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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:
Fourth Quarter 2004 Discharge Monitoring 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 (Building 2 Area), Los Angeles, California

Date:
January 26, 2005

Contact:
Barry Molnaa

Phone:
3023

Email:
bmolnaa@arcadis-us.com

Project Number:
CA000594.0006.00007

Dear Information Technology Unit:

On behalf of Boeing Realty Corporation (BRC), ARCADIS is submitting this quarterly 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 a summary of amendment and monitoring activities performed 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 monitoring report summarizes groundwater amendment and monitoring activities performed during the fourth quarter of 2004. Activities performed to test the amendment system are summarized in Section 1.0. Groundwater monitoring activities performed to evaluate the initial distribution of amendment solution are summarized in Section 2.0. A certification statement is provided in Section 3.0.

1.0 Amendment Activities

On December 15 and 16, 2004, an Alternate Donor Injection Test was performed to obtain injection parameters for potential alternate electron donors. A total of 10,424 gallons of 4 percent low-protein, powdered cheese whey was injected into the amendment wells at Vault 3, and a total of 9,089 gallons of 3 percent sodium lactate solution was injected into the amendment wells at Vault 3. After the alternate solution was injected, the amendment wells were flushed with 405 gallons of water. Amendment solution was not injected into any other amendment wells or vaults during the fourth quarter. A report summarizing the Alternate Donor Injection Test is currently being prepared for submittal to the RWQCB.

2.0 Monitoring Activities

During the fourth quarter of 2004, Week 2 and Week 6 post-injection groundwater monitoring was conducted as per the WDR monitoring schedule (sample Week 2, Week 6, Week 12, Week 16, Week 21, and Week 36 after first injection). Supplemental groundwater monitoring was also performed prior to Week 2 and after Week 6 of post-injection monitoring.

Prior to Week 2 of post-injection groundwater monitoring, supplemental groundwater monitoring was performed to evaluate the progress of amendment solution injection activities. The supplemental monitoring was performed on October 12, 2004 and at eleven monitoring wells (IRZMW001A/B, IRZMW002A/B, IRZMW003A/B, IRZMW005, IRZMW005, IRZCMW001, IRZCMW002, and IRZCMW003) (Figure 2). Groundwater samples from these eleven wells were analyzed for total organic carbon (TOC). Field parameters of purged groundwater were also collected (i.e. pH, dissolved oxygen [DO], oxidation-reduction potential [ORP], specific conductance, and temperature).

Week 2 post-injection groundwater monitoring was conducted on October 21 and 22, 2004. During Week 2 of post-injection monitoring, one amendment point (IRZB0095) and seven monitoring wells (IRZBMW001A/B, IRZBMW002A/B, IRZMW005, IRZCMW001, and CMW026) were gauged and sampled (Figure 2). Amendment point IRZB0081 was gauged, but excessive foam in the amendment point prevented the well from being sampled with a submersible pump and a weighted disposable bailer. The groundwater samples from Week 2 post-injection monitoring were analyzed for TOC. Field parameters of purged groundwater were also collected (i.e. pH, DO, ORP, specific conductance, and temperature).

Week 6 post-injection groundwater monitoring was conducted on November 18 and 19, 2004. During Week 6 of post-injection monitoring, two amendment points (IRZB0081 and IRZB0095) and seven monitoring wells (IRZBMW001A/B, IRZBMW002A/B, IRZMW005, IRZCMW001, and CMW026) were gauged and sampled (Figure 2). The groundwater samples from Week 6 post-injection monitoring were analyzed for volatile organic carbons (VOC), TOC, bromide, dissolved manganese, nitrate, sulfate, and permanent gases (DO, carbon dioxide, nitrogen, methane, ethane, and ethene). Field parameters of purged groundwater were also collected (i.e. pH, DO, ORP, specific conductance, and temperature).

After Week 6 of post-injection groundwater monitoring, supplemental groundwater monitoring was performed to evaluate the progress of the Alternate Donor Injection

Test. The supplemental groundwater monitoring was performed on December 14, 2004 and at wells IRZB0081, IRZB0095, IRZMW004, and IRZMW005 (Figure 2). Groundwater samples from these four wells were analyzed for TOC and VOCs. Field parameters of purged groundwater were also collected (i.e. pH, DO, ORP, specific conductance, and temperature).

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

Prior to collecting the groundwater samples, depth to groundwater was measured in each monitoring well by using a water level meter accurate to 0.01 feet. Figure 3 shows the groundwater elevation contours for Zones B and C in October 2004. Groundwater samples were collected using low flow sampling techniques, so that the purge rate was generally less than 600 milliliters per minute (mL/min) and drawdown while purging was less than 1 foot. Since recharge of monitoring well IRZMW0002A does not support use of low flow sampling techniques, the monitoring well was purged dry prior to sampling.

The sampling methodology also involved use of a flow-through cell that houses field instrumentation used to measure groundwater stabilization parameters (i.e., temperature, pH, specific conductance, oxygen reduction potential, etc.). For each monitoring 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 parameters and other relevant sampling data were documented on sample collection logs. The groundwater samples were transported in a chilled ice chest with chain-of-custody documentation and to an analytical laboratory certified by the State of California (Severn Trent Laboratories, Inc.).

3.0 Certification Statement

I declare under penalty of law that this 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 discharge monitoring report, please contact Barry Molnaa or David Poley at (714) 278-0992.

Sincerely,

ARCADIS G&M, Inc.

David G. Poley
Project Scientist

Trent Henderson, P.E.
Site Evaluation & Remediation
Department Manager

Barry Molnaa
Project Manager

Copies:
Stephanie Sibbett-Brutocao, Boeing Realty Corporation
Scott Zachary, Haley & Aldrich
Project File

Enclosures:
Figure 1 - Site Location
Figure 2 - Amendment Point and Monitoring Well Locations
Figure 3 - Groundwater Contour Map for Zones B and C- October 2004
Table 1 - Groundwater Parameter and Total Organic Carbon Results
Table 2 - Inorganic Analytical Results
Table 3 - Volatile Organic Compound Analytical Results
Table 4 - Permanent Gas Analytical Results
Appendix A - Laboratory Reports and Chain-of Custody Documents

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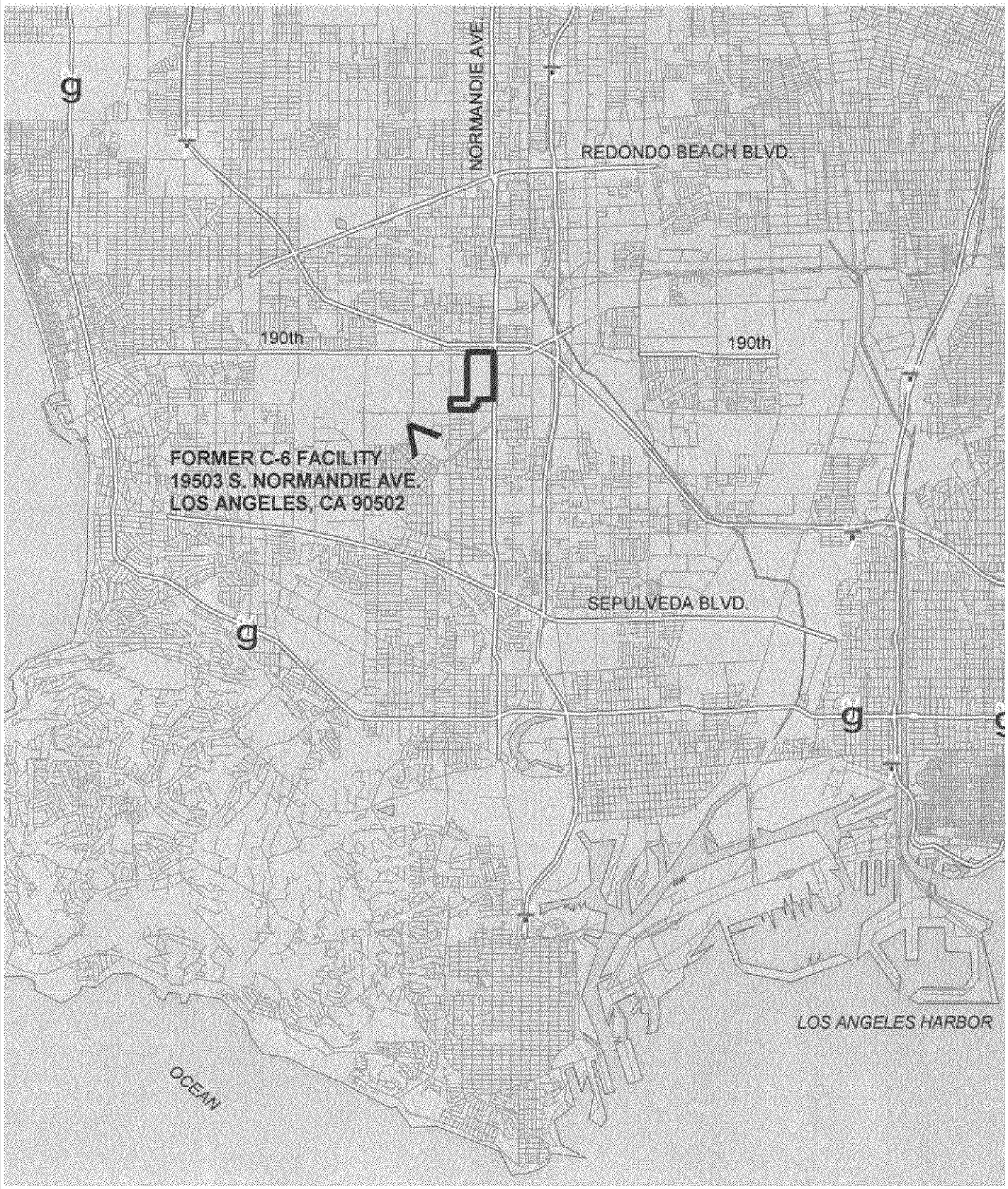
Figures



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

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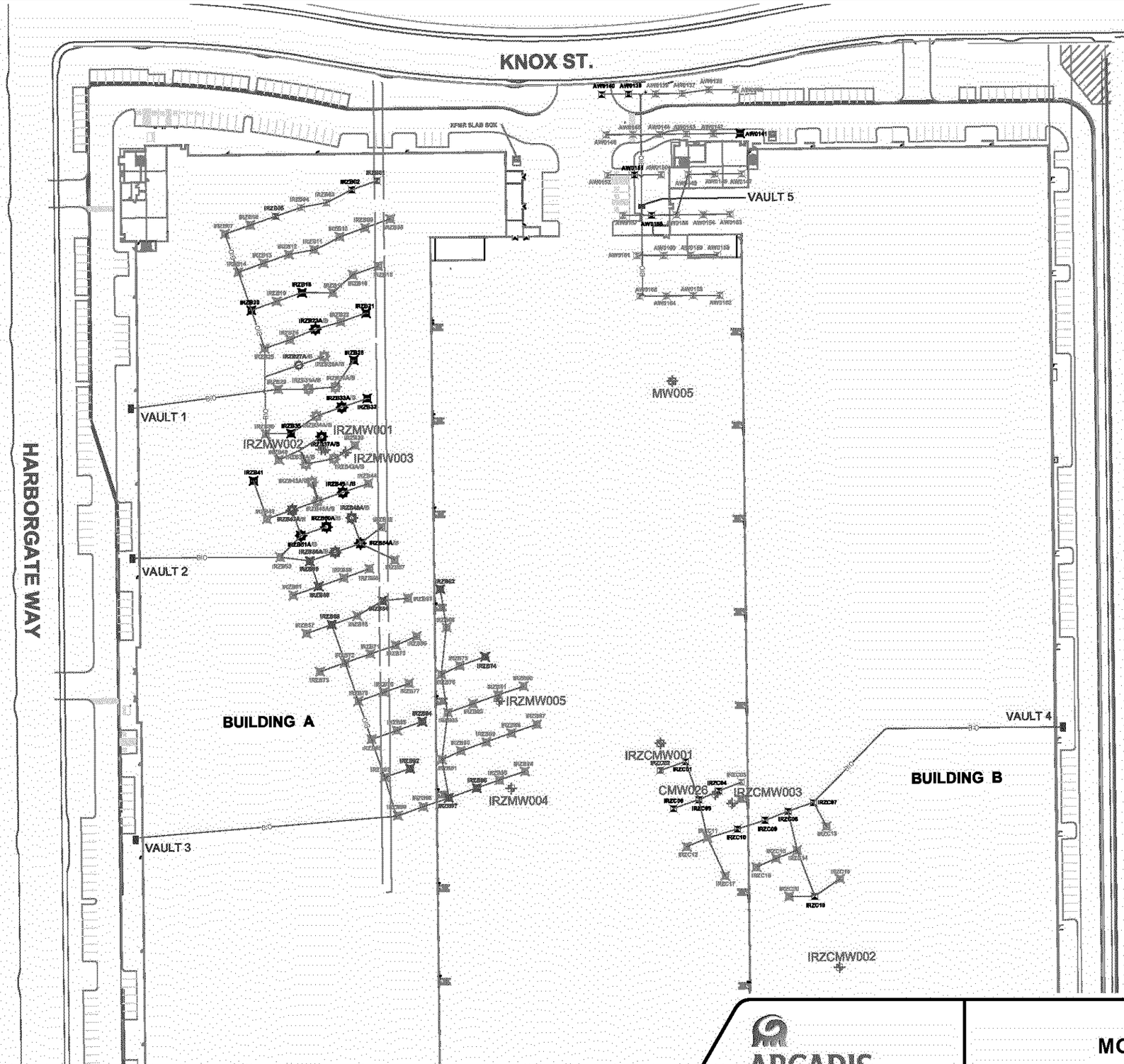
SITE LOCATION

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\sl-1 | FILE: | CHK: LOTHMAN | PM: NGUYEN | ART: QUINONES



LEGEND

IRZCMW005	BIOGROUNDWATER MONITORING WELL
IRZ030A/B	DUAL BIOINJECTION POINT
IRZ031	SINGLE BIOINJECTION POINT
	AMENDMENT POINTS TAKEN OUT OF SERVICE
	AMENDMENT POINTS REQUIRING MODERATE INJECTION PRESSURE
	AMENDMENT POINTS THAT SIPHON DURING INJECTION
VAULT 1	FLUSH MOUNTED VAULT FOR SUBSURFACE REMEDIATION PIPING
—BIO—	BIOREMEDIATION SYSTEM PIPING

N

0 80 160
SCALE IN FEET

ALL DIMENSIONS AND LOCATIONS APPROXIMATE

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

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AMENDMENT POINT AND MONITORING WELL LOCATIONS

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

FIGURE 2

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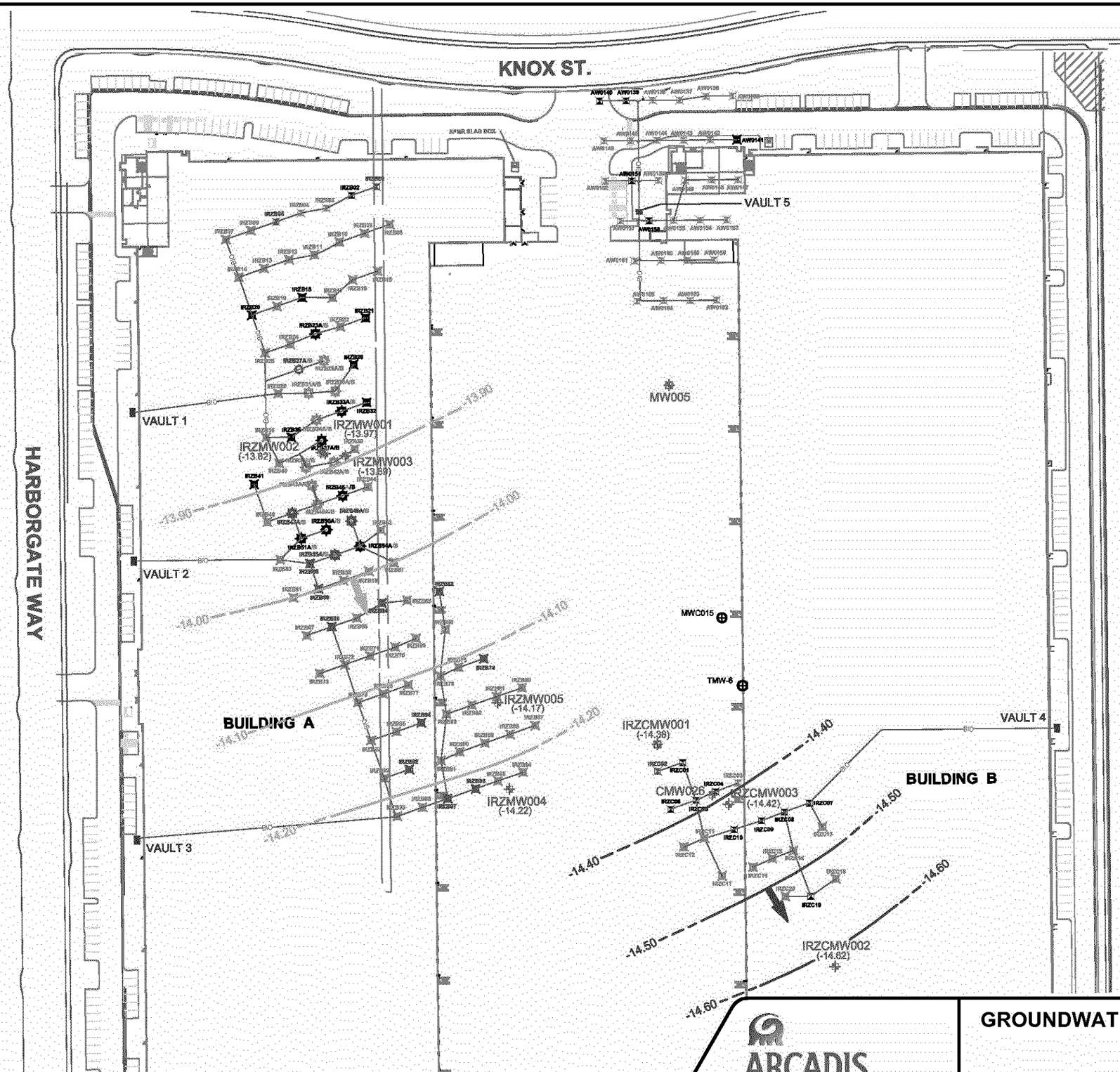
BOE-C6-0010731



LEGEND

IRZCMW005	BIOGROUNDWATER MONITORING WELL
(-14.22)	GROUNDWATER ELEVATION IN FEET BELOW MEAN SEA LEVEL
	GROUNDWATER MONITORING WELL
IRZ030A/B	DUAL BIOINJECTION POINT
IRZ031	SINGLE BIOINJECTION POINT
	AMENDMENT POINTS TAKEN OUT OF SERVICE
	AMENDMENT POINTS REQUIRING MODERATE INJECTION PRESSURE
	AMENDMENT POINTS THAT SIPHON DURING INJECTION
VAULT 1	FLUSH MOUNTED VAULT FOR SUBSURFACE REMEDIATION PIPING
—BIO—	BIOREMEDIATION SYSTEM PIPING
	ZONE B CONTOUR OF EQUAL GROUNDWATER SURFACE ELEVATION IN FEET BELOW MEAN SEA LEVEL
	ZONE C CONTOUR OF EQUAL GROUNDWATER SURFACE ELEVATION IN FEET BELOW MEAN SEA LEVEL

N

0 60 120
SCALE IN FEET

ALL DIMENSIONS AND LOCATIONS APPROXIMATE

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

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GROUNDWATER CONTOUR MAP FOR ZONES B AND C
OCTOBER 2004

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

FIGURE
3

DATE: 1/24/05 | 11:30 | PRJ#: CA 594.06.07 | DWG: G:\dwgs\oprjct\boeing\2005\GW1004-ZonesB-C | FILE: | CHK: POLEY | PM: NGUYEN | ART: QUINONES

BOE-C6-0010732

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Tables

Table 1. Groundwater Parameter and Total Organic Carbon Results
Former Building 2 Area, Former Boeing C-6 Facility

Well Number	Sampling Event	Sample Date	Top of Casing (feet msl)	Depth to Water (feet)	Groundwater Elevation (feet msl)	pH	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Temperature (°C)	Specific Conductance (umhos/cm)	Total Organic Carbon (mg/L)
IRZMW001A	Baseline	10/30/2003	54.18	68.05	-13.87	6.7	4.8	245.9	21.85	2,354	5.0
	Injection Evaluation	5/21/2004		68.61	-14.43	7.1	2.7	47.4	25.27	2,595	5.5
	Injection Evaluation	10/12/2004		67.69	-13.51	6.0	1.2	-31.6	21.02	2,538	3.5
	Week 2	10/22/2004		68.00	-13.82	6.9	0.3	-10.1	25.64	2,339	4.3
	Week 6	11/18/2004		68.08	-13.90	6.9	1.5	33.1	27.13	2,048	5.3
IRZMW001B	Baseline	10/30/2003	54.1	67.98	-13.88	6.8	6.2	159.6	21.8	1,254	3.8
	Injection Evaluation	5/21/2004		68.11	-14.01	7.3	6.8	78.3	23.7	1,278	3.6
	Injection Evaluation	10/12/2004		67.70	-13.60	7.3	2.2	5.6	21.4	1,042	5.8
	Week 2	10/22/2004		68.07	-13.97	7.3	4.0	53.7	22.7	1,168	2.0
	Week 6	11/18/2004		68.00	-13.90	7.2	6.6	125.0	24.2	953	5.2
IRZMW002A	Baseline	10/30/2003	54.07	67.98	-13.91	6.8	3.1	-140.7	22.1	1,852	21.8
	Injection Evaluation	5/21/2004		68.39	-14.32	7.2	0.9	-52.5	22.1	2,038	13.3
	Injection Evaluation	10/12/2004		67.85	-13.78	6.1	1.1	-54.1	21.5	2,760	11.1
	Week 2	10/21/2004		68.05	-13.98	6.4	0.2	-107.4	23.5	2,860	10.1
	Week 6	11/18/2004		68.21	-14.14	6.5	2.2	-102.7	25.8	2,220	9.7
IRZMW002B	Baseline	10/30/2003	54.17	68.07	-13.90	6.8	4.1	110.3	21.7	1,125	4.1
	Injection Evaluation	5/21/2004		68.97	-14.80	7.2	4.2	45.5	24.0	1,204	5.2
	Injection Evaluation	10/12/2004		67.61	-13.44	7.1	1.3	8.6	21.5	1,254	6.2
	Week 2	10/21/2004		67.99	-13.82	7.3	2.4	-34.3	25.5	1,325	2.8
	Week 6	11/18/2004		68.18	-14.01	7.1	4.6	48.3	24.1	1,067	4.6
IRZMW003A	Baseline	10/31/2003	54.14	68.21	-14.07	6.8	4.0	210.3	25.7	1,761	2.6
	Injection Evaluation	10/12/2004		67.79	-13.65	6.1	1.1	-8.9	21.6	3,107	5.7
IRZMW003B	Baseline	10/31/2003	54.20	68.24	-14.04	6.8	5.0	280.4	23.3	1,154	3.8
	Injection Evaluation	10/12/2004		67.82	-13.62	7.2	3.9	-10.6	22.7	1,276	3.4
IRZMW004	Baseline	10/7/2003	50.48	64.84	-14.36	7.0	4.8	152.9	22.5	1,449	3.1
	Injection Evaluation	10/12/2004		64.45	-13.97	7.2	2.5	-40.9	24.1	1,337	2.3
	Alt. Amend. Monitoring	12/14/2004		64.63	-14.15	7.2	4.2	-28.6	23.7	1,473	3.6
IRZMW005	Baseline	10/9/2003	50.19	64.44	-14.25	7.1	5.3	40.8	21.6	1,591	3.9
	Injection Evaluation	5/21/2004		64.52	-14.33	7.3	5.8	89.6	21.7	1,546	5.6
	Injection Evaluation	10/12/2004		64.14	-13.95	6.0	1.3	-20.0	24.9	1,972	5.2
	Week 2	10/22/2004		64.36	-14.17	6.8	0.4	-105.7	24.1	1,954	3.1
	Week 6	11/19/2004		64.31	-14.12	6.2	0.8	-19.7	24.8	1,747	9.7
	Alt. Amend. Monitoring	12/14/2004		64.29	-14.10	6.6	0.6	-42.7	23.6	1,818	5.5

Table 1. Groundwater Parameter and Total Organic Carbon Results
Former Building 2 Area, Former Boeing C-6 Facility

Well Number	Sampling Event	Sample Date	Top of Casing (feet msl)	Depth to Water (feet)	Groundwater Elevation (feet msl)	pH	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Temperature (°C)	Specific Conductance (umhos/cm)	Total Organic Carbon (mg/L)
IRZB0081	Baseline	10/9/2003	50.28	64.53	-14.25	6.7	5.1	144.4	21.6	1,563	5.8
	Week 2	10/22/2004		64.51	-14.23	7.3	3.7	-42.8	22.6	922	2.8
	Alt. Amend. Monitoring	12/14/2004		64.48	-14.20	5.2	1.8	-53.0	21.9	8,147	4,560
IRZB0095	Baseline	10/7/2003	50.08	64.59	-14.51	7.0	5.6	83.7	23.1	1,435	3.0
	Week 2	10/22/2004		64.50	-14.42	7.4	5.1	-47.1	22.2	661	2.4
	Week 6	11/19/2004		64.37	-14.29	7.4	6.7	67.2	22.1	1,142	4.4
	Alt. Amend. Monitoring	12/14/2004		64.49	-14.41	7.4	4.9	-5.4	22.2	1,296	3.3
IRZCMW001	Baseline	10/8/2003	49.14	63.65	-14.51	7.1	4.2	183.0	21.7	1,219	3.3
	Injection Evaluation	10/12/2004		NM	NM	7.2	2.5	-12.0	22.3	1,313	2.5
	Week 6	11/18/2004		63.52	-14.38	7.2	1.5	46.9	24.2	1,117	2.3
IRZCMW002	Baseline	10/8/2003	52.98	67.78	-14.80	7.0	2.4	188.5	21.4	888	3.2
	Injection Evaluation	10/12/2004		67.25	-14.27	7.4	1.1	-51.0	21.4	974	2.2
IRZCMW003	Baseline	10/7/2003	49.12	63.58	-14.46	7.2	2.7	133.5	22.8	951	2.0
	Injection Evaluation	10/12/2004		62.98	-13.86	7.3	1.1	-7.5	22.3	969	2.4
CMW0026	Baseline	10/7/2003	48.94	63.38	-14.44	7.2	4.5	34.0	22.3	965	2.0
	Week2	10/22/2004		63.33	-14.39	7.2	1.1	-86.7	22.7	123	1.6
	Week 6	11/19/2004		63.28	-14.34	7.1	0.7	-202.7	24.0	384	10.7
EPA Analytical Method				N/A	N/A	N/A	N/A	N/A	N/A	N/A	9060

Notes:
Wells micropurged then sampled, except grab bailer samples collected 10/12/04.
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
feet msl - feet above mean sea level

mg/L - milligrams per liter
mV - millivolts
°C - degrees Celsius
NA - Not applicable

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

Well Number	Screened Zone	Well Group	Sampling Event	Sample Date	Bromide (mg/L)	Dissolved Manganese (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
IRZB0081	Zone B	A	Baseline	10/9/2003	0.94	0.05	8.50	43.8
IRZB0095		A	Baseline	10/7/2003	0.85	0.05	7.20	38.6
			Week 6	11/19/2004	0.64	0.016	6.5 J	49.7
IRZMW001A		A	Baseline	10/30/2003	3.6	0.019	13.6	88.6
			Week 6	11/18/2004	1.9	0.064	8.8 J	60.2
IRZMW001B		A	Baseline	10/30/2003	0.73	0.020	5.8	98.0
			Week 6	11/18/2004	0.41 B	0.0041 B	6.8 J	87.9
IRZMW002A		A	Baseline	10/30/2003	2.3	3.6	0.13	77.8
			Week 6	11/18/2004	1.7	2.1	4.3 J	64.6
IRZMW002B		A	Baseline	10/30/2003	0.94	0.15	6.9	80.9
			Week 6	11/18/2004	0.66	0.035	8.6 J	98.1
IRZMW005		A	Baseline	10/9/2003	0.97	0.05	8.50	43.8
			Week 6	11/19/2004	0.98	0.05	4.7 J	36.0
IRZMW003A		B	Baseline	10/31/2003	1.1	0.0069 B	9.6	48.3
IRZMW003B		B	Baseline	10/31/2003	0.69	0.051	6.3	77.9
IRZMW004		C	Baseline	10/7/2003	0.89	0.01	8.1	41.2
CMW026	Zone C	A	Baseline	10/7/2003	0.55	0.01	2.80	34.2
			Week 6	11/19/2004	0.18 B	0.38	0.066 B,J	4.0
IRZCMW003		B	Baseline	10/7/2003	0.51	0.02	1.60	49.8
IRZCMW002		C	Baseline	10/8/2003	0.37	0.10	2.50	62.5
CMW001		C	Baseline	10/9/2003	0.97	0.02	8.60	41.6
CMW002		C	Baseline	10/8/2003	0.24	0.21	ND	84.9
IRZCMW001		D	Baseline	10/8/2003	0.73	0.01	2.70	37.7
			Week 6	11/8/2004	0.67	0.0022 B	2.2 J	37.2
EPA Analytical Method					300.0A	6010A	300.0A	300.0A

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

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

Well Number	Screened Zone	Well Group	Sampling Event	Sample Date	Acetone (ug/L)	Chlorobenzene (ug/L)	Tricloroethene (ug/L)	Chloroform (ug/L)	1,1-DCA (ug/L)	1,2-DCA (ug/L)	1,1,2-TCA (ug/L)	cis-1,2-DCE (ug/L)	1,1-DCE (ug/L)	Methylene Chloride (ug/L)	trans-1,2-DCE (ug/L)	Vinyl Chloride (ug/L)
IRZB0081	Zone B	A	Baseline	10/9/2003	<1,700	<170	6,500	50 J	<170	<170	<170	<170	63 J	<170	<170	<170
			Alt. Amend. Monitoring	12/14/2004	<1,200	<120	5,300	<120	<120	<120	<120	89 J	60 J	<120	<120	<120
IRZB0095		A	Baseline	10/7/2003	<1,200	<120	5,800	150	<120	<120	<120	<120	49 J	150	<120	<120
			Week 6	11/19/2004	<1,000	<100	3,900	85 J	<100	<100	<100	<100	64 J	<100	<100	<100
			Alt. Amend. Monitoring[1]	12/14/2004	<830	<83	4,300	96	<83	<83	<83	<83	68 J	<83	<83	<83
IRZMW001A		A	Baseline	10/30/2003	<5,000	<500	11,000	<500	<500	<500	<500	<500	<500	<500	<500	<500
			Week 6	11/18/2004	<1,200	<120	7,200	<120	<120	<120	<120	43 J	77 J	<120	<120	<120
IRZMW001B		A	Baseline	10/30/2003	<1,200	<120	4,800	<120	<120	<120	<120	54 J	50 J	<120	<120	<120
			Week 6	11/18/2004	<250	<25	1,400	<25	<25	<25	<25	<25	19 J	<25	<25	<25
IRZMW002A		A	Baseline	10/30/2003	<1,200	<120	5,100	<120	<120	<120	<120	660	63 J	<120	<120	<120
			Week 6	11/18/2004	<2,000	<200	8,300	<200	<200	<200	<200	220	79 J	<200	<200	<200
IRZMW002B		A	Baseline	10/30/2003	73 JB	<12	640	<12	<12	<12	<12	80	8.5 J	<12	<12	<12
			Week 6	11/18/2004	<50	<5	230	<5	<5	<5	<5	13	3.0 J	<5	<5	<5
IRZMW005		A	Baseline	10/9/2003	<1,700	<170	6,000	56 J	<170	<170	<170	<170	75 J	<170	<170	<170
			Week 6	11/19/2004	<1,200	<120	6,500	51 J	<120	<120	<120	61 J	74 J	<120	<120	<120
			Alt. Amend. Monitoring	12/14/2004	<1,700	<170	7,300	54 J	<170	<170	<170	170	84 J	<170	<170	<170
IRZMW003A		B	Baseline	10/31/2003	3,200 JB	<500	20,000	<500	<500	<500	<500	<500	180 J	<500	<500	<500
IRZMW003B		B	Baseline	10/31/2003	130 JB	<25	1,000	<25	<25	<25	<25	<25	19 J	<25	<25	<25
IRZMW004		C	Baseline	10/7/2003	<2,500	<250	8,700	110 J	<250	<250	<250	<250	81 J	<250	<250	<250
			Alt. Amend. Monitoring[2]	12/14/2004	<1,700	<170	6,600	120 J	<170	<170	<170	<170	96 J	<170	<170	<170
CMW026	Zone C	A	Baseline	10/7/2003	<250	<25	1,200	21 J	<25	<25	<25	<25	65	<25	<25	<25
			Week 6	11/19/2004	<50	<5	35	<5	1.5 J	<5	<5	280	41	<5	2.6 J	<5.0
IRZCMW003		B	Baseline	10/7/2003	<1,000	<100	2,900	36 J	<100	<100	<100	<100	83 J	89 J	<100	<100
IRZCMW002		C	Baseline	10/8/2003	<1,000	<100	4,600	36 J	<100	<100	<100	<100	39 J	<100	<100	<100
CMW001		C	Baseline	10/9/2003	<1,200	7,300	<120	60 J	<120	<120	<120	<120	<120	<120	<120	<120
CMW002		C	Baseline	10/8/2003	<1,000	3,600	460	<100	<100	<100	<100	<100	<100	<100	<100	<100
IRZCMW001		D	Baseline	10/8/2003	210 J	<62	1,300	76	13 J	<62	<62	22 J	350	<62	<62	<62
			Week 6	11/18/2004	<120	<12	920	44	8.6 J	6.4 J	4.7 J	15	200	<12	6.3 J	<12
EPA Analytical Method					8260B	8260B	8260B	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

ug/L - micrograms per liter

< - not detected above indicated reporting limit

DCA - dichloroethane

DCE - dichloroethene

J - estimated result less than reporting limit

JB - acetone detected at 11 ug/L in trip blank

[1]Groundwater was also found to contain total xylenes at 67 ug/L (J), naphthalene at 99 ug/L, 1,2,4-trimethylbenzene at 120 ug/L, and 1,3,5-trimethylbenzene at 30 ug/L (J).

[2]Groundwater was also found to contain 1,2,4-trimethylbenzene at 52 ug/L (J).

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

Well Number	Screened Zone	Well Group	Sampling Event	Sample Date	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Nitrogen (mg/L)	Methane (ug/L)	Ethane (ug/L)	Ethene (ug/L)
IRZB0081	Zone B	A	Baseline	10/9/2003	3.70	16.9	12.6	<0.2	0.06	0.11
IRZB0095		A	Baseline	10/7/2003	2.67	14.0	8.7	<0.2	0.05	0.08
			Week 6	11/19/2004	2.90	10.8	7.8	1.1	0.02	0.02
IRZMW001A		A	Baseline	10/30/2003	1.16	27.4	10.0	2.9	0.07	0.05
			Week 6	11/18/2004	0.48	27.0	3.7	1.8	0.01	<0.01
IRZMW001B		A	Baseline	10/30/2003	4.05	21.2	12.4	0.4	0.04	0.02
			Week 6	11/18/2004	3.32	14.8	7.9	<0.2	0.01	<0.01
IRZMW002A		A	Baseline	10/30/2003	0.62	39.1	8.7	4.0	1.17	3.25
			Week 6	11/18/2004	0.53	102.8	2.5	5.2	0.02	0.12
IRZMW002B		A	Baseline	10/30/2003	3.38	16.6	16.1	6.0	1.34	2.05
			Week 6	11/18/2004	1.58	14.4	4.7	1.3	0.02	0.02
IRZMW005		A	Baseline	10/9/2003	4.97	16.3	14.0	<0.2	0.06	0.07
			Week 6	11/19/2004	0.24	207.6	3.6	234	<0.01	0.02
IRZMW003A		B	Baseline	10/31/2003	3.06	25.3	15.6	0.5	0.17	0.10
IRZMW003B		B	Baseline	10/31/2003	3.65	18.4	11.5	0.7	0.09	0.08
IRZMW004		C	Baseline	10/7/2003	2.74	15.3	8.4	0.3	0.05	0.06
CMW026	Zone C	A	Baseline	10/7/2003	2.47	6.7	14.8	0.9	0.52	0.04
			Week 6	11/19/2004	0.27	13.8	8.2	1,994	<0.01	0.21
IRZCMW003		B	Baseline	10/7/2003	1.11	7.1	12.1	1.6	0.95	0.88
IRZCMW002		C	Baseline	10/8/2003	0.94	7.2	15.2	0.6	0.43	1.21
CMW001		C	Baseline	10/9/2003	1.74	9.1	13.4	4.8	1.54	2.34
CMW002		C	Baseline	10/8/2003	2.48	11.4	16.1	0.9	0.14	1.04
IRZCMW001		D	Baseline	10/8/2003	3.10	13.2	14.9	0.3	0.11	0.18
			Week 6	11/18/2004	0.98	13.0	7.1	503	<0.01	0.07
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
ug/L - micrograms per liter
< - Not detected above indicated reporting limit

ARCADIS

Appendix A

Laboratory Reports and Chain of Custody Documents

STL

STL Los Angeles
1721 South Grand Avenue
Santa Ana, CA 92705

Tel: 714 258 8610 Fax: 714 258 0921
www.stl-inc.com

January 10, 2005

STL LOT NUMBER: E4L190107
NELAP Certification Number: 01118CA/E87652
PO/CONTRACT: 050160-SEV01-002

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

Dear Mr. Poley,

This report contains the analytical results for the five samples received under chain of custody by STL Los Angeles on December 19, 2004. 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 at (714) 258-8610 extension 313.

Sincerely,

Diane Suzuki
Customer Service Manager

CC: Project File

Page 1 of 42 total pages in this report.

LOT NUMBER E4L190107

Nonconformance 05-10981

Affected Samples:
E4L190107 (5): IRZB0081_WG121404_01

Affected Methods:
8260B

Case Narrative:
Three VOA vials for sample E4L190107 (5): IRZB0081_WG121404_01 contain bubbles > 5 mm diameter. Analysis is performed on a VOA vial without headspace when available.

Nonconformance 05-10982

Affected Samples:
E4L190107 (5): IRZB0081_WG121404_01

Affected Methods:
9060

Case Narrative:
The pH for sample E4L190107 (5): IRZB0081_WG121404_01 in the TOC container was measure at 5 upon receipt at the lab. The sample was preserved prior to analysis.

BOE-C6-0010741

E4L190107

Chain of Custody Record

STL
Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: ARCADIS	Project Manager: Barry Molnar / David Poley	Date: 12/14/04	Chain of Custody Number: 106531
Address: 1400 N. Harbor Blvd, Ste 700	Telephone Number (Area Code)/Fax Number: 714) 278-0992 / -0051	Lab Number: E4L190107	Page 1 of 1
City: Fullerton; State: CA; Zip Code: 92835	Site Contact:	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: VOC 8260	TOC	Special Instructions / Conditions of Receipt
TB_AR121404_01	12/14/04	—		X						X			X		
IRZB0095_WG121404_01	12/14/04	14:18		X				X		X			X	X	
~~IRZMW00~~ IRZMW004_WG121404_01	12/14/04	14:55		X				X		X			X	X	
IRZMW005_WG121404_01	12/14/04	15:47		X				X		X			X	X	
IRZB0081_WG121404_01	12/14/04	16:33		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	12/17/04	14:20	1. Received By	12-17-04	14:20
2. Relinquished By	12-17-04	17:00	2. Received By	12/17/04	1700
3. Relinquished By			3. Received By		

Comments:

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

3

BOE-C6-0010742

STL LOS ANGELES - PROJECT RECEIPT CHECKLIST Date: 12/17/04

LIMS Lot #: E4L190107 Quote #: 98735

Client Name: Arcadis Project: Boeing C-6/Torrance

Received by: TS Date/Time Received: 12-17-04 / 13:00

Delivered by : ☐ Client ☒ STL ☐ Airborne ☐ Fed Ex ☐ UPS ☐ Other

****

	Initial / Date
Custody Seal Status Cooler: ☐Intact ☐Broken ☒None	12/19/04
Custody Seal Status Samples: ☐Intact ☐Broken ☒None	
Custody Seal #(s): ☒No Seal #	
Sampler Signature on COC ☐ Yes ☐No ☒N/A	
IR Gun # A Correction Factor -0.2°C IR passed daily verification ☒Yes ☐No	
Temperature - BLANK 2.3 °C - 0.2°C CF = 2.1 °C	
Temperature – COOLER (°C °C °C °C) = avg °C - 0.2°C CF = °C	
Samples outside temperature criteria but received within 6 hours of final sampling ☐ Yes ☒N/A	
Sample Container(s): ☒STL-LA ☐ Client	
One COC/Multiple coolers: ☐ Yes- # coolers All within temp criteria ☐ Yes ☐No ☒N/A	
One or more coolers with an anomaly: ☐ Yes – (fill out PRC for each) ☐N/A	
Samples: ☒Intact ☐Broken ☐Other	
pH measured: ☐ Yes ☒ Anomaly (if checked, notify lab and file NCM) ☐ N/A	
Anomalies: ☐No ☒Yes – complete CUR and Create NCM NCM # 05-10981 05-10982	
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. ☐ Yes ☒N/A	
Labeled by: Labeling checked	

****

Turn Around Time: ☐RUSH–24HR ☐RUSH–48HR ☐RUSH–72HR ☒NORMAL

Short-Hold Notification: ☐ pH ☐Wet Chem ☐Metals (Filter/Pres) ☐Encore ☐ >1/2 HT expired…

Outside Analysis(es) (Test/Lab/Date Sent Out) :

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

Headspace Anomaly ☐N/A 12/19/04

Lab ID	Container(s) #	Headspace		Lab ID	Container(s) #	Headspace	
005	#1-3	☒ > 5mm	☐ < 5mm			☐ > 5mm	☐ < 5mm
		☐ > 5mm	☐ < 5mm			☐ > 5mm	☐ < 5mm
		☐ > 5mm	☐ < 5mm			☐ > 5mm	☐ < 5mm
		☐ > 5mm	☐ < 5mm			☐ > 5mm	☐ < 5mm
		☐ > 5mm	☐ < 5mm			☐ > 5mm	☐ < 5mm
		☐ > 5mm	☐ < 5mm			☐ > 5mm	☐ < 5mm
		☐ > 5mm	☐ < 5mm			☐ > 5mm	☐ < 5mm

Fraction	1	2-5												
VOAH/ *	3	3												
250 MGMS		1												

* VOA with headspace/bubbles
H: HCL, S: H2SO4, N: HNO3, V: VOA, SL, Sleeve, E: Encore, PB: Poly Bottle, CGB: Clear Glass Bottle, AGJ: Amber Glass Jar, T: Terracore
AGB: Amber Glass Bottle, n/f/l:HNO3-Lab filtered, n/f:HNO3-Field filtered, znna: Zinc Acetate/Sodium Hydroxide, Na2s2o3: sodium thiosulfate

Condition Upon Receipt Anomaly Form

☐N/A 12/19/04

- **COOLERS**
  - ☐ Not Received (received COC only)
  - ☐ Leaking
  - ☐ Other:
- **CUSTODY SEALS (COOLER(S)**
  - ☐ None
  - ☐ Not Intact
  - ☐ Other
- **CONTAINER(S)**
  - ☐ None
  - ☐ Not Intact
  - ☐ Other
- **TEMPERATURE (SPECS 4 ± 2°C)**
  - ☐ Cooler Temp(s)
  - ☐ Temperature Blank(s)
- **CHAIN OF CUSTODY (COC)**
  - ☐ Not relinquished by Client; No date/time relinquished
  - ☐ Incomplete information provided
  - ☐ Other ☐ COC not received – notify PM
- **CONTAINERS**
  - ☐ Leaking
  - ☐ Broken
  - ☐ Extra
  - ☐ Without Labels
  - ☐ Other:
- **LABELS**
  - ☐ Not the same ID/info as in COC
  - ☐ Incomplete Information
  - ☐ Markings/Info illegible
  - ☐ Torn
- **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
  - ☐ Will be noted on COC--Client to send samples with new COC
  - ☐ Mislabeled as to tests, preservatives, etc.
  - ☐ Holding time expired – list sample ID and test
  - ☐ Improper container used
  - ☐ Not preserved/Improper preservative used
  - ☐ Improper pH _____ Lab to preserve sample and document
  - ☐ Insufficient quantities for analysis ☐ Other

Comments:
#4 TOC pH5

☐ Corrective Action Implemented:
☐ Client Informed: verbally on _____ By: _____ ☐ In writing on _____ By: _____
☐ Sample(s) on hold until: _____ ☐ Sample(s) processed "as is."

Logged by/Date:	Log Review/Date:	PM Review/Date:
12/19/04		12-20-04

Page 2 of 2

SEVERN TRENT STL

Analytical Report

BOE-C6-0010745

EXECUTIVE SUMMARY - Detection Highlights

E4L190107

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZB0095_WG121404_01 12/14/04 14:18	**002**			
Chloroform	96	83	ug/L	SW846 8260B
1,1-Dichloroethene	68 J	83	ug/L	SW846 8260B
Naphthalene	99	83	ug/L	SW846 8260B
Trichloroethene	4300	83	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	120	83	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	30 J	83	ug/L	SW846 8260B
m-Xylene & p-Xylene	45 J	83	ug/L	SW846 8260B
o-Xylene	22 J	83	ug/L	SW846 8260B
Total Organic Carbon (TOC)	3.3	1.0	mg/L	SW846 9060
IRZMW004_WG121404_01 12/14/04 14:55	**003**			
Chloroform	120 J	170	ug/L	SW846 8260B
1,1-Dichloroethene	96 J	170	ug/L	SW846 8260B
Trichloroethene	6600	170	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	52 J	170	ug/L	SW846 8260B
Total Organic Carbon (TOC)	3.6	1.0	mg/L	SW846 9060
IRZMW005_WG121404_01 12/14/04 15:47	**004**			
Chloroform	54 J	170	ug/L	SW846 8260B
1,1-Dichloroethene	84 J	170	ug/L	SW846 8260B
cis-1,2-Dichloroethene	170	170	ug/L	SW846 8260B
Trichloroethene	7300	170	ug/L	SW846 8260B
Total Organic Carbon (TOC)	5.5	1.0	mg/L	SW846 9060
IRZB0081_WG121404_01 12/14/04 16:33	**005**			
1,1-Dichloroethene	60 J	120	ug/L	SW846 8260B
cis-1,2-Dichloroethene	89 J	120	ug/L	SW846 8260B
Trichloroethene	5300	120	ug/L	SW846 8260B
Total Organic Carbon (TOC)	4560	500	mg/L	SW846 9060

METHODS SUMMARY

E4L190107

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Total Organic Carbon	SW846 9060	SW846 9060
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

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

BOE-C6-0010747

SAMPLE SUMMARY

E4L190107

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
G1GNT	001	TB_AR121404_01	12/14/04	
G1GNV	002	IRZB0095_WG121404_01	12/14/04	14:18
G1GNW	003	IRZMW004_WG121404_01	12/14/04	14:55
G1GNX	004	IRZMW005_WG121404_01	12/14/04	15:47
G1GN0	005	IRZB0081_WG121404_01	12/14/04	16:33

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: TB_AR121404_01

GC/MS Volatiles

Lot-Sample #...: E4L190107-001 **Work Order #...:** G1GNT1AA **Matrix.....:** WQ
Date Sampled...: 12/14/04 **Date Received..:** 12/17/04 17:00 **MS Run #.....:** 4361005
Prep Date.....: 12/24/04 **Analysis Date..:** 12/24/04
Prep Batch #...: 4361017 **Analysis Time..:** 12:10
Dilution Factor: 1
Analyst ID.....: 000038 **Instrument ID..:** MSR
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

(Continued on next page)

ARCADIS Geraghty & Miller, Inc.

Client Sample ID: TB_AR121404_01

GC/MS Volatiles

Lot-Sample #...: E4L190107-001 **Work Order #...:** G1GNT1AA **Matrix.....:** WQ

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	94	(75 - 130)
1,2-Dichloroethane-d4	85	(65 - 135)
Toluene-d8	101	(80 - 130)

ARCADIS Geraghty & Miller, Inc.

Client Sample ID: IRZB0095_WG121404_01

GC/MS Volatiles

Lot-Sample #...: E4L190107-002 **Work Order #...:** G1GNV1AC **Matrix.....:** W
Date Sampled...: 12/14/04 14:18 **Date Received..:** 12/17/04 17:00 **MS Run #.....:** 4359007
Prep Date.....: 12/21/04 **Analysis Date..:** 12/21/04
Prep Batch #...: 4359013 **Analysis Time..:** 12:57
Dilution Factor: 83.33
Analyst ID.....: 000038 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	830	ug/L	250
Benzene	ND	83	ug/L	25
Bromobenzene	ND	83	ug/L	25
Bromochloromethane	ND	83	ug/L	25
Bromoform	ND	83	ug/L	25
Bromomethane	ND	170	ug/L	83
2-Butanone	ND	420	ug/L	250
n-Butylbenzene	ND	83	ug/L	25
sec-Butylbenzene	ND	83	ug/L	25
tert-Butylbenzene	ND	83	ug/L	17
Carbon disulfide	ND	83	ug/L	25
Carbon tetrachloride	ND	83	ug/L	25
Chlorobenzene	ND	83	ug/L	25
Dibromochloromethane	ND	83	ug/L	33
Bromodichloromethane	ND	83	ug/L	25
Chloroethane	ND	170	ug/L	25
Chloroform	**96**	**83**	**ug/L**	**25**
Chloromethane	ND	170	ug/L	25
2-Chlorotoluene	ND	83	ug/L	25
4-Chlorotoluene	ND	83	ug/L	25
1,2-Dibromo-3-chloro-propane	ND	170	ug/L	58
1,2-Dibromoethane (EDB)	ND	83	ug/L	25
Dibromomethane	ND	83	ug/L	33
1,2-Dichlorobenzene	ND	83	ug/L	25
1,3-Dichlorobenzene	ND	83	ug/L	25
1,4-Dichlorobenzene	ND	83	ug/L	25
Dichlorodifluoromethane	ND	170	ug/L	33
1,1-Dichloroethane	ND	83	ug/L	17
1,2-Dichloroethane	ND	83	ug/L	33
1,1-Dichloroethene	**68 J**	**83**	**ug/L**	**25**
cis-1,2-Dichloroethene	ND	83	ug/L	25
trans-1,2-Dichloroethene	ND	83	ug/L	25
1,2-Dichloropropane	ND	83	ug/L	25
1,3-Dichloropropane	ND	83	ug/L	33
2,2-Dichloropropane	ND	83	ug/L	25
1,1-Dichloropropene	ND	83	ug/L	25

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ARCADIS Geraghty & Miller, Inc.

Client Sample ID: IRZB0095_WG121404_01

GC/MS Volatiles

Lot-Sample #...: E4L190107-002 **Work Order #...:** G1GNV1AC **Matrix.....:** W

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	83	ug/L	25
trans-1,3-Dichloropropene	ND	83	ug/L	42
Ethylbenzene	ND	83	ug/L	17
Hexachlorobutadiene	ND	83	ug/L	25
2-Hexanone	ND	420	ug/L	250
Isopropylbenzene	ND	83	ug/L	25
p-Isopropyltoluene	ND	83	ug/L	25
Methylene chloride	ND	83	ug/L	25
4-Methyl-2-pentanone	ND	420	ug/L	250
Methyl tert-butyl ether	ND	83	ug/L	42
Naphthalene	**99**	**83**	**ug/L**	**42**
n-Propylbenzene	ND	83	ug/L	33
Styrene	ND	83	ug/L	25
1,1,1,2-Tetrachloroethane	ND	83	ug/L	25
1,1,2,2-Tetrachloroethane	ND	83	ug/L	33
Tetrachloroethene	ND	83	ug/L	25
Toluene	ND	83	ug/L	25
1,2,3-Trichlorobenzene	ND	83	ug/L	33
1,2,4-Trichloro-benzene	ND	83	ug/L	25
1,1,1-Trichloroethane	ND	83	ug/L	17
1,1,2-Trichloroethane	ND	83	ug/L	25
Trichloroethene	**4300**	**83**	**ug/L**	**25**
Trichlorofluoromethane	ND	170	ug/L	25
1,2,3-Trichloropropane	ND	83	ug/L	33
1,1,2-Trichlorotrifluoro-ethane	ND	83	ug/L	33
1,2,4-Trimethylbenzene	**120**	**83**	**ug/L**	**25**
1,3,5-Trimethylbenzene	**30 J**	**83**	**ug/L**	**17**
Vinyl chloride	ND	83	ug/L	25
m-Xylene & p-Xylene	**45 J**	**83**	**ug/L**	**42**
o-Xylene	**22 J**	**83**	**ug/L**	**17**
Xylenes (total)	ND	83	ug/L	67

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(75 - 130)
1,2-Dichloroethane-d4	86	(65 - 135)
Toluene-d8	101	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS Geraghty & Miller, Inc.

Client Sample ID: IRZB0095_WG121404_01

General Chemistry

Lot-Sample #...: E4L190107-002 **Work Order #...:** G1GNV **Matrix.....:** W
Date Sampled...: 12/14/04 14:18 **Date Received..:** 12/17/04 17:00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**3.3**	**1.0**	**mg/L**	**SW846 9060**	**12/22/04**	**4357347**

Dilution Factor: 1 Analysis Time..: 16:26 Analyst ID.....: 999995
Instrument ID..: W08 MS Run #.....: 4357312 MDL.....: 0.40

ARCADIS Geraghty & Miller, Inc.

Client Sample ID: IRZMW004_WG121404_01

GC/MS Volatiles

Lot-Sample #...: E4L190107-003 **Work Order #...:** G1GNW1AC **Matrix.....:** W
Date Sampled...: 12/14/04 14:55 **Date Received..:** 12/17/04 17:00 **MS Run #.....:** 4359007
Prep Date.....: 12/21/04 **Analysis Date..:** 12/21/04
Prep Batch #...: 4359013 **Analysis Time..:** 13:19
Dilution Factor: 166.7
Analyst ID.....: 000038 **Instrument ID..:** MSR
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	**120 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	**96 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: IRZMW004_WG121404_01

GC/MS Volatiles

Lot-Sample #...: E4L190107-003 **Work Order #...:** G1GNW1AC **Matrix.....:** W

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	**6600**	**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	**52 J**	**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	95	(75 - 130)
1,2-Dichloroethane-d4	86	(65 - 135)
Toluene-d8	101	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS Geraghty & Miller, Inc.

Client Sample ID: IRZMW004_WG121404_01

General Chemistry

Lot-Sample #...: E4L190107-003 **Work Order #...:** G1GNW **Matrix.....:** W
Date Sampled...: 12/14/04 14:55 **Date Received..:** 12/17/04 17:00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**3.6**	**1.0**	**mg/L**	**SW846 9060**	**12/22/04**	**4357347**

Dilution Factor: 1 Analysis Time..: 16:26 Analyst ID.....: 9999952
Instrument ID..: W08 MS Run #.....: 4357312 MDL.....: 0.40

ARCADIS Geraghty & Miller, Inc.

Client Sample ID: IRZMW005_WG121404_01

GC/MS Volatiles

Lot-Sample #...: E4L190107-004 **Work Order #...:** G1GNX1AC **Matrix.....:** W
Date Sampled...: 12/14/04 15:47 **Date Received..:** 12/17/04 17:00 **MS Run #.....:** 4359007
Prep Date.....: 12/21/04 **Analysis Date..:** 12/21/04
Prep Batch #...: 4359013 **Analysis Time..:** 13:40
Dilution Factor: 166.7
Analyst ID.....: 000038 **Instrument ID..:** MSR
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	**54 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	**84 J**	**170**	**ug/L**	**50**
cis-1,2-Dichloroethene	**170**	**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: IRZMW005_WG121404_01

GC/MS Volatiles

Lot-Sample #...: E4L190107-004 **Work Order #...:** G1GNX1AC **Matrix.....:** W

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	**7300**	**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	94	(75 - 130)
1,2-Dichloroethane-d4	84	(65 - 135)
Toluene-d8	100	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS Geraghty & Miller, Inc.

Client Sample ID: IRZMW005_WG121404_01

General Chemistry

Lot-Sample #...: E4L190107-004 **Work Order #...:** G1GNX **Matrix.....:** W
Date Sampled...: 12/14/04 15:47 **Date Received..:** 12/17/04 17:00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**5.5**	**1.0**	**mg/L**	**SW846 9060**	**12/22/04**	**4357347**

Dilution Factor: 1 Analysis Time..: 16:26 Analyst ID.....: 9999952
Instrument ID..: W08 MS Run #.....: 4357312 MDL.....: 0.40

ARCADIS Geraghty & Miller, Inc.

Client Sample ID: IRZB0081_WG121404_01

GC/MS Volatiles

Lot-Sample #...: E4L190107-005 **Work Order #...:** G1GN01AC **Matrix.....:** W
Date Sampled...: 12/14/04 16:33 **Date Received..:** 12/17/04 17:00 **MS Run #.....:** 4359007
Prep Date.....: 12/21/04 **Analysis Date..:** 12/21/04
Prep Batch #...: 4359013 **Analysis Time..:** 14:01
Dilution Factor: 125
Analyst ID.....: 000038 **Instrument ID..:** MSR
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	**60 J**	**120**	**ug/L**	**38**
cis-1,2-Dichloroethene	**89 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: IRZB0081_WG121404_01

GC/MS Volatiles

Lot-Sample #...: E4L190107-005 **Work Order #...:** G1GN01AC **Matrix.....:** W

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	**5300**	**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	93	(75 - 130)
1,2-Dichloroethane-d4	82	(65 - 135)
Toluene-d8	100	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS Geraghty & Miller, Inc.

Client Sample ID: IRZB0081_WG121404_01

General Chemistry

Lot-Sample #...: E4L190107-005 **Work Order #...:** G1GN0 **Matrix.....:** W
Date Sampled...: 12/14/04 16:33 **Date Received..:** 12/17/04 17:00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**4560**	**500**	**mg/L**	**SW846 9060**	**12/22/04**	**4357347**

Dilution Factor: 500 Analysis Time..: 16:26 Analyst ID.....: 9999952
Instrument ID..: W08 MS Run #.....: 4357312 MDL.....: 200

SEVERN TRENT STL

QA/QC

BOE-C6-0010763

QC DATA ASSOCIATION SUMMARY

E4L190107

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WQ	SW846 8260B		4361017	4361005
002	W	SW846 9060		4357347	4357312
	W	SW846 8260B		4359013	4359007
003	W	SW846 9060		4357347	4357312
	W	SW846 8260B		4359013	4359007
004	W	SW846 9060		4357347	4357312
	W	SW846 8260B		4359013	4359007
005	W	SW846 9060		4357347	4357312
	W	SW846 8260B		4359013	4359007

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E4L190107
MB Lot-Sample #: E4L240000-013

Work Order #...: G1Q591AA
Prep Date.....: 12/21/04
Prep Batch #...: 4359013
Analyst ID.....: 000038

Matrix.....: WATER
Analysis Time..: 09:35
Instrument ID..: MSR

Analysis Date..: 12/21/04
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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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E4L190107 **Work Order #...:** G1Q591AA **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	96	(75 - 130)
1,2-Dichloroethane-d4	88	(65 - 135)
Toluene-d8	99	(80 - 130)

NOTE(S):

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

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E4L190107 **Work Order #...:** G1Q6J1AA **Matrix.....:** WATER
MB Lot-Sample #: E4L260000-017

Prep Date.....: 12/24/04 **Analysis Time..:** 10:04
Analysis Date..: 12/24/04 **Prep Batch #...:** 4361017 **Instrument ID..:** MSR
Dilution Factor: 1

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 #...: E4L190107 **Work Order #...:** G1Q6J1AA **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	92	(75 - 130)
1,2-Dichloroethane-d4	84	(65 - 135)
Toluene-d8	99	(80 - 130)

NOTE(S):

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

METHOD BLANK REPORT

General Chemistry

Client Lot #...: E4L190107 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)		Work Order #: G1P5Q1AA		MB Lot-Sample #:	E4L220000-347	
	ND	1.0	mg/L	SW846 9060	12/22/04	4357347

Dilution Factor: 1

Analysis Time..: 16:26 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 #...: E4L190107 **Work Order #...:** G1Q591AC **Matrix.....:** WATER
LCS Lot-Sample#: E4L240000-013
Prep Date.....: 12/21/04 **Analysis Date..:** 12/21/04
Prep Batch #...: 4359013 **Analysis Time..:** 08:53
Dilution Factor: 1 **Instrument ID..:** MSR
Analyst ID.....: 000038

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**77**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**81**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**93**	**(65 - 135)**	**SW846 8260B**
Toluene	**87**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**82**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(75 - 130)
1,2-Dichloroethane-d4	82	(65 - 135)
Toluene-d8	103	(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 #...: E4L190107 **Work Order #...:** G1Q591AC **Matrix.....:** WATER
LCS Lot-Sample#: E4L240000-013
Prep Date.....: 12/21/04 **Analysis Date..:** 12/21/04
Prep Batch #...: 4359013 **Analysis Time..:** 08:53
Dilution Factor: 1 **Instrument ID..:** MSR
Analyst ID.....: 000038

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**7.73**	**ug/L**	**77**	**SW846 8260B**
Chlorobenzene	**10.0**	**8.12**	**ug/L**	**81**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**9.31**	**ug/L**	**93**	**SW846 8260B**
Toluene	**10.0**	**8.66**	**ug/L**	**87**	**SW846 8260B**
Trichloroethene	**10.0**	**8.22**	**ug/L**	**82**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(75 - 130)
1,2-Dichloroethane-d4	82	(65 - 135)
Toluene-d8	103	(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 #...: E4L190107 **Work Order #...:** G1Q6J1AC **Matrix.....:** WATER
LCS Lot-Sample#: E4L260000-017
Prep Date.....: 12/24/04 **Analysis Date..:** 12/24/04
Prep Batch #...: 4361017 **Analysis Time..:** 09:06
Dilution Factor: 1 **Instrument ID..:** MSR
Analyst ID.....: 000038

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**82**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**87**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**94**	**(65 - 135)**	**SW846 8260B**
Toluene	**89**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**87**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(75 - 130)
1,2-Dichloroethane-d4	78	(65 - 135)
Toluene-d8	103	(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 #...: E4L190107 **Work Order #...:** G1Q6J1AC **Matrix.....:** WATER
LCS Lot-Sample#: E4L260000-017
Prep Date.....: 12/24/04 **Analysis Date..:** 12/24/04
Prep Batch #...: 4361017 **Analysis Time..:** 09:06
Dilution Factor: 1 **Instrument ID..:** MSR
Analyst ID.....: 000038

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**8.25**	**ug/L**	**82**	**SW846 8260B**
Chlorobenzene	**10.0**	**8.66**	**ug/L**	**87**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**9.40**	**ug/L**	**94**	**SW846 8260B**
Toluene	**10.0**	**8.88**	**ug/L**	**89**	**SW846 8260B**
Trichloroethene	**10.0**	**8.70**	**ug/L**	**87**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(75 - 130)
1,2-Dichloroethane-d4	78	(65 - 135)
Toluene-d8	103	(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

General Chemistry

Client Lot #...: E4L190107 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)		Work Order #: G1P5Q1AC	LCS Lot-Sample#: E4L220000-347		
	93	(85 - 115)	SW846 9060	12/22/04	4357347

Dilution Factor: 1 Analysis Time..: 16:26 Analyst ID.....: 999995
Instrument ID..: W08

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E4L190107 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)			Work Order #: G1P5Q1AC		LCS Lot-Sample#: E4L220000-347		
	25.0	23.4	mg/L	93	SW846 9060	12/22/04	4357347
			Dilution Factor: 1		Analysis Time..: 16:26	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 #...: E4L190107 **Work Order #...:** G1GNX1AD-MS **Matrix.....:** W
MS Lot-Sample #: E4L190107-004 G1GNX1AE-MSD
Date Sampled...: 12/14/04 15:47 **Date Received..:** 12/17/04 17:00 **MS Run #.....:** 4359007
Prep Date.....: 12/21/04 **Analysis Date..:** 12/21/04
Prep Batch #...: 4359013 **Analysis Time..:** 17:54
Dilution Factor: 166.7 **Analyst ID.....:** 000038 **Instrument ID..:** MSR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**85**	**(75 - 125)**			**SW846 8260B**
	89	**(75 - 125)**	**4.9**	**(0-25)**	**SW846 8260B**
Chlorobenzene	**84**	**(75 - 125)**			**SW846 8260B**
	87	**(75 - 125)**	**4.3**	**(0-25)**	**SW846 8260B**
1,1-Dichloroethene	**100**	**(65 - 135)**			**SW846 8260B**
	103	**(65 - 135)**	**2.6**	**(0-25)**	**SW846 8260B**
Toluene	**86**	**(75 - 125)**			**SW846 8260B**
	88	**(75 - 125)**	**1.9**	**(0-25)**	**SW846 8260B**
Trichloroethene	**0.0 NC,MS**	**(75 - 135)**			**SW846 8260B**
	0.0 NC,MS	**(75 - 135)**	**0.0**	**(0-25)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(75 - 130)
	96	(75 - 130)
1,2-Dichloroethane-d4	80	(65 - 135)
	81	(65 - 135)
Toluene-d8	102	(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

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E4L190107 **Work Order #...:** G1GNX1AD-MS **Matrix.....:** W
MS Lot-Sample #: E4L190107-004 G1GNX1AE-MSD
Date Sampled...: 12/14/04 15:47 **Date Received..:** 12/17/04 17:00 **MS Run #.....:** 4359007
Prep Date.....: 12/21/04 **Analysis Date..:** 12/21/04
Prep Batch #...: 4359013 **Analysis Time..:** 17:54
Dilution Factor: 166.7 **Analyst ID.....:** 000038 **Instrument ID..:** MSR

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**1670**	**1410**	**ug/L**	**85**		**SW846 8260B**
	ND	**1670**	**1480**	**ug/L**	**89**	**4.9**	**SW846 8260B**
Chlorobenzene	**ND**	**1670**	**1400**	**ug/L**	**84**		**SW846 8260B**
	ND	**1670**	**1460**	**ug/L**	**87**	**4.3**	**SW846 8260B**
1,1-Dichloroethene	**84**	**1670**	**1760**	**ug/L**	**100**		**SW846 8260B**
	84	**1670**	**1800**	**ug/L**	**103**	**2.6**	**SW846 8260B**
Toluene	**ND**	**1670**	**1430**	**ug/L**	**86**		**SW846 8260B**
	ND	**1670**	**1460**	**ug/L**	**88**	**1.9**	**SW846 8260B**
Trichloroethene	**7300**	**1670**		**ug/L**	**0.0**		**SW846 8260B**
	Qualifiers: NC,MSB						
	7300	**1670**		**ug/L**	**0.0**	**0.0**	**SW846 8260B**
	Qualifiers: NC,MSB						

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(75 - 130)
	96	(75 - 130)
1,2-Dichloroethane-d4	80	(65 - 135)
	81	(65 - 135)
Toluene-d8	102	(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

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E4L190107 **Work Order #...:** G1GGC1AP-MS **Matrix.....:** WATER
MS Lot-Sample #: E4L180229-001 G1GGC1AQ-MSD
Date Sampled...: 12/16/04 09:15 **Date Received..:** 12/16/04 19:00 **MS Run #.....:** 4361005
Prep Date.....: 12/24/04 **Analysis Date..:** 12/24/04
Prep Batch #...: 4361017 **Analysis Time..:** 17:49
Dilution Factor: 1 **Analyst ID.....:** 000038 **Instrument ID..:** MSR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**81**	**(75 - 125)**			**SW846 8260B**
	85	**(75 - 125)**	**4.1**	**(0-25)**	**SW846 8260B**
Chlorobenzene	**86**	**(75 - 125)**			**SW846 8260B**
	86	**(75 - 125)**	**0.46**	**(0-25)**	**SW846 8260B**
1,1-Dichloroethene	**94**	**(65 - 135)**			**SW846 8260B**
	96	**(65 - 135)**	**1.4**	**(0-25)**	**SW846 8260B**
Toluene	**86**	**(75 - 125)**			**SW846 8260B**
	89	**(75 - 125)**	**2.5**	**(0-25)**	**SW846 8260B**
Trichloroethene	**85**	**(75 - 135)**			**SW846 8260B**
	81	**(75 - 135)**	**3.8**	**(0-25)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
	97	(75 - 130)
1,2-Dichloroethane-d4	83	(65 - 135)
	78	(65 - 135)
Toluene-d8	102	(80 - 130)
	105	(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 #...: E4L190107 **Work Order #...:** G1GGC1AP-MS **Matrix.....:** WATER
MS Lot-Sample #: E4L180229-001 G1GGC1AQ-MSD
Date Sampled...: 12/16/04 09:15 **Date Received..:** 12/16/04 19:00 **MS Run #.....:** 4361005
Prep Date.....: 12/24/04 **Analysis Date..:** 12/24/04
Prep Batch #...: 4361017 **Analysis Time..:** 17:49
Dilution Factor: 1 **Analyst ID.....:** 000038 **Instrument ID..:** MSR

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**10.0**	**8.12**	**ug/L**	**81**		**SW846 8260B**
	ND	**10.0**	**8.46**	**ug/L**	**85**	**4.1**	**SW846 8260B**
Chlorobenzene	**ND**	**10.0**	**8.60**	**ug/L**	**86**		**SW846 8260B**
	ND	**10.0**	**8.64**	**ug/L**	**86**	**0.46**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**10.0**	**9.43**	**ug/L**	**94**		**SW846 8260B**
	ND	**10.0**	**9.56**	**ug/L**	**96**	**1.4**	**SW846 8260B**
Toluene	**ND**	**10.0**	**8.64**	**ug/L**	**86**		**SW846 8260B**
	ND	**10.0**	**8.86**	**ug/L**	**89**	**2.5**	**SW846 8260B**
Trichloroethene	**ND**	**10.0**	**8.46**	**ug/L**	**85**		**SW846 8260B**
	ND	**10.0**	**8.14**	**ug/L**	**81**	**3.8**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
	97	(75 - 130)
1,2-Dichloroethane-d4	83	(65 - 135)
	78	(65 - 135)
Toluene-d8	102	(80 - 130)
	105	(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

General Chemistry

Client Lot #...: E4L190107 **Matrix.....:** W
Date Sampled...: 12/14/04 14:55 **Date Received..:** 12/17/04 17:00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)		WO#: G1GNW1AD-MS/G1GNW1AE-MSD				MS Lot-Sample #: E4L190107-003	
	89	(85 - 115)			SW846 9060	12/22/04	4357347
	91	(85 - 115)	1.8	(0-20)	SW846 9060	12/22/04	4357347

Dilution Factor: 1
Analysis Time..: 16:26 Instrument ID..: W08 Analyst ID.....: 999995
MS Run #.....: 4357312

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E4L190107 **Matrix.....:** W
Date Sampled...: 12/14/04 14:55 **Date Received..:** 12/17/04 17:00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)			WO#: G1GNW1AD-MS/G1GNW1AE-MSD				MS Lot-Sample #: E4L190107-003		
	3.6	25.0	25.8	mg/L	89		SW846 9060	12/22/04	4357347
	3.6	25.0	26.3	mg/L	91	1.8	SW846 9060	12/22/04	4357347

Dilution Factor: 1
Analysis Time..: 16:26 Instrument ID..: W08 Analyst ID.....: 999995
MS Run #.....: 4357312

NOTE(S):

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

SEVERN TRENT STL

STL Los Angeles
1721 South Grand Avenue
Santa Ana, CA 92705

Tel: 714 258 8610 Fax: 714 258 0921
www.stl-inc.com

October 18, 2004

STL LOT NUMBER: E4J130230
NELAP Certification Number: 01118CA/E87652
PO/CONTRACT: 050150-SEV01-002

Alistaire Callender
ARCADIS, Inc
1400 N. Harbor Blvd.
Suite 700
Fullerton, CA 92835-4127

Dear Mr. Callender,

This report contains the analytical results for the 12 samples received under chain of custody by STL Los Angeles on October 13, 2004. These samples are associated with your Boeing former C6 facility Torrance, California project.

All applicable quality control procedures met method-specified acceptance criteria. 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 at (714) 258-8610 extension 313.

Sincerely,

Diane Suzuki
Customer Service Manager

CC: Project File

Page 1 of 000027 total pages in this report.

BOE-C6-0010782

EAJ130230

[redacted]

hain of ustody Record

-4124 (0901)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

ent: Arcadis	Project Manager: ALISTAIRE CALLENDER	Date: 10/12/04	Chain of Custody Number: 179971
dress: 1400 N HARBOR #700	Telephone Number (Area Code)/Fax Number: 714-278-0992 / 714-278-0051	Lab Number: EAJ130230	Page ____ of ____
y: FULLERTON; State: CA; Zip Code: 92835	Site Contact: David Poley	Lab Contact:	
ject Name and Location (State): Boeing C-6, Torrance, CA	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	Matrix: Air	Aqueous	Sed	Soil		Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Analysis (Attach list if more space is needed): TOC	Special Instructions/ Conditions of Receipt
22MW004 — WG101204-01	10/12/04	0938		X					X						X	
22MW005 — WG101204-01	10/12/04	0950		X					X						X	
2CMW001 — WG101204 — 01	10/12/04	1000		X					X						X	
2CMW003 — WG101204 — 01	10/12/04	1010		X					X						X	
2CMW002 — WG101204 — 01	10/12/04	1023		X					X						X	
2MW002A — WG101204 — 01	10/12/04	1230		X					X						X	
2MW002B — WG101204 — 01	10/12/04	1234		X					X						X	
2MW001A — WG101204 — 01	10/12/04	1242		X					X						X	
2MW001B — WG101204 — 01	10/12/04	1248		X					X						X	
2MW003A — WG101204 — 01	10/12/04	1255		X					X						X	
2MW003B — WG101204 — 01	10/12/04	1300		X					X						X	

sible 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 STANDARD

QC Requirements (Specify):

elinquished By: [signature]	Date: 10/13/04	Time: 0915	1. Received By: [signature]	Date: 10-13-04	Time: 9:15
elinquished By: [signature]	Date: 10-13-04	Time: 10:45	2. Received By: [signature]	Date: 10-13-04	Time: 10:45
elinquished By	Date	Time	3. Received By	Date	Time

nments

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

2

BOE-C6-0010783

STL LOS ANGELES - PROJECT RECEIPT CHECKLIST Date: 10-13-04

LIMS Lot #: E4J130230 Quote #: 48735

Client Name: Arcadis Project: C-6

Received by: TLS Date/Time Received: 10-13-04

Delivered by : ☐ Client ☑ STL ☐ Airborne ☐ Fed Ex ☐ UPS ☐ Other MQ

****

	Initial / Date
Custody Seal Status Cooler: ☐Intact ☐Broken ☑None	TLS 10-13-04
Custody Seal Status Samples: ☐Intact ☐Broken ☑None	
Custody Seal #(s): ☑No Seal #	
Sampler Signature on COC ☐ Yes ☐No ☑N/A	
IR Gun # B Correction Factor +0.6 °C IR passed daily verification ☑ Yes ☐No	
Temperature - BLANK 5.1 °C (+) 0.6 CF = 5.7 °C	
Temperature – COOLER (____°C ____°C ____°C ____°C) = ____ avg °C + 0.6 (CF) = ____°C	
Samples outside temperature criteria but received within 6 hours of final sampling ☐ Yes ☑N/A	
Sample Container(s): ☑ STL-LA ☐ Client	
One COC/Multiple coolers: ☐ Yes- # coolers ____ All within temp criteria ☐ Yes ☐No ☑N/A	
One or more coolers with an anomaly: ☐ Yes – (fill out PRC for each) ☑N/A	
Samples: ☑Intact ☐Broken ☐Other	
pH measured: ☑ Yes ☐ Anomaly (if checked, notify lab and file NCM) ☐ N/A	
Anomalies: ☑No ☐Yes – complete CUR and Create NCM NCM #	
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. ☑ Yes ☐ N/A	
Labeled by: TLS Labeling checked	

****

Turn Around Time: ☐RUSH–24HR ☐RUSH–48HR ☐RUSH–72HR ☑NORMAL

Short-Hold Notification: ☐ pH ☐Wet Chem ☐Metals (Filter/Pres) ☐Encore ☐ >1/2 HT expired…

Outside Analysis(es) (Test/Lab/Date Sent Out) :

_____

_____

_____

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

Headspace Anomaly ☑N/A TLS 101304

Lab ID	Container(s) #	Headspace	Lab ID	Container(s) #	Headspace
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm

LIMS Lot # E4J130230

PROJECT RECEIPT CHECKLIST Cont'd

Fraction	1-11													
VOAH/ *														
250AGs	1													

* VOA with headspace/bubbles

H: HCL, S: H2SO4, N: HNO3, V: VOA, SL, Sleeve, E: Encore, PB: Poly Bottle, CGB: Clear Glass Bottle, AGJ: Amber Glass Jar, T: Terracore
AGB: Amber Glass Bottle, n/f/l:HNO3-Lab filtered, n/f:HNO3-Field filtered, znna: Zinc Acetate/Sodium Hydroxide, Na2s2o3: sodium thiosulfate

Condition Upon Receipt Anomaly Form

☑ N/A 72S101304

- **COOLERS**
  - ☐ Not Received (received COC only)
  - ☐ Leaking
  - ☐ Other:
- **CUSTODY SEALS (COOLER(S)**
  - ☐ None
  - ☐ Not Intact
  - ☐ Other
- **CONTAINER(S)**
  - ☑ None
  - ☐ Not Intact
  - ☐ Other
- **TEMPERATURE (SPECS 4 ± 2°C)**
  - ☐ Cooler Temp(s)
  - ☐ Temperature Blank(s)
- **CHAIN OF CUSTODY (COC)**
  - ☐ Not relinquished by Client; No date/time relinquished
  - ☐ Incomplete information provided
  - ☐ Other ☐ COC not received – notify PM
- **CONTAINERS**
  - ☐ Leaking
  - ☐ Broken
  - ☐ Extra
  - ☐ Without Labels
  - ☐ Other:
- **LABELS**
  - ☐ Not the same ID/info as in COC
  - ☐ Incomplete Information
  - ☐ Markings/Info illegible
  - ☐ Torn
- **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
  - ☐ Will be noted on COC–Client to send samples with new COC
  - ☐ Mislabeled as to tests, preservatives, etc.
  - ☐ Holding time expired – list sample ID and test
  - ☐ Improper container used
  - ☐ Not preserved/Improper preservative used
  - ☐ Improper pH _____ Lab to preserve sample and document
  - ☐ Insufficient quantities for analysis ☐ Other

Comments:

_____

_____

_____

_____

_____

☐ Corrective Action Implemented:

☐ Client Informed: verbally on _____ By: _____ ☐ In writing on _____ By: _____

☐ Sample(s) on hold until: _____ ☐ Sample(s) processed "as is."

Logged by/Date:	Log Review/Date:	PM Review/Date:
[signature] 101304		[signature] 10-13-04

SEVERN TRENT STL

Analytical Report

BOE-C6-0010786

EXECUTIVE SUMMARY - Detection Highlights

E4J130230

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZMW004_WG101204_01 10/12/04 09:38 001				
Total Organic Carbon (TOC)	2.3	1.0	mg/L	SW846 9060
IRZMW005_WG101204_01 10/12/04 09:50 002				
Total Organic Carbon (TOC)	5.2	1.0	mg/L	SW846 9060
IRZCMW001_WG101204_01 10/12/04 10:00 003				
Total Organic Carbon (TOC)	2.5	1.0	mg/L	SW846 9060
IRZCMW003_WG101204_01 10/12/04 10:10 004				
Total Organic Carbon (TOC)	2.4	1.0	mg/L	SW846 9060
IRZCMW002_WG101204_01 10/12/04 10:23 005				
Total Organic Carbon (TOC)	2.2	1.0	mg/L	SW846 9060
IRZMW002A_WG101204_01 10/12/04 12:30 006				
Total Organic Carbon (TOC)	11.1	1.0	mg/L	SW846 9060
IRZMW002B_WG101204_01 10/12/04 12:36 007				
Total Organic Carbon (TOC)	6.2	1.0	mg/L	SW846 9060
IRZMW001A_WG101204_01 10/12/04 12:42 008				
Total Organic Carbon (TOC)	3.5	1.0	mg/L	SW846 9060
IRZMW001B_WG101204_01 10/12/04 12:48 009				
Total Organic Carbon (TOC)	5.8	1.0	mg/L	SW846 9060

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E4J130230

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZMW003A_WG101204_01 10/12/04 12:55	**010**			
Total Organic Carbon (TOC)	5.7	1.0	mg/L	SW846 9060
IRZMW003B_WG101204_01 10/12/04 13:00	**011**			
Total Organic Carbon (TOC)	3.4	1.0	mg/L	SW846 9060

BOE-C6-0010788

METHODS SUMMARY

E4J130230

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Total Organic Carbon	SW846 9060	SW846 9060

References:

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

SAMPLE SUMMARY

E4J130230

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GTG1V	001	IRZMW004_WG101204_01	10/12/04	09:38
GTG12	002	IRZMW005_WG101204_01	10/12/04	09:50
GTG14	003	IRZCMW001_WG101204_01	10/12/04	10:00
GTG16	004	IRZCMW003_WG101204_01	10/12/04	10:10
GTG19	005	IRZCMW002_WG101204_01	10/12/04	10:23
GTG2D	006	IRZMW002A_WG101204_01	10/12/04	12:30
GTG2G	007	IRZMW002B_WG101204_01	10/12/04	12:36
GTG2L	008	IRZMW001A_WG101204_01	10/12/04	12:42
GTG2Q	009	IRZMW001B_WG101204_01	10/12/04	12:48
GTG2W	010	IRZMW003A_WG101204_01	10/12/04	12:55
GTG23	011	IRZMW003B_WG101204_01	10/12/04	13:00

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: IRZMW004_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-001 **Work Order #...:** GTG1V **Matrix.....:** W
Date Sampled...: 10/12/04 09:38 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**2.3**	**1.0**	**mg/L**	**SW846 9060**	**10/14/04**	**4288614**

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 999995
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW005_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-002 **Work Order #...:** GTG12 **Matrix.....:** W
Date Sampled...: 10/12/04 09:50 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**5.2**	**1.0**	**mg/L**	**SW846 9060**	**10/14/04**	**4288614**

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 9999951
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW001_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-003 **Work Order #...:** GTG14 **Matrix.....:** W
Date Sampled...: 10/12/04 10:00 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**2.5**	**1.0**	**mg/L**	**SW846 9060**	**10/14/04**	**4288614**

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 9999951
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW003_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-004 **Work Order #...:** GTG16 **Matrix.....:** W
Date Sampled...: 10/12/04 10:10 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**2.4**	**1.0**	**mg/L**	**SW846 9060**	**10/14/04**	**4288614**

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 9999951
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW002_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-005 **Work Order #...:** GTG19 **Matrix.....:** W
Date Sampled...: 10/12/04 10:23 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**2.2**	**1.0**	**mg/L**	**SW846 9060**	**10/14/04**	**4288614**

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 9999951
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-006 **Work Order #...:** GTG2D **Matrix.....:** W
Date Sampled...: 10/12/04 12:30 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**11.1**	**1.0**	**mg/L**	**SW846 9060**	**10/14/04**	**4288614**

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 9999951
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-007 **Work Order #...:** GTG2G **Matrix.....:** W
Date Sampled...: 10/12/04 12:36 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	6.2	1.0	mg/L	SW846 9060	10/14/04	4288614

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 9999951
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001A_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-008 **Work Order #...:** GTG2L **Matrix.....:** W
Date Sampled...: 10/12/04 12:42 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**3.5**	**1.0**	**mg/L**	**SW846 9060**	**10/14/04**	**4288614**

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 9999951
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001B_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-009 **Work Order #...:** GTG2Q **Matrix.....:** W
Date Sampled...: 10/12/04 12:48 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**5.8**	**1.0**	**mg/L**	**SW846 9060**	**10/14/04**	**4288614**

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 9999951
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003A_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-010 **Work Order #...:** GTG2W **Matrix.....:** W
Date Sampled...: 10/12/04 12:55 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**5.7**	**1.0**	**mg/L**	**SW846 9060**	**10/14/04**	**4288614**

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 9999951
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW003B_WG101204_01

General Chemistry

Lot-Sample #...: E4J130230-011 **Work Order #...:** GTG23 **Matrix.....:** W
Date Sampled...: 10/12/04 13:00 **Date Received..:** 10/13/04 10:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**3.4**	**1.0**	**mg/L**	**SW846 9060**	**10/14/04**	**4288614**

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 9999951
Instrument ID..: W08 MS Run #.....: 4289351 MDL.....: 0.40

SEVERN TRENT STL

QA/QC

BOE-C6-0010802

QC DATA ASSOCIATION SUMMARY

E4J130230

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	W	SW846 9060		4288614	4289351
002	W	SW846 9060		4288614	4289351
003	W	SW846 9060		4288614	4289351
004	W	SW846 9060		4288614	4289351
005	W	SW846 9060		4288614	4289351
006	W	SW846 9060		4288614	4289351
007	W	SW846 9060		4288614	4289351
008	W	SW846 9060		4288614	4289351
009	W	SW846 9060		4288614	4289351
010	W	SW846 9060		4288614	4289351
011	W	SW846 9060		4288614	4289351

BOE-C6-0010803

METHOD BLANK REPORT

General Chemistry

Client Lot #...: E4J130230 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)		Work Order #: GTR011AA		MB Lot-Sample #:	E4J140000-614	
	ND	1.0	mg/L	SW846 9060	10/14/04	4288614

Dilution Factor: 1

Analysis Time..: 17:34 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

General Chemistry

Client Lot #...: E4J130230 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)		Work Order #: GTR011AC	LCS Lot-Sample#: E4J140000-614		
	102	(85 - 115)	SW846 9060	10/14/04	4288614

Dilution Factor: 1 Analysis Time..: 17:34 Analyst ID.....: 999995

Instrument ID..: W08

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E4J130230 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)			Work Order #: GTR011AC		LCS Lot-Sample#: E4J140000-614		
	25.0	25.5	mg/L	102	SW846 9060	10/14/04	4288614
			Dilution Factor: 1		Analysis Time..: 17:34	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

General Chemistry

Client Lot #...: E4J130230 **Matrix.....:** WATER
Date Sampled...: 10/12/04 12:00 **Date Received..:** 10/12/04 17:50

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	WO#: GTGNX1D4-MS/GTGNX1D5-MSD MS Lot-Sample #: E4J130204-001						
	104	(85 - 115)			SW846 9060	10/14/04	4288614
	101	(85 - 115)	3.1	(0-20)	SW846 9060	10/14/04	4288614

Dilution Factor: 1
Analysis Time..: 17:34 Instrument ID..: W08 Analyst ID.....: 999995
MS Run #.....: 4289351

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E4J130230 **Matrix.....:** WATER
Date Sampled...: 10/12/04 12:00 **Date Received..:** 10/12/04 17:50

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)			WO#: GTGNX1D4-MS/GTGNX1D5-MSD				MS Lot-Sample #: E4J130204-001		
	0.66	25.0	26.6	mg/L	104		SW846 9060	10/14/04	4288614
	0.66	25.0	25.8	mg/L	101	3.1	SW846 9060	10/14/04	4288614

Dilution Factor: 1
Analysis Time..: 17:34 Instrument ID..: W08 Analyst ID.....: 999995
MS Run #.....: 4289351

NOTE(S):

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

SEVERN TRENT STL

STL Los Angeles
1721 South Grand Avenue
Santa Ana, CA 92705

Tel: 714 258 8610 Fax: 714 258 0921
www.stl-inc.com

October 31, 2004

STL LOT NUMBER: E4J230148
NELAP Certification Number: 01118CA/E87652
PO/CONTRACT: 050150-SEV01-002

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

Dear Mr. Callender,

This report contains the analytical results for the eight samples received under chain of custody by STL Los Angeles on October 22, 2004. These samples are associated with your Boeing former C6 facility Torrance, California project.

All applicable quality control procedures met method-specified acceptance criteria. 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 at (714) 258-8610 extension 313.

Sincerely,

Diane Suzuki
Customer Service Manager

CC: Project File

EA230148

[redacted]

hain of ustody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

-4124 (0901)

ient: ARCADIS	Project Manager: David Poley	Date: 10/21/04 - 10/22/04	Chain of Custody Number: 180260
dress: 400 N. Harbor Blvd Suite 700	Telephone Number (Area Code)/Fax Number: (714) 278-0992 / (714) 278-0051	Lab Number: EA230148	Page 1 of 1
ty: Fullerton; State: CA; Zip Code: 92835	Site Contact:	Lab Contact:	
oject Name and Location (State): Boeing C-6	Carrier/Waybill Number:		
ontract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (ontainers 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): TOC	Special Instructions/ Conditions of Receipt
RZMW002B_WG102104-01	10/21/04	1402		✓					✓						X	
RZMW002A_WG102104-01	10/21/04	1310		✓					✓						X	
RZMW001B_WG102204-01	10/22/04	0845		✓					✓						X	
RZMW001A_WG102204-01	10/22/04	0939		✓					✓						X	
MW026_WG102204-01	10/22/04	1101		✓					✓						X	
ZMW005_WG102204-01	10/22/04	1235		✓					✓						X	
RZB0095_WG102204-01	10/22/04	1427		✓					✓						X	
RZB0081_WG102204-01	10/22/04	1334		✓					✓						X	

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)

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

QC Requirements (Specify):

Relinquished By: [signature]	Date: 10/22/04	Time: 16:45	1. Received By: [signature]	Date: 10-22-04	Time: 16:45
Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

mments: 4.2°C @ 0.6°F = 4.8°C

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

2

BOE-C6-0010810

STL LOS ANGELES - PROJECT RECEIPT CHECKLIST Date: 10/23/04

LIMS Lot #: E4J230148 Quote #: 48735

Client Name: ABCAMS Project: C-1

Received by: MG Date/Time Received: 10/22/04 @ 1645

Delivery by : ☒ Client ☐ STL ☐ Airborne ☐ Fed Ex ☐ UPS ☐ Other _____

****

	Initial / Date
Custody Seal Status Cooler: ☐ Intact ☐ Broken ☒ None	BM 10/23/04
Custody Seal Status Samples: ☐ Intact ☐ Broken ☒ None	
Custody Seal #(s): _____ ☒ No Seal #	
Sampler Signature on COC ☐ Yes ☐ No ☒ N/A	
IR Gun # B Correction Factor +0.6 °C IR passed daily verification ☒ Yes ☐ No	
Temperature - BLANK 4.2 °C +/- 0.6 CF = 4.8 °C	10/22/04
Temperature – COOLER (____ °C ____ °C ____ °C ____ °C) = ____ avg °C + 0.6 (CF) = ____ °C	BM 10/23/04
Samples outside temperature criteria but received within 6 hours of final sampling ☒ Yes ☐ N/A	
Sample Container(s): ☒ STL-LA ☐ Client	
One COC/Multiple coolers: ☐ Yes- # coolers ____ All within temp criteria ☐ Yes ☐ No ☒ N/A	
One or more coolers with an anomaly: ☐ Yes – (fill out PRC for each) ☒ N/A	
Samples: ☒ Intact ☐ Broken ☐ Other _____	
pH measured: ☒ Yes ☐ Anomaly (if checked, notify lab and file NCM) ☐ N/A	
Anomalies: ☒ No ☐ Yes – complete CUR and Create NCM NCM # _____	
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. ☒ Yes ☐ N/A	
Labeled by: BM Labeling checked BM	

****

Turn Around Time: ☐ RUSH–24HR ☐ RUSH–48HR ☐ RUSH–72HR ☒ NORMAL

Short-Hold Notification: ☐ pH ☐ Wet Chem ☐ Metals (Filter/Pres) ☐ Encore ☐ >1/2 HT expired...

Outside Analysis(es) (Test/Lab/Date Sent Out) :

_____

_____

_____

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

Headspace Anomaly ☒ N/A BM 10/23/04

Lab ID	Container(s) #	Headspace	Lab ID	Container(s) #	Headspace
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm

LIMS Lot # [illegible]

PROJECT RECEIPT CHECKLIST Cont'd

Fraction	G8													
VOAH/ *														
250AGBS1														

* VOA with headspace/bubbles
H: HCL, S: H2SO4, N: HNO3, V: VOA, SL: Sleeve, E: Encore, PB: Poly Bottle, CGB: Clear Glass Bottle, AGJ: Amber Glass Jar, T: Terracore
AGB: Amber Glass Bottle, n/f/l:HNO3-Lab filtered, n/f:HNO3-Field filtered, znna: Zinc Acetate/Sodium Hydroxide, Na2s2o3: sodium thiosulfate

Condition Upon Receipt Anomaly Form

☐ N/A _____

- COOLERS
  - _ Not Received (received COC only)
  - _ Leaking
  - _ Other:
- CUSTODY SEALS (COOLER(S) CONTAINER(S)
  - _ None
  - _ Not Intact
  - _ Other
  - _ None
  - _ Not Intact
  - _ Other
- TEMPERATURE (SPECS 4 ± 2°C)
  - _ Cooler Temp(s)
  - _ Temperature Blank(s)
- CHAIN OF CUSTODY (COC)
  - _ Not relinquished by Client; No date/time relinquished
  - _ Incomplete information provided
  - _ Other _ COC not received – notify PM
- CONTAINERS
  - _ Leaking
  - _ Broken
  - _ Extra
  - _ Without Labels
  - _ Other:
- LABELS
  - _ Not the same ID/info as in COC
  - _ Incomplete Information
  - _ Markings/Info illegible
  - _ Torn
- 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
  - _ Will be noted on COC–Client to send samples with new COC
  - _ Mislabeled as to tests, preservatives, etc.
  - _ Holding time expired – list sample ID and test
  - _ Improper container used
  - _ Not preserved/Improper preservative used
  - _ Improper pH _____ Lab to preserve sample and document
  - _ Insufficient quantities for analysis _ Other

Comments:

_____

_____

_____

_____

_____

_ Corrective Action Implemented:

_ Client Informed: verbally on _____ By: _____ _ In writing on _____ By: _____

_ Sample(s) on hold until: _____ _ Sample(s) processed "as is."

Logged by/Date:	Log Review/Date:	PM Review/Date:
[illegible]		[illegible] 10-24-04

Page 2 of 2

SEVERN TRENT STL

Analytical Report

BOE-C6-0010813

EXECUTIVE SUMMARY - Detection Highlights

E4J230148

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZMW002B_WG102104_01 10/21/04 14:02 001				
Total Organic Carbon (TOC)	2.8	1.0	mg/L	SW846 9060
IRZMW002A_WG102104_01 10/21/04 13:10 002				
Total Organic Carbon (TOC)	10.1	1.0	mg/L	SW846 9060
IRZMW001B_WG102204_01 10/22/04 08:45 003				
Total Organic Carbon (TOC)	2.0	1.0	mg/L	SW846 9060
IRZMW001A_WG102204_01 10/22/04 09:39 004				
Total Organic Carbon (TOC)	4.3	1.0	mg/L	SW846 9060
CMW026_WG102204_01 10/22/04 11:01 005				
Total Organic Carbon (TOC)	1.6	1.0	mg/L	SW846 9060
IRZMW005_WG102204_01 10/22/04 12:35 006				
Total Organic Carbon (TOC)	3.1	1.0	mg/L	SW846 9060
IRZB0095_WG102204_01 10/22/04 14:27 007				
Total Organic Carbon (TOC)	2.4	1.0	mg/L	SW846 9060
IRZB0081_WG102204_01 10/22/04 13:34 008				
Total Organic Carbon (TOC)	2.8	1.0	mg/L	SW846 9060

METHODS SUMMARY

E4J230148

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Total Organic Carbon	SW846 9060	SW846 9060

References:

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

BOE-C6-0010815

SAMPLE SUMMARY

E4J230148

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GVDKD	001	IRZMW002B_WG102104_01	10/21/04	14:02
GVDKE	002	IRZMW002A_WG102104_01	10/21/04	13:10
GVDKF	003	IRZMW001B_WG102204_01	10/22/04	08:45
GVDKG	004	IRZMW001A_WG102204_01	10/22/04	09:39
GVDKH	005	CMW026_WG102204_01	10/22/04	11:01
GVDKJ	006	IRZMW005_WG102204_01	10/22/04	12:35
GVDKK	007	IRZB0095_WG102204_01	10/22/04	14:27
GVDKL	008	IRZB0081_WG102204_01	10/22/04	13:34

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-C6-0010816

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG102104_01

General Chemistry

Lot-Sample #...: E4J230148-001 **Work Order #...:** GVDKD **Matrix.....:** WATER
Date Sampled...: 10/21/04 14:02 **Date Received..:** 10/22/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**2.8**	**1.0**	**mg/L**	**SW846 9060**	**10/26/04**	**4300620**

Dilution Factor: 1 Analysis Time..: 16:29 Analyst ID.....: 999995
Instrument ID..: W08 MS Run #.....: 4302155 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG102104_01

General Chemistry

Lot-Sample #...: E4J230148-002 **Work Order #...:** GVDKE **Matrix.....:** WATER
Date Sampled...: 10/21/04 13:10 **Date Received..:** 10/22/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**10.1**	**1.0**	**mg/L**	**SW846 9060**	**10/26/04**	**4300620**

Dilution Factor: 1 Analysis Time..: 16:29 Analyst ID.....: 9999955
Instrument ID..: W08 MS Run #.....: 4302155 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001B_WG102204_01

General Chemistry

Lot-Sample #...: E4J230148-003 **Work Order #...:** GVDKF **Matrix.....:** WATER
Date Sampled...: 10/22/04 08:45 **Date Received..:** 10/22/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**2.0**	**1.0**	**mg/L**	**SW846 9060**	**10/26/04**	**4300620**

Dilution Factor: 1 Analysis Time..: 16:29 Analyst ID.....: 9999955
Instrument ID..: W08 MS Run #.....: 4302155 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001A_WG102204_01

General Chemistry

Lot-Sample #...: E4J230148-004 **Work Order #...:** GVDKG **Matrix.....:** WATER
Date Sampled...: 10/22/04 09:39 **Date Received..:** 10/22/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**4.3**	**1.0**	**mg/L**	**SW846 9060**	**10/26/04**	**4300620**

Dilution Factor: 1 Analysis Time..: 16:29 Analyst ID.....: 9999955
Instrument ID..: W08 MS Run #.....: 4302155 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW026_WG102204_01

General Chemistry

Lot-Sample #...: E4J230148-005 **Work Order #...:** GVDKH **Matrix.....:** WATER
Date Sampled...: 10/22/04 11:01 **Date Received..:** 10/22/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**1.6**	**1.0**	**mg/L**	**SW846 9060**	**10/26/04**	**4300620**

Dilution Factor: 1 Analysis Time..: 16:29 Analyst ID.....: 9999955
Instrument ID..: W08 MS Run #.....: 4302155 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW005_WG102204_01

General Chemistry

Lot-Sample #...: E4J230148-006 **Work Order #...:** GVDKJ **Matrix.....:** WATER
Date Sampled...: 10/22/04 12:35 **Date Received..:** 10/22/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**3.1**	**1.0**	**mg/L**	**SW846 9060**	**10/26/04**	**4300620**

Dilution Factor: 1 Analysis Time..: 16:29 Analyst ID.....: 9999955
Instrument ID..: W08 MS Run #.....: 4302155 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB0095_WG102204_01

General Chemistry

Lot-Sample #...: E4J230148-007 **Work Order #...:** GVDKK **Matrix.....:** WATER
Date Sampled...: 10/22/04 14:27 **Date Received..:** 10/22/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	2.4	1.0	mg/L	SW846 9060	10/26/04	4300620

Dilution Factor: 1 Analysis Time..: 16:29 Analyst ID.....: 9999955
Instrument ID..: W08 MS Run #.....: 4302155 MDL.....: 0.40

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB0081_WG102204_01

General Chemistry

Lot-Sample #...: E4J230148-008 **Work Order #...:** GVDKL **Matrix.....:** WATER
Date Sampled...: 10/22/04 13:34 **Date Received..:** 10/22/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)	**2.8**	**1.0**	**mg/L**	**SW846 9060**	**10/26/04**	**4300620**

Dilution Factor: 1 Analysis Time..: 16:29 Analyst ID.....: 9999955
Instrument ID..: W08 MS Run #.....: 4302155 MDL.....: 0.40

SEVERN TRENT STL

QA/QC

QC DATA ASSOCIATION SUMMARY

E4J230148

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 9060		4300620	4302155
002	WATER	SW846 9060		4300620	4302155
003	WATER	SW846 9060		4300620	4302155
004	WATER	SW846 9060		4300620	4302155
005	WATER	SW846 9060		4300620	4302155
006	WATER	SW846 9060		4300620	4302155
007	WATER	SW846 9060		4300620	4302155
008	WATER	SW846 9060		4300620	4302155

METHOD BLANK REPORT

General Chemistry

Client Lot #...: E4J230148 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)		Work Order #: GVN2W1AA		MB Lot-Sample #:	E4J260000-620	
	ND	1.0	mg/L	SW846 9060	10/26/04	4300620
		Dilution Factor: 1				
		Analysis Time..: 16:29		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

General Chemistry

Client Lot #...: E4J230148 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)		Work Order #: GVN2W1AC	LCS Lot-Sample#: E4J260000-620		
	102	(85 - 115)	SW846 9060	10/26/04	4300620

Dilution Factor: 1 Analysis Time..: 16:29 Analyst ID.....: 999995
Instrument ID..: W08

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E4J230148 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)			Work Order #: GVN2W1AC		LCS Lot-Sample#: E4J260000-620		
	25.0	25.5	mg/L	102	SW846 9060	10/26/04	4300620
			Dilution Factor: 1		Analysis Time..: 16:29	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

General Chemistry

Client Lot #...: E4J230148 **Matrix.....:** WATER
Date Sampled...: 10/21/04 14:02 **Date Received..:** 10/22/04 16:45

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)		WO#: GVDKD1AC-MS/GVDKD1AD-MSD				MS Lot-Sample #: E4J230148-001	
	100	(85 - 115)			SW846 9060	10/26/04	4300620
	104	(85 - 115)	3.6	(0-20)	SW846 9060	10/26/04	4300620

Dilution Factor: 1
Analysis Time..: 16:29 Instrument ID..: W08 Analyst ID.....: 999995
MS Run #.....: 4302155

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E4J230148 **Matrix.....:** WATER
Date Sampled...: 10/21/04 14:02 **Date Received..:** 10/22/04 16:45

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon (TOC)			WO#: GVDKD1AC-MS/GVDKD1AD-MSD				MS Lot-Sample #: E4J230148-001		
	2.8	25.0	27.8	mg/L	100		SW846 9060	10/26/04	4300620
	2.8	25.0	28.9	mg/L	104	3.6	SW846 9060	10/26/04	4300620

Dilution Factor: 1
Analysis Time..: 16:29 Instrument ID..: W08 Analyst ID.....: 999995
MS Run #.....: 4302155

NOTE(S):

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

SEVERN TRENT STL

STL Los Angeles
1721 South Grand Avenue
Santa Ana, CA 92705

Tel: 714 258 8610 Fax: 714 258 0921
www.stl-inc.com

November 30, 2004

STL LOT NUMBER: E4K200185
NELAP Certification Number: 01118CA/E87652
PO/CONTRACT: 050160-SEV01-002

Allistaire Callender
ARCADIS, Inc
1400 N. Harbor Blvd.
Suite 700
Fullerton, CA 92835-4127

Dear Mr. Callender,

This report contains the analytical results for the nine samples received under chain of custody by STL Los Angeles on November 20, 2004. 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 at (714) 258-8610 extension 313.

Sincerely,

Diane Suzuki
Customer Service Manager

CC: Project File

000064

Page 1 of _____ total pages in this report.

BOE-C6-0010832

LOT NUMBER E4K200185

Nonconformance 05-10771

Affected Samples:
E4K200185 (2): IRZMW002B_WG111804_01
E4K200185 (3): IRZMW001A_WG111804_01
E4K200185 (4): IRZMW001B_WG111804_01
E4K200185 (5): IRZMW002A_WG111804_01
E4K200185 (6): IRZCMW001_WG111804_01
E4K200185 (7): CMW026_WG111904_01
E4K200185 (8): IRZMW005_WG111904_01
E4K200185 (9): IRZB0095_WG111904_01

Affected Methods:
6010B Dissolved Mn

Case Narrative:
Samples were received unfiltered and unpreserved by the lab for Dissolved Metals Analysis. Per client request, the samples were filtered and preserved with nitric acid to a pH<2 prior to metals digestion. Pre-preserved bottles with nitric acid were used as containers.

BOE-C6-0010833

E4K200185

[redacted]

'hain of 'ustody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

E4K200185

..4124 (0901)

..ient: ARCADIS	Project Manager: David Poley	Date: 11/18/04	Chain of Custody Number: 180791
..dress: 1400 N Harbor Blvd. Suite 700	Telephone Number (Area Code)/Fax Number: (714) 278-0942 / (714) 278-0051	Lab Number	Page 1 of
..ty: Fullerton; State: CA; Zip Code: 92835	Site Contact	Lab Contact	
..oject Name and Location (State): Boeing C-6	Carrier/Waybill Number		
..ntract/Purchase Order/Quote No.			

Sample I.D. No. and Description (..ontainers 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): S-260 VOC	TOC	Bromide, Sulfate, Nitrate	Dissolved Mn	Special Instructions/ Conditions of Receipt
B_AR111804-01	11/18/04	—		✓						✓			X				
RZMW002B_WG111804-01	11/18/04	10:14		✓			✓	✓		✓			X	X	X	X	
RZMW001A_WG111804-01	11/18/04	12:35		✓			✓	✓		✓			X	X	X	X	
RZMW001B_WG111804-01	11/18/04	13:16		✓			✓	✓		✓			X	X	X	X	
RZMW002A_WG111804-01	11/18/04	14:04		✓			✓	✓		✓			X	X	X	X	
RZCMW001_WG111804-01	11/18/04	15:05		✓			✓	✓		✓			X	X	X	X	
MW026_WG111904-01	11/19/04	0800		✓			✓	✓		✓			X	X	X	X	
RZMW005_WG111904-01	11/19/04	0910		✓			✓	✓		✓			X	X	X	X	
~~RZB0051_WG111904-01~~	~~11/19/04~~			✓			✓	✓		✓			X	X	X	X	~~DP.H~~
RZB0095_WG111904-01	11/19/04	1217		✓			✓	✓		✓			X	X	X	X	

..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)

..rn Around Time Required:] 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Normal

QC Requirements (Specify)

Relinquished By	Date	Time	1. Received By	Date	Time
[signature]	11/19/04	16:45	[signature]	11-19-04	16:45
Relinquished By	Date	Time	2. Received By	Date	Time
Relinquished By	Date	Time	3. Received By	Date	Time

..mments

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

3

BOE-C6-0010834

STL LOS ANGELES - PROJECT RECEIPT CHECKLIST Date: 11-19-04

LIMS Lot #: E4K200185 Quote #: 48735

Client Name: ARC+DIS Project: C-6

Received by: MG Date/Time Received: 11-19-04 / 16:45

Delivered by : ☒ Client ☐ STL ☐ Airborne ☐ Fed Ex ☐ UPS ☐ Other

****

Initial / Date

Custody Seal Status Cooler: ☐Intact ☐Broken ☒None ..... MG 11/19/04

Custody Seal Status Samples: ☐Intact ☐Broken ☒None .....

Custody Seal #(s): ☒No Seal #.....

Sampler Signature on COC ☐ Yes ☐No ☒N/A...

IR Gun # A Correction Factor -0.2°C IR passed daily verification ☐ Yes ☐No .....

Temperature - BLANK ____°C -0.2°C CF = ____°C .....

Temperature – COOLER (5.8 °C 3.6 °C 5.0 °C 4.3 °C) = 4.6 avg °C -0.2°C CF = 4.4 °C.....

Samples outside temperature criteria but received within 6 hours of final sampling ☐ Yes ☒N/A...

Sample Container(s): ☒ STL-LA ☐ Client .....

One COC/Multiple coolers: ☐ Yes- # coolers ____ All within temp criteria ☐ Yes ☐No ☒N/A....

One or more coolers with an anomaly: ☐ Yes – (fill out PRC for each) ☐N/A ... MG 11/19/04

Samples: ☒Intact ☐Broken ☐Other .....

pH measured: ☒Yes ☐ Anomaly (if checked, notify lab and file NCM) ☐ N/A..

Anomalies: ☒No ☐Yes – complete CUR and Create NCM NCM # ____ .....

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. ☒Yes ☐ N/A....

Labeled by: MG Labeling checked ..... MG .....

****

Turn Around Time: ☐RUSH–24HR ☐RUSH–48HR ☐RUSH–72HR ☒NORMAL .....

Short-Hold Notification: ☐ pH ☒Wet Chem ☐Metals (Filter/Pres) ☐Encore ☐ >1/2 HT expired...

Outside Analysis(es) (Test/Lab/Date Sent Out) :

_____ .....

_____ .....

_____ .....

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

Headspace Anomaly ☒N/A MG 11/19/04

Lab ID	Container(s) #	Headspace	Lab ID	Container(s) #	Headspace
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm
		☐ > 5mm ☐ < 5mm			☐ > 5mm ☐ < 5mm

LIMS Lot # E4K200185

PROJECT RECEIPT CHECKLIST Cont'd

Fraction	1	2-9												
VOAH/ *	3	3												
500PB		1												
250PB		1												
PB		1												

* VOA with headspace/bubbles

H: HCL, S: H2SO4, N: HNO3, V: VOA, SL, Sleeve, E: Encore, PB: Poly Bottle, CGB: Clear Glass Bottle, AGJ: Amber Glass Jar, T: Terracore AGB: Amber Glass Bottle, n/f/l:HNO3-Lab filtered, n/f:HNO3-Field filtered, znna: Zinc Acetate/Sodium Hydroxide, Na2s2o3: sodium thiosulfate

Condition Upon Receipt Anomaly Form

☐ N/A _____

- **COOLERS**
  - _ Not Received (received COC only)
  - _ Leaking
  - _ Other:
- **CUSTODY SEALS (COOLER(S)**
  - ☐ None
  - ☐ Not Intact
  - ☐ Other
- **CONTAINER(S)**
  - _ None
  - _ Not Intact
  - _ Other
- **TEMPERATURE (SPECS 4 ± 2°C)**
  - _ Cooler Temp(s)
  - _ Temperature Blank(s)
- **CHAIN OF CUSTODY (COC)**
  - ☐ Not relinquished by Client; No date/time relinquished
  - _ Incomplete information provided
  - _ Other ☐ COC not received – notify PM
- **CONTAINERS**
  - _ Leaking
  - _ Broken
  - _ Extra
  - ☐ Without Labels
  - ☐ Other:
- **LABELS**
  - ☐ Not the same ID/info as in COC
  - ☐ Incomplete Information
  - ☐ Markings/Info illegible
  - ☐ Torn
- **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
  - ☐ Will be noted on COC–Client to send samples with new COC
  - ☐ Mislabeled as to tests, preservatives, etc.
  - ☐ Holding time expired – list sample ID and test
  - ☐ Improper container used
  - ☐ Not preserved/Improper preservative used
  - ☐ Improper pH _____ Lab to preserve sample and document
  - ☐ Insufficient quantities for analysis
  - _ Other

Comments:

_ Corrective Action Implemented:

_ Client Informed: verbally on _____ By: _____ _ In writing on _____ By: _____

_ Sample(s) on hold until: _____ _ Sample(s) processed "as is."

Logged by/Date:	Log Review/Date:	PM Review/Date:
11/20/04		11-22-04

Page 2 of 2

SEVERN TRENT STL

Analytical Report

BOE-C6-0010837

EXECUTIVE SUMMARY - Detection Highlights

E4K200185

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZMW002B_WG111804_01 11/18/04 10:14	**002**			
Manganese - DISSOLVED	0.035	0.015	mg/L	SW846 6010B
1,1-Dichloroethene	3.0 J	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	13	5.0	ug/L	SW846 8260B
Trichloroethene	230	5.0	ug/L	SW846 8260B
Sulfate	98.1	10.0	mg/L	MCAWW 300.0A
Nitrate as N	8.6 J	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	4.6	1.0	mg/L	SW846 9060
Bromide	0.66	0.50	mg/L	MCAWW 300.0A
IRZMW001A_WG111804_01 11/18/04 00:35	**003**			
Manganese - DISSOLVED	0.064	0.015	mg/L	SW846 6010B
1,1-Dichloroethene	77 J	120	ug/L	SW846 8260B
cis-1,2-Dichloroethene	43 J	120	ug/L	SW846 8260B
Trichloroethene	7200	120	ug/L	SW846 8260B
Sulfate	60.2	10.0	mg/L	MCAWW 300.0A
Nitrate as N	8.8 J	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	5.3	1.0	mg/L	SW846 9060
Bromide	1.9	0.50	mg/L	MCAWW 300.0A
IRZMW001B_WG111804_01 11/18/04 13:16	**004**			
Manganese - DISSOLVED	0.0041 B	0.015	mg/L	SW846 6010B
1,1-Dichloroethene	19 J	25	ug/L	SW846 8260B
Trichloroethene	1400	25	ug/L	SW846 8260B
Sulfate	87.9	10.0	mg/L	MCAWW 300.0A
Nitrate as N	6.8 J	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	5.2	1.0	mg/L	SW846 9060
Bromide	0.41 B	0.50	mg/L	MCAWW 300.0A
IRZMW002A_WG111804_01 11/18/04 14:04	**005**			
Manganese - DISSOLVED	2.1	0.015	mg/L	SW846 6010B
1,1-Dichloroethene	79 J	200	ug/L	SW846 8260B
cis-1,2-Dichloroethene	220	200	ug/L	SW846 8260B
Trichloroethene	8300	200	ug/L	SW846 8260B
Sulfate	64.6	10.0	mg/L	MCAWW 300.0A
Nitrate as N	4.3 J	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	9.7	1.0	mg/L	SW846 9060

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E4K200185

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZMW002A_WG111804_01 11/18/04 14:04	**005**			
Bromide	1.7	0.50	mg/L	MCAWW 300.0A
IRZCMW001_WG111804_01 11/18/04 15:05	**006**			
Manganese - DISSOLVED	0.0022 B	0.015	mg/L	SW846 6010B
Chloroform	44	12	ug/L	SW846 8260B
1,1-Dichloroethane	8.6 J	12	ug/L	SW846 8260B
1,2-Dichloroethane	6.4 J	12	ug/L	SW846 8260B
1,1-Dichloroethene	200	12	ug/L	SW846 8260B
cis-1,2-Dichloroethene	15	12	ug/L	SW846 8260B
trans-1,2-Dichloroethene	6.3 J	12	ug/L	SW846 8260B
1,1,2-Trichloroethane	4.7 J	12	ug/L	SW846 8260B
Trichloroethene	920	12	ug/L	SW846 8260B
Sulfate	37.2	1.0	mg/L	MCAWW 300.0A
Nitrate as N	2.2 J	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	2.3	1.0	mg/L	SW846 9060
Bromide	0.67	0.50	mg/L	MCAWW 300.0A
CMW026_WG111904_01 11/19/04 08:00	**007**			
Manganese - DISSOLVED	0.38	0.015	mg/L	SW846 6010B
1,1-Dichloroethane	1.5 J	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	41	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	280	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	2.6 J	5.0	ug/L	SW846 8260B
Trichloroethene	35	5.0	ug/L	SW846 8260B
Sulfate	4.0	1.0	mg/L	MCAWW 300.0A
Nitrate as N	0.066 B,J	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	10.7	1.0	mg/L	SW846 9060
Bromide	0.18 B	0.50	mg/L	MCAWW 300.0A
IRZMW005_WG111904_01 11/19/04 09:10	**008**			
Manganese - DISSOLVED	0.050	0.015	mg/L	SW846 6010B
Chloroform	51 J	120	ug/L	SW846 8260B
1,1-Dichloroethene	74 J	120	ug/L	SW846 8260B
cis-1,2-Dichloroethene	61 J	120	ug/L	SW846 8260B
Trichloroethene	6500	120	ug/L	SW846 8260B
Sulfate	36.0	1.0	mg/L	MCAWW 300.0A
Nitrate as N	4.7 J	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	9.7	1.0	mg/L	SW846 9060

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E4K200185

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IRZMW005_WG111904_01 11/19/04 09:10	**008**			
Bromide	0.98	0.50	mg/L	MCAWW 300.0A
IRZB0095_WG111904_01 11/19/04 00:17	**009**			
Manganese - DISSOLVED	0.016	0.015	mg/L	SW846 6010B
Chloroform	85 J	100	ug/L	SW846 8260B
1,1-Dichloroethene	64 J	100	ug/L	SW846 8260B
Trichloroethene	3900	100	ug/L	SW846 8260B
Sulfate	49.7	1.0	mg/L	MCAWW 300.0A
Nitrate as N	6.5 J	0.10	mg/L	MCAWW 300.0A
Total Organic Carbon (TOC)	4.4	1.0	mg/L	SW846 9060
Bromide	0.64	0.50	mg/L	MCAWW 300.0A

METHODS SUMMARY

E4K200185

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Bromide	MCAWW 300.0A	MCAWW 300.0A
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3005A
Nitrate 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

E4K200185

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GXH38	001	TB_AR111804_01	11/18/04	
GXH4G	002	IRZMW002B_WG111804_01	11/18/04	10:14
GXH4H	003	IRZMW001A_WG111804_01	11/18/04	00:35
GXH4K	004	IRZMW001B_WG111804_01	11/18/04	13:16
GXH4Q	005	IRZMW002A_WG111804_01	11/18/04	14:04
GXH4W	006	IRZCMW001_WG111804_01	11/18/04	15:05
GXH44	007	CMW026_WG111904_01	11/19/04	08:00
GXH7N	008	IRZMW005_WG111904_01	11/19/04	09:10
GXH7Q	009	IRZB0095_WG111904_01	11/19/04	00:17

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-C6-0010842

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: TB_AR111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-001 **Work Order #...:** GXH381AH **Matrix.....:** WQ
Date Sampled...: 11/18/04 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 18:06
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSR
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_AR111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-001 **Work Order #...:** GXH381AH **Matrix.....:** WQ

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	96	(75 - 130)
1,2-Dichloroethane-d4	93	(65 - 135)
Toluene-d8	97	(80 - 130)

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-002 **Work Order #...:** GXH4G1AH **Matrix.....:** WG
Date Sampled...: 11/18/04 10:14 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 20:55
Dilution Factor: 5
Analyst ID.....: 015590 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	50	ug/L	15
Benzene	ND	5.0	ug/L	1.5
Bromobenzene	ND	5.0	ug/L	1.5
Bromochloromethane	ND	5.0	ug/L	1.5
Bromoform	ND	5.0	ug/L	1.5
Bromomethane	ND	10	ug/L	5.0
2-Butanone	ND	25	ug/L	15
n-Butylbenzene	ND	5.0	ug/L	1.5
sec-Butylbenzene	ND	5.0	ug/L	1.5
tert-Butylbenzene	ND	5.0	ug/L	1.0
Carbon disulfide	ND	5.0	ug/L	1.5
Carbon tetrachloride	ND	5.0	ug/L	1.5
Chlorobenzene	ND	5.0	ug/L	1.5
Dibromochloromethane	ND	5.0	ug/L	2.0
Bromodichloromethane	ND	5.0	ug/L	1.5
Chloroethane	ND	10	ug/L	1.5
Chloroform	ND	5.0	ug/L	1.5
Chloromethane	ND	10	ug/L	1.5
2-Chlorotoluene	ND	5.0	ug/L	1.5
4-Chlorotoluene	ND	5.0	ug/L	1.5
1,2-Dibromo-3-chloro-propane	ND	10	ug/L	3.5
1,2-Dibromoethane (EDB)	ND	5.0	ug/L	1.5
Dibromomethane	ND	5.0	ug/L	2.0
1,2-Dichlorobenzene	ND	5.0	ug/L	1.5
1,3-Dichlorobenzene	ND	5.0	ug/L	1.5
1,4-Dichlorobenzene	ND	5.0	ug/L	1.5
Dichlorodifluoromethane	ND	10	ug/L	2.0
1,1-Dichloroethane	ND	5.0	ug/L	1.0
1,2-Dichloroethane	ND	5.0	ug/L	2.0
1,1-Dichloroethene	**3.0 J**	**5.0**	**ug/L**	**1.5**
cis-1,2-Dichloroethene	**13**	**5.0**	**ug/L**	**1.5**
trans-1,2-Dichloroethene	ND	5.0	ug/L	1.5
1,2-Dichloropropane	ND	5.0	ug/L	1.5
1,3-Dichloropropane	ND	5.0	ug/L	2.0
2,2-Dichloropropane	ND	5.0	ug/L	1.5
1,1-Dichloropropene	ND	5.0	ug/L	1.5

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-002 **Work Order #...:** GXH4G1AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	5.0	ug/L	1.5
trans-1,3-Dichloropropene	ND	5.0	ug/L	2.5
Ethylbenzene	ND	5.0	ug/L	1.0
Hexachlorobutadiene	ND	5.0	ug/L	1.5
2-Hexanone	ND	25	ug/L	15
Isopropylbenzene	ND	5.0	ug/L	1.5
p-Isopropyltoluene	ND	5.0	ug/L	1.5
Methylene chloride	ND	5.0	ug/L	1.5
4-Methyl-2-pentanone	ND	25	ug/L	15
Methyl tert-butyl ether	ND	5.0	ug/L	2.5
Naphthalene	ND	5.0	ug/L	2.5
n-Propylbenzene	ND	5.0	ug/L	2.0
Styrene	ND	5.0	ug/L	1.5
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	1.5
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	2.0
Tetrachloroethene	ND	5.0	ug/L	1.5
Toluene	ND	5.0	ug/L	1.5
1,2,3-Trichlorobenzene	ND	5.0	ug/L	2.0
1,2,4-Trichloro-benzene	ND	5.0	ug/L	1.5
1,1,1-Trichloroethane	ND	5.0	ug/L	1.0
1,1,2-Trichloroethane	ND	5.0	ug/L	1.5
Trichloroethene	**230**	**5.0**	**ug/L**	**1.5**
Trichlorofluoromethane	ND	10	ug/L	1.5
1,2,3-Trichloropropane	ND	5.0	ug/L	2.0
1,1,2-Trichlorotrifluoro-ethane	ND	5.0	ug/L	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/L	1.5
1,3,5-Trimethylbenzene	ND	5.0	ug/L	1.0
Vinyl chloride	ND	5.0	ug/L	1.5
m-Xylene & p-Xylene	ND	5.0	ug/L	2.5
o-Xylene	ND	5.0	ug/L	1.0
Xylenes (total)	ND	5.0	ug/L	4.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
1,2-Dichloroethane-d4	96	(65 - 135)
Toluene-d8	100	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG111804_01

DISSOLVED Metals

Lot-Sample #...: E4K200185-002 **Matrix.....:** WG
Date Sampled...: 11/18/04 10:14 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4329259						
Manganese	**0.035**	**0.015**	**mg/L**	**SW846 6010B**	**11/24-11/29/04**	**GXH4G1AT**
		Dilution Factor: 1		Analysis Time..: 16:54	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 4329131	MDL.....: 0.0010	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002B_WG111804_01

General Chemistry

Lot-Sample #...: E4K200185-002 **Work Order #...:** GXH4G **Matrix.....:** WG
Date Sampled...: 11/18/04 10:14 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.66**	**0.50**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325129**
		Dilution Factor: 1		Analysis Time..: 17:48	Analyst ID.....: 000022	
		Instrument ID..: W01		MS Run #.....: 4325057	MDL.....: 0.10	
Nitrate as N	**8.6 J**	**0.10**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325130**
		Dilution Factor: 1		Analysis Time..: 17:48	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 4325060	MDL.....: 0.030	
Sulfate	**98.1**	**10.0**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325131**
		Dilution Factor: 10		Analysis Time..: 21:49	Analyst ID.....: 0000220	
		Instrument ID..: W01		MS Run #.....: 4325061	MDL.....: 2.0	
Total Organic Carbon (TOC)	**4.6**	**1.0**	**mg/L**	**SW846 9060**	**11/22/04**	**4327644**
		Dilution Factor: 1		Analysis Time..: 20:42	Analyst ID.....: 9999951	
		Instrument ID..: W08		MS Run #.....: 4329116	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

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

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001A_WG111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-003 **Work Order #...:** GXH4H1AH **Matrix.....:** WG
Date Sampled...: 11/18/04 00:35 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 21:16
Dilution Factor: 125
Analyst ID.....: 015590 **Instrument ID..:** MSR
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	**77 J**	**120**	**ug/L**	**38**
cis-1,2-Dichloroethene	**43 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: IRZMW001A_WG111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-003 **Work Order #...:** GXH4H1AH **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	**7200**	**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	96	(75 - 130)
1,2-Dichloroethane-d4	98	(65 - 135)
Toluene-d8	102	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001A_WG111804_01

DISSOLVED Metals

Lot-Sample #...: E4K200185-003 **Matrix.....:** WG
Date Sampled...: 11/18/04 00:35 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4329259						
Manganese	**0.064**	**0.015**	**mg/L**	**SW846 6010B**	**11/24-11/29/04**	**GXH4H1AJ**
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 4329131	MDL.....: 0.0010	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001A_WG111804_01

General Chemistry

Lot-Sample #...: E4K200185-003 **Work Order #...:** GXH4H **Matrix.....:** WG
Date Sampled...: 11/18/04 00:35 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**1.9**	**0.50**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325129**
		Dilution Factor: 1		Analysis Time..: 18:05	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 4325057	MDL.....: 0.10	
Nitrate as N	**8.8 J**	**0.10**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325130**
		Dilution Factor: 1		Analysis Time..: 18:05	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 4325060	MDL.....: 0.030	
Sulfate	**60.2**	**10.0**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325131**
		Dilution Factor: 10		Analysis Time..: 22:41	Analyst ID.....: 0000220	
		Instrument ID..: W01		MS Run #.....: 4325061	MDL.....: 2.0	
Total Organic Carbon (TOC)	**5.3**	**1.0**	**mg/L**	**SW846 9060**	**11/22/04**	**4327644**
		Dilution Factor: 1		Analysis Time..: 20:42	Analyst ID.....: 9999951	
		Instrument ID..: W08		MS Run #.....: 4329116	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

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

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001B_WG111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-004 **Work Order #...:** GXH4K1AH **Matrix.....:** WG
Date Sampled...: 11/18/04 13:16 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 21:37
Dilution Factor: 25
Analyst ID.....: 015590 **Instrument ID..:** MSR
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	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: IRZMW001B_WG111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-004 **Work Order #...:** GXH4K1AH **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	**1400**	**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	96	(75 - 130)
1,2-Dichloroethane-d4	98	(65 - 135)
Toluene-d8	99	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001B_WG111804_01

DISSOLVED Metals

Lot-Sample #...: E4K200185-004 **Matrix.....:** WG
Date Sampled...: 11/18/04 13:16 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4329259						
Manganese	**0.0041 B**	**0.015**	**mg/L**	**SW846 6010B**	**11/24-11/29/04**	**GXH4K1AJ**
		Dilution Factor: 1		Analysis Time..: 17:28	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 4329131	MDL.....: 0.0010	

NOTE(S):

B Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW001B_WG111804_01

General Chemistry

Lot-Sample #...: E4K200185-004 **Work Order #...:** GXH4K **Matrix.....:** WG
Date Sampled...: 11/18/04 13:16 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.41 B**	**0.50**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325129**
		Dilution Factor: 1		Analysis Time..: 18:22	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 4325057	MDL.....: 0.10	
Nitrate as N	**6.8 J**	**0.10**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325130**
		Dilution Factor: 1		Analysis Time..: 18:22	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 4325060	MDL.....: 0.030	
Sulfate	**87.9**	**10.0**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325131**
		Dilution Factor: 10		Analysis Time..: 22:58	Analyst ID.....: 0000220	
		Instrument ID..: W01		MS Run #.....: 4325061	MDL.....: 2.0	
Total Organic Carbon (TOC)	**5.2**	**1.0**	**mg/L**	**SW846 9060**	**11/22/04**	**4327644**
		Dilution Factor: 1		Analysis Time..: 20:42	Analyst ID.....: 9999951	
		Instrument ID..: W08		MS Run #.....: 4329116	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

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

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-005 **Work Order #...:** GXH4Q1AH **Matrix.....:** WG
Date Sampled...: 11/18/04 14:04 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 21:59
Dilution Factor: 200
Analyst ID.....: 015590 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	2000	ug/L	600
Benzene	ND	200	ug/L	60
Bromobenzene	ND	200	ug/L	60
Bromochloromethane	ND	200	ug/L	60
Bromoform	ND	200	ug/L	60
Bromomethane	ND	400	ug/L	200
2-Butanone	ND	1000	ug/L	600
n-Butylbenzene	ND	200	ug/L	60
sec-Butylbenzene	ND	200	ug/L	60
tert-Butylbenzene	ND	200	ug/L	40
Carbon disulfide	ND	200	ug/L	60
Carbon tetrachloride	ND	200	ug/L	60
Chlorobenzene	ND	200	ug/L	60
Dibromochloromethane	ND	200	ug/L	80
Bromodichloromethane	ND	200	ug/L	60
Chloroethane	ND	400	ug/L	60
Chloroform	ND	200	ug/L	60
Chloromethane	ND	400	ug/L	60
2-Chlorotoluene	ND	200	ug/L	60
4-Chlorotoluene	ND	200	ug/L	60
1,2-Dibromo-3-chloro-propane	ND	400	ug/L	140
1,2-Dibromoethane (EDB)	ND	200	ug/L	60
Dibromomethane	ND	200	ug/L	80
1,2-Dichlorobenzene	ND	200	ug/L	60
1,3-Dichlorobenzene	ND	200	ug/L	60
1,4-Dichlorobenzene	ND	200	ug/L	60
Dichlorodifluoromethane	ND	400	ug/L	80
1,1-Dichloroethane	ND	200	ug/L	40
1,2-Dichloroethane	ND	200	ug/L	80
1,1-Dichloroethene	**79 J**	**200**	**ug/L**	**60**
cis-1,2-Dichloroethene	**220**	**200**	**ug/L**	**60**
trans-1,2-Dichloroethene	ND	200	ug/L	60
1,2-Dichloropropane	ND	200	ug/L	60
1,3-Dichloropropane	ND	200	ug/L	80
2,2-Dichloropropane	ND	200	ug/L	60
1,1-Dichloropropene	ND	200	ug/L	60

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-005 **Work Order #...:** GXH4Q1AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	200	ug/L	60
trans-1,3-Dichloropropene	ND	200	ug/L	100
Ethylbenzene	ND	200	ug/L	40
Hexachlorobutadiene	ND	200	ug/L	60
2-Hexanone	ND	1000	ug/L	600
Isopropylbenzene	ND	200	ug/L	60
p-Isopropyltoluene	ND	200	ug/L	60
Methylene chloride	ND	200	ug/L	60
4-Methyl-2-pentanone	ND	1000	ug/L	600
Methyl tert-butyl ether	ND	200	ug/L	100
Naphthalene	ND	200	ug/L	100
n-Propylbenzene	ND	200	ug/L	80
Styrene	ND	200	ug/L	60
1,1,1,2-Tetrachloroethane	ND	200	ug/L	60
1,1,2,2-Tetrachloroethane	ND	200	ug/L	80
Tetrachloroethene	ND	200	ug/L	60
Toluene	ND	200	ug/L	60
1,2,3-Trichlorobenzene	ND	200	ug/L	80
1,2,4-Trichloro-benzene	ND	200	ug/L	60
1,1,1-Trichloroethane	ND	200	ug/L	40
1,1,2-Trichloroethane	ND	200	ug/L	60
Trichloroethene	**8300**	**200**	**ug/L**	**60**
Trichlorofluoromethane	ND	400	ug/L	60
1,2,3-Trichloropropane	ND	200	ug/L	80
1,1,2-Trichlorotrifluoro-ethane	ND	200	ug/L	80
1,2,4-Trimethylbenzene	ND	200	ug/L	60
1,3,5-Trimethylbenzene	ND	200	ug/L	40
Vinyl chloride	ND	200	ug/L	60
m-Xylene & p-Xylene	ND	200	ug/L	100
o-Xylene	ND	200	ug/L	40
Xylenes (total)	ND	200	ug/L	160

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(75 - 130)
1,2-Dichloroethane-d4	95	(65 - 135)
Toluene-d8	101	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG111804_01

DISSOLVED Metals

Lot-Sample #...: E4K200185-005 **Matrix.....:** WG
Date Sampled...: 11/18/04 14:04 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4329259						
Manganese	**2.1**	**0.015**	**mg/L**	**SW846 6010B**	**11/24-11/29/04**	**GXH4Q1AL**
		Dilution Factor: 1		Analysis Time..: 17:33	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 4329131	MDL.....: 0.0010	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW002A_WG111804_01

General Chemistry

Lot-Sample #...: E4K200185-005 **Work Order #...:** GXH4Q **Matrix.....:** WG
Date Sampled...: 11/18/04 14:04 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**1.7**	**0.50**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325129**
		Dilution Factor: 1		Analysis Time..: 18:39	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 4325057	MDL.....: 0.10	
Nitrate as N	**4.3 J**	**0.10**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325130**
		Dilution Factor: 1		Analysis Time..: 18:39	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 4325060	MDL.....: 0.030	
Sulfate	**64.6**	**10.0**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325131**
		Dilution Factor: 10		Analysis Time..: 23:33	Analyst ID.....: 0000220	
		Instrument ID..: W01		MS Run #.....: 4325061	MDL.....: 2.0	
Total Organic Carbon (TOC)	**9.7**	**1.0**	**mg/L**	**SW846 9060**	**11/22/04**	**4327644**
		Dilution Factor: 1		Analysis Time..: 20:42	Analyst ID.....: 9999951	
		Instrument ID..: W08		MS Run #.....: 4329116	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

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

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW001_WG111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-006 **Work Order #...:** GXH4W1AH **Matrix.....:** WG
Date Sampled...: 11/18/04 15:05 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 23:44
Dilution Factor: 12.5
Analyst ID.....: 015590 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	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	**44**	**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	**8.6 J**	**12**	**ug/L**	**2.5**
1,2-Dichloroethane	**6.4 J**	**12**	**ug/L**	**5.0**
1,1-Dichloroethene	**200**	**12**	**ug/L**	**3.8**
cis-1,2-Dichloroethene	**15**	**12**	**ug/L**	**3.8**
trans-1,2-Dichloroethene	**6.3 J**	**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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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW001_WG111804_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-006 **Work Order #...:** GXH4W1AH **Matrix.....:** WG

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	**4.7 J**	**12**	**ug/L**	**3.8**
Trichloroethene	**920**	**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	97	(75 - 130)
1,2-Dichloroethane-d4	97	(65 - 135)
Toluene-d8	100	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW001_WG111804_01

DISSOLVED Metals

Lot-Sample #...: E4K200185-006 **Matrix.....:** WG
Date Sampled...: 11/18/04 15:05 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4329259						
Manganese	**0.0022 B**	**0.015**	**mg/L**	**SW846 6010B**	**11/24-11/29/04**	**GXH4W1AJ**
		Dilution Factor: 1		Analysis Time..: 19:21	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 4329131	MDL.....: 0.0010	

NOTE(S):

B Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZCMW001_WG111804_01

General Chemistry

Lot-Sample #...: E4K200185-006 **Work Order #...:** GXH4W **Matrix.....:** WG
Date Sampled...: 11/18/04 15:05 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.67**	**0.50**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325129**
		Dilution Factor: 1		Analysis Time..: 18:57	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 4325057	MDL.....: 0.10	
Nitrate as N	**2.2 J**	**0.10**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325130**
		Dilution Factor: 1		Analysis Time..: 18:57	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 4325060	MDL.....: 0.030	
Sulfate	**37.2**	**1.0**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325131**
		Dilution Factor: 1		Analysis Time..: 18:57	Analyst ID.....: 0000220	
		Instrument ID..: W01		MS Run #.....: 4325061	MDL.....: 0.20	
Total Organic Carbon (TOC)	**2.3**	**1.0**	**mg/L**	**SW846 9060**	**11/22/04**	**4327644**
		Dilution Factor: 1		Analysis Time..: 20:42	Analyst ID.....: 9999951	
		Instrument ID..: W08		MS Run #.....: 4329116	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

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

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW026_WG111904_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-007 **Work Order #...:** GXH441AH **Matrix.....:** WG
Date Sampled...: 11/19/04 08:00 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 22:41
Dilution Factor: 5
Analyst ID.....: 015590 **Instrument ID..:** MSR
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	50	ug/L	15
Benzene	ND	5.0	ug/L	1.5
Bromobenzene	ND	5.0	ug/L	1.5
Bromochloromethane	ND	5.0	ug/L	1.5
Bromoform	ND	5.0	ug/L	1.5
Bromomethane	ND	10	ug/L	5.0
2-Butanone	ND	25	ug/L	15
n-Butylbenzene	ND	5.0	ug/L	1.5
sec-Butylbenzene	ND	5.0	ug/L	1.5
tert-Butylbenzene	ND	5.0	ug/L	1.0
Carbon disulfide	ND	5.0	ug/L	1.5
Carbon tetrachloride	ND	5.0	ug/L	1.5
Chlorobenzene	ND	5.0	ug/L	1.5
Dibromochloromethane	ND	5.0	ug/L	2.0
Bromodichloromethane	ND	5.0	ug/L	1.5
Chloroethane	ND	10	ug/L	1.5
Chloroform	ND	5.0	ug/L	1.5
Chloromethane	ND	10	ug/L	1.5
2-Chlorotoluene	ND	5.0	ug/L	1.5
4-Chlorotoluene	ND	5.0	ug/L	1.5
1,2-Dibromo-3-chloro-propane	ND	10	ug/L	3.5
1,2-Dibromoethane (EDB)	ND	5.0	ug/L	1.5
Dibromomethane	ND	5.0	ug/L	2.0
1,2-Dichlorobenzene	ND	5.0	ug/L	1.5
1,3-Dichlorobenzene	ND	5.0	ug/L	1.5
1,4-Dichlorobenzene	ND	5.0	ug/L	1.5
Dichlorodifluoromethane	ND	10	ug/L	2.0
1,1-Dichloroethane	**1.5 J**	**5.0**	**ug/L**	**1.0**
1,2-Dichloroethane	ND	5.0	ug/L	2.0
1,1-Dichloroethene	**41**	**5.0**	**ug/L**	**1.5**
cis-1,2-Dichloroethene	**280**	**5.0**	**ug/L**	**1.5**
trans-1,2-Dichloroethene	**2.6 J**	**5.0**	**ug/L**	**1.5**
1,2-Dichloropropane	ND	5.0	ug/L	1.5
1,3-Dichloropropane	ND	5.0	ug/L	2.0
2,2-Dichloropropane	ND	5.0	ug/L	1.5
1,1-Dichloropropene	ND	5.0	ug/L	1.5

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ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW026_WG111904_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-007 **Work Order #...:** GXH441AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
cis-1,3-Dichloropropene	ND	5.0	ug/L	1.5
trans-1,3-Dichloropropene	ND	5.0	ug/L	2.5
Ethylbenzene	ND	5.0	ug/L	1.0
Hexachlorobutadiene	ND	5.0	ug/L	1.5
2-Hexanone	ND	25	ug/L	15
Isopropylbenzene	ND	5.0	ug/L	1.5
p-Isopropyltoluene	ND	5.0	ug/L	1.5
Methylene chloride	ND	5.0	ug/L	1.5
4-Methyl-2-pentanone	ND	25	ug/L	15
Methyl tert-butyl ether	ND	5.0	ug/L	2.5
Naphthalene	ND	5.0	ug/L	2.5
n-Propylbenzene	ND	5.0	ug/L	2.0
Styrene	ND	5.0	ug/L	1.5
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	1.5
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	2.0
Tetrachloroethene	ND	5.0	ug/L	1.5
Toluene	ND	5.0	ug/L	1.5
1,2,3-Trichlorobenzene	ND	5.0	ug/L	2.0
1,2,4-Trichloro-benzene	ND	5.0	ug/L	1.5
1,1,1-Trichloroethane	ND	5.0	ug/L	1.0
1,1,2-Trichloroethane	ND	5.0	ug/L	1.5
Trichloroethene	**35**	**5.0**	**ug/L**	**1.5**
Trichlorofluoromethane	ND	10	ug/L	1.5
1,2,3-Trichloropropane	ND	5.0	ug/L	2.0
1,1,2-Trichlorotrifluoro-ethane	ND	5.0	ug/L	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/L	1.5
1,3,5-Trimethylbenzene	ND	5.0	ug/L	1.0
Vinyl chloride	ND	5.0	ug/L	1.5
m-Xylene & p-Xylene	ND	5.0	ug/L	2.5
o-Xylene	ND	5.0	ug/L	1.0
Xylenes (total)	ND	5.0	ug/L	4.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
1,2-Dichloroethane-d4	96	(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_WG111904_01

DISSOLVED Metals

Lot-Sample #...: E4K200185-007 **Matrix.....:** WG
Date Sampled...: 11/19/04 08:00 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4329259						
Manganese	**0.38**	**0.015**	**mg/L**	**SW846 6010B**	**11/24-11/29/04**	**GXH441AJ**
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 4329131	MDL.....: 0.0010	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: CMW026_WG111904_01

General Chemistry

Lot-Sample #...: E4K200185-007 **Work Order #...:** GXH44 **Matrix.....:** WG
Date Sampled...: 11/19/04 08:00 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.18 B**	**0.50**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325129**
	Dilution Factor: 1			Analysis Time..: 19:14	Analyst ID.....: 0000226	
	Instrument ID..: W01			MS Run #.....: 4325057	MDL.....: 0.10	
Nitrate as N	**0.066 B,J**	**0.10**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325130**
	Dilution Factor: 1			Analysis Time..: 19:14	Analyst ID.....: 0000227	
	Instrument ID..: W01			MS Run #.....: 4325060	MDL.....: 0.030	
Sulfate	**4.0**	**1.0**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325131**
	Dilution Factor: 1			Analysis Time..: 19:14	Analyst ID.....: 0000220	
	Instrument ID..: W01			MS Run #.....: 4325061	MDL.....: 0.20	
Total Organic Carbon (TOC)	**10.7**	**1.0**	**mg/L**	**SW846 9060**	**11/22/04**	**4327644**
	Dilution Factor: 1			Analysis Time..: 20:42	Analyst ID.....: 9999951	
	Instrument ID..: W08			MS Run #.....: 4329116	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

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

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW005_WG111904_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-008 **Work Order #...:** GXH7N1AH **Matrix.....:** WG
Date Sampled...: 11/19/04 09:10 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 23:02
Dilution Factor: 125
Analyst ID.....: 015590 **Instrument ID..:** MSR
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	**51 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	**74 J**	**120**	**ug/L**	**38**
cis-1,2-Dichloroethene	**61 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: IRZMW005_WG111904_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-008 **Work Order #...:** GXH7N1AH **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	**6500**	**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	100	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW005_WG111904_01

DISSOLVED Metals

Lot-Sample #...: E4K200185-008 **Matrix.....:** WG
Date Sampled...: 11/19/04 09:10 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4329259						
Manganese	**0.050**	**0.015**	**mg/L**	**SW846 6010B**	**11/24-11/29/04**	**GXH7N1AJ**
		Dilution Factor: 1		Analysis Time..: 19:36	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 4329131	MDL.....: 0.0010	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZMW005_WG111904_01

General Chemistry

Lot-Sample #...: E4K200185-008 **Work Order #...:** GXH7N **Matrix.....:** WG
Date Sampled...: 11/19/04 09:10 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.98**	**0.50**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325129**
		Dilution Factor: 1		Analysis Time..: 19:31	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 4325057	MDL.....: 0.10	
Nitrate as N	**4.7 J**	**0.10**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325130**
		Dilution Factor: 1		Analysis Time..: 19:31	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 4325060	MDL.....: 0.030	
Sulfate	**36.0**	**1.0**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325131**
		Dilution Factor: 1		Analysis Time..: 19:31	Analyst ID.....: 0000220	
		Instrument ID..: W01		MS Run #.....: 4325061	MDL.....: 0.20	
Total Organic Carbon (TOC)	**9.7**	**1.0**	**mg/L**	**SW846 9060**	**11/22/04**	**4327644**
		Dilution Factor: 1		Analysis Time..: 20:42	Analyst ID.....: 9999951	
		Instrument ID..: W08		MS Run #.....: 4329116	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

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

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB0095_WG111904_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-009 **Work Order #...:** GXH7Q1AH **Matrix.....:** WG
Date Sampled...: 11/19/04 00:17 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 23:23
Dilution Factor: 100
Analyst ID.....: 015590 **Instrument ID..:** MSR
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	**85 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	**64 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: IRZB0095_WG111904_01

GC/MS Volatiles

Lot-Sample #...: E4K200185-009 **Work Order #...:** GXH7Q1AH **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	**3900**	**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	96	(75 - 130)
1,2-Dichloroethane-d4	99	(65 - 135)
Toluene-d8	99	(80 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB0095_WG111904_01

DISSOLVED Metals

Lot-Sample #...: E4K200185-009 **Matrix.....:** WG
Date Sampled...: 11/19/04 00:17 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4329259						
Manganese	**0.016**	**0.015**	**mg/L**	**SW846 6010B**	**11/24-11/29/04**	**GXH7Q1AJ**
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 021088	
		Instrument ID..: M01		MS Run #.....: 4329131	MDL.....: 0.0010	

ARCADIS GERAGHTY & MILLER, INC

Client Sample ID: IRZB0095_WG111904_01

General Chemistry

Lot-Sample #...: E4K200185-009 **Work Order #...:** GXH7Q **Matrix.....:** WG
Date Sampled...: 11/19/04 00:17 **Date Received..:** 11/19/04 16:45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide	**0.64**	**0.50**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325129**
		Dilution Factor: 1		Analysis Time..: 19:48	Analyst ID.....: 0000226	
		Instrument ID..: W01		MS Run #.....: 4325057	MDL.....: 0.10	
Nitrate as N	**6.5 J**	**0.10**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325130**
		Dilution Factor: 1		Analysis Time..: 19:48	Analyst ID.....: 0000227	
		Instrument ID..: W01		MS Run #.....: 4325060	MDL.....: 0.030	
Sulfate	**49.7**	**1.0**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325131**
		Dilution Factor: 1		Analysis Time..: 19:48	Analyst ID.....: 0000220	
		Instrument ID..: W01		MS Run #.....: 4325061	MDL.....: 0.20	
Total Organic Carbon (TOC)	**4.4**	**1.0**	**mg/L**	**SW846 9060**	**11/22/04**	**4327644**
		Dilution Factor: 1		Analysis Time..: 20:42	Analyst ID.....: 9999951	
		Instrument ID..: W08		MS Run #.....: 4329116	MDL.....: 0.40	

NOTE(S):

RL Reporting Limit

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

SEVERN TRENT STL

QA/QC

BOE-C6-0010877

QC DATA ASSOCIATION SUMMARY

E4K200185

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WQ	SW846 8260B		4329567	4329332
002	WG	MCAWW 300.0A		4325131	4325061
	WG	MCAWW 300.0A		4325130	4325060
	WG	SW846 9060		4327644	4329116
	WG	MCAWW 300.0A		4325129	4325057
	WG	SW846 8260B		4329567	4329332
	WG	SW846 6010B		4329259	4329131
003	WG	MCAWW 300.0A		4325131	4325061
	WG	MCAWW 300.0A		4325130	4325060
	WG	SW846 9060		4327644	4329116
	WG	MCAWW 300.0A		4325129	4325057
	WG	SW846 8260B		4329567	4329332
	WG	SW846 6010B		4329259	4329131
004	WG	MCAWW 300.0A		4325131	4325061
	WG	MCAWW 300.0A		4325130	4325060
	WG	SW846 9060		4327644	4329116
	WG	MCAWW 300.0A		4325129	4325057
	WG	SW846 8260B		4329567	4329332
	WG	SW846 6010B		4329259	4329131
005	WG	MCAWW 300.0A		4325131	4325061
	WG	MCAWW 300.0A		4325130	4325060
	WG	SW846 9060		4327644	4329116
	WG	MCAWW 300.0A		4325129	4325057
	WG	SW846 8260B		4329567	4329332
	WG	SW846 6010B		4329259	4329131
006	WG	MCAWW 300.0A		4325131	4325061
	WG	MCAWW 300.0A		4325130	4325060
	WG	SW846 9060		4327644	4329116
	WG	MCAWW 300.0A		4325129	4325057
	WG	SW846 8260B		4329567	4329332
	WG	SW846 6010B		4329259	4329131
007	WG	MCAWW 300.0A		4325131	4325061
	WG	MCAWW 300.0A		4325130	4325060
	WG	SW846 9060		4327644	4329116
	WG	MCAWW 300.0A		4325129	4325057
	WG	SW846 8260B		4329567	4329332
	WG	SW846 6010B		4329259	4329131

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BOE-C6-0010878

QC DATA ASSOCIATION SUMMARY

E4K200185

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
008	WG	MCAWW 300.0A		4325131	4325061
	WG	MCAWW 300.0A		4325130	4325060
	WG	SW846 9060		4327644	4329116
	WG	MCAWW 300.0A		4325129	4325057
	WG	SW846 8260B		4329567	4329332
	WG	SW846 6010B		4329259	4329131
009	WG	MCAWW 300.0A		4325131	4325061
	WG	MCAWW 300.0A		4325130	4325060
	WG	SW846 9060		4327644	4329116
	WG	MCAWW 300.0A		4325129	4325057
	WG	SW846 8260B		4329567	4329332
	WG	SW846 6010B		4329259	4329131

BOE-C6-0010879

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E4K200185 **Work Order #...:** GXVAP1AA **Matrix.....:** WATER
MB Lot-Sample #: E4K240000-567

Prep Date.....: 11/23/04 **Analysis Time..:** 17:45
Analysis Date..: 11/23/04 **Prep Batch #...:** 4329567 **Instrument ID..:** MSR
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)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E4K200185 **Work Order #...:** GXVAP1AA **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	94	(75 - 130)
1,2-Dichloroethane-d4	96	(65 - 135)
Toluene-d8	99	(80 - 130)

NOTE(S):

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

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: E4K200185 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: E4K240000-259 **Prep Batch #...:** 4329259						
Manganese	ND	0.015	mg/L	SW846 6010B	11/24-11/29/04	GXQ4E1AA

Dilution Factor: 1

Analysis Time..: 16:39 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 #...: E4K200185 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #: GXH9M1AA		MB Lot-Sample #:	E4K200000-129	
	ND	0.50	mg/L	MCAWW 300.0A	11/19/04	4325129
		Dilution Factor: 1				
		Analysis Time..: 17:30		Analyst ID.....: 000022	Instrument ID..: W01	
Nitrate as N		Work Order #: GXH9T1AA		MB Lot-Sample #:	E4K200000-130	
	0.040 B	**0.10**	**mg/L**	**MCAWW 300.0A**	**11/19/04**	**4325130**
		Dilution Factor: 1				
		Analysis Time..: 17:30		Analyst ID.....: 000022	Instrument ID..: W01	
Sulfate		Work Order #: GXH9V1AA		MB Lot-Sample #:	E4K200000-131	
	ND	1.0	mg/L	MCAWW 300.0A	11/19/04	4325131
		Dilution Factor: 1				
		Analysis Time..: 17:30		Analyst ID.....: 000022	Instrument ID..: W01	
Total Organic Carbon (TOC)		Work Order #: GXQ0V1AA		MB Lot-Sample #:	E4K220000-644	
	ND	1.0	mg/L	SW846 9060	11/22/04	4327644
		Dilution Factor: 1				
		Analysis Time..: 20:42		Analyst ID.....: 999995	Instrument ID..: W08	

NOTE(S):

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

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E4K200185 **Work Order #...:** GXVAP1AC **Matrix.....:** WATER
LCS Lot-Sample#: E4K240000-567
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 16:42
Dilution Factor: 1 **Instrument ID..:** MSR
Analyst ID.....: 015590

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**96**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**93**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**121**	**(65 - 135)**	**SW846 8260B**
Toluene	**95**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**97**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	97	(75 - 130)
1,2-Dichloroethane-d4	92	(65 - 135)
Toluene-d8	103	(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 #...: E4K200185 **Work Order #...:** GXVAP1AC **Matrix.....:** WATER
LCS Lot-Sample#: E4K240000-567
Prep Date.....: 11/23/04 **Analysis Date..:** 11/23/04
Prep Batch #...: 4329567 **Analysis Time..:** 16:42
Dilution Factor: 1 **Instrument ID..:** MSR
Analyst ID.....: 015590

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**9.58**	**ug/L**	**96**	**SW846 8260B**
Chlorobenzene	**10.0**	**9.26**	**ug/L**	**93**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**12.1**	**ug/L**	**121**	**SW846 8260B**
Toluene	**10.0**	**9.47**	**ug/L**	**95**	**SW846 8260B**
Trichloroethene	**10.0**	**9.67**	**ug/L**	**97**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	97	(75 - 130)
1,2-Dichloroethane-d4	92	(65 - 135)
Toluene-d8	103	(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

DISSOLVED Metals

Client Lot #...: E4K200185 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E4K240000-259 **Prep Batch #...:** 4329259					
Manganese	92	(85 - 120)	SW846 6010B	11/24-11/29/04	GXQ4E1AC
		Dilution Factor: 1	Analysis Time..: 16:44	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 #...: E4K200185 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E4K240000-259 **Prep Batch #...:** 4329259							
Manganese	0.500	0.460	mg/L	92	SW846 6010B	11/24-11/29/04	GXQ4E1AC

Dilution Factor: 1 Analysis Time..: 16:44 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 #...: E4K200185 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #: GXH9M1AC	LCS Lot-Sample#: E4K200000-129		
	95	(90 - 110)	MCAWW 300.0A	11/19/04	4325129
		Dilution Factor: 1	Analysis Time..: 17:13	Analyst ID.....: 000022	
		Instrument ID..: W01			
Nitrate as N		Work Order #: GXH9T1AC	LCS Lot-Sample#: E4K200000-130		
	100	(90 - 110)	MCAWW 300.0A	11/19/04	4325130
		Dilution Factor: 1	Analysis Time..: 17:13	Analyst ID.....: 000022	
		Instrument ID..: W01			
Sulfate		Work Order #: GXH9V1AC	LCS Lot-Sample#: E4K200000-131		
	97	(90 - 110)	MCAWW 300.0A	11/19/04	4325131
		Dilution Factor: 1	Analysis Time..: 17:13	Analyst ID.....: 000022	
		Instrument ID..: W01			
Total Organic Carbon (TOC)		Work Order #: GXQ0V1AC	LCS Lot-Sample#: E4K220000-644		
	99	(85 - 115)	SW846 9060	11/22/04	4327644
		Dilution Factor: 1	Analysis Time..: 20:42	Analyst ID.....: 999995	
		Instrument ID..: W08			

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E4K200185 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			Work Order #: GXH9M1AC LCS Lot-Sample#: E4K200000-129				
	5.00	4.77	mg/L	95	MCAWW 300.0A	11/19/04	4325129
			Dilution Factor: 1		Analysis Time..: 17:13	Analyst ID.....: 000022	
			Instrument ID..: W01				
Nitrate as N			Work Order #: GXH9T1AC LCS Lot-Sample#: E4K200000-130				
	5.00	4.99	mg/L	100	MCAWW 300.0A	11/19/04	4325130
			Dilution Factor: 1		Analysis Time..: 17:13	Analyst ID.....: 000022	
			Instrument ID..: W01				
Sulfate			Work Order #: GXH9V1AC LCS Lot-Sample#: E4K200000-131				
	25.0	24.2	mg/L	97	MCAWW 300.0A	11/19/04	4325131
			Dilution Factor: 1		Analysis Time..: 17:13	Analyst ID.....: 000022	
			Instrument ID..: W01				
Total Organic Carbon (TOC)			Work Order #: GXQ0V1AC LCS Lot-Sample#: E4K220000-644				
	25.0	24.6	mg/L	99	SW846 9060	11/22/04	4327644
			Dilution Factor: 1		Analysis Time..: 20:42	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 #...: E4K200185 **Work Order #...:** GXH4Q1AM-MS **Matrix.....:** WG
MS Lot-Sample #: E4K200185-005 GXH4Q1AN-MSD
Date Sampled...: 11/18/04 14:04 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/24/04
Prep Batch #...: 4329567 **Analysis Time..:** 02:54
Dilution Factor: 200 **Analyst ID.....:** 015590 **Instrument ID..:** MSR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**88**	**(75 - 125)**			**SW846 8260B**
	87	**(75 - 125)**	**1.4**	**(0-25)**	**SW846 8260B**
Chlorobenzene	**85**	**(75 - 125)**			**SW846 8260B**
	84	**(75 - 125)**	**0.76**	**(0-25)**	**SW846 8260B**
1,1-Dichloroethene	**109**	**(65 - 135)**			**SW846 8260B**
	108	**(65 - 135)**	**1.6**	**(0-25)**	**SW846 8260B**
Toluene	**85**	**(75 - 125)**			**SW846 8260B**
	84	**(75 - 125)**	**1.2**	**(0-25)**	**SW846 8260B**
Trichloroethene	**99**	**(75 - 135)**			**SW846 8260B**
	83	**(75 - 135)**	**3.3**	**(0-25)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(75 - 130)
	98	(75 - 130)
1,2-Dichloroethane-d4	98	(65 - 135)
	99	(65 - 135)
Toluene-d8	101	(80 - 130)
	100	(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 #...: E4K200185 **Work Order #...:** GXH4Q1AM-MS **Matrix.....:** WG
MS Lot-Sample #: E4K200185-005 GXH4Q1AN-MSD
Date Sampled...: 11/18/04 14:04 **Date Received..:** 11/19/04 16:45 **MS Run #.....:** 4329332
Prep Date.....: 11/23/04 **Analysis Date..:** 11/24/04
Prep Batch #...: 4329567 **Analysis Time..:** 02:54
Dilution Factor: 200 **Analyst ID.....:** 015590 **Instrument ID..:** MSR

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**2000**	**1760**	**ug/L**	**88**		**SW846 8260B**
	ND	**2000**	**1730**	**ug/L**	**87**	**1.4**	**SW846 8260B**
Chlorobenzene	**ND**	**2000**	**1700**	**ug/L**	**85**		**SW846 8260B**
	ND	**2000**	**1690**	**ug/L**	**84**	**0.76**	**SW846 8260B**
1,1-Dichloroethene	**79**	**2000**	**2270**	**ug/L**	**109**		**SW846 8260B**
	79	**2000**	**2230**	**ug/L**	**108**	**1.6**	**SW846 8260B**
Toluene	**ND**	**2000**	**1700**	**ug/L**	**85**		**SW846 8260B**
	ND	**2000**	**1680**	**ug/L**	**84**	**1.2**	**SW846 8260B**
Trichloroethene	**8300**	**2000**	**10200**	**ug/L**	**99**		**SW846 8260B**
	8300	**2000**	**9920**	**ug/L**	**83**	**3.3**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(75 - 130)
	98	(75 - 130)
1,2-Dichloroethane-d4	98	(65 - 135)
	99	(65 - 135)
Toluene-d8	101	(80 - 130)
	100	(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

DISSOLVED Metals

Client Lot #...: E4K200185 **Matrix.....:** WG
Date Sampled...: 11/18/04 10:14 **Date Received..:** 11/19/04 16:45

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E4K200185-002 **Prep Batch #...:** 4329259							
Manganese	95	(85 - 120)			SW846 6010B	11/24-11/29/04	GXH4G1AU
	92	(85 - 120)	2.8	(0-20)	SW846 6010B	11/24-11/29/04	GXH4G1AV

Dilution Factor: 1
Analysis Time..: 17:05 Instrument ID..: M01 Analyst ID.....: 021088
MS Run #.....: 4329131

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: E4K200185 **Matrix.....:** WG
Date Sampled...: 11/18/04 10:14 **Date Received..:** 11/19/04 16:45

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E4K200185-002 **Prep Batch #...:** 4329259									
Manganese									
	0.035	0.500	0.508	mg/L	95		SW846 6010B	11/24-11/29/04	GXH4G1AU
	0.035	0.500	0.494	mg/L	92	2.8	SW846 6010B	11/24-11/29/04	GXH4G1AV

Dilution Factor: 1
Analysis Time..: 17:05 Instrument ID..: M01 Analyst ID.....: 021088
MS Run #.....: 4329131

NOTE(S):

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

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: E4K200185 **Matrix.....:** WG
Date Sampled...: 11/18/04 15:05 **Date Received..:** 11/19/04 16:45

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		WO#: GXH4G1AL-MS/GXH4G1AM-MSD MS Lot-Sample #: E4K200185-002					
	97	(80 - 120)			MCAWW 300.0A	11/19/04	4325129
	98	(80 - 120)	0.22	(0-20)	MCAWW 300.0A	11/19/04	4325129
		Dilution Factor: 1					
		Analysis Time..: 20:06 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 4325057					
Nitrate as N		WO#: GXH4G1AN-MS/GXH4G1AP-MSD MS Lot-Sample #: E4K200185-002					
	100	(80 - 120)			MCAWW 300.0A	11/19/04	4325130
	100	(80 - 120)	0.14	(0-20)	MCAWW 300.0A	11/19/04	4325130
		Dilution Factor: 10					
		Analysis Time..: 22:06 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 4325060					
Sulfate		WO#: GXH4G1AQ-MS/GXH4G1AR-MSD MS Lot-Sample #: E4K200185-002					
	102	(80 - 120)			MCAWW 300.0A	11/19/04	4325131
	101	(80 - 120)	0.47	(0-20)	MCAWW 300.0A	11/19/04	4325131
		Dilution Factor: 10					
		Analysis Time..: 22:06 Instrument ID..: W01 Analyst ID.....: 000022					
		MS Run #.....: 4325061					
Total Organic Carbon (TOC)		WO#: GXH4W1AK-MS/GXH4W1AL-MSD MS Lot-Sample #: E4K200185-006					
	106	(85 - 115)			SW846 9060	11/22/04	4327644
	98	(85 - 115)	6.9	(0-20)	SW846 9060	11/22/04	4327644
		Dilution Factor: 1					
		Analysis Time..: 20:42 Instrument ID..: W08 Analyst ID.....: 999995					
		MS Run #.....: 4329116					

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: E4K200185 **Matrix.....:** WG
Date Sampled...: 11/18/04 15:05 **Date Received..:** 11/19/04 16:45

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide			WO#: GXH4G1AL-MS/GXH4G1AM-MSD MS Lot-Sample #: E4K200185-002						
	0.66	2.50	3.10	mg/L	97		MCAWW 300.0A	11/19/04	4325129
	0.66	2.50	3.10	mg/L	98	0.22	MCAWW 300.0A	11/19/04	4325129
			Dilution Factor: 1						
			Analysis Time..: 20:06		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 4325057						
Nitrate as N			WO#: GXH4G1AN-MS/GXH4G1AP-MSD MS Lot-Sample #: E4K200185-002						
	8.6	25.0	33.6	mg/L	100		MCAWW 300.0A	11/19/04	4325130
	8.6	25.0	33.5	mg/L	100	0.14	MCAWW 300.0A	11/19/04	4325130
			Dilution Factor: 10						
			Analysis Time..: 22:06		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 4325060						
Sulfate			WO#: GXH4G1AQ-MS/GXH4G1AR-MSD MS Lot-Sample #: E4K200185-002						
	98.1	125	225	mg/L	102		MCAWW 300.0A	11/19/04	4325131
	98.1	125	224	mg/L	101	0.47	MCAWW 300.0A	11/19/04	4325131
			Dilution Factor: 10						
			Analysis Time..: 22:06		Instrument ID..: W01			Analyst ID.....: 000022	
			MS Run #.....: 4325061						
Total Organic Carbon (TOC)			WO#: GXH4W1AK-MS/GXH4W1AL-MSD MS Lot-Sample #: E4K200185-006						
	2.3	25.0	28.8	mg/L	106		SW846 9060	11/22/04	4327644
	2.3	25.0	26.9	mg/L	98	6.9	SW846 9060	11/22/04	4327644
			Dilution Factor: 1						
			Analysis Time..: 20:42		Instrument ID..: W08			Analyst ID.....: 999995	
			MS Run #.....: 4329116						

NOTE(S):

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