

April 1, 2008

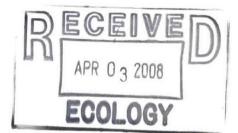
Mr. Christopher Maurer Washington State Department of Ecology Northwest Regional Office 3190 - 160th Avenue SE Bellevue, Washington 98008-5452

Re: Interim Action Report - Third and Fourth Quarter 2007

Former Chevron Service Station #9-9481 647 140th Avenue NE Bellevue, Washington

VCP#: NW1564 UIC #: 30053

Dear Mr. Maurer:



Conestoga-Rovers & Associates, Inc. (CRA), on behalf of the Chevron Environmental Management Company (Chevron) is submitting this Interim Action Report for the above referenced site. CRA injected oxygen to enhance the degradation of petroleum hydrocarbons in groundwater. The Underground Injection Control permit is attached as Attachment A.

SITE BACKGROUND

Chevron station 9-9481 is a former gasoline station that was located at 647 140th Avenue Northeast, King County, Washington (Figure 1). The site is currently occupied by a Walgreens drug store (Figure 2). The former Chevron service station operated from 1958-1968, and again at a new location on the site from 1969-1989.

INTERIM REMEDIAL ACTION

Benzene has been detected in groundwater samples collected from monitoring well MW-2 and MW-3 at concentrations in excess of the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A cleanup level. In an attempt to enhance degradation of subsurface petroleum hydrocarbons, CRA injected oxygen into monitoring well MW-2 and MW-3 during the third and fourth quarters of 2007. Two interim action events occurred during third and fourth quarter 2007, each of which included injection under pressure of 125 cubic feet of oxygen into the subsurface.

Dates of oxygen injection and groundwater sampling were as follows:

Injection Dates	Sample Dates
September 19, 2007	September 19, 2007
November 15, 2007	November 15, 2007



To track the effectiveness of this action, grab groundwater samples were collected from MW-2 and MW-3 prior to injection events. Prior to collecting samples dissolved oxygen of groundwater was measured with a down-hole dissolved oxygen meter. Groundwater samples were then collected utilizing a disposable bailer to decant groundwater into appropriate laboratory supplied bottles. Samples were analyzed for all or a portion of the following analytes:

- total petroleum hydrocarbons as gasoline TPH-G per Method Northwest Total Petroleum Hydrocarbon Identification NWTPH-Gx, SW-846 8015B Modified
- benzene, toluene, ethylbenzene, and total xylenes per EPA Method 8260B

Analytical results are presented in Table 1 and the analytical laboratory reports are included as Attachment B.

CLOSING

CRA will continue oxygen injection events in monitoring wells MW-2 and MW-3 and issue quarterly reports. Groundwater samples will be collected immediately prior to alternating oxygen diffusion events in order to evaluate petroleum hydrocarbon trends. We appreciate your assistance with this project. Please contact us at (425) 212-5100 if you have any questions or require further information.

Sincerely,

Conestoga-Rovers & Associates, Inc.

Nicholas M. Acklam

Geologist

CC:

Brian Peters, LG

Geologist

BRIAN C. PETERS

Geo100

Ms. Stacie Frerichs, Chevron EMC, Room K2204, PO Box 6012, San Ramon, CA 94583-2324

Figures:

1 - Vicinity Map

2 - Site Plan

Tables:

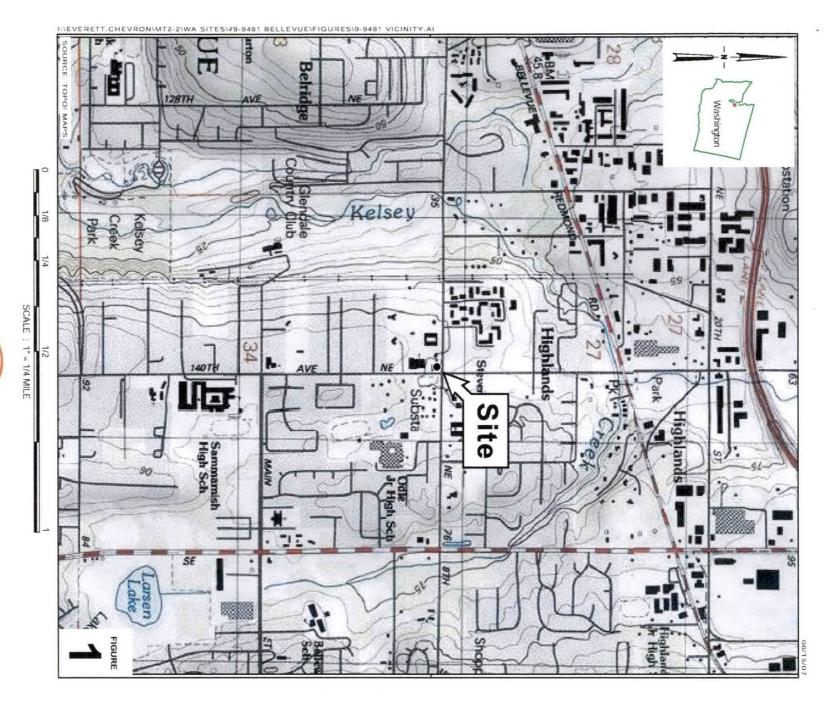
1 - Summary of Groundwater Analytical Data

Attachments:

A - Underground Injection Control Permit

B - Laboratory Analytical Reports





Former Chevron Station 9-9481

647 140th Avenue Northeast

Bellevue, Washington



Vicinity Map



Table 1

Oxygen Diffusion Groundwater Data

Former Chevron Service Station 9-9481 647 140th Ave NE Bellevue, WA

WELL ID/ DATE	DTW.	DO	ТРН - G <i>ppb</i>	Benzene ppb	Toluene ppb	Ethylbenzene ppb	Xylenes ppb
MW-2							
9/19/2007			56	< 1	< 1	< 1	< 2
11/15/2007				5.3	< 1	< 1	< 2
MW-3			•	ļ			
9/19/2007			340	< 1	< 1	< 1	2.6
11/15/2007				< 1	< 1	< 1	< 2
							•
MTCA Metho	od A Cleanu,	p Levels:	800/1000	5	1,000	700	1,000

Concentrations in bold type indicate the result exceeds the MTCA Method A cleanup level.

MTCA = Model Toxics Control Act Cleanup Regulations [WAC 173-340-720(2)(a)(I), as amended 02/01].

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

MTBE = Methyl tertiary butyl ether.

DTW = Depth to water.

DO = Dissolved oxygen.

(ppb) = Parts per billion.

--- = Not Sampled

ATTACHMENT A UIC Permit



STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

June 13, 2007

Mr. Thomas Bauhs Chevron Environmental Management Co. 6001 Bollinger Canyon Rd, #K2204 San Ramon, CA 94583

RE:

Registration with the Underground Injection Control (UIC) Program, Chevron Service Stations 9-1708, 9-1951, 9-2097, 9-7618, 9-8473, 9-9168, 9-9481, 20-5412

Dear Mr. Bauhs:

This letter is to acknowledge receipt of your registration forms received April 27, 2007 to register the above-mentioned sites with the UIC program. The UIC wells are rule authorized and do not need a permit to operate. The sites are registered as:

Chevron Service Station	UIC site number
9-1708	30135
9-1951	30136
√9-2097	30137
9-7618	30138
9-8473	30139
9-9168	30140
9-9481	30141
20-5412	30142

The project includes injecting oxygen into UIC wells to enhance remediation of total petroleum hydrocarbons. Injection will occur approximately every two weeks from May, 2007 to December, 2011. The project also includes monthly ground water monitoring that will help determine if the injected products or by products are being contained on site or are moving off the site property.

The injected compounds are intended to improve ground water quality and meet the Ground Water Quality Standards. There are inherent environmental risks associated with injecting compounds into ground water. The site must be carefully characterized, managed, and monitored to minimize risk and prevent unforeseen degradation of ground water quality. Mobilized metals or other substances, injected chemicals or hazardous bi-products, are not allowed to migrate beyond the site property boundary. A thorough discussion of risk and management options is provided in the following document: Technical and Regulatory Guidance for In Situ Chemical Oxidation of Contaminated Soil

and Groundwater, June 2005, prepared by Interstate Technology and Regulatory Cooperation Work Group. This document is available on the internet at: http://www.itrcweb.org/Documents/ISCO-2.pdf.

The two UIC Program requirements for rule authorization are, the UIC wells must be registered and the discharge from the well must meet the nonendangerment standard, of WAC 173-218-080.

Please refer to the UIC site numbers in all correspondence concerning the sites. Also contact us when the wells are closed and describe the closure method.

Please call me at (360) 407-6143 if you have any questions. Additional information can also be found at our website http://www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html.

Sincerely,

Mary Shaleen-Hansen

Water Quality Program

Cc: Nick Acklam, Conestoga Rovers and Associates

ATTACHMENT B Laboratory Analytical Reports



ANALYTICAL REPORT

Job Number: 580-7421-1

Job Description: 9-9481 Bellevue, WA

For:

Conestoga-Rovers & Associates, Inc. 1420 18th Street SW, Suite A Everett, WA 98203

Attention: Andrea Petrusky

Designed for

Designee for
Heather Curbow
Project Manager I
heather.curbow@testamericainc.com
09/26/2007

cc: Terry Crotwell
Laura Genin
Scott Manning
Christopher Martin
Christine Schweigert

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TestAmerica Laboratories, Inc.

TestAmerica Tacoma 5755 8th Street East, Tacoma, WA 98424 Tel (253) 922-2310 Fax (253) 922-5047 www.testamericainc.com



EXECUTIVE SUMMARY - Detections

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-7421-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
580-7421-1	9-9481-MW-3				
m-Xylene & p-Xylene)	2.6	2.0	ug/L ·	8260B
Xylenes, Total		2.6	2.0	ug/L	8260B
Gasoline		340	50	ug/L	NWTPH-Gx
580-7421-2	9-9481-MW-2		•		
Gasoline		56	50	ug/L	NWTPH-Gx

SAMPLE SUMMARY

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-7421-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-7421-1	9-9481-MW-3	Water	09/19/2007 1040	09/20/2007 1055
580-7421-2	9-9481-MW-2	Water	09/19/2007 1155	09/20/2007 1055

Andrea Petrusky Conestoga-Rovers & Associates, Inc. 1420 18th Street SW, Suite A Everett, WA 98203

Job Number: Lab Sample Id: 580-7421-1

Client Matrix:

580-7421-1 Water

Date Sampled:

09/19/2007 1040

Date Received:

09/20/2007 1055

Client Sample ID:

9-9481-MW-3

Action Limit

					Action	ı Limit			
	Result/Qualifier	Unit	RL	Method	Lower	Upper	Date Prepared	Date Analyzed	Dilution
GC/MS VOA				-					
Benzene	ND	ug/L	1.0	8260B	-	-	09/21/2007 0205	09/21/2007 0205	1.0
Toluene	ND	ug/L	1.0	8260B	-	-	09/21/2007 0205	09/21/2007 0205	1.0
Ethylbenzene	ND	ug/L	1.0	8260B	-	-	09/21/2007 0205	09/21/2007 0205	1.0
m-Xylene & p-Xylene	2.6	ug/L	2.0	8260B	-	-	09/21/2007 0205	09/21/2007 0205	1.0
o-Xylene	ND	ug/L	1.0	8260B	-	-	09/21/2007 0205	09/21/2007 0205	1.0
Xylenes, Total	2.6	ug/L	2.0	8260B	-	-	09/21/2007 0205	09/21/2007 0205	1.0
GC VOA									
Gasoline	340	ug/L	50	NWTPH-Gx	-	-	09/26/2007 0018	09/26/2007 0018	1.0

Andrea Petrusky Conestoga-Rovers & Associates, Inc. 1420 18th Street SW, Suite A Everett, WA 98203

Job Number: Lab Sample Id: 580-7421-1

Client Matrix:

580-7421-2 Water

Date Sampled:

09/19/2007 1155

Date Received: 09/20/2007 1055

Client Sample ID:

9-9481-MW-2

Action Limit

	Result/Qualifier	Unit	, RL	Method	Lower	Upper	Date Prepared	Date Analyzed	Dilution
GC/MS VOA		-							
Benzene	ND	ug/L	1.0	8260B	-	-	09/21/2007 0228	09/21/2007 0228	1.0
Toluene	ND	ug/L	1.0	8260B	-	-	09/21/2007 0228	09/21/2007 0228	1.0
Ethylbenzene	ND	ug/L	1.0	8260B	-	-	09/21/2007 0228	09/21/2007 0228	1.0
m-Xylene & p-Xylene	ND	ug/L	2.0	8260B	-	-	09/21/2007 0228	09/21/2007 0228	1.0
o-Xylene	ND	ug/L	1.0	8260B	-	-	09/21/2007 0228	09/21/2007 0228	1.0
Xylenes, Total	ND	ug/L	2.0	8260B	-	-	09/21/2007 0228	09/21/2007 0228	1.0
GC VOA									
Gasoline	56	ug/L	50	NWTPH-Gx	-	-	09/25/2007 2042	09/25/2007 2042	1.0

Client: Conestoga-Rovers & Associates, Inc. Job Number: 580-7421-1

Method Blank - Batch: 580-23408 Method: 8260B Preparation: 5030B

Lab Sample ID: MB 580-23408/3 Analysis Batch: 580-23408 Instrument ID: SEA043
Client Matrix: Water Prep Batch: N/A Lab File ID: VB00095074.D
Dilution: 1.0 Units: ug/L Initial Weight/Volume: 5 mL

Date Analyzed: 09/20/2007 2109 Final Weight/Volume: 5 mL

Date Prepared: 09/20/2007 2109

Analyte	Result	Qual	RL	RL	
Benzene .	ND		1.0	1.0	
Toluene	· ND		1.0	1.0	
Ethylbenzene	ND		1.0	1.0	
m-Xylene & p-Xylene	· ND		2.0	2.0	
o-Xylene	ND		1.0	1.0	
Methyl tert-butyl ether	ND		1.0	1.0	
Xylenes, Total	ND		2.0	2.0	
Surrogate	% Rec		Acceptance Limits		
Fluorobenzene (Surr)	84		80 - 120	-	
Toluene-d8 (Surr)	96		85 - 120		
Ethylbenzene-d10	92		80 - 120		
4-Bromofluorobenzene (Surr)	105		75 - 120		
Trifluorotoluene (Surr)	101		80 - 120		

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-7421-1

Lab Control Spike/

Lab Control Spike Duplicate Recovery Report - Batch: 580-23408

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 580-23408/1

Client Matrix:

Water

Instrument ID: SEA043

Prep Batch: N/A

Analysis Batch: 580-23408

Lab File ID:

VB00095068.D

Dilution:

1.0

Units: ug/L

Initial Weight/Volume:

5 mL

Date Analyzed: Date Prepared:

09/20/2007 2001 09/20/2007 2001 Final Weight/Volume:

5 mL

LCSD Lab Sample ID: LCSD 580-23408/2

Client Matrix:

Water

Analysis Batch: 580-23408

Instrument ID:

SEA043

80 - 120

Dilution:

1.0

Prep Batch: N/A Units: ug/L

102

Lab File ID: Initial Weight/Volume: 5 mL

VB00095070.D

Date Analyzed: Date Prepared:

09/20/2007 2024 09/20/2007 2024 Final Weight/Volume: 5 mL

	9	6 Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	91	91	80 - 120	0	12		(
Toluene	94	94	75 - 120	1	12		
Ethylbenzene	107	104	75 - 125	2	20		
m-Xylene & p-Xylene	104	102	75 - 130	2	20		
o-Xylene	100	99	80 - 120	1	20		
Methyl tert-butyl ether	100	99	66 - 127	1	20		ı
Surrogate		.CS % Rec	LCSD %	Rec	Accep	otance Limits	
Fluorobenzene (Surr)	8	5	85		8	0 - 120	
Toluene-d8 (Surr)	9	7	100		8	5 - 120	ı
Ethylbenzene-d10	. 9	5	95		8		
4-Bromofluorobenzene (Surr)	1	07	106		7	1	

99

Trifluorotoluene (Surr)

Client: Conestoga-Rovers & Associates, Inc. Job Number: 580-7421-1

Method Blank - Batch: 580-23608 Method: NWTPH-Gx Preparation: 5030B

·

Lab Sample ID:MB 580-23608/1Analysis Batch:580-23608Instrument ID:SEA041Client Matrix:WaterPrep Batch:N/ALab File ID:Gx0008645.DDilution:1.0Units:ug/LInitial Weight/Volume:5 mL

Date Analyzed: 09/25/2007 1643 Final Weight/Volume: 5 mL Date Prepared: 09/25/2007 1643 Injection Volume:

tite Prepared: 09/25/2007 1643 Injection Volume:

Column ID: PRIMARY

Analyte	Qual	RL	RL						
Gasoline		50							
Surrogate	Acceptance Limits								
4-Bromofluorobenzene (Surr)	100		50 - 150						
Triffuorotoluene (Surr)	94 -		50 - 150	50 - 150					
Ethylbenzene-d10	106		50 - 150						
Fluorobenzene (Surr)	103		50 - 150						
Toluene-d8 (Surr)	105	105 50 - 150							

Lab Control Spike/ Method: NWTPH-Gx
Lab Control Spike Duplicate Recovery Report - Batch: 580-23608 Preparation: 5030B

LCS Lab Sample ID: LCS 580-23608/2 Analysis Batch: 580-23608 Instrument ID: SEA041 Client Matrix: Water Prep Batch: N/A Gx0008646.D Lab File ID: Dilution: Units: ug/L Initial Weight/Volume: 1.0 5 mL Date Analyzed: 09/25/2007 1705 Final Weight/Volume: 5 mL

Date Prepared: 09/25/2007 1705 Injection Volume: Column ID: PRIMARY

.CSD Lab Sample ID: LCSD 580-23608/3 Analysis Batch: 580-23608 Instrument ID: SEA041

LCSD Lab Sample ID: LCSD 580-23608/3 Analysis Batch: 580-23608 Instrument ID: SEA041
Client Matrix: Water Prep Batch: N/A Lab File ID: Gx0008647.D

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 5 mL
Date Analyzed: 09/25/2007 1727 Final Weight/Volume: 5 mL

Date Prepared: 09/25/2007 1727 Injection Volume: Column ID: PRIMARY

% Rec.

LCS **RPD** Analyte **LCSD** RPD Limit LCS Qual LCSD Qual Limit Gasoline 79 - 110 2 Surrogate LCS % Rec LCSD % Rec Acceptance Limits 4-Bromofluorobenzene (Surr) 101 101 50 - 150 50 - 150 Trifluorotoluene (Surr) 105 103 Ethylbenzene-d10 107 50 - 150 107 Fluorobenzene (Surr) 105 105 50 - 150 50 - 150 Toluene-d8 (Surr) 105 105

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

Chain of Custody Record

STL Seattle 5755 8th Street E. Tacoma, WA 98424 Tel. 253-922-2310 Fax 253-922-5047 www.stl-inc.com

7421



SIL®

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Login Sample Receipt Check List

Client: Conestoga-Rovers & Associates, Inc.

Login Number: 7421 Creator: Moon, Joseph List Source: TestAmerica Tacoma

Job Number: 580-7421-1

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	Truẹ	



ANALYTICAL REPORT

Job Number: 580-8173-1

SDG Number: O2 Diffusion

Job Description: 99481-Bellevue O2 Diffusion

For:

Conestoga-Rovers & Associates, Inc. 1420 80th Street SW, Suite A Everett, WA 98203

Attention: Nick Acklam

Hanban

Heather Curbow

Project Manager I heather.curbow@testamericainc.com 12/03/2007

cc: Christine Schweigert

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Job Narrative 580-J8173-1

Comments

No additional comments.

All samples were received in good condition within temperature requirements.

GC/MS VOA
NWTPH_GX: The method blank for water batch 26034 had a hit of GRO analyte above the RL. The associated samples with hits above the RL were B flagged. All associated samples with hits below the RL and above 10x the RL will be reported. No further corrective action

No other analytical or quality issues were noted.

DATA REPORTING QUALIFIERS

Lab Section Qualifier Description

EXECUTIVE SUMMARY - Detections

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-8173-1

Sdg Number: O2 Diffusion

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method	
580-8173-2 Benzene	99481-MW-2	5.3	1.0	ug/L	8260B	

SAMPLE SUMMARY

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-8173-1 Sdg Number: O2 Diffusion

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-8173-1	99481-MW-3	Water	11/15/2007 1005	11/15/2007 1405
580-8173-2	99481-MW-2	Water	11/15/2007 1140	11/15/2007 1405

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-8173-1

Sdg Number: O2 Diffusion

Client Sample ID:

99481-MW-3

Lab Sample ID:

580-8173-1

Client Matrix:

Water

Date Sampled:

11/15/2007 1005

Date Received: 11/15/2007 1405

8260B BTX/MTBE

Method:

8260B

Analysis Batch: 580-26069

Instrument ID:

SEA003

Preparation:

5030B

Dilution:

1.0

Lab File ID:

MS173466.D

Initial Weight/Volume:

5 mL

Date Analyzed:

11/21/2007 2203

Final Weight/Volume:

5 mL

Date Prepared:

11/21/2007 2203

Analyte	Result (ug/L)	Qualifier	RL	RL
Benzene	<1.0		1.0	1.0
Toluene	<1.0		1.0	1.0
Ethylbenzene	<1.0	•	1.0	1.0
m-Xylene & p-Xylene	<2.0		2.0	2.0
o-Xylene	<1.0		1.0	1.0
Xylenes, Total	<2.0		2.0	2.0

Surrogate	%Rec	Acceptance Limits						
Fluorobenzene (Surr)	99	80 - 120						
Toluene-d8 (Surr)	99	85 - 120						
Ethylbenzene-d10	103	80 - 120						
4-Bromofluorobenzene (Surr)	102	75 - 120						
Trifluorotoluene (Surr)	102	80 - 120 ·						

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-8173-1

Sdg Number: O2 Diffusion

Client Sample ID:

99481-MW-2

Lab Sample ID: Client Matrix:

580-8173-2

Water

Date Sampled:

11/15/2007 1140

Date Received:

11/15/2007 1405

8260B BTX/MTBE

Analysis Batch: 580-26069

Method:

8260B

5030B

Dilution:

Preparation:

Date Analyzed: Date Prepared: 1.0

11/21/2007 2225 11/21/2007 2225 Instrument ID:

SEA003

Lab File ID:

MS173467.D

Initial Weight/Volume:

Final Weight/Volume:

5 mL

5 mL

Analyte	Result (ug/L)	Qualifier	RL	RL	
Benzene	. 5.3	***************************************	1.0	1.0	
Toluene	<1.0		1.0	1.0	
Ethylbenzene	<1.0		1.0	1.0	
m-Xylene & p-Xylene	<2.0		2.0	2.0	
o-Xylene	<1.0		1.0	1.0	
Xylenes, Total	<2.0		2.0	2.0	

Surrogate	%Rec	Acceptance Limits
Fluorobenzene (Surr)	100	80 - 120
Toluene-d8 (Surr)	101	85 - 120
Ethylbenzene-d10	106	80 - 120
4-Bromofluorobenzene (Surr)	104	75 - 120
Trifluorotoluene (Surr)	103	80 - 120

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-8173-1 Sdg Number: O2 Diffusion

Method Blank - Batch: 580-26069

Method: 8260B Preparation: 5030B

Lab Sample ID: MB 580-26069/3

Analysis Batch: 580-26069

Instrument ID: SEA003

Client Matrix: Water

1.0

Prep Batch: N/A

Lab File ID: MS173455.D Initial Weight/Volume: 5 mL

Dilution:

Units: ug/L

Final Weight/Volume: 5 mL

Date Analyzed: 11/21/2007 1809

Date Prepared: 11/21/2007 1809

Analyte	Result	Qual	RL	RL	
Benzene .	<1.0		1.0	1.0	
Toluene	<1.0		1.0	1.0	
Ethylbenzene	· <1.0		1.0	1.0	
m-Xylene & p-Xylene	<2.0		2.0	2.0	
o-Xylene	<1.0		1.0	1.0	
Methyl tert-butyl ether	<1.0		1.0	1.0	
Xylenes, Total	<2.0		2.0	2.0	
Surrogate	% Rec		Acceptance Limits	3	
Fluorobenzene (Surr)	100	·····	80 - 120		***************************************
Toluene-d8 (Surr)	102		85 - 120		
Ethylbenzene-d10	105		80 - 120		
4-Bromoffuorobenzene (Surr)	105		75 - 120		
Trifluorotoluene (Surr)	96		80 - 120		

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-8173-1 Sdg Number: O2 Diffusion

Lab Control Spike/

Lab Control Spike Duplicate Recovery Report - Batch: 580-26069

Method: 8260B Preparation: 5030B

LCS Lab Sample ID: LCS 580-26069/1

Client Matrix: Dilution:

Water

1.0

Date Analyzed: Date Prepared: 11/21/2007 1727

11/21/2007 1727

Analysis Batch: 580-26069

Prep Batch: N/A

Units: ug/L

Instrument ID: SEA003

Lab File ID:

Initial Weight/Volume:

MS173453.D 5 mL

Final Weight/Volume:

5 mL

LCSD Lab Sample ID: LCSD 580-26069/2

Client Matrix:

Water

Dilution: Date Analyzed:

1.0

Date Prepared:

11/21/2007 1748 11/21/2007 1748

Analysis Batch: 580-26069

Prep Batch: N/A Units: ug/L

Instrument ID:

SEA003

Lab File ID: MS173454.D Initial Weight/Volume: 5 mL

Final Weight/Volume: 5 ml.

	<u>%</u>	6 Rec.		,			1
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	104	102	80 - 120	2	12		
Toluene	105	102	75 - 120	2	12		
Ethylbenzene	102	100	75 - 125	2	20		
m-Xylene & p-Xylene	104	102	75 - 130	2	20		
o-Xylene	100	99	80 - 120	2	20		
Methyl tert-butyl ether	112	115	66 - 127	2	20		
Surrogate	L	CS % Rec	LCSD %	Rec	Accep	tance Limits	
Fluorobenzene (Surr)	9	9	99		8	0 - 120	1
Toluene-d8 (Surr)	1	01	100		8		
Ethylbenzene-d10	1	04	103		8	0 - 120	
4-Bromofluorobenzene (Surr)	1	04	103		7	5 - 120	
Trifluorotoluene (Surr)	9	8	95		8	0 - 120	

Chain of Custody Record

STL Seattle 5755 8th Street E. Tacoma, WA 98424 Tel. 253-922-2310 Fax 253-922-5047 www.stl-inc.com



STL®

Client CDA		Project Mana	ger		₽.t	···	- îr							Date [[115	10-	 7		Cha	in of Custody Num 31919	ber]	
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City Everett WH 982	/ *	425 Site Contact VICK) ~ <u>6</u>	राठ	, J	b Con	tact	<u>.</u>			Analysis (Attach list if more space is needed)											
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Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date Ti	me 🗦	Aqueous	Soll	Hoores	H2S04	HNO3	2	Hoek /	NaOH	8						_					
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Comments		<u> </u>																			<u>. </u>	

Login Sample Receipt Check List

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-8173-1 SDG Number: O2 Diffusion

List Source: TestAmerica Tacoma

Login Number: 8173 Creator: Presley, Kim List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	•
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	•
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	•