BRC COPY

322

ARCADIS

Infrastructure, buildings, environment, communications

ARCADIS G&M, Inc.
1400 N. Harbor Blvd., Suite 700
Fullerton, California 92835
Tel 714 278 0992
Fax 714 278 0051

ENVIRONMENTAL

ATTN: Information Technology Unit
California Regional Water Quality Control Board
Los Angeles Region (RWQCB)
320 West 4th Street, Suite 200
Los Angeles, California 90013

Subject:
October 2003 Monthly Discharge Report
Waste Discharge Requirements Order Number R4-2002-0030 (Series 007)
Compliance File Number CI-95-036, SLIC 0410
Project Site: Former Boeing C-6 Facility, Los Angeles, California

Date:
November 24, 2003

Contact:
James K. Nguyen, P.E.

Extension:
3026

Email:
jnguyen@arcadis-us.com

Project No
CA000594.0003.00004

Dear Information Technology Unit:

On behalf of Boeing Realty Corporation (BRC), ARCADIS is submitting this monthly monitoring report per the Waste Discharge Requirements (WDR) Order Number R4-2002-0030 (Series 007). The purpose of this report and future WDR reports is to provide the Los Angeles Regional Water Quality Control Board (RWQCB) with injection and monitoring activities at the referenced project site. The site is located at 19503 Normandie Avenue. Figures 1 and 2 illustrate the site location and the site layout, respectively.

This monthly monitoring report for October 2003 summarizes baseline groundwater monitoring and sampling activities conducted prior to carbohydrate injection at the former Building 2 Area. The sections below discuss groundwater monitoring and sampling activities and provide field and analytical data for the baseline sampling event. Carbohydrate injection was not conducted during this reporting period.

1.0 Baseline Monitoring Activities

The purpose of this monitoring event was to obtain baseline groundwater data prior to the addition of carbohydrate solution to the groundwater. Eleven (11) monitoring wells and two (2) amendment points were gauged and sampled. These wells included: IRZMW001A/B, IRZMW002A/B, IRZMW003A/B, IRZMW004, IRZMW005, IRZCMW001, IRZCMW002, IRZCMW003, CMW001, CMW002, CMW026, IRZB0081, and IRZB0095 (Figure 2). The monitoring wells were sampled for parameters specified in the WDR permit and listed in Tables 1 through 4. The baseline-monitoring event was conducted on October 7, 8, and 9, 2003.

Monitoring wells IRZMW001A/B, IRZMW002A/B, and IRZMW003A/B were re-developed on October 13 or 14, 2003 due to the presence of fines and silts in the wells. These three dual-nested wells were re-sampled on October 30 and 31, 2003. Monitoring well CMW002 was re-sampled for permanent gases (dissolved oxygen, carbon dioxide, nitrogen, nitrate, ethane, and ethane) on October 30, 2003.

Prior to collecting groundwater samples, depth to groundwater was measured in each well by using a water level meter accurate to 0.01 feet. Groundwater samples were collected with low flow sampling techniques so that the purge rate was generally less than 250 milliliters per minute (mL/min) and that drawdown while purging was less than 1 foot. At some well locations, the purge rate was increased to greater than 250 mL/min and less than 550 mL/min in order to maintain a constant flow rate.

The sampling methodology also involved use of a flow-through cell that houses field instrumentation used to collect groundwater stabilization parameters (i.e., temperature, pH, specific conductance, oxygen reduction potential, etc.). For each well, the flow-through cell was connected to a submersible pump with dedicated polyethylene tubing. Once the field parameters stabilized, groundwater samples were collected in laboratory prepared containers. Field parameter data as well as other relevant sampling data were documented on sample collection logs when sampling.

The groundwater samples were transported in a chilled ice chest with chain-of-custody documentation to the laboratories (Severn Trent Laboratories, Inc., Santa Ana, California or VaporTech Services, Inc., Valencia, Pennsylvania). The laboratory and permanent gas analyses were conducted at a laboratory certified for such analyses by the State of California and in accordance with current U.S. EPA procedures or as specified in the Monitoring and Reporting Program outlined in the WDR permit.

2.0 Baseline Monitoring Results

Field parameter data and analytical results from the baseline-sampling event are summarized in Tables 1 through 4. Laboratory analytical data with associated chain-of-custody documentation are presented in Appendix A. Sample collection logs with field parameter and monitoring well sampling data are maintained in the project files.

3.0 Certification Statement

I declare under penalty of law that his document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system or those directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments regarding this monitoring report, please contact Jim Nguyen or David Poley at (714) 278-0992.

Sincerely,

ARCADIS G&M, Inc.

James K. Nguyen

James K. Nguyen, P.E.
Project Manager

REGISTERED PROFESSIONAL ENGINEER
JAMES K. NGUYEN
NO. C055942
EXP. 12/31/04
CIVIL
STATE OF CALIFORNIA

David G. Poley
Project Scientist

Copies:
Robert Scott, Boeing
Scott Zachary, Haley & Aldrich
Project File

Enclosures:
Tables: 1 – Field Parameter Results
2 – Inorganic Analytical Results
3 – Volatile Organic Compound Results
4 – Permanent Gas Results
Figures: 1 – Site Location Map
2 – Amendment Point and Monitoring Well Location
Appendix A – Laboratory Reports and Chain-of-Custody Documents

TABLES

BOE-C6-0103997

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Tables

ARCADIS GERAGHTY & MILLER

Table 1. Field Parameter Results
Former Building 2 Area, Former Boeing C-6 Facility

Well Number	Screened Zone	Well Group	Sample Date	Depth to Water (feet)	pH	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Temperature (°C)	Specific Conductance (mS/cm)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
IRZB0081	Zone B	A	10/9/2003	64.53	6.71	5.11	144.4	21.56	1,563	Too Silty	Too Silty
IRZB0095		A	10/7/2003	64.59	7.00	5.62	83.7	23.09	1,435	1.3	0.0
IRZMW001A		A	10/30/2003	68.05	6.68	4.79	245.9	21.85	2,354	0.0	0.0
IRZMW001B		A	10/30/2003	67.98	6.83	6.20	159.6	21.83	1,254	1.0	0.0
IRZMW002A		A	10/30/2003	67.98	6.80	3.14	-140.7	22.06	1,852	2.0	5.0
IRZMW002B		A	10/30/2003	68.07	6.78	4.10	110.3	21.73	1,125	Too Silty	Too Silty
IRZMW005		A	10/9/2003	64.44	7.13	5.33	40.8	21.64	1,591	0.0	0.0
IRZMW003A		B	10/31/2003	68.21	6.77	4.03	210.3	25.67	1,761	Too Silty	Too Silty
IRZMW003B		B	10/31/2003	68.24	6.82	4.98	280.4	23.28	1,154	Too Silty	Too Silty
IRZMW004		C	10/7/2003	64.84	7.00	4.76	152.9	22.52	1,449	0.0	0.0
CMW026	Zone C	A	10/7/2003	63.38	7.15	4.51	34.0	22.31	965	0.0	0.0
IRZCMW003		B	10/7/2003	63.58	7.20	2.73	133.5	22.78	951	0.0	0.0
IRZCMW002		C	10/8/2003	67.78	6.98	2.37	188.5	21.44	888	0.0	0.0
CMW001		C	10/9/2003	66.81	6.80	2.59	-120.00	23.29	948	0.0	0.5
CMW002		C	10/8/2003	65.29	6.91	2.17	51.4	22.95	788	0.0	0.0
IRZCMW001		D	10/8/2003	63.65	7.13	4.22	183.0	21.66	1,219	0.0	0.0
EPA Analytical Method				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
Group A: wells located within the estimated injection area
Group B: wells located at the estimated edge of the injection area
Group C: wells located downgradient of the treatment area
Group D: wells located upgradient of the treatment area
mg/L - milligrams per liter
mV - millivolts
°C - degrees Celcius
mS/cm - millisiemens per centimeter
NA - Not applicable

BOE-C6-0103999

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Table 2. Inorganic Analytical Results
Former Building 2 Area, Boeing C-6 Facility

Well Number	Screened Zone	Well Group	Sample Date	Bromide (mg/L)	Chloride (mg/l)	Total Iron (mg/L)	Dissolved Manganese (mg/L)	Total Manganese (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
IRZB0081	Zone B	A	10/9/2003	0.94	348	25.00	0.05	1.40	8.50	<1.0	43.8	5.8
IRZB0095		A	10/7/2003	0.85	320	3.30	0.05	0.78	7.20	<1.0	38.6	3.0
IRZMW001A		A	10/30/2003	3.6	615	6.8	0.019	0.24 J	13.6	<1.0	88.6	5.0
IRZMW001B		A	10/30/2003	0.73	218	2.9	0.020	0.090 J	5.8	<0.50	98.0	3.8
IRZMW002A		A	10/30/2003	2.3	444	13.4	3.6	3.7 J	0.13	<1.0	77.8	21.8
IRZMW002B		A	10/30/2003	0.94	220	11.7	0.15	0.31 J	6.9	0.21 B	80.9	4.1
IRZMW005		A	10/9/2003	0.97	358	25.00	0.05	1.40	8.50	<1.0	43.8	3.9
IRZMW003A		B	10/31/2003	1.1	465	5.6	0.0069 B	0.11 J	9.6	<1.0	48.3	2.6
IRZMW003B		B	10/31/2003	0.69	240	8.1	0.051	0.23 J	6.3	<0.50	77.9	3.8
IRZMW004		C	10/7/2003	0.89	338	4.80	0.01	0.30	8.10	<1.0	41.2	3.1
CMW026	Zone C	A	10/7/2003	0.55	215	1.70	0.01	0.09	2.80	<1.0	34.2	2.0
IRZCMW003		B	10/7/2003	0.51	191	1.10	0.02	0.16	1.60	<1.0	49.8	2.0
IRZCMW002		C	10/8/2003	0.37	150	0.23	0.10	0.04	2.50	<0.50	62.5	3.2
CMW001		C	10/9/2003	0.97	358	2.50	0.02	0.10	8.60	<1.0	41.6	3.9
CMW002		C	10/8/2003	0.24	110	0.63	0.21	0.13	ND	<0.50	84.9	8.0
IRZCMW001		D	10/8/2003	0.73	275	1.90	0.01	0.04	2.70	<1.0	37.7	3.3
EPA Analytical Method				300.0A	300.0A	6010B	6010A	6010B	300.0A	300.0A	300.0A	9060

Notes:
Group A: wells located within the estimated injection area
Group B: wells located at the estimated edge of the injection area
Group C: wells located downgradient of the treatment area
Group D: wells located upgradient of the treatment area
<1.0 - Not detected above indicated reporting limit
J - Method blank contamination. The method blank contains the target analyte at a reportable level.
B - estimated result less than reporting limit

BOE-C6-0104000

ARCADIS GERAGHTY & MILLER

Table 3. Volatile Organic Compound Analytical Results
Former Building 2 Area, Boeing C-6 Facility

Well Number	Screened Zone	Well Group	Sample Date	Acetone (µg/L)	Chlorobenzene (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,1-DCE (µg/L)	cis-1,2-DCE (µg/L)	Methylene Chloride (µg/L)	Tricloroethene (µg/L)	Vinyl Chloride (mg/L)
IRZB0081	Zone B	A	10/9/2003	<1,700	<170	**50 J**	<170	**63 J**	<170	<170	**6,500**	<170
IRZB0095		A	10/7/2003	<1,200	<120	**150**	<120	**49 J**	<120	**150**	**5,800**	<120
IRZMW001A		A	10/30/2003	<5,000	<500	<500	<500	<500	<500	<500	**11,000**	<500
IRZMW001B		A	10/30/2003	<1,200	<120	<120	<120	**50 J**	**54 J**	<120	**4,800**	<120
IRZMW002A		A	10/30/2003	<1,200	<120	<120	<120	**63 J**	**660**	<120	**5,100**	<120
IRZMW002B		A	10/30/2003	**73 JB**	<12	<12	<12	**8.5 J**	**80**	<12	**640**	<12
IRZMW005		A	10/9/2003	<1,700	<170	**56 J**	<170	**75 J**	<170	<170	**6,000**	<170
IRZMW003A		B	10/31/2003	**3,200 JB**	<500	<500	<500	**180 J**	<500	<500	**20,000**	<500
IRZMW003B		B	10/31/2003	**130 JB**	<25	<25	<25	**19 J**	<25	<25	**1,000**	<25
IRZMW004		C	10/7/2003	<2,500	<250	**110 J**	<250	**81 J**	<250	<250	**8,700**	<250
CMW026	Zone C	A	10/7/2003	<250	<25	**21 J**	<25	**65**	<25	<25	**1,200**	<25
IRZCMW003		B	10/7/2003	<1,000	<100	**36 J**	<100	**83 J**	<100	**89 J**	**2,900**	<100
IRZCMW002		C	10/8/2003	<1,000	<100	**36 J**	<100	**39 J**	<100	<100	**4,600**	<100
CMW001		C	10/9/2003	<1,200	**7,300**	**60 J**	<120	<120	<120	<120	<120	<120
CMW002		C	10/8/2003	<1,000	**3,600**	<100	<100	<100	<100	<100	**460**	<100
IRZCMW001		D	10/8/2003	**210 J**	<62	**76**	**13 J**	**350**	**22 J**	<62	**1,300**	<62
EPA Analytical Method				8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B

Notes:
Group A: wells located within the estimated injection area
Group B: wells located at the estimated edge of the injection area
Group C: wells located downgradient of the treatment area
Group D: wells located upgradient of the treatment area
DCA - dichloroethane
DCE - dichloroethene
< - not detected above indicated reporting limit
J - estimated result less than reporting limit
JB - acetone detected at 11 µg/L in trip blank
µg/L - micrograms per liter

BOE-C6-0104001

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Table 4. Permanent Gas Analytical Results
Former Building 2 Area, Boeing C-6 Facility

Well Number	Screened Zone	Well Group	Sample Date	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Nitrogen (mg/L)	Methane (µg/L)	Ethane (ng/L)	Ethene (ng/L)
IRZB0081	Zone B	A	10/9/2003	3.70	16.9	12.6	<0.2	60	110
IRZB0095		A	10/7/2003	2.67	14.0	8.7	<0.2	50	80
IRZMW001A		A	10/30/2003	1.16	27.4	10.0	2.9	72	51
IRZMW001B		A	10/30/2003	4.05	21.2	12.4	0.4	38	23
IRZMW002A		A	10/30/2003	0.62	39.1	8.7	4.0	1,172	3,250
IRZMW002B		A	10/30/2003	3.38	16.6	16.1	6.0	1,344	2,051
IRZMW005		A	10/9/2003	4.97	16.3	14.0	<0.2	60	70
IRZMW003A		B	10/31/2003	3.06	25.3	15.6	0.5	169	96
IRZMW003B		B	10/31/2003	3.65	18.4	11.5	0.7	87	81
IRZMW004		C	10/7/2003	2.74	15.3	8.4	0.3	50	60
CMW026	Zone C	A	10/7/2003	2.47	6.7	14.8	0.9	520	40
IRZCMW003		B	10/7/2003	1.11	7.1	12.1	1.6	950	880
IRZCMW002		C	10/8/2003	0.94	7.2	15.2	0.6	430	1,210
CMW001		C	10/9/2003	1.74	9.1	13.4	4.8	1,540	2,340
CMW002		C	10/8/2003	2.48	11.4	16.1	0.9	141	1041
IRZCMW001		D	10/8/2003	3.10	13.2	14.9	0.3	110	180
Analytical Method				RSK 175	RSK 175	RSK 175	RSK 175	RSK 175	RSK 175

Notes:
Group A: wells located within the estimated injection area
Group B: wells located at the estimated edge of the injection area
Group C: wells located downgradient of the treatment area
Group D: wells located upgradient of the treatment area
mg/L - milligrams per liter
µg/L - micrograms per liter
ng/L - nanograms per liter
<0.2 - Not detected above indicated reporting limit

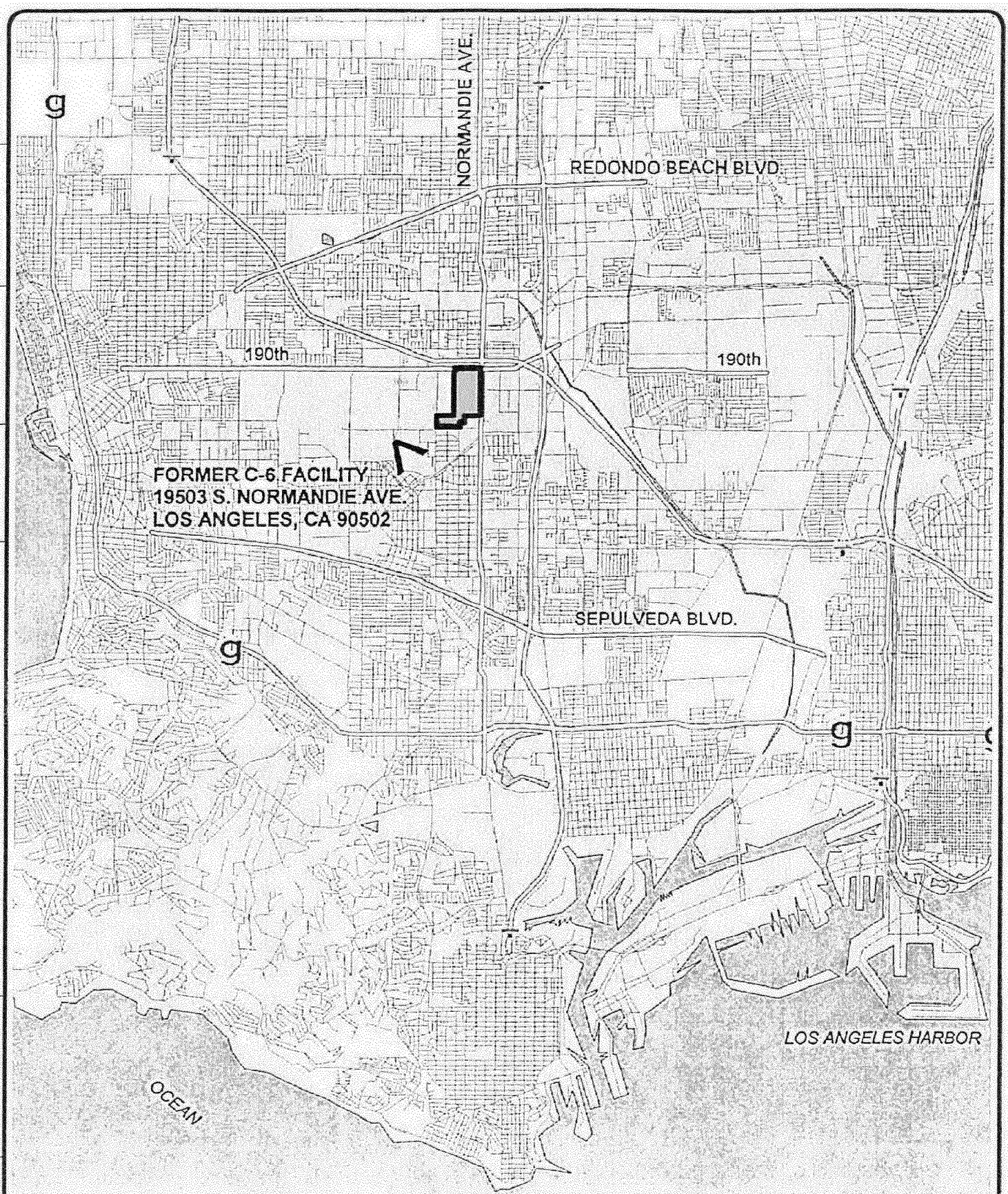
BOE-C6-0104002

FIGURES

BOE-C6-0104003

ARCADIS

Figures



Base map download from 'Tiger File' data website hosted by ESRI.

ARCADIS

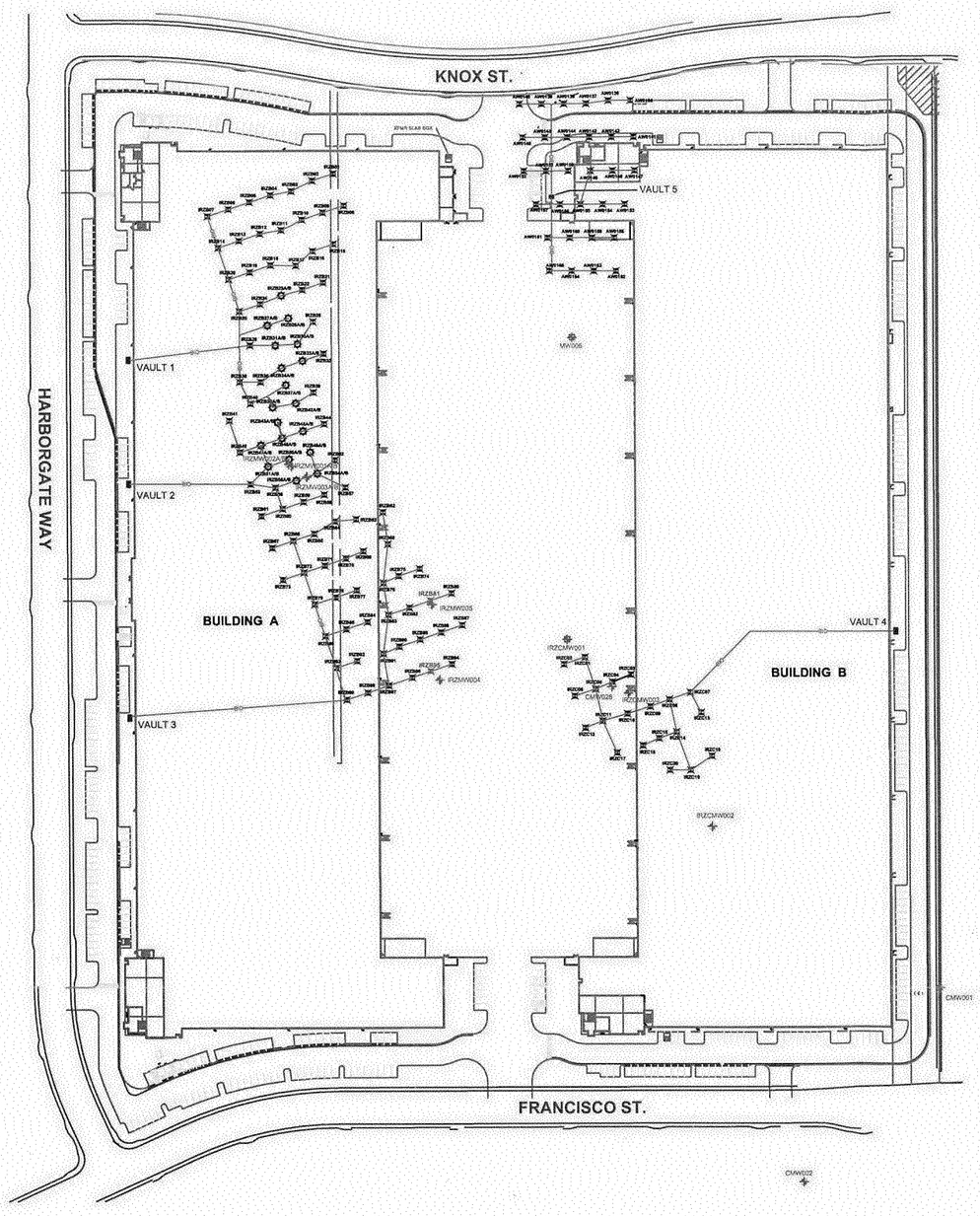
SITE LOCATION

BOEING REALTY CORPORATION
FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

FIGURE

1

DATE: 11/5/03 | 13:36 | PRJ#: CA 594.03.01 | DWG: G:\drawings\project\boeing\2003\si-1 | FILE: | CHK: LOTHMAN | PM: NGUYEN | ART: QUINONES



LEGEND

IRZCMW005	BIOGROUNDWATER MONITORING WELL
IRZ030A/B	DUAL BIOINJECTION POINT
IRZ031	SINGLE BIOINJECTION POINT
VAULT 1	FLUSH MOUNTED VAULT FOR SUBSURFACE REMEDIATION PIPING
BIO	BIOREMEDIATION SYSTEM PIPING

N

0 100 200
SCALE IN FEET

ALL DIMENSIONS AND LOCATIONS APPROXIMATE

BASE MAP PROVIDED BY HILL PINKERT ARCHITECTS, INC. IN FEBRUARY 2003

ARCADIS

AMENDMENT POINT AND MONITORING WELL LOCATIONS

BOEING REALTY CORPORATION
FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

FIGURE
2

DATE: 11/5/03 | 11:30 | PRJ#: CA 594.03.01 | DWG: G:\drawings\aproject\boeing\2003\site plan | CHK: LOTHMAN | PM: NGUYEN | ART: QUINONES | FILE:

BOE-C6-0104006

APPENDIX A

ARCADIS

Appendix A

Laboratory Reports
and Chain-of-Custody
Documents

(Included w/hardcopy reports)

SEVERN TRENT STL

October 24, 2003

STL LOT NUMBER: E3J070354
NELAP Certification Number: 01118CA/E87652

Jim Nguyen
ARCADIS, Inc
1400 N. Harbor Blvd.
Suite 700
Fullerton, CA 92835-4127

Dear Mr. Nguyen,

This report contains the analytical results for the five samples received under chain of custody by STL Los Angeles on October 7, 2003. These samples are associated with your Boeing former C6 former Torrance, California project.

All applicable quality control procedures met method-specified acceptance criteria except as noted on the following page. Historical control limits for the LCS are used to define the estimate of uncertainty for a method. See Project Receipt Checklist for container temperature and conditions. Temperature reading between 2 to 6 degrees Celsius is considered within acceptable criteria. Any matrix related anomaly is footnoted within the report.

STL Los Angeles certifies that the tests performed at our facility meet all NELAP requirements for parameters for which accreditation is required or available. The case narrative is an integral part of the report. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me extension 313.

Sincerely,

Diane Suzuki
Customer Service Manager

CC: Project File

Page 1 of 000061 total pages in this report.

LOT NUMBER E3J070354

Nonconformance 05-06141

Affected Samples:
E3J070354 (1): IRZMW004_WG100703_01
E3J070354 (2): IRZB0095_WG100703_01
E3J070354 (3): CMW026_WG100703_01
E3J070354 (5): IRZCMW003_WG100703_01

Affected Methods:
6010B Dissolved Metals

Case Narrative:
Samples for dissolved metals were received by the lab unfiltered and unpreserved. Samples were filtered and preserved with Nitric Acid to a pH<2 upon receipt at the lab. Pre-preserved bottles with Nitric Acid were used as containers.

BOE-C6-0104010

Chain of Custody Record

SEVERN TRENT SERVICES

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: Arcadis	Project Manager: Jim Nguyen	Date: 10/7/03	Chain of Custody Number: 141868
Address: 1400 N Harbor #700	Telephone Number (Area Code)/Fax Number: 714-278-0992	Lab Number: E3J070354	Page ____ of ____
City: Fullerton; State: Ca; Zip Code: 92835	Site Contact: K. Thomas; Lab Contact: D. Suzuki		
Project Name and Location (State): Boeing C-6, Torrance Ca	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Br, Jobz, NO3, SO4, Cl, SUD Fate	TOC	Dissolved Mn	Total Mn/Fe	8260	Special Instructions/ Conditions of Receipt
1RZMW004_WG100703_01	10/7/03	1118		X			2	1	1	3			X	X	X	X	X	NO FIELD
1RZBMW0095_WG100703_01	10/7/03	1238		X			2	1	1	3			X	X	X	X	X	FILTERING WAS
CMW026_WG100703_01	10/7/03	1407		X			2	1	1	3			X	X	X	X	X	DONE
TB 100703	10/7	—		X						3							X	
1RZSMW003_WG100703_01	10/7	1505		X			2	1	1	3			X	X	X	X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]	10/7/03	1600	1. Received By: Vince Padilla	10/7/03	1600
2. Relinquished By: Vincent Padilla	10/7/03	1840	2. Received By: [signature]	10/7/03	1840
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL LOS ANGELES
PROJECT RECEIPT CHECKLIST

Date: 10/7/03

Quantims Lot #: E3S070354
Quote #:
Client Name: Arcadis
Project: C-6
Received by: R.B.
Date/Time Received: 10/7/03 1840
Delivered by : ☐Client ☐Airborne ☐Fed Ex ☐DHL ☐In-House Courier ☐Rey B.
☐UPS ☐DES ☒Other Vincent

****

Initial / Date

Custody Seal Status: ☐Intact ☐Broken ☒None ..... AS 10/7/03
Custody Seal #(s): ☒No Seal # .....
Sample Container(s): ☒STL-LA ☐Client ☐N/A .....
Temperature(s) (COOLER/BLANK) in °C: 4.3°C (CORRECTED TEMP) 4.1°C
Thermometer Used : ☒IR (Infra-red) ☐Digital (Probe) .....
Samples: ☒Intact ☐Broken ☐Other .....
Anomalies: ☒No ☐Yes (See Clouseau) .....
Labeled by ..... SL 10-7-03
Labeling checked by .....

****

Turn Around Time: ☐RUSH-24HR ☐RUSH-48HR ☐RUSH-72HR ☒NORMAL ..... AS 10/7/03
Short-Hold Notification: ☐Ph ☒Wet Chem ☐Metals (Filter/Pres) ☐Encore ☐N/A ...
Outside Analysis(es) (Test/Lab/Date Sent Out) :

N/A

********** LEAVE NO BLANK SPACES ; USE N/A **********

Fraction	1→3	4	5								PH
VOAh /*	3	3	3								N/A
1L PB	1		1								–
500 PB	1		1								–
500 PBn	1		1								<2
250AGBs	1		1								<2

h:HCl na:Sodium Hydroxide zana:Zinc Acetate/Sodium Hydroxide s: H2SO4 n:HNO3 n/f:HNO3-Field filtered n/f/l:HNO3-Lab filtered
CGJ:Clear Glass Jar CGB:Clear Glass Bottle AGJ:Amber Glass Jar AGB:Amber Glass Bottle PB: Poly Bottle E:Encore Sampler V:VOA SL:Sleeve
*** Number of VOA's w/ Headspace present**

LOGGED BY/DATE: 10/7/03 REVIEWED BY/DATE: 10-7-03

B3J070354

Well/Sample No.	Sample Date	Sample Time	
RCADIS100703_01	10/7/2003	--	Please rename trip blank TB100703 to Boeing convention of TB_ARCADIS100703_01
RCADIS100803_01	10/8/2003	--	Please rename trip blank TB lot E39280120 to Boeing convention of TB_ARCADIS100803_01
RCADIS100903_01	10/9/2003	--	
W004_WG100703_01	10/7/2003	11:18	
0095_WG100703_01	10/7/2003	12:38	Note mis-lable on COC: Sample number is IRZB0095-WG100703-01 and not IRZBMW0095-WG100703-01
/026_WG100703_01	10/7/2003	14:07	
MW003_WG100703_01	10/7/2003	15:05	
MW001_WG100803_01	10/8/2003	7:33	
MW002_WG100803_01	10/8/2003	9:20	
/002_WG100803_01	10/8/2003	10:35	Note mis-lable on COC: Sample number is CMW002_WG100803_01 and not CMW2_WG100803_01
W002A_WG100803_01	**10/8/2003**	**12:20**	
W002B_WG100803_01	**10/8/2003**	**13:35**	
/001_WG100903_01	10/9/2003	7:55	
W005_WG100903_01	10/9/2003	9:40	
081_WG100903_01	10/9/2003	10:21	Note mis-lable on COC: Sample number is IRZB081-WG100903-01 and not IRZBMW081-WG100903-01
W001B_WG100903_01	**10/9/2003**	**11:33**	Note mis-lable on COC: Sample number is IRZMW001B-WG100903-01 and not IRZMW01B-WG100903-01
W001A_WG100903_01	**10/9/2003**	**12:45**	Note mis-lable on COC: Sample number is IRZMW001A-WG100903-01 and not IRZMW01A-WG100903-01
W003A_WG100703_01	**10/9/2003**	**13:45**	
W003B_WG100703_01	**10/9/2003**	**14:43**	

: All samples are to be analyzed
olatile organic carbons (VOCs),
ide, manganese (total),
ganese (dissolved), iron (total),
te, nitrate, nitrite, chloride, total
nic carbon (TOC).

: Please hold analysis for samples in bold font.

BOE-C6-0104013

SEVERN TRENT STL

Analytical Report

EXECUTIVE SUMMARY - Detection Highlights

E3J070354

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZMW004_WG100703_01 10/07/03 11:18 001				
Manganese - DISSOLVED	0.013 B	0.015	mg/L	SW846 6010B
Manganese	0.30	0.015	mg/L	SW846 6010B
Iron	4.8	0.10	mg/L	SW846 6010B
Chloroform	110 J	250	ug/L	SW846 8260B
1,1-Dichloroethene	81 J	250	ug/L	SW846 8260B
Trichloroethene	8700	250	ug/L	SW846 8260B
Chloride	338	10.0	mg/L	MCAWW 300.0A
Sulfate	41.2	1.0	mg/L	MCAWW 300.0A
Nitrate as N	8.1	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	3.1	1.0	mg/L	SW846 9060
Bromide	0.89	0.50	mg/L	MCAWW 300.0A
IRZB0095_WG100703_01 10/07/03 12:38 002				
Manganese - DISSOLVED	0.052	0.015	mg/L	SW846 6010B
Manganese	0.78	0.015	mg/L	SW846 6010B
Iron	3.3	0.10	mg/L	SW846 6010B
Chloroform	150	120	ug/L	SW846 8260B
1,1-Dichloroethene	49 J	120	ug/L	SW846 8260B
Methylene chloride	150	120	ug/L	SW846 8260B
Trichloroethene	5800	120	ug/L	SW846 8260B
Chloride	320	10.0	mg/L	MCAWW 300.0A
Sulfate	38.6	1.0	mg/L	MCAWW 300.0A
Nitrate as N	7.2	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	3.0	1.0	mg/L	SW846 9060
Bromide	0.85	0.50	mg/L	MCAWW 300.0A
CMW026_WG100703_01 10/07/03 14:07 003				
Manganese - DISSOLVED	0.0054 B	0.015	mg/L	SW846 6010B
Manganese	0.085	0.015	mg/L	SW846 6010B
Iron	1.7	0.10	mg/L	SW846 6010B
Chloroform	21 J	25	ug/L	SW846 8260B
1,1-Dichloroethene	65	25	ug/L	SW846 8260B
Trichloroethene	1200	25	ug/L	SW846 8260B
Chloride	215	10.0	mg/L	MCAWW 300.0A
Sulfate	34.2	1.0	mg/L	MCAWW 300.0A
Nitrate as N	2.8	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	2.0	1.0	mg/L	SW846 9060
Bromide	0.55	0.50	mg/L	MCAWW 300.0A

(Continued on next page)

BOE-C6-0104015

EXECUTIVE SUMMARY - Detection Highlights

E3J070354

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZCMW003_WG100703_01 10/07/03 15:05	**005**			
Manganese - DISSOLVED	0.015	0.015	mg/L	SW846 6010B
Manganese	0.16	0.015	mg/L	SW846 6010B
Iron	1.1	0.10	mg/L	SW846 6010B
Chloroform	36 J	100	ug/L	SW846 8260B
1,1-Dichloroethene	83 J	100	ug/L	SW846 8260B
Methylene chloride	89 J	100	ug/L	SW846 8260B
Trichloroethene	2900	100	ug/L	SW846 8260B
Chloride	191	10.0	mg/L	MCAWW 300.0A
Sulfate	49.8	1.0	mg/L	MCAWW 300.0A
Nitrate as N	1.6	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	2.0	1.0	mg/L	SW846 9060
Bromide	0.51	0.50	mg/L	MCAWW 300.0A

METHODS SUMMARY

E3J070354

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Bromide	MCAWW 300.0A	MCAWW 300.0A
Chloride	MCAWW 300.0A	MCAWW 300.0A
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3005A
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Total Organic Carbon	SW846 9060	SW846 9060
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

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

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

E3J070354

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
F12K2	001	IRZMW004_WG100703_01	10/07/03	11:18
F12K3	002	IRZB0095_WG100703_01	10/07/03	12:38
F12K4	003	CMW026_WG100703_01	10/07/03	14:07
F12K5	004	TB_ARCADIS100703_01	10/07/03	
F12K6	005	IRZCMW003_WG100703_01	10/07/03	15:05

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.

BOE-C6-0104018

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW004_WG100703_01

GC/MS Volatiles

Lot-Sample #...: E3J070354-001 **Work Order #...:** F12K21AC **Matrix.....:** WG
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40 **MS Run #.....:** 3281429
Prep Date.....: 10/08/03 **Analysis Date..:** 10/08/03
Prep Batch #...: 3281744 **Analysis Time..:** 18:03
Dilution Factor: 250
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	2500	ug/L	750
Benzene	ND	250	ug/L	75
Bromobenzene	ND	250	ug/L	75
Bromochloromethane	ND	250	ug/L	75
Bromoform	ND	250	ug/L	75
Bromomethane	ND	500	ug/L	250
2-Butanone	ND	1200	ug/L	750
n-Butylbenzene	ND	250	ug/L	75
sec-Butylbenzene	ND	250	ug/L	75
tert-Butylbenzene	ND	250	ug/L	50
Carbon disulfide	ND	250	ug/L	75
Carbon tetrachloride	ND	250	ug/L	75
Chlorobenzene	ND	250	ug/L	75
Dibromochloromethane	ND	250	ug/L	100
Bromodichloromethane	ND	250	ug/L	75
Chloroethane	ND	500	ug/L	75
Chloroform	**110 J**	**250**	**ug/L**	**75**
Chloromethane	ND	500	ug/L	75
2-Chlorotoluene	ND	250	ug/L	75
4-Chlorotoluene	ND	250	ug/L	75
1,2-Dibromo-3-chloro-propane	ND	500	ug/L	180
1,2-Dibromoethane (EDB)	ND	250	ug/L	75
Dibromomethane	ND	250	ug/L	100
1,2-Dichlorobenzene	ND	250	ug/L	75
1,3-Dichlorobenzene	ND	250	ug/L	75
1,4-Dichlorobenzene	ND	250	ug/L	75
Dichlorodifluoromethane	ND	500	ug/L	100
1,1-Dichloroethane	ND	250	ug/L	50
1,2-Dichloroethane	ND	250	ug/L	100
1,1-Dichloroethene	**81 J**	**250**	**ug/L**	**75**
cis-1,2-Dichloroethene	ND	250	ug/L	75
trans-1,2-Dichloroethene	ND	250	ug/L	75
1,2-Dichloropropane	ND	250	ug/L	75
1,3-Dichloropropane	ND	250	ug/L	100
2,2-Dichloropropane	ND	250	ug/L	75
1,1-Dichloropropene	ND	250	ug/L	75

(Continued on next page)

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW004_WG100703_01

GC/MS Volatiles

Lot-Sample #...: E3J070354-001 **Work Order #...:** F12K21AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	250	ug/L	75
trans-1,3-Dichloropropene	ND	250	ug/L	120
Ethylbenzene	ND	250	ug/L	50
Hexachlorobutadiene	ND	250	ug/L	75
2-Hexanone	ND	1200	ug/L	750
Isopropylbenzene	ND	250	ug/L	75
p-Isopropyltoluene	ND	250	ug/L	75
Methylene chloride	ND	250	ug/L	75
4-Methyl-2-pentanone	ND	1200	ug/L	750
Methyl tert-butyl ether	ND	250	ug/L	120
Naphthalene	ND	250	ug/L	120
n-Propylbenzene	ND	250	ug/L	100
Styrene	ND	250	ug/L	75
1,1,1,2-Tetrachloroethane	ND	250	ug/L	75
1,1,2,2-Tetrachloroethane	ND	250	ug/L	100
Tetrachloroethene	ND	250	ug/L	75
Toluene	ND	250	ug/L	75
1,2,3-Trichlorobenzene	ND	250	ug/L	100
1,2,4-Trichloro-benzene	ND	250	ug/L	75
1,1,1-Trichloroethane	ND	250	ug/L	50
1,1,2-Trichloroethane	ND	250	ug/L	75
Trichloroethene	**8700**	**250**	**ug/L**	**75**
Trichlorofluoromethane	ND	500	ug/L	75
1,2,3-Trichloropropane	ND	250	ug/L	100
1,1,2-Trichlorotrifluoro-ethane	ND	250	ug/L	100
1,2,4-Trimethylbenzene	ND	250	ug/L	75
1,3,5-Trimethylbenzene	ND	250	ug/L	50
Vinyl chloride	ND	250	ug/L	75
m-Xylene & p-Xylene	ND	250	ug/L	120
o-Xylene	ND	250	ug/L	50
Xylenes (total)	ND	250	ug/L	200

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	103	(75 - 130)
1,2-Dichloroethane-d4	107	(65 - 135)
Toluene-d8	104	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW004_WG100703_01

TOTAL Metals

Lot-Sample #...: E3J070354-001 Matrix.....: WG
Date Sampled...: 10/07/03 11:18 Date Received..: 10/07/03 18:40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3282238						
Manganese	0.30	0.015	mg/L	SW846 6010B	10/09-10/10/03	F12K21DG
		Dilution Factor: 1		Analysis Time..: 12:37	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.0010	
Iron	4.8	0.10	mg/L	SW846 6010B	10/09-10/10/03	F12K21DJ
		Dilution Factor: 1		Analysis Time..: 12:37	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.030	

BOE-C6-0104021

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW004_WG100703_01

DISSOLVED Metals

Lot-Sample #...: E3J070354-001 **Matrix.....:** WG
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3281583						
Manganese	**0.013 B**	**0.015**	**mg/L**	**SW846 6010B**	**10/08-10/09/03**	**F12K21DF**
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282308	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	10/08-10/09/03	F12K21DH
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282308	MDL.....: 0.030	

NOTE(S):

B Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW004_WG100703_01

General Chemistry

Lot-Sample #...: E3J070354-001 **Work Order #...:** F12K2 **Matrix.....:** WG
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.89**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3281266**
		Dilution Factor: 1		Analysis Time..: 09:39	Analyst ID.....: 000022	
		Instrument ID..: W01		MS Run #.....: 3281147	MDL.....: 0.10	
Chloride	**338**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3282244**
		Dilution Factor: 10		Analysis Time..: 11:39	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3282126	MDL.....: 3.0	
Nitrate as N	**8.1**	**0.10**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3282246**
		Dilution Factor: 1		Analysis Time..: 09:39	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 3282128	MDL.....: 0.030	
Nitrite as N	ND G	1.0	mg/L	MCAWW 300.0A	10/08/03	3282245
		Dilution Factor: 10		Analysis Time..: 11:39	Analyst ID.....: 0000228	
		Instrument ID..: W01		MS Run #.....: 3282127	MDL.....: 0.30	
Sulfate	**41.2**	**1.0**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3282247**
		Dilution Factor: 1		Analysis Time..: 09:39	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3282129	MDL.....: 0.20	
Total Organic Carbon (TOC)	**3.1**	**1.0**	**mg/L**	**SW846 9060**	**10/10/03**	**3283591**
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 9999959	
		Instrument ID..: W08		MS Run #.....: 3286144	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB0095_WG100703_01

GC/MS Volatiles

Lot-Sample #...: E3J070354-002 **Work Order #...:** F12K31AC **Matrix.....:** WG
Date Sampled...: 10/07/03 12:38 **Date Received..:** 10/07/03 18:40 **MS Run #.....:** 3282311
Prep Date.....: 10/09/03 **Analysis Date..:** 10/09/03
Prep Batch #...: 3282580 **Analysis Time..:** 12:11
Dilution Factor: 125
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1200	ug/L	380
Benzene	ND	120	ug/L	38
Bromobenzene	ND	120	ug/L	38
Bromochloromethane	ND	120	ug/L	38
Bromoform	ND	120	ug/L	38
Bromomethane	ND	250	ug/L	120
2-Butanone	ND	620	ug/L	380
n-Butylbenzene	ND	120	ug/L	38
sec-Butylbenzene	ND	120	ug/L	38
tert-Butylbenzene	ND	120	ug/L	25
Carbon disulfide	ND	120	ug/L	38
Carbon tetrachloride	ND	120	ug/L	38
Chlorobenzene	ND	120	ug/L	38
Dibromochloromethane	ND	120	ug/L	50
Bromodichloromethane	ND	120	ug/L	38
Chloroethane	ND	250	ug/L	38
Chloroform	**150**	**120**	**ug/L**	**38**
Chloromethane	ND	250	ug/L	38
2-Chlorotoluene	ND	120	ug/L	38
4-Chlorotoluene	ND	120	ug/L	38
1,2-Dibromo-3-chloro-propane	ND	250	ug/L	88
1,2-Dibromoethane (EDB)	ND	120	ug/L	38
Dibromomethane	ND	120	ug/L	50
1,2-Dichlorobenzene	ND	120	ug/L	38
1,3-Dichlorobenzene	ND	120	ug/L	38
1,4-Dichlorobenzene	ND	120	ug/L	38
Dichlorodifluoromethane	ND	250	ug/L	50
1,1-Dichloroethane	ND	120	ug/L	25
1,2-Dichloroethane	ND	120	ug/L	50
1,1-Dichloroethene	**49 J**	**120**	**ug/L**	**38**
cis-1,2-Dichloroethene	ND	120	ug/L	38
trans-1,2-Dichloroethene	ND	120	ug/L	38
1,2-Dichloropropane	ND	120	ug/L	38
1,3-Dichloropropane	ND	120	ug/L	50
2,2-Dichloropropane	ND	120	ug/L	38
1,1-Dichloropropene	ND	120	ug/L	38

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BOE-C6-0104024

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB0095_WG100703_01

GC/MS Volatiles

Lot-Sample #...: E3J070354-002 **Work Order #...:** F12K31AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	120	ug/L	38
trans-1,3-Dichloropropene	ND	120	ug/L	62
Ethylbenzene	ND	120	ug/L	25
Hexachlorobutadiene	ND	120	ug/L	38
2-Hexanone	ND	620	ug/L	380
Isopropylbenzene	ND	120	ug/L	38
p-Isopropyltoluene	ND	120	ug/L	38
Methylene chloride	**150**	**120**	**ug/L**	**38**
4-Methyl-2-pentanone	ND	620	ug/L	380
Methyl tert-butyl ether	ND	120	ug/L	62
Naphthalene	ND	120	ug/L	62
n-Propylbenzene	ND	120	ug/L	50
Styrene	ND	120	ug/L	38
1,1,1,2-Tetrachloroethane	ND	120	ug/L	38
1,1,2,2-Tetrachloroethane	ND	120	ug/L	50
Tetrachloroethene	ND	120	ug/L	38
Toluene	ND	120	ug/L	38
1,2,3-Trichlorobenzene	ND	120	ug/L	50
1,2,4-Trichloro-benzene	ND	120	ug/L	38
1,1,1-Trichloroethane	ND	120	ug/L	25
1,1,2-Trichloroethane	ND	120	ug/L	38
Trichloroethene	**5800**	**120**	**ug/L**	**38**
Trichlorofluoromethane	ND	250	ug/L	38
1,2,3-Trichloropropane	ND	120	ug/L	50
1,1,2-Trichlorotrifluoro-ethane	ND	120	ug/L	50
1,2,4-Trimethylbenzene	ND	120	ug/L	38
1,3,5-Trimethylbenzene	ND	120	ug/L	25
Vinyl chloride	ND	120	ug/L	38
m-Xylene & p-Xylene	ND	120	ug/L	62
o-Xylene	ND	120	ug/L	25
Xylenes (total)	ND	120	ug/L	100

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	91	(75 - 130)
1,2-Dichloroethane-d4	100	(65 - 135)
Toluene-d8	107	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB0095_WG100703_01

TOTAL Metals

Lot-Sample #...: E3J070354-002 Matrix.....: WG
Date Sampled...: 10/07/03 12:38 Date Received..: 10/07/03 18:40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3282238						
Manganese	0.78	0.015	mg/L	SW846 6010B	10/09-10/10/03	F12K31AK
		Dilution Factor: 1		Analysis Time..: 17:30	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.0010	
Iron	3.3	0.10	mg/L	SW846 6010B	10/09-10/10/03	F12K31AM
		Dilution Factor: 1		Analysis Time..: 17:30	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB0095_WG100703_01

DISSOLVED Metals

Lot-Sample #...: E3J070354-002 **Matrix.....:** WG
Date Sampled...: 10/07/03 12:38 **Date Received..:** 10/07/03 18:40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3281583						
Manganese	**0.052**	**0.015**	**mg/L**	**SW846 6010B**	**10/08-10/09/03**	**F12K31AJ**
		Dilution Factor: 1		Analysis Time..: 16:19	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282308	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	10/08-10/09/03	F12K31AL
		Dilution Factor: 1		Analysis Time..: 16:19	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282308	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB0095_WG100703_01

General Chemistry

Lot-Sample #...: E3J070354-002 Work Order #...: F12K3 Matrix.....: WG
Date Sampled...: 10/07/03 12:38 Date Received..: 10/07/03 18:40

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	0.85	0.50	mg/L	MCAWW 300.0A	10/08/03	3281266
		Dilution Factor: 1		Analysis Time..: 10:00	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3281147	MDL.....: 0.10	
Chloride	320	10.0	mg/L	MCAWW 300.0A	10/08/03	3282244
		Dilution Factor: 10		Analysis Time..: 11:58	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3282126	MDL.....: 3.0	
Nitrate as N	7.2	0.10	mg/L	MCAWW 300.0A	10/08/03	3282246
		Dilution Factor: 1		Analysis Time..: 10:00	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 3282128	MDL.....: 0.030	
Nitrite as N	ND G	1.0	mg/L	MCAWW 300.0A	10/08/03	3282245
		Dilution Factor: 10		Analysis Time..: 11:58	Analyst ID.....: 0000228	
		Instrument ID..: W01		MS Run #.....: 3282127	MDL.....: 0.30	
Sulfate	38.6	1.0	mg/L	MCAWW 300.0A	10/08/03	3282247
		Dilution Factor: 1		Analysis Time..: 10:00	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3282129	MDL.....: 0.20	
Total Organic Carbon (TOC)	3.0	1.0	mg/L	SW846 9060	10/10/03	3283591
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 9999959	
		Instrument ID..: W08		MS Run #.....: 3286144	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW026_WG100703_01

GC/MS Volatiles

Lot-Sample #...: E3J070354-003 **Work Order #...:** F12K41AC **Matrix.....:** WG
Date Sampled...: 10/07/03 14:07 **Date Received..:** 10/07/03 18:40 **MS Run #.....:** 3281429
Prep Date.....: 10/08/03 **Analysis Date..:** 10/08/03
Prep Batch #...: 3281744 **Analysis Time..:** 18:51
Dilution Factor: 25
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	250	ug/L	75
Benzene	ND	25	ug/L	7.5
Bromobenzene	ND	25	ug/L	7.5
Bromochloromethane	ND	25	ug/L	7.5
Bromoform	ND	25	ug/L	7.5
Bromomethane	ND	50	ug/L	25
2-Butanone	ND	120	ug/L	75
n-Butylbenzene	ND	25	ug/L	7.5
sec-Butylbenzene	ND	25	ug/L	7.5
tert-Butylbenzene	ND	25	ug/L	5.0
Carbon disulfide	ND	25	ug/L	7.5
Carbon tetrachloride	ND	25	ug/L	7.5
Chlorobenzene	ND	25	ug/L	7.5
Dibromochloromethane	ND	25	ug/L	10
Bromodichloromethane	ND	25	ug/L	7.5
Chloroethane	ND	50	ug/L	7.5
Chloroform	**21 J**	**25**	**ug/L**	**7.5**
Chloromethane	ND	50	ug/L	7.5
2-Chlorotoluene	ND	25	ug/L	7.5
4-Chlorotoluene	ND	25	ug/L	7.5
1,2-Dibromo-3-chloro-propane	ND	50	ug/L	18
1,2-Dibromoethane (EDB)	ND	25	ug/L	7.5
Dibromomethane	ND	25	ug/L	10
1,2-Dichlorobenzene	ND	25	ug/L	7.5
1,3-Dichlorobenzene	ND	25	ug/L	7.5
1,4-Dichlorobenzene	ND	25	ug/L	7.5
Dichlorodifluoromethane	ND	50	ug/L	10
1,1-Dichloroethane	ND	25	ug/L	5.0
1,2-Dichloroethane	ND	25	ug/L	10
1,1-Dichloroethene	**65**	**25**	**ug/L**	**7.5**
cis-1,2-Dichloroethene	ND	25	ug/L	7.5
trans-1,2-Dichloroethene	ND	25	ug/L	7.5
1,2-Dichloropropane	ND	25	ug/L	7.5
1,3-Dichloropropane	ND	25	ug/L	10
2,2-Dichloropropane	ND	25	ug/L	7.5
1,1-Dichloropropene	ND	25	ug/L	7.5

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW026_WG100703_01

GC/MS Volatiles

Lot-Sample #...: E3J070354-003 **Work Order #...:** F12K41AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	25	ug/L	7.5
trans-1,3-Dichloropropene	ND	25	ug/L	12
Ethylbenzene	ND	25	ug/L	5.0
Hexachlorobutadiene	ND	25	ug/L	7.5
2-Hexanone	ND	120	ug/L	75
Isopropylbenzene	ND	25	ug/L	7.5
p-Isopropyltoluene	ND	25	ug/L	7.5
Methylene chloride	ND	25	ug/L	7.5
4-Methyl-2-pentanone	ND	120	ug/L	75
Methyl tert-butyl ether	ND	25	ug/L	12
Naphthalene	ND	25	ug/L	12
n-Propylbenzene	ND	25	ug/L	10
Styrene	ND	25	ug/L	7.5
1,1,1,2-Tetrachloroethane	ND	25	ug/L	7.5
1,1,2,2-Tetrachloroethane	ND	25	ug/L	10
Tetrachloroethene	ND	25	ug/L	7.5
Toluene	ND	25	ug/L	7.5
1,2,3-Trichlorobenzene	ND	25	ug/L	10
1,2,4-Trichloro-benzene	ND	25	ug/L	7.5
1,1,1-Trichloroethane	ND	25	ug/L	5.0
1,1,2-Trichloroethane	ND	25	ug/L	7.5
Trichloroethene	**1200**	**25**	**ug/L**	**7.5**
Trichlorofluoromethane	ND	50	ug/L	7.5
1,2,3-Trichloropropane	ND	25	ug/L	10
1,1,2-Trichlorotrifluoro-ethane	ND	25	ug/L	10
1,2,4-Trimethylbenzene	ND	25	ug/L	7.5
1,3,5-Trimethylbenzene	ND	25	ug/L	5.0
Vinyl chloride	ND	25	ug/L	7.5
m-Xylene & p-Xylene	ND	25	ug/L	12
o-Xylene	ND	25	ug/L	5.0
Xylenes (total)	ND	25	ug/L	20

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	103	(75 - 130)
1,2-Dichloroethane-d4	102	(65 - 135)
Toluene-d8	101	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW026_WG100703_01

TOTAL Metals

Lot-Sample #...: E3J070354-003 **Matrix.....:** WG
Date Sampled...: 10/07/03 14:07 **Date Received..:** 10/07/03 18:40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3282238						
Manganese	0.085	0.015	mg/L	SW846 6010B	10/09-10/10/03	F12K41AK
		Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.0010	
Iron	1.7	0.10	mg/L	SW846 6010B	10/09-10/10/03	F12K41AM
		Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW026_WG100703_01

DISSOLVED Metals

Lot-Sample #...: E3J070354-003 **Matrix.....:** WG
Date Sampled...: 10/07/03 14:07 **Date Received..:** 10/07/03 18:40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3281583						
Manganese	**0.0054 B**	**0.015**	**mg/L**	**SW846 6010B**	**10/08-10/09/03**	**F12K41AJ**
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282308	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	10/08-10/09/03	F12K41AL
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282308	MDL.....: 0.030	

NOTE(S):

B Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW026_WG100703_01

General Chemistry

Lot-Sample #...: E3J070354-003 **Work Order #...:** F12K4 **Matrix.....:** WG
Date Sampled...: 10/07/03 14:07 **Date Received..:** 10/07/03 18:40

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.55**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3281266**
		Dilution Factor: 1		Analysis Time..: 10:18	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3281147	MDL.....: 0.10	
Chloride	**215**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3282244**
		Dilution Factor: 10		Analysis Time..: 12:16	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3282126	MDL.....: 3.0	
Nitrate as N	**2.8**	**0.10**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3282246**
		Dilution Factor: 1		Analysis Time..: 10:18	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 3282128	MDL.....: 0.030	
Nitrite as N	ND G	1.0	mg/L	MCAWW 300.0A	10/08/03	3282245
		Dilution Factor: 10		Analysis Time..: 12:16	Analyst ID.....: 0000228	
		Instrument ID..: W01		MS Run #.....: 3282127	MDL.....: 0.30	
Sulfate	**34.2**	**1.0**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3282247**
		Dilution Factor: 1		Analysis Time..: 10:18	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3282129	MDL.....: 0.20	
Total Organic Carbon (TOC)	**2.0**	**1.0**	**mg/L**	**SW846 9060**	**10/10/03**	**3283591**
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 9999959	
		Instrument ID..: W08		MS Run #.....: 3286144	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: TB_ARCADIS100703_01

GC/MS Volatiles

Lot-Sample #...: E3J070354-004 **Work Order #...:** F12K51AA **Matrix.....:** WG
Date Sampled...: 10/07/03 **Date Received..:** 10/07/03 18:40 **MS Run #.....:** 3281429
Prep Date.....: 10/08/03 **Analysis Date..:** 10/08/03
Prep Batch #...: 3281744 **Analysis Time..:** 17:39
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	10	ug/L	3.0
Benzene	ND	1.0	ug/L	0.30
Bromobenzene	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.30
Bromoform	ND	1.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
2-Butanone	ND	5.0	ug/L	3.0
n-Butylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
Carbon disulfide	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	1.0	ug/L	0.30
Chlorobenzene	ND	1.0	ug/L	0.30
Dibromochloromethane	ND	1.0	ug/L	0.40
Bromodichloromethane	ND	1.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Chloromethane	ND	2.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	0.30
Dibromomethane	ND	1.0	ug/L	0.40
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
Dichlorodifluoromethane	ND	2.0	ug/L	0.40
1,1-Dichloroethane	ND	1.0	ug/L	0.20
1,2-Dichloroethane	ND	1.0	ug/L	0.40
1,1-Dichloroethene	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,2-Dichloropropane	ND	1.0	ug/L	0.30
1,3-Dichloropropane	ND	1.0	ug/L	0.40
2,2-Dichloropropane	ND	1.0	ug/L	0.30
1,1-Dichloropropene	ND	1.0	ug/L	0.30

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: TB_ARCADIS100703_01

GC/MS Volatiles

Lot-Sample #...: E3J070354-004 **Work Order #...:** F12K51AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.30
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.50
Ethylbenzene	ND	1.0	ug/L	0.20
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Isopropylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Naphthalene	ND	1.0	ug/L	0.50
n-Propylbenzene	ND	1.0	ug/L	0.40
Styrene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
Toluene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L	0.40
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	1.0	ug/L	0.30
m-Xylene & p-Xylene	ND	1.0	ug/L	0.50
o-Xylene	ND	1.0	ug/L	0.20
Xylenes (total)	ND	1.0	ug/L	0.80

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	103	(75 - 130)
1,2-Dichloroethane-d4	105	(65 - 135)
Toluene-d8	104	(80 - 130)

BOE-C6-0104035

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW003_WG100703_01

GC/MS Volatiles

Lot-Sample #...: E3J070354-005 **Work Order #...:** F12K61AC **Matrix.....:** WG
Date Sampled...: 10/07/03 15:05 **Date Received..:** 10/07/03 18:40 **MS Run #.....:** 3282311
Prep Date.....: 10/09/03 **Analysis Date..:** 10/09/03
Prep Batch #...: 3282580 **Analysis Time..:** 12:35
Dilution Factor: 100
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1000	ug/L	300
Benzene	ND	100	ug/L	30
Bromobenzene	ND	100	ug/L	30
Bromochloromethane	ND	100	ug/L	30
Bromoform	ND	100	ug/L	30
Bromomethane	ND	200	ug/L	100
2-Butanone	ND	500	ug/L	300
n-Butylbenzene	ND	100	ug/L	30
sec-Butylbenzene	ND	100	ug/L	30
tert-Butylbenzene	ND	100	ug/L	20
Carbon disulfide	ND	100	ug/L	30
Carbon tetrachloride	ND	100	ug/L	30
Chlorobenzene	ND	100	ug/L	30
Dibromochloromethane	ND	100	ug/L	40
Bromodichloromethane	ND	100	ug/L	30
Chloroethane	ND	200	ug/L	30
Chloroform	**36 J**	**100**	**ug/L**	**30**
Chloromethane	ND	200	ug/L	30
2-Chlorotoluene	ND	100	ug/L	30
4-Chlorotoluene	ND	100	ug/L	30
1,2-Dibromo-3-chloro-propane	ND	200	ug/L	70
1,2-Dibromoethane (EDB)	ND	100	ug/L	30
Dibromomethane	ND	100	ug/L	40
1,2-Dichlorobenzene	ND	100	ug/L	30
1,3-Dichlorobenzene	ND	100	ug/L	30
1,4-Dichlorobenzene	ND	100	ug/L	30
Dichlorodifluoromethane	ND	200	ug/L	40
1,1-Dichloroethane	ND	100	ug/L	20
1,2-Dichloroethane	ND	100	ug/L	40
1,1-Dichloroethene	**83 J**	**100**	**ug/L**	**30**
cis-1,2-Dichloroethene	ND	100	ug/L	30
trans-1,2-Dichloroethene	ND	100	ug/L	30
1,2-Dichloropropane	ND	100	ug/L	30
1,3-Dichloropropane	ND	100	ug/L	40
2,2-Dichloropropane	ND	100	ug/L	30
1,1-Dichloropropene	ND	100	ug/L	30

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW003_WG100703_01

GC/MS Volatiles

Lot-Sample #...: E3J070354-005 **Work Order #...:** F12K61AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	100	ug/L	30
trans-1,3-Dichloropropene	ND	100	ug/L	50
Ethylbenzene	ND	100	ug/L	20
Hexachlorobutadiene	ND	100	ug/L	30
2-Hexanone	ND	500	ug/L	300
Isopropylbenzene	ND	100	ug/L	30
p-Isopropyltoluene	ND	100	ug/L	30
Methylene chloride	**89 J**	**100**	**ug/L**	**30**
4-Methyl-2-pentanone	ND	500	ug/L	300
Methyl tert-butyl ether	ND	100	ug/L	50
Naphthalene	ND	100	ug/L	50
n-Propylbenzene	ND	100	ug/L	40
Styrene	ND	100	ug/L	30
1,1,1,2-Tetrachloroethane	ND	100	ug/L	30
1,1,2,2-Tetrachloroethane	ND	100	ug/L	40
Tetrachloroethene	ND	100	ug/L	30
Toluene	ND	100	ug/L	30
1,2,3-Trichlorobenzene	ND	100	ug/L	40
1,2,4-Trichloro-benzene	ND	100	ug/L	30
1,1,1-Trichloroethane	ND	100	ug/L	20
1,1,2-Trichloroethane	ND	100	ug/L	30
Trichloroethene	**2900**	**100**	**ug/L**	**30**
Trichlorofluoromethane	ND	200	ug/L	30
1,2,3-Trichloropropane	ND	100	ug/L	40
1,1,2-Trichlorotrifluoro-ethane	ND	100	ug/L	40
1,2,4-Trimethylbenzene	ND	100	ug/L	30
1,3,5-Trimethylbenzene	ND	100	ug/L	20
Vinyl chloride	ND	100	ug/L	30
m-Xylene & p-Xylene	ND	100	ug/L	50
o-Xylene	ND	100	ug/L	20
Xylenes (total)	ND	100	ug/L	80

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	89	(75 - 130)
1,2-Dichloroethane-d4	103	(65 - 135)
Toluene-d8	101	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW003_WG100703_01

TOTAL Metals

Lot-Sample #...: E3J070354-005 Matrix.....: WG
Date Sampled...: 10/07/03 15:05 Date Received..: 10/07/03 18:40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3282238						
Manganese	0.16	0.015	mg/L	SW846 6010B	10/09-10/10/03	F12K61AK
		Dilution Factor: 1		Analysis Time..: 17:45	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.0010	
Iron	1.1	0.10	mg/L	SW846 6010B	10/09-10/10/03	F12K61AM
		Dilution Factor: 1		Analysis Time..: 17:45	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW003_WG100703_01

DISSOLVED Metals

Lot-Sample #...: E3J070354-005 **Matrix.....:** WG
Date Sampled...: 10/07/03 15:05 **Date Received..:** 10/07/03 18:40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3281583						
Manganese	**0.015**	**0.015**	**mg/L**	**SW846 6010B**	**10/08-10/09/03**	**F12K61AJ**
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282308	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	10/08-10/09/03	F12K61AL
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282308	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW003_WG100703_01

General Chemistry

Lot-Sample #...: E3J070354-005 **Work Order #...:** F12K6 **Matrix.....:** WG
Date Sampled...: 10/07/03 15:05 **Date Received..:** 10/07/03 18:40

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.51**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3281266**
		Dilution Factor: 1		Analysis Time..: 10:37	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3281147	MDL.....: 0.10	
Chloride	**191**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3282244**
		Dilution Factor: 10		Analysis Time..: 12:35	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3282126	MDL.....: 3.0	
Nitrate as N	**1.6**	**0.10**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3282246**
		Dilution Factor: 1		Analysis Time..: 10:37	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 3282128	MDL.....: 0.030	
Nitrite as N	ND G	1.0	mg/L	MCAWW 300.0A	10/08/03	3282245
		Dilution Factor: 10		Analysis Time..: 12:35	Analyst ID.....: 0000228	
		Instrument ID..: W01		MS Run #.....: 3282127	MDL.....: 0.30	
Sulfate	**49.8**	**1.0**	**mg/L**	**MCAWW 300.0A**	**10/08/03**	**3282247**
		Dilution Factor: 1		Analysis Time..: 10:37	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3282129	MDL.....: 0.20	
Total Organic Carbon (TOC)	**2.0**	**1.0**	**mg/L**	**SW846 9060**	**10/10/03**	**3283591**
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 9999959	
		Instrument ID..: W08		MS Run #.....: 3286144	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

SEVERN TRENT STL

QA/QC

QC DATA ASSOCIATION SUMMARY

E3J070354

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WG	MCAWW 300.0A		3282244	3282126
	WG	MCAWW 300.0A		3282247	3282129
	WG	MCAWW 300.0A		3282246	3282128
	WG	SW846 9060		3283591	3286144
	WG	MCAWW 300.0A		3281266	3281147
	WG	MCAWW 300.0A		3282245	3282127
	WG	SW846 8260B		3281744	3281429
	WG	SW846 6010B		3281583	3282308
	WG	SW846 6010B		3282238	3282112
002	WG	MCAWW 300.0A		3282244	3282126
	WG	MCAWW 300.0A		3282247	3282129
	WG	MCAWW 300.0A		3282246	3282128
	WG	SW846 9060		3283591	3286144
	WG	MCAWW 300.0A		3281266	3281147
	WG	MCAWW 300.0A		3282245	3282127
	WG	SW846 8260B		3282580	3282311
	WG	SW846 6010B		3281583	3282308
	WG	SW846 6010B		3282238	3282112
003	WG	MCAWW 300.0A		3282244	3282126
	WG	MCAWW 300.0A		3282247	3282129
	WG	MCAWW 300.0A		3282246	3282128
	WG	SW846 9060		3283591	3286144
	WG	MCAWW 300.0A		3281266	3281147
	WG	MCAWW 300.0A		3282245	3282127
	WG	SW846 8260B		3281744	3281429
	WG	SW846 6010B		3281583	3282308
	WG	SW846 6010B		3282238	3282112
004	WG	SW846 8260B		3281744	3281429
005	WG	MCAWW 300.0A		3282244	3282126
	WG	MCAWW 300.0A		3282247	3282129
	WG	MCAWW 300.0A		3282246	3282128
	WG	SW846 9060		3283591	3286144
	WG	MCAWW 300.0A		3281266	3281147
	WG	MCAWW 300.0A		3282245	3282127
	WG	SW846 8260B		3282580	3282311
	WG	SW846 6010B		3281583	3282308
	WG	SW846 6010B		3282238	3282112

BOE-C6-0104042

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J070354
MB Lot-Sample #: E3J080000-744

Work Order #...: F15LQ1AA
Prep Date.....: 10/08/03
Prep Batch #...: 3281744
Analyst ID.....: 015590

Matrix.....: WATER
Analysis Time..: 11:39
Instrument ID..: MSJ

Analysis Date..: 10/08/03
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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BOE-C6-0104043

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J070354 **Work Order #...:** F15LQ1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(75 - 130)
1,2-Dichloroethane-d4	104	(65 - 135)
Toluene-d8	103	(80 - 130)

NOTE(S):

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

BOE-C6-0104044

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J070354
MB Lot-Sample #: E3J090000-580

Analysis Date..: 10/09/03
Dilution Factor: 1

Work Order #...: F18QW1AA

Prep Date.....: 10/09/03
Prep Batch #...: 3282580

Analyst ID.....: 015590

Matrix.....: WATER

Analysis Time..: 10:11
Instrument ID..: MSJ

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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BOE-C6-0104045

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J070354 **Work Order #...:** F18QW1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(75 - 130)
1,2-Dichloroethane-d4	105	(65 - 135)
Toluene-d8	102	(80 - 130)

NOTE(S):

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

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: E3J070354 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: E3J090000-238 **Prep Batch #...:** 3282238						
Manganese	ND	0.015	mg/L	SW846 6010B	10/09-10/10/03	F153N1AA
		Dilution Factor: 1				
		Analysis Time..: 12:17		Analyst ID.....: 021088	Instrument ID..: M01	
Iron	ND	0.10	mg/L	SW846 6010B	10/09-10/10/03	F153N1AC
		Dilution Factor: 1				
		Analysis Time..: 12:17		Analyst ID.....: 021088	Instrument ID..: M01	

NOTE(S):

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

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: E3J070354 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: E3J080000-583 **Prep Batch #...:** 3281583						
Manganese	ND	0.015	mg/L	SW846 6010B	10/08-10/09/03	F14TD1CF
		Dilution Factor: 1				
		Analysis Time..: 15:36		Analyst ID.....: 021088	Instrument ID..: M01	
Iron	ND	0.10	mg/L	SW846 6010B	10/08-10/09/03	F14TD1CG
		Dilution Factor: 1				
		Analysis Time..: 15:36		Analyst ID.....: 021088	Instrument ID..: M01	

NOTE(S):

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

METHOD BLANK REPORT

General Chemistry

Client Lot #...: E3J070354 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #: F13EK1AA		MB Lot-Sample #:	E3J080000-266	
	ND	0.50	mg/L	MCAWW 300.0A	10/08/03	3281266
		Dilution Factor: 1				
		Analysis Time..: 09:21		Analyst ID.....: 000022	Instrument ID..: W01	
Chloride		Work Order #: F15501AA		MB Lot-Sample #:	E3J090000-244	
	ND	1.0	mg/L	MCAWW 300.0A	10/08/03	3282244
		Dilution Factor: 1				
		Analysis Time..: 09:21		Analyst ID.....: 000022	Instrument ID..: W01	
Nitrate as N		Work Order #: F15541AA		MB Lot-Sample #:	E3J090000-246	
	ND	0.10	mg/L	MCAWW 300.0A	10/08/03	3282246
		Dilution Factor: 1				
		Analysis Time..: 09:21		Analyst ID.....: 000022	Instrument ID..: W01	
Nitrite as N		Work Order #: F15521AA		MB Lot-Sample #:	E3J090000-245	
	ND	0.10	mg/L	MCAWW 300.0A	10/08/03	3282245
		Dilution Factor: 1				
		Analysis Time..: 09:21		Analyst ID.....: 000022	Instrument ID..: W01	
Sulfate		Work Order #: F15551AA		MB Lot-Sample #:	E3J090000-247	
	ND	1.0	mg/L	MCAWW 300.0A	10/08/03	3282247
		Dilution Factor: 1				
		Analysis Time..: 09:21		Analyst ID.....: 000022	Instrument ID..: W01	
Total Organic Carbon (TOC)		Work Order #: F2EWW1AA		MB Lot-Sample #:	E3J100000-591	
	ND	1.0	mg/L	SW846 9060	10/10/03	3283591
		Dilution Factor: 1				
		Analysis Time..: 18:50		Analyst ID.....: 999995	Instrument ID..: W08	

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3J070354 **Work Order #...:** F15LQ1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J080000-744
Prep Date.....: 10/08/03 **Analysis Date..:** 10/08/03
Prep Batch #...: 3281744 **Analysis Time..:** 10:39
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**112**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**108**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**125**	**(65 - 135)**	**SW846 8260B**
Toluene	**109**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**108**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	104	(75 - 130)
1,2-Dichloroethane-d4	104	(65 - 135)
Toluene-d8	108	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

BOE-C6-0104050

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3J070354 **Work Order #...:** F15LQ1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J080000-744
Prep Date.....: 10/08/03 **Analysis Date..:** 10/08/03
Prep Batch #...: 3281744 **Analysis Time..:** 10:39
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**11.2**	**ug/L**	**112**	**SW846 8260B**
Chlorobenzene	**10.0**	**10.8**	**ug/L**	**108**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**12.5**	**ug/L**	**125**	**SW846 8260B**
Toluene	**10.0**	**10.9**	**ug/L**	**109**	**SW846 8260B**
Trichloroethene	**10.0**	**10.8**	**ug/L**	**108**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	104	(75 - 130)
1,2-Dichloroethane-d4	104	(65 - 135)
Toluene-d8	108	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3J070354 **Work Order #...:** F18QW1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J090000-580
Prep Date.....: 10/09/03 **Analysis Date..:** 10/09/03
Prep Batch #...: 3282580 **Analysis Time..:** 09:11
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**107**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**102**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**121**	**(65 - 135)**	**SW846 8260B**
Toluene	**105**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**102**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	105	(75 - 130)
1,2-Dichloroethane-d4	104	(65 - 135)
Toluene-d8	105	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3J070354 **Work Order #...:** F18QW1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J090000-580
Prep Date.....: 10/09/03 **Analysis Date..:** 10/09/03
Prep Batch #...: 3282580 **Analysis Time..:** 09:11
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**10.7**	**ug/L**	**107**	**SW846 8260B**
Chlorobenzene	**10.0**	**10.2**	**ug/L**	**102**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**12.1**	**ug/L**	**121**	**SW846 8260B**
Toluene	**10.0**	**10.5**	**ug/L**	**105**	**SW846 8260B**
Trichloroethene	**10.0**	**10.2**	**ug/L**	**102**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	105	(75 - 130)
1,2-Dichloroethane-d4	104	(65 - 135)
Toluene-d8	105	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E3J070354 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J090000-238 **Prep Batch #...:** 3282238					
Manganese	96	(85 - 120)	SW846 6010B	10/09-10/10/03	F153N1AD
		Dilution Factor: 1	Analysis Time..: 12:22	Analyst ID.....: 021088	
		Instrument ID..: M01			
Iron	95	(85 - 120)	SW846 6010B	10/09-10/10/03	F153N1AE
		Dilution Factor: 1	Analysis Time..: 12:22	Analyst ID.....: 021088	
		Instrument ID..: M01			

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E3J070354 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J090000-238 **Prep Batch #...:** 3282238							
Manganese	0.500	0.482	mg/L	96	SW846 6010B	10/09-10/10/03	F153N1AD
			Dilution Factor: 1		Analysis Time..: 12:22	Analyst ID.....: 021088	
			Instrument ID..: M01				
Iron	1.00	0.946	mg/L	95	SW846 6010B	10/09-10/10/03	F153N1AE
			Dilution Factor: 1		Analysis Time..: 12:22	Analyst ID.....: 021083	
			Instrument ID..: M01				

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: E3J070354 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J080000-583 **Prep Batch #...:** 3281583					
Manganese	99	(85 - 120)	SW846 6010B	10/08-10/09/03	F14TD1CH
		Dilution Factor: 1	Analysis Time..: 15:41	Analyst ID.....: 021088	
		Instrument ID..: M01			
Iron	101	(85 - 120)	SW846 6010B	10/08-10/09/03	F14TD1CJ
		Dilution Factor: 1	Analysis Time..: 15:41	Analyst ID.....: 021088	
		Instrument ID..: M01			

NOTE(S):

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

BOE-C6-0104056

LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: E3J070354 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J080000-583 **Prep Batch #...:** 3281583							
Manganese	0.500	0.495	mg/L	99	SW846 6010B	10/08-10/09/03	F14TD1CH
			Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 021088	
			Instrument ID..: M01				
Iron	1.00	1.01	mg/L	101	SW846 6010B	10/08-10/09/03	F14TD1CJ
			Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 021088	
			Instrument ID..: M01				

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: E3J070354 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #: F13EK1AC	LCS Lot-Sample#: E3J080000-266		
	103	(90 - 110)	MCAWW 300.0A	10/08/03	3281266
		Dilution Factor: 1	Analysis Time..: 09:02	Analyst ID.....: 000022	
		Instrument ID..: W01			
Chloride		Work Order #: F15501AC	LCS Lot-Sample#: E3J090000-244		
	104	(90 - 110)	MCAWW 300.0A	10/08/03	3282244
		Dilution Factor: 1	Analysis Time..: 09:02	Analyst ID.....: 000022	
		Instrument ID..: W01			
Nitrate as N		Work Order #: F15541AC	LCS Lot-Sample#: E3J090000-246		
	101	(90 - 110)	MCAWW 300.0A	10/08/03	3282246
		Dilution Factor: 1	Analysis Time..: 09:02	Analyst ID.....: 000022	
		Instrument ID..: W01			
Nitrite as N		Work Order #: F15521AC	LCS Lot-Sample#: E3J090000-245		
	103	(90 - 110)	MCAWW 300.0A	10/08/03	3282245
		Dilution Factor: 1	Analysis Time..: 09:02	Analyst ID.....: 000022	
		Instrument ID..: W01			
Sulfate		Work Order #: F15551AC	LCS Lot-Sample#: E3J090000-247		
	103	(90 - 110)	MCAWW 300.0A	10/08/03	3282247
		Dilution Factor: 1	Analysis Time..: 09:02	Analyst ID.....: 000022	
		Instrument ID..: W01			
Total Organic Carbon (TOC)		Work Order #: F2EWW1AC	LCS Lot-Sample#: E3J100000-591		
	104	(85 - 115)	SW846 9060	10/10/03	3283591
		Dilution Factor: 1	Analysis Time..: 18:50	Analyst ID.....: 999995	
		Instrument ID..: W08			

NOTE(S):

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

BOE-C6-0104058

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E3J070354 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			Work Order #: F13EK1AC		LCS Lot-Sample#:	E3J080000-266	
	5.00	5.13	mg/L	103	MCAWW 300.0A	10/08/03	3281266
			Dilution Factor: 1		Analysis Time..: 09:02	Analyst ID.....: 000022	
			Instrument ID..: W01				
Chloride			Work Order #: F15501AC		LCS Lot-Sample#:	E3J090000-244	
	25.0	26.0	mg/L	104	MCAWW 300.0A	10/08/03	3282244
			Dilution Factor: 1		Analysis Time..: 09:02	Analyst ID.....: 000022	
			Instrument ID..: W01				
Nitrate as N			Work Order #: F15541AC		LCS Lot-Sample#:	E3J090000-246	
	5.00	5.03	mg/L	101	MCAWW 300.0A	10/08/03	3282246
			Dilution Factor: 1		Analysis Time..: 09:02	Analyst ID.....: 000022	
			Instrument ID..: W01				
Nitrite as N			Work Order #: F15521AC		LCS Lot-Sample#:	E3J090000-245	
	5.00	5.14	mg/L	103	MCAWW 300.0A	10/08/03	3282245
			Dilution Factor: 1		Analysis Time..: 09:02	Analyst ID.....: 000022	
			Instrument ID..: W01				
Sulfate			Work Order #: F15551AC		LCS Lot-Sample#:	E3J090000-247	
	25.0	25.7	mg/L	103	MCAWW 300.0A	10/08/03	3282247
			Dilution Factor: 1		Analysis Time..: 09:02	Analyst ID.....: 000022	
			Instrument ID..: W01				
Total Organic Carbon (TOC)			Work Order #: F2EWW1AC		LCS Lot-Sample#:	E3J100000-591	
	25.0	26.0	mg/L	104	SW846 9060	10/10/03	3283591
			Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 999995	
			Instrument ID..: W08				

NOTE(S):

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

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	E3J070354	**Work Order #...:**	F12H11AC-MS F12H11AD-MSD	**Matrix.....:**	WATER
MS Lot-Sample #:	E3J070350-005				
Date Sampled...:	10/07/03 13:45	**Date Received..:**	10/07/03 17:45	**MS Run #.....:**	3281429
Prep Date.....:	10/08/03	**Analysis Date..:**	10/08/03		
Prep Batch #...:	3281744	**Analysis Time..:**	19:39		
Dilution Factor:	1	**Analyst ID.....:**	015590	**Instrument ID..:**	MSJ

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**99**	**(75 - 125)**			**SW846 8260B**
	95	**(75 - 125)**	**3.9**	**(0-25)**	**SW846 8260B**
Chlorobenzene	**99**	**(75 - 125)**			**SW846 8260B**
	94	**(75 - 125)**	**4.6**	**(0-25)**	**SW846 8260B**
1,1-Dichloroethene	**110**	**(65 - 135)**			**SW846 8260B**
	105	**(65 - 135)**	**4.1**	**(0-25)**	**SW846 8260B**
Toluene	**98**	**(75 - 125)**			**SW846 8260B**
	95	**(75 - 125)**	**2.0**	**(0-25)**	**SW846 8260B**
Trichloroethene	**97**	**(75 - 135)**			**SW846 8260B**
	90	**(75 - 135)**	**6.8**	**(0-25)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	102	(75 - 130)
	100	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
	99	(65 - 135)
Toluene-d8	103	(80 - 130)
	102	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...:	E3J070354	**Work Order #...:**	F12H11AC-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	E3J070350-005		F12H11AD-MSD		
Date Sampled...:	10/07/03 13:45	**Date Received..:**	10/07/03 17:45	**MS Run #.....:**	3281429
Prep Date.....:	10/08/03	**Analysis Date..:**	10/08/03		
Prep Batch #...:	3281744	**Analysis Time..:**	19:39		
Dilution Factor:	1	**Analyst ID.....:**	015590	**Instrument ID..:**	MSJ

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**10.0**	**9.92**	**ug/L**	**99**		**SW846 8260B**
	ND	**10.0**	**9.54**	**ug/L**	**95**	**3.9**	**SW846 8260B**
Chlorobenzene	**ND**	**10.0**	**9.86**	**ug/L**	**99**		**SW846 8260B**
	ND	**10.0**	**9.42**	**ug/L**	**94**	**4.6**	**SW846 8260B**
1,1-Dichloroethene	**0.63**	**10.0**	**11.6**	**ug/L**	**110**		**SW846 8260B**
	0.63	**10.0**	**11.1**	**ug/L**	**105**	**4.1**	**SW846 8260B**
Toluene	**1.2**	**10.0**	**10.9**	**ug/L**	**98**		**SW846 8260B**
	1.2	**10.0**	**10.7**	**ug/L**	**95**	**2.0**	**SW846 8260B**
Trichloroethene	**0.32**	**10.0**	**10.0**	**ug/L**	**97**		**SW846 8260B**
	0.32	**10.0**	**9.35**	**ug/L**	**90**	**6.8**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	102	(75 - 130)
	100	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
	99	(65 - 135)
Toluene-d8	103	(80 - 130)
	102	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

BOE-C6-0104061

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	E3J070354	**Work Order #...:**	F12G41AC-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	E3J070347-004		F12G41AD-MSD		
Date Sampled...:	10/07/03 15:55	**Date Received..:**	10/07/03 17:45	**MS Run #.....:**	3282311
Prep Date.....:	10/09/03	**Analysis Date..:**	10/09/03		
Prep Batch #...:	3282580	**Analysis Time..:**	18:34		
Dilution Factor:	1	**Analyst ID.....:**	015590	**Instrument ID..:**	MSJ

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**104**	**(75 - 125)**			**SW846 8260B**
	102	**(75 - 125)**	**1.6**	**(0-25)**	**SW846 8260B**
Chlorobenzene	**98**	**(75 - 125)**			**SW846 8260B**
	99	**(75 - 125)**	**0.91**	**(0-25)**	**SW846 8260B**
1,1-Dichloroethene	**116**	**(65 - 135)**			**SW846 8260B**
	114	**(65 - 135)**	**0.95**	**(0-25)**	**SW846 8260B**
Toluene	**106**	**(75 - 125)**			**SW846 8260B**
	105	**(75 - 125)**	**0.37**	**(0-25)**	**SW846 8260B**
Trichloroethene	**96**	**(75 - 135)**			**SW846 8260B**
	97	**(75 - 135)**	**1.0**	**(0-25)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	106	(75 - 130)
	108	(75 - 130)
1,2-Dichloroethane-d4	102	(65 - 135)
	99	(65 - 135)
Toluene-d8	109	(80 - 130)
	107	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

BOE-C6-0104062

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...:	E3J070354	**Work Order #...:**	F12G41AC-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	E3J070347-004		F12G41AD-MSD		
Date Sampled...:	10/07/03 15:55	**Date Received..:**	10/07/03 17:45	**MS Run #.....:**	3282311
Prep Date.....:	10/09/03	**Analysis Date..:**	10/09/03		
Prep Batch #...:	3282580	**Analysis Time..:**	18:34		
Dilution Factor:	1	**Analyst ID.....:**	015590	**Instrument ID..:**	MSJ

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**10.0**	**10.4**	**ug/L**	**104**		**SW846 8260B**
	ND	**10.0**	**10.2**	**ug/L**	**102**	**1.6**	**SW846 8260B**
Chlorobenzene	**ND**	**10.0**	**9.81**	**ug/L**	**98**		**SW846 8260B**
	ND	**10.0**	**9.90**	**ug/L**	**99**	**0.91**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**10.0**	**11.6**	**ug/L**	**116**		**SW846 8260B**
	ND	**10.0**	**11.4**	**ug/L**	**114**	**0.95**	**SW846 8260B**
Toluene	**ND**	**10.0**	**10.6**	**ug/L**	**106**		**SW846 8260B**
	ND	**10.0**	**10.5**	**ug/L**	**105**	**0.37**	**SW846 8260B**
Trichloroethene	**ND**	**10.0**	**9.56**	**ug/L**	**96**		**SW846 8260B**
	ND	**10.0**	**9.66**	**ug/L**	**97**	**1.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	106	(75 - 130)
	108	(75 - 130)
1,2-Dichloroethane-d4	102	(65 - 135)
	99	(65 - 135)
Toluene-d8	109	(80 - 130)
	107	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

BOE-C6-0104063

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E3J070354 **Matrix.....:** WG
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J070354-001 **Prep Batch #...:** 3282238							
Manganese	97	(85 - 120)			SW846 6010B	10/09-10/10/03	F12K21DK
	101	(85 - 120)	2.3	(0-20)	SW846 6010B	10/09-10/10/03	F12K21DL
		Dilution Factor: 1					
		Analysis Time..: 12:52			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3282112					
Iron	NC	(85 - 120)			SW846 6010B	10/09-10/10/03	F12K21DM
	NC	(85 - 120)		(0-20)	SW846 6010B	10/09-10/10/03	F12K21DN
		Dilution Factor: 1					
		Analysis Time..: 12:52			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3282112					

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

BOE-C6-0104064

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E3J070354 **Matrix.....:** WG
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J070354-001 **Prep Batch #...:** 3282238									
Manganese									
	0.30	0.500	0.783	mg/L	97		SW846 6010B	10/09-10/10/03	F12K21DK
	0.30	0.500	0.801	mg/L	101	2.3	SW846 6010B	10/09-10/10/03	F12K21DL
			Dilution Factor: 1						
			Analysis Time..: 12:52		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3282112						
Iron									
	4.8	1.00	5.97 NC	mg/L			SW846 6010B	10/09-10/10/03	F12K21DM
	4.8	1.00	6.26 NC	mg/L			SW846 6010B	10/09-10/10/03	F12K21DN
			Dilution Factor: 1						
			Analysis Time..: 12:52		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3282112						

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

MATRIX SPIKE SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: E3J070354 **Matrix.....:** WG
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J070354-001 **Prep Batch #...:** 3281583							
Manganese	102	(85 - 120)			SW846 6010B	10/08-10/09/03	F12K21D0
	97	(85 - 120)	4.4	(0-20)	SW846 6010B	10/08-10/09/03	F12K21D1
		Dilution Factor: 1					
		Analysis Time..: 16:04			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3282308					
Iron	103	(85 - 120)			SW846 6010B	10/08-10/09/03	F12K21D2
	100	(85 - 120)	3.7	(0-20)	SW846 6010B	10/08-10/09/03	F12K21D3
		Dilution Factor: 1					
		Analysis Time..: 16:04			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3282308					

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: E3J070354 **Matrix.....:** WG
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J070354-001 **Prep Batch #...:** 3281583									
Manganese									
	0.013	0.500	0.523	mg/L	102		SW846 6010B	10/08-10/09/03	F12K21D0
	0.013	0.500	0.501	mg/L	97	4.4	SW846 6010B	10/08-10/09/03	F12K21D1
			Dilution Factor: 1						
			Analysis Time..: 16:04		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3282308						
Iron									
	ND	1.00	1.03	mg/L	103		SW846 6010B	10/08-10/09/03	F12K21D2
	ND	1.00	0.996	mg/L	100	3.7	SW846 6010B	10/08-10/09/03	F12K21D3
			Dilution Factor: 1						
			Analysis Time..: 16:04		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3282308						

NOTE(S):

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

BOE-C6-0104067

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: E3J070354 **Matrix.....:** WG
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		WO#: F12K21A2-MS/F12K21A3-MSD				MS Lot-Sample #: E3J070354-001	
	101	(80 - 120)			MCAWW 300.0A	10/08/03	3281266
	101	(80 - 120)	0.0	(0-20)	MCAWW 300.0A	10/08/03	3281266
		Dilution Factor: 1					
		Analysis Time..: 12:53			Instrument ID..: W01	Analyst ID.....: 000022	
		MS Run #.....: 3281147					
Chloride		WO#: F12K21DP-MS/F12K21DQ-MSD				MS Lot-Sample #: E3J070354-001	
	95	(80 - 120)			MCAWW 300.0A	10/08/03	3282244
	99	(80 - 120)	0.99	(0-20)	MCAWW 300.0A	10/08/03	3282244
		Dilution Factor: 10					
		Analysis Time..: 12:53			Instrument ID..: W01	Analyst ID.....: 000022	
		MS Run #.....: 3282126					
Nitrate as N		WO#: F12K21DU-MS/F12K21DV-MSD				MS Lot-Sample #: E3J070354-001	
	97	(80 - 120)			MCAWW 300.0A	10/08/03	3282246
	98	(80 - 120)	0.45	(0-20)	MCAWW 300.0A	10/08/03	3282246
		Dilution Factor: 10					
		Analysis Time..: 12:53			Instrument ID..: W01	Analyst ID.....: 000022	
		MS Run #.....: 3282128					
Nitrite as N		WO#: F12K21DR-MS/F12K21DT-MSD				MS Lot-Sample #: E3J070354-001	
	98	(80 - 120)			MCAWW 300.0A	10/08/03	3282245
	98	(80 - 120)	0.03	(0-20)	MCAWW 300.0A	10/08/03	3282245
		Dilution Factor: 10					
		Analysis Time..: 12:53			Instrument ID..: W01	Analyst ID.....: 000022	
		MS Run #.....: 3282127					
Sulfate		WO#: F12K21DW-MS/F12K21DX-MSD				MS Lot-Sample #: E3J070354-001	
	98	(80 - 120)			MCAWW 300.0A	10/08/03	3282247
	98	(80 - 120)	0.33	(0-20)	MCAWW 300.0A	10/08/03	3282247
		Dilution Factor: 10					
		Analysis Time..: 12:53			Instrument ID..: W01	Analyst ID.....: 000022	
		MS Run #.....: 3282129					
Total Organic Carbon (TOC)		WO#: F12K21FA-MS/F12K21FC-MSD				MS Lot-Sample #: E3J070354-001	
	102	(85 - 115)			SW846 9060	10/10/03	3283591
	100	(85 - 115)	1.6	(0-20)	SW846 9060	10/10/03	3283591
		Dilution Factor: 1					
		Analysis Time..: 18:50			Instrument ID..: W08	Analyst ID.....: 999995	
		MS Run #.....: 3286144					

NOTE(S):

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

BOE-C6-0104068

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E3J070354 **Matrix.....:** WG
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			WO#: F12K21A2-MS/F12K21A3-MSD MS Lot-Sample #: E3J070354-001						
	0.89	25.0	26.1	mg/L	101		MCAWW 300.0A	10/08/03	3281266
	0.89	25.0	26.1	mg/L	101	0.0	MCAWW 300.0A	10/08/03	3281266
			Dilution Factor: 1						
			Analysis Time..: 12:53		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3281147						
Chloride			WO#: F12K21DP-MS/F12K21DQ-MSD MS Lot-Sample #: E3J070354-001						
	338	125	456	mg/L	95		MCAWW 300.0A	10/08/03	3282244
	338	125	461	mg/L	99	0.99	MCAWW 300.0A	10/08/03	3282244
			Dilution Factor: 10						
			Analysis Time..: 12:53		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3282126						
Nitrate as N			WO#: F12K21DU-MS/F12K21DV-MSD MS Lot-Sample #: E3J070354-001						
	8.1	25.0	32.4	mg/L	97		MCAWW 300.0A	10/08/03	3282246
	8.1	25.0	32.6	mg/L	98	0.45	MCAWW 300.0A	10/08/03	3282246
			Dilution Factor: 10						
			Analysis Time..: 12:53		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3282128						
Nitrite as N			WO#: F12K21DR-MS/F12K21DT-MSD MS Lot-Sample #: E3J070354-001						
	ND	25.0	24.5	mg/L	98		MCAWW 300.0A	10/08/03	3282245
	ND	25.0	24.5	mg/L	98	0.03	MCAWW 300.0A	10/08/03	3282245
			Dilution Factor: 10						
			Analysis Time..: 12:53		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3282127						
Sulfate			WO#: F12K21DW-MS/F12K21DX-MSD MS Lot-Sample #: E3J070354-001						
	41.2	125	164	mg/L	98		MCAWW 300.0A	10/08/03	3282247
	41.2	125	164	mg/L	98	0.33	MCAWW 300.0A	10/08/03	3282247
			Dilution Factor: 10						
			Analysis Time..: 12:53		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3282129						
Total Organic Carbon (TOC)			WO#: F12K21FA-MS/F12K21FC-MSD MS Lot-Sample #: E3J070354-001						
	3.1	25.0	28.6	mg/L	102		SW846 9060	10/10/03	3283591
	3.1	25.0	28.1	mg/L	100	1.6	SW846 9060	10/10/03	3283591
			Dilution Factor: 1						
			Analysis Time..: 18:50		Instrument ID..: W08			Analyst ID.....: 999995	
			MS Run #.....: 3286144						

NOTE(S):

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

BOE-C6-0104069

SEVERN TRENT STL

October 16, 2003

STL LOT NUMBER: E3J090392
NELAP Certification Number: 01118CA/E87652

Jim Nguyen
ARCADIS Geraghty & Miller, Inc
1400 N. Harbor Blvd.
Suite 700
Fullerton, CA 92835-4127

Dear Mr. Nguyen,

This report contains the analytical results for the eight samples received under chain of custody by STL Los Angeles on October 9, 2003. These samples are associated with your Boeing former C6 facility Torrance, California project.

All applicable quality control procedures met method-specified acceptance criteria except as noted on the following page. Historical control limits for the LCS are used to define the estimate of uncertainty for a method. See Project Receipt Checklist for container temperature and conditions. Temperature reading between 2 to 6 degrees Celsius is considered within acceptable criteria. Any matrix related anomaly is footnoted within the report.

STL Los Angeles certifies that the tests performed at our facility meet all NELAP requirements for parameters for which accreditation is required or available. The case narrative is an integral part of the report. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me extension 313.

Sincerely,

Diane Suzuki
Customer Service Manager

CC: Project File

Page 1 of 000055 total pages in this report.

LOT NUMBER E3J090392

Nonconformance 05-06172

Affected Samples:
E3J090392 (1): CMW001_WG100903_01
E3J090392 (3): IRZMW005_WG100903_01
E3J090392 (4): IRZB081_WG100903_01
E3J090392 (5): IRZMW01D_WG100903_01
E3J090392 (6): IRZMW01A_WG100903_01
E3J090392 (7): IRZMW003A_WG100903_01
E3J090392 (8): IRZMW003B_WG100903_01

Affected Methods:
6010B Dissolved metals

Case Narrative:
Samples were received by the lab unfiltered and unpreserved. Samples were filtered and preserved with Nitric Acid Lot #X4305 to a pH<2. Pre-preserved bottles with Nitric Acid were used as containers.

ACCREDITED IN ACCORDANCE WITH nelac

Chain of Custody Record

SEVERN TRENT SERVICES

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: Arcadis	Project Manager: Jim Nguyen	Date: 10/9/03	Chain of Custody Number: 141869
Address: 1400 N Harbor #700	Telephone Number (Area Code)/Fax Number: 714-278-0992	Lab Number: E3J090392	Page 1 of 1
City: Fullerton; State: CA; Zip Code: 92835	Site Contact: K. Thomas; Lab Contact: Diane Suzuki		
Project Name and Location (State): Boeing C-6 Torrance CA	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260	Br NO2 NO3 SO4 CL, SULFATE	TOTAL MN/FE	DISS MN	TOC	Special Instructions/ Conditions of Receipt
CMW001_wg100903_01	10/9/03	0755		X			2	1	1	3			X	X	X	X	X	Samples Not Field Filtered
~~TB-ARCADIS100903-01~~ ~~TB C5g280120~~	10/9/03	TB		X						3			X					
1RZMW005_wg100903_01	10/9/03	0940		X			2	1	1	3			X	X	X	X	X	
1RZB081-wg100903_01	10/9/03	1021		X			2	1	1	3			X	X	X	X	X	Samples very silty
1RZMW01B-wg100903_01	10/9/03	1133		X			2	1	1	3			X	X	X	X	X	
1RZMW01A_wg100903_01	10/9/03	1245		X			2	1	1	3			X	X	X	X	X	
1RZMW003A-WG100903_01	10/9/03	1345		X			2	1	1	3			X	X	X	X	X	Samples Silty
1RZMW003B-wg100903_01	10/9/03	1443		X			2	1	1	3			X	X	X	X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	10/9/03	1600	1. Received By: [signature]	10/9/03	1600
2. Relinquished By: [signature]	10/9/03	1715	2. Received By: [signature]	10/9/03	1715
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL LOS ANGELES
PROJECT RECEIPT CHECKLIST

Date: 10/09/03

Quantims Lot #: E3J090392 Quote #:
Client Name: Arcadis Project:
Received by: R.S. Date/Time Received: 10/09/03
Delivered by : ☐Client ☐Airborne ☐Fed Ex ☐DHL ☐In-House Courier ☐Rey B.
☐UPS ☐DES ☒Other Vincent

Initial / Date

Custody Seal Status: ☐Intact ☐Broken ☒None ..... AS 10/09/03
Custody Seal #(s): ☒No Seal # .....
Sample Container(s): ☒STL-LA ☐Client ☐N/A .....
Temperature(s) (Cooler/blank) in °C: 4.1°C Correction factor -0.2°C (Corrected Temp.) 3.9°C
Thermometer Used : ID: B ☒IR (Infra-red) ☐Digital (Probe) .....
Samples: ☒Intact ☐Broken ☐Other .....
Anomalies: ☒No ☐Yes (See Clouseau) .....
Labeled by .....
Labeling checked by .....

Turn Around Time: ☐RUSH-24HR ☐RUSH-48HR ☐RUSH-72HR ☒NORMAL .....
Short-Hold Notification: ☐Ph ☒Wet Chem ☐Metals (Filter/Pres) ☐Encore ☐N/A ...
Outside Analysis(es) (Test/Lab/Date Sent Out) :

N/A

********** LEAVE NO BLANK SPACES ; USE N/A **********

Fraction	1	2	3→8								PH
VOAh /*	3	3	3								N/A
1LPB	1		1								—
500PB	1		1								—
500PBn	1		1								<2
250AGBS	1		1								<2

h:HCl na:Sodium Hydroxide zmna:Zinc Acetate/Sodium Hydroxide s: H2SO4 n:HNO3 n/f:HNO3-Field filtered n/f/l:HNO3-Lab filtered
CGJ:Clear Glass Jar CGB:Clear Glass Bottle AGJ:Amber Glass Jar AGB:Amber Glass Bottle PB: Poly Bottle E:Encore Sampler V:VOA SL:Sleeve
* Number of VOA's w/ Headspace present

LOGGED BY/DATE: 10/09/03 REVIEWED BY/DATE: 10-10-03

Well/Sample No.	Sample Date	Sample Time	
ARCADIS100703_01	10/7/2003	--	Please rename trip blank TB100703 to Boeing convention of TB_ARCADIS100703_01
ARCADIS100803_01	10/8/2003	--	Please rename trip blank TB lot E39280120 to Boeing convention of TB_ARCADIS100803_01
ARCADIS100903_01	10/9/2003	--	
IW004_WG100703_01	10/7/2003	11:18	
0095_WG100703_01	10/7/2003	12:38	Note mis-lable on COC: Sample number is IRZB0095-WG100703-01 and not IRZBMW0095-WG100703-01
026_WG100703_01	10/7/2003	14:07	
MW003_WG100703_01	10/7/2003	15:05	
MW001_WG100803_01	10/8/2003	7:33	
MW002_WG100803_01	10/8/2003	9:20	
002_WG100803_01	10/8/2003	10:35	Note mis-lable on COC: Sample number is CMW002_WG100803_01 and not CMW2_WG100803_01
IW002A_WG100803_01	**10/8/2003**	**12:20**	
IW002B_WG100803_01	**10/8/2003**	**13:35**	
001_WG100903_01	10/9/2003	7:55	
IW005_WG100903_01	10/9/2003	9:40	
081_WG100903_01	10/9/2003	10:21	Note mis-lable on COC: Sample number is IRZB081-WG100903-01 and not IRZBMW081-WG100903-01
IW001B_WG100903_01	**10/9/2003**	**11:33**	Note mis-lable on COC: Sample number is IRZMW001B-WG100903-01 and not IRZMW01B-WG100903-01
IW001A_WG100903_01	**10/9/2003**	**12:45**	Note mis-lable on COC: Sample number is IRZMW001A-WG100903-01 and not IRZMW01A-WG100903-01
IW003A_WG100703_01	**10/9/2003**	**13:45**	
IW003B_WG100703_01	**10/9/2003**	**14:43**	

: All samples are to be analyzed
olatile organic carbons (VOCs),
ide, manganese (total),
ganese (dissolved), iron (total),
te, nitrate, nitrite, chloride, total
nic carbon (TOC).

: Please hold analysis for samples in bold font.

SEVERN TRENT STL

Analytical Report

EXECUTIVE SUMMARY - Detection Highlights

E3J090392

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CMW001_WG100903_01 10/09/03 07:55 001				
Manganese - DISSOLVED	0.12	0.015	mg/L	SW846 6010B
Manganese	0.16	0.015	mg/L	SW846 6010B
Iron	2.8	0.10	mg/L	SW846 6010B
Chlorobenzene	7300	120	ug/L	SW846 8260B
Chloroform	60 J	120	ug/L	SW846 8260B
Chloride	127	10.0	mg/L	MCAWW 300.0A
Sulfate	115	10.0	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	23.0	1.0	mg/L	SW846 9060
Bromide	0.32 B	0.50	mg/L	MCAWW 300.0A
IRZMW005_WG100903_01 10/09/03 09:40 003				
Manganese - DISSOLVED	0.022	0.015	mg/L	SW846 6010B
Manganese	0.10	0.015	mg/L	SW846 6010B
Iron	2.5	0.10	mg/L	SW846 6010B
Chloroform	56 J	170	ug/L	SW846 8260B
1,1-Dichloroethene	75 J	170	ug/L	SW846 8260B
Trichloroethene	6000	170	ug/L	SW846 8260B
Chloride	358	10.0	mg/L	MCAWW 300.0A
Sulfate	41.6	1.0	mg/L	MCAWW 300.0A
Nitrate as N	8.6	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	3.9	1.0	mg/L	SW846 9060
Bromide	0.97	0.50	mg/L	MCAWW 300.0A
IRZB081_WG100903_01 10/09/03 10:21 004				
Manganese - DISSOLVED	0.052	0.015	mg/L	SW846 6010B
Manganese	1.4	0.015	mg/L	SW846 6010B
Iron	25.0	0.10	mg/L	SW846 6010B
Chloroform	50 J	170	ug/L	SW846 8260B
1,1-Dichloroethene	63 J	170	ug/L	SW846 8260B
Trichloroethene	6500	170	ug/L	SW846 8260B
Chloride	348	10.0	mg/L	MCAWW 300.0A
Sulfate	43.8	1.0	mg/L	MCAWW 300.0A
Nitrate as N	8.5	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	5.8	1.0	mg/L	SW846 9060
Bromide	0.94	0.50	mg/L	MCAWW 300.0A

METHODS SUMMARY

E3J090392

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Bromide	MCAWW 300.0A	MCAWW 300.0A
Chloride	MCAWW 300.0A	MCAWW 300.0A
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3005A
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Total Organic Carbon	SW846 9060	SW846 9060
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

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

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

E3J090392

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
F18HK	001	CMW001_WG100903_01	10/09/03	07:55
F18HX	002	TB_ARCADIS100903_01	10/09/03	
F18H9	003	IRZMW005_WG100903_01	10/09/03	09:40
F18JJ	004	IRZB081_WG100903_01	10/09/03	10:21

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.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW001_WG100903_01

GC/MS Volatiles

Lot-Sample #...: E3J090392-001 **Work Order #...:** F18HK1AL **Matrix.....:** WG
Date Sampled...: 10/09/03 07:55 **Date Received..:** 10/09/03 17:15 **MS Run #.....:** 3287353
Prep Date.....: 10/13/03 **Analysis Date..:** 10/14/03
Prep Batch #...: 3287662 **Analysis Time..:** 00:04
Dilution Factor: 125
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1200	ug/L	380
Benzene	ND	120	ug/L	38
Bromobenzene	ND	120	ug/L	38
Bromochloromethane	ND	120	ug/L	38
Bromoform	ND	120	ug/L	38
Bromomethane	ND	250	ug/L	120
2-Butanone	ND	620	ug/L	380
n-Butylbenzene	ND	120	ug/L	38
sec-Butylbenzene	ND	120	ug/L	38
tert-Butylbenzene	ND	120	ug/L	25
Carbon disulfide	ND	120	ug/L	38
Carbon tetrachloride	ND	120	ug/L	38
Chlorobenzene	**7300**	**120**	**ug/L**	**38**
Dibromochloromethane	ND	120	ug/L	50
Bromodichloromethane	ND	120	ug/L	38
Chloroethane	ND	250	ug/L	38
Chloroform	**60 J**	**120**	**ug/L**	**38**
Chloromethane	ND	250	ug/L	38
2-Chlorotoluene	ND	120	ug/L	38
4-Chlorotoluene	ND	120	ug/L	38
1,2-Dibromo-3-chloro-propane	ND	250	ug/L	88
1,2-Dibromoethane (EDB)	ND	120	ug/L	38
Dibromomethane	ND	120	ug/L	50
1,2-Dichlorobenzene	ND	120	ug/L	38
1,3-Dichlorobenzene	ND	120	ug/L	38
1,4-Dichlorobenzene	ND	120	ug/L	38
Dichlorodifluoromethane	ND	250	ug/L	50
1,1-Dichloroethane	ND	120	ug/L	25
1,2-Dichloroethane	ND	120	ug/L	50
1,1-Dichloroethene	ND	120	ug/L	38
cis-1,2-Dichloroethene	ND	120	ug/L	38
trans-1,2-Dichloroethene	ND	120	ug/L	38
1,2-Dichloropropane	ND	120	ug/L	38
1,3-Dichloropropane	ND	120	ug/L	50
2,2-Dichloropropane	ND	120	ug/L	38
1,1-Dichloropropene	ND	120	ug/L	38

(Continued on next page)

BOE-C6-0104079

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW001_WG100903_01

GC/MS Volatiles

Lot-Sample #...: E3J090392-001 **Work Order #...:** F18HK1AL **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	120	ug/L	38
trans-1,3-Dichloropropene	ND	120	ug/L	62
Ethylbenzene	ND	120	ug/L	25
Hexachlorobutadiene	ND	120	ug/L	38
2-Hexanone	ND	620	ug/L	380
Isopropylbenzene	ND	120	ug/L	38
p-Isopropyltoluene	ND	120	ug/L	38
Methylene chloride	ND	120	ug/L	38
4-Methyl-2-pentanone	ND	620	ug/L	380
Methyl tert-butyl ether	ND	120	ug/L	62
Naphthalene	ND	120	ug/L	62
n-Propylbenzene	ND	120	ug/L	50
Styrene	ND	120	ug/L	38
1,1,1,2-Tetrachloroethane	ND	120	ug/L	38
1,1,2,2-Tetrachloroethane	ND	120	ug/L	50
Tetrachloroethene	ND	120	ug/L	38
Toluene	ND	120	ug/L	38
1,2,3-Trichlorobenzene	ND	120	ug/L	50
1,2,4-Trichloro-benzene	ND	120	ug/L	38
1,1,1-Trichloroethane	ND	120	ug/L	25
1,1,2-Trichloroethane	ND	120	ug/L	38
Trichloroethene	ND	120	ug/L	38
Trichlorofluoromethane	ND	250	ug/L	38
1,2,3-Trichloropropane	ND	120	ug/L	50
1,1,2-Trichlorotrifluoro-ethane	ND	120	ug/L	50
1,2,4-Trimethylbenzene	ND	120	ug/L	38
1,3,5-Trimethylbenzene	ND	120	ug/L	25
Vinyl chloride	ND	120	ug/L	38
m-Xylene & p-Xylene	ND	120	ug/L	62
o-Xylene	ND	120	ug/L	25
Xylenes (total)	ND	120	ug/L	100

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	97	(75 - 130)
1,2-Dichloroethane-d4	98	(65 - 135)
Toluene-d8	98	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW001_WG100903_01

TOTAL Metals

Lot-Sample #...: E3J090392-001 **Matrix.....:** WG
Date Sampled...: 10/09/03 07:55 **Date Received..:** 10/09/03 17:15

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3286269						
Manganese	**0.16**	**0.015**	**mg/L**	**SW846 6010B**	**10/13-10/14/03**	**F18HK1AJ**
		Dilution Factor: 1		Analysis Time..: 16:48	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286133	MDL.....: 0.0010	
Iron	**2.8**	**0.10**	**mg/L**	**SW846 6010B**	**10/13-10/14/03**	**F18HK1AK**
		Dilution Factor: 1		Analysis Time..: 16:48	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286133	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW001_WG100903_01

DISSOLVED Metals

Lot-Sample #...: E3J090392-001 **Matrix.....:** WG
Date Sampled...: 10/09/03 07:55 **Date Received..:** 10/09/03 17:15

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3283584						
Manganese	**0.12**	**0.015**	**mg/L**	**SW846 6010B**	**10/10-10/13/03**	**F18HK1AH**
		Dilution Factor: 1		Analysis Time..: 15:33	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3287186	MDL.....: 0.0010	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW001_WG100903_01

General Chemistry

Lot-Sample #...: E3J090392-001 Work Order #...: F18HK Matrix.....: WG
Date Sampled...: 10/09/03 07:55 Date Received..: 10/09/03 17:15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.32 B**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/10/03**	**3283299**
		Dilution Factor: 1		Analysis Time..: 09:54	Analyst ID.....: 000022	
		Instrument ID..: W01		MS Run #.....: 3283135	MDL.....: 0.10	
Chloride	**127**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/10/03**	**3283296**
		Dilution Factor: 10		Analysis Time..: 15:00	Analyst ID.....: 0000225	
		Instrument ID..: W01		MS Run #.....: 3283133	MDL.....: 3.0	
Nitrate as N	ND	0.10	mg/L	MCAWW 300.0A	10/10/03	3283300
		Dilution Factor: 1		Analysis Time..: 09:54	Analyst ID.....: 0000223	
		Instrument ID..: W01		MS Run #.....: 3283137	MDL.....: 0.030	
Nitrite as N	ND G	1.0	mg/L	MCAWW 300.0A	10/10/03	3283297
		Dilution Factor: 10		Analysis Time..: 15:00	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3283134	MDL.....: 0.30	
Sulfate	**115**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/10/03**	**3283302**
		Dilution Factor: 10		Analysis Time..: 15:00	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3283138	MDL.....: 2.0	
Total Organic Carbon (TOC)	**23.0**	**1.0**	**mg/L**	**SW846 9060**	**10/14/03**	**3287637**
		Dilution Factor: 1		Analysis Time..: 17:30	Analyst ID.....: 9999958	
		Instrument ID..: W08		MS Run #.....: 3288365	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: TB_ARCADIS100903_01

GC/MS Volatiles

Lot-Sample #...: E3J090392-002 **Work Order #...:** F18HX1AA **Matrix.....:** WG
Date Sampled...: 10/09/03 **Date Received..:** 10/09/03 17:15 **MS Run #.....:** 3287353
Prep Date.....: 10/13/03 **Analysis Date..:** 10/13/03
Prep Batch #...: 3287662 **Analysis Time..:** 20:53
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	10	ug/L	3.0
Benzene	ND	1.0	ug/L	0.30
Bromobenzene	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.30
Bromoform	ND	1.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
2-Butanone	ND	5.0	ug/L	3.0
n-Butylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
Carbon disulfide	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	1.0	ug/L	0.30
Chlorobenzene	ND	1.0	ug/L	0.30
Dibromochloromethane	ND	1.0	ug/L	0.40
Bromodichloromethane	ND	1.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Chloromethane	ND	2.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	0.30
Dibromomethane	ND	1.0	ug/L	0.40
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
Dichlorodifluoromethane	ND	2.0	ug/L	0.40
1,1-Dichloroethane	ND	1.0	ug/L	0.20
1,2-Dichloroethane	ND	1.0	ug/L	0.40
1,1-Dichloroethene	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,2-Dichloropropane	ND	1.0	ug/L	0.30
1,3-Dichloropropane	ND	1.0	ug/L	0.40
2,2-Dichloropropane	ND	1.0	ug/L	0.30
1,1-Dichloropropene	ND	1.0	ug/L	0.30

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: TB_ARCADIS100903_01

GC/MS Volatiles

Lot-Sample #...: E3J090392-002 **Work Order #...:** F18HX1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.30
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.50
Ethylbenzene	ND	1.0	ug/L	0.20
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Isopropylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Naphthalene	ND	1.0	ug/L	0.50
n-Propylbenzene	ND	1.0	ug/L	0.40
Styrene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
Toluene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
1,2,4-Trichlorobenzene	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	0.40
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	1.0	ug/L	0.30
m-Xylene & p-Xylene	ND	1.0	ug/L	0.50
o-Xylene	ND	1.0	ug/L	0.20
Xylenes (total)	ND	1.0	ug/L	0.80

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
1,2-Dichloroethane-d4	98	(65 - 135)
Toluene-d8	100	(80 - 130)

BOE-C6-0104085

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW005_WG100903_01

GC/MS Volatiles

Lot-Sample #...: E3J090392-003 **Work Order #...:** F18H91AL **Matrix.....:** WG
Date Sampled...: 10/09/03 09:40 **Date Received..:** 10/09/03 17:15 **MS Run #.....:** 3288282
Prep Date.....: 10/14/03 **Analysis Date..:** 10/14/03
Prep Batch #...: 3288522 **Analysis Time..:** 10:40
Dilution Factor: 166.7
Analyst ID.....: 000038 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1700	ug/L	500
Benzene	ND	170	ug/L	50
Bromobenzene	ND	170	ug/L	50
Bromochloromethane	ND	170	ug/L	50
Bromoform	ND	170	ug/L	50
Bromomethane	ND	330	ug/L	170
2-Butanone	ND	830	ug/L	500
n-Butylbenzene	ND	170	ug/L	50
sec-Butylbenzene	ND	170	ug/L	50
tert-Butylbenzene	ND	170	ug/L	33
Carbon disulfide	ND	170	ug/L	50
Carbon tetrachloride	ND	170	ug/L	50
Chlorobenzene	ND	170	ug/L	50
Dibromochloromethane	ND	170	ug/L	67
Bromodichloromethane	ND	170	ug/L	50
Chloroethane	ND	330	ug/L	50
Chloroform	**56 J**	**170**	**ug/L**	**50**
Chloromethane	ND	330	ug/L	50
2-Chlorotoluene	ND	170	ug/L	50
4-Chlorotoluene	ND	170	ug/L	50
1,2-Dibromo-3-chloro-propane	ND	330	ug/L	120
1,2-Dibromoethane (EDB)	ND	170	ug/L	50
Dibromomethane	ND	170	ug/L	67
1,2-Dichlorobenzene	ND	170	ug/L	50
1,3-Dichlorobenzene	ND	170	ug/L	50
1,4-Dichlorobenzene	ND	170	ug/L	50
Dichlorodifluoromethane	ND	330	ug/L	67
1,1-Dichloroethane	ND	170	ug/L	33
1,2-Dichloroethane	ND	170	ug/L	67
1,1-Dichloroethene	**75 J**	**170**	**ug/L**	**50**
cis-1,2-Dichloroethene	ND	170	ug/L	50
trans-1,2-Dichloroethene	ND	170	ug/L	50
1,2-Dichloropropane	ND	170	ug/L	50
1,3-Dichloropropane	ND	170	ug/L	67
2,2-Dichloropropane	ND	170	ug/L	50
1,1-Dichloropropene	ND	170	ug/L	50

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BOE-C6-0104086

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW005_WG100903_01

GC/MS Volatiles

Lot-Sample #...: E3J090392-003 **Work Order #...:** F18H91AL **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	170	ug/L	50
trans-1,3-Dichloropropene	ND	170	ug/L	83
Ethylbenzene	ND	170	ug/L	33
Hexachlorobutadiene	ND	170	ug/L	50
2-Hexanone	ND	830	ug/L	500
Isopropylbenzene	ND	170	ug/L	50
p-Isopropyltoluene	ND	170	ug/L	50
Methylene chloride	ND	170	ug/L	50
4-Methyl-2-pentanone	ND	830	ug/L	500
Methyl tert-butyl ether	ND	170	ug/L	83
Naphthalene	ND	170	ug/L	83
n-Propylbenzene	ND	170	ug/L	67
Styrene	ND	170	ug/L	50
1,1,1,2-Tetrachloroethane	ND	170	ug/L	50
1,1,2,2-Tetrachloroethane	ND	170	ug/L	67
Tetrachloroethene	ND	170	ug/L	50
Toluene	ND	170	ug/L	50
1,2,3-Trichlorobenzene	ND	170	ug/L	67
1,2,4-Trichloro-benzene	ND	170	ug/L	50
1,1,1-Trichloroethane	ND	170	ug/L	33
1,1,2-Trichloroethane	ND	170	ug/L	50
Trichloroethene	**6000**	**170**	**ug/L**	**50**
Trichlorofluoromethane	ND	330	ug/L	50
1,2,3-Trichloropropane	ND	170	ug/L	67
1,1,2-Trichlorotrifluoro-ethane	ND	170	ug/L	67
1,2,4-Trimethylbenzene	ND	170	ug/L	50
1,3,5-Trimethylbenzene	ND	170	ug/L	33
Vinyl chloride	ND	170	ug/L	50
m-Xylene & p-Xylene	ND	170	ug/L	83
o-Xylene	ND	170	ug/L	33
Xylenes (total)	ND	170	ug/L	130

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	88	(75 - 130)
1,2-Dichloroethane-d4	93	(65 - 135)
Toluene-d8	110	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

BOE-C6-0104087

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW005_WG100903_01

TOTAL Metals

Lot-Sample #...: E3J090392-003 Matrix.....: WG
Date Sampled...: 10/09/03 09:40 Date Received..: 10/09/03 17:15

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3286269						
Manganese	0.10	0.015	mg/L	SW846 6010B	10/13-10/14/03	F18H91AJ
		Dilution Factor: 1		Analysis Time..: 16:55	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286133	MDL.....: 0.0010	
Iron	2.5	0.10	mg/L	SW846 6010B	10/13-10/14/03	F18H91AK
		Dilution Factor: 1		Analysis Time..: 16:55	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286133	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW005_WG100903_01

DISSOLVED Metals

Lot-Sample #...: E3J090392-003 **Matrix.....:** WG
Date Sampled...: 10/09/03 09:40 **Date Received..:** 10/09/03 17:15

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3283584						
Manganese	**0.022**	**0.015**	**mg/L**	**SW846 6010B**	**10/10-10/13/03**	**F18H91AH**
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3287186	MDL.....: 0.0010	

BOE-C6-0104089

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW005_WG100903_01

General Chemistry

Lot-Sample #...: E3J090392-003 **Work Order #...:** F18H9 **Matrix.....:** WG
Date Sampled...: 10/09/03 09:40 **Date Received..:** 10/09/03 17:15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.97**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/10/03**	**3283299**
		Dilution Factor: 1		Analysis Time..: 10:12	Analyst ID.....: 0000225	
		Instrument ID..: W01		MS Run #.....: 3283135	MDL.....: 0.10	
Chloride	**358**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/10/03**	**3283296**
		Dilution Factor: 10		Analysis Time..: 15:18	Analyst ID.....: 0000225	
		Instrument ID..: W01		MS Run #.....: 3283133	MDL.....: 3.0	
Nitrate as N	**8.6**	**0.10**	**mg/L**	**MCAWW 300.0A**	**10/10/03**	**3283300**
		Dilution Factor: 1		Analysis Time..: 10:12	Analyst ID.....: 0000223	
		Instrument ID..: W01		MS Run #.....: 3283137	MDL.....: 0.030	
Nitrite as N	ND G	1.0	mg/L	MCAWW 300.0A	10/10/03	3283297
		Dilution Factor: 10		Analysis Time..: 15:18	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3283134	MDL.....: 0.30	
Sulfate	**41.6**	**1.0**	**mg/L**	**MCAWW 300.0A**	**10/10/03**	**3283302**
		Dilution Factor: 1		Analysis Time..: 10:12	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3283138	MDL.....: 0.20	
Total Organic Carbon (TOC)	**3.9**	**1.0**	**mg/L**	**SW846 9060**	**10/14/03**	**3287637**
		Dilution Factor: 1		Analysis Time..: 17:30	Analyst ID.....: 9999958	
		Instrument ID..: W08		MS Run #.....: 3288365	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB081_WG100903_01

GC/MS Volatiles

Lot-Sample #...: E3J090392-004 **Work Order #...:** F18JJ1AL **Matrix.....:** WG
Date Sampled...: 10/09/03 10:21 **Date Received..:** 10/09/03 17:15 **MS Run #.....:** 3288282
Prep Date.....: 10/14/03 **Analysis Date..:** 10/14/03
Prep Batch #...: 3288522 **Analysis Time..:** 11:04
Dilution Factor: 166.7
Analyst ID.....: 000038 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1700	ug/L	500
Benzene	ND	170	ug/L	50
Bromobenzene	ND	170	ug/L	50
Bromochloromethane	ND	170	ug/L	50
Bromoform	ND	170	ug/L	50
Bromomethane	ND	330	ug/L	170
2-Butanone	ND	830	ug/L	500
n-Butylbenzene	ND	170	ug/L	50
sec-Butylbenzene	ND	170	ug/L	50
tert-Butylbenzene	ND	170	ug/L	33
Carbon disulfide	ND	170	ug/L	50
Carbon tetrachloride	ND	170	ug/L	50
Chlorobenzene	ND	170	ug/L	50
Dibromochloromethane	ND	170	ug/L	67
Bromodichloromethane	ND	170	ug/L	50
Chloroethane	ND	330	ug/L	50
Chloroform	**50 J**	**170**	**ug/L**	**50**
Chloromethane	ND	330	ug/L	50
2-Chlorotoluene	ND	170	ug/L	50
4-Chlorotoluene	ND	170	ug/L	50
1,2-Dibromo-3-chloro-propane	ND	330	ug/L	120
1,2-Dibromoethane (EDB)	ND	170	ug/L	50
Dibromomethane	ND	170	ug/L	67
1,2-Dichlorobenzene	ND	170	ug/L	50
1,3-Dichlorobenzene	ND	170	ug/L	50
1,4-Dichlorobenzene	ND	170	ug/L	50
Dichlorodifluoromethane	ND	330	ug/L	67
1,1-Dichloroethane	ND	170	ug/L	33
1,2-Dichloroethane	ND	170	ug/L	67
1,1-Dichloroethene	**63 J**	**170**	**ug/L**	**50**
cis-1,2-Dichloroethene	ND	170	ug/L	50
trans-1,2-Dichloroethene	ND	170	ug/L	50
1,2-Dichloropropane	ND	170	ug/L	50
1,3-Dichloropropane	ND	170	ug/L	67
2,2-Dichloropropane	ND	170	ug/L	50
1,1-Dichloropropene	ND	170	ug/L	50

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB081_WG100903_01

GC/MS Volatiles

Lot-Sample #...: E3J090392-004 **Work Order #...:** F18JJ1AL **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	170	ug/L	50
trans-1,3-Dichloropropene	ND	170	ug/L	83
Ethylbenzene	ND	170	ug/L	33
Hexachlorobutadiene	ND	170	ug/L	50
2-Hexanone	ND	830	ug/L	500
Isopropylbenzene	ND	170	ug/L	50
p-Isopropyltoluene	ND	170	ug/L	50
Methylene chloride	ND	170	ug/L	50
4-Methyl-2-pentanone	ND	830	ug/L	500
Methyl tert-butyl ether	ND	170	ug/L	83
Naphthalene	ND	170	ug/L	83
n-Propylbenzene	ND	170	ug/L	67
Styrene	ND	170	ug/L	50
1,1,1,2-Tetrachloroethane	ND	170	ug/L	50
1,1,2,2-Tetrachloroethane	ND	170	ug/L	67
Tetrachloroethene	ND	170	ug/L	50
Toluene	ND	170	ug/L	50
1,2,3-Trichlorobenzene	ND	170	ug/L	67
1,2,4-Trichloro-benzene	ND	170	ug/L	50
1,1,1-Trichloroethane	ND	170	ug/L	33
1,1,2-Trichloroethane	ND	170	ug/L	50
Trichloroethene	**6500**	**170**	**ug/L**	**50**
Trichlorofluoromethane	ND	330	ug/L	50
1,2,3-Trichloropropane	ND	170	ug/L	67
1,1,2-Trichlorotrifluoro-ethane	ND	170	ug/L	67
1,2,4-Trimethylbenzene	ND	170	ug/L	50
1,3,5-Trimethylbenzene	ND	170	ug/L	33
Vinyl chloride	ND	170	ug/L	50
m-Xylene & p-Xylene	ND	170	ug/L	83
o-Xylene	ND	170	ug/L	33
Xylenes (total)	ND	170	ug/L	130

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	93	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
Toluene-d8	108	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB081_WG100903_01

TOTAL Metals

Lot-Sample #...: E3J090392-004 **Matrix.....:** WG
Date Sampled...: 10/09/03 10:21 **Date Received..:** 10/09/03 17:15

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3286269						
Manganese	**1.4**	**0.015**	**mg/L**	**SW846 6010B**	**10/13-10/14/03**	**F18JJ1AJ**
		Dilution Factor: 1		Analysis Time..: 17:02	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286133	MDL.....: 0.0010	
Iron	**25.0**	**0.10**	**mg/L**	**SW846 6010B**	**10/13-10/14/03**	**F18JJ1AK**
		Dilution Factor: 1		Analysis Time..: 17:02	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286133	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB081_WG100903_01

DISSOLVED Metals

Lot-Sample #...: E3J090392-004 **Matrix.....:** WG
Date Sampled...: 10/09/03 10:21 **Date Received..:** 10/09/03 17:15

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3283584						
Manganese	**0.052**	**0.015**	**mg/L**	**SW846 6010B**	**10/10-10/13/03**	**F18JJ1AH**
		Dilution Factor: 1		Analysis Time..: 15:48	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3287186	MDL.....: 0.0010	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB081_WG100903_01

General Chemistry

Lot-Sample #...: E3J090392-004 Work Order #...: F18JJ Matrix.....: WG
Date Sampled...: 10/09/03 10:21 Date Received..: 10/09/03 17:15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	0.94	0.50	mg/L	MCAWW 300.0A	10/10/03	3283299
		Dilution Factor: 1		Analysis Time..: 10:31	Analyst ID.....: 0000225	
		Instrument ID..: W01		MS Run #.....: 3283135	MDL.....: 0.10	
Chloride	348	10.0	mg/L	MCAWW 300.0A	10/10/03	3283296
		Dilution Factor: 10		Analysis Time..: 15:37	Analyst ID.....: 0000225	
		Instrument ID..: W01		MS Run #.....: 3283133	MDL.....: 3.0	
Nitrate as N	8.5	0.10	mg/L	MCAWW 300.0A	10/10/03	3283300
		Dilution Factor: 1		Analysis Time..: 10:31	Analyst ID.....: 0000223	
		Instrument ID..: W01		MS Run #.....: 3283137	MDL.....: 0.030	
Nitrite as N	ND G	1.0	mg/L	MCAWW 300.0A	10/10/03	3283297
		Dilution Factor: 10		Analysis Time..: 15:37	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3283134	MDL.....: 0.30	
Sulfate	43.8	1.0	mg/L	MCAWW 300.0A	10/10/03	3283302
		Dilution Factor: 1		Analysis Time..: 10:31	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3283138	MDL.....: 0.20	
Total Organic Carbon (TOC)	5.8	1.0	mg/L	SW846 9060	10/14/03	3287637
		Dilution Factor: 1		Analysis Time..: 17:30	Analyst ID.....: 9999958	
		Instrument ID..: W08		MS Run #.....: 3288365	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

SEVERN TRENT STL

QA/QC

QC DATA ASSOCIATION SUMMARY

E3J090392

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WG	MCAWW 300.0A		3283296	3283133
	WG	MCAWW 300.0A		3283302	3283138
	WG	MCAWW 300.0A		3283300	3283137
	WG	SW846 9060		3287637	3288365
	WG	MCAWW 300.0A		3283299	3283135
	WG	MCAWW 300.0A		3283297	3283134
	WG	SW846 8260B		3287662	3287353
	WG	SW846 6010B		3283584	3287186
	WG	SW846 6010B		3286269	3286133
002	WG	SW846 8260B		3287662	3287353
003	WG	MCAWW 300.0A		3283296	3283133
	WG	MCAWW 300.0A		3283302	3283138
	WG	MCAWW 300.0A		3283300	3283137
	WG	SW846 9060		3287637	3288365
	WG	MCAWW 300.0A		3283299	3283135
	WG	MCAWW 300.0A		3283297	3283134
	WG	SW846 8260B		3288522	3288282
	WG	SW846 6010B		3283584	3287186
	WG	SW846 6010B		3286269	3286133
004	WG	MCAWW 300.0A		3283296	3283133
	WG	MCAWW 300.0A		3283302	3283138
	WG	MCAWW 300.0A		3283300	3283137
	WG	SW846 9060		3287637	3288365
	WG	MCAWW 300.0A		3283299	3283135
	WG	MCAWW 300.0A		3283297	3283134
	WG	SW846 8260B		3288522	3288282
	WG	SW846 6010B		3283584	3287186
	WG	SW846 6010B		3286269	3286133

BOE-C6-0104097

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J090392 **Work Order #...:** F2JTA1AA **Matrix.....:** WATER
MB Lot-Sample #: E3J140000-662

Prep Date.....: 10/13/03 **Analysis Time..:** 17:42
Analysis Date..: 10/13/03 **Prep Batch #...:** 3287662 **Instrument ID..:** MSJ
Dilution Factor: 1

Analyst ID.....: 015590

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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BOE-C6-0104098

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J090392 **Work Order #...:** F2JTA1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(75 - 130)
1,2-Dichloroethane-d4	94	(65 - 135)
Toluene-d8	102	(80 - 130)

NOTE(S):

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

BOE-C6-0104099

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J090392
MB Lot-Sample #: E3J150000-522
Work Order #...: F2LPH1AA
Matrix.....: WATER

Prep Date.....: 10/14/03
Analysis Date..: 10/14/03
Prep Batch #...: 3288522
Analysis Time..: 10:16
Dilution Factor: 1
Instrument ID..: MSJ

Analyst ID.....: 000038

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J090392 **Work Order #...:** F2LPH1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	89	(75 - 130)
1,2-Dichloroethane-d4	89	(65 - 135)
Toluene-d8	100	(80 - 130)

NOTE(S):

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

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: E3J090392 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: E3J130000-269 **Prep Batch #...:** 3286269						
Manganese	ND	0.015	mg/L	SW846 6010B	10/13-10/14/03	F2EV21AV
		Dilution Factor: 1				
		Analysis Time..: 14:03		Analyst ID.....: 021088	Instrument ID..: M01	
Iron	ND	0.10	mg/L	SW846 6010B	10/13-10/14/03	F2EV21AU
		Dilution Factor: 1				
		Analysis Time..: 14:03		Analyst ID.....: 021088	Instrument ID..: M01	

NOTE(S):

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

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: E3J090392 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: E3J100000-584 **Prep Batch #...:** 3283584						
Manganese	ND	0.015	mg/L	SW846 6010B	10/10-10/13/03	F2CMW1CF

Dilution Factor: 1

Analysis Time..: 15:20 Analyst ID.....: 021088 Instrument ID..: M01

NOTE(S):

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

METHOD BLANK REPORT

General Chemistry

Client Lot #...: E3J090392 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #: F19PN1AA		MB Lot-Sample #:	E3J100000-299	
	ND	0.50	mg/L	MCAWW 300.0A	10/10/03	3283299
		Dilution Factor: 1				
		Analysis Time..: 09:17		Analyst ID.....: 000022	Instrument ID..: W01	
Chloride		Work Order #: F19PE1AA		MB Lot-Sample #:	E3J100000-296	
	ND	1.0	mg/L	MCAWW 300.0A	10/10/03	3283296
		Dilution Factor: 1				
		Analysis Time..: 09:17		Analyst ID.....: 000022	Instrument ID..: W01	
Nitrate as N		Work Order #: F19PQ1AA		MB Lot-Sample #:	E3J100000-300	
	ND	0.10	mg/L	MCAWW 300.0A	10/10/03	3283300
		Dilution Factor: 1				
		Analysis Time..: 09:17		Analyst ID.....: 000022	Instrument ID..: W01	
Nitrite as N		Work Order #: F19PK1AA		MB Lot-Sample #:	E3J100000-297	
	ND	0.10	mg/L	MCAWW 300.0A	10/10/03	3283297
		Dilution Factor: 1				
		Analysis Time..: 09:17		Analyst ID.....: 000022	Instrument ID..: W01	
Sulfate		Work Order #: F19PR1AA		MB Lot-Sample #:	E3J100000-302	
	ND	1.0	mg/L	MCAWW 300.0A	10/10/03	3283302
		Dilution Factor: 1				
		Analysis Time..: 09:17		Analyst ID.....: 000022	Instrument ID..: W01	
Total Organic Carbon (TOC)		Work Order #: F2MKK1AA		MB Lot-Sample #:	E3J140000-637	
	ND	1.0	mg/L	SW846 9060	10/14/03	3287637
		Dilution Factor: 1				
		Analysis Time..: 17:30		Analyst ID.....: 999995	Instrument ID..: W08	

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3J090392 **Work Order #...:** F2JTA1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J140000-662
Prep Date.....: 10/13/03 **Analysis Date..:** 10/13/03
Prep Batch #...: 3287662 **Analysis Time..:** 16:49
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**106**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**101**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**124**	**(65 - 135)**	**SW846 8260B**
Toluene	**105**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**102**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	97	(75 - 130)
1,2-Dichloroethane-d4	89	(65 - 135)
Toluene-d8	99	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3J090392 **Work Order #...:** F2JTA1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J140000-662
Prep Date.....: 10/13/03 **Analysis Date..:** 10/13/03
Prep Batch #...: 3287662 **Analysis Time..:** 16:49
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**10.6**	**ug/L**	**106**	**SW846 8260B**
Chlorobenzene	**10.0**	**10.1**	**ug/L**	**101**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**12.4**	**ug/L**	**124**	**SW846 8260B**
Toluene	**10.0**	**10.5**	**ug/L**	**105**	**SW846 8260B**
Trichloroethene	**10.0**	**10.2**	**ug/L**	**102**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	97	(75 - 130)
1,2-Dichloroethane-d4	89	(65 - 135)
Toluene-d8	99	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3J090392 **Work Order #...:** F2LPH1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J150000-522
Prep Date.....: 10/14/03 **Analysis Date..:** 10/14/03
Prep Batch #...: 3288522 **Analysis Time..:** 09:28
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 000038

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**110**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**102**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**125**	**(65 - 135)**	**SW846 8260B**
Toluene	**105**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**107**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
1,2-Dichloroethane-d4	90	(65 - 135)
Toluene-d8	96	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

BOE-C6-0104107

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3J090392 **Work Order #...:** F2LPH1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J150000-522
Prep Date.....: 10/14/03 **Analysis Date..:** 10/14/03
Prep Batch #...: 3288522 **Analysis Time..:** 09:28
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 000038

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**11.0**	**ug/L**	**110**	**SW846 8260B**
Chlorobenzene	**10.0**	**10.2**	**ug/L**	**102**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**12.5**	**ug/L**	**125**	**SW846 8260B**
Toluene	**10.0**	**10.5**	**ug/L**	**105**	**SW846 8260B**
Trichloroethene	**10.0**	**10.7**	**ug/L**	**107**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
1,2-Dichloroethane-d4	90	(65 - 135)
Toluene-d8	96	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E3J090392 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J130000-269 **Prep Batch #...:** 3286269					
Manganese	102	(85 - 120)	SW846 6010B	10/13-10/14/03	F2EV21CG
		Dilution Factor: 1	Analysis Time..: 14:08	Analyst ID.....: 021088	
		Instrument ID..: M01			
Iron	103	(85 - 120)	SW846 6010B	10/13-10/14/03	F2EV21CF
		Dilution Factor: 1	Analysis Time..: 14:08	Analyst ID.....: 021088	
		Instrument ID..: M01			

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E3J090392 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J130000-269 **Prep Batch #...:** 3286269							
Manganese	0.500	0.511	mg/L	102	SW846 6010B	10/13-10/14/03	F2EV21CG
			Dilution Factor: 1		Analysis Time..: 14:08	Analyst ID.....: 021088	
			Instrument ID..: M01				
Iron	1.00	1.03	mg/L	103	SW846 6010B	10/13-10/14/03	F2EV21CF
			Dilution Factor: 1		Analysis Time..: 14:08	Analyst ID.....: 021088	
			Instrument ID..: M01				

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: E3J090392 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J100000-584 **Prep Batch #...:** 3283584					
Manganese	99	(85 - 120)	SW846 6010B	10/10-10/13/03	F2CMW1CH

Dilution Factor: 1 Analysis Time..: 15:26 Analyst ID.....: 021088
Instrument ID..: M01

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: E3J090392 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J100000-584 **Prep Batch #...:** 3283584							
Manganese	0.500	0.494	mg/L	99	SW846 6010B	10/10-10/13/03	F2CMW1CH

Dilution Factor: 1 Analysis Time..: 15:26 Analyst ID.....: 021088
Instrument ID..: M01

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: E3J090392 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #: F19PN1AC	LCS Lot-Sample#: E3J100000-299		
	105	(90 - 110)	MCAWW 300.0A	10/10/03	3283299
		Dilution Factor: 1	Analysis Time..: 08:58	Analyst ID.....: 000022	
		Instrument ID..: W01			
Chloride		Work Order #: F19PE1AC	LCS Lot-Sample#: E3J100000-296		
	106	(90 - 110)	MCAWW 300.0A	10/10/03	3283296
		Dilution Factor: 1	Analysis Time..: 08:58	Analyst ID.....: 000022	
		Instrument ID..: W01			
Nitrate as N		Work Order #: F19PQ1AC	LCS Lot-Sample#: E3J100000-300		
	103	(90 - 110)	MCAWW 300.0A	10/10/03	3283300
		Dilution Factor: 1	Analysis Time..: 08:58	Analyst ID.....: 000022	
		Instrument ID..: W01			
Nitrite as N		Work Order #: F19PK1AC	LCS Lot-Sample#: E3J100000-297		
	105	(90 - 110)	MCAWW 300.0A	10/10/03	3283297
		Dilution Factor: 1	Analysis Time..: 08:58	Analyst ID.....: 000022	
		Instrument ID..: W01			
Sulfate		Work Order #: F19PR1AC	LCS Lot-Sample#: E3J100000-302		
	105	(90 - 110)	MCAWW 300.0A	10/10/03	3283302
		Dilution Factor: 1	Analysis Time..: 08:58	Analyst ID.....: 000022	
		Instrument ID..: W01			
Total Organic Carbon (TOC)		Work Order #: F2MKK1AC	LCS Lot-Sample#: E3J140000-637		
	100	(85 - 115)	SW846 9060	10/14/03	3287637
		Dilution Factor: 1	Analysis Time..: 17:30	Analyst ID.....: 999995	
		Instrument ID..: W08			

NOTE(S):

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

BOE-C6-0104113

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E3J090392 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			Work Order #: F19PN1AC LCS Lot-Sample#: E3J100000-299				
	5.00	5.24	mg/L	105	MCAWW 300.0A	10/10/03	3283299
			Dilution Factor: 1		Analysis Time..: 08:58	Analyst ID.....: 000022	
			Instrument ID..: W01				
Chloride			Work Order #: F19PE1AC LCS Lot-Sample#: E3J100000-296				
	25.0	26.6	mg/L	106	MCAWW 300.0A	10/10/03	3283296
			Dilution Factor: 1		Analysis Time..: 08:58	Analyst ID.....: 000022	
			Instrument ID..: W01				
Nitrate as N			Work Order #: F19PQ1AC LCS Lot-Sample#: E3J100000-300				
	5.00	5.15	mg/L	103	MCAWW 300.0A	10/10/03	3283300
			Dilution Factor: 1		Analysis Time..: 08:58	Analyst ID.....: 000022	
			Instrument ID..: W01				
Nitrite as N			Work Order #: F19PK1AC LCS Lot-Sample#: E3J100000-297				
	5.00	5.23	mg/L	105	MCAWW 300.0A	10/10/03	3283297
			Dilution Factor: 1		Analysis Time..: 08:58	Analyst ID.....: 000022	
			Instrument ID..: W01				
Sulfate			Work Order #: F19PR1AC LCS Lot-Sample#: E3J100000-302				
	25.0	26.3	mg/L	105	MCAWW 300.0A	10/10/03	3283302
			Dilution Factor: 1		Analysis Time..: 08:58	Analyst ID.....: 000022	
			Instrument ID..: W01				
Total Organic Carbon (TOC)			Work Order #: F2MKK1AC LCS Lot-Sample#: E3J140000-637				
	25.0	25.1	mg/L	100	SW846 9060	10/14/03	3287637
			Dilution Factor: 1		Analysis Time..: 17:30	Analyst ID.....: 999995	
			Instrument ID..: W08				

NOTE(S):

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

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	E3J090392	**Work Order #...:**	F18HK1A0-MS	**Matrix.....:**	WG
MS Lot-Sample #:	E3J090392-001		F18HK1A1-MSD		
Date Sampled...:	10/09/03 07:55	**Date Received..:**	10/09/03 17:15	**MS Run #.....:**	3287353
Prep Date.....:	10/13/03	**Analysis Date..:**	10/14/03		
Prep Batch #...:	3287662	**Analysis Time..:**	03:16		
Dilution Factor:	125	**Analyst ID.....:**	015590	**Instrument ID..:**	MSJ

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**80**	**(75 - 125)**			**SW846 8260B**
	107 p	**(75 - 125)**	**29**	**(0-25)**	**SW846 8260B**
Chlorobenzene	**76**	**(75 - 125)**			**SW846 8260B**
	101	**(75 - 125)**	**3.8**	**(0-25)**	**SW846 8260B**
1,1-Dichloroethene	**95**	**(65 - 135)**			**SW846 8260B**
	124 p	**(65 - 135)**	**26**	**(0-25)**	**SW846 8260B**
Toluene	**75**	**(75 - 125)**			**SW846 8260B**
	100 p	**(75 - 125)**	**29**	**(0-25)**	**SW846 8260B**
Trichloroethene	**77**	**(75 - 135)**			**SW846 8260B**
	103 p	**(75 - 135)**	**29**	**(0-25)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	94	(75 - 130)
	98	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
	99	(65 - 135)
Toluene-d8	97	(80 - 130)
	99	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

BOE-C6-0104115

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...:	E3J090392	**Work Order #...:**	F18HK1A0-MS	**Matrix.....:**	WG
MS Lot-Sample #:	E3J090392-001		F18HK1A1-MSD		
Date Sampled...:	10/09/03 07:55	**Date Received..:**	10/09/03 17:15	**MS Run #.....:**	3287353
Prep Date.....:	10/13/03	**Analysis Date..:**	10/14/03		
Prep Batch #...:	3287662	**Analysis Time..:**	03:16		
Dilution Factor:	125	**Analyst ID.....:**	015590	**Instrument ID..:**	MSJ

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**1250**	**1000**	**ug/L**	**80**		**SW846 8260B**
	ND	**1250**	**1340**	**ug/L**	**107 p**	**29**	**SW846 8260B**
Chlorobenzene	**7300**	**1250**	**8260**	**ug/L**	**76**		**SW846 8260B**
	7300	**1250**	**8580**	**ug/L**	**101**	**3.8**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**1250**	**1190**	**ug/L**	**95**		**SW846 8260B**
	ND	**1250**	**1550**	**ug/L**	**124 p**	**26**	**SW846 8260B**
Toluene	**ND**	**1250**	**932**	**ug/L**	**75**		**SW846 8260B**
	ND	**1250**	**1250**	**ug/L**	**100 p**	**29**	**SW846 8260B**
Trichloroethene	**ND**	**1250**	**961**	**ug/L**	**77**		**SW846 8260B**
	ND	**1250**	**1290**	**ug/L**	**103 p**	**29**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	94	(75 - 130)
	98	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
	99	(65 - 135)
Toluene-d8	97	(80 - 130)
	99	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	E3J090392	**Work Order #...:**	F2CQ71AK-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	E3J100415-008		F2CQ71AL-MSD		
Date Sampled...:	10/10/03 12:50	**Date Received..:**	10/10/03 16:30	**MS Run #.....:**	3288282
Prep Date.....:	10/14/03	**Analysis Date..:**	10/14/03		
Prep Batch #...:	3288522	**Analysis Time..:**	18:38		
Dilution Factor:	1	**Analyst ID.....:**	000038	**Instrument ID..:**	MSJ

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**112**	**(75 - 125)**			**SW846 8260B**
	116	**(75 - 125)**	**4.0**	**(0-25)**	**SW846 8260B**
Chlorobenzene	**101**	**(75 - 125)**			**SW846 8260B**
	106	**(75 - 125)**	**4.2**	**(0-25)**	**SW846 8260B**
1,1-Dichloroethene	**130**	**(65 - 135)**			**SW846 8260B**
	135	**(65 - 135)**	**4.0**	**(0-25)**	**SW846 8260B**
Toluene	**104**	**(75 - 125)**			**SW846 8260B**
	118	**(75 - 125)**	**8.2**	**(0-25)**	**SW846 8260B**
Trichloroethene	**91**	**(75 - 135)**			**SW846 8260B**
	117	**(75 - 135)**	**13**	**(0-25)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
	98	(75 - 130)
1,2-Dichloroethane-d4	100	(65 - 135)
	103	(65 - 135)
Toluene-d8	105	(80 - 130)
	110	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

BOE-C6-0104117

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...:	E3J090392	**Work Order #...:**	F2CQ71AK-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	E3J100415-008		F2CQ71AL-MSD		
Date Sampled...:	10/10/03 12:50	**Date Received..:**	10/10/03 16:30	**MS Run #.....:**	3288282
Prep Date.....:	10/14/03	**Analysis Date..:**	10/14/03		
Prep Batch #...:	3288522	**Analysis Time..:**	18:38		
Dilution Factor:	1	**Analyst ID.....:**	000038	**Instrument ID..:**	MSJ

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**10.0**	**11.2**	**ug/L**	**112**		**SW846 8260B**
	ND	**10.0**	**11.6**	**ug/L**	**116**	**4.0**	**SW846 8260B**
Chlorobenzene	**ND**	**10.0**	**10.1**	**ug/L**	**101**		**SW846 8260B**
	ND	**10.0**	**10.6**	**ug/L**	**106**	**4.2**	**SW846 8260B**
1,1-Dichloroethene	**0.48**	**10.0**	**13.4**	**ug/L**	**130**		**SW846 8260B**
	0.48	**10.0**	**14.0**	**ug/L**	**135**	**4.0**	**SW846 8260B**
Toluene	**5.3**	**10.0**	**15.7**	**ug/L**	**104**		**SW846 8260B**
	5.3	**10.0**	**17.0**	**ug/L**	**118**	**8.2**	**SW846 8260B**
Trichloroethene	**11**	**10.0**	**19.6**	**ug/L**	**91**		**SW846 8260B**
	11	**10.0**	**22.3**	**ug/L**	**117**	**13**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
	98	(75 - 130)
1,2-Dichloroethane-d4	100	(65 - 135)
	103	(65 - 135)
Toluene-d8	105	(80 - 130)
	110	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

BOE-C6-0104118

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E3J090392 **Matrix.....:** WATER
Date Sampled...: 10/07/03 15:30 **Date Received..:** 10/09/03 09:35

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J090224-001 **Prep Batch #...:** 3286269							
Manganese	102	(85 - 120)			SW846 6010B	10/13-10/14/03	F16PX1DC
	101	(85 - 120)	1.8	(0-20)	SW846 6010B	10/13-10/14/03	F16PX1DD
		Dilution Factor: 1					
		Analysis Time..: 14:38			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3286133					
Iron	102	(85 - 120)			SW846 6010B	10/13-10/14/03	F16PX1C9
	102	(85 - 120)	0.46	(0-20)	SW846 6010B	10/13-10/14/03	F16PX1DA
		Dilution Factor: 1					
		Analysis Time..: 14:38			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3286133					

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E3J090392 **Matrix.....:** WATER
Date Sampled...: 10/07/03 15:30 **Date Received..:** 10/09/03 09:35

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J090224-001 **Prep Batch #...:** 3286269									
Manganese									
	ND	0.500	0.512	mg/L	102		SW846 6010B	10/13-10/14/03	F16PX1DC
	ND	0.500	0.503	mg/L	101	1.8	SW846 6010B	10/13-10/14/03	F16PX1DD
			Dilution Factor: 1						
			Analysis Time..: 14:38		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3286133						
Iron									
	ND	1.00	1.02	mg/L	102		SW846 6010B	10/13-10/14/03	F16PX1C9
	ND	1.00	1.02	mg/L	102	0.46	SW846 6010B	10/13-10/14/03	F16PX1DA
			Dilution Factor: 1						
			Analysis Time..: 14:38		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3286133						

NOTE(S):

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

BOE-C6-0104120

MATRIX SPIKE SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: E3J090392 **Matrix.....:** WATER
Date Sampled...: 10/09/03 13:50 **Date Received..:** 10/09/03 17:45

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J090416-006 **Prep Batch #...:** 3283584							
Manganese	NC	(85 - 120)			SW846 6010B	10/10-10/14/03	F18PG1DJ
	NC	(85 - 120)		(0-20)	SW846 6010B	10/10-10/14/03	F18PG1DK

Dilution Factor: 1
Analysis Time..: 16:05 Instrument ID..: M01 Analyst ID.....: 021088
MS Run #.....: 3287186

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

MATRIX SPIKE SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: E3J090392 **Matrix.....:** WATER
Date Sampled...: 10/09/03 13:50 **Date Received..:** 10/09/03 17:45

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J090416-006 **Prep Batch #...:** 3283584									
Manganese									
	5.5	0.500	5.98	NC mg/L			SW846 6010B	10/10-10/14/03	F18PG1DJ
	5.5	0.500	5.78	NC mg/L			SW846 6010B	10/10-10/14/03	F18PG1DK

Dilution Factor: 1
Analysis Time..: 16:05 Instrument ID..: M01 Analyst ID.....: 021088
MS Run #.....: 3287186

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

BOE-C6-0104122

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: E3J090392 **Matrix.....:** WG
Date Sampled...: 10/09/03 07:55 **Date Received..:** 10/09/03 17:15

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		WO#: F18HK1AR-MS/F18HK1AT-MSD MS Lot-Sample #: E3J090392-001					
	101	(80 - 120)			MCAWW 300.0A	10/10/03	3283299
	104	(80 - 120)	3.0	(0-20)	MCAWW 300.0A	10/10/03	3283299
		Dilution Factor: 10					
		Analysis Time..: 19:38 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 3283135					
Chloride		WO#: F18HK1AM-MS/F18HK1AN-MSD MS Lot-Sample #: E3J090392-001					
	113	(80 - 120)			MCAWW 300.0A	10/10/03	3283296
	117	(80 - 120)	1.5	(0-20)	MCAWW 300.0A	10/10/03	3283296
		Dilution Factor: 10					
		Analysis Time..: 19:38 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 3283133					
Nitrate as N		WO#: F18HK1AU-MS/F18HK1AV-MSD MS Lot-Sample #: E3J090392-001					
	97	(80 - 120)			MCAWW 300.0A	10/10/03	3283300
	100	(80 - 120)	3.4	(0-20)	MCAWW 300.0A	10/10/03	3283300
		Dilution Factor: 10					
		Analysis Time..: 19:38 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 3283137					
Nitrite as N		WO#: F18HK1AP-MS/F18HK1AQ-MSD MS Lot-Sample #: E3J090392-001					
	99	(80 - 120)			MCAWW 300.0A	10/10/03	3283297
	103	(80 - 120)	3.3	(0-20)	MCAWW 300.0A	10/10/03	3283297
		Dilution Factor: 10					
		Analysis Time..: 19:38 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 3283134					
Sulfate		WO#: F18HK1AW-MS/F18HK1AX-MSD MS Lot-Sample #: E3J090392-001					
	109	(80 - 120)			MCAWW 300.0A	10/10/03	3283302
	113	(80 - 120)	1.8	(0-20)	MCAWW 300.0A	10/10/03	3283302
		Dilution Factor: 10					
		Analysis Time..: 19:38 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 3283138					
Total Organic Carbon (TOC)		WO#: F18HK1A2-MS/F18HK1A3-MSD MS Lot-Sample #: E3J090392-001					
	88	(85 - 115)			SW846 9060	10/14/03	3287637
	91	(85 - 115)	1.4	(0-20)	SW846 9060	10/14/03	3287637
		Dilution Factor: 1					
		Analysis Time..: 17:30 Instrument ID..: W08 Analyst ID.....: 999995					
		MS Run #.....: 3288365					

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E3J090392 **Matrix.....:** WG
Date Sampled...: 10/09/03 07:55 **Date Received..:** 10/09/03 17:15

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			WO#: F18HK1AR-MS/F18HK1AT-MSD MS Lot-Sample #: E3J090392-001						
	0.32	25.0	25.6	mg/L	101		MCAWW 300.0A	10/10/03	3283299
	0.32	25.0	26.3	mg/L	104	3.0	MCAWW 300.0A	10/10/03	3283299
			Dilution Factor: 10						
			Analysis Time..: 19:38		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3283135						
Chloride			WO#: F18HK1AM-MS/F18HK1AN-MSD MS Lot-Sample #: E3J090392-001						
	127	125	269	mg/L	113		MCAWW 300.0A	10/10/03	3283296
	127	125	273	mg/L	117	1.5	MCAWW 300.0A	10/10/03	3283296
			Dilution Factor: 10						
			Analysis Time..: 19:38		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3283133						
Nitrate as N			WO#: F18HK1AU-MS/F18HK1AV-MSD MS Lot-Sample #: E3J090392-001						
	ND	25.0	24.2	mg/L	97		MCAWW 300.0A	10/10/03	3283300
	ND	25.0	25.1	mg/L	100	3.4	MCAWW 300.0A	10/10/03	3283300
			Dilution Factor: 10						
			Analysis Time..: 19:38		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3283137						
Nitrite as N			WO#: F18HK1AP-MS/F18HK1AQ-MSD MS Lot-Sample #: E3J090392-001						
	ND	25.0	24.8	mg/L	99		MCAWW 300.0A	10/10/03	3283297
	ND	25.0	25.6	mg/L	103	3.3	MCAWW 300.0A	10/10/03	3283297
			Dilution Factor: 10						
			Analysis Time..: 19:38		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3283134						
Sulfate			WO#: F18HK1AW-MS/F18HK1AX-MSD MS Lot-Sample #: E3J090392-001						
	115	125	251	mg/L	109		MCAWW 300.0A	10/10/03	3283302
	115	125	256	mg/L	113	1.8	MCAWW 300.0A	10/10/03	3283302
			Dilution Factor: 10						
			Analysis Time..: 19:38		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3283138						
Total Organic Carbon (TOC)			WO#: F18HK1A2-MS/F18HK1A3-MSD MS Lot-Sample #: E3J090392-001						
	23.0	25.0	45.1	mg/L	88		SW846 9060	10/14/03	3287637
	23.0	25.0	45.7	mg/L	91	1.4	SW846 9060	10/14/03	3287637
			Dilution Factor: 1						
			Analysis Time..: 17:30		Instrument ID..: W08			Analyst ID.....: 999995	
			MS Run #.....: 3288365						

NOTE(S):

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

SEVERN TRENT STL

October 22, 2003

STL LOT NUMBER: E3J080388
NELAP Certification Number: 01118CA/E87652

Jim Nguyen
ARCADIS, Inc
1400 N. Harbor Blvd.
Suite 700
Fullerton, CA 92835-4127

Dear Mr. Nguyen,

This report contains the analytical results for the six samples received under chain of custody by STL Los Angeles on October 8, 2003. These samples are associated with your Boeing former C6 facility Torrance, California project.

All applicable quality control procedures met method-specified acceptance criteria except as noted on the following page. Historical control limits for the LCS are used to define the estimate of uncertainty for a method. See Project Receipt Checklist for container temperature and conditions. Temperature reading between 2 to 6 degrees Celsius is considered within acceptable criteria. Any matrix related anomaly is footnoted within the report.

STL Los Angeles certifies that the tests performed at our facility meet all NELAP requirements for parameters for which accreditation is required or available. The case narrative is an integral part of the report. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me extension 313.

Sincerely,

Diane Suzuki
Customer Service Manager

CC: Project File

000054

Page 1 of _____ total pages in this report.

LOT NUMBER E3J080388

Nonconformance 05-06148

Affected Samples:
E3J080388 (1): IRZCMW001_WG100803_01
E3J080388 (3): IRZCMW002_WG100803_01
E3J080388 (4): CMW002_WG100803_01
E3J080388 (5): IRZMW002A_WG100803_01
E3J080388 (6): IRZMW002B_WG100803_01

Affected Methods:
6010B Dissolved metals

Case Narrative:
Samples were received unfiltered and unpreserved. The samples were filtered and preserved with Nitric Acid to a pH<2 per client request upon receipt at the lab. Pre-preserved bottles with Nitric Acid were used as containers.

Chain of Custody Record

SEVERN TRENT SERVICES

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: AIRCADIS	Project Manager: JIM NGUYEN	Date: 10/8/03	Chain of Custody Number: 141871
Address: 1400 N HARBOR #700	Telephone Number (Area Code)/Fax Number: 714-278-0992	Lab Number: E3J080388	Page 1 of 1
City: FULLERTON; State: CA; Zip Code: 92835	Site Contact: K. THOMAS	Lab Contact: DIANE SUZUKI	
Project Name and Location (State): BOEING C-6, TORRANCE, CA	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 8260	NO2, NO3, SO4, Cl, SULFATE	TOC	TOTAL MN, FE	DISS MN	Special Instructions/ Conditions of Receipt
1122CMW001_WG100803-01	10/8/03	0733		X			2	1	1	3			X	X	X	X	X	
TB LOT E3J280120	10/8/03	—		X						2			X					TB
IRZCMW002_WG100803-01	10/8/03	0920		X			2	1	1	3			X	X	X	X	X	NO SAMPLES HAVE
CMW2_WG100803-01	10/8/03	1035		X			2	1	1	3			X	X	X	X	X	BEEN FIELD FILTERED
IRZMW002A_WG100803_01	10/8/03	1220		X			2	1	1	3			X	X	X	X	X	
IRZMW002B_WG100803_01	10/8/03	1335		X			2	1	1	3			X	X	X	X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STA

QC Requirements (Specify)

1. Relinquished By: James D. Helm	Date: 10/8/03	Time: 15:57 3:57	1. Received By: Vincent Rolla	Date: 10/8/03	Time: 1557
2. Relinquished By: Vincent Rolla	Date: 10/8/03	Time: 1835	2. Received By: [illegible]	Date: 10/8/03	Time: 1835
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

BOE-C6-0104127

STL LOS ANGELES
PROJECT RECEIPT CHECKLIST

Date: 10/8/03

Quantims Lot #: E3J080388 | Quote #:
Client Name: Arcadis | Project: C-6
Received by: R.S. | Date/Time Received: 10/8/03 1835
Delivered by : ☐Client ☐Airborne ☐Fed Ex ☐DHL ☐In-House Courier ☐Rey B. ☐UPS ☐DES ☐Other

Initial / Date

Custody Seal Status: ☐Intact ☐Broken ☒None ..... AJ 10/8/03
Custody Seal #(s): ☒No Seal # .....
Sample Container(s): ☒STL-LA ☐Client ☐N/A .....
Temperature(s) (Cooler/blank) in °C: 2.7°C Correction factor -0.2°C (Corrected Temp.) 2.5°C.
Thermometer Used : ID: B ☒IR (Infra-red) ☐Digital (Probe) .....
Samples: ☒Intact ☐Broken ☐Other .....
Anomalies: ☒No ☐Yes (See Clouseau) .....
Labeled by .....
Labeling checked by .....

Turn Around Time: ☐RUSH-24HR ☐RUSH-48HR ☐RUSH-72HR ☒NORMAL ..... AJ 10/8/03
Short-Hold Notification: ☐Ph ☒Wet Chem ☒Metals (Filter/Pres) ☐Encore ☐N/A ...
Outside Analysis(es) (Test/Lab/Date Sent Out) :

N/A

********** LEAVE NO BLANK SPACES ; USE N/A **********

Fraction	1	2	3→6								PH
VOAh /*	3	2	3								N/A
1LPB	1		1								—
500PB	1		1								—
500PBn	1		1								<2
250AGBs	1		1								<2

h:HCl | na:Sodium Hydoxide. | zmna:Zinc Acetate/Sodium Hydroxide | s: H2SO4 | n:HNO3 | n/f:HNO3-Field filtered | n/f/l:HNO3-Lab filtered
CGJ:Clear Glass Jar | CGB:Clear Glass Bottle | AGJ:Amber Glass Jar | AGB:Amber Glass Bottle | PB: Poly Bottle | E:Encore Sampler | V:VOA | SL:Sleeve
* Number of VOA's w/ Headspace present

LOGGED BY/DATE: 10/8/03 REVIEWED BY/DATE: 10-10-03

Well/Sample No.	Sample Date	Sample Time	
\RCADIS100703_01	10/7/2003	--	Please rename trip blank TB100703 to Boeing convention of TB_ARCADIS100703_01
\RCADIS100803_01	10/8/2003	--	Please rename trip blank TB lot E39280120 to Boeing convention of TB_ARCADIS100803_01
\RCADIS100903_01	10/9/2003	--	
IW004_WG100703_01	10/7/2003	11:18	
0095_WG100703_01	10/7/2003	12:38	Note mis-lable on COC: Sample number is IRZB0095-WG100703-01 and not IRZBMW0095-WG100703-01
/026_WG100703_01	10/7/2003	14:07	
:MW003_WG100703_01	10/7/2003	15:05	
:MW001_WG100803_01	10/8/2003	7:33	
:MW002_WG100803_01	10/8/2003	9:20	
/002_WG100803_01	10/8/2003	10:35	Note mis-lable on COC: Sample number is CMW002_WG100803_01 and not CMW2_WG100803_01
IW002A_WG100803_01	**10/8/2003**	**12:20**	
IW002B_WG100803_01	**10/8/2003**	**13:35**	
/001_WG100903_01	10/9/2003	7:55	
IW005_WG100903_01	10/9/2003	9:40	
081_WG100903_01	10/9/2003	10:21	Note mis-lable on COC: Sample number is IRZB081-WG100903-01 and not IRZBMW081-WG100903-01
IW001B_WG100903_01	**10/9/2003**	**11:33**	Note mis-lable on COC: Sample number is IRZMW001B-WG100903-01 and not IRZMW01B-WG100903-01
IW001A_WG100903_01	**10/9/2003**	**12:45**	Note mis-lable on COC: Sample number is IRZMW001A-WG100903-01 and not IRZMW01A-WG100903-01
IW003A_WG100703_01	**10/9/2003**	**13:45**	
IW003B_WG100703_01	**10/9/2003**	**14:43**	

: All samples are to be analyzed
olatile organic carbons (VOCs),
ide, manganese (total),
ganese (dissolved), iron (total),
te, nitrate, nitrite, chloride, total
nic carbon (TOC).

: Please hold analysis for samples in bold font.

SEVERN TRENT STL

Analytical Report

EXECUTIVE SUMMARY - Detection Highlights

E3J080388

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZCMW001_WG100803_01 10/08/03 07:33	**001**			
Manganese - DISSOLVED	0.0055 B	0.015	mg/L	SW846 6010B
Manganese	0.037	0.015	mg/L	SW846 6010B
Iron	1.9	0.10	mg/L	SW846 6010B
Acetone	210 J	620	ug/L	SW846 8260B
Chloroform	76	62	ug/L	SW846 8260B
1,1-Dichloroethane	13 J	62	ug/L	SW846 8260B
1,1-Dichloroethene	350	62	ug/L	SW846 8260B
cis-1,2-Dichloroethene	22 J	62	ug/L	SW846 8260B
Trichloroethene	1300	62	ug/L	SW846 8260B
Chloride	275	10.0	mg/L	MCAWW 300.0A
Sulfate	37.7	1.0	mg/L	MCAWW 300.0A
Nitrate as N	2.7	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	3.3	1.0	mg/L	SW846 9060
Bromide	0.73	0.50	mg/L	MCAWW 300.0A
IRZCMW002_WG100803_01 10/08/03 09:20	**003**			
Manganese - DISSOLVED	0.097	0.015	mg/L	SW846 6010B
Iron - DISSOLVED	0.34	0.10	mg/L	SW846 6010B
Manganese	0.036	0.015	mg/L	SW846 6010B
Iron	0.23	0.10	mg/L	SW846 6010B
Chloroform	36 J	100	ug/L	SW846 8260B
1,1-Dichloroethene	39 J	100	ug/L	SW846 8260B
Trichloroethene	4600	100	ug/L	SW846 8260B
Chloride	150	5.0	mg/L	MCAWW 300.0A
Sulfate	62.5	5.0	mg/L	MCAWW 300.0A
Nitrate as N	2.5	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	3.2	1.0	mg/L	SW846 9060
Bromide	0.37 B	0.50	mg/L	MCAWW 300.0A
CMW002_WG100803_01 10/08/03 10:35	**004**			
Manganese - DISSOLVED	0.21	0.015	mg/L	SW846 6010B
Manganese	0.13	0.015	mg/L	SW846 6010B
Iron	0.63	0.10	mg/L	SW846 6010B
Chlorobenzene	3600	100	ug/L	SW846 8260B
Trichloroethene	460	100	ug/L	SW846 8260B
Chloride	110	5.0	mg/L	MCAWW 300.0A
Sulfate	84.9	5.0	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	8.0	1.0	mg/L	SW846 9060

(Continued on next page)

BOE-C6-0104131

EXECUTIVE SUMMARY - Detection Highlights

E3J080388

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CMW002_WG100803_01 10/08/03 10:35 004				
Bromide	0.24 B	0.50	mg/L	MCAWW 300.0A

METHODS SUMMARY

E3J080388

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Bromide	MCAWW 300.0A	MCAWW 300.0A
Chloride	MCAWW 300.0A	MCAWW 300.0A
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3005A
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Total Organic Carbon	SW846 9060	SW846 9060
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

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

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

E3J080388

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
F15K8	001	IRZCMW001_WG100803_01	10/08/03	07:33
F15K9	002	TB_ARCADIS100803_01	10/07/03	
F15LA	003	IRZCMW002_WG100803_01	10/08/03	09:20
F15LC	004	CMW002_WG100803_01	10/08/03	10:35

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.

BOE-C6-0104134

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW001_WG100803_01

GC/MS Volatiles

Lot-Sample #...: E3J080388-001 **Work Order #...:** F15K81AM **Matrix.....:** WG
Date Sampled...: 10/08/03 07:33 **Date Received..:** 10/08/03 18:35 **MS Run #.....:** 3286276
Prep Date.....: 10/11/03 **Analysis Date..:** 10/11/03
Prep Batch #...: 3286427 **Analysis Time..:** 19:03
Dilution Factor: 62.5
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**210 J**	**620**	**ug/L**	**190**
Benzene	ND	62	ug/L	19
Bromobenzene	ND	62	ug/L	19
Bromochloromethane	ND	62	ug/L	19
Bromoform	ND	62	ug/L	19
Bromomethane	ND	120	ug/L	62
2-Butanone	ND	310	ug/L	190
n-Butylbenzene	ND	62	ug/L	19
sec-Butylbenzene	ND	62	ug/L	19
tert-Butylbenzene	ND	62	ug/L	12
Carbon disulfide	ND	62	ug/L	19
Carbon tetrachloride	ND	62	ug/L	19
Chlorobenzene	ND	62	ug/L	19
Dibromochloromethane	ND	62	ug/L	25
Bromodichloromethane	ND	62	ug/L	19
Chloroethane	ND	120	ug/L	19
Chloroform	**76**	**62**	**ug/L**	**19**
Chloromethane	ND	120	ug/L	19
2-Chlorotoluene	ND	62	ug/L	19
4-Chlorotoluene	ND	62	ug/L	19
1,2-Dibromo-3-chloro-propane	ND	120	ug/L	44
1,2-Dibromoethane (EDB)	ND	62	ug/L	19
Dibromomethane	ND	62	ug/L	25
1,2-Dichlorobenzene	ND	62	ug/L	19
1,3-Dichlorobenzene	ND	62	ug/L	19
1,4-Dichlorobenzene	ND	62	ug/L	19
Dichlorodifluoromethane	ND	120	ug/L	25
1,1-Dichloroethane	**13 J**	**62**	**ug/L**	**12**
1,2-Dichloroethane	ND	62	ug/L	25
1,1-Dichloroethene	**350**	**62**	**ug/L**	**19**
cis-1,2-Dichloroethene	**22 J**	**62**	**ug/L**	**19**
trans-1,2-Dichloroethene	ND	62	ug/L	19
1,2-Dichloropropane	ND	62	ug/L	19
1,3-Dichloropropane	ND	62	ug/L	25
2,2-Dichloropropane	ND	62	ug/L	19
1,1-Dichloropropene	ND	62	ug/L	19

(Continued on next page)

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW001_WG100803_01

GC/MS Volatiles

Lot-Sample #...: E3J080388-001 **Work Order #...:** F15K81AM **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	62	ug/L	19
trans-1,3-Dichloropropene	ND	62	ug/L	31
Ethylbenzene	ND	62	ug/L	12
Hexachlorobutadiene	ND	62	ug/L	19
2-Hexanone	ND	310	ug/L	190
Isopropylbenzene	ND	62	ug/L	19
p-Isopropyltoluene	ND	62	ug/L	19
Methylene chloride	ND	62	ug/L	19
4-Methyl-2-pentanone	ND	310	ug/L	190
Methyl tert-butyl ether	ND	62	ug/L	31
Naphthalene	ND	62	ug/L	31
n-Propylbenzene	ND	62	ug/L	25
Styrene	ND	62	ug/L	19
1,1,1,2-Tetrachloroethane	ND	62	ug/L	19
1,1,2,2-Tetrachloroethane	ND	62	ug/L	25
Tetrachloroethene	ND	62	ug/L	19
Toluene	ND	62	ug/L	19
1,2,3-Trichlorobenzene	ND	62	ug/L	25
1,2,4-Trichloro-benzene	ND	62	ug/L	19
1,1,1-Trichloroethane	ND	62	ug/L	12
1,1,2-Trichloroethane	ND	62	ug/L	19
Trichloroethene	**1300**	**62**	**ug/L**	**19**
Trichlorofluoromethane	ND	120	ug/L	19
1,2,3-Trichloropropane	ND	62	ug/L	25
1,1,2-Trichlorotrifluoro-ethane	ND	62	ug/L	25
1,2,4-Trimethylbenzene	ND	62	ug/L	19
1,3,5-Trimethylbenzene	ND	62	ug/L	12
Vinyl chloride	ND	62	ug/L	19
m-Xylene & p-Xylene	ND	62	ug/L	31
o-Xylene	ND	62	ug/L	12
Xylenes (total)	ND	62	ug/L	50

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	111	(75 - 130)
1,2-Dichloroethane-d4	101	(65 - 135)
Toluene-d8	112	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW001_WG100803_01

TOTAL Metals

Lot-Sample #...: E3J080388-001 **Matrix.....:** WG
Date Sampled...: 10/08/03 07:33 **Date Received..:** 10/08/03 18:35

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3282238						
Manganese	**0.037**	**0.015**	**mg/L**	**SW846 6010B**	**10/09-10/10/03**	**F15K81AJ**
		Dilution Factor: 1		Analysis Time..: 18:34	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.0010	
Iron	**1.9**	**0.10**	**mg/L**	**SW846 6010B**	**10/09-10/10/03**	**F15K81AL**
		Dilution Factor: 1		Analysis Time..: 18:34	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.030	

BOE-C6-0104137

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW001_WG100803_01

DISSOLVED Metals

Lot-Sample #...: E3J080388-001 **Matrix.....:** WG
Date Sampled...: 10/08/03 07:33 **Date Received..:** 10/08/03 18:35

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3282422						
Manganese	**0.0055 B**	**0.015**	**mg/L**	**SW846 6010B**	**10/09-10/10/03**	**F15K81AH**
		Dilution Factor: 1		Analysis Time..: 21:10	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286304	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	10/09-10/10/03	F15K81AK
		Dilution Factor: 1		Analysis Time..: 21:10	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286304	MDL.....: 0.030	

NOTE(S):

B Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW001_WG100803_01

General Chemistry

Lot-Sample #...: E3J080388-001 **Work Order #...:** F15K8 **Matrix.....:** WG
Date Sampled...: 10/08/03 07:33 **Date Received..:** 10/08/03 18:35

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.73**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/09/03**	**3282249**
		Dilution Factor: 1		Analysis Time..: 09:32	Analyst ID.....: 000022	
		Instrument ID..: W01		MS Run #.....: 3282168	MDL.....: 0.10	
Chloride	**275**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/09/03**	**3282248**
		Dilution Factor: 10		Analysis Time..: 18:48	Analyst ID.....: 0000228	
		Instrument ID..: W01		MS Run #.....: 3282164	MDL.....: 3.0	
Nitrate as N	**2.7**	**0.10**	**mg/L**	**MCAWW 300.0A**	**10/09/03**	**3282251**
		Dilution Factor: 1		Analysis Time..: 09:32	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3282166	MDL.....: 0.030	
Nitrite as N	ND G	0.50	mg/L	MCAWW 300.0A	10/09/03	3282250
		Dilution Factor: 5		Analysis Time..: 13:51	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 3282165	MDL.....: 0.15	
Sulfate	**37.7**	**1.0**	**mg/L**	**MCAWW 300.0A**	**10/09/03**	**3282252**
		Dilution Factor: 1		Analysis Time..: 09:32	Analyst ID.....: 0000225	
		Instrument ID..: W01		MS Run #.....: 3282167	MDL.....: 0.20	
Total Organic Carbon (TOC)	**3.3**	**1.0**	**mg/L**	**SW846 9060**	**10/13/03**	**3286626**
		Dilution Factor: 1		Analysis Time..: 17:21	Analyst ID.....: 9999957	
		Instrument ID..: W08		MS Run #.....: 3287141	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: TB_ARCADIS100803_01

GC/MS Volatiles

Lot-Sample #...: E3J080388-002 **Work Order #...:** F15K91AA **Matrix.....:** WG
Date Sampled...: 10/07/03 **Date Received..:** 10/08/03 18:35 **MS Run #.....:** 3287352
Prep Date.....: 10/10/03 **Analysis Date..:** 10/10/03
Prep Batch #...: 3284179 **Analysis Time..:** 22:07
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	10	ug/L	3.0
Benzene	ND	1.0	ug/L	0.30
Bromobenzene	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.30
Bromoform	ND	1.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
2-Butanone	ND	5.0	ug/L	3.0
n-Butylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
Carbon disulfide	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	1.0	ug/L	0.30
Chlorobenzene	ND	1.0	ug/L	0.30
Dibromochloromethane	ND	1.0	ug/L	0.40
Bromodichloromethane	ND	1.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Chloromethane	ND	2.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	0.30
Dibromomethane	ND	1.0	ug/L	0.40
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
Dichlorodifluoromethane	ND	2.0	ug/L	0.40
1,1-Dichloroethane	ND	1.0	ug/L	0.20
1,2-Dichloroethane	ND	1.0	ug/L	0.40
1,1-Dichloroethene	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,2-Dichloropropane	ND	1.0	ug/L	0.30
1,3-Dichloropropane	ND	1.0	ug/L	0.40
2,2-Dichloropropane	ND	1.0	ug/L	0.30
1,1-Dichloropropene	ND	1.0	ug/L	0.30

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: TB_ARCADIS100803_01

GC/MS Volatiles

Lot-Sample #...: E3J080388-002 **Work Order #...:** F15K91AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.30
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.50
Ethylbenzene	ND	1.0	ug/L	0.20
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Isopropylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Naphthalene	ND	1.0	ug/L	0.50
n-Propylbenzene	ND	1.0	ug/L	0.40
Styrene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
Toluene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
1,2,4-Trichlorobenzene	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	0.40
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	1.0	ug/L	0.30
m-Xylene & p-Xylene	ND	1.0	ug/L	0.50
o-Xylene	ND	1.0	ug/L	0.20
Xylenes (total)	ND	1.0	ug/L	0.80

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	103	(75 - 130)
1,2-Dichloroethane-d4	96	(65 - 135)
Toluene-d8	103	(80 - 130)

BOE-C6-0104141

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW002_WG100803_01

GC/MS Volatiles

Lot-Sample #...: E3J080388-003 **Work Order #...:** F15LA1AM **Matrix.....:** WG
Date Sampled...: 10/08/03 09:20 **Date Received..:** 10/08/03 18:35 **MS Run #.....:** 3287352
Prep Date.....: 10/10/03 **Analysis Date..:** 10/11/03
Prep Batch #...: 3284179 **Analysis Time..:** 04:05
Dilution Factor: 100
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1000	ug/L	300
Benzene	ND	100	ug/L	30
Bromobenzene	ND	100	ug/L	30
Bromochloromethane	ND	100	ug/L	30
Bromoform	ND	100	ug/L	30
Bromomethane	ND	200	ug/L	100
2-Butanone	ND	500	ug/L	300
n-Butylbenzene	ND	100	ug/L	30
sec-Butylbenzene	ND	100	ug/L	30
tert-Butylbenzene	ND	100	ug/L	20
Carbon disulfide	ND	100	ug/L	30
Carbon tetrachloride	ND	100	ug/L	30
Chlorobenzene	ND	100	ug/L	30
Dibromochloromethane	ND	100	ug/L	40
Bromodichloromethane	ND	100	ug/L	30
Chloroethane	ND	200	ug/L	30
Chloroform	**36 J**	**100**	**ug/L**	**30**
Chloromethane	ND	200	ug/L	30
2-Chlorotoluene	ND	100	ug/L	30
4-Chlorotoluene	ND	100	ug/L	30
1,2-Dibromo-3-chloro-propane	ND	200	ug/L	70
1,2-Dibromoethane (EDB)	ND	100	ug/L	30
Dibromomethane	ND	100	ug/L	40
1,2-Dichlorobenzene	ND	100	ug/L	30
1,3-Dichlorobenzene	ND	100	ug/L	30
1,4-Dichlorobenzene	ND	100	ug/L	30
Dichlorodifluoromethane	ND	200	ug/L	40
1,1-Dichloroethane	ND	100	ug/L	20
1,2-Dichloroethane	ND	100	ug/L	40
1,1-Dichloroethene	**39 J**	**100**	**ug/L**	**30**
cis-1,2-Dichloroethene	ND	100	ug/L	30
trans-1,2-Dichloroethene	ND	100	ug/L	30
1,2-Dichloropropane	ND	100	ug/L	30
1,3-Dichloropropane	ND	100	ug/L	40
2,2-Dichloropropane	ND	100	ug/L	30
1,1-Dichloropropene	ND	100	ug/L	30

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW002_WG100803_01

GC/MS Volatiles

Lot-Sample #...: E3J080388-003 **Work Order #...:** F15LA1AM **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	100	ug/L	30
trans-1,3-Dichloropropene	ND	100	ug/L	50
Ethylbenzene	ND	100	ug/L	20
Hexachlorobutadiene	ND	100	ug/L	30
2-Hexanone	ND	500	ug/L	300
Isopropylbenzene	ND	100	ug/L	30
p-Isopropyltoluene	ND	100	ug/L	30
Methylene chloride	ND	100	ug/L	30
4-Methyl-2-pentanone	ND	500	ug/L	300
Methyl tert-butyl ether	ND	100	ug/L	50
Naphthalene	ND	100	ug/L	50
n-Propylbenzene	ND	100	ug/L	40
Styrene	ND	100	ug/L	30
1,1,1,2-Tetrachloroethane	ND	100	ug/L	30
1,1,2,2-Tetrachloroethane	ND	100	ug/L	40
Tetrachloroethene	ND	100	ug/L	30
Toluene	ND	100	ug/L	30
1,2,3-Trichlorobenzene	ND	100	ug/L	40
1,2,4-Trichloro-benzene	ND	100	ug/L	30
1,1,1-Trichloroethane	ND	100	ug/L	20
1,1,2-Trichloroethane	ND	100	ug/L	30
Trichloroethene	**4600**	**100**	**ug/L**	**30**
Trichlorofluoromethane	ND	200	ug/L	30
1,2,3-Trichloropropane	ND	100	ug/L	40
1,1,2-Trichlorotrifluoro-ethane	ND	100	ug/L	40
1,2,4-Trimethylbenzene	ND	100	ug/L	30
1,3,5-Trimethylbenzene	ND	100	ug/L	20
Vinyl chloride	ND	100	ug/L	30
m-Xylene & p-Xylene	ND	100	ug/L	50
o-Xylene	ND	100	ug/L	20
Xylenes (total)	ND	100	ug/L	80

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	109	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
Toluene-d8	116	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW002_WG100803_01

TOTAL Metals

Lot-Sample #...: E3J080388-003 Matrix.....: WG
Date Sampled...: 10/08/03 09:20 Date Received..: 10/08/03 18:35

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3282238						
Manganese	0.036	0.015	mg/L	SW846 6010B	10/09-10/10/03	F15LA1AJ
		Dilution Factor: 1		Analysis Time..: 18:40	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.0010	
Iron	0.23	0.10	mg/L	SW846 6010B	10/09-10/10/03	F15LA1AL
		Dilution Factor: 1		Analysis Time..: 18:40	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW002_WG100803_01

DISSOLVED Metals

Lot-Sample #...: E3J080388-003 **Matrix.....:** WG
Date Sampled...: 10/08/03 09:20 **Date Received..:** 10/08/03 18:35

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3282422						
Manganese	**0.097**	**0.015**	**mg/L**	**SW846 6010B**	**10/09-10/10/03**	**F15LA1AH**
		Dilution Factor: 1		Analysis Time..: 21:17	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286304	MDL.....: 0.0010	
Iron	**0.34**	**0.10**	**mg/L**	**SW846 6010B**	**10/09-10/10/03**	**F15LA1AK**
		Dilution Factor: 1		Analysis Time..: 21:17	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286304	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW002_WG100803_01

General Chemistry

Lot-Sample #...: E3J080388-003 Work Order #...: F15LA Matrix.....: WG
Date Sampled...: 10/08/03 09:20 Date Received..: 10/08/03 18:35

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	0.37 B	0.50	mg/L	MCAWW 300.0A	10/09/03	3282249
		Dilution Factor: 1		Analysis Time..: 09:51	Analyst ID.....: 0000221	
		Instrument ID..: W01		MS Run #.....: 3282168	MDL.....: 0.10	
Chloride	150	5.0	mg/L	MCAWW 300.0A	10/09/03	3282248
		Dilution Factor: 5		Analysis Time..: 14:10	Analyst ID.....: 0000228	
		Instrument ID..: W01		MS Run #.....: 3282164	MDL.....: 1.5	
Nitrate as N	2.5	0.10	mg/L	MCAWW 300.0A	10/09/03	3282251
		Dilution Factor: 1		Analysis Time..: 09:51	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3282166	MDL.....: 0.030	
Nitrite as N	ND G	0.50	mg/L	MCAWW 300.0A	10/09/03	3282250
		Dilution Factor: 5		Analysis Time..: 14:10	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 3282165	MDL.....: 0.15	
Sulfate	62.5	5.0	mg/L	MCAWW 300.0A	10/09/03	3282252
		Dilution Factor: 5		Analysis Time..: 14:10	Analyst ID.....: 0000225	
		Instrument ID..: W01		MS Run #.....: 3282167	MDL.....: 1.0	
Total Organic Carbon (TOC)	3.2	1.0	mg/L	SW846 9060	10/13/03	3286626
		Dilution Factor: 1		Analysis Time..: 17:21	Analyst ID.....: 9999957	
		Instrument ID..: W08		MS Run #.....: 3287141	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW002_WG100803_01

GC/MS Volatiles

Lot-Sample #...: E3J080388-004 **Work Order #...:** F15LC1AM **Matrix.....:** WG
Date Sampled...: 10/08/03 10:35 **Date Received..:** 10/08/03 18:35 **MS Run #.....:** 3287352
Prep Date.....: 10/10/03 **Analysis Date..:** 10/11/03
Prep Batch #...: 3284179 **Analysis Time..:** 04:29
Dilution Factor: 100
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1000	ug/L	300
Benzene	ND	100	ug/L	30
Bromobenzene	ND	100	ug/L	30
Bromochloromethane	ND	100	ug/L	30
Bromoform	ND	100	ug/L	30
Bromomethane	ND	200	ug/L	100
2-Butanone	ND	500	ug/L	300
n-Butylbenzene	ND	100	ug/L	30
sec-Butylbenzene	ND	100	ug/L	30
tert-Butylbenzene	ND	100	ug/L	20
Carbon disulfide	ND	100	ug/L	30
Carbon tetrachloride	ND	100	ug/L	30
Chlorobenzene	**3600**	**100**	**ug/L**	**30**
Dibromochloromethane	ND	100	ug/L	40
Bromodichloromethane	ND	100	ug/L	30
Chloroethane	ND	200	ug/L	30
Chloroform	ND	100	ug/L	30
Chloromethane	ND	200	ug/L	30
2-Chlorotoluene	ND	100	ug/L	30
4-Chlorotoluene	ND	100	ug/L	30
1,2-Dibromo-3-chloro-propane	ND	200	ug/L	70
1,2-Dibromoethane (EDB)	ND	100	ug/L	30
Dibromomethane	ND	100	ug/L	40
1,2-Dichlorobenzene	ND	100	ug/L	30
1,3-Dichlorobenzene	ND	100	ug/L	30
1,4-Dichlorobenzene	ND	100	ug/L	30
Dichlorodifluoromethane	ND	200	ug/L	40
1,1-Dichloroethane	ND	100	ug/L	20
1,2-Dichloroethane	ND	100	ug/L	40
1,1-Dichloroethene	ND	100	ug/L	30
cis-1,2-Dichloroethene	ND	100	ug/L	30
trans-1,2-Dichloroethene	ND	100	ug/L	30
1,2-Dichloropropane	ND	100	ug/L	30
1,3-Dichloropropane	ND	100	ug/L	40
2,2-Dichloropropane	ND	100	ug/L	30
1,1-Dichloropropene	ND	100	ug/L	30

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BOE-C6-0104147

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW002_WG100803_01

GC/MS Volatiles

Lot-Sample #...: E3J080388-004 **Work Order #...:** F15LC1AM **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	100	ug/L	30
trans-1,3-Dichloropropene	ND	100	ug/L	50
Ethylbenzene	ND	100	ug/L	20
Hexachlorobutadiene	ND	100	ug/L	30
2-Hexanone	ND	500	ug/L	300
Isopropylbenzene	ND	100	ug/L	30
p-Isopropyltoluene	ND	100	ug/L	30
Methylene chloride	ND	100	ug/L	30
4-Methyl-2-pentanone	ND	500	ug/L	300
Methyl tert-butyl ether	ND	100	ug/L	50
Naphthalene	ND	100	ug/L	50
n-Propylbenzene	ND	100	ug/L	40
Styrene	ND	100	ug/L	30
1,1,1,2-Tetrachloroethane	ND	100	ug/L	30
1,1,2,2-Tetrachloroethane	ND	100	ug/L	40
Tetrachloroethene	ND	100	ug/L	30
Toluene	ND	100	ug/L	30
1,2,3-Trichlorobenzene	ND	100	ug/L	40
1,2,4-Trichloro-benzene	ND	100	ug/L	30
1,1,1-Trichloroethane	ND	100	ug/L	20
1,1,2-Trichloroethane	ND	100	ug/L	30
Trichloroethene	**460**	**100**	**ug/L**	**30**
Trichlorofluoromethane	ND	200	ug/L	30
1,2,3-Trichloropropane	ND	100	ug/L	40
1,1,2-Trichlorotrifluoro-ethane	ND	100	ug/L	40
1,2,4-Trimethylbenzene	ND	100	ug/L	30
1,3,5-Trimethylbenzene	ND	100	ug/L	20
Vinyl chloride	ND	100	ug/L	30
m-Xylene & p-Xylene	ND	100	ug/L	50
o-Xylene	ND	100	ug/L	20
Xylenes (total)	ND	100	ug/L	80

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	109	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
Toluene-d8	117	(80 - 130)

BOE-C6-0104148

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW002_WG100803_01

TOTAL Metals

Lot-Sample #...: E3J080388-004 **Matrix.....:** WG
Date Sampled...: 10/08/03 10:35 **Date Received..:** 10/08/03 18:35

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3282238						
Manganese	0.13	0.015	mg/L	SW846 6010B	10/09-10/10/03	F15LC1AJ
		Dilution Factor: 1		Analysis Time..: 18:47	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.0010	
Iron	0.63	0.10	mg/L	SW846 6010B	10/09-10/10/03	F15LC1AL
		Dilution Factor: 1		Analysis Time..: 18:47	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3282112	MDL.....: 0.030	

BOE-C6-0104149

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW002_WG100803_01

DISSOLVED Metals

Lot-Sample #...: E3J080388-004 Matrix.....: WG
Date Sampled...: 10/08/03 10:35 Date Received..: 10/08/03 18:35

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3282422						
Manganese	0.21	0.015	mg/L	SW846 6010B	10/09-10/10/03	F15LC1AH
		Dilution Factor: 1		Analysis Time..: 21:25	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286304	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	10/09-10/10/03	F15LC1AK
		Dilution Factor: 1		Analysis Time..: 21:25	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3286304	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW002_WG100803_01

General Chemistry

Lot-Sample #...: E3J080388-004 **Work Order #...:** F15LC **Matrix.....:** WG
Date Sampled...: 10/08/03 10:35 **Date Received..:** 10/08/03 18:35

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.24 B**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/09/03**	**3282249**
		Dilution Factor: 1		Analysis Time..: 10:09	Analyst ID.....: 0000221	
		Instrument ID..: W01		MS Run #.....: 3282168	MDL.....: 0.10	
Chloride	**110**	**5.0**	**mg/L**	**MCAWW 300.0A**	**10/09/03**	**3282248**
		Dilution Factor: 5		Analysis Time..: 14:28	Analyst ID.....: 0000228	
		Instrument ID..: W01		MS Run #.....: 3282164	MDL.....: 1.5	
Nitrate as N	ND	0.10	mg/L	MCAWW 300.0A	10/09/03	3282251
		Dilution Factor: 1		Analysis Time..: 10:09	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3282166	MDL.....: 0.030	
Nitrite as N	ND G	0.50	mg/L	MCAWW 300.0A	10/09/03	3282250
		Dilution Factor: 5		Analysis Time..: 14:28	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 3282165	MDL.....: 0.15	
Sulfate	**84.9**	**5.0**	**mg/L**	**MCAWW 300.0A**	**10/09/03**	**3282252**
		Dilution Factor: 5		Analysis Time..: 14:28	Analyst ID.....: 0000225	
		Instrument ID..: W01		MS Run #.....: 3282167	MDL.....: 1.0	
Total Organic Carbon (TOC)	**8.0**	**1.0**	**mg/L**	**SW846 9060**	**10/13/03**	**3286626**
		Dilution Factor: 1		Analysis Time..: 17:21	Analyst ID.....: 9999957	
		Instrument ID..: W08		MS Run #.....: 3287141	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

BOE-C6-0104151

SEVERN TRENT STL

QA/QC

BOE-C6-0104152

QC DATA ASSOCIATION SUMMARY

E3J080388

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WG	MCAWW 300.0A		3282248	3282164
	WG	MCAWW 300.0A		3282252	3282167
	WG	MCAWW 300.0A		3282251	3282166
	WG	SW846 9060		3286626	3287141
	WG	MCAWW 300.0A		3282249	3282168
	WG	MCAWW 300.0A		3282250	3282165
	WG	SW846 8260B		3286427	3286276
	WG	SW846 6010B		3282238	3282112
	WG	SW846 6010B		3282422	3286304
002	WG	SW846 8260B		3284179	3287352
003	WG	MCAWW 300.0A		3282248	3282164
	WG	MCAWW 300.0A		3282252	3282167
	WG	MCAWW 300.0A		3282251	3282166
	WG	SW846 9060		3286626	3287141
	WG	MCAWW 300.0A		3282249	3282168
	WG	MCAWW 300.0A		3282250	3282165
	WG	SW846 8260B		3284179	3287352
	WG	SW846 6010B		3282238	3282112
	WG	SW846 6010B		3282422	3286304
004	WG	MCAWW 300.0A		3282248	3282164
	WG	MCAWW 300.0A		3282252	3282167
	WG	MCAWW 300.0A		3282251	3282166
	WG	SW846 9060		3286626	3287141
	WG	MCAWW 300.0A		3282249	3282168
	WG	MCAWW 300.0A		3282250	3282165
	WG	SW846 8260B		3284179	3287352
	WG	SW846 6010B		3282238	3282112
	WG	SW846 6010B		3282422	3286304

BOE-C6-0104153

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J080388 **Work Order #...:** F2D1L1AA **Matrix.....:** WATER
MB Lot-Sample #: E3J110000-179

Prep Date.....: 10/10/03 **Analysis Time..:** 21:13
Analysis Date..: 10/10/03 **Prep Batch #...:** 3284179 **Instrument ID..:** MSJ
Dilution Factor: 1

Analyst ID.....: 015590

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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BOE-C6-0104154

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J080388 **Work Order #...:** F2D1L1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	113	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
Toluene-d8	110	(80 - 130)

NOTE(S):

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

BOE-C6-0104155

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J080388 **Work Order #...:** F2FG61AA **Matrix.....:** WATER
MB Lot-Sample #: E3J130000-427

Prep Date.....: 10/11/03 **Analysis Time..:** 11:16
Analysis Date..: 10/11/03 **Prep Batch #...:** 3286427 **Instrument ID..:** MSJ
Dilution Factor: 1

Analyst ID.....: 015590

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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BOE-C6-0104156

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J080388 **Work Order #...:** F2FG61AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	110	(75 - 130)
1,2-Dichloroethane-d4	92	(65 - 135)
Toluene-d8	111	(80 - 130)

NOTE(S):

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

BOE-C6-0104157

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: E3J080388 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: E3J090000-238 **Prep Batch #...:** 3282238						
Manganese	ND	0.015	mg/L	SW846 6010B	10/09-10/10/03	F153N1AA
		Dilution Factor: 1				
		Analysis Time..: 12:17		Analyst ID.....: 021088	Instrument ID..: M01	
Iron	ND	0.10	mg/L	SW846 6010B	10/09-10/10/03	F153N1AC
		Dilution Factor: 1				
		Analysis Time..: 12:17		Analyst ID.....: 021088	Instrument ID..: M01	

NOTE(S):

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

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: E3J080388 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: E3J090000-422 **Prep Batch #...:** 3282422						
Manganese	ND	0.015	mg/L	SW846 6010B	10/09-10/10/03	F17AN1AX
		Dilution Factor: 1				
		Analysis Time..: 20:06		Analyst ID.....: 021088	Instrument ID..: M01	
Iron	ND	0.10	mg/L	SW846 6010B	10/09-10/10/03	F17AN1A0
		Dilution Factor: 1				
		Analysis Time..: 20:06		Analyst ID.....: 021088	Instrument ID..: M01	

NOTE(S):

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

METHOD BLANK REPORT

General Chemistry

Client Lot #...: E3J080388 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #: F16FP1AA		MB Lot-Sample #:	E3J090000-249	
	ND	0.50	mg/L	MCAWW 300.0A	10/09/03	3282249
		Dilution Factor: 1				
		Analysis Time..: 09:14		Analyst ID.....: 000022	Instrument ID..: W01	
Chloride		Work Order #: F16FD1AA		MB Lot-Sample #:	E3J090000-248	
	ND	1.0	mg/L	MCAWW 300.0A	10/09/03	3282248
		Dilution Factor: 1				
		Analysis Time..: 09:14		Analyst ID.....: 000022	Instrument ID..: W01	
Nitrate as N		Work Order #: F16FH1AA		MB Lot-Sample #:	E3J090000-251	
	ND	0.10	mg/L	MCAWW 300.0A	10/09/03	3282251
		Dilution Factor: 1				
		Analysis Time..: 09:14		Analyst ID.....: 000022	Instrument ID..: W01	
Nitrite as N		Work Order #: F16FE1AA		MB Lot-Sample #:	E3J090000-250	
	ND	0.10	mg/L	MCAWW 300.0A	10/09/03	3282250
		Dilution Factor: 1				
		Analysis Time..: 09:14		Analyst ID.....: 000022	Instrument ID..: W01	
Sulfate		Work Order #: F16FM1AA		MB Lot-Sample #:	E3J090000-252	
	ND	1.0	mg/L	MCAWW 300.0A	10/09/03	3282252
		Dilution Factor: 1				
		Analysis Time..: 09:14		Analyst ID.....: 000022	Instrument ID..: W01	
Total Organic Carbon (TOC)		Work Order #: F2G6T1AA		MB Lot-Sample #:	E3J130000-626	
	ND	1.0	mg/L	SW846 9060	10/13/03	3286626
		Dilution Factor: 1				
		Analysis Time..: 17:21		Analyst ID.....: 999995	Instrument ID..: W08	

NOTE(S):

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

BOE-C6-0104160

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3J080388 **Work Order #...:** F2D1L1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J110000-179
Prep Date.....: 10/10/03 **Analysis Date..:** 10/10/03
Prep Batch #...: 3284179 **Analysis Time..:** 20:49
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**111**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**107**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**127**	**(65 - 135)**	**SW846 8260B**
Toluene	**111**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**108**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	121	(75 - 130)
1,2-Dichloroethane-d4	98	(65 - 135)
Toluene-d8	118	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3J080388 **Work Order #...:** F2D1L1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J110000-179
Prep Date.....: 10/10/03 **Analysis Date..:** 10/10/03
Prep Batch #...: 3284179 **Analysis Time..:** 20:49
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**11.1**	**ug/L**	**111**	**SW846 8260B**
Chlorobenzene	**10.0**	**10.7**	**ug/L**	**107**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**12.7**	**ug/L**	**127**	**SW846 8260B**
Toluene	**10.0**	**11.1**	**ug/L**	**111**	**SW846 8260B**
Trichloroethene	**10.0**	**10.8**	**ug/L**	**108**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	121	(75 - 130)
1,2-Dichloroethane-d4	98	(65 - 135)
Toluene-d8	118	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3J080388 **Work Order #...:** F2FG61AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J130000-427
Prep Date.....: 10/11/03 **Analysis Date..:** 10/11/03
Prep Batch #...: 3286427 **Analysis Time..:** 10:23
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**118**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**109**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**130**	**(65 - 135)**	**SW846 8260B**
Toluene	**114**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**116**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	116	(75 - 130)
1,2-Dichloroethane-d4	103	(65 - 135)
Toluene-d8	114	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

BOE-C6-0104163

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3J080388 **Work Order #...:** F2FG61AC **Matrix.....:** WATER
LCS Lot-Sample#: E3J130000-427
Prep Date.....: 10/11/03 **Analysis Date..:** 10/11/03
Prep Batch #...: 3286427 **Analysis Time..:** 10:23
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**11.8**	**ug/L**	**118**	**SW846 8260B**
Chlorobenzene	**10.0**	**10.9**	**ug/L**	**109**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**13.0**	**ug/L**	**130**	**SW846 8260B**
Toluene	**10.0**	**11.4**	**ug/L**	**114**	**SW846 8260B**
Trichloroethene	**10.0**	**11.6**	**ug/L**	**116**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	116	(75 - 130)
1,2-Dichloroethane-d4	103	(65 - 135)
Toluene-d8	114	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

BOE-C6-0104164

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E3J080388 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J090000-238 **Prep Batch #...:** 3282238					
Manganese	96	(85 - 120)	SW846 6010B	10/09-10/10/03	F153N1AD
		Dilution Factor: 1	Analysis Time..: 12:22	Analyst ID.....: 021088	
		Instrument ID..: M01			
Iron	95	(85 - 120)	SW846 6010B	10/09-10/10/03	F153N1AE
		Dilution Factor: 1	Analysis Time..: 12:22	Analyst ID.....: 021088	
		Instrument ID..: M01			

NOTE(S):

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

BOE-C6-0104165

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E3J080388 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J090000-238 **Prep Batch #...:** 3282238							
Manganese	0.500	0.482	mg/L	96	SW846 6010B	10/09-10/10/03	F153N1AD
			Dilution Factor: 1		Analysis Time..: 12:22	Analyst ID.....: 021088	
			Instrument ID..: M01				
Iron	1.00	0.946	mg/L	95	SW846 6010B	10/09-10/10/03	F153N1AE
			Dilution Factor: 1		Analysis Time..: 12:22	Analyst ID.....: 021088	
			Instrument ID..: M01				

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: E3J080388 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#:	E3J090000-422	**Prep Batch #...:** 3282422			
Manganese	101	(85 - 120)	SW846 6010B	10/09-10/10/03	F17AN1A1
		Dilution Factor: 1	Analysis Time..: 20:12	Analyst ID.....: 021088	
		Instrument ID..: M01			
Iron	104	(85 - 120)	SW846 6010B	10/09-10/10/03	F17AN1A2
		Dilution Factor: 1	Analysis Time..: 20:12	Analyst ID.....: 021088	
		Instrument ID..: M01			

NOTE(S):

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

BOE-C6-0104167

LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: E3J080388 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3J090000-422 **Prep Batch #...:** 3282422							
Manganese	0.500	0.505	mg/L	101	SW846 6010B	10/09-10/10/03	F17AN1A1
			Dilution Factor: 1		Analysis Time..: 20:12	Analyst ID.....: 021083	
			Instrument ID..: M01				
Iron	1.00	1.04	mg/L	104	SW846 6010B	10/09-10/10/03	F17AN1A2
			Dilution Factor: 1		Analysis Time..: 20:12	Analyst ID.....: 021088	
			Instrument ID..: M01				

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: E3J080388 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #: F16FP1AC LCS Lot-Sample#: E3J090000-249			
	105	(90 - 110)	MCAWW 300.0A	10/09/03	3282249
		Dilution Factor: 1	Analysis Time..: 08:55	Analyst ID.....: 000022	
		Instrument ID..: W01			
Chloride		Work Order #: F16FD1AC LCS Lot-Sample#: E3J090000-248			
	106	(90 - 110)	MCAWW 300.0A	10/09/03	3282248
		Dilution Factor: 1	Analysis Time..: 08:55	Analyst ID.....: 000022	
		Instrument ID..: W01			
Nitrate as N		Work Order #: F16FH1AC LCS Lot-Sample#: E3J090000-251			
	103	(90 - 110)	MCAWW 300.0A	10/09/03	3282251
		Dilution Factor: 1	Analysis Time..: 08:55	Analyst ID.....: 000022	
		Instrument ID..: W01			
Nitrite as N		Work Order #: F16FE1AC LCS Lot-Sample#: E3J090000-250			
	103	(90 - 110)	MCAWW 300.0A	10/09/03	3282250
		Dilution Factor: 1	Analysis Time..: 08:55	Analyst ID.....: 000022	
		Instrument ID..: W01			
Sulfate		Work Order #: F16FM1AC LCS Lot-Sample#: E3J090000-252			
	105	(90 - 110)	MCAWW 300.0A	10/09/03	3282252
		Dilution Factor: 1	Analysis Time..: 08:55	Analyst ID.....: 000022	
		Instrument ID..: W01			
Total Organic Carbon (TOC)		Work Order #: F2G6T1AC LCS Lot-Sample#: E3J130000-626			
	101	(85 - 115)	SW846 9060	10/13/03	3286626
		Dilution Factor: 1	Analysis Time..: 17:21	Analyst ID.....: 999995	
		Instrument ID..: W08			

NOTE(S):

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

BOE-C6-0104169

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E3J080388 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			Work Order #: F16FP1AC		LCS Lot-Sample#:	E3J090000-249	
	5.00	5.23	mg/L	105	MCAWW 300.0A	10/09/03	3282249
			Dilution Factor: 1		Analysis Time..: 08:55	Analyst ID.....: 000022	
			Instrument ID..: W01				
Chloride			Work Order #: F16FD1AC		LCS Lot-Sample#:	E3J090000-248	
	25.0	26.5	mg/L	106	MCAWW 300.0A	10/09/03	3282248
			Dilution Factor: 1		Analysis Time..: 08:55	Analyst ID.....: 000022	
			Instrument ID..: W01				
Nitrate as N			Work Order #: F16FH1AC		LCS Lot-Sample#:	E3J090000-251	
	5.00	5.13	mg/L	103	MCAWW 300.0A	10/09/03	3282251
			Dilution Factor: 1		Analysis Time..: 08:55	Analyst ID.....: 000022	
			Instrument ID..: W01				
Nitrite as N			Work Order #: F16FE1AC		LCS Lot-Sample#:	E3J090000-250	
	5.00	5.13	mg/L	103	MCAWW 300.0A	10/09/03	3282250
			Dilution Factor: 1		Analysis Time..: 08:55	Analyst ID.....: 000022	
			Instrument ID..: W01				
Sulfate			Work Order #: F16FM1AC		LCS Lot-Sample#:	E3J090000-252	
	25.0	26.2	mg/L	105	MCAWW 300.0A	10/09/03	3282252
			Dilution Factor: 1		Analysis Time..: 08:55	Analyst ID.....: 000022	
			Instrument ID..: W01				
Total Organic Carbon (TOC)			Work Order #: F2G6T1AC		LCS Lot-Sample#:	E3J130000-626	
	25.0	25.4	mg/L	101	SW846 9060	10/13/03	3286626
			Dilution Factor: 1		Analysis Time..: 17:21	Analyst ID.....: 999995	
			Instrument ID..: W08				

NOTE(S):

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

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	E3J080388	**Work Order #...:**	F156W1AP-MS F156W1AQ-MSD	**Matrix.....:**	WATER
MS Lot-Sample #:	E3J090146-003				
Date Sampled...:	10/08/03 09:00	**Date Received..:**	10/08/03 18:00	**MS Run #.....:**	3286276
Prep Date.....:	10/11/03	**Analysis Date..:**	10/11/03		
Prep Batch #...:	3286427	**Analysis Time..:**	19:50		
Dilution Factor:	1	**Analyst ID.....:**	015590	**Instrument ID..:**	MSJ

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**112**	**(75 - 125)**			**SW846 8260B**
	110	**(75 - 125)**	**1.7**	**(0-25)**	**SW846 8260B**
Chlorobenzene	**108**	**(75 - 125)**			**SW846 8260B**
	107	**(75 - 125)**	**0.92**	**(0-25)**	**SW846 8260B**
1,1-Dichloroethene	**132**	**(65 - 135)**			**SW846 8260B**
	132	**(65 - 135)**	**0.15**	**(0-25)**	**SW846 8260B**
Toluene	**110**	**(75 - 125)**			**SW846 8260B**
	110	**(75 - 125)**	**0.0**	**(0-25)**	**SW846 8260B**
Trichloroethene	**106**	**(75 - 135)**			**SW846 8260B**
	106	**(75 - 135)**	**0.28**	**(0-25)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	114	(75 - 130)
	117	(75 - 130)
1,2-Dichloroethane-d4	104	(65 - 135)
	108	(65 - 135)
Toluene-d8	116	(80 - 130)
	117	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...:	E3J080388	**Work Order #...:**	F156W1AP-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	E3J090146-003		F156W1AQ-MSD		
Date Sampled...:	10/08/03 09:00	**Date Received..:**	10/08/03 18:00	**MS Run #.....:**	3286276
Prep Date.....:	10/11/03	**Analysis Date..:**	10/11/03		
Prep Batch #...:	3286427	**Analysis Time..:**	19:50		
Dilution Factor:	1	**Analyst ID.....:**	015590	**Instrument ID..:**	MSJ

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**10.0**	**11.2**	**ug/L**	**112**		**SW846 8260B**
	ND	**10.0**	**11.0**	**ug/L**	**110**	**1.7**	**SW846 8260B**
Chlorobenzene	**ND**	**10.0**	**10.8**	**ug/L**	**108**		**SW846 8260B**
	ND	**10.0**	**10.7**	**ug/L**	**107**	**0.92**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**10.0**	**13.2**	**ug/L**	**132**		**SW846 8260B**
	ND	**10.0**	**13.2**	**ug/L**	**132**	**0.15**	**SW846 8260B**
Toluene	**ND**	**10.0**	**11.0**	**ug/L**	**110**		**SW846 8260B**
	ND	**10.0**	**11.0**	**ug/L**	**110**	**0.0**	**SW846 8260B**
Trichloroethene	**ND**	**10.0**	**10.6**	**ug/L**	**106**		**SW846 8260B**
	ND	**10.0**	**10.6**	**ug/L**	**106**	**0.28**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	114	(75 - 130)
	117	(75 - 130)
1,2-Dichloroethane-d4	104	(65 - 135)
	108	(65 - 135)
Toluene-d8	116	(80 - 130)
	117	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

BOE-C6-0104172

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E3J080388 **Matrix.....:** WATER
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J070354-001 **Prep Batch #...:** 3282238							
Manganese	97	(85 - 120)			SW846 6010B	10/09-10/10/03	F12K21DK
	101	(85 - 120)	2.3	(0-20)	SW846 6010B	10/09-10/10/03	F12K21DL
		Dilution Factor: 1					
		Analysis Time..: 12:52			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3282112					
Iron	NC	(85 - 120)			SW846 6010B	10/09-10/10/03	F12K21DM
	NC	(85 - 120)		(0-20)	SW846 6010B	10/09-10/10/03	F12K21DN
		Dilution Factor: 1					
		Analysis Time..: 12:52			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3282112					

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

BOE-C6-0104173

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E3J080388 **Matrix.....:** WATER
Date Sampled...: 10/07/03 11:18 **Date Received..:** 10/07/03 18:40

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J070354-001 **Prep Batch #...:** 3282238									
Manganese									
	0.30	0.500	0.783	mg/L	97		SW846 6010B	10/09-10/10/03	F12K21DK
	0.30	0.500	0.801	mg/L	101	2.3	SW846 6010B	10/09-10/10/03	F12K21DL
			Dilution Factor: 1						
			Analysis Time..: 12:52		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3282112						
Iron									
	4.8	1.00	5.97 NC	mg/L			SW846 6010B	10/09-10/10/03	F12K21DM
	4.8	1.00	6.26 NC	mg/L			SW846 6010B	10/09-10/10/03	F12K21DN
			Dilution Factor: 1						
			Analysis Time..: 12:52		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3282112						

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

MATRIX SPIKE SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: E3J080388 **Matrix.....:** WATER
Date Sampled...: 10/08/03 12:40 **Date Received..:** 10/08/03 18:45

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J080387-003 **Prep Batch #...:** 3282422							
Manganese	NC	(85 - 120)			SW846 6010B	10/09-10/10/03	F15K11DL
	NC	(85 - 120)		(0-20)	SW846 6010B	10/09-10/10/03	F15K11DM
		Dilution Factor: 1					
		Analysis Time..: 20:34			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3286304					
Iron	NC	(85 - 120)			SW846 6010B	10/09-10/10/03	F15K11DQ
	NC	(85 - 120)		(0-20)	SW846 6010B	10/09-10/10/03	F15K11DR
		Dilution Factor: 1					
		Analysis Time..: 20:34			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3286304					

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

BOE-C6-0104175

MATRIX SPIKE SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: E3J080388 **Matrix.....:** WATER
Date Sampled...: 10/08/03 12:40 **Date Received..:** 10/08/03 18:45

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J080387-003 **Prep Batch #...:** 3282422									
Manganese									
	5.9	0.500	6.22	NC mg/L			SW846 6010B	10/09-10/10/03	F15K11DL
	5.9	0.500	6.33	NC mg/L			SW846 6010B	10/09-10/10/03	F15K11DM
			Dilution Factor: 1						
			Analysis Time..: 20:34		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3286304						
Iron									
	30.0	1.00	30.1	NC mg/L			SW846 6010B	10/09-10/10/03	F15K11DQ
	30.0	1.00	30.9	NC mg/L			SW846 6010B	10/09-10/10/03	F15K11DR
			Dilution Factor: 1						
			Analysis Time..: 20:34		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3286304						

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: E3J080388 **Matrix.....:** WG
Date Sampled...: 10/08/03 07:33 **Date Received..:** 10/08/03 18:35

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		WO#: F15K81AX-MS/F15K81A0-MSD MS Lot-Sample #: E3J080388-001					
	101	(80 - 120)			MCAWW 300.0A	10/09/03	3282249
	101	(80 - 120)	0.07	(0-20)	MCAWW 300.0A	10/09/03	3282249
		Dilution Factor: 10					
		Analysis Time..: 15:24 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 3282168					
Chloride		WO#: F15K81AN-MS/F15K81AP-MSD MS Lot-Sample #: E3J080388-001					
	100	(80 - 120)			MCAWW 300.0A	10/09/03	3282248
	103	(80 - 120)	0.91	(0-20)	MCAWW 300.0A	10/09/03	3282248
		Dilution Factor: 10					
		Analysis Time..: 15:24 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 3282164					
Nitrate as N		WO#: F15K81AT-MS/F15K81AU-MSD MS Lot-Sample #: E3J080388-001					
	98	(80 - 120)			MCAWW 300.0A	10/09/03	3282251
	98	(80 - 120)	0.20	(0-20)	MCAWW 300.0A	10/09/03	3282251
		Dilution Factor: 10					
		Analysis Time..: 15:24 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 3282166					
Nitrite as N		WO#: F15K81AQ-MS/F15K81AR-MSD MS Lot-Sample #: E3J080388-001					
	99	(80 - 120)			MCAWW 300.0A	10/09/03	3282250
	99	(80 - 120)	0.22	(0-20)	MCAWW 300.0A	10/09/03	3282250
		Dilution Factor: 10					
		Analysis Time..: 15:24 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 3282165					
Sulfate		WO#: F15K81AV-MS/F15K81AW-MSD MS Lot-Sample #: E3J080388-001					
	102	(80 - 120)			MCAWW 300.0A	10/09/03	3282252
	102	(80 - 120)	0.19	(0-20)	MCAWW 300.0A	10/09/03	3282252
		Dilution Factor: 10					
		Analysis Time..: 15:24 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 3282167					
Total Organic Carbon (TOC)		WO#: F15K81A1-MS/F15K81A2-MSD MS Lot-Sample #: E3J080388-001					
	98	(85 - 115)			SW846 9060	10/13/03	3286626
	95	(85 - 115)	2.4	(0-20)	SW846 9060	10/13/03	3286626
		Dilution Factor: 1					
		Analysis Time..: 17:21 Instrument ID..: W08 Analyst ID.....: 999995					
		MS Run #.....: 3287141					

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E3J080388 **Matrix.....:** WG
Date Sampled...: 10/08/03 07:33 **Date Received..:** 10/08/03 18:35

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			WO#: F15K81AX-MS/F15K81A0-MSD				MS Lot-Sample #: E3J080388-001		
	0.73	25.0	26.1	mg/L	101		MCAWW 300.0A	10/09/03	3282249
	0.73	25.0	26.1	mg/L	101	0.07	MCAWW 300.0A	10/09/03	3282249
			Dilution Factor: 10						
			Analysis Time..: 15:24		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3282168						
Chloride			WO#: F15K81AN-MS/F15K81AP-MSD				MS Lot-Sample #: E3J080388-001		
	275	125	400	mg/L	100		MCAWW 300.0A	10/09/03	3282248
	275	125	404	mg/L	103	0.91	MCAWW 300.0A	10/09/03	3282248
			Dilution Factor: 10						
			Analysis Time..: 15:24		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3282164						
Nitrate as N			WO#: F15K81AT-MS/F15K81AU-MSD				MS Lot-Sample #: E3J080388-001		
	2.7	25.0	27.1	mg/L	98		MCAWW 300.0A	10/09/03	3282251
	2.7	25.0	27.1	mg/L	98	0.20	MCAWW 300.0A	10/09/03	3282251
			Dilution Factor: 10						
			Analysis Time..: 15:24		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3282166						
Nitrite as N			WO#: F15K81AQ-MS/F15K81AR-MSD				MS Lot-Sample #: E3J080388-001		
	ND	25.0	24.8	mg/L	99		MCAWW 300.0A	10/09/03	3282250
	ND	25.0	24.7	mg/L	99	0.22	MCAWW 300.0A	10/09/03	3282250
			Dilution Factor: 10						
			Analysis Time..: 15:24		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3282165						
Sulfate			WO#: F15K81AV-MS/F15K81AW-MSD				MS Lot-Sample #: E3J080388-001		
	37.7	125	160	mg/L	102		MCAWW 300.0A	10/09/03	3282252
	37.7	125	161	mg/L	102	0.19	MCAWW 300.0A	10/09/03	3282252
			Dilution Factor: 10						
			Analysis Time..: 15:24		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3282167						
Total Organic Carbon (TOC)			WO#: F15K81A1-MS/F15K81A2-MSD				MS Lot-Sample #: E3J080388-001		
	3.3	25.0	27.7	mg/L	98		SW846 9060	10/13/03	3286626
	3.3	25.0	27.1	mg/L	95	2.4	SW846 9060	10/13/03	3286626
			Dilution Factor: 1						
			Analysis Time..: 17:21		Instrument ID..: W08			Analyst ID.....: 999995	
			MS Run #.....: 3287141						

NOTE(S):

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

SEVERN TRENT STL

November 20, 2003

STL LOT NUMBER: E3J310405
NELAP Certification Number: 01118CA/E87652

Jim Nguyen
ARCADIS Geraghty & Miller, Inc
1400 N. Harbor Blvd.
Suite 700
Fullerton, CA 92835-4127

Dear Mr. Nguyen,

This report contains the analytical results for the eight samples received under chain of custody by STL Los Angeles on October 31, 2003. These samples are associated with your Boeing former C6 facility Torrance, California project.

All applicable quality control procedures met method-specified acceptance criteria except as noted on the following page. Historical control limits for the LCS are used to define the estimate of uncertainty for a method. See Project Receipt Checklist for container temperature and conditions. Temperature reading between 2 to 6 degrees Celsius is considered within acceptable criteria. Any matrix related anomaly is footnoted within the report.

STL Los Angeles certifies that the tests performed at our facility meet all NELAP requirements for parameters for which accreditation is required or available. The case narrative is an integral part of the report. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me extension 313.

Sincerely,

Diane Suzuki
Customer Service Manager

CC: Project File

Page 1 of 72 total pages in this report.

BOE-C6-0104179

LOT NUMBER E3J310405

Nonconformance 05-06422

Affected Samples:
E3J310405 (1): IRZMW001A_WG103003_01
E3J310405 (2): IRZMW001B_WG103003_01
E3J310405 (3): IRZMW002B_WG103003_01
E3J310405 (4): IRZMW002A_WG103003_01
E3J310405 (5): IRZMW003A_WG103103_01
E3J310405 (6): IRZMW003B_WG103103_01
E3J310405 (7): IRZMW002A_WG103103_01

Affected Methods:
300.0A, 6010B, 8260B, 9060

Case Narrative:
Two coolers were received at the lab. The dark blue cooler contained a temperature blank that measured at 0.8 degrees Celsius and the blue cooler was measured at 3.6 degrees Celsius.

A trip blank was received, but not listed on the COC. Client request that the trip blank be added for 8260 analysis.

Nonconformance 05-06465

Affected Samples:
E3J310405 (1): IRZMW001A_WG103003_01
E3J310405 (2): IRZMW001B_WG103003_01
E3J310405 (3): IRZMW002B_WG103003_01
E3J310405 (5): IRZMW003A_WG103103_01
E3J310405 (6): IRZMW003B_WG103103_01
E3J310405 (7): IRZMW002A_WG103103_01

Affected Methods:
6010B Dissolved Metals

Case Narrative:
Samples were received by the lab unfiltered and unpreserved for dissolved metals test. Per client request, the samples were filtered and preserved with NItric Acid to a pH<2. Pre-preserved bottles with Nitric Acid were used as containers.

BOE-C6-0104180

J310405

[redacted]

hain of ustody Record

-4124 (0901)

SEVERN TRENT SERVICES

Severn Trent Laboratories, Inc.

ent: Boeing C-6 Torrance	Project Manager: Jim Nguyen	Date: 10/31/03	Chain of Custody Number: 139946
dress: 1900 North Harbor Blvd. Suite 700	Telephone Number (Area Code)/Fax Number: (714) 278-0992 Fax (714) 278-0051	Lab Number: ~~E~~J310405	Page 1 of 1
y: Fullerton; State: CA; Zip Code: 92835	Site Contact: H. Hernandez	Lab Contact:	
ject Name and Location (State)	Carrier/Waybill Number		
ntract/Purchase Order/Quote No.			

Sample I.D. No. and Description (ntainers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		8260B VOC	Metals, Total	Metals, Dissolved	Sulfide	TOC	Br, NO2, NO3, SO4	Cl						Special Instructions/ Conditions of Receipt
RZMW001A_WG103003_01	10/30/03	1532		✓				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓						
RZMW001B_WG103003_01	10/30/03	1632		✓				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓						
RZMW002B_WG103003_01	10/30/03	1756		✓				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓						
RZMW002A_WG103003_01	10/30/03	1915		✓					✓		✓		✓		✓			✓	✓								
RZMW003A_WG103103_01	10/31/03	1050		✓				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓						
RZMW003B_WG103103_01	10/31/03	0943		✓				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓						
RZMW002A_WG103103_01	10/31/03	1205		✓				✓								✓	✓			✓							

Analysis (Attach list if more space is needed)

ssible Hazard Identification: Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

n Around Time Required: 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
Relinquished By	10/31/03	14:30	1. Received By	10-31-03	1430
Relinquished By			2. Received By		
Relinquished By			3. Received By		

mments

TRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

3

BOE-C6-0104181

STL LOS ANGELES
PROJECT RECEIPT CHECKLIST

Date: 10-31-03

Quantims Lot #: E3J310405 Quote #:
Client Name: AGtm Project: C-6
Received by: MG Date/Time Received: 10-31-03 1430
Delivered by : [X] Client [ ] Airborne [ ] Fed Ex [ ] DHL [ ] In-House Courier [ ] Rey B. [ ] UPS [ ] DES [ ] Other

Initial / Date

Custody Seal Status: [ ] Intact [ ] Broken [X] None ..... TS 10-31-03
Custody Seal #(s): [X] No Seal # .....
Sample Container(s): [X] STL-LA [ ] Client [ ] N/A .....
Temperature(s) (Cooler/blank) in °C: Correction factor ~0.2°C (Corrected Temp.) ...
Thermometer Used : ID: B [X] IR (Infra-red) [ ] Digital (Probe) .....
Samples: [X] Intact [ ] Broken [ ] Other .....
Anomalies: [ ] No [ ] Yes (See Clouseau) .....
Labeled by .....
Labeling checked by .....

Turn Around Time: [ ] RUSH-24HR [ ] RUSH-48HR [ ] RUSH-72HR [ ] NORMAL .....
Short-Hold Notification: [ ] Ph [ ] Wet Chem [ ] Metals (Filter/Pres) [ ] Encore [ ] N/A ...
Outside Analysis(es) (Test/Lab/Date Sent Out) :
Trip Blanks not on COC

LEAVE NO BLANK SPACES ; USE N/A

Fraction	1	2	3	4	5	6	7	8			PH
VOAh /*	3	3	3	3	3	3	Xu na	3			N/A
PB	1	1	1		1	1	1				
500PB	1	1	1		1	1	1				
500PBn	1	1	1		1	1	1				
250AGS	1	1	1	1	1	1					
250PBnaz	1	1	1	1	1	1					

h:HCl na:Sodium Hydoxide znna:Zinc Acetate/Sodium Hydroxide s: H2SO4 n:HNO3 n/f:HNO3-Field filtered n/f/l:HNO3-Lab filtered
CGJ:Clear Glass Jar CGB:Clear Glass Bottle AGJ:Amber Glass Jar AGB:Amber Glass Bottle PB: Poly Bottle E:Encore Sampler V:VOA SL:Sleeve
* Number of VOA's w/ Headspace present

LOGGED BY/DATE: BB. 10/31/03 REVIEWED BY/DATE: 11-04-03

STL Los Angeles
Condition Upon Receipt Anomaly Report (CUR)

Client: AG+M Date/Time 10/31/03

Lot No: E3J310405 Initiated by: AB

Affected samples		Chain of Custody #
Client ID	Lab ID	Analyses Requested

CONDITION/ANOMALY/VARIANCE (CHECK ALL THAT APPLY):

- **COOLERS**
  - ☐ Not Received, No (COC)
  - ☐ Not Received but COC (s) Available
  - ☐ Leaking
  - ☐ Other: _____
- **TEMPERATURE (SPECS 4 ± 2°C)**
  - ☐ Cooler Temp(s) _____
  - ☐ Temperature Blank(s) _____
- **CONTAINERS**
  - ☐ Leaking
  - ☐ Broken
  - ☐ Extra
  - ☐ Without Labels
  - ☐ VOA Vials with Headspace _____ mm
  - ☐ Other: _____
- **SAMPLES**
  - ☐ Samples NOT RECEIVED but listed on COC
  - ☐ Samples received but NOT LISTED on COC
  - ☐ Logged based on Label Information
  - ☐ Logged based on info from other samples on COC
  - ☐ Logged according to Work Plan
  - ☐ Logged on HOLD UNTIL FURTHER NOTICE
  - ☐ Other _____
- **CUSTODY SEALS (COOLER(S)/CONTAINER(S)**
  - ☐ None
  - ☐ Not Intact
  - ☐ Other _____
- **CHAIN OF CUSTODY (COC)**
  - ☐ Not relinquished by Client; No date/time relinquished
  - ☐ Incomplete information provided
  - ☐ Other _____
- **CONTAINERS LABELS**
  - ☐ Not the same ID/info as in COC
  - ☐ Incomplete Information
    - ☐ Preservative
    - ☐ Collection _____ Time _____ Date
  - ☐ Markings/Info illegible
  - ☐ Torn
  - ☐ Other _____
- ☐ Will be noted on COC--Client to send samples with new COC
- ☐ Mislabeled as to tests, preservatives, etc.
- ☐ Holding time expired
- ☐ Improper container used
- ☐ Not preserved/Improper preservative used
- ☐ Improper pH _____ Lab to preserve sample and document
- ☐ Insufficient quantities for analysis

Comments 3 TB not on COC;
11/1/03 added by Humberto [signature]

Corrective Action Implemented:

- ☐ Client Informed: verbally on _____ By: _____ In writing on _____ By: _____
- ☐ Sample(s) processed "as is." _____
- ☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: _____ Date: _____

Project Management Review: [signature] Date: 11·11·03

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

STL Los Angeles
Change Order Form

Laboratory Lot Number: E3J310405
Client Name: Arcadis
Project: Boeing C6 Torrance
Contact: David Poley

____ Cancel Work
__X__ ADD Work
____ COC Discrepancy
____ TAT Change
____ Matrix
____ Sample Problem
____ Tests Not Defined
____ Other:

Explanation/Resolution

Add Chloride to IRZMW002A_WG103103_01

Initiated by: Diane Suzuki
Date: 11/12/03

STL Los Angeles
Change Order Form

Laboratory Lot Number: E3J310405
Client Name: Arcadis
Project: Boeing C6 Torrance
Contact: David Poley

____ Cancel Work

____ ADD Work

____ COC Discrepancy

____ TAT Change

____ Matrix

____ Sample Problem

____ Tests Not Defined

_X_ Other:

Explanation/Resolution

Change Trip Blank sample id to TB_AR103003_01.

Initiated by: Diane Suzuki

Date: 11/19/03

SEVERN TRENT STL

Analytical Report

BOE-C6-0104186

EXECUTIVE SUMMARY - Detection Highlights

E3J310405

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZMW001A_WG103003_01 10/30/03 15:32	**001**			
Manganese - DISSOLVED	0.019	0.015	mg/L	SW846 6010B
Manganese	0.24 J	0.015	mg/L	SW846 6010B
Iron	6.8	0.10	mg/L	SW846 6010B
Trichloroethene	11000	500	ug/L	SW846 8260B
Chloride	615	10.0	mg/L	MCAWW 300.0A
Sulfate	88.6	10.0	mg/L	MCAWW 300.0A
Nitrate as N	13.6	1.0	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	5.0	1.0	mg/L	SW846 9060
Bromide	3.6	0.50	mg/L	MCAWW 300.0A
IRZMW001B_WG103003_01 10/30/03 16:32	**002**			
Manganese - DISSOLVED	0.020	0.015	mg/L	SW846 6010B
Manganese	0.090 J	0.015	mg/L	SW846 6010B
Iron	2.9	0.10	mg/L	SW846 6010B
1,1-Dichloroethene	50 J	120	ug/L	SW846 8260B
cis-1,2-Dichloroethene	54 J	120	ug/L	SW846 8260B
Trichloroethene	4800	120	ug/L	SW846 8260B
Chloride	218	5.0	mg/L	MCAWW 300.0A
Sulfate	98.0	5.0	mg/L	MCAWW 300.0A
Nitrate as N	5.8	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	3.8	1.0	mg/L	SW846 9060
Bromide	0.73	0.50	mg/L	MCAWW 300.0A
IRZMW002B_WG103003_01 10/30/03 17:56	**003**			
Manganese - DISSOLVED	0.15	0.015	mg/L	SW846 6010B
Manganese	0.31 J	0.015	mg/L	SW846 6010B
Iron	11.7	0.10	mg/L	SW846 6010B
Acetone	73 J	120	ug/L	SW846 8260B
1,1-Dichloroethene	8.5 J	12	ug/L	SW846 8260B
cis-1,2-Dichloroethene	80	12	ug/L	SW846 8260B
Trichloroethene	640	12	ug/L	SW846 8260B
Chloride	220	5.0	mg/L	MCAWW 300.0A
Sulfate	80.9	5.0	mg/L	MCAWW 300.0A
Nitrate as N	6.9	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	4.1	1.0	mg/L	SW846 9060
Bromide	0.94	0.50	mg/L	MCAWW 300.0A
Nitrite as N	0.21 B,G	0.50	mg/L	MCAWW 300.0A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E3J310405

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZMW002A_WG103003_01 10/30/03 19:15	**004**			
1,1-Dichloroethene	63 J	120	ug/L	SW846 8260B
cis-1,2-Dichloroethene	660	120	ug/L	SW846 8260B
Trichloroethene	5100	120	ug/L	SW846 8260B
Total Organic Carbon (TOC)	21.8	1.0	mg/L	SW846 9060
IRZMW003A_WG103103_01 10/31/03 10:50	**005**			
Manganese - DISSOLVED	0.0069 B	0.015	mg/L	SW846 6010B
Manganese	0.11 J	0.015	mg/L	SW846 6010B
Iron	5.6	0.10	mg/L	SW846 6010B
Acetone	3200 J	5000	ug/L	SW846 8260B
1,1-Dichloroethene	180 J	500	ug/L	SW846 8260B
Trichloroethene	20000	500	ug/L	SW846 8260B
Chloride	465	10.0	mg/L	MCAWW 300.0A
Sulfate	48.3	1.0	mg/L	MCAWW 300.0A
Nitrate as N	9.6	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	2.6	1.0	mg/L	SW846 9060
Bromide	1.1	0.50	mg/L	MCAWW 300.0A
IRZMW003B_WG103103_01 10/31/03 09:43	**006**			
Manganese - DISSOLVED	0.051	0.015	mg/L	SW846 6010B
Manganese	0.23 J	0.015	mg/L	SW846 6010B
Iron	8.1	0.10	mg/L	SW846 6010B
Acetone	130 J	250	ug/L	SW846 8260B
1,1-Dichloroethene	19 J	25	ug/L	SW846 8260B
Trichloroethene	1000	25	ug/L	SW846 8260B
Chloride	240	50.0	mg/L	MCAWW 300.0A
Sulfate	77.9	5.0	mg/L	MCAWW 300.0A
Nitrate as N	6.3	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	3.8	1.0	mg/L	SW846 9060
Bromide	0.69	0.50	mg/L	MCAWW 300.0A
IRZMW002A_WG103103_01 10/31/03 12:05	**007**			
Manganese - DISSOLVED	3.6	0.015	mg/L	SW846 6010B
Manganese	3.7 J	0.015	mg/L	SW846 6010B
Iron	13.4	0.10	mg/L	SW846 6010B
Chloride	444	10.0	mg/L	MCAWW 300.0A
Sulfate	77.8	10.0	mg/L	MCAWW 300.0A

(Continued on next page)

BOE-C6-0104188

EXECUTIVE SUMMARY - Detection Highlights

E3J310405

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZMW002A_WG103103_01 10/31/03 12:05	**007**			
Nitrate as N	0.13	0.10	mg/L	MCAWW 300.0A
Bromide	2.3	0.50	mg/L	MCAWW 300.0A
TB_AR103003_01 10/30/03 008				
Acetone	11	10	ug/L	SW846 8260B

METHODS SUMMARY

E3J310405

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Bromide	MCAWW 300.0A	MCAWW 300.0A
Chloride	MCAWW 300.0A	MCAWW 300.0A
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3005A
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Sulfide (Colorimetric,MB)	MCAWW 376.2	MCAWW 376.2
Total Organic Carbon	SW846 9060	SW846 9060
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

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

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

BOE-C6-0104190

SAMPLE SUMMARY

E3J310405

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
F3X31	001	IRZMW001A_WG103003_01	10/30/03	15:32
F3X4Q	002	IRZMW001B_WG103003_01	10/30/03	16:32
F3X4V	003	IRZMW002B_WG103003_01	10/30/03	17:56
F3X40	004	IRZMW002A_WG103003_01	10/30/03	19:15
F3X43	005	IRZMW003A_WG103103_01	10/31/03	10:50
F3X49	006	IRZMW003B_WG103103_01	10/31/03	09:43
F3X5E	007	IRZMW002A_WG103103_01	10/31/03	12:05
F3X5M	008	TB_AR103003_01	10/30/03	

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.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001A_WG103003_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-001 **Work Order #...:** F3X311AM **Matrix.....:** WATER
Date Sampled...: 10/30/03 15:32 **Date Received..:** 10/31/03 14:30 **MS Run #.....:** 3311228
Prep Date.....: 11/07/03 **Analysis Date..:** 11/07/03
Prep Batch #...: 3311516 **Analysis Time..:** 03:38
Dilution Factor: 500
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5000	ug/L	1500
Benzene	ND	500	ug/L	150
Bromobenzene	ND	500	ug/L	150
Bromochloromethane	ND	500	ug/L	150
Bromoform	ND	500	ug/L	150
Bromomethane	ND	1000	ug/L	500
2-Butanone	ND	2500	ug/L	1500
n-Butylbenzene	ND	500	ug/L	150
sec-Butylbenzene	ND	500	ug/L	150
tert-Butylbenzene	ND	500	ug/L	100
Carbon disulfide	ND	500	ug/L	150
Carbon tetrachloride	ND	500	ug/L	150
Chlorobenzene	ND	500	ug/L	150
Dibromochloromethane	ND	500	ug/L	200
Bromodichloromethane	ND	500	ug/L	150
Chloroethane	ND	1000	ug/L	150
Chloroform	ND	500	ug/L	150
Chloromethane	ND	1000	ug/L	150
2-Chlorotoluene	ND	500	ug/L	150
4-Chlorotoluene	ND	500	ug/L	150
1,2-Dibromo-3-chloro-propane	ND	1000	ug/L	350
1,2-Dibromoethane (EDB)	ND	500	ug/L	150
Dibromomethane	ND	500	ug/L	200
1,2-Dichlorobenzene	ND	500	ug/L	150
1,3-Dichlorobenzene	ND	500	ug/L	150
1,4-Dichlorobenzene	ND	500	ug/L	150
Dichlorodifluoromethane	ND	1000	ug/L	200
1,1-Dichloroethane	ND	500	ug/L	100
1,2-Dichloroethane	ND	500	ug/L	200
1,1-Dichloroethene	ND	500	ug/L	150
cis-1,2-Dichloroethene	ND	500	ug/L	150
trans-1,2-Dichloroethene	ND	500	ug/L	150
1,2-Dichloropropane	ND	500	ug/L	150
1,3-Dichloropropane	ND	500	ug/L	200
2,2-Dichloropropane	ND	500	ug/L	150
1,1-Dichloropropene	ND	500	ug/L	150

(Continued on next page)

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001A_WG103003_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-001 **Work Order #...:** F3X311AM **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	500	ug/L	150
trans-1,3-Dichloropropene	ND	500	ug/L	250
Ethylbenzene	ND	500	ug/L	100
Hexachlorobutadiene	ND	500	ug/L	150
2-Hexanone	ND	2500	ug/L	1500
Isopropylbenzene	ND	500	ug/L	150
p-Isopropyltoluene	ND	500	ug/L	150
Methylene chloride	ND	500	ug/L	150
4-Methyl-2-pentanone	ND	2500	ug/L	1500
Methyl tert-butyl ether	ND	500	ug/L	250
Naphthalene	ND	500	ug/L	250
n-Propylbenzene	ND	500	ug/L	200
Styrene	ND	500	ug/L	150
1,1,1,2-Tetrachloroethane	ND	500	ug/L	150
1,1,2,2-Tetrachloroethane	ND	500	ug/L	200
Tetrachloroethene	ND	500	ug/L	150
Toluene	ND	500	ug/L	150
1,2,3-Trichlorobenzene	ND	500	ug/L	200
1,2,4-Trichloro-benzene	ND	500	ug/L	150
1,1,1-Trichloroethane	ND	500	ug/L	100
1,1,2-Trichloroethane	ND	500	ug/L	150
Trichloroethene	**11000**	**500**	**ug/L**	**150**
Trichlorofluoromethane	ND	1000	ug/L	150
1,2,3-Trichloropropane	ND	500	ug/L	200
1,1,2-Trichlorotrifluoro-ethane	ND	500	ug/L	200
1,2,4-Trimethylbenzene	ND	500	ug/L	150
1,3,5-Trimethylbenzene	ND	500	ug/L	100
Vinyl chloride	ND	500	ug/L	150
m-Xylene & p-Xylene	ND	500	ug/L	250
o-Xylene	ND	500	ug/L	100
Xylenes (total)	ND	500	ug/L	400

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	97	(75 - 130)
1,2-Dichloroethane-d4	101	(65 - 135)
Toluene-d8	105	(80 - 130)

BOE-C6-0104193

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001A_WG103003_01

TOTAL Metals

Lot-Sample #...: E3J310405-001 Matrix.....: WATER
Date Sampled...: 10/30/03 15:32 Date Received..: 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307261						
Manganese	0.24 J	0.015	mg/L	SW846 6010B	11/06-11/07/03	F3X311AJ
		Dilution Factor: 1		Analysis Time..: 13:44	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.0010	
Iron	6.8	0.10	mg/L	SW846 6010B	11/06-11/07/03	F3X311AL
		Dilution Factor: 1		Analysis Time..: 13:44	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.030	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001A_WG103003_01

DISSOLVED Metals

Lot-Sample #...: E3J310405-001 **Matrix.....:** WATER
Date Sampled...: 10/30/03 15:32 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307485						
Manganese	**0.019**	**0.015**	**mg/L**	**SW846 6010B**	**11/03-11/05/03**	**F3X311AH**
		Dilution Factor: 1		Analysis Time..: 00:02	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	11/03-11/05/03	F3X311AK
		Dilution Factor: 1		Analysis Time..: 00:02	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001A_WG103003_01

General Chemistry

Lot-Sample #...: E3J310405-001 **Work Order #...:** F3X31 **Matrix.....:** WATER
Date Sampled...: 10/30/03 15:32 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**3.6**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304563**
		Dilution Factor: 1		Analysis Time..: 19:56	Analyst ID.....: 000022	
		Instrument ID..: W01		MS Run #.....: 3304303	MDL.....: 0.10	
Chloride	**615**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304562**
		Dilution Factor: 10		Analysis Time..: 22:25	Analyst ID.....: 0000223	
		Instrument ID..: W01		MS Run #.....: 3304301	MDL.....: 3.0	
Nitrate as N	**13.6**	**1.0**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304565**
		Dilution Factor: 10		Analysis Time..: 22:25	Analyst ID.....: 0000221	
		Instrument ID..: W01		MS Run #.....: 3304304	MDL.....: 0.30	
Nitrite as N	ND G	1.0	mg/L	MCAWW 300.0A	10/31/03	3304564
		Dilution Factor: 10		Analysis Time..: 22:25	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3304302	MDL.....: 0.30	
Sulfate	**88.6**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304566**
		Dilution Factor: 10		Analysis Time..: 22:25	Analyst ID.....: 0000222	
		Instrument ID..: W01		MS Run #.....: 3304305	MDL.....: 2.0	
Total Sulfide	ND	0.10	mg/L	MCAWW 376.2	11/06/03	3310408
		Dilution Factor: 1		Analysis Time..: 12:36	Analyst ID.....: 0000225	
		Instrument ID..: W17		MS Run #.....: 3310225	MDL.....: 0.050	
Total Organic Carbon (TOC)	**5.0**	**1.0**	**mg/L**	**SW846 9060**	**11/04/03**	**3308582**
		Dilution Factor: 1		Analysis Time..: 17:00	Analyst ID.....: 9999955	
		Instrument ID..: W08		MS Run #.....: 3309277	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001B_WG103003_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-002 **Work Order #...:** F3X4Q1AM **Matrix.....:** WATER
Date Sampled...: 10/30/03 16:32 **Date Received..:** 10/31/03 14:30 **MS Run #.....:** 3311228
Prep Date.....: 11/07/03 **Analysis Date..:** 11/07/03
Prep Batch #...: 3311516 **Analysis Time..:** 04:02
Dilution Factor: 125
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1200	ug/L	380
Benzene	ND	120	ug/L	38
Bromobenzene	ND	120	ug/L	38
Bromochloromethane	ND	120	ug/L	38
Bromoform	ND	120	ug/L	38
Bromomethane	ND	250	ug/L	120
2-Butanone	ND	620	ug/L	380
n-Butylbenzene	ND	120	ug/L	38
sec-Butylbenzene	ND	120	ug/L	38
tert-Butylbenzene	ND	120	ug/L	25
Carbon disulfide	ND	120	ug/L	38
Carbon tetrachloride	ND	120	ug/L	38
Chlorobenzene	ND	120	ug/L	38
Dibromochloromethane	ND	120	ug/L	50
Bromodichloromethane	ND	120	ug/L	38
Chloroethane	ND	250	ug/L	38
Chloroform	ND	120	ug/L	38
Chloromethane	ND	250	ug/L	38
2-Chlorotoluene	ND	120	ug/L	38
4-Chlorotoluene	ND	120	ug/L	38
1,2-Dibromo-3-chloro-propane	ND	250	ug/L	88
1,2-Dibromoethane (EDB)	ND	120	ug/L	38
Dibromomethane	ND	120	ug/L	50
1,2-Dichlorobenzene	ND	120	ug/L	38
1,3-Dichlorobenzene	ND	120	ug/L	38
1,4-Dichlorobenzene	ND	120	ug/L	38
Dichlorodifluoromethane	ND	250	ug/L	50
1,1-Dichloroethane	ND	120	ug/L	25
1,2-Dichloroethane	ND	120	ug/L	50
1,1-Dichloroethene	**50 J**	**120**	**ug/L**	**38**
cis-1,2-Dichloroethene	**54 J**	**120**	**ug/L**	**38**
trans-1,2-Dichloroethene	ND	120	ug/L	38
1,2-Dichloropropane	ND	120	ug/L	38
1,3-Dichloropropane	ND	120	ug/L	50
2,2-Dichloropropane	ND	120	ug/L	38
1,1-Dichloropropene	ND	120	ug/L	38

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001B_WG103003_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-002 **Work Order #...:** F3X4Q1AM **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	120	ug/L	38
trans-1,3-Dichloropropene	ND	120	ug/L	62
Ethylbenzene	ND	120	ug/L	25
Hexachlorobutadiene	ND	120	ug/L	38
2-Hexanone	ND	620	ug/L	380
Isopropylbenzene	ND	120	ug/L	38
p-Isopropyltoluene	ND	120	ug/L	38
Methylene chloride	ND	120	ug/L	38
4-Methyl-2-pentanone	ND	620	ug/L	380
Methyl tert-butyl ether	ND	120	ug/L	62
Naphthalene	ND	120	ug/L	62
n-Propylbenzene	ND	120	ug/L	50
Styrene	ND	120	ug/L	38
1,1,1,2-Tetrachloroethane	ND	120	ug/L	38
1,1,2,2-Tetrachloroethane	ND	120	ug/L	50
Tetrachloroethene	ND	120	ug/L	38
Toluene	ND	120	ug/L	38
1,2,3-Trichlorobenzene	ND	120	ug/L	50
1,2,4-Trichloro-benzene	ND	120	ug/L	38
1,1,1-Trichloroethane	ND	120	ug/L	25
1,1,2-Trichloroethane	ND	120	ug/L	38
Trichloroethene	**4800**	**120**	**ug/L**	**38**
Trichlorofluoromethane	ND	250	ug/L	38
1,2,3-Trichloropropane	ND	120	ug/L	50
1,1,2-Trichlorotrifluoro-ethane	ND	120	ug/L	50
1,2,4-Trimethylbenzene	ND	120	ug/L	38
1,3,5-Trimethylbenzene	ND	120	ug/L	25
Vinyl chloride	ND	120	ug/L	38
m-Xylene & p-Xylene	ND	120	ug/L	62
o-Xylene	ND	120	ug/L	25
Xylenes (total)	ND	120	ug/L	100

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	102	(75 - 130)
1,2-Dichloroethane-d4	111	(65 - 135)
Toluene-d8	111	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001B_WG103003_01

TOTAL Metals

Lot-Sample #...: E3J310405-002 **Matrix.....:** WATER
Date Sampled...: 10/30/03 16:32 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307261						
Manganese	**0.090 J**	**0.015**	**mg/L**	**SW846 6010B**	**11/06-11/07/03**	**F3X4Q1AJ**
		Dilution Factor: 1		Analysis Time..: 14:12	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.0010	
Iron	**2.9**	**0.10**	**mg/L**	**SW846 6010B**	**11/06-11/07/03**	**F3X4Q1AL**
		Dilution Factor: 1		Analysis Time..: 14:12	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.030	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001B_WG103003_01

DISSOLVED Metals

Lot-Sample #...: E3J310405-002 **Matrix.....:** WATER
Date Sampled...: 10/30/03 16:32 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307485						
Manganese	**0.020**	**0.015**	**mg/L**	**SW846 6010B**	**11/03-11/05/03**	**F3X4Q1AH**
		Dilution Factor: 1		Analysis Time..: 00:22	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	11/03-11/05/03	F3X4Q1AK
		Dilution Factor: 1		Analysis Time..: 00:22	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001B_WG103003_01

General Chemistry

Lot-Sample #...: E3J310405-002 **Work Order #...:** F3X4Q **Matrix.....:** WATER
Date Sampled...: 10/30/03 16:32 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.73**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304563**
		Dilution Factor: 1		Analysis Time..: 20:15	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3304303	MDL.....: 0.10	
Chloride	**218**	**5.0**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304562**
		Dilution Factor: 5		Analysis Time..: 22:43	Analyst ID.....: 0000223	
		Instrument ID..: W01		MS Run #.....: 3304301	MDL.....: 1.5	
Nitrate as N	**5.8**	**0.10**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304565**
		Dilution Factor: 1		Analysis Time..: 20:15	Analyst ID.....: 0000221	
		Instrument ID..: W01		MS Run #.....: 3304304	MDL.....: 0.030	
Nitrite as N	ND G	0.50	mg/L	MCAWW 300.0A	10/31/03	3304564
		Dilution Factor: 5		Analysis Time..: 22:43	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3304302	MDL.....: 0.15	
Sulfate	**98.0**	**5.0**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304566**
		Dilution Factor: 5		Analysis Time..: 22:43	Analyst ID.....: 0000222	
		Instrument ID..: W01		MS Run #.....: 3304305	MDL.....: 1.0	
Total Sulfide	ND	0.10	mg/L	MCAWW 376.2	11/06/03	3310408
		Dilution Factor: 1		Analysis Time..: 12:39	Analyst ID.....: 0000225	
		Instrument ID..: W17		MS Run #.....: 3310225	MDL.....: 0.050	
Total Organic Carbon (TOC)	**3.8**	**1.0**	**mg/L**	**SW846 9060**	**11/04/03**	**3308582**
		Dilution Factor: 1		Analysis Time..: 17:00	Analyst ID.....: 9999955	
		Instrument ID..: W08		MS Run #.....: 3309277	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG103003_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-003 **Work Order #...:** F3X4V1AM **Matrix.....:** WATER
Date Sampled...: 10/30/03 17:56 **Date Received..:** 10/31/03 14:30 **MS Run #.....:** 3311228
Prep Date.....: 11/07/03 **Analysis Date..:** 11/07/03
Prep Batch #...: 3311516 **Analysis Time..:** 04:26
Dilution Factor: 12.5
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**73 J**	**120**	**ug/L**	**38**
Benzene	ND	12	ug/L	3.8
Bromobenzene	ND	12	ug/L	3.8
Bromochloromethane	ND	12	ug/L	3.8
Bromoform	ND	12	ug/L	3.8
Bromomethane	ND	25	ug/L	12
2-Butanone	ND	62	ug/L	38
n-Butylbenzene	ND	12	ug/L	3.8
sec-Butylbenzene	ND	12	ug/L	3.8
tert-Butylbenzene	ND	12	ug/L	2.5
Carbon disulfide	ND	12	ug/L	3.8
Carbon tetrachloride	ND	12	ug/L	3.8
Chlorobenzene	ND	12	ug/L	3.8
Dibromochloromethane	ND	12	ug/L	5.0
Bromodichloromethane	ND	12	ug/L	3.8
Chloroethane	ND	25	ug/L	3.8
Chloroform	ND	12	ug/L	3.8
Chloromethane	ND	25	ug/L	3.8
2-Chlorotoluene	ND	12	ug/L	3.8
4-Chlorotoluene	ND	12	ug/L	3.8
1,2-Dibromo-3-chloro-propane	ND	25	ug/L	8.8
1,2-Dibromoethane (EDB)	ND	12	ug/L	3.8
Dibromomethane	ND	12	ug/L	5.0
1,2-Dichlorobenzene	ND	12	ug/L	3.8
1,3-Dichlorobenzene	ND	12	ug/L	3.8
1,4-Dichlorobenzene	ND	12	ug/L	3.8
Dichlorodifluoromethane	ND	25	ug/L	5.0
1,1-Dichloroethane	ND	12	ug/L	2.5
1,2-Dichloroethane	ND	12	ug/L	5.0
1,1-Dichloroethene	**8.5 J**	**12**	**ug/L**	**3.8**
cis-1,2-Dichloroethene	**80**	**12**	**ug/L**	**3.8**
trans-1,2-Dichloroethene	ND	12	ug/L	3.8
1,2-Dichloropropane	ND	12	ug/L	3.8
1,3-Dichloropropane	ND	12	ug/L	5.0
2,2-Dichloropropane	ND	12	ug/L	3.8
1,1-Dichloropropene	ND	12	ug/L	3.8

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BOE-C6-0104202

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG103003_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-003 **Work Order #...:** F3X4V1AM **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	12	ug/L	3.8
trans-1,3-Dichloropropene	ND	12	ug/L	6.2
Ethylbenzene	ND	12	ug/L	2.5
Hexachlorobutadiene	ND	12	ug/L	3.8
2-Hexanone	ND	62	ug/L	38
Isopropylbenzene	ND	12	ug/L	3.8
p-Isopropyltoluene	ND	12	ug/L	3.8
Methylene chloride	ND	12	ug/L	3.8
4-Methyl-2-pentanone	ND	62	ug/L	38
Methyl tert-butyl ether	ND	12	ug/L	6.2
Naphthalene	ND	12	ug/L	6.2
n-Propylbenzene	ND	12	ug/L	5.0
Styrene	ND	12	ug/L	3.8
1,1,1,2-Tetrachloroethane	ND	12	ug/L	3.8
1,1,2,2-Tetrachloroethane	ND	12	ug/L	5.0
Tetrachloroethene	ND	12	ug/L	3.8
Toluene	ND	12	ug/L	3.8
1,2,3-Trichlorobenzene	ND	12	ug/L	5.0
1,2,4-Trichloro-benzene	ND	12	ug/L	3.8
1,1,1-Trichloroethane	ND	12	ug/L	2.5
1,1,2-Trichloroethane	ND	12	ug/L	3.8
Trichloroethene	**640**	**12**	**ug/L**	**3.8**
Trichlorofluoromethane	ND	25	ug/L	3.8
1,2,3-Trichloropropane	ND	12	ug/L	5.0
1,1,2-Trichlorotrifluoro-ethane	ND	12	ug/L	5.0
1,2,4-Trimethylbenzene	ND	12	ug/L	3.8
1,3,5-Trimethylbenzene	ND	12	ug/L	2.5
Vinyl chloride	ND	12	ug/L	3.8
m-Xylene & p-Xylene	ND	12	ug/L	6.2
o-Xylene	ND	12	ug/L	2.5
Xylenes (total)	ND	12	ug/L	10

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	100	(75 - 130)
1,2-Dichloroethane-d4	106	(65 - 135)
Toluene-d8	107	(80 - 130)

NOTE(S) :

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG103003_01

TOTAL Metals

Lot-Sample #...: E3J310405-003 **Matrix.....:** WATER
Date Sampled...: 10/30/03 17:56 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307261						
Manganese	**0.31 J**	**0.015**	**mg/L**	**SW846 6010B**	**11/06-11/07/03**	**F3X4V1AJ**
		Dilution Factor: 1		Analysis Time..: 14:20	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.0010	
Iron	**11.7**	**0.10**	**mg/L**	**SW846 6010B**	**11/06-11/07/03**	**F3X4V1AL**
		Dilution Factor: 1		Analysis Time..: 14:20	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.030	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG103003_01

DISSOLVED Metals

Lot-Sample #...: E3J310405-003 **Matrix.....:** WATER
Date Sampled...: 10/30/03 17:56 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307485						
Manganese	**0.15**	**0.015**	**mg/L**	**SW846 6010B**	**11/03-11/05/03**	**F3X4V1AH**
		Dilution Factor: 1		Analysis Time..: 00:30	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	11/03-11/05/03	F3X4V1AK
		Dilution Factor: 1		Analysis Time..: 00:30	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG103003_01

General Chemistry

Lot-Sample #...: E3J310405-003 Work Order #...: F3X4V Matrix.....: WATER
Date Sampled...: 10/30/03 17:56 Date Received..: 10/31/03 14:30

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	0.94	0.50	mg/L	MCAWW 300.0A	10/31/03	3304563
		Dilution Factor: 1		Analysis Time..: 21:11	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3304303	MDL.....: 0.10	
Chloride	220	5.0	mg/L	MCAWW 300.0A	10/31/03	3304562
		Dilution Factor: 5		Analysis Time..: 23:02	Analyst ID.....: 0000223	
		Instrument ID..: W01		MS Run #.....: 3304301	MDL.....: 1.5	
Nitrate as N	6.9	0.10	mg/L	MCAWW 300.0A	10/31/03	3304565
		Dilution Factor: 1		Analysis Time..: 21:11	Analyst ID.....: 0000221	
		Instrument ID..: W01		MS Run #.....: 3304304	MDL.....: 0.030	
Nitrite as N	0.21 B,G	0.50	mg/L	MCAWW 300.0A	10/31/03	3304564
		Dilution Factor: 5		Analysis Time..: 23:02	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3304302	MDL.....: 0.15	
Sulfate	80.9	5.0	mg/L	MCAWW 300.0A	10/31/03	3304566
		Dilution Factor: 5		Analysis Time..: 23:02	Analyst ID.....: 0000222	
		Instrument ID..: W01		MS Run #.....: 3304305	MDL.....: 1.0	
Total Sulfide	ND	0.10	mg/L	MCAWW 376.2	11/06/03	3310408
		Dilution Factor: 1		Analysis Time..: 12:42	Analyst ID.....: 0000225	
		Instrument ID..: W17		MS Run #.....: 3310225	MDL.....: 0.050	
Total Organic Carbon (TOC)	4.1	1.0	mg/L	SW846 9060	11/04/03	3308582
		Dilution Factor: 1		Analysis Time..: 17:00	Analyst ID.....: 9999955	
		Instrument ID..: W08		MS Run #.....: 3309277	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG103003_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-004 **Work Order #...:** F3X401AD **Matrix.....:** WATER
Date Sampled...: 10/30/03 19:15 **Date Received..:** 10/31/03 14:30 **MS Run #.....:** 3311228
Prep Date.....: 11/07/03 **Analysis Date..:** 11/07/03
Prep Batch #...: 3311516 **Analysis Time..:** 04:49
Dilution Factor: 125
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1200	ug/L	380
Benzene	ND	120	ug/L	38
Bromobenzene	ND	120	ug/L	38
Bromochloromethane	ND	120	ug/L	38
Bromoform	ND	120	ug/L	38
Bromomethane	ND	250	ug/L	120
2-Butanone	ND	620	ug/L	380
n-Butylbenzene	ND	120	ug/L	38
sec-Butylbenzene	ND	120	ug/L	38
tert-Butylbenzene	ND	120	ug/L	25
Carbon disulfide	ND	120	ug/L	38
Carbon tetrachloride	ND	120	ug/L	38
Chlorobenzene	ND	120	ug/L	38
Dibromochloromethane	ND	120	ug/L	50
Bromodichloromethane	ND	120	ug/L	38
Chloroethane	ND	250	ug/L	38
Chloroform	ND	120	ug/L	38
Chloromethane	ND	250	ug/L	38
2-Chlorotoluene	ND	120	ug/L	38
4-Chlorotoluene	ND	120	ug/L	38
1,2-Dibromo-3-chloro-propane	ND	250	ug/L	88
1,2-Dibromoethane (EDB)	ND	120	ug/L	38
Dibromomethane	ND	120	ug/L	50
1,2-Dichlorobenzene	ND	120	ug/L	38
1,3-Dichlorobenzene	ND	120	ug/L	38
1,4-Dichlorobenzene	ND	120	ug/L	38
Dichlorodifluoromethane	ND	250	ug/L	50
1,1-Dichloroethane	ND	120	ug/L	25
1,2-Dichloroethane	ND	120	ug/L	50
1,1-Dichloroethene	**63 J**	**120**	**ug/L**	**38**
cis-1,2-Dichloroethene	**660**	**120**	**ug/L**	**38**
trans-1,2-Dichloroethene	ND	120	ug/L	38
1,2-Dichloropropane	ND	120	ug/L	38
1,3-Dichloropropane	ND	120	ug/L	50
2,2-Dichloropropane	ND	120	ug/L	38
1,1-Dichloropropene	ND	120	ug/L	38

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG103003_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-004 **Work Order #...:** F3X401AD **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	120	ug/L	38
trans-1,3-Dichloropropene	ND	120	ug/L	62
Ethylbenzene	ND	120	ug/L	25
Hexachlorobutadiene	ND	120	ug/L	38
2-Hexanone	ND	620	ug/L	380
Isopropylbenzene	ND	120	ug/L	38
p-Isopropyltoluene	ND	120	ug/L	38
Methylene chloride	ND	120	ug/L	38
4-Methyl-2-pentanone	ND	620	ug/L	380
Methyl tert-butyl ether	ND	120	ug/L	62
Naphthalene	ND	120	ug/L	62
n-Propylbenzene	ND	120	ug/L	50
Styrene	ND	120	ug/L	38
1,1,1,2-Tetrachloroethane	ND	120	ug/L	38
1,1,2,2-Tetrachloroethane	ND	120	ug/L	50
Tetrachloroethene	ND	120	ug/L	38
Toluene	ND	120	ug/L	38
1,2,3-Trichlorobenzene	ND	120	ug/L	50
1,2,4-Trichloro-benzene	ND	120	ug/L	38
1,1,1-Trichloroethane	ND	120	ug/L	25
1,1,2-Trichloroethane	ND	120	ug/L	38
Trichloroethene	**5100**	**120**	**ug/L**	**38**
Trichlorofluoromethane	ND	250	ug/L	38
1,2,3-Trichloropropane	ND	120	ug/L	50
1,1,2-Trichlorotrifluoro-ethane	ND	120	ug/L	50
1,2,4-Trimethylbenzene	ND	120	ug/L	38
1,3,5-Trimethylbenzene	ND	120	ug/L	25
Vinyl chloride	ND	120	ug/L	38
m-Xylene & p-Xylene	ND	120	ug/L	62
o-Xylene	ND	120	ug/L	25
Xylenes (total)	ND	120	ug/L	100

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	104	(75 - 130)
1,2-Dichloroethane-d4	110	(65 - 135)
Toluene-d8	113	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG103003_01

General Chemistry

Lot-Sample #...: E3J310405-004 **Work Order #...:** F3X40 **Matrix.....:** WATER
Date Sampled...: 10/30/03 19:15 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	0.10	mg/L	MCAWW 376.2	11/06/03	3310408
		Dilution Factor: 1		Analysis Time..: 12:45	Analyst ID.....: 0000227	
		Instrument ID..: W17		MS Run #.....: 3310225	MDL.....: 0.050	
Total Organic Carbon (TOC)	**21.8**	**1.0**	**mg/L**	**SW846 9060**	**11/04/03**	**3308582**
		Dilution Factor: 1		Analysis Time..: 17:00	Analyst ID.....: 9999955	
		Instrument ID..: W08		MS Run #.....: 3309277	MDL.....: 0.40	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003A_WG103103_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-005 **Work Order #...:** F3X431AM **Matrix.....:** WATER
Date Sampled...: 10/31/03 10:50 **Date Received..:** 10/31/03 14:30 **MS Run #.....:** 3311228
Prep Date.....: 11/07/03 **Analysis Date..:** 11/07/03
Prep Batch #...: 3311516 **Analysis Time..:** 05:13
Dilution Factor: 500
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**3200 J**	**5000**	**ug/L**	**1500**
Benzene	ND	500	ug/L	150
Bromobenzene	ND	500	ug/L	150
Bromochloromethane	ND	500	ug/L	150
Bromoform	ND	500	ug/L	150
Bromomethane	ND	1000	ug/L	500
2-Butanone	ND	2500	ug/L	1500
n-Butylbenzene	ND	500	ug/L	150
sec-Butylbenzene	ND	500	ug/L	150
tert-Butylbenzene	ND	500	ug/L	100
Carbon disulfide	ND	500	ug/L	150
Carbon tetrachloride	ND	500	ug/L	150
Chlorobenzene	ND	500	ug/L	150
Dibromochloromethane	ND	500	ug/L	200
Bromodichloromethane	ND	500	ug/L	150
Chloroethane	ND	1000	ug/L	150
Chloroform	ND	500	ug/L	150
Chloromethane	ND	1000	ug/L	150
2-Chlorotoluene	ND	500	ug/L	150
4-Chlorotoluene	ND	500	ug/L	150
1,2-Dibromo-3-chloro-propane	ND	1000	ug/L	350
1,2-Dibromoethane (EDB)	ND	500	ug/L	150
Dibromomethane	ND	500	ug/L	200
1,2-Dichlorobenzene	ND	500	ug/L	150
1,3-Dichlorobenzene	ND	500	ug/L	150
1,4-Dichlorobenzene	ND	500	ug/L	150
Dichlorodifluoromethane	ND	1000	ug/L	200
1,1-Dichloroethane	ND	500	ug/L	100
1,2-Dichloroethane	ND	500	ug/L	200
1,1-Dichloroethene	**180 J**	**500**	**ug/L**	**150**
cis-1,2-Dichloroethene	ND	500	ug/L	150
trans-1,2-Dichloroethene	ND	500	ug/L	150
1,2-Dichloropropane	ND	500	ug/L	150
1,3-Dichloropropane	ND	500	ug/L	200
2,2-Dichloropropane	ND	500	ug/L	150
1,1-Dichloropropene	ND	500	ug/L	150

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003A_WG103103_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-005 **Work Order #...:** F3X431AM **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	500	ug/L	150
trans-1,3-Dichloropropene	ND	500	ug/L	250
Ethylbenzene	ND	500	ug/L	100
Hexachlorobutadiene	ND	500	ug/L	150
2-Hexanone	ND	2500	ug/L	1500
Isopropylbenzene	ND	500	ug/L	150
p-Isopropyltoluene	ND	500	ug/L	150
Methylene chloride	ND	500	ug/L	150
4-Methyl-2-pentanone	ND	2500	ug/L	1500
Methyl tert-butyl ether	ND	500	ug/L	250
Naphthalene	ND	500	ug/L	250
n-Propylbenzene	ND	500	ug/L	200
Styrene	ND	500	ug/L	150
1,1,1,2-Tetrachloroethane	ND	500	ug/L	150
1,1,2,2-Tetrachloroethane	ND	500	ug/L	200
Tetrachloroethene	ND	500	ug/L	150
Toluene	ND	500	ug/L	150
1,2,3-Trichlorobenzene	ND	500	ug/L	200
1,2,4-Trichloro-benzene	ND	500	ug/L	150
1,1,1-Trichloroethane	ND	500	ug/L	100
1,1,2-Trichloroethane	ND	500	ug/L	150
Trichloroethene	**20000**	**500**	**ug/L**	**150**
Trichlorofluoromethane	ND	1000	ug/L	150
1,2,3-Trichloropropane	ND	500	ug/L	200
1,1,2-Trichlorotrifluoro-ethane	ND	500	ug/L	200
1,2,4-Trimethylbenzene	ND	500	ug/L	150
1,3,5-Trimethylbenzene	ND	500	ug/L	100
Vinyl chloride	ND	500	ug/L	150
m-Xylene & p-Xylene	ND	500	ug/L	250
o-Xylene	ND	500	ug/L	100
Xylenes (total)	ND	500	ug/L	400

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	103	(75 - 130)
1,2-Dichloroethane-d4	110	(65 - 135)
Toluene-d8	114	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003A_WG103103_01

TOTAL Metals

Lot-Sample #...: E3J310405-005 Matrix.....: WATER
Date Sampled...: 10/31/03 10:50 Date Received..: 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307261						
Manganese	0.11 J	0.015	mg/L	SW846 6010B	11/06-11/07/03	F3X431AJ
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.0010	
Iron	5.6	0.10	mg/L	SW846 6010B	11/06-11/07/03	F3X431AL
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.030	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003A_WG103103_01

DISSOLVED Metals

Lot-Sample #...: E3J310405-005 **Matrix.....:** WATER
Date Sampled...: 10/31/03 10:50 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307485						
Manganese	**0.0069 B**	**0.015**	**mg/L**	**SW846 6010B**	**11/03-11/05/03**	**F3X431AH**
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	11/03-11/05/03	F3X431AK
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.030	

NOTE(S):

B Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003A_WG103103_01

General Chemistry

Lot-Sample #...: E3J310405-005 Work Order #...: F3X43 Matrix.....: WATER
Date Sampled...: 10/31/03 10:50 Date Received..: 10/31/03 14:30

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**1.1**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304563**
		Dilution Factor: 1		Analysis Time..: 21:29	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3304303	MDL.....: 0.10	
Chloride	**465**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304562**
		Dilution Factor: 10		Analysis Time..: 23:20	Analyst ID.....: 0000223	
		Instrument ID..: W01		MS Run #.....: 3304301	MDL.....: 3.0	
Nitrate as N	**9.6**	**0.10**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304565**
		Dilution Factor: 1		Analysis Time..: 21:29	Analyst ID.....: 0000221	
		Instrument ID..: W01		MS Run #.....: 3304304	MDL.....: 0.030	
Nitrite as N	ND G	1.0	mg/L	MCAWW 300.0A	10/31/03	3304564
		Dilution Factor: 10		Analysis Time..: 23:20	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3304302	MDL.....: 0.30	
Sulfate	**48.3**	**1.0**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304566**
		Dilution Factor: 1		Analysis Time..: 21:29	Analyst ID.....: 0000222	
		Instrument ID..: W01		MS Run #.....: 3304305	MDL.....: 0.20	
Total Sulfide	ND	0.10	mg/L	MCAWW 376.2	11/06/03	3310408
		Dilution Factor: 1		Analysis Time..: 12:48	Analyst ID.....: 0000225	
		Instrument ID..: W17		MS Run #.....: 3310225	MDL.....: 0.050	
Total Organic Carbon (TOC)	**2.6**	**1.0**	**mg/L**	**SW846 9060**	**11/04/03**	**3308582**
		Dilution Factor: 1		Analysis Time..: 17:00	Analyst ID.....: 9999955	
		Instrument ID..: W08		MS Run #.....: 3309277	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003B_WG103103_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-006 **Work Order #...:** F3X491AM **Matrix.....:** WATER
Date Sampled...: 10/31/03 09:43 **Date Received..:** 10/31/03 14:30 **MS Run #.....:** 3311228
Prep Date.....: 11/07/03 **Analysis Date..:** 11/07/03
Prep Batch #...: 3311516 **Analysis Time..:** 05:37
Dilution Factor: 25
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**130 J**	**250**	**ug/L**	**75**
Benzene	ND	25	ug/L	7.5
Bromobenzene	ND	25	ug/L	7.5
Bromochloromethane	ND	25	ug/L	7.5
Bromoform	ND	25	ug/L	7.5
Bromomethane	ND	50	ug/L	25
2-Butanone	ND	120	ug/L	75
n-Butylbenzene	ND	25	ug/L	7.5
sec-Butylbenzene	ND	25	ug/L	7.5
tert-Butylbenzene	ND	25	ug/L	5.0
Carbon disulfide	ND	25	ug/L	7.5
Carbon tetrachloride	ND	25	ug/L	7.5
Chlorobenzene	ND	25	ug/L	7.5
Dibromochloromethane	ND	25	ug/L	10
Bromodichloromethane	ND	25	ug/L	7.5
Chloroethane	ND	50	ug/L	7.5
Chloroform	ND	25	ug/L	7.5
Chloromethane	ND	50	ug/L	7.5
2-Chlorotoluene	ND	25	ug/L	7.5
4-Chlorotoluene	ND	25	ug/L	7.5
1,2-Dibromo-3-chloro-propane	ND	50	ug/L	18
1,2-Dibromoethane (EDB)	ND	25	ug/L	7.5
Dibromomethane	ND	25	ug/L	10
1,2-Dichlorobenzene	ND	25	ug/L	7.5
1,3-Dichlorobenzene	ND	25	ug/L	7.5
1,4-Dichlorobenzene	ND	25	ug/L	7.5
Dichlorodifluoromethane	ND	50	ug/L	10
1,1-Dichloroethane	ND	25	ug/L	5.0
1,2-Dichloroethane	ND	25	ug/L	10
1,1-Dichloroethene	**19 J**	**25**	**ug/L**	**7.5**
cis-1,2-Dichloroethene	ND	25	ug/L	7.5
trans-1,2-Dichloroethene	ND	25	ug/L	7.5
1,2-Dichloropropane	ND	25	ug/L	7.5
1,3-Dichloropropane	ND	25	ug/L	10
2,2-Dichloropropane	ND	25	ug/L	7.5
1,1-Dichloropropene	ND	25	ug/L	7.5

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003B_WG103103_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-006 **Work Order #...:** F3X491AM **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	25	ug/L	7.5
trans-1,3-Dichloropropene	ND	25	ug/L	12
Ethylbenzene	ND	25	ug/L	5.0
Hexachlorobutadiene	ND	25	ug/L	7.5
2-Hexanone	ND	120	ug/L	75
Isopropylbenzene	ND	25	ug/L	7.5
p-Isopropyltoluene	ND	25	ug/L	7.5
Methylene chloride	ND	25	ug/L	7.5
4-Methyl-2-pentanone	ND	120	ug/L	75
Methyl tert-butyl ether	ND	25	ug/L	12
Naphthalene	ND	25	ug/L	12
n-Propylbenzene	ND	25	ug/L	10
Styrene	ND	25	ug/L	7.5
1,1,1,2-Tetrachloroethane	ND	25	ug/L	7.5
1,1,2,2-Tetrachloroethane	ND	25	ug/L	10
Tetrachloroethene	ND	25	ug/L	7.5
Toluene	ND	25	ug/L	7.5
1,2,3-Trichlorobenzene	ND	25	ug/L	10
1,2,4-Trichloro-benzene	ND	25	ug/L	7.5
1,1,1-Trichloroethane	ND	25	ug/L	5.0
1,1,2-Trichloroethane	ND	25	ug/L	7.5
Trichloroethene	**1000**	**25**	**ug/L**	**7.5**
Trichlorofluoromethane	ND	50	ug/L	7.5
1,2,3-Trichloropropane	ND	25	ug/L	10
1,1,2-Trichlorotrifluoro-ethane	ND	25	ug/L	10
1,2,4-Trimethylbenzene	ND	25	ug/L	7.5
1,3,5-Trimethylbenzene	ND	25	ug/L	5.0
Vinyl chloride	ND	25	ug/L	7.5
m-Xylene & p-Xylene	ND	25	ug/L	12
o-Xylene	ND	25	ug/L	5.0
Xylenes (total)	ND	25	ug/L	20

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	104	(75 - 130)
1,2-Dichloroethane-d4	112	(65 - 135)
Toluene-d8	113	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003B_WG103103_01

TOTAL Metals

Lot-Sample #...: E3J310405-006 Matrix.....: WATER
Date Sampled...: 10/31/03 09:43 Date Received..: 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307261						
Manganese	0.23 J	0.015	mg/L	SW846 6010B	11/06-11/07/03	F3X491AJ
		Dilution Factor: 1		Analysis Time..: 14:35	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.0010	
Iron	8.1	0.10	mg/L	SW846 6010B	11/06-11/07/03	F3X491AL
		Dilution Factor: 1		Analysis Time..: 14:35	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.030	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003B_WG103103_01

DISSOLVED Metals

Lot-Sample #...: E3J310405-006 **Matrix.....:** WATER
Date Sampled...: 10/31/03 09:43 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307485						
Manganese	**0.051**	**0.015**	**mg/L**	**SW846 6010B**	**11/03-11/05/03**	**F3X491AH**
		Dilution Factor: 1		Analysis Time..: 00:45	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	11/03-11/05/03	F3X491AK
		Dilution Factor: 1		Analysis Time..: 00:45	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003B_WG103103_01

General Chemistry

Lot-Sample #...: E3J310405-006 **Work Order #...:** F3X49 **Matrix.....:** WATER
Date Sampled...: 10/31/03 09:43 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.69**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304563**
		Dilution Factor: 1		Analysis Time..: 21:48	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3304303	MDL.....: 0.10	
Chloride	**240**	**50.0**	**mg/L**	**MCAWW 300.0A**	**10/31-11/01/03**	**3304562**
		Dilution Factor: 50		Analysis Time..: 02:44	Analyst ID.....: 0000223	
		Instrument ID..: W01		MS Run #.....: 3304301	MDL.....: 15.0	
Nitrate as N	**6.3**	**0.10**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304565**
		Dilution Factor: 1		Analysis Time..: 21:48	Analyst ID.....: 0000221	
		Instrument ID..: W01		MS Run #.....: 3304304	MDL.....: 0.030	
Nitrite as N	ND G	0.50	mg/L	MCAWW 300.0A	10/31/03	3304564
		Dilution Factor: 5		Analysis Time..: 23:39	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3304302	MDL.....: 0.15	
Sulfate	**77.9**	**5.0**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304566**
		Dilution Factor: 5		Analysis Time..: 23:39	Analyst ID.....: 0000222	
		Instrument ID..: W01		MS Run #.....: 3304305	MDL.....: 1.0	
Total Sulfide	ND	0.10	mg/L	MCAWW 376.2	11/06/03	3310408
		Dilution Factor: 1		Analysis Time..: 12:51	Analyst ID.....: 0000225	
		Instrument ID..: W17		MS Run #.....: 3310225	MDL.....: 0.050	
Total Organic Carbon (TOC)	**3.8**	**1.0**	**mg/L**	**SW846 9060**	**11/04/03**	**3308582**
		Dilution Factor: 1		Analysis Time..: 17:00	Analyst ID.....: 9999955	
		Instrument ID..: W08		MS Run #.....: 3309277	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG103103_01

TOTAL Metals

Lot-Sample #...: E3J310405-007 Matrix.....: WATER
Date Sampled...: 10/31/03 12:05 Date Received..: 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307261						
Manganese	3.7 J	0.015	mg/L	SW846 6010B	11/06-11/07/03	F3X5E1AH
		Dilution Factor: 1		Analysis Time..: 14:53	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.0010	
Iron	13.4	0.10	mg/L	SW846 6010B	11/06-11/07/03	F3X5E1AK
		Dilution Factor: 1		Analysis Time..: 14:53	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307129	MDL.....: 0.030	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG103103_01

DISSOLVED Metals

Lot-Sample #...: E3J310405-007 **Matrix.....:** WATER
Date Sampled...: 10/31/03 12:05 **Date Received..:** 10/31/03 14:30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3307485						
Manganese	**3.6**	**0.015**	**mg/L**	**SW846 6010B**	**11/03-11/05/03**	**F3X5E1AG**
		Dilution Factor: 1		Analysis Time..: 00:52	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.0010	
Iron	ND	0.10	mg/L	SW846 6010B	11/03-11/05/03	F3X5E1AJ
		Dilution Factor: 1		Analysis Time..: 00:52	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 3307273	MDL.....: 0.030	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG103103_01

General Chemistry

Lot-Sample #...: E3J310405-007 Work Order #...: F3X5E Matrix.....: WATER
Date Sampled...: 10/31/03 12:05 Date Received..: 10/31/03 14:30

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**2.3**	**0.50**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304563**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 3304303	MDL.....: 0.10	
Chloride	**444**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304562**
		Dilution Factor: 10		Analysis Time..: 23:57	Analyst ID.....: 0000223	
		Instrument ID..: W01		MS Run #.....: 3304301	MDL.....: 3.0	
Nitrate as N	**0.13**	**0.10**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304565**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 0000221	
		Instrument ID..: W01		MS Run #.....: 3304304	MDL.....: 0.030	
Nitrite as N	ND G	1.0	mg/L	MCAWW 300.0A	10/31/03	3304564
		Dilution Factor: 10		Analysis Time..: 23:57	Analyst ID.....: 0000224	
		Instrument ID..: W01		MS Run #.....: 3304302	MDL.....: 0.30	
Sulfate	**77.8**	**10.0**	**mg/L**	**MCAWW 300.0A**	**10/31/03**	**3304566**
		Dilution Factor: 10		Analysis Time..: 23:57	Analyst ID.....: 0000222	
		Instrument ID..: W01		MS Run #.....: 3304305	MDL.....: 2.0	

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: TB_AR103003_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-008 **Work Order #...:** F3X5M1AA **Matrix.....:** WATER
Date Sampled...: 10/30/03 **Date Received..:** 10/31/03 14:30 **MS Run #.....:** 3311228
Prep Date.....: 11/06/03 **Analysis Date..:** 11/06/03
Prep Batch #...: 3311516 **Analysis Time..:** 22:29
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSJ
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**11**	**10**	**ug/L**	**3.0**
Benzene	ND	1.0	ug/L	0.30
Bromobenzene	ND	1.0	ug/L	0.30
Bromochloromethane	ND	1.0	ug/L	0.30
Bromoform	ND	1.0	ug/L	0.30
Bromomethane	ND	2.0	ug/L	1.0
2-Butanone	ND	5.0	ug/L	3.0
n-Butylbenzene	ND	1.0	ug/L	0.30
sec-Butylbenzene	ND	1.0	ug/L	0.30
tert-Butylbenzene	ND	1.0	ug/L	0.20
Carbon disulfide	ND	1.0	ug/L	0.30
Carbon tetrachloride	ND	1.0	ug/L	0.30
Chlorobenzene	ND	1.0	ug/L	0.30
Dibromochloromethane	ND	1.0	ug/L	0.40
Bromodichloromethane	ND	1.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.30
Chloroform	ND	1.0	ug/L	0.30
Chloromethane	ND	2.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.30
4-Chlorotoluene	ND	1.0	ug/L	0.30
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.70
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	0.30
Dibromomethane	ND	1.0	ug/L	0.40
1,2-Dichlorobenzene	ND	1.0	ug/L	0.30
1,3-Dichlorobenzene	ND	1.0	ug/L	0.30
1,4-Dichlorobenzene	ND	1.0	ug/L	0.30
Dichlorodifluoromethane	ND	2.0	ug/L	0.40
1,1-Dichloroethane	ND	1.0	ug/L	0.20
1,2-Dichloroethane	ND	1.0	ug/L	0.40
1,1-Dichloroethene	ND	1.0	ug/L	0.30
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.30
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.30
1,2-Dichloropropane	ND	1.0	ug/L	0.30
1,3-Dichloropropane	ND	1.0	ug/L	0.40
2,2-Dichloropropane	ND	1.0	ug/L	0.30
1,1-Dichloropropene	ND	1.0	ug/L	0.30

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: TB_AR103003_01

GC/MS Volatiles

Lot-Sample #...: E3J310405-008 **Work Order #...:** F3X5M1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.30
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.50
Ethylbenzene	ND	1.0	ug/L	0.20
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	3.0
Isopropylbenzene	ND	1.0	ug/L	0.30
p-Isopropyltoluene	ND	1.0	ug/L	0.30
Methylene chloride	ND	1.0	ug/L	0.30
4-Methyl-2-pentanone	ND	5.0	ug/L	3.0
Methyl tert-butyl ether	ND	1.0	ug/L	0.50
Naphthalene	ND	1.0	ug/L	0.50
n-Propylbenzene	ND	1.0	ug/L	0.40
Styrene	ND	1.0	ug/L	0.30
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.30
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.30
Toluene	ND	1.0	ug/L	0.30
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.40
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.30
1,1,1-Trichloroethane	ND	1.0	ug/L	0.20
1,1,2-Trichloroethane	ND	1.0	ug/L	0.30
Trichloroethene	ND	1.0	ug/L	0.30
Trichlorofluoromethane	ND	2.0	ug/L	0.30
1,2,3-Trichloropropane	ND	1.0	ug/L	0.40
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L	0.40
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.30
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.20
Vinyl chloride	ND	1.0	ug/L	0.30
m-Xylene & p-Xylene	ND	1.0	ug/L	0.50
o-Xylene	ND	1.0	ug/L	0.20
Xylenes (total)	ND	1.0	ug/L	0.80

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	99	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
Toluene-d8	108	(80 - 130)

SEVERN TRENT STL

QA/QC

BOE-C6-0104225

QC DATA ASSOCIATION SUMMARY

E3J310405

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	MCAWW 300.0A		3304562	3304301
	WATER	MCAWW 300.0A		3304566	3304305
	WATER	MCAWW 300.0A		3304565	3304304
	WATER	SW846 9060		3308582	3309277
	WATER	MCAWW 300.0A		3304563	3304303
	WATER	MCAWW 300.0A		3304564	3304302
	WATER	SW846 8260B		3311516	3311228
	WATER	SW846 6010B		3307261	3307129
	WATER	SW846 6010B		3307485	3307273
	WATER	MCAWW 376.2		3310408	3310225
002	WATER	MCAWW 300.0A		3304562	3304301
	WATER	MCAWW 300.0A		3304566	3304305
	WATER	MCAWW 300.0A		3304565	3304304
	WATER	SW846 9060		3308582	3309277
	WATER	MCAWW 300.0A		3304563	3304303
	WATER	MCAWW 300.0A		3304564	3304302
	WATER	SW846 8260B		3311516	3311228
	WATER	SW846 6010B		3307261	3307129
	WATER	SW846 6010B		3307485	3307273
	WATER	MCAWW 376.2		3310408	3310225
003	WATER	MCAWW 300.0A		3304562	3304301
	WATER	MCAWW 300.0A		3304566	3304305
	WATER	MCAWW 300.0A		3304565	3304304
	WATER	SW846 9060		3308582	3309277
	WATER	MCAWW 300.0A		3304563	3304303
	WATER	MCAWW 300.0A		3304564	3304302
	WATER	SW846 8260B		3311516	3311228
	WATER	SW846 6010B		3307261	3307129
	WATER	SW846 6010B		3307485	3307273
	WATER	MCAWW 376.2		3310408	3310225
004	WATER	SW846 9060		3308582	3309277
	WATER	SW846 8260B		3311516	3311228
	WATER	MCAWW 376.2		3310408	3310225
005	WATER	MCAWW 300.0A		3304562	3304301
	WATER	MCAWW 300.0A		3304566	3304305
	WATER	MCAWW 300.0A		3304565	3304304
	WATER	SW846 9060		3308582	3309277
	WATER	MCAWW 300.0A		3304563	3304303
	WATER	MCAWW 300.0A		3304564	3304302

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BOE-C6-0104226

QC DATA ASSOCIATION SUMMARY

E3J310405

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
005	WATER	SW846 8260B		3311516	3311228
	WATER	SW846 6010B		3307261	3307129
	WATER	SW846 6010B		3307485	3307273
	WATER	MCAWW 376.2		3310408	3310225
006	WATER	MCAWW 300.0A		3304562	3304301
	WATER	MCAWW 300.0A		3304566	3304305
	WATER	MCAWW 300.0A		3304565	3304304
	WATER	SW846 9060		3308582	3309277
	WATER	MCAWW 300.0A		3304563	3304303
	WATER	MCAWW 300.0A		3304564	3304302
	WATER	SW846 8260B		3311516	3311228
	WATER	SW846 6010B		3307261	3307129
	WATER	SW846 6010B		3307485	3307273
	WATER	MCAWW 376.2		3310408	3310225
007	WATER	MCAWW 300.0A		3304562	3304301
	WATER	MCAWW 300.0A		3304566	3304305
	WATER	MCAWW 300.0A		3304565	3304304
	WATER	MCAWW 300.0A		3304563	3304303
	WATER	MCAWW 300.0A		3304564	3304302
	WATER	SW846 6010B		3307261	3307129
	WATER	SW846 6010B		3307485	3307273
008	WATER	SW846 8260B		3311516	3311228

BOE-C6-0104227

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J310405 **Work Order #...:** F4D5N1AA **Matrix.....:** WATER
MB Lot-Sample #: E3K070000-516

Prep Date.....: 11/06/03 **Analysis Time..:** 21:59
Analysis Date..: 11/06/03 **Prep Batch #...:** 3311516 **Instrument ID..:** MSJ
Dilution Factor: 1

Analyst ID.....: 015590

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

BOE-C6-0104228

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3J310405 **Work Order #...:** F4D5N1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	99	(75 - 130)
1,2-Dichloroethane-d4	104	(65 - 135)
Toluene-d8	106	(80 - 130)

NOTE(S):

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

BOE-C6-0104229

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: E3J310405 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: E3K030000-261 **Prep Batch #...:** 3307261						
Manganese	**0.0029 B**	**0.015**	**mg/L**	**SW846 6010B**	**11/06-11/07/03**	**F31R21AA**
		Dilution Factor: 1				
		Analysis Time..: 12:41		Analyst ID.....: 021088	Instrument ID..: M01	
Iron	ND	0.10	mg/L	SW846 6010B	11/06-11/07/03	F31R21AC
		Dilution Factor: 1				
		Analysis Time..: 12:41		Analyst ID.....: 021088	Instrument ID..: M01	

NOTE(S):

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

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: E3J310405 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: E3K030000-485 **Prep Batch #...:** 3307485						
Manganese	ND	0.015	mg/L	SW846 6010B	11/03-11/04/03	F32K51AA
		Dilution Factor: 1				
		Analysis Time..: 22:30		Analyst ID.....: 021088	Instrument ID..: M01	
Iron	ND	0.10	mg/L	SW846 6010B	11/03-11/04/03	F32K51AD
		Dilution Factor: 1				
		Analysis Time..: 22:30		Analyst ID.....: 021088	Instrument ID..: M01	

NOTE(S):

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

METHOD BLANK REPORT

General Chemistry

Client Lot #...: E3J310405 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #: F30GA1AA		MB Lot-Sample #:	E3J310000-563	
	ND	0.50	mg/L	MCAWW 300.0A	10/31/03	3304563
		Dilution Factor: 1				
		Analysis Time..: 19:38		Analyst ID.....: 000022	Instrument ID..: W01	
Chloride		Work Order #: F30F71AA		MB Lot-Sample #:	E3J310000-562	
	ND	1.0	mg/L	MCAWW 300.0A	10/31/03	3304562
		Dilution Factor: 1				
		Analysis Time..: 19:38		Analyst ID.....: 000022	Instrument ID..: W01	
Nitrate as N		Work Order #: F30GC1AA		MB Lot-Sample #:	E3J310000-565	
	ND	0.10	mg/L	MCAWW 300.0A	10/31/03	3304565
		Dilution Factor: 1				
		Analysis Time..: 19:38		Analyst ID.....: 000022	Instrument ID..: W01	
Nitrite as N		Work Order #: F30F81AA		MB Lot-Sample #:	E3J310000-564	
	ND	0.10	mg/L	MCAWW 300.0A	10/31/03	3304564
		Dilution Factor: 1				
		Analysis Time..: 19:38		Analyst ID.....: 000022	Instrument ID..: W01	
Sulfate		Work Order #: F30GD1AA		MB Lot-Sample #:	E3J310000-566	
	ND	1.0	mg/L	MCAWW 300.0A	10/31/03	3304566
		Dilution Factor: 1				
		Analysis Time..: 19:38		Analyst ID.....: 000022	Instrument ID..: W01	
Total Organic Carbon (TOC)		Work Order #: F37T71AA		MB Lot-Sample #:	E3K040000-582	
	ND	1.0	mg/L	SW846 9060	11/04/03	3308582
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 999995	Instrument ID..: W08	
Total Sulfide		Work Order #: F39MH1AA		MB Lot-Sample #:	E3K060000-408	
	ND	0.10	mg/L	MCAWW 376.2	11/06/03	3310408
		Dilution Factor: 1				
		Analysis Time..: 12:33		Analyst ID.....: 000022	Instrument ID..: W17	

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3J310405 **Work Order #...:** F4D5N1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3K070000-516
Prep Date.....: 11/06/03 **Analysis Date..:** 11/06/03
Prep Batch #...: 3311516 **Analysis Time..:** 21:35
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**106**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**107**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**120**	**(65 - 135)**	**SW846 8260B**
Toluene	**111**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**109**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	104	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
Toluene-d8	110	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3J310405 **Work Order #...:** F4D5N1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3K070000-516
Prep Date.....: 11/06/03 **Analysis Date..:** 11/06/03
Prep Batch #...: 3311516 **Analysis Time..:** 21:35
Dilution Factor: 1 **Instrument ID..:** MSJ
Analyst ID.....: 015590

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**10.6**	**ug/L**	**106**	**SW846 8260B**
Chlorobenzene	**10.0**	**10.7**	**ug/L**	**107**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**12.0**	**ug/L**	**120**	**SW846 8260B**
Toluene	**10.0**	**11.1**	**ug/L**	**111**	**SW846 8260B**
Trichloroethene	**10.0**	**10.9**	**ug/L**	**109**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	104	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
Toluene-d8	110	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E3J310405 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3K030000-261 **Prep Batch #...:** 3307261					
Manganese	97	(85 - 120)	SW846 6010B	11/06-11/07/03	F31R21AD
		Dilution Factor: 1	Analysis Time..: 12:47	Analyst ID.....: 021088	
		Instrument ID..: M01			
Iron	94	(85 - 120)	SW846 6010B	11/06-11/07/03	F31R21AE
		Dilution Factor: 1	Analysis Time..: 12:47	Analyst ID.....: 021088	
		Instrument ID..: M01			

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E3J310405 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3K030000-261 **Prep Batch #...:** 3307261							
Manganese	0.500	0.486	mg/L	97	SW846 6010B	11/06-11/07/03	F31R21AD
			Dilution Factor: 1		Analysis Time..: 12:47	Analyst ID.....: 021088	
			Instrument ID..: M01				
Iron	1.00	0.944	mg/L	94	SW846 6010B	11/06-11/07/03	F31R21AE
			Dilution Factor: 1		Analysis Time..: 12:47	Analyst ID.....: 021088	
			Instrument ID..: M01				

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: E3J310405 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3K030000-485 **Prep Batch #...:** 3307485					
Manganese	98	(85 - 120)	SW846 6010B	11/03-11/04/03	F32K51AE
		Dilution Factor: 1	Analysis Time..: 22:36	Analyst ID.....: 021088	
		Instrument ID..: M01			
Iron	101	(85 - 120)	SW846 6010B	11/03-11/04/03	F32K51AG
		Dilution Factor: 1	Analysis Time..: 22:36	Analyst ID.....: 021088	
		Instrument ID..: M01			

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: E3J310405 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E3K030000-485 **Prep Batch #...:** 3307485							
Manganese	0.500	0.488	mg/L	98	SW846 6010B	11/03-11/04/03	F32K51AE
			Dilution Factor: 1		Analysis Time..: 22:36	Analyst ID.....: 021088	
			Instrument ID..: M01				
Iron	1.00	1.01	mg/L	101	SW846 6010B	11/03-11/04/03	F32K51AG
			Dilution Factor: 1		Analysis Time..: 22:36	Analyst ID.....: 021088	
			Instrument ID..: M01				

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: E3J310405 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #: F30GA1AC	LCS Lot-Sample#: E3J310000-563		
	103	(90 - 110)	MCAWW 300.0A	10/31/03	3304563
		Dilution Factor: 1	Analysis Time..: 19:19	Analyst ID.....: 000022	
		Instrument ID..: W01			
Chloride		Work Order #: F30F71AC	LCS Lot-Sample#: E3J310000-562		
	104	(90 - 110)	MCAWW 300.0A	10/31/03	3304562
		Dilution Factor: 1	Analysis Time..: 19:19	Analyst ID.....: 000022	
		Instrument ID..: W01			
Nitrate as N		Work Order #: F30GC1AC	LCS Lot-Sample#: E3J310000-565		
	101	(90 - 110)	MCAWW 300.0A	10/31/03	3304565
		Dilution Factor: 1	Analysis Time..: 19:19	Analyst ID.....: 000022	
		Instrument ID..: W01			
Nitrite as N		Work Order #: F30F81AC	LCS Lot-Sample#: E3J310000-564		
	103	(90 - 110)	MCAWW 300.0A	10/31/03	3304564
		Dilution Factor: 1	Analysis Time..: 19:19	Analyst ID.....: 000022	
		Instrument ID..: W01			
Sulfate		Work Order #: F30GD1AC	LCS Lot-Sample#: E3J310000-566		
	103	(90 - 110)	MCAWW 300.0A	10/31/03	3304566
		Dilution Factor: 1	Analysis Time..: 19:19	Analyst ID.....: 000022	
		Instrument ID..: W01			
Total Organic Carbon (TOC)		Work Order #: F37T71AC	LCS Lot-Sample#: E3K040000-582		
	97	(85 - 115)	SW846 9060	11/04/03	3308582
		Dilution Factor: 1	Analysis Time..: 17:00	Analyst ID.....: 999995	
		Instrument ID..: W08			
Total Sulfide		Work Order #: F39MH1AC	LCS Lot-Sample#: E3K060000-408		
	102	(80 - 120)	MCAWW 376.2	11/06/03	3310408
		Dilution Factor: 1	Analysis Time..: 12:30	Analyst ID.....: 000022	
		Instrument ID..: W17			

NOTE(S):

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

BOE-C6-0104239

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E3J310405 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			Work Order #: F30GA1AC		LCS Lot-Sample#:	E3J310000-563	
	5.00	5.16	mg/L	103	MCAWW 300.0A	10/31/03	3304563
			Dilution Factor: 1		Analysis Time..: 19:19	Analyst ID.....: 000022	
			Instrument ID..: W01				
Chloride			Work Order #: F30F71AC		LCS Lot-Sample#:	E3J310000-562	
	25.0	26.0	mg/L	104	MCAWW 300.0A	10/31/03	3304562
			Dilution Factor: 1		Analysis Time..: 19:19	Analyst ID.....: 000022	
			Instrument ID..: W01				
Nitrate as N			Work Order #: F30GC1AC		LCS Lot-Sample#:	E3J310000-565	
	5.00	5.06	mg/L	101	MCAWW 300.0A	10/31/03	3304565
			Dilution Factor: 1		Analysis Time..: 19:19	Analyst ID.....: 000022	
			Instrument ID..: W01				
Nitrite as N			Work Order #: F30F81AC		LCS Lot-Sample#:	E3J310000-564	
	5.00	5.13	mg/L	103	MCAWW 300.0A	10/31/03	3304564
			Dilution Factor: 1		Analysis Time..: 19:19	Analyst ID.....: 000022	
			Instrument ID..: W01				
Sulfate			Work Order #: F30GD1AC		LCS Lot-Sample#:	E3J310000-566	
	25.0	25.8	mg/L	103	MCAWW 300.0A	10/31/03	3304566
			Dilution Factor: 1		Analysis Time..: 19:19	Analyst ID.....: 000022	
			Instrument ID..: W01				
Total Organic Carbon (TOC)			Work Order #: F37T71AC		LCS Lot-Sample#:	E3K040000-582	
	25.0	24.2	mg/L	97	SW846 9060	11/04/03	3308582
			Dilution Factor: 1		Analysis Time..: 17:00	Analyst ID.....: 999995	
			Instrument ID..: W08				
Total Sulfide			Work Order #: F39MH1AC		LCS Lot-Sample#:	E3K060000-408	
	0.500	0.509	mg/L	102	MCAWW 376.2	11/06/03	3310408
			Dilution Factor: 1		Analysis Time..: 12:30	Analyst ID.....: 000022	
			Instrument ID..: W17				

NOTE(S):

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

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	E3J310405	Work Order #...:	F3PNR1AW-MS F3PNR1AX-MSD	Matrix.....:	WATER
MS Lot-Sample #:	E3J290333-006				
Date Sampled...:	10/29/03 11:05	Date Received..:	10/29/03 17:00	MS Run #.....:	3311228
Prep Date.....:	11/07/03	Analysis Date..:	11/07/03		
Prep Batch #...:	3311516	Analysis Time..:	06:00		
Dilution Factor:	2	Analyst ID.....:	015590	Instrument ID..:	MSJ

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**111**	**(75 - 125)**			**SW846 8260B**
	108	**(75 - 125)**	**1.9**	**(0-25)**	**SW846 8260B**
Chlorobenzene	**112**	**(75 - 125)**			**SW846 8260B**
	109	**(75 - 125)**	**3.3**	**(0-25)**	**SW846 8260B**
1,1-Dichloroethene	**124**	**(65 - 135)**			**SW846 8260B**
	131	**(65 - 135)**	**4.9**	**(0-25)**	**SW846 8260B**
Toluene	**113**	**(75 - 125)**			**SW846 8260B**
	110	**(75 - 125)**	**3.1**	**(0-25)**	**SW846 8260B**
Trichloroethene	**110**	**(75 - 135)**			**SW846 8260B**
	110	**(75 - 135)**	**0.28**	**(0-25)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	112	(75 - 130)
	109	(75 - 130)
1,2-Dichloroethane-d4	111	(65 - 135)
	107	(65 - 135)
Toluene-d8	115	(80 - 130)
	110	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...:	E3J310405	**Work Order #...:**	F3PNR1AW-MS F3PNR1AX-MSD	**Matrix.....:**	WATER
MS Lot-Sample #:	E3J290333-006				
Date Sampled...:	10/29/03 11:05	**Date Received..:**	10/29/03 17:00	**MS Run #.....:**	3311228
Prep Date.....:	11/07/03	**Analysis Date..:**	11/07/03		
Prep Batch #...:	3311516	**Analysis Time..:**	06:00		
Dilution Factor:	2	**Analyst ID.....:**	015590	**Instrument ID..:**	MSJ

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**20.0**	**22.1**	**ug/L**	**111**		**SW846 8260B**
	ND	**20.0**	**21.7**	**ug/L**	**108**	**1.9**	**SW846 8260B**
Chlorobenzene	**ND**	**20.0**	**22.5**	**ug/L**	**112**		**SW846 8260B**
	ND	**20.0**	**21.8**	**ug/L**	**109**	**3.3**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**20.0**	**24.9**	**ug/L**	**124**		**SW846 8260B**
	ND	**20.0**	**26.1**	**ug/L**	**131**	**4.9**	**SW846 8260B**
Toluene	**ND**	**20.0**	**22.6**	**ug/L**	**113**		**SW846 8260B**
	ND	**20.0**	**21.9**	**ug/L**	**110**	**3.1**	**SW846 8260B**
Trichloroethene	**2.3**	**20.0**	**24.2**	**ug/L**	**110**		**SW846 8260B**
	2.3	**20.0**	**24.3**	**ug/L**	**110**	**0.28**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	112	(75 - 130)
	109	(75 - 130)
1,2-Dichloroethane-d4	111	(65 - 135)
	107	(65 - 135)
Toluene-d8	115	(80 - 130)
	110	(80 - 130)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E3J310405 **Matrix.....:** WATER
Date Sampled...: 10/30/03 15:32 **Date Received..:** 10/31/03 14:30

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J310405-001 **Prep Batch #...:** 3307261							
Manganese	92	(85 - 120)			SW846 6010B	11/06-11/07/03	F3X311AN
	91	(85 - 120)	0.91	(0-20)	SW846 6010B	11/06-11/07/03	F3X311AP
		Dilution Factor: 1					
		Analysis Time..: 13:57			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3307129					
Iron	NC	(85 - 120)			SW846 6010B	11/06-11/07/03	F3X311AQ
	NC	(85 - 120)		(0-20)	SW846 6010B	11/06-11/07/03	F3X311AR
		Dilution Factor: 1					
		Analysis Time..: 13:57			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3307129					

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E3J310405 **Matrix.....:** WATER
Date Sampled...: 10/30/03 15:32 **Date Received..:** 10/31/03 14:30

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J310405-001 **Prep Batch #...:** 3307261									
Manganese									
	0.24	0.500	0.701	mg/L	92		SW846 6010B	11/06-11/07/03	F3X311AN
	0.24	0.500	0.695	mg/L	91	0.91	SW846 6010B	11/06-11/07/03	F3X311AP
			Dilution Factor: 1						
			Analysis Time..: 13:57		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3307129						
Iron									
	6.8	1.00	7.37 NC	mg/L			SW846 6010B	11/06-11/07/03	F3X311AQ
	6.8	1.00	7.61 NC	mg/L			SW846 6010B	11/06-11/07/03	F3X311AR
			Dilution Factor: 1						
			Analysis Time..: 13:57		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3307129						

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

BOE-C6-0104244

MATRIX SPIKE SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: E3J310405 **Matrix.....:** WATER
Date Sampled...: 10/29/03 15:00 **Date Received..:** 10/29/03 17:00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J290333-001 **Prep Batch #...:** 3307485							
Manganese	NC	(85 - 120)			SW846 6010B	11/03-11/04/03	F3PNC1A5
	NC	(85 - 120)		(0-20)	SW846 6010B	11/03-11/04/03	F3PNC1A6
		Dilution Factor: 1					
		Analysis Time..: 23:09			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3307273					
Iron	98	(85 - 120)			SW846 6010B	11/03-11/04/03	F3PNC1A9
	101	(85 - 120)	1.2	(0-20)	SW846 6010B	11/03-11/04/03	F3PNC1CA
		Dilution Factor: 1					
		Analysis Time..: 23:09			Instrument ID..: M01	Analyst ID.....: 021088	
		MS Run #.....: 3307273					

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

MATRIX SPIKE SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: E3J310405 Matrix.....: WATER
Date Sampled...: 10/29/03 15:00 Date Received..: 10/29/03 17:00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E3J290333-001 **Prep Batch #...:** 3307485									
Manganese									
	5.0	0.500	5.40 NC	mg/L			SW846 6010B	11/03-11/04/03	F3PNC1A5
	5.0	0.500	5.52 NC	mg/L			SW846 6010B	11/03-11/04/03	F3PNC1A6
			Dilution Factor: 1						
			Analysis Time..: 23:09		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3307273						
Iron									
	1.2	1.00	2.19	mg/L	98		SW846 6010B	11/03-11/04/03	F3PNC1A9
	1.2	1.00	2.22	mg/L	101	1.2	SW846 6010B	11/03-11/04/03	F3PNC1CA
			Dilution Factor: 1						
			Analysis Time..: 23:09		Instrument ID..: M01			Analyst ID.....: 021088	
			MS Run #.....: 3307273						

NOTE(S):

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

NC The recovery and/or RPD were not calculated.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: E3J310405 **Matrix.....:** WATER
Date Sampled...: 10/30/03 16:32 **Date Received..:** 10/31/03 14:30

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			WO#: F3X4Q1AT-MS/F3X4Q1AU-MSD			MS Lot-Sample #: E3J310405-002	
	111	(80 - 120)			MCAWW 300.0A	10/31-11/01/03	3304563
	100	(80 - 120)	9.7	(0-20)	MCAWW 300.0A	10/31-11/01/03	3304563
		Dilution Factor: 1					
		Analysis Time..: 00:53	Instrument ID..: W01			Analyst ID.....: 000022	
		MS Run #.....: 3304303					
Chloride			WO#: F3X4Q1AN-MS/F3X4Q1AP-MSD			MS Lot-Sample #: E3J310405-002	
	109	(80 - 120)			MCAWW 300.0A	10/31-11/01/03	3304562
	102	(80 - 120)	2.8	(0-20)	MCAWW 300.0A	10/31-11/01/03	3304562
		Dilution Factor: 1					
		Analysis Time..: 00:53	Instrument ID..: W01			Analyst ID.....: 000022	
		MS Run #.....: 3304301					
Nitrate as N			WO#: F3X4Q1AV-MS/F3X4Q1AW-MSD			MS Lot-Sample #: E3J310405-002	
	106	(80 - 120)			MCAWW 300.0A	10/31-11/01/03	3304565
	96	(80 - 120)	8.1	(0-20)	MCAWW 300.0A	10/31-11/01/03	3304565
		Dilution Factor: 1					
		Analysis Time..: 00:53	Instrument ID..: W01			Analyst ID.....: 000022	
		MS Run #.....: 3304304					
Nitrite as N			WO#: F3X4Q1AQ-MS/F3X4Q1AR-MSD			MS Lot-Sample #: E3J310405-002	
	107	(80 - 120)			MCAWW 300.0A	10/31-11/01/03	3304564
	97	(80 - 120)	10	(0-20)	MCAWW 300.0A	10/31-11/01/03	3304564
		Dilution Factor: 1					
		Analysis Time..: 00:53	Instrument ID..: W01			Analyst ID.....: 000022	
		MS Run #.....: 3304302					
Sulfate			WO#: F3X4Q1AX-MS/F3X4Q1A0-MSD			MS Lot-Sample #: E3J310405-002	
	110	(80 - 120)			MCAWW 300.0A	10/31-11/01/03	3304566
	100	(80 - 120)	5.0	(0-20)	MCAWW 300.0A	10/31-11/01/03	3304566
		Dilution Factor: 1					
		Analysis Time..: 00:53	Instrument ID..: W01			Analyst ID.....: 000022	
		MS Run #.....: 3304305					
Total Organic Carbon (TOC)			WO#: F3X311DE-MS/F3X311DF-MSD			MS Lot-Sample #: E3J310405-001	
	91	(85 - 115)			SW846 9060	11/04/03	3308582
	96	(85 - 115)	4.4	(0-20)	SW846 9060	11/04/03	3308582
		Dilution Factor: 1					
		Analysis Time..: 17:00	Instrument ID..: W08			Analyst ID.....: 999995	
		MS Run #.....: 3309277					

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: E3J310405 **Matrix.....:** WATER
Date Sampled...: 10/30/03 16:32 **Date Received..:** 10/31/03 14:30

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide		WO#:	F3X4Q1A2-MS/F3X4Q1A3-MSD			MS Lot-Sample #:	E3J310405-002
	96	(80 - 120)			MCAWW 376.2	11/06/03	3310408
	95	(80 - 120)	1.0	(0-20)	MCAWW 376.2	11/06/03	3310408

Dilution Factor: 1
Analysis Time..: 12:54 Instrument ID..: W17 Analyst ID.....: 000022
MS Run #.....: 3310225

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E3J310405 **Matrix.....:** WATER
Date Sampled...: 10/30/03 16:32 **Date Received..:** 10/31/03 14:30

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			WO#: F3X4Q1AT-MS/F3X4Q1AU-MSD				MS Lot-Sample #: E3J310405-002		
	0.73	25.0	28.4	mg/L	111		MCAWW 300.0A	10/31-11/01/03	3304563
	0.73	25.0	25.8	mg/L	100	9.7	MCAWW 300.0A	10/31-11/01/03	3304563
			Dilution Factor: 1						
			Analysis Time..: 00:53		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3304303						
Chloride			WO#: F3X4Q1AN-MS/F3X4Q1AP-MSD				MS Lot-Sample #: E3J310405-002		
	218	125	354	mg/L	109		MCAWW 300.0A	10/31-11/01/03	3304562
	218	125	345	mg/L	102	2.8	MCAWW 300.0A	10/31-11/01/03	3304562
			Dilution Factor: 1						
			Analysis Time..: 00:53		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3304301						
Nitrate as N			WO#: F3X4Q1AV-MS/F3X4Q1AW-MSD				MS Lot-Sample #: E3J310405-002		
	5.8	25.0	32.3	mg/L	106		MCAWW 300.0A	10/31-11/01/03	3304565
	5.8	25.0	29.8	mg/L	96	8.1	MCAWW 300.0A	10/31-11/01/03	3304565
			Dilution Factor: 1						
			Analysis Time..: 00:53		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3304304						
Nitrite as N			WO#: F3X4Q1AQ-MS/F3X4Q1AR-MSD				MS Lot-Sample #: E3J310405-002		
	ND	25.0	26.9	mg/L	107		MCAWW 300.0A	10/31-11/01/03	3304564
	ND	25.0	24.3	mg/L	97	10	MCAWW 300.0A	10/31-11/01/03	3304564
			Dilution Factor: 1						
			Analysis Time..: 00:53		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3304302						
Sulfate			WO#: F3X4Q1AX-MS/F3X4Q1A0-MSD				MS Lot-Sample #: E3J310405-002		
	98.0	125	235	mg/L	110		MCAWW 300.0A	10/31-11/01/03	3304566
	98.0	125	224	mg/L	100	5.0	MCAWW 300.0A	10/31-11/01/03	3304566
			Dilution Factor: 1						
			Analysis Time..: 00:53		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 3304305						
Total Organic Carbon (TOC)			WO#: F3X311DE-MS/F3X311DF-MSD				MS Lot-Sample #: E3J310405-001		
	5.0	25.0	27.7	mg/L	91		SW846 9060	11/04/03	3308582
	5.0	25.0	29.0	mg/L	96	4.4	SW846 9060	11/04/03	3308582
			Dilution Factor: 1						
			Analysis Time..: 17:00		Instrument ID..: W08			Analyst ID.....: 999995	
			MS Run #.....: 3309277						

(Continued on next page)

BOE-C6-0104249

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E3J310405 **Matrix.....:** WATER
Date Sampled...: 10/30/03 16:32 **Date Received..:** 10/31/03 14:30

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide			WO#: F3X4Q1A2-MS/F3X4Q1A3-MSD				MS Lot-Sample #: E3J310405-002		
	ND	0.500	0.484	mg/L	96		MCAWW 376.2	11/06/03	3310408
	ND	0.500	0.479	mg/L	95	1.0	MCAWW 376.2	11/06/03	3310408

Dilution Factor: 1
Analysis Time..: 12:54 Instrument ID..: W17 Analyst ID.....: 000022
MS Run #.....: 3310225

NOTE(S):

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

VAPORTECH Services, Inc.

Analytical Laboratory & Geoprobe Sampling

RECEIVED
OCT 30 2003
ARCADIS Geraghty & Miller

10/20/03

Mr. Jim Nguyen
Arcadis Geraghty & Miller
1400 N. Harbor Blvd.
Fullerton, CA 92835

Dear Jim:

Enclosed are the sample data report, chain of custody record and quality control data for the samples received on October 11, 2003 for your project; Boeing C-6, Torrance.

Please give me a call if you have questions or I can be of further assistance. Thank you for using Vaportech Services.

Sincerely,

David J. Masdea

Enclosure:

1158 Pittsburgh Road • Suite 201 • Valencia, PA 16059
Tel.: 724-898-2622 • Fax: 724-898-2633

AGM120-32749

Arcadis
Project: Boeing, C-6, Torrance

SAMPLE NAME	CARBON DIOXIDE (mg/l)	OXYGEN (mg/l)	NITROGEN (mg/l)	METHANE (ug/l)	ETHANE (ug/l)	ETHENE (ug/l)	FILE NAME	TIME COLLECTED	DATE COLLECTED	DATE RECEIVED	DATE ANALYZED
IRZMW004-WG100703-01	15.3	2.74	8.4	0.3	0.05	0.06	D26A/B.36A	1118	10/07/2003	10/11/2003	10/16/2003
IRZB0095-WG100703-01	14.0	2.67	8.7	ND	0.05	0.08	D26A/B.37A	1238	10/07/2003	10/11/2003	10/16/2003
CMW026-WG100703-01	6.7	2.47	14.8	0.9	0.52	0.04	D26A/B.38A	1407	10/07/2003	10/11/2003	10/16/2003
IRZCMW003-WG100703-01	7.1	1.11	12.1	1.6	0.95	0.88	D26A/B.39A	1505	10/07/2003	10/11/2003	10/16/2003
IRZCMW001-WG100803-01	13.2	3.10	14.9	0.3	0.11	0.18	D26A/B.40A	0733	10/08/2003	10/11/2003	10/16/2003
IRZCMW002-WG100803-01	7.2	0.94	15.2	0.6	0.43	1.21	D26A/B.41A	0920	10/08/2003	10/11/2003	10/16/2003
CMW001-WG100903-01	9.1	1.74	13.4	4.8	1.54	2.34	D26A/B.42A	0755	10/09/2003	10/11/2003	10/16/2003
IRZMW005-WG100903-01	16.3	4.97	14.0	ND	0.06	0.07	D26A/B.43A	0940	10/09/2003	10/11/2003	10/16/2003
IRZB081-WG100903-01	16.9	3.70	12.6	ND	0.06	0.11	D26A/B.44A	1021	10/09/2003	10/11/2003	10/16/2003
MDL	0.4	0.15	0.4	0.2	0.01	0.01					

MDL - denotes lower 'Method Detection Limit'

ND - denotes 'Not Detected' at or above the lower method detection limit

23-Oct-2003

Reviewed by _____

AGM120-32749

Arcadis
Project: Boeing, C-6, Torrance

QUALITY CONTROL

CONTINUING CALIBRATION CHECK (TCD)

STANDARD: "237"
FILE NAME: D26B.35A

COMPOUND	KNOWN (%)	RESULT (%)	PERCENT DIFFERENCE
Carbon Dioxide	15.00	15.48	3.21
Oxygen	7.00	7.12	1.77
Nitrogen	66.49	67.95	2.20
Methane	4.50	4.66	3.58

LABORATORY BLANK RESULTS (TCD)

BLANK: CARRIER IN LOOP
FILE NAME: D26B.33A

COMPOUND	BLANK (%)	METHOD DETECTION LIMIT (%)
Carbon Dioxide	ND	0.02
Oxygen	ND	0.03
Nitrogen	ND	0.10
Methane	ND	0.03

CONTINUING CALIBRATION CHECK (FID)

STANDARD: "54"
FILE NAME: D26A.34A

COMPOUND	KNOWN PPMV	RESULT PPMV	PERCENT DIFFERENCE
Methane	15.10	15.38	1.83
Ethane	15.00	15.46	3.05
Ethene	15.10	15.09	0.10

LABORATORY BLANK RESULTS (FID)

BLANK: CARRIER IN LOOP
FILE NAME: D26A.33A

COMPOUND	BLANK PPMV	METHOD DETECTION LIMIT PPMV
Methane	ND	1.00
Ethane	ND	0.02
Ethene	ND	0.02

ND - denotes 'Not Detected' at or above the lower method detection limit

20-Oct-2003

Reviewed by _____

CHAIN-OF-CUSTODY RECORD

VAPORTECH Services, Inc.

1158 Pittsburgh Road • Suite 201 • Valencia, PA 16059
Tel: 724-898-2622 • Fax: 724-898-2633

Page 1 OF 2

Company Name: Arcadis
Address: 1400 N Harbor #700
City: Fullerton State: CA Zip: 92835
Proj. Manager: Jim Nguyen
Proj. Location: Boeing C-6, Torrance CA
Proj. Number:
Phone #: 714-278-0992 Fax #: 714-278-0051

Sampler's signature:

Analysis Options: Enter letters in Requested Analysis columns below.

A	Light Hydrocarbons	F	BTEX
B	Permanent Gases	G	BTEX & C5 - C10
C	Methane	H	TPH (C4 - C12 range)
D	Methane, Ethane, Ethylene	I	Chlorinated Hydrocarbons
E	Hydrogen	J	624 Compound List

Light Hydrocarbons: Methane, Ethane, Ethylene, Propane, Propylene, iso-Butane, n-Butane
Permanent Gases: Carbon Dioxide, Oxygen, Nitrogen, Methane, Carbon Monoxide
BTEX: Benzene, Toluene, Ethyl Benzene, m & p -Xylene, o-Xylene
C5-C10: Pentane, Hexane, Heptane, Octane, Nonane, Decane
Chlorinated HC: 1,1-DCE, 1,1-DCA, Methylene Chloride, trans-1,2-DCE, cis-1,2-DCE, Chloroform 1,1,1-TCA, Carbon Tetrachloride, Trichloroethylene (TCE), Tetrachloroethylene (PCE)

Collection Date	Collection Time	Number of Containers	Sample Type	Sample Identification	Requested Analysis				(Other)	Remarks
10/7	1118	2	W	IRZMW004-WG100703-01	B					DO, CO_2, Nitrogen
10/7	1238	2	W	IRZB0095-WG100703-01	B					Methane, ethane, ethene
10/7	1407	2	W	CMW026-WG100703-01	B					
10/7	1505	2	W	IRZCMW003-WG100703-01	B					
10/8/03	0733	2	W	IRZCMW001-WG100~~703~~803-01	B					~~not rec.~~ (Labelled -WG100803)
10/8/03	0920	2	W	IRZCMW002-WG100~~703~~803-01	B					~~not rec.~~ (" ")
~~10/8/03~~	~~1035~~	~~2~~	~~W~~	~~CMW2-WG100803-01~~ H.P.H.	~~B~~					
~~10/8/03~~	~~1035~~	2	W	CMW2_WG100803_02						NOT REC. NOT REC.
~~10/8/03~~	~~1220~~	2	W	IRZMW002A_WG100803_01	B					Hold
~~10/8/03~~	1335	2	W	IRZMW002B_WG100803-02	B					Hold
10/9/03	0755	2	W	CMW001-100903-01	B					IRZ removed by client Report. 10/14/03
10/9/03	0940	2	W	IRZMW005-WG100903-01	B					

Results to :

Invoice to :

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
	Arcadis	10/10/03			VaporTech	10-11-03	1000
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter

BOE-C6-0104254

ARCADIS

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 2 of 2

Project Number/Name 594.02.03

Project Location Boeing C-6, Torrance

Laboratory Vapor Check

Project Manager Jim Nguyen

Sampler(s)/Affiliation Arcadis

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	B List permanent gases DO, CO2, Nitrogen Methane, ethane, ethene						Remarks	Total
1RZB081-wg100903-01	~~W~~	10/9, 10:21		X 2							2
1RZMW01B-wg100903-01	L	~~10/9, 11:33~~		X 2						Hold	2
1RZMW01A-wg100903-01	L	~~10/9, 12:45~~		X 2						Hold	2
1RZMW003A-wg100903-01	L	~~10/9, 13:45~~		X						Hold	2
1RZMW003B-wg100903-01	L	~~10/9, 14:43~~		X						Hold	2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 32

Relinquished by: [signature]	Organization: Arcadis	Date 10/10/03	Time	Seal Intact? Yes No N/A
Received by: [signature]	Organization: Vapor Check	Date 10/11/03	Time 1000	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks:

Delivery Method: ☐ In Person ☐ Common Carrier _____ SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-12/01

BOE-C6-0104255

VAPORTECH Services, Inc.

Analytical Laboratory & Geo

RECEIVED
NOV 12 2003
ARCADIS Geraghty & Miller

11/5/03

Mr. Jim Nguyen
Arcadis Geraghty & Miller
1400 N. Harbor Blvd.
Fullerton, CA 92835

Dear Jim:

Enclosed are the sample data report, chain of custody record and quality control data for the samples received on November 1, 2003 for your project; Boeing, C-6 Torrance.

Please give me a call if you have questions or I can be of further assistance. Thank you for using Vaportech Services.

Sincerely,

David J. Masdea

Enclosure:

1158 Pittsburgh Road • Suite 201 • Valencia, PA 16059
Tel.: 724-898-2622 • Fax: 724-898-2633

AGM122-32786

Arcadis
Project: Boeing, C-6, Torrance

SAMPLE NAME	CARBON DIOXIDE (mg/l)	OXYGEN (mg/l)	NITROGEN (mg/l)	METHANE (ug/l)	ETHANE (ng/l)	ETHENE (ng/l)	FILE NAME	DATE COLLECTED	DATE RECEIVED	DATE ANALYZED
IRZMW001A_WG103003_01	27.4	1.16	10.0	2.9	72	51	D26A/B.88A	10/30/2003	11/01/2003	11/03/2003
IRZMW001B_WG103003_01	21.2	4.05	12.4	0.4	38	23	D26A/B.89A	10/30/2003	11/01/2003	11/03/2003
IRZMW002B_WG103003_01	16.6	3.38	16.1	6.0	1344	2051	D26A/B.90A	10/30/2003	11/01/2003	11/03/2003
IRZMW002A_WG103003_01	39.1	0.62	8.7	4.0	1172	3250	D26A/B.91A	10/30/2003	11/01/2003	11/03/2003
IRZMW003A_WG103103_01	25.3	3.06	15.6	0.5	169	96	D26A/B.92A	10/31/2003	11/01/2003	11/03/2003
IRZMW003B_WG103103_01	18.4	3.65	11.5	0.7	87	81	D26A/B.93A	10/31/2003	11/01/2003	11/03/2003
CMW002-WG103003_01	11.4	2.48	16.1	0.9	141	1041	D26A/B.94A	10/30/2003	11/01/2003	11/03/2003
MDL	0.4	0.15	0.4	0.2	5	5				

MDL - denotes lower 'Method Detection Limit'

ND - denotes 'Not Detected' at or above the lower method detection limit

07-Nov-2003

Reviewed by DOM

BOE-C6-0104257

Vaportech Services, Inc.

AGM122-32786

Arcadis
Project: Boeing, C-6, Torrance

QUALITY CONTROL

CONTINUING CALIBRATION CHECK (TCD)

STANDARD: "237"
FILE NAME: D26B.85A

COMPOUND	KNOWN (%)	RESULT (%)	PERCENT DIFFERENCE
Carbon Dioxide	15.00	14.68	2.17
Oxygen	7.00	6.96	0.56
Nitrogen	66.49	66.12	0.56
Methane	4.50	4.52	0.42

LABORATORY BLANK RESULTS (TCD)

BLANK: CARRIER IN LOOP
FILE NAME: D26B.83A

COMPOUND	BLANK (%)	METHOD DETECTION LIMIT (%)
Carbon Dioxide	ND	0.02
Oxygen	ND	0.03
Nitrogen	ND	0.10
Methane	ND	0.03

CONTINUING CALIBRATION CHECK (FID)

STANDARD: "54"
FILE NAME: D26A.84A

COMPOUND	KNOWN PPMV	RESULT PPMV	PERCENT DIFFERENCE
Methane	15.10	15.82	4.74
Ethane	15.00	15.40	2.63
Ethene	15.10	15.07	0.23

LABORATORY BLANK RESULTS (FID)

BLANK: CARRIER IN LOOP
FILE NAME: D26A.83A

COMPOUND	BLANK PPMV	METHOD DETECTION LIMIT PPMV
Methane	ND	1.00
Ethane	ND	0.01
Ethene	ND	0.01

ND - denotes 'Not Detected' at or above the lower method detection limit

)5-Nov-2003

Reviewed by DOM

CHAIN-OF-CUSTODY RECORD

VAPORTECH Services, Inc.

1158 Pittsburgh Road • Suite 201 • Valencia, PA 16059
Tel: 724-898-2622 • Fax: 724-898-2633

Company Name: ARCADIS
Address: 1400 N. Harbor Blvd. Suite 700
City: Fullerton State: CA Zip:
Proj. Manager: Jim Nguyen
Proj. Location: Boeing C-6, Torrance, CA
Proj. Number:
Phone #: (714) 278-0992 Fax #: (714) 278-0052

Sampler's signature:

Analysis Options: Enter letters in Requested Analysis columns below.

A	Light Hydrocarbons	F	BTEX
B	Permanent Gases	G	BTEX & C5 - C10
C	Methane	H	TPH (C4 - C12 range)
D	Methane, Ethane, Ethylene	I	Chlorinated Hydrocarbons
E	Hydrogen	J	624 Compound List

Light Hydrocarbons: Methane, Ethane, Ethylene, Propane, Propylene, iso-Butane, n-Butane
Permanent Gases: Carbon Dioxide, Oxygen, Nitrogen, Methane, Carbon Monoxide
BTEX: Benzene, Toluene, Ethyl Benzene, m & p -Xylene, o-Xylene
C5-C10: Pentane, Hexane, Heptane, Octane, Nonane, Decane
Chlorinated HC: 1,1-DCE, 1,1-DCA, Methylene Chloride, trans-1,2-DCE, cis-1,2-DCE, Chloroform 1,1,1-TCA, Carbon Tetrachloride, Trichloroethylene (TCE), Tetrachloroethylene (PCE)

Collection Date	Collection Time	Number of Containers	Sample Type	Sample Identification	Requested Analysis				(Other)	Remarks
10/30/03	1532	2	Liquid	IRZMW001A_WG103003_01	B					O_2, CO_2, N_2, Methane, Ethane, Ethene.
10/30/03	1632	2	Liquid	IRZMW001B_WG103003_02	B					* MCL of 5mg/L
10/30/03	1756	2	Liquid	IRZMW002B_WG103003_01	B					
10/30/03	1915	2	Liquid	IRZMW002A_WG103003_02	B					
10/31/03	1050	2	Liquid	IRZMW003A_WG103103_01	B					
10/31/03	0943	2	Liquid	IRZMW003B_WG103103_01	B					
10/30/03	0756	2	"	CMW002_WG103003_01					Rec. AND	ADDED to C.O.C by LAB (DOM)

Results to :

Invoice to :

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
[signature]	ARCADIS	10/31/03	1525		FED-EX	10/31/03	1525
Relinquished by :	Company :	Date :	Time :	Received by : D.O. Moore	VAPORTECH	11/1/03	1130
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter

BOE-C6-0104259