SUMMARY

Sample Concentration	Percent Survival		Mean Number of Young Per Female	
Control	100%		24.1	
0.25 g/l	100%		25.5	
0.5 g/l	100%		23.5	
1.0 g/l	100%		16.4	*
2.0 g/l	90%		3.5	*
4.0 g/l	0%	*	0	**

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

CHRONIC TOXICITY

Survival LC50	2.6 g/l
Reproduction IC25	0.85 g/l

QA/QC TEST ACCEPTABILITY

Parameter	Result
Control survival ≥ 80%	Pass (100% Survival)
≥ 15 young per surviving control female	Pass (24.1 young)
≥ 60% surviving controls had 3 broods	Pass (90% with 3 broods)
PMSD < 47% for reproduction	Pass (PMSD = 9.6%)
Stat. sig. diff. conc. relative difference > 13%	Pass (Stat. sig. diff. conc. relative difference = 31.9%)
Concentration response relationship acceptable	Pass (Response curve normal)

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

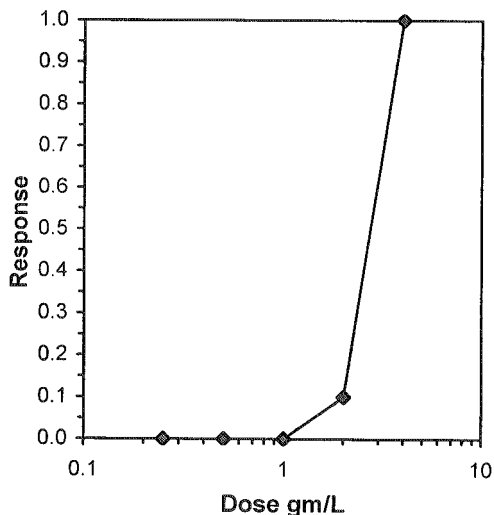
Start Date: 2/3/2009 16:00 Test ID: RT-090203c Sample ID: REF-Ref Toxicant
 End Date: 2/10/2009 15:30 Lab ID: CAATL-Aquatic Testing Labs Sample Type: NACL-Sodium chloride
 Sample Date: 2/3/2009 Protocol: FWCH 4TH-EPA-821-R-02-0 Test Species: CD-Ceriodaphnia dubia
 Comments:

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	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

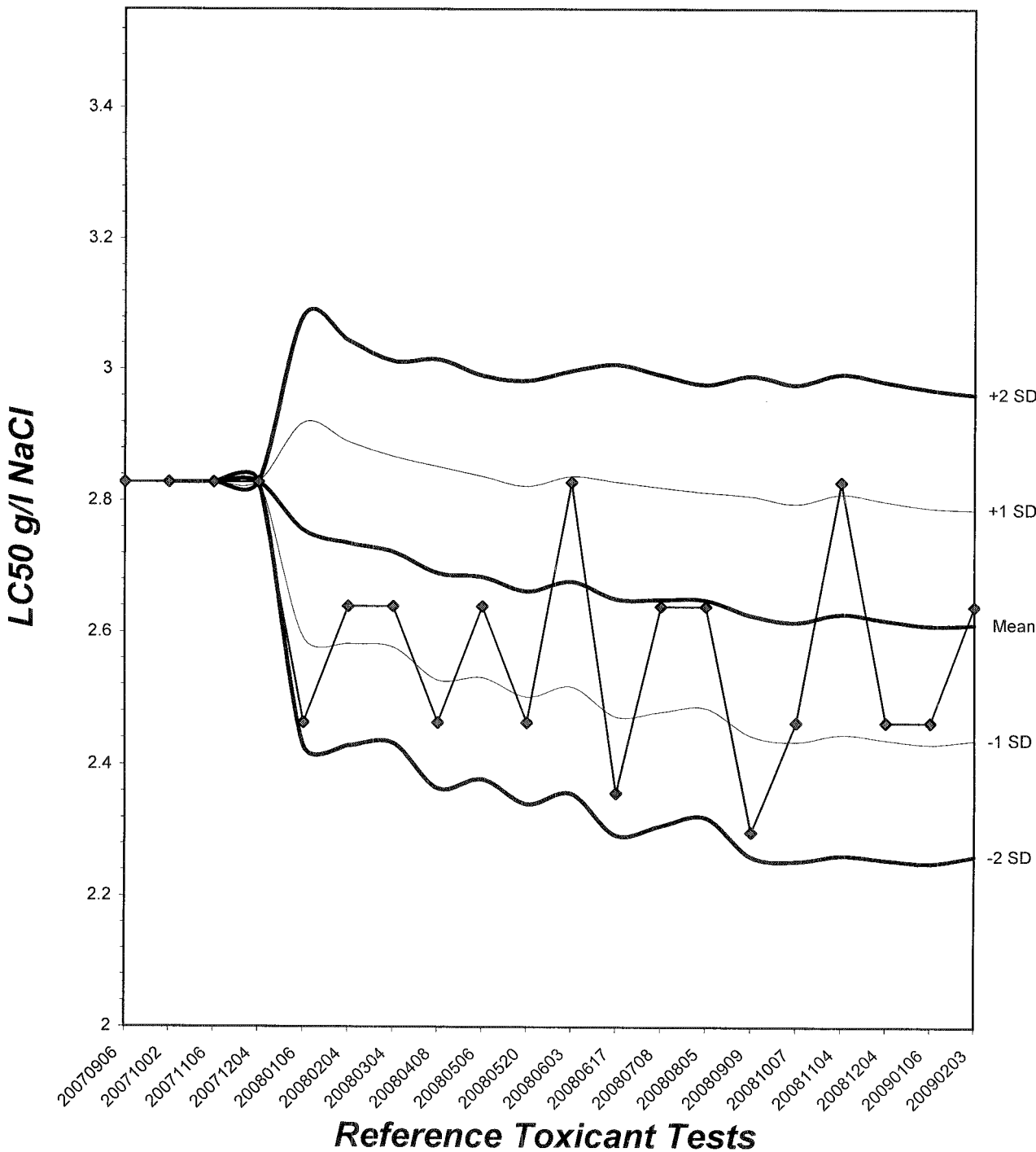
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	2	4	2.82843	
Treatments vs D-Control				

Trim Level	EC50	95% CL	
0.0%	2.6390	2.3138	3.0099
5.0%	2.6984	2.2899	3.1798
10.0%	2.7216	2.5094	2.9517
20.0%	2.7216	2.5094	2.9517
Auto-0.0%	2.6390	2.3138	3.0099



Ceriodaphnia Chronic Survival Laboratory Control Chart

CV% = 6.71



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 2/3/2009 16:00 Test ID: RT-090203c Sample ID: REF-Ref Toxicant
 End Date: 2/10/2009 15:30 Lab ID: CAATL-Aquatic Testing Labs Sample Type: NACL-Sodium chloride
 Sample Date: 2/3/2009 Protocol: FWCH 4TH-EPA-821-R-02-0 Test Species: CD-Ceriodaphnia dubia
 Comments:

Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	25.000	19.000	26.000	25.000	24.000	25.000	24.000	25.000	22.000	26.000
0.25	20.000	26.000	29.000	30.000	26.000	25.000	26.000	24.000	25.000	24.000
0.5	26.000	18.000	20.000	22.000	23.000	25.000	27.000	24.000	30.000	20.000
1	10.000	9.000	20.000	21.000	23.000	20.000	10.000	22.000	19.000	10.000
2	2.000	2.000	4.000	2.000	5.000	5.000	2.000	6.000	5.000	2.000
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	24.100	1.0000	24.100	19.000	26.000	8.846	10			24.800	1.0000
0.25	25.500	1.0581	25.500	20.000	30.000	10.819	10	121.00	76.00	24.800	1.0000
0.5	23.500	0.9751	23.500	18.000	30.000	15.571	10	98.50	76.00	23.500	0.9476
*1	16.400	0.6805	16.400	9.000	23.000	35.578	10	62.00	76.00	16.400	0.6613
*2	3.500	0.1452	3.500	2.000	6.000	47.140	10	55.00	76.00	3.500	0.1411
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 normal distribution (p > 0.05)	0.95819	0.947	-0.3265	-0.1582
Bartlett's Test indicates unequal variances (p = 2.14E-03)	16.7726	13.2767		

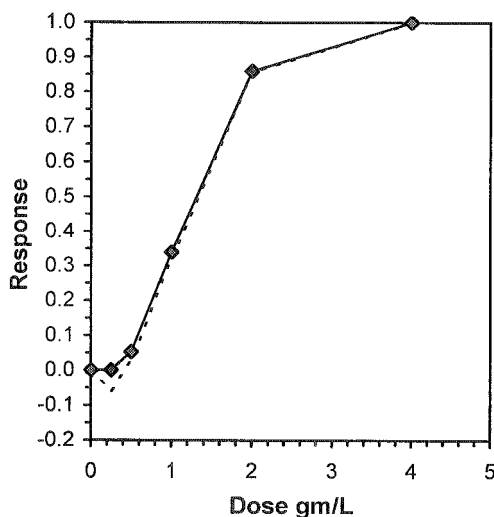
Hypothesis Test (1-tail, 0.05)

	NOEC	LOEC	ChV	TU
Steel's Many-One Rank Test	0.5	1	0.70711	

Treatments vs D-Control

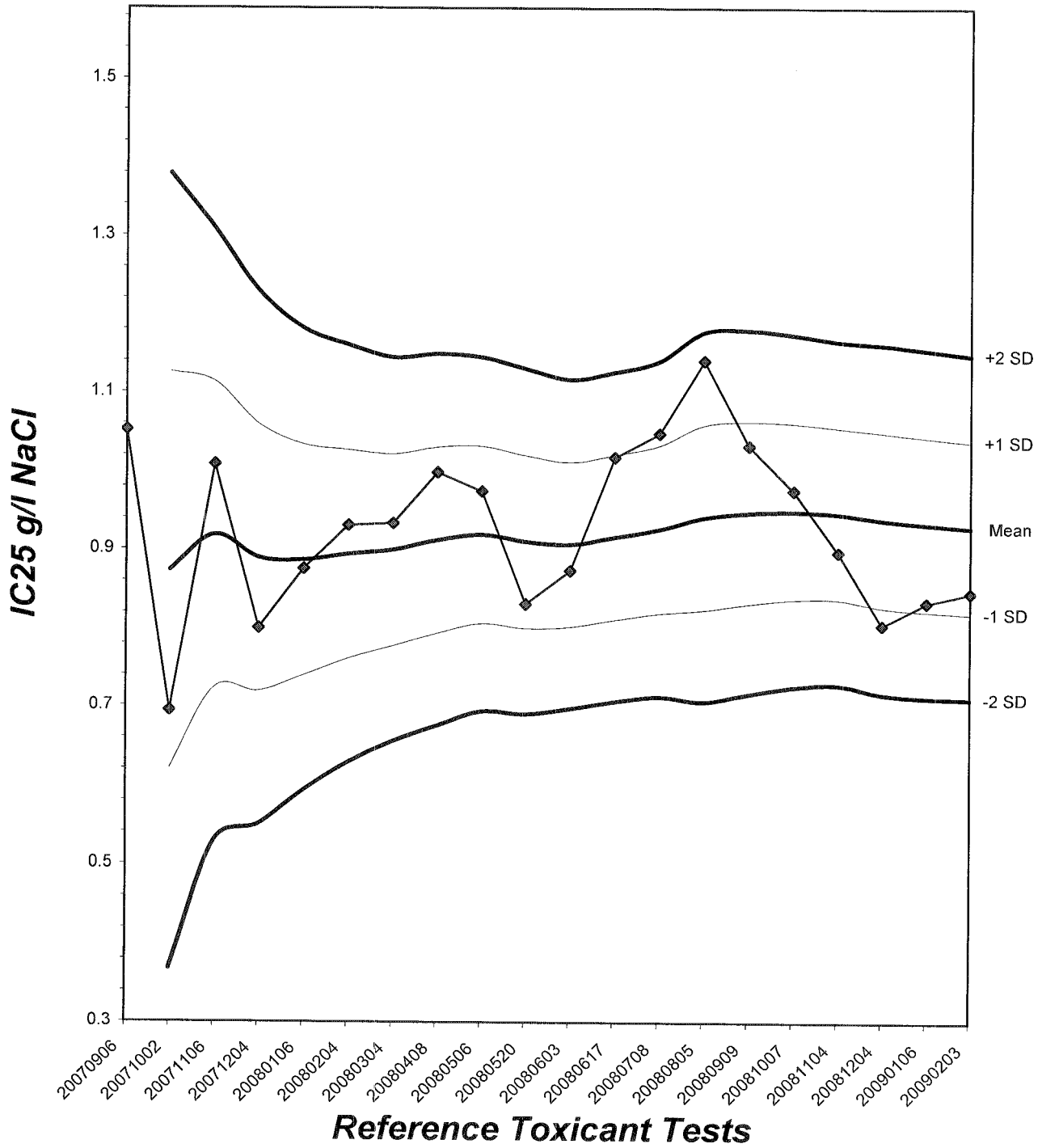
Linear Interpolation (200 Resamples)

Point	gm/L	SD	95% CL		Skew
IC05	0.4885	0.0860	0.3398	0.6005	-0.0581
IC10	0.5831	0.0780	0.4322	0.7065	0.2232
IC15	0.6704	0.0835	0.5271	0.8274	0.7408
IC20	0.7577	0.0888	0.6245	0.9501	0.7504
IC25	0.8451	0.0959	0.7133	1.0505	0.6224
IC40	1.1178	0.1068	0.9221	1.2861	-0.1220
IC50	1.3101	0.0961	1.0946	1.4453	-0.6206



Ceriodaphnia Chronic Reproduction Laboratory Control Chart

CV% = 11.8



CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl

Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-090203

Start Date: 02/03/2009

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	RL
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	3	0	0	5	4	4	3	4	3	4	30	10	
	4	8	3	4	7	6	7	0	6	0	7	48	10	
	5	0	0	10	10	0	14	7	0	6	0	37	10	
	6	14	16	0	13	0	0	0	0	0	15	58	10	
	7	13	0	12	0	14	12	14	15	13	0	68	10	
	Total	25	19	26	25	24	25	24	25	22	26	241	10	
0.25 g/l	1	0	0	0	0	0	0	0	0	0	0	10	RL	
	2	0	0	0	0	0	0	0	0	0	0	10		
	3	3	0	0	0	5	0	4	3	0	0	15		10
	4	7	4	3	4	0	3	0	7	4	3	35		10
	5	0	8	11	10	7	12	7	14	7	6	82		10
	6	0	0	15	16	0	0	0	0	0	0	31		10
	7	10	14	0	0	14	10	15	12	14	15	92		10
	Total	20	26	29	30	26	25	26	24	25	24	255		10
0.5 g/l	1	0	0	0	0	0	0	0	0	0	0	10	RL	
	2	0	0	0	0	0	0	0	0	0	0	10		
	3	0	0	0	0	4	4	0	4	3	0	15		10
	4	5	6	5	4	0	0	4	0	0	3	27		10
	5	7	0	0	8	6	7	9	6	11	7	61		10
	6	0	0	0	0	0	14	0	0	16	10	40		10
	7	14	12	15	10	13	0	14	14	0	0	92		10
	Total	26	18	20	22	23	25	27	24	30	20	235		10

Circled fourth brood not used in statistical analysis.

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

CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl

Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-090203

Start Date: 02/03/2009

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	R
	2	0	0	0	0	0	0	0	0	0	0	0	10	R
	3	0	0	0	0	0	0	0	0	0	0	0	10	R
	4	4	3	4	3	2	4	3	2	3	4	32	10	R
	5	0	0	0	11	10	7	0	11	0	0	53	10	R
	6	6	0	0	0	11	0	7	0	0	6	30	10	R
	7	0	6	10	7	0	9	0	9	8	0	49	10	R
	Total	10	9	20	21	23	20	10	22	19	10	164	10	R
2.0 g/l	1	0	0	0	0	0	0	0	0	0	0	10	R	
	2	0	0	0	0	0	0	0	0	0	0	10	R	
	3	0	0	0	0	0	0	0	0	0	0	10	R	
	4	2	0	0	0	0	0	0	2	3	0	7	10	R
	5	0	2	2	0	3	2	2	0	0	0	11	10	R
	6	0	0	0	2	0	0	0	4	2	0	8	10	R
	7	0	X	2	0	2	3	0	0	0	2	9	10	R
	Total	2	2	4	2	5	5	2	6	5	2	35	9	R
4.0 g/l	1	X	X	X	X	X	X	X	X	X	0	0	R	
	2	-	-	-	-	-	-	-	-	-	-	-	R	
	3	-	-	-	-	-	-	-	-	-	-	-	R	
	4	-	-	-	-	-	-	-	-	-	-	-	R	
	5	-	-	-	-	-	-	-	-	-	-	-	R	
	6	-	-	-	-	-	-	-	-	-	-	-	R	
	7	-	-	-	-	-	-	-	-	-	-	-	R	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	R

Circled fourth brood not used in statistical analysis.

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

CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl Water Chemistries Raw Data Sheet



QA/QC No.: RT-090203

Start Date: 02/03/2009

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
Analyst Initials:		Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Jr	Rm	Jr	Rm	Jr
Time of Readings:		1600	1500	1500	1500	1500	1500	1500	1700	1700	1500	1500	1530	1530	1530
Control	DO	8.3	8.8	8.8	9.2	8.4	8.8	8.5	8.7	8.4	8.1	8.3	8.5	8.5	8.4
	pH	7.8	8.1	8.2	8.0	7.7	7.8	7.7	7.8	7.7	7.7	7.7	7.8	7.7	7.8
	Temp	25.0	24.1	24.2	24.0	25.5	24.1	25.5	24.0	25.0	24.1	24.7	24.6	25.0	24.1
0.25 g/l	DO	8.4	8.7	8.8	9.1	8.4	8.7	8.5	8.6	8.4	8.3	8.4	8.2	8.5	8.3
	pH	7.8	8.1	8.2	8.0	7.7	7.8	7.7	7.8	7.7	7.7	7.8	7.8	7.7	7.8
	Temp	25.0	24.2	24.2	24.1	25.5	24.3	25.5	24.2	25.0	24.3	24.8	24.2	24.8	24.4
0.5 g/l	DO	8.4	8.7	8.7	9.1	8.5	8.7	8.4	8.6	8.3	8.2	8.3	8.3	8.4	8.2
	pH	7.8	8.2	8.2	8.0	7.8	7.8	7.7	7.9	7.8	7.7	7.8	7.8	7.7	7.7
	Temp	25.0	24.0	24.2	24.0	25.5	24.1	25.4	24.0	25.0	24.2	24.9	24.4	24.7	24.2
1.0 g/l	DO	8.4	8.8	8.7	9.0	8.5	8.8	8.4	8.7	8.3	8.1	8.4	8.4	8.2	8.3
	pH	7.8	8.2	8.2	8.1	7.8	7.8	7.8	7.9	7.8	7.8	7.9	7.8	7.7	7.7
	Temp	25.0	24.0	24.1	24.3	25.4	24.2	25.3	24.1	25.0	24.3	24.4	24.3	24.6	24.1
2.0 g/l	DO	8.4	8.9	8.7	9.1	8.5	8.9	8.3	8.9	8.3	8.2	8.5	8.2	8.3	8.4
	pH	7.9	8.2	8.2	8.1	7.8	7.9	7.8	7.9	7.8	7.8	7.8	7.8	7.8	7.7
	Temp	24.9	24.3	24.0	24.0	25.3	24.2	25.1	24.2	25.0	24.4	25.0	24.4	24.3	24.4
4.0 g/l	DO	8.5	9.0	-	-	-	-	-	-	-	-	-	-	-	-
	pH	7.9	8.2	-	-	-	-	-	-	-	-	-	-	-	-
	Temp	24.8	24.2	-	-	-	-	-	-	-	-	-	-	-	-

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

Additional Parameters	Control			High Concentration		
	Day 1	Day 3	Day 5	Day 1	Day 3	Day 5
Conductivity (µS)	312	300	305	6420	3350	3500
Alkalinity (mg/l CaCO ₃)	70	60	60	71	64	63
Hardness (mg/l CaCO ₃)	92	93	92	93	93	93

Source of Neonates

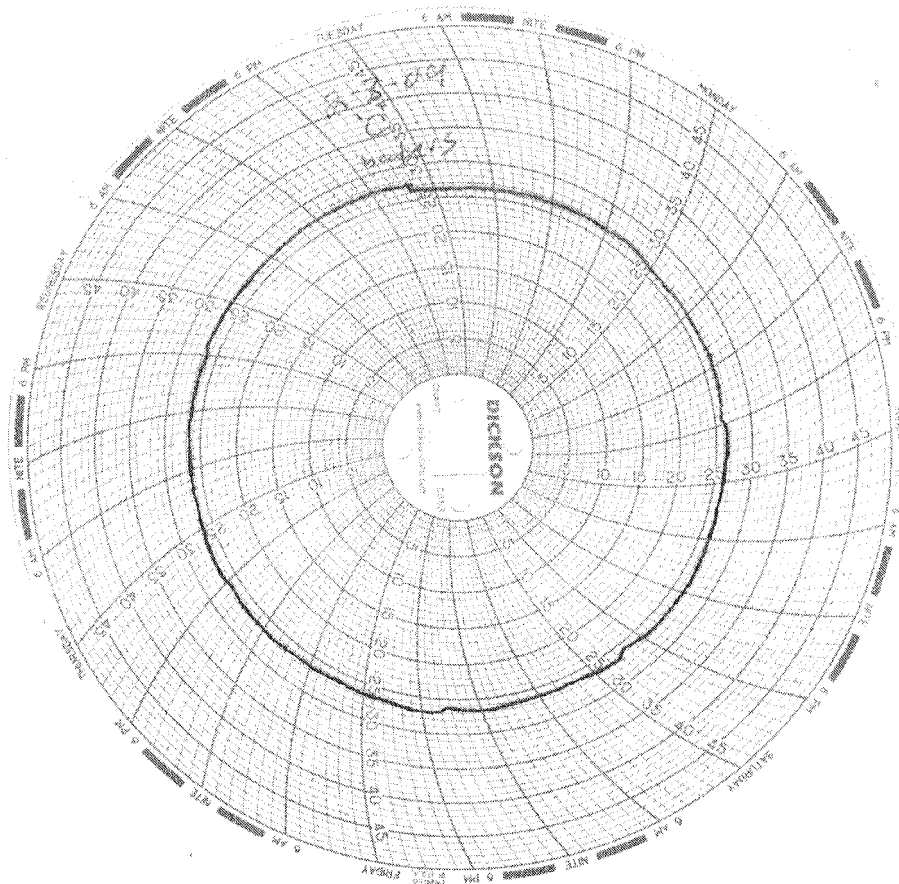
Replicate:	A	B	C	D	E	F	G	H	I	J
Brood ID:	A1	B2	C3	D2	E3	F2	G1	H3	I1	J2

Test Temperature Chart

Test No: RT-090203

Date Tested: 02/03/09 to 02/10/09

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



SUBCONTRACT ORDER

127223

TestAmerica Irvine

ISB1787

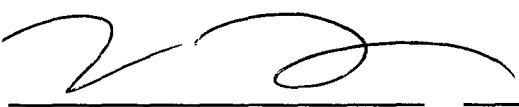
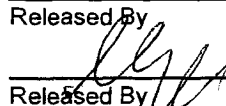
SENDING LABORATORY:



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

RECEIVING LABORATORY:

EMS Laboratories
117 W. Bellevue Drive
Pasadena, CA 91105
Phone : (626) 568-4065
Fax: (626) 796-5282
Project Location: CA - CALIFORNIA
Receipt Temperature: 5 °C Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: ISB1787-01	Water		Sampled: 02/16/09 08:30	
Asbestos-TEM (100.2 - DW)	CFU	02/25/09	02/18/09 08:30	Boeing, permit, J flags, Out to EMS
Containers Supplied:				
1 L Poly (AC)				


 Released By _____ Date/Time _____
 2-17-09 9:33
 Released By _____ Date/Time _____

 2-17-09 7:45
 Received By _____ Date/Time _____
 2-17-09 9:33
 Received By _____ Date/Time _____

DATE: February 23, 2009
CLIENT: TestAmerica, Irvine
17461 Derian Ave., Ste 100
Irvine, CA 92614
ATTENTION: Joseph Doak
REFERENCE: ISB1787
REPORT NO: 127223
SUBJECT: ANALYSIS OF WATER SAMPLE FOR ASBESTOS BY TEM
ACCREDITED: California Department of Health Services (ELAP-1119)

The date and times of collection, receipt, filtration, and analysis are as follows:

SAMPLE NO.: ISB1787-01
COLLECTED: 2/16/09 at 0830
RECEIVED: 2/17/09 at 0933
FILTERED: 2/17/09 at 1008
ANALYZED: 2/21/09

The sample was analyzed for fibers $>10 \mu\text{m}$ in length to conform with the drinking water document, EPA 600 R 94 134, 100.2. This regulation calls for an MCL (maximum contaminant level) of 7 MFL and an analytical sensitivity level of 0.2 MFL.

No asbestos structures $>10 \mu\text{m}$ in length were detected. The analytical sensitivity of 0.2 MFL was not reached due to the turbidity.

The results of the analysis and the detection limit are summarized on the following pages.

Respectfully submitted,
EMS LABORATORIES, INC.



B. M. Kolk
Laboratory Director
BMK/ah

NOTE: The results of the analysis are based upon the samples submitted to the laboratory. No representation is made regarding the sampling area other than that implied by the analytical results for the immediate vicinity of the samples analyzed as calculated from the data presented with those samples.

This report, from a NIST laboratory through NVLAP, must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

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Any deviation or exclusion from the test method is noted in this cover letter.

Unless otherwise noted in this cover letter, the samples were received properly packaged, clearly identified and intact.

**Analysis of Water by Transmission Electron Microscopy
(EPA-600 R 94 134) EPA 100.2**

EMS No. 127223 **Client** Test America
Sample No. ISB1787-01 **Date Analyzed** 2/21/2009

Fibers > 10 µm in length (chrysotile)	<u>BDL*</u>	MFL
Mass (chrysotile)	<u>0</u>	ug/L
More/Less than 5 Fibers in Sample (chrysotile)	<u>LESS</u>	
Poisson 95% Confidence Interval	<u>0 to 40</u>	MFL
Detection Limit	<u>11</u>	MFL

* BDL : Below Detection Limit; MFL: Million Fibers per Liter

Particle Size Distribution (Chrysotile)

Particle Length - Microns							
0 - 0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 - 4.99	5.00 - 9.99	10 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Particle Width - Microns							
0 - .04	.05 - .09	.1 - .14	.15 - .19	.2 - .24	.25 - .49	.50 - .99	1 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Aspect Ratio LW							
0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 - 99	100 - 199	200 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

TEM 7B (1994)

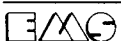
**Analysis of Water by Transmission Electron Microscopy
(EPA-600/4-83-043)**

EMS No. 127223 **Date Analyzed** 2/21/2009
Client Test America
Sample No. EMS BLANK

Fibers (chrysotile)	<u>ND</u>	MFL
> 5 Micron length (chrysotile)	<u>ND</u>	MFL
Mass (chrysotile)	<u>0</u>	ug/L
More/Less than 5 Fibers in Sample (chrysotile)	<u>LESS</u>	
Sensitivity Level	<u>0.01</u>	MFL

Particle Size Distribution (Chrysotile)

Particle Length - Microns					
0 - 0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Particle Width - Microns					
0 - .04	.05 - .09	.1 - .14	.15 - .19	.2 - .24	.25 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Aspect Ratio LW					
0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>



TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9C050251

Project ISB1787

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.

Joe 
DiLea Griego
Project Manager

March 11, 2009

Case Narrative

Enclosed is the report for two samples received at TestAmerica Laboratories, Inc. – Denver laboratory on February 24, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than the Denver laboratory's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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Quality Control Summary for Lot D9C050251

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 5.1°C.

Sample ISB1787-01, requesting alpha-BHC by Method 608, was received at the TestAmerica Denver laboratory after the recommended sample holding time had expired. The client was notified on March 9, 2009.

The sample container received was a 1 L amber bottle preserved with hydrochloric acid. The method required bottle is a 1 L amber bottle, unpreserved. The laboratory noted the discrepancy and proceeded with the requested analysis.

Alpha-BHC – Method 608

Sample ISB1787-01, requesting alpha-BHC by Method 608, was received at the TestAmerica Denver laboratory after the recommended sample holding time had expired. Please note that the sample result should be considered estimated. The sample has been flagged with "HTV" as appropriate.

The sample ISB1787-01 was observed to have heavy emulsions with methylene chloride during the Method 608 extraction process.

The method required MS/MSD analyses were not performed for QC batch 9064381, due to insufficient sample volume. Method precision and accuracy were verified by the acceptable LCS/LCSD analysis data.

EXECUTIVE SUMMARY - Detection Highlights

D9C050251

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
NO DETECTABLE PARAMETERS				

METHODS SUMMARY

D9C050251

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Organochlorine Pesticides and PCBs	CFR136A 608	CFR136A 608

References:

CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

METHOD / ANALYST SUMMARY

D9C050251

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
CFR136A 608	Dennis Jonsrud	009226

References:

CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SAMPLE SUMMARY

D9C050251

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K74KF	001	ISB1787-01	02/16/09	08:30

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9C050251

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	CFR136A 608		9064381	

Quality Control Definitions of Qualifiers

Qualifier	Definition
U	Result is less than the method detection limit (MDL).
B	Organics: Method blank contamination. The associated method blank contains the target analyte at a reportable level. Inorganics: Estimated result. Result is less than the RL
J	Organics: Estimated result. Result is less than RL Inorganics: Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentrations exceed the calibration range.
p	Relative Percent Difference (RPD) is outside control limits.
*	Surrogate or Relative Percent Difference (RPD) is outside control limits.
DIL	The concentration is estimated or not reported due to dilution.
COL	More than 40% difference between the primary and confirmation detector results. The lower of the two results is reported.
CHI	More than 40% difference between the primary and confirmation detector results. The higher of the two results is reported.
L	Serial dilution of a digestate in the analytical batch indicates that physical and chemical interferences are present.
a	Spiked analyte recovery is outside stated control limits.
N	Spiked analyte recovery is outside stated control limits.
NC	The recovery and/or RPD were not calculated.
MSB	The recovery and/or RPD were not calculated because the sample amount was greater than four times the spike amount.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Semivolatile GC

CLP-Like Forms

Lot ID: D9C050251

Client: TestAmerica-Irvine

Method: 608

Associated Sample: 001

Batch: 9064381

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9C050251
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 608
Unit: ug/L
QC Batch ID: 9064381
Sample Aliquot: 1027 mL
Dilution Factor: 1

Client Sample ID: ISB1787-01
Lab Sample ID: D9C050251-001
Lab WorkOrder: K74KF1AA
Date/Time Collected: 02/16/09 08:30
Date/Time Received: 03/05/09 09:15
Date Leached:
Date/Time Extracted: 03/05/09 16:00
Date/Time Analyzed: 03/10/09 17:14
Instrument ID: P2

CAS No.	Analyte	Conc.	MDL	RL	Q
319-84-6	alpha-BHC	0.050	0.0053	0.050	U HTV

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
2051-24-3	Decachlorobiphenyl	53	32	144	
877-09-8	Tetrachloro-m-xylene	86	52	117	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9C050251
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 608
Unit: ug/L
QC Batch ID: 9064381
Sample Aliquot: 1000 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9C050000-381B
Lab WorkOrder: K74R21AA
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 03/05/09 16:00
Date/Time Analyzed: 03/10/09 17:31
Instrument ID: P2

CAS No.	Analyte	Conc.	MDL	RL	Q
319-84-6	alpha-BHC	0.050	0.0053	0.050	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
2051-24-3	Decachlorobiphenyl	97	32	144	
877-09-8	Tetrachloro-m-xylene	65	52	117	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Surrogate Recovery Summary

Lab Name: TESTAMERICA DENVER

Extraction I09DM01

Lot/SDG Number: D9C050251

QC Batch ID: 9064381

Client ID	Work Order	SRG1	SRG2	SRG3	SRG4	SRG5	SRG6	SRG7	SRG8	TOT OUT
CHECK SAMPLE	K74R21AC	100	55							0
DUPLICATE CHECK	K74R21AD	102	80							0

Surrogate Number	Surrogate Name	Lower Control Limit	Upper Control Limit
SRG 1	Decachlorobiphenyl	68	122
SRG 2	Tetrachloro-m-xylene	54	115

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Surrogate Recovery Summary

Lab Name: TESTAMERICA DENVER

Extraction I09DM01

Lot/SDG Number: D9C050251

QC Batch ID: 9064381

Client ID	Work Order	SRG1	SRG2	SRG3	SRG4	SRG5	SRG6	SRG7	SRG8	TOT OUT
ISB1787-01	K74KF1AA	53	86							0
INTRA-LAB BLANK	K74R21AA	97	65							0

Surrogate Number	Surrogate Name	Lower Control Limit	Upper Control Limit
SRG 1	Decachlorobiphenyl	32	144
SRG 2	Tetrachloro-m-xylene	52	117

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9C050251
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 608
Unit: ug/L
QC Batch ID: 9064381
Sample Aliquot: 1000 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9C050000-381C
Lab WorkOrder: K74R21AC
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 03/05/09 16:00
Date/Time Analyzed: 03/10/09 15:02
Instrument ID: P2

Analyte	True	Found	%Rec	Q	Limits
alpha-BHC	0.500	0.479	96		66 - 115

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
2051-24-3	Decachlorobiphenyl	100	68	122	
877-09-8	Tetrachloro-m-xylene	55	54	115	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9C050251
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 608
Unit: ug/L
QC Batch ID: 9064381
Sample Aliquot: 1000 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9C050000-381L
Lab WorkOrder: K74R21AD
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 03/05/09 16:00
Date/Time Analyzed: 03/10/09 15:19
Instrument ID: P2

Analyte	True	Found	C	% Rec	Q	RPD	Q	QC Limits	
								% Rec	RPD
alpha-BHC	0.500	0.514		103		6.9		66 - 115	50

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
2051-24-3	Decachlorobiphenyl	102	68	122	
877-09-8	Tetrachloro-m-xylene	80	54	115	

TestAmerica Irvine

Method Blank Summary

Lab Name:	<u>TESTAMERICA DENVER</u>	Lab File ID:	<u>026F2601.</u>
Lot/SDG Number:	<u>D9C050251</u>	Lab Sample ID:	<u>D9C050000-381B</u>
Matrix:	<u>WATER</u>	Lab Work Order:	<u>K74R21AA</u>
Analysis Method:	<u>608</u>	Date/Time Extracted:	<u>03/05/09 16:00</u>
Extraction Method:	<u>I09DM01</u>	Date/Time Analyzed:	<u>03/10/09 17:31</u>
QC Batch ID:	<u>9064381</u>	Instrument ID:	<u>P2</u>

Client ID	Sample Work Order #	Lab File ID	Date Analyzed	Time Analyzed
ISB1787-01	K74KF1AA	026F2601.	03/10/09	17:14
CHECK SAMPLE	K74R21AC C	018F1801.	03/10/09	15:02
DUPLICATE CHECK	K74R21AD L	019F1901.	03/10/09	15:19

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37
 End Cal Date : 01-MAR-2009 21:01
 Quant Method : ESTD
 Target Version : 4.14
 Integrator : FALCON
 Method file : \\DensVr03\Public\chem\GCS\GC_P2.i\0301091.b\P2_8081_1.m
 Last Edit : 02-Mar-2009 07:44 GC_P2.i

Calibration File Names:
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 Level 2: \\DensVr03\Public\chem\GCS\GC_P2.i\0301091.b\015F1501.D
 Level 3: \\DensVr03\Public\chem\GCS\GC_P2.i\0301091.b\014F1401.D
 Level 4: \\DensVr03\Public\chem\GCS\GC_P2.i\0301091.b\020F2001.D
 Level 5: \\DensVr03\Public\chem\GCS\GC_P2.i\0301091.b\012F1201.D
 Level 6: \\DensVr03\Public\chem\GCS\GC_P2.i\0301091.b\011F1101.D

SEE CALIBRATION HISTORY

Compound	Level						Curve	b	Coefficients		RSD OR R ²
	1	2	3	4	5	6			m1	m2	
1 Trichlorophenol	4.0000	10.0000	25.0000	50.0000	75.0000	100.0000	LINR	0.000e+000	0.000e+000	0.000e+000	<-
3 Hexachlorobenzene	134212	315320	749989	1505326	2221704	2926219	WLINR	-0.57439	29460	0.99986	
4 Diallylate	452507	845506	1940628	2669939	3729395	7240854	WLINR	-125	732	0.99939	
5 alpha-BHC	38459	38449	38020	39276	34123	39235	AVRG		38806	1.46700	
6 gamma-BHC (Lindane)	34186	33968	33253	34123	33802	33855	AVRG		33864	0.98721	
7 beta-BHC	64946	153688	361787	739364	1091642	1450446	WLINR	-0.49998	14467	0.99980	
8 delta-BHC	32342	32379	32216	33576	33776	34028	AVRG		33053	2.49793	
9 Technical Chlordane(1)	+++++	+++++	+++++	62955	+++++	+++++	LINR	0.000e+000	1259	1.00000	
	+++++	+++++	+++++	58110	+++++	+++++	LINR	0.000e+000	1162	1.00000	
	+++++	+++++	+++++	189044	+++++	+++++	LINR	0.000e+000	3781	1.00000	
	+++++	+++++	+++++	163060	+++++	+++++	LINR	0.000e+000	3261	1.00000	
	+++++	+++++	+++++	45998	+++++	+++++	LINR	0.000e+000	920	1.00000	
10 Heptachlor	32819	31807	30648	30887	30142	29637	AVRG		30990	3.73206	
11 Aldrin	32264	31523	30597	30799	30099	29915	AVRG		30866	2.88235	

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37
 End Cal Date : 01-MAR-2009 21:01
 Quant Method : ESTD
 Target Version : 4.14
 Integrator : Falcon
 Method file : \\Densvtr03\Public\chem\GCS\GC_P2.1\0301091.b\P2_8081_1.m
 Last Edit : 02-Mar-2009 07:44 GC_P2.1

Compound	Retention Time						Curve	b	Coefficients		OR R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
12 Chlorpyrifos	4.0000	10.0000	25.0000	50.0000	75.0000	100.0000	QUAD	0.27386	0.00007	8.164e-012	1.00000
13 Isodrin	583246	683789	1381603	3283105	4459945	6073476	QUAD	1.69109	0.00031	1.249e-012	1.00000
14 Dicofol	160063	330772	746171	976783	1260428	1927426	QUAD	25.57394	0.00015	1.812e-010	0.99970
15 2,4'-DDP	99724	208446	503473	686252	947908	1746614	QUAD	0.10517	0.00005	5.968e-012	0.99998
16 Heptachlor epoxide	123604	293941	699497	1395171	2035527	2672820	WLINR	-0.58077	27207		0.99958
17 Toxaphene (1)	+++++	+++++	+++++	37454	+++++	+++++	WLINR	0.000e+000	187		1.00000
(2)	+++++	+++++	+++++	83236	+++++	+++++	WLINR	0.000e+000	416		1.00000
(3)	+++++	+++++	+++++	74322	+++++	+++++	WLINR	0.000e+000	372		1.00000
(4)	+++++	+++++	+++++	113409	+++++	+++++	WLINR	0.000e+000	567		1.00000
(5)	+++++	+++++	+++++	75900	+++++	+++++	WLINR	0.000e+000	380		1.00000
18 gamma-Chlordane	30402	29092	28013	28316	27804	27683	AVRG	28552			3.63098
19 alpha-Chlordane	28848	27699	26588	27234	26574	26290	AVRG	27205			3.51053
20 4,4'-DDE	27474	26840	26695	27107	26744	26723	AVRG	26930			1.13654
21 Endosulfan I	117230	280359	661338	1317755	1916121	2498492	WLINR	-0.62477	25635		0.99926
22 2,4'-DDD	79151	163488	637166	843010	1098901	1801327	QUAD	4.30310	0.00002	1.708e-011	0.99926
23 Dieldrin	30507	29301	28409	28695	28027	27690	AVRG	28771			3.52917
24 2,4'-DDT	97562	200953	492354	689423	953494	1721521	QUAD	0.70716	0.00004	7.480e-012	0.99996
25 Endrin	24260	23722	23442	24116	24161	24029	AVRG	23955			1.29923
26 Kepone	160651	324739	1183455	1896076	2844971	5317429	QUAD	43.06482	0.00015	5.356e-012	0.99926
27 4,4'-DDD	137155	279223	648213	1286302	1856127	2521035	WLINR	-1.55985	24543		0.99971
28 Chlorobenzilate	149139	273074	565347	755461	1000452	1674856	QUAD	-9.75273	0.00038	1.359e-010	0.99995
29 Endosulfan II	102488	248724	596285	1203007	1752072	2295364	WLINR	-0.40663	23438		0.99956

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37
 End Cal Date : 01-MAR-2009 21:01
 Quant Method : ESTD
 Target Version : 4.14
 Integrator : Falcon
 Method file : \\DensVr03\Public\chem\GCS\GC_P2.1\0301091.b\P2_8081_1.m
 Last Edit : 02-Mar-2009 07:44 GC_P2.1

Compound	Level						Curve	b	Coefficients		%RSD or R ²	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2		
30 4,4'-DDT	82551	205047	526359	1105132	1657077	2227471	W/LINR	0.29983	21930	0.00005	2.404e-012	0.99916
31 Endrin aldehyde	96914	223803	525128	1029199	1489190	1947693	QUAD	-0.56811	11204	1.7017		0.99997
32 Methoxychlor	11482	11268	11154	11115	11012	11192	AVRG		11204	1.7017		1.43337
33 Mirex	97660	200201	455139	897482	1287876	1719278	W/LINR	-1.74445	22435	24783		0.99981
34 Endosulfan sulfate	112639	253268	591334	1139393	1681628	2253569	W/LINR	-1.05912	24783			0.99970
35 Endrin ketone	118411	270453	644910	1279736	1862603	2440068	W/LINR	-0.80117	0.00036	-7.134e-01		0.99967
37 DBPP	96294	296009	1936888	3720684	7180029	23674613	QUAD	389				0.99386
\$ 2 Tetrachloro-m-xylene	121420	291360	695888	1395983	2055736	2714066	W/LINR	-0.45887	27395			0.99980
\$ 36 Decachlorodiphenyl	90065	205722	483578	959339	1395732	1829166	W/LINR	-0.88308	18573			0.99960

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37
End Cal Date : 01-MAR-2009 21:01
Quant Method : ESTD
Target Version : 4.14
Integrator : FALCON
Method file : \\DensVr03\Public\chem\GCS\GC_P2.1\0301091.b\P2_8081_1.m
Last Edit : 02-Mar-2009 07:44 GC_P2.1

Curve	Formula	Units
Averaged	Amt = Resp/ml	Response
Linear	Amt = b + Resp/ml	Response
Wt Linear	Amt = b + Resp/ml	Response
Quad	Amt = b + ml*Resp + m2*Resp^2	Response

Report Date: 02-Mar-2009 07:45

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\P2_8081_1.m
Start Cal Date: 01-MAR-2009 16:37
End Cal Date : 01-MAR-2009 21:01
Last Cal Level: 4
Last Cal Type : Initial Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 4.00000		
01-MAR-2009 19:55	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\016F1601.D
01-MAR-2009 17:59	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\009F0901.D
Cal Level: 2 , Cal Amount: 10.00000		
01-MAR-2009 19:39	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\015F1501.D
01-MAR-2009 17:43	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\008F0801.D
Cal Level: 3 , Cal Amount: 25.00000		
01-MAR-2009 19:22	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\014F1401.D
01-MAR-2009 17:26	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\007F0701.D
Cal Level: 4 , Cal Amount: 50.00000		
01-MAR-2009 21:01	4-CHLORDANE	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\020F2001.D
01-MAR-2009 20:28	3-TOXAPHENE	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\018F1801.D
01-MAR-2009 19:06	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\013F1301.D
01-MAR-2009 17:10	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\006F0601.D
Cal Level: 5 , Cal Amount: 75.00000		
01-MAR-2009 18:49	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\012F1201.D
01-MAR-2009 16:53	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\005F0501.D
Cal Level: 6 , Cal Amount: 100.00000		

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01-MAR-2009 18:33 |1-INDAB|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\011F1101.D
01-MAR-2009 16:37 |2-AP9|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\004F0401.D
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Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 3

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+-----+
01-MAR-2009 20:45 |3-TOXAPHENE|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\019F1901.D
01-MAR-2009 20:12 |1-INDAB|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\017F1701.D
01-MAR-2009 19:22 |1-INDAB|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\014F1401.D
01-MAR-2009 18:16 |2-AP9|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\010F1001.D
01-MAR-2009 17:26 |2-AP9|
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01-MAR-2009 15:47 |EVALB|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\002F0201.D
01-MAR-2009 21:01 |4-CHLORDANE|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\020F2001.D
01-MAR-2009 20:28 |3-TOXAPHENE|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\018F1801.D
01-MAR-2009 19:06 |1-INDAB|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\013F1301.D
01-MAR-2009 17:10 |2-AP9|
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\006F0601.D
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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37
 End Cal Date : 01-MAR-2009 21:01
 Quant Method : ESTD
 Target Version : 4.14
 Integrator : FALCON
 Method File : \\DensVr03\Public\chem\GCS\GC_P2.i\0301092.b\P2_8081_2.m
 Last Edit : 02-Mar-2009 08:24 GC_P2.i

Calibration File Names:
 Level 1: \\DensVr03\Public\chem\GCS\GC_P2.i\0301092.b\016F1601.D
 Level 2: \\DensVr03\Public\chem\GCS\GC_P2.i\0301092.b\015F1501.D
 Level 3: \\DensVr03\Public\chem\GCS\GC_P2.i\0301092.b\014F1401.D
 Level 4: \\DensVr03\Public\chem\GCS\GC_P2.i\0301092.b\020F2001.D
 Level 5: \\DensVr03\Public\chem\GCS\GC_P2.i\0301092.b\012F1201.D
 Level 6: \\DensVr03\Public\chem\GCS\GC_P2.i\0301092.b\011F1101.D

SEE CALIBRATION HISTORY

Compound	Level						Curve	b	Coefficients		RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
1 2,4,5-Trichlorophenol	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	1206	0.99982	
3 Diallylate	712210	1334778	3112429	4310489	6072249	12317513	WLINR	-92.86073	44885	0.99980	
4 Hexachlorobenzene	213764	492577	1138641	2289049	3394245	4523119	WLINR	-0.78333	59760	1.69146	
5 alpha-BHC	60544	59240	57972	59968	60170	60663	AVRG		51659	2.26906	
6 gamma-BHC (Lindane)	53707	51580	50085	51578	51242	51763	AVRG		22240	0.99963	
7 beta-BHC	110502	251624	573890	1140848	1675716	2224461	WLINR	-1.01027	2008	1.00000	
8 Technical Chlorthane (1)	++++	++++	++++	100414	++++	++++	LINR	0.000e+000	1828	1.00000	
(2)	++++	++++	++++	91398	++++	++++	LINR	0.000e+000	6047	1.00000	
(3)	++++	++++	++++	302374	++++	++++	LINR	0.000e+000	5004	1.00000	
(4)	++++	++++	++++	250222	++++	++++	LINR	0.000e+000	1620	1.00000	
(5)	++++	++++	++++	81023	++++	++++	LINR	0.000e+000	49672	2.50009	
9 delta-BHC	49732	48447	48041	50010	50454	51352	AVRG		45979	0.99980	
10 Heptachlor	211681	495049	1173814	2360989	3459895	4556208	WLINR	-0.62520	46805	3.42837	
11 Aldrin	49516	47857	45931	46580	45641	45306	AVRG				

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37
 End Cal Date : 01-MAR-2009 21:01
 Quant Method : ESTD
 Target Version : 4.14
 Integrator : Falcon
 Method file : \\Densvtr03\Public\chem\GCS\GC_P2.i\0301092.b\P2_8081_2.m
 Last Edit : 02-Mar-2009 08:24 GC_P2.i

Compound	Level					Curve	b	Coefficients		RSD	
	Level 1	Level 2	Level 3	Level 4	Level 5			m1	m2		OR R2
12 Chlorpyrifos	4.0000	10.0000	25.0000	50.0000	75.0000	100.0000	QUAD	-2.03175	0.00005	3.233e-012	0.99999
13 Dicofof	559417	1065732	2359366	3145763	4231680	7234064	QUAD	38.40601	0.00027	6.925e-011	0.99886
14 Isodrin	71326	215694	629783	917497	1330504	2254256	QUAD	-2.63196	0.00002	5.125e-013	0.99998
15 Toxaphene (1)	1238821	2400688	5423062	7192163	9710358	16956012	QUAD	0.000e+000	449	1.00000	1.00000
(2)	++++	++++	++++	++++	++++	++++	LINR	0.000e+000	390	1.00000	1.00000
(3)	++++	++++	++++	++++	++++	++++	LINR	0.000e+000	480	1.00000	1.00000
(4)	++++	++++	++++	++++	++++	++++	LINR	0.000e+000	554	1.00000	1.00000
(5)	++++	++++	++++	++++	++++	++++	LINR	0.000e+000	633	1.00000	1.00000
16 Heptachlor epoxide	191128	452003	1059220	2125117	3095403	4081431	LINR	-0.66218	41356	0.99985	0.99985
17 gamma-Chlordane	200020	464122	1089835	2197088	3229351	4293745	LINR	-0.68146	42884	0.99981	0.99981
18 2,4'-DDE	175306	343282	785376	1023189	1443698	2646810	QUAD	-1.01796	0.00003	2.278e-012	0.99985
19 alpha-Chlordane	189561	441501	1038165	2095612	3085552	4107476	LINR	-0.64254	40968	0.99945	0.99945
20 Endosulfan I	184494	427123	989194	1959830	2862393	3761446	LINR	-0.88732	38132	0.99975	0.99975
21 4,4'-DDE	195722	459978	1080819	2180777	3169013	4296001	LINR	-0.61627	43215	0.99971	0.99971
22 Dieldrin	199363	468494	1105277	2219801	3241846	4277166	LINR	-0.64339	42608	0.99996	0.99996
23 2,4'-DDD	153389	297754	665450	888613	1226356	2198937	QUAD	-0.85966	0.00004	4.447e-012	0.99996
24 Endrin	33182	33769	33367	35630	35753	35363	AVRG		34511	3.46392	3.46392
25 Chlorobenzilate	154364	300710	660190	875594	1204126	2128935	QUAD	-9.30429	0.00036	5.406e-011	0.99994
26 2,4'-DDT	162025	326831	760113	1024778	1418747	2513141	QUAD	0.01063	0.00003	3.974e-012	0.99997
27 Kepone	213845	483266	1859824	2970372	4571877	8715841	QUAD	45.40949	0.00010	1.465e-012	0.99827
28 4,4'-DDD	181299	402338	924690	1844450	2793496	3918646	QUAD	-1.46557	0.00003	6.972e-01	0.99998
29 Endosulfan II	186979	427155	970685	1927505	2765029	3616141	LINR	-2.06456	35796	0.99931	0.99931

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37
 End Cal Date : 01-MAR-2009 21:01
 Quant Method : ESTD
 Target Version : 4.14
 Integrator : Falcon
 Method file : \\Densvtr03\Public\chem\GCS\GC_P2.i\0301092.b\P2_8081_2.m
 Last Edit : 02-Mar-2009 08:24 GC_P2.i

Compound	Level						Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
30 4,4'-DDT	110541	278483	728730	1545071	2372591	3222783	QUAD	0.705471	0.00003	-7.466e-01	0.99993
31 Endrin aldehyde	156234	350233	805518	1567524	2266712	2966322	WLINR	-1.22241	30267		0.99909
32 Endosulfan sulfate	163198	368383	864350	1703090	2509219	3338095	WLINR	-0.92237	33302		0.99990
33 Methoxychlor	59763	146502	362126	730312	1134793	1407604	WLINR	-0.03067	14581		0.99923
34 Mirex	126902	286766	652009	1278590	1872856	2466771	WLINR	-1.15710	24879		0.99939
35 Endrin ketone	169539	394610	918686	1832081	2673237	3525738	WLINR	-0.79820	35643		0.99958
37 DBPP	35245	112680	1086899	2407860	5522718	22788630	QUAD	500	0.00046	-1.138e-01	0.98528
\$ 2 Tetrachloro-m-xylene	193068	454558	1072973	2159055	3185308	4218632	WLINR	-0.58614	42293		0.99985
\$ 36 Decachlorobiphenyl	128324	297912	684299	1350491	1982111	2607533	WLINR	-0.92004	26383		0.99938

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37
End Cal Date : 01-MAR-2009 21:01
Quant Method : ESTD
Target Version : 4.14
Integrator : FALCON
Method file : \\Densvr03\Public\chem\GCS\GC_P2.1\0301092.b\P2_8081_2.m
Last Edit : 02-Mar-2009 08:24 GC_P2.1

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + ml*Rsp + m2*Rsp^2	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\P2_8081_2.m
 Start Cal Date: 01-MAR-2009 16:37
 End Cal Date : 01-MAR-2009 21:01
 Last Cal Level: 4
 Last Cal Type : Initial Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 4.00000		
01-MAR-2009 19:55	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\016F1601.D
01-MAR-2009 17:59	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\009F0901.D
Cal Level: 2 , Cal Amount: 10.00000		
01-MAR-2009 19:39	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\015F1501.D
01-MAR-2009 17:43	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\008F0801.D
Cal Level: 3 , Cal Amount: 25.00000		
01-MAR-2009 19:22	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\014F1401.D
01-MAR-2009 17:26	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\007F0701.D
Cal Level: 4 , Cal Amount: 50.00000		
01-MAR-2009 21:01	4-CHLORDANE	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\020F2001.D
01-MAR-2009 20:28	3-TOXAPHENE	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\018F1801.D
01-MAR-2009 19:06	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\013F1301.D
01-MAR-2009 17:10	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\006F0601.D
Cal Level: 5 , Cal Amount: 75.00000		
01-MAR-2009 18:49	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\012F1201.D
01-MAR-2009 16:53	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\005F0501.D
01-MAR-2009 16:53	1-ALLCOMP	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\005F0501.D

Cal Level: 6 , Cal Amount: 100.00000

01-MAR-2009 18:33 | 1-INDAB
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\011F1101.D
01-MAR-2009 16:37 | 2-AP9
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\004F0401.D

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

01-MAR-2009 20:45 | 3-TOXAPHENE
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\019F1901.D
01-MAR-2009 20:12 | 1-INDAB
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\017F1701.D
01-MAR-2009 19:22 | 1-INDAB
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\014F1401.D
01-MAR-2009 18:16 | 2-AP9
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\010F1001.D
01-MAR-2009 17:26 | 2-AP9
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\007F0701.D
01-MAR-2009 15:47 | EVALB
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\002F0201.D
01-MAR-2009 21:01 | 4-CHLORDANE
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\020F2001.D
01-MAR-2009 20:28 | 3-TOXAPHENE
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\018F1801.D
01-MAR-2009 19:06 | 1-INDAB
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\013F1301.D
01-MAR-2009 17:10 | 2-AP9
\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\006F0601.D

Data File: \\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\017F1701.D
Report Date: 03/02/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_P2.i
Lab File ID: 017F1701.D
Analysis Type: NONE

Injection Date: 01-MAR-2009 20:12
Lab Sample ID: AB SS GSV082908
Method File: \\DenSvr03\Public\chem\GCS\GC_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
24 Tetrachloro-m-xylene	25.0000	26.6715	6.7	15.0
136 Hexachlorobenzene	25.0000	26.2887	5.2	15.0
2 alpha-BHC	25.0000	25.8249	3.3	15.0
5 gamma-BHC (Lindane)	25.0000	25.9133	3.7	15.0
2 beta-BHC	25.0000	26.0560	4.2	15.0
4 delta-BHC	25.0000	25.3089	1.2	15.0
122 Heptachlor	25.0000	26.3541	5.4	15.0
1 Aldrin	25.0000	25.8074	3.2	15.0
19 Heptachlor epoxide	25.0000	26.5342	6.1	15.0
7 gamma-Chlordane	25.0000	26.0019	4.0	15.0
6 alpha-Chlordane	25.0000	25.6440	2.6	15.0
9 4,4'-DDE	25.0000	25.9259	3.7	15.0
12 Endosulfan I	25.0000	26.6079	6.4	15.0
11 Dieldrin	25.0000	26.1638	4.7	15.0
15 Endrin	25.0000	26.0263	4.1	15.0
8 4,4'-DDD	25.0000	23.9857	4.1	15.0
13 Endosulfan II	25.0000	26.0986	4.4	15.0
10 4,4'-DDT	25.0000	26.1193	4.5	15.0
16 Endrin aldehyde	25.0000	24.0274	3.9	15.0
21 Methoxychlor	25.0000	26.2579	5.0	15.0
22 Mirex	25.0000	26.0332	4.1	15.0
14 Endosulfan sulfate	25.0000	25.4856	1.9	15.0
17 Endrin ketone	25.0000	26.0827	4.3	15.0
23 Decachlorobiphenyl	25.0000	26.2971	5.2	15.0

Average %D = 4.25

Data File: \\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\017F1701.D
Report Date: 03/02/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC P2.i
Lab File ID: 017F1701.D
Analysis Type: NONE

Injection Date: 01-MAR-2009 20:12
Lab Sample ID: AB SS GSV082908
Method File: \\DenSvr03\Public\chem\GCS\GC_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
24 Tetrachloro-m-xylene	25.0000	26.5358	6.1	15.0
133 Hexachlorobenzene	25.0000	26.3797	5.5	15.0
2 alpha-BHC	25.0000	25.5723	2.3	15.0
5 gamma-BHC (Lindane)	25.0000	25.6090	2.4	15.0
2 beta-BHC	25.0000	26.6125	6.4	15.0
4 delta-BHC	25.0000	24.9768	0.1	15.0
122 Heptachlor	25.0000	26.8235	7.3	15.0
1 Aldrin	25.0000	25.7949	3.2	15.0
19 Heptachlor epoxide	25.0000	26.3967	5.6	15.0
7 gamma-Chlordane	25.0000	26.2987	5.2	15.0
6 alpha-Chlordane	25.0000	26.0112	4.0	15.0
12 Endosulfan I	25.0000	26.4247	5.7	15.0
9 4,4'-DDE	25.0000	26.1846	4.7	15.0
11 Dieldrin	25.0000	26.4992	6.0	15.0
15 Endrin	25.0000	26.0572	4.2	15.0
8 4,4'-DDD	25.0000	24.3925	2.4	15.0
13 Endosulfan II	25.0000	26.2839	5.1	15.0
10 4,4'-DDT	25.0000	26.5759	6.3	15.0
16 Endrin aldehyde	25.0000	24.3172	2.7	15.0
14 Endosulfan sulfate	25.0000	25.9608	3.8	15.0
21 Methoxychlor	25.0000	27.0792	8.3	15.0
22 Mirex	25.0000	25.9247	3.7	15.0
17 Endrin ketone	25.0000	25.6481	2.6	15.0
23 Decachlorobiphenyl	25.0000	26.0613	4.2	15.0

Average %D = 4.51

Data File: \\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\019F1901.D
Report Date: 03/02/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_P2.i
Lab File ID: 019F1901.D
Analysis Type: NONE

Injection Date: 01-MAR-2009 20:45
Lab Sample ID: TOX SS GSV171708
Method File: \\DenSvr03\Public\chem\GCS\GC_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
108 Toxaphene	200.0000	212.6800	6.3	15.0

Average %D = 6.34

Data File: \\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\019F1901.D
Report Date: 03/02/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_P2.i
Lab File ID: 019F1901.D
Analysis Type: NONE

Injection Date: 01-MAR-2009 20:45
Lab Sample ID: TOX SS GSV171708
Method File: \\DenSvr03\Public\chem\GCS\GC_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
108 Toxaphene	200.0000	211.1308	5.6	15.0

Average %D = 5.56

CONTINUING CALIBRATION COMPOUNDS
 PERCENT DRIFT REPORT

Instrument ID: GC_P2.i
 Lab File ID: 016F1601.D
 Analysis Type: NONE

Injection Date: 10-MAR-2009 14:29
 Lab Sample ID: AB L4 GSV169908
 Method File: \\DenSvr03\Public\chem\GCS\GC_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
24 Tetrachloro-m-xylene	50.0000	53.5358	7.1	15.0
136 Hexachlorobenzene	50.0000	53.0923	6.2	15.0
2 alpha-BHC	50.0000	54.0570	8.1	15.0
5 gamma-BHC (Lindane)	50.0000	53.6627	7.3	15.0
2 beta-BHC	50.0000	53.6176	7.2	15.0
4 delta-BHC	50.0000	53.6654	7.3	15.0
122 Heptachlor	50.0000	51.3039	2.6	15.0
1 Aldrin	50.0000	53.5924	7.2	15.0
19 Heptachlor epoxide	50.0000	54.0939	8.2	15.0
7 gamma-Chlordane	50.0000	53.3481	6.7	15.0
6 alpha-Chlordane	50.0000	52.7336	5.5	15.0
9 4,4'-DDE	50.0000	52.5718	5.1	15.0
12 Endosulfan I	50.0000	53.7431	7.5	15.0
11 Dieldrin	50.0000	53.3298	6.7	15.0
15 Endrin	50.0000	52.7587	5.5	15.0
8 4,4'-DDD	50.0000	52.3191	4.6	15.0
13 Endosulfan II	50.0000	52.6290	5.3	15.0
10 4,4'-DDT	50.0000	47.9802	4.0	15.0
16 Endrin aldehyde	50.0000	50.8610	1.7	15.0
21 Methoxychlor	50.0000	49.8222	0.4	15.0
22 Mirex	50.0000	53.0556	6.1	15.0
14 Endosulfan sulfate	50.0000	52.3192	4.6	15.0
17 Endrin ketone	50.0000	51.1888	2.4	15.0
23 Decachlorobiphenyl	50.0000	52.4313	4.9	15.0

Average %D = 5.51

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_P2.i
Lab File ID: 016F1601.D
Analysis Type: NONE

Injection Date: 10-MAR-2009 14:29
Lab Sample ID: AB L4 GSV169908
Method File: \\DenSvr03\Public\chem\GCS\GC_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
24 Tetrachloro-m-xylene	50.0000	54.3042	8.6	15.0
133 Hexachlorobenzene	50.0000	54.0795	8.2	15.0
2 alpha-BHC	50.0000	54.7177	9.4	15.0
5 gamma-BHC (Lindane)	50.0000	54.1352	8.3	15.0
2 beta-BHC	50.0000	53.9489	7.9	15.0
4 delta-BHC	50.0000	54.5054	9.0	15.0
122 Heptachlor	50.0000	53.5298	7.1	15.0
1 Aldrin	50.0000	53.8096	7.6	15.0
19 Heptachlor epoxide	50.0000	54.4949	9.0	15.0
7 gamma-Chlordane	50.0000	55.0893	10.2	15.0
6 alpha-Chlordane	50.0000	55.0699	10.1	15.0
12 Endosulfan I	50.0000	54.5539	9.1	15.0
9 4,4'-DDE	50.0000	52.8274	5.7	15.0
11 Dieldrin	50.0000	54.1695	8.3	15.0
15 Endrin	50.0000	55.3592	10.7	15.0
8 4,4'-DDD	50.0000	52.8275	5.7	15.0
13 Endosulfan II	50.0000	54.3644	8.7	15.0
10 4,4'-DDT	50.0000	47.6081	4.8	15.0
16 Endrin aldehyde	50.0000	51.4820	3.0	15.0
14 Endosulfan sulfate	50.0000	53.6669	7.3	15.0
21 Methoxychlor	50.0000	47.0311	5.9	15.0
22 Mirex	50.0000	54.0496	8.1	15.0
17 Endrin ketone	50.0000	51.7917	3.6	15.0
23 Decachlorobiphenyl	50.0000	54.7324	9.5	15.0

Average %D = 7.74

CONTINUING CALIBRATION COMPOUNDS
 PERCENT DRIFT REPORT

Instrument ID: GC_P2.i
 Lab File ID: 029F2901.D
 Analysis Type: NONE

Injection Date: 10-MAR-2009 18:04
 Lab Sample ID: AB L4 GSV169908
 Method File: \\DenSvr03\Public\chem\GCS\GC_P2.

COMPOUND	EXPECTED	MEASURED	%D	MAX
	CONC.	CONC.		%D
24 Tetrachloro-m-xylene	50.0000	53.0695	6.1	15.0
136 Hexachlorobenzene	50.0000	52.5226	5.0	15.0
2 alpha-BHC	50.0000	53.6137	7.2	15.0
5 gamma-BHC (Lindane)	50.0000	53.0112	6.0	15.0
2 beta-BHC	50.0000	52.8002	5.6	15.0
4 delta-BHC	50.0000	53.8827	7.8	15.0
122 Heptachlor	50.0000	50.8877	1.8	15.0
1 Aldrin	50.0000	52.5576	5.1	15.0
19 Heptachlor epoxide	50.0000	53.3925	6.8	15.0
7 gamma-Chlordane	50.0000	52.6231	5.2	15.0
6 alpha-Chlordane	50.0000	51.1271	2.3	15.0
9 4,4'-DDE	50.0000	52.3318	4.7	15.0
12 Endosulfan I	50.0000	52.8312	5.7	15.0
11 Dieldrin	50.0000	52.8541	5.7	15.0
15 Endrin	50.0000	52.8107	5.6	15.0
8 4,4'-DDD	50.0000	56.9936	14.0	15.0
13 Endosulfan II	50.0000	52.2502	4.5	15.0
10 4,4'-DDT	50.0000	48.6245	2.8	15.0
16 Endrin aldehyde	50.0000	51.0178	2.0	15.0
21 Methoxychlor	50.0000	49.0409	1.9	15.0
22 Mirex	50.0000	53.0413	6.1	15.0
14 Endosulfan sulfate	50.0000	52.2174	4.4	15.0
17 Endrin ketone	50.0000	51.8307	3.7	15.0
23 Decachlorobiphenyl	50.0000	51.5834	3.2	15.0

Average %D = 5.13

Data File: \\DenSvr03\Public\chem\GCS\GC_P2.i\0310092.b\029F2901.D
Report Date: 03/11/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_P2.i
Lab File ID: 029F2901.D
Analysis Type: NONE

Injection Date: 10-MAR-2009 18:04
Lab Sample ID: AB L4 GSV169908
Method File: \\DenSvr03\Public\chem\GCS\GC_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
24 Tetrachloro-m-xylene	50.0000	53.3451	6.7	15.0
133 Hexachlorobenzene	50.0000	53.2189	6.4	15.0
2 alpha-BHC	50.0000	53.8515	7.7	15.0
5 gamma-BHC (Lindane)	50.0000	53.6214	7.2	15.0
2 beta-BHC	50.0000	53.4074	6.8	15.0
4 delta-BHC	50.0000	54.5957	9.2	15.0
122 Heptachlor	50.0000	52.8311	5.7	15.0
1 Aldrin	50.0000	52.9350	5.9	15.0
19 Heptachlor epoxide	50.0000	53.5502	7.1	15.0
7 gamma-Chlordane	50.0000	54.2622	8.5	15.0
6 alpha-Chlordane	50.0000	54.3043	8.6	15.0
12 Endosulfan I	50.0000	53.7885	7.6	15.0
9 4,4'-DDE	50.0000	51.6937	3.4	15.0
11 Dieldrin	50.0000	53.5732	7.1	15.0
15 Endrin	50.0000	53.7645	7.5	15.0
8 4,4'-DDD	50.0000	52.5936	5.2	15.0
13 Endosulfan II	50.0000	53.8157	7.6	15.0
10 4,4'-DDT	50.0000	48.5946	2.8	15.0
16 Endrin aldehyde	50.0000	51.5650	3.1	15.0
14 Endosulfan sulfate	50.0000	53.4999	7.0	15.0
21 Methoxychlor	50.0000	55.8951	11.8	15.0
22 Mirex	50.0000	53.4651	6.9	15.0
17 Endrin ketone	50.0000	52.3587	4.7	15.0
23 Decachlorobiphenyl	50.0000	53.5999	7.2	15.0

Average %D = 6.74

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
====	=====	=====	=====	=====	=====	=====
1	Vial 1	PRIMER				
2	Vial 2	EVAL B STD				
3	Vial 3	HEXANE				
4	Vial 4	AP9 L6 GSV186708				
5	Vial 5	AP9 L5 GSV186808				
6	Vial 6	AP9 L4 GSV186908				
7	Vial 7	AP9 L3 GSV187008				
8	Vial 8	AP9 L2 GSV187108				
9	Vial 9	AP9 L1 GSV187208				
10	Vial 10	AP9 SS GSV153308				
11	Vial 11	AB L6 GSV169708				
12	Vial 12	AB L5 GSV169808				
13	Vial 13	AB L4 GSV169908				
14	Vial 14	AB L3 GSV170008				
15	Vial 15	AB L2 GSV170108				
16	Vial 16	AB L1 GSV170208				
17	Vial 17	AB SS GSV082908				
18	Vial 18	TOX L1 GSV186408				
19	Vial 19	TOX SS GSV171708				
20	Vial 20	CHL L1 GSV171808				
21	Vial 21	K7QT81AC,LCS				
22	Vial 22	K7QT81AD,LCSD				
23	Vial 23	K7DA92A5,189-1				
24	Vial 24	K7DCV2AW,192-2				
25	Vial 25	K7DCW2AW,192-3				
26	Vial 26	K7DCX2AW,192-4				
27	Vial 27	K7DC12AW,192-6				
28	Vial 28	K7DLC2AD,238-1				
29	Vial 29	K7QT81AA,BLK				
30	Vial 30	AP9 L4 GSV186908				
31	Vial 31	AB L4 GSV169908				
32	Vial 32	TOX L1 GSV186408				
33	Vial 33	K7PXQ1AC,LCS				
34	Vial 34	K7PXQ1AD,LCSD				
35	Vial 35	K7PXQ1AE,LCStox				
36	Vial 36	K7PXQ1AF,LCSDtox				
37	Vial 37	K7AFD2AC,169-1				
38	Vial 38	K7AFD2AC,169-2				
39	Vial 39	K7PXQ1AA,BLK				
40	Vial 40	AP9 L4 GSV186908				
41	Vial 41	AB L4 GSV169908				
42	Vial 42	TOX L1 GSV186408				
43	Vial 43	K7LR01AC,LCS				
44	Vial 44	K7GEC1AD,360-1				
45	Vial 45	K7GEH1AP,360-2				
46	Vial 46	K7GEK1AP,360-3				
47	Vial 47	K7GEQ1AP,360-4				
48	Vial 48	K7GER1AP,360-5				
49	Vial 49	K7GER1CM,360-5MS				
50	Vial 50	K7GER1CN,360-5SD				
51	Vial 51	K7GET1AP,360-6				
52	Vial 52	K7GEV1AP,360-7				
53	Vial 53	AP9 L4 GSV186908				
54	Vial 54	AB L4 GSV169908				
55	Vial 55	TOX L1 GSV186408				
56	Vial 56	K7GEW1AP,360-8				
57	Vial 57	K7GEX1AP,360-9				
58	Vial 58	K7GE01AP,360-10				

Sequence: C:\HPCHEM\2\SEQUENCE\2030109.S

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
====	=====	=====	=====	=====	=====	=====
59	Vial 59	K7LR01AA,BLK				
60	Vial 60	AP9 L4 GSV186908				
61	Vial 61	AB L4 GSV169908				
62	Vial 62	TOX L1 GSV186408				
63	Vial 63	AB L1 GSV170208				
64	Vial 99	HEXANE				
65	Vial 100	HEXANE				

Sequence Table (Back Injector):

No entries - empty table!

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	EVAL B STD				
3	Vial 3	HEXANE				
4	Vial 4	AP9 L4 GSV186908				
5	Vial 5	AB L4 GSV169908				
6	Vial 6	TOX L1 GSV186408				
7	Vial 7	K7GER2AP,360-5				5
8	Vial 8	K7GEX2AP,360-9				
9	Vial 9	K7GE02AP,360-10				
10	Vial 10	K73EP1AC,LCS				
11	Vial 11	K73EP1AD,LCS				
12	Vial 12	K70831A1,267-1				
13	Vial 13	K70831A1,267-1MS				
14	Vial 14	K73EP1AA,BLK				
15	Vial 15	AP9 L4 GSV186908				
16	Vial 16	AB L4 GSV169908				
17	Vial 17	TOX L1 GSV186408				
18	Vial 18	K74R21AC,LCS				
19	Vial 19	K74R21AD,LCS				
20	Vial 20	K74GP1AA,234-1				
21	Vial 21	K74G61AA,236-1				
22	Vial 22	K74HV1AA,239-1				
23	Vial 23	K74JC1AA,244-1				
24	Vial 24	K74JL1AA,247-1				
25	Vial 25	K74KE1AA,252-1				
26	Vial 26	K74KF1AA,251-1				
27	Vial 27	K74R21AA,BLK				
28	Vial 28	AP9 L4 GSV186908				
29	Vial 29	AB L4 GSV169908				
30	Vial 30	TOX L1 GSV186408				
31	Vial 31	K73F01AC,LCS				
32	Vial 32	K73F01AD,LCS				
33	Vial 33	K73F01AE,LCS				
34	Vial 34	K72891AA,305-1				
35	Vial 35	K72891AA,305-1MS				
36	Vial 36	K72891AA,305-1SD				
37	Vial 37	K73F01AA,BLK				
38	Vial 38	AP9 L4 GSV186908				
39	Vial 39	AB L4 GSV169908				
40	Vial 40	TOX L1 GSV186408				
41	Vial 41	K7VKT1AC,LCS				
42	Vial 42	K7TJD1AC,280-3				10
43	Vial 43	K7TJD1AE,280-3MS				10
44	Vial 44	K7TJD1AF,280-3SD				10
45	Vial 45	K7VKT1AA,BLK				
46	Vial 46	AP9 L4 GSV186908				
47	Vial 47	AB L4 GSV169908				
48	Vial 48	TOX L1 GSV186408				
49	Vial 49	AB L1 GSV170208				
50	Vial 99	HEXANE				
51	Vial 100	HEXANE				

Sequence Table (Back Injector):

No entries - empty table!

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9C050251 Date/Time Received: 3/5/09 0915

Company Name & Sampling Site: JA - Jivile

PM to Complete This Section: Yes No
Residual chlorine check required: Quarantined:

Quote #: 72743
Special Instructions: Please set A to 3/11
& R to 3/12

log 608

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____
Temperatures (°C): 5.1° _____

- N/A Yes No
1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR. Initials NB
2. Coolers scanned for radiation. Is the reading \leq to background levels? Yes: No: _____
3. Chain of custody present? If no, document on CUR.
4. Bottles broken and/or are leaking? If yes, document on CUR.
5. Multiphasic samples obvious? If yes, document on CUR.
6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
7. pH of all samples checked and meet requirements? If no, document on CUR.
8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
10. Were VOA samples without headspace? If no, document on CUR.
11. Were VOA vials preserved? Preservative HCl 4+2°C Sodium Thiosulfate Ascorbic Acid
12. Did samples require preservation with sodium thiosulfate?
13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
17. Are analyses with short holding times requested?
18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver
Sample Receiving Checklist

Lot # D9C050251

Login Checks:

Initials

N/A Yes No

AB

19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
22. Were special log in instructions read and followed?
23. Were AFCEE metals logged for refrigerated storage?
24. Were tests logged checked against the COC? Which samples were confirmed? 1
25. Was a Rush form completed for quick TAT?
26. Was a Short Hold form completed for any short holds?
27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

28. Was the subcontract COC signed and sent with samples to bottle prep?
29. Were sample labels double-checked by a second person?
30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
31. Did the sample ID, Date, and Time from label match what was logged?
32. Were stickers for special archiving instructions affixed to each box? See #27
33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

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SUBCONTRACT ORDER

TestAmerica Irvine

ISB1787

SENDING LABORATORY:

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

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISB1787-01						
Water		Sampled: 02/16/09 08:30				
608-Out	ug/l	03/06/09	02/23/09 08:30	\$0.00	75%	Alpha BHC ONLY, Low Level. Jflags, Boeing, Denver
Level 4 + EDD-OUT	N/A	02/25/09	03/16/09 08:30	\$0.00	0%	Excel EDD email to pm, Include Std logs for Lvl IV
Mercury - 245.1, Diss -OUT	ug/l	02/25/09	03/16/09 08:30	\$36.00	0%	Boeing, permit, J flags, OUT to Denver
Mercury - 245.1-OUT	ug/l	02/25/09	03/16/09 08:30	\$36.00	0%	Boeing, permit, J flags, OUT to Denver
Containers Supplied:						
125 mL Poly (AD)	1 L Poly w/HNO3 (B)	1 L Amber w/HCl (E)				

 3/4/09 17:00

FedEx 3/4/09 17:00

Released By _____ Date/Time _____

Received By _____ Date/Time _____

Released By _____ Date/Time _____

Received By  3/5/09 09:15 Date/Time _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9B190131

Project ISB1787

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.


DiLea Griego
Project Manager

February 25, 2009
Revised: March 13, 2009

Table of Contents

Standard Deliverables with Supporting Documentation

Report Contents

Number of Pages

Standard Deliverables

(The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)

- Table of Contents
- Case Narrative
- Executive Summary – Detection Highlights
- Methods Summary
- Method/Analyst Summary
- Lot Sample Summary
- QC Data Association Summary
- Analytical Results
- Sample Receiving Checklist
- Chain-of-Custody

Supporting Documentation

(Note: A one-page "Description of Supporting Documentation" is provided at the beginning of this section.)

Check below when supporting documentation is present.

- Volatile GC/MS
- Semivolatile GC/MS
- Volatile GC
- Semivolatile GC
- LC/MS or HPLC
- Metals
- General Chemistry
- Subcontracted Data

Quality Control Definitions of Qualifiers

Qualifier	Definition
U	Result is less than the method detection limit (MDL).
B	Organics: Method blank contamination. The associated method blank contains the target analyte at a reportable level. Inorganics: Estimated result. Result is less than the RL
J	Organics: Estimated result. Result is less than RL Inorganics: Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentrations exceed the calibration range.
p	Relative Percent Difference (RPD) is outside control limits.
*	Surrogate or Relative Percent Difference (RPD) is outside control limits.
DIL	The concentration is estimated or not reported due to dilution.
COL	More than 40% difference between the primary and confirmation detector results. The lower of the two results is reported.
CHI	More than 40% difference between the primary and confirmation detector results. The higher of the two results is reported.
L	Serial dilution of a digestate in the analytical batch indicates that physical and chemical interferences are present.
a	Spiked analyte recovery is outside stated control limits.
N	Spiked analyte recovery is outside stated control limits.
NC	The recovery and/or RPD were not calculated.
MSB	The recovery and/or RPD were not calculated because the sample amount was greater than four times the spike amount.

Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on February 18, 2009 and one sample received on March 5, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than the Denver laboratory's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Quality Control Summary for Lot D9B190131

Sample Receiving

The cooler temperatures upon receipt at the laboratory were acceptable at 2.6°C and 5.1°C.

The laboratory did not receive a sample container for the Total Metals, as listed on the Chain-of-Custody and proceeded with the Dissolved Metals analysis.

Total Hg volume was received March 5th, 2009 and the total Hg analysis was added to the lot.

Total Mercury –Method 245.1

MS/MSD (Matrix Spike/Matrix Spike Duplicate) analyses were performed on sample ISB1787-01. The MS/MSD for method 245.1 exhibited spike compound recoveries below the QC limits for Mercury. The acceptable LCS (Laboratory Control Sample) analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

Dissolved Mercury –Method 245.1

No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9B190131

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
ISB1787-01 02/16/09 08:30 001				
Mercury	0.029 J	0.20	ug/L	MCAWW 245.1

METHODS SUMMARY

D9B190131

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Dissolved Mercury (CVAA)	MCAWW 245.1	MCAWW 245.1
Mercury (Manual Cold Vapor Technique)	MCAWW 245.1	MCAWW 245.1

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.

METHOD / ANALYST SUMMARY

D9B190131

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
MCAWW 245.1	Christopher Gridale	9582

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

D9B190131

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT</u>	<u>SAMPLE ID</u>	<u>SAMPLED</u> <u>DATE</u>	<u>SAMP</u> <u>TIME</u>
K7EKE	001	ISB1787-01		02/16/09	08:30

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9B190131

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 245.1		9050182	9050105
	WATER	MCAWW 245.1		9065187	9065085

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Total Metals

CLP-Like Forms

Lot ID: D9B190131

Client: TestAmerica-Irvine

Method: 245.1

Associated Samples: 001

Batch: 9065187

Total Metals Analysis
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine SDG No.: D9B190131
Lab Code: _____ Case No.: _____ SAS No.: _____
SOW No.: _____

<u>Sample ID.</u>	<u>Lab Sample No.</u>
<u>ISB1787-01</u>	<u>D9B190131-001</u>
<u>ISB1787-01 MS</u>	<u>D9B190131-001S</u>
<u>ISB1787-01 MSD</u>	<u>D9B190131-001SD</u>

Were ICP interelement corrections applied? Yes/No YES
Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins Name: Janice Collins
Date: 3/10/09 Title: Metals Analyst

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B190131
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 245.1
Unit: ug/L
QC Batch ID: 9065187
Sample Aliquot: 10 mL
Dilution Factor: 1

Client Sample ID: ISB1787-01
Lab Sample ID: D9B190131-001
Lab WorkOrder: K7EKE
Date/Time Collected: 02/16/09 08:30
Date/Time Received: 02/18/09 09:15
Date Leached:
Date/Time Extracted: 03/09/09 11:30
Date/Time Analyzed: 03/09/09 15:40
Instrument ID: 023

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.029	0.027	0.20	J

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	7.000	6.974	99.6	5.000	4.862	97.2	5.248	105.0	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury				5.000	4.969	99.4	5.039	100.8	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury				5.000	5.138	102.8			CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9B190131

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source: _____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.21100	105.5					

Comments:

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B190131
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 245.1
Unit: ug/L
QC Batch ID: 9065187
Sample Aliquot: 10 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9C060000-187B
Lab WorkOrder: K75JX
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 03/09/09 11:30
Date/Time Analyzed: 03/09/09 15:35
Instrument ID: 023

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Total Metals Analysis

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	2	3	C	C	C		
Mercury	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	CV	

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	C	2	C	3	C		
Mercury		0.027	U	0.027	U				CV

Comments:

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B190131
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 245.1
Unit: ug/L
QC Batch ID: 9065187
MS Sample Aliquot: 10 mL
MS Dilution Factor: 1

Client Sample ID: ISB1787-01
MS Lab Sample ID: D9B190131-001S
MS Lab WorkOrder: K7EKE
Date/Time Collected: 02/16/09 08:30
Date/Time Received: 02/18/09 09:15
Date Leached:
Date/Time Extracted: 03/09/09 11:30
Date/Time Analyzed: 03/09/09 15:42
Instrument ID: 023

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.029	J	4.32		86	N	90 - 110

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER

Client Sample ID: ISB1787-01

Lot/SDG Number: D9B190131

MSD Lab Sample ID: D9B190131-001D

Matrix: WATER

MSD Lab WorkOrder: K7EKE

% Moisture: N/A

Date/Time Collected: 02/16/09 08:30

Basis: Wet

Date/Time Received: 02/18/09 09:15

Analysis Method: 245.1

Date Leached:

Unit: ug/L

Date/Time Extracted: 03/09/09 11:30

QC Batch ID: 9065187

Date/Time Analyzed: 03/09/09 15:45

MSD Sample Aliquot: 10 mL

Instrument ID: 023

MSD Dilution Factor: 1

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.029	J	4.26		85	N	1.5		90 - 110	10

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B190131
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 245.1
Unit: ug/L
QC Batch ID: 9065187
Sample Aliquot: 10 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9C060000-187C
Lab WorkOrder: K75JX
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 03/09/09 11:30
Date/Time Analyzed: 03/09/09 22:45
Instrument ID: 023

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	4.77	95		90 - 110

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

ICP ID Number: _____ Date: 12/26/2008

Flame AA ID Number: Cetac M7500 Hg

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments:

Total Metals Analysis

-13-

PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Method: CV Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
ISB1787-01	3/9/2009	10.0	10.0
ISB1787-01 MS	3/9/2009	10.0	10.0
ISB1787-01 MSD	3/9/2009	10.0	10.0
MB9065187	3/9/2009	10.0	10.0
Check Sample	3/9/2009	10.0	10.0

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Dissolved Metals

CLP-Like Forms

Lot ID: D9B190131

Client: TestAmerica-Irvine

Method: 245.1

Associated Samples: 001

Batch: 9050182

Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B190131
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 245.1
Unit: ug/L
QC Batch ID: 9050182
Sample Aliquot: 10 mL
Dilution Factor: 1

Client Sample ID: ISB1787-01
Lab Sample ID: D9B190131-001
Lab WorkOrder: K7EKE
Date/Time Collected: 02/16/09 08:30
Date/Time Received: 02/18/09 09:15
Date Leached:
Date/Time Extracted: 02/19/09 13:30
Date/Time Analyzed: 02/19/09 16:55
Instrument ID: 023

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Dissolved Metals

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	7.000	7.087	101.2	5.000	5.110	102.2	4.974	99.5	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury				5.000	4.879	97.6	5.127	102.5	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury				5.000	5.097	101.9			CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9B190131

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source: _____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
				True	Found	%R	Found	%R
Mercury	0.200	0.19300	96.5					

Comments:

Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B190131
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 245.1
Unit: ug/L
QC Batch ID: 9050182
Sample Aliquot: 10 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9B190000-182B
Lab WorkOrder: K7EPP
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 02/19/09 13:30
Date/Time Analyzed: 02/19/09 16:16
Instrument ID: 023

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Dissolved Metals

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank		M
		1	C	2	C	3	C	C		
Mercury	0.027 U	0.027	U	0.027	U	0.027	U	0.027	U	CV

Comments:

Dissolved Metals

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	C	2	C	3	C		
Mercury		0.027	U	0.027	U				CV

Comments:

Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B190131
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 245.1
Unit: ug/L
QC Batch ID: 9050182
MS Sample Aliquot: 10 mL
MS Dilution Factor: 1

Client Sample ID: LAB MS/MSD
MS Lab Sample ID: D9B190119-001S
MS Lab WorkOrder: K7EHT
Date/Time Collected: 02/16/09 09:30
Date/Time Received: 02/18/09 10:15
Date Leached:
Date/Time Extracted: 02/19/09 13:30
Date/Time Analyzed: 02/19/09 16:23
Instrument ID: 023

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.030	J	4.57		91		90 - 110

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B190131
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 245.1
Unit: ug/L
QC Batch ID: 9050182
MSD Sample Aliquot: 10 mL
MSD Dilution Factor: 1

Client Sample ID: LAB MS/MSD
MSD Lab Sample ID: D9B190119-001D
MSD Lab WorkOrder: K7EHT
Date/Time Collected: 02/16/09 09:30
Date/Time Received: 02/18/09 10:15
Date Leached:
Date/Time Extracted: 02/19/09 13:30
Date/Time Analyzed: 02/19/09 16:25
Instrument ID: 023

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.030	J	4.55		90		0.37		90 - 110	10

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9B190131
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 245.1
Unit: ug/L
QC Batch ID: 9050182
Sample Aliquot: 10 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9B190000-182C
Lab WorkOrder: K7EPP
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 02/19/09 13:30
Date/Time Analyzed: 02/19/09 20:18
Instrument ID: 023

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	4.63	93		90 - 110

Dissolved Metals
-10-
DETECTION LIMITS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

ICP ID Number: _____ Date: 12/26/2008

Flame AA ID Number: Cetac M7500 Hg

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments: _____

Dissolved Metals

-13-

PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190131

Method: CV Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
MB9050182	2/19/2009	10.0	10.0
Check Sample	2/19/2009	10.0	10.0
INTRA-LAB QC	2/19/2009	10.0	10.0
LAB MS	2/19/2009	10.0	10.0
LAB MSD	2/19/2009	10.0	10.0
ISB1787-01	2/19/2009	10.0	10.0

Comments:

TestAmerica Denver
Sample Receiving Checklist

Lot #: D9C190131 Date/Time Received: 3/5/9 0915
 Company Name & Sampling Site: Irvine

PM to Complete This Section: Yes No Quarantined: Yes No

Quote #: Rush 3-day

Special Instructions:
Add to lot D9B190131 (ISB1787)
Log T. mercury

Time Zone:
 • EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures (°C): 5.1

N/A Yes No

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading \leq to background levels? Yes: No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative HCl 4±2°C Sodium Thiosulfate Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

Initials

TestAmerica Denver
Sample Receiving Checklist

Lot # D9B190131

Login Checks:

Initials
ALC

N/A Yes No

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? All
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials
JM

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

SUBCONTRACT ORDER

5.1

TestAmerica Irvine

ISB1787

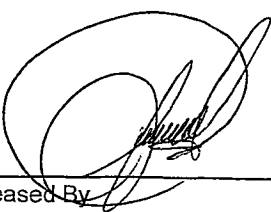
SENDING LABORATORY:

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

RECEIVING LABORATORY:

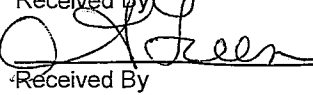
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone : (303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISB1787-01	Water					
						Sampled: 02/16/09 08:30
Level 4 + EDD-OUT	N/A	02/25/09	03/16/09 08:30	\$0.00	0%	Excel EDD email to pm, include Std logs for Lvl IV
Mercury - 245.1, Diss -OUT	ug/l	02/25/09	03/16/09 08:30	\$36.00	0%	Boeing, permit, J flags, OUT to Denver
Mercury - 245.1-OUT	ug/l	02/25/09	03/16/09 08:30	\$36.00	0%	Boeing, permit, J flags, OUT to Denver
Containers Supplied:						
125 mL Poly (AD)		1 L Poly w/HNO3 (B)				



Released By _____

3/4/09
Date/Time


Received By _____

FedEx 3/4/09 17:00
Date/Time

3/5/09 09:15
Date/Time

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. BOEING NPDES

SSFL MWH-Pasadena/Boeing

Lot #: F9B180218

Joseph Doak

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817

TESTAMERICA LABORATORIES, INC.

James M. Kleyer
for
Sherryl Adam
Project Manager

March 17, 2009

Case Narrative
LOT NUMBER: F9B180218

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on February 18, 2009. This sample is associated with your SSFL MWH-Pasadena/Boeing project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted below.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Strontium-90 by EPA 905 MOD

The associated sample's strontium carrier recovery is outside the lower control limit (40%). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Affected Samples:

F9B180218 (1): ISB1787-01

METHODS SUMMARY

F9B180218

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
H-3 by Distillation & LSC	EPA 906.0 MOD	
Radium-226 by GFPC	EPA 903.0 MOD	EPA 903.0
Radium-228 by GFPC	EPA 904 MOD	EPA 904
Strontium 90 by GFPC	EPA 905 MOD	
Total Uranium By Laser Ph osphorimetry	ASTM 5174-91	

References:

ASTM Annual Book Of ASTM Standards.

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SAMPLE SUMMARY

F9B180218

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K7DJD	001	ISB1787-01	02/16/09	08:30

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: ISB1787-01

Radiochemistry

Lab Sample ID: F9B180218-001
 Work Order: K7DJJD
 Matrix: WATER

Date Collected: 02/16/09 0830
 Date Received: 02/18/09 0930

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD							
				pCi/L		Batch # 9058211	Yld %
Cesium 137	3.2	U	8.8	20.0	16	02/27/09	03/14/09
Potassium 40	-50	U	380		240	02/27/09	03/14/09
Gross Alpha/Beta EPA 900							
				pCi/L		Batch # 9050133	Yld %
Gross Alpha	1.9	U	1.3	3.0	1.9	02/24/09	03/03/09
Gross Beta	4.7		1.1	4.0	1.4	02/24/09	03/03/09
TRITIUM (Distill) by EPA 906.0 MOD							
				pCi/L		Batch # 9066052	Yld %
Tritium	300	U	200	500	310	03/07/09	03/13/09
SR-90 BY GFPC EPA-905 MOD							
				pCi/L		Batch # 9049442	Yld % 36
Strontium 90	0.34	U	0.46	3.00	0.76	02/18/09	02/28/09
Total Uranium by KPA ASTM 5174-91							
				pCi/L		Batch # 9050413	Yld %
Total Uranium	0.549	J	0.062	0.677	0.21	02/19/09	03/08/09
Radium 226 by EPA 903.0 MOD							
				pCi/L		Batch # 9049439	Yld % 76
Radium (226)	0.24	J	0.15	1.00	0.19	02/18/09	03/13/09
Radium 228 by GFPC EPA 904 MOD							
				pCi/L		Batch # 9049441	Yld % 68
Radium 228	-0.05	U	0.30	1.00	0.54	02/18/09	03/13/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F9B180218
 Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	Batch #	9066052	Yld %	F9C070000-052B
Tritium	290	U	200	500	300	03/07/09	03/13/09
Radium 226 by EPA 903.0 MOD			pCi/L	Batch #	9049439	Yld %	99 F9B180000-439B
Radium (226)	-0.02	U	0.10	1.00	0.21	02/18/09	03/13/09
Radium 228 by GFPC EPA 904 MOD			pCi/L	Batch #	9049441	Yld %	89 F9B180000-441B
Radium 228	-0.11	U	0.24	1.00	0.44	02/18/09	03/13/09
SR-90 BY GFPC EPA-905 MOD			pCi/L	Batch #	9049442	Yld %	73 F9B180000-442B
Strontium 90	-0.06	U	0.25	3.00	0.46	02/18/09	02/28/09
Total Uranium by KPA ASTM 5174-91			pCi/L	Batch #	9050413	Yld %	F9B190000-413B
Total Uranium	0.124	U	0.015	0.677	0.21	02/19/09	03/08/09
Gross Alpha/Beta EPA 900			pCi/L	Batch #	9050133	Yld %	F9B190000-133B
Gross Alpha	-0.13	U	0.47	3.00	0.99	02/24/09	03/04/09
Gross Beta	-0.71	U	0.61	4.00	1.2	02/24/09	03/04/09
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch #	9058211	Yld %	F9B270000-211B
Cesium 137	4.7	U	9.8	20.0	17	02/27/09	03/13/09
Potassium 40	-1	U	150		280	02/27/09	03/13/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only
 Bold results are greater than the MDC.

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F9B180218
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gross Alpha/Beta EPA 900							
			pCi/L	900.0 MOD			F9B190000-133C
Gross Beta	67.6	56.3	4.9	1		83	(73 - 122)
	Batch #:	9050133			Analysis Date:	03/04/09	
Gross Alpha/Beta EPA 900							
			pCi/L	900.0 MOD			F9B190000-133C
Gross Alpha	49.4	53.2	6.0	1.6		108	(73 - 136)
	Batch #:	9050133			Analysis Date:	03/04/09	
Total Uranium by KPA ASTM 5174-91							
			pCi/L	5174-91			F9B190000-413C
Total Uranium	27.1	29.7	3.5	0.2		110	(90 - 118)
	Batch #:	9050413			Analysis Date:	03/08/09	
Total Uranium by KPA ASTM 5174-91							
			pCi/L	5174-91			F9B190000-413C
Total Uranium	5.42	5.86	0.61	0.21		108	(90 - 118)
	Batch #:	9050413			Analysis Date:	03/08/09	
Gamma Cs-137 & Hits by EPA 901.1 MOD							
			pCi/L	901.1 MOD			F9B270000-211C
Americium 241	141000	137000	11000	500		97	(90 - 110)
Cesium 137	53100	51600	3000	200		97	(90 - 110)
Cobalt 60	87900	85500	4800	200		97	(90 - 110)
	Batch #:	9058211			Analysis Date:	03/13/09	
TRITIUM (Distill) by EPA 906.0 MOD							
			pCi/L	906.0 MOD			F9C070000-052C
Tritium	4770	4330	460	300		91	(77 - 110)
	Batch #:	9066052			Analysis Date:	03/13/09	

NOTE(S)

MDC is determined by instrument performance only
 Calculations are performed before rounding to avoid round-off error in calculated results

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID: F9B180218

Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	% Yld	% Rec	Lab Sample ID	
						QC Control Limits	Precision
Radium 226 by EPA	903.0 MOD		pCi/L	903.0 MOD			F9B180000-439C
Radium (226)	11.3	13.0	1.3	92	115	(52 - 150)	
Spk 2	11.3	11.2	1.2	96	99	(52 - 150)	15 %RPD
	Batch #:	9049439		Analysis Date:	03/13/09		
Radium 228 by GFPC EPA	904 MOD		pCi/L	904 MOD			F9B180000-441C
Radium 228	7.20	8.01	0.93	82	111	(64 - 140)	
Spk 2	7.20	8.65	0.97	84	120	(64 - 140)	8 %RPD
	Batch #:	9049441		Analysis Date:	03/13/09		
SR-90 BY GFPC EPA	905 MOD		pCi/L	905 MOD			F9B180000-442C
Strontium 90	6.97	8.15	0.94	68	117	(78 - 146)	
Spk 2	6.97	8.20	0.94	69	118	(78 - 146)	0.5 %RPD
	Batch #:	9049442		Analysis Date:	02/28/09		

NOTE(S)

Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F9B180218
 Matrix: WATER

Date Sampled: 02/13/09
 Date Received: 02/17/09

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ +/-)	% Yld	QC Sample ID Precision
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	901.1 MOD			F9B170209-001
Cesium 137	-0.9	U	7.9		-3.1	U	9.9	112 %RPD
Potassium 40	-60	U	680		-90	U	3500	35 %RPD
	Batch #:		9058211 (Sample)		9058211 (Duplicate)			
TRITIUM (Distill) by EPA 906.0 MOD				pCi/L	906.0 MOD			F9B180215-001
Tritium	230	U	190		170	U	190	31 %RPD
	Batch #:		9066052 (Sample)		9066052 (Duplicate)			
Gross Alpha/Beta EPA 900				pCi/L	900.0 MOD			F9B200166-001
Gross Alpha	1.86	J	0.97		1.9	J	1.0	4 %RPD
Gross Beta	4.2		1.2		4.1		1.2	3 %RPD
	Batch #:		9050133 (Sample)		9050133 (Duplicate)			

NOTE(S)

Data are incomplete without the case narrative.
 Calculations are performed before rounding to avoid round-off error in calculated results

- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F9B170209
 Matrix: WATER

Date Sampled: 02/13/09 1525
 Date Received: 02/17/09 0900

Parameter	Spike Amount	SPIKE Result	Total Uncert. (2 σ +/-)	Spike Yld	SAMPLE Result	Total Uncert. (2 σ +/-)	QC Sample ID		QC Control Limits
							% Yld	%Rec	
Total Uranium by KPA ASTM 5			pCi/L	5174-91		F9B170209-001			
Total Uranium	27.1	30.1	3.6		0.435 J	0.051		110	(90 - 121)
	Spk2 27.1	29.8	3.6		0.435 J	0.051		108	(90 - 121)
						Precision:		1	%RPD
		Batch #: 9050413		Analysis date:	03/08/09				

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: F9B180218
 Matrix: WATER

Date Sampled: 02/16/09
 Date Received: 02/18/09

Parameter	Spike Amount	Spike Result	Total Uncert. (2 σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2 σ +/-)	QC Sample ID		QC Control Limits
							%YLD	%REC	
TRITIUM (Distill) by EPA	906.0	MOD	pCi/L		906.0	MOD			F9B180218-001
Tritium	4770	4280	450		300	200		83	(47 - 150)
	Batch #:	9066052			Analysis Date:	03/13/09			
Gross Alpha/Beta EPA	900		pCi/L		900.0	MOD			F9B200166-001
Gross Beta	67.5	73.3	6.2		4.2	1.2		102	(66 - 147)
	Batch #:	9050133			Analysis Date:	03/04/09			
Gross Alpha/Beta EPA	900		pCi/L		900.0	MOD			F9B200166-001
Gross Alpha	49.4	39.8	5.0		1.86	0.97		77	(44 - 150)
	Batch #:	9050133			Analysis Date:	03/04/09			

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

Cut
3/1

SUBCONTRACT ORDER

TestAmerica Irvine

ISB1787

SENDING LABORATORY:

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

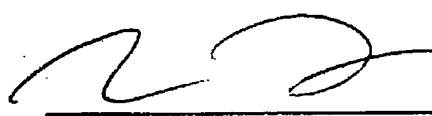
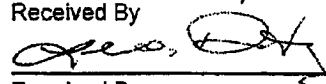
RECEIVING LABORATORY:

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone : (314) 298-8566
Fax: (314) 298-8757
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISB1787-01						
	Water	Sampled: 02/16/09 08:30				
Gamma Spec-O	mg/kg	02/25/09	02/16/10 08:30	\$250.00	0%	Out St Louis, k-40 and cs-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	02/25/09	08/15/09 08:30	\$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	02/25/09	08/15/09 08:30	\$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Level 4 Data Package	N/A	02/25/09	03/16/09 08:30	\$0.00	0%	
Radium, Combined-O	pCi/L	02/25/09	02/16/10 08:30	\$238.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	02/25/09	02/16/10 08:30	\$155.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	02/25/09	02/16/10 08:30	\$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	02/25/09	02/16/10 08:30	\$120.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!

Containers Supplied:

2.5 gal Poly (O) 500 mL Amber (P)

	<u>2/17/09 17:00</u>	<u>FedEx</u>	<u>2/17/09 17:00</u>
Released By	Date/Time	Received By	Date/Time
			<u>2-18-09 09:30</u>
Released By	Date/Time	Received By	Date/Time

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F9B180 215 227
218 228
222 230
- 331 - 223
224

CONDITION UPON RECEIPT FORM

Client: TA Irvine

Quote No: 81594

COC/RFA No: See Below

Initiated By: LD

Date: 2-18-09
2-18-08:30

Time: 0930

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*

Sample Temperature (s):**

- | | |
|------------------------------------|-----------------------|
| 1. <u>7963 4985 0273</u> 6. _____ | 1. <u>4</u> 6. _____ |
| 2. <u>7973 4020 4448</u> 7. _____ | 2. <u>3</u> 7. _____ |
| 3. <u>7963 4985 0332</u> 8. _____ | 3. <u>4</u> 8. _____ |
| 4. <u>7903 4985 0240</u> 9. _____ | 4. <u>2</u> 9. _____ |
| 5. <u>7973 4020 4253</u> 10. _____ | 5. <u>3</u> 10. _____ |

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on the cooler?	8. <input type="radio"/> Y <input checked="" type="radio"/> N	Are there custody seals present on bottles?
2. <input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3. <input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was sample received with proper pH? (If not, make note below)
4. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?	11. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
5. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6. <input type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Was Internal <input checked="" type="radio"/> COC <input type="radio"/> Workshare received?
7. <input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Was pH taken by original TestAmerica lab?

* For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes: ISB 1796

1787

1802

1786

1785

1839

1834

1808

1834

Corrective Action:

Client Contact Name: _____ Informed by: _____

Sample(s) processed "as is"

Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: Sheryl A. Adams Date: 2-19-09

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

March 07, 2009

Vista Project I.D.: 31439

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 February 18, 2009 under your Project Name "ISB1787". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

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

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

Sincerely,



Martha M. Maier
Laboratory Director



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



Section I: Sample Inventory Report

Date Received: 2/18/2009

Vista Lab. ID

Client Sample ID

31439-001

ISB1787-01

SECTION II

Method Blank **EPA Method 1613**

Matrix: Aqueous QC Batch No.: 1907 Lab Sample: 0-MB001
 Sample Size: 1.00 L Date Extracted: 21-Feb-09 Date Analyzed DB-5: 24-Feb-09 Date Analyzed DB-225: NA

Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.000000484			IS 13C-2,3,7,8-TCDD	84.7	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000000938			13C-1,2,3,7,8-PeCDD	76.5	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000107			13C-1,2,3,4,7,8-HxCDD	82.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000110			13C-1,2,3,6,7,8-HxCDD	79.3	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000105			13C-1,2,3,4,6,7,8-HpCDD	83.7	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.00000347			13C-OCDD	74.0	17 - 157	
OCDD	ND	0.00000193			13C-2,3,7,8-TCDF	93.7	24 - 169	
2,3,7,8-TCDF	ND	0.000000369			13C-1,2,3,7,8-PeCDF	80.7	24 - 185	
1,2,3,7,8-PeCDF	ND	0.000000467			13C-2,3,4,7,8-PeCDF	79.8	21 - 178	
2,3,4,7,8-PeCDF	ND	0.000000467			13C-1,2,3,4,7,8-HxCDF	83.9	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000652			13C-1,2,3,6,7,8-HxCDF	80.2	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000635			13C-2,3,4,6,7,8-HxCDF	83.8	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000697			13C-1,2,3,7,8,9-HxCDF	81.6	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000100			13C-1,2,3,4,6,7,8-HpCDF	80.1	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000223			13C-1,2,3,4,7,8,9-HpCDF	85.3	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000241			13C-OCDF	69.3	17 - 157	
OCDF	ND	0.00000157			CRS 37Cl-2,3,7,8-TCDD	90.8	35 - 197	

Totals				Footnotes
Total TCDD	ND	0.000000484		a. Sample specific estimated detection limit.
Total PeCDD	ND	0.000000938		b. Estimated maximum possible concentration.
Total HxCDD	ND	0.00000107		c. Method detection limit.
Total HpCDD	ND	0.00000347		d. Lower control limit - upper control limit.
Total TCDF	ND	0.000000369		
Total PeCDF	ND	0.000000467		
Total HxCDF	ND	0.000000746		
Total HpCDF	ND	0.00000232		

Analyst: JMH Approved By: Martha M. Maier 07-Mar-2009 08:45

OPR Results		EPA Method 1613					
Matrix:	Aqueous	QC Batch No.:	1907	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	21-Feb-09	Date Analyzed DB-5:	24-Feb-09		
				Date Analyzed DB-225:	NA		
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.3	6.7 - 15.8	IS 13C-2,3,7,8-TCDD	86.0	25 - 164	
1,2,3,7,8-PeCDD	50.0	52.1	35 - 71	13C-1,2,3,7,8-PeCDD	78.7	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	51.0	35 - 82	13C-1,2,3,4,7,8-HxCDD	84.9	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	50.0	38 - 67	13C-1,2,3,6,7,8-HxCDD	81.1	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	49.9	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	79.5	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	50.9	35 - 70	13C-OCDD	71.0	17 - 157	
OCDD	100	102	78 - 144	13C-2,3,7,8-TCDF	90.8	24 - 169	
2,3,7,8-TCDF	10.0	10.2	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	83.2	24 - 185	
1,2,3,7,8-PeCDF	50.0	50.9	40 - 67	13C-2,3,4,7,8-PeCDF	81.4	21 - 178	
2,3,4,7,8-PeCDF	50.0	50.9	34 - 80	13C-1,2,3,4,7,8-HxCDF	84.8	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	50.9	36 - 67	13C-1,2,3,6,7,8-HxCDF	81.8	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	51.5	42 - 65	13C-2,3,4,6,7,8-HxCDF	84.2	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	50.1	35 - 78	13C-1,2,3,7,8,9-HxCDF	81.1	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	51.3	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	76.4	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	51.0	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	81.1	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	50.6	39 - 69	13C-OCDF	67.5	17 - 157	
OCDF	100	105	63 - 170	CRS 37Cl-2,3,7,8-TCDD	90.9	35 - 197	

Analyst: JMH

Approved By: Martha M. Maier 07-Mar-2009 08:45

Sample ID: ISB1787-01

EPA Method 1613

<u>Client Data</u>		<u>Sample Data</u>		<u>Laboratory Data</u>	
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	31439-001
Project:	ISB1787	Sample Size:	1.03 L	QC Batch No.:	1907
Date Collected:	16-Feb-09			Date Analyzed DB-5:	24-Feb-09
Time Collected:	0830			Date Analyzed DB-225:	NA
				Date Received:	18-Feb-09
				Date Extracted:	21-Feb-09

Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.000000563			IS 13C-2,3,7,8-TCDD	85.4	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000114			13C-1,2,3,7,8-PeCDD	75.6	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000173			13C-1,2,3,4,7,8-HxCDD	78.6	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000175			13C-1,2,3,6,7,8-HxCDD	77.3	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000168			13C-1,2,3,4,6,7,8-HpCDD	75.2	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000178			J	13C-OCDD	64.6	17 - 157	
OCDD	0.000151				13C-2,3,7,8-TCDF	89.0	24 - 169	
2,3,7,8-TCDF	ND	0.000000627			13C-1,2,3,7,8-PeCDF	78.7	24 - 185	
1,2,3,7,8-PeCDF	ND	0.000000881			13C-2,3,4,7,8-PeCDF	75.2	21 - 178	
2,3,4,7,8-PeCDF	ND	0.000000920			13C-1,2,3,4,7,8-HxCDF	82.9	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000959			13C-1,2,3,6,7,8-HxCDF	77.5	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000975			13C-2,3,4,6,7,8-HxCDF	81.6	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000111			13C-1,2,3,7,8,9-HxCDF	76.9	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000159			13C-1,2,3,4,6,7,8-HpCDF	74.9	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND		0.00000573		13C-1,2,3,4,7,8,9-HpCDF	73.5	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000216			13C-OCDF	61.0	17 - 157	
OCDF	0.0000144			J	CRS 37Cl-2,3,7,8-TCDD	92.4	35 - 197	

Totals				Footnotes	
Total TCDD	ND	0.000000563			a. Sample specific estimated detection limit.
Total PeCDD	ND	0.00000114			b. Estimated maximum possible concentration.
Total HxCDD	ND	0.00000172			c. Method detection limit.
Total HpCDD	0.0000178		0.00000372		d. Lower control limit - upper control limit.
Total TCDF	ND	0.000000627			
Total PeCDF	ND	0.000000900			
Total HxCDF	0.00000277				
Total HpCDF	ND		0.00000110		

Analyst: JMH

Approved By:

Martha M. Maier

07-Mar-2009 08:45

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

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

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
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	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SUBCONTRACT ORDER

3439

TestAmerica Irvine

ISB1787

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: CA - CALIFORNIA
Receipt Temperature: 2.3 °C

Ice: Y N

Analysis	Units	Due	Expires	Comments
Sample ID: ISB1787-01				
	Water	Sampled: 02/16/09 08:30		
1613-Dioxin-HR-Alta	ug/l	02/25/09	02/23/09 08:30	J flags, 17 congeners, no TEQ, ug/L, sub=Vista
EDD + Level 4	N/A	02/25/09	03/16/09 08:30	
<i>Containers Supplied:</i>				
1 L Amber (C)	1 L Amber (D)			


Released By _____ Date/Time 2/17/09 17:00


Received By _____ Date/Time 2/17/09 17:00

Released By _____ Date/Time _____

Received By _____ Date/Time 2/18/09 1459

SAMPLE LOG-IN CHECKLIST



Vista Project #: 31439 TAT unspecified

Samples Arrival:	Date/Time 2/18/09 0950	Initials: CV	Location: WR22
			Shelf/Rack: N/A
Logged In:	Date/Time 2/18/09 1459	Initials: CV	Location: WR22
			Shelf/Rack: CA
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> Cal
		<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered
		<input type="checkbox"/> Other	
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
		<input type="checkbox"/> None	
Temp °C	23°	Time:	0956
		Thermometer ID:	IR-1

	YES	NO	NA
Adequate Sample Volume Received? (A+B bottles)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Airbill	Trk # 7975 4681 8451		
Sample Container Intact?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample Custody Seals Intact?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Na ₂ S ₂ O ₃ Preservation Documented?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> None
Shipping Container	Vista	<input checked="" type="checkbox"/> Client	Retain <input type="checkbox"/> Return <input checked="" type="checkbox"/> Dispose

Comments: