



**CONESTOGA-ROVERS  
& ASSOCIATES**

April 1, 2008

Mr. Christopher Maurer  
Washington State Department of Ecology  
Northwest Regional Office  
3190 160<sup>th</sup> Avenue  
Bellevue, WA 98008-5452

Re: **Interim Action Report - Third Quarter 2007**  
Former Chevron Service Station  
1206 4th Street  
Marysville, Washington  
Site No. 9-9609  
VCP #:NW1574

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 total petroleum hydrocarbons (TPH) compounds in groundwater. The Underground Injection Control permit is attached as Attachment A.

## **SITE BACKGROUND**

Chevron station 9-9609 is an active gasoline service station located at the southeast corner of the intersection of 4<sup>th</sup> Street and Beach Street in Marysville, Washington (Figure 1). The site currently consists of three underground storage tanks (USTs) in a common excavation on the west side of the site. A convenience store building is located in the center of the site, with fuel dispensers to the north and south of the building (Figure 2). Surrounding properties include Don's Restaurant to the east, residences and an auto repair shop to the south, a Las Margaritas restaurant and Arco Service Station across Beach Street to the west, and a Jack in the Box restaurant, Shell service station, and Union 76 service station across 4<sup>th</sup> street to the north.

## **INTERIM REMEDIAL ACTION**

TPH as gasoline (TPH-G) concentrations have been detected in samples collected from monitoring well MW-2 at concentrations in excess of the Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A cleanup level. In an attempt to enhance degradation of subsurface hydrocarbons, CRA injected oxygen into monitoring well MW-2 during the third quarter of 2007. Three interim action events occurred during the third quarter

Mr. Christopher Maurer  
April 1, 2008

**CONESTOGA-ROVERS  
& ASSOCIATES**

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
August 7, 2007	August 8, 2007
August 21, 2007	Not Sampled
September 5, 2007	September 5, 2007




To track the effectiveness of this action, grab groundwater samples were collected from MW-2 during alternating 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. No analytes were detected above the MTCA Method A clean up levels. Samples were analyzed for all or a portion of the following analytes:

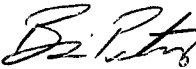
- TPH-G per Method Northwest Total Petroleum Hydrocarbon Identification NWTPH-Gx, SW-846 8015B Modified
- benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl tert-butyl ether (MTBE) per EPA Method 8260B.

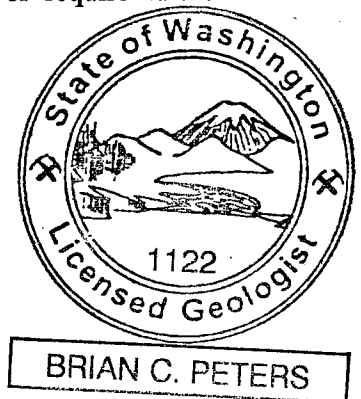
**CLOSING**

CRA will continue oxygen injection events in monitoring well MW-2 and issue quarterly reports. Groundwater samples will be collected immediately prior to alternating oxygen injection 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

  
Brian Peters, LG  
Geologist



cc: Ms. Stacie Frerichs, Chevron EMC, Room K2204, PO Box 6012, San Ramon, CA 94583-2324  
Jambo Tia LLC., 5727 128<sup>th</sup> Street. Southwest, Mukilteo, WA 98275

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& ASSOCIATES**

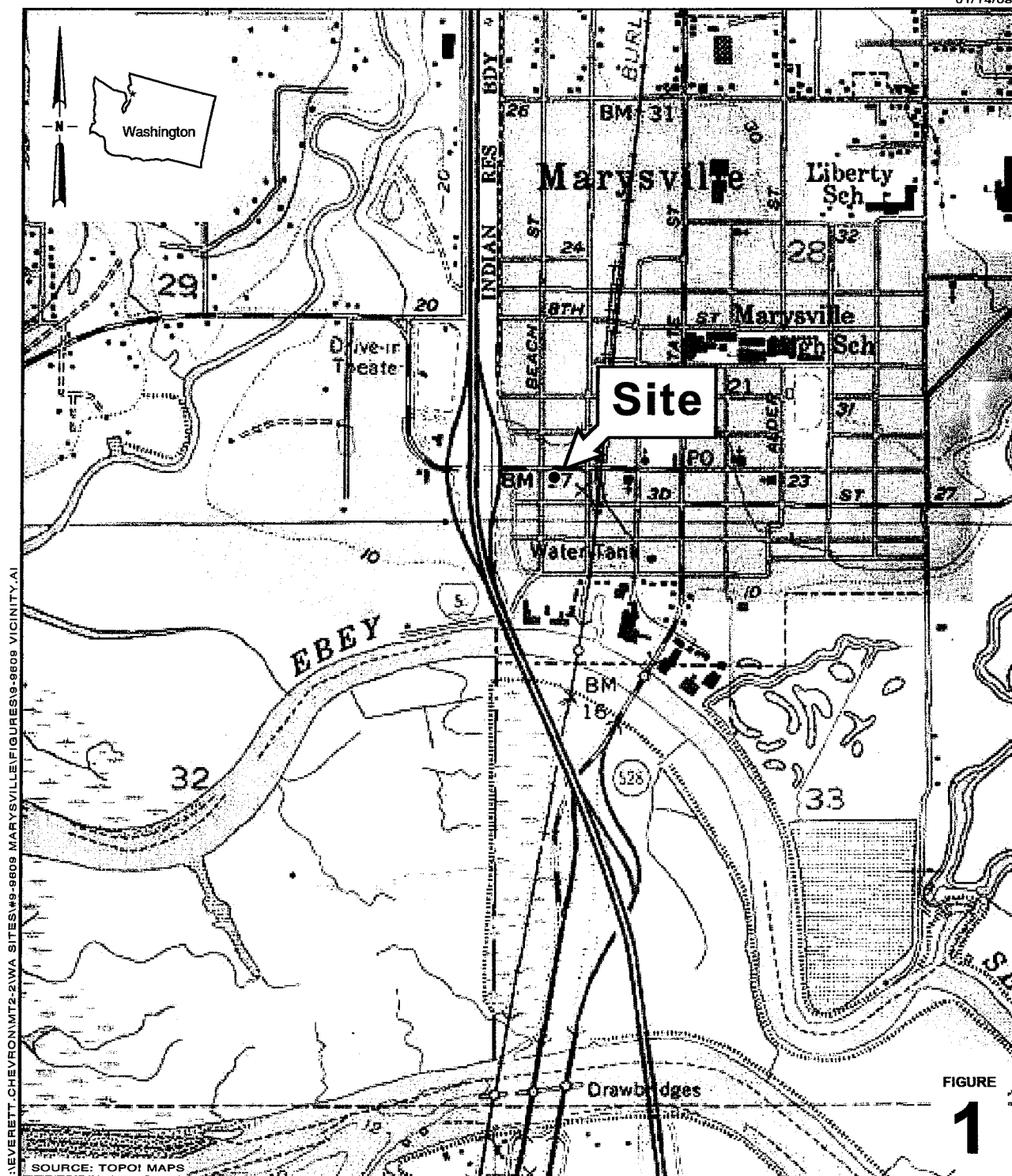
Mr. Christopher Maurer  
April 1, 2008

Figures: 1 - Vicinity Map  
2 - Site Plan

Tables: 1 - Summary of Groundwater Analytical Data

Attachment: A - Underground Injection Control Permit  
B - Laboratory Analytical Reports





**Chevron Service Station 9-9609**

1206 4th Street

Marysville, Washington



**CONESTOGA-ROVERS  
& ASSOCIATES**

**Vicinity Map**

EXPLANATION

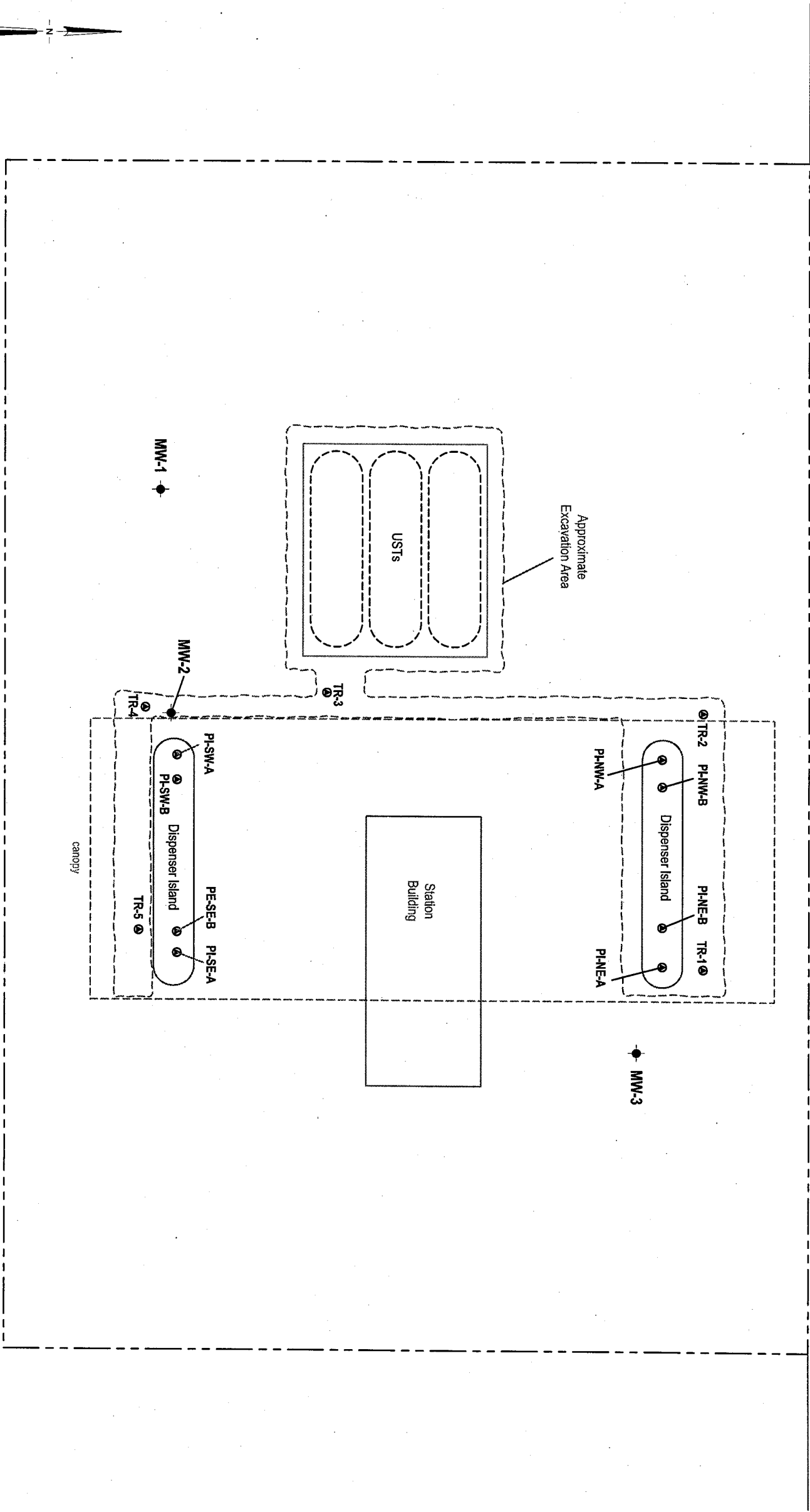
MMW-1

Monitoring well location

TR-4

Soil boring location (Delta)

4TH STREET



Basemap modified from drawing provided by SECOR

FIGURE  
2

Chevron Service Station No. 9-9609

1206 4th Street  
Marysville, Washington



Site Plan

Table 1

**Oxygen Diffusion Groundwater Data**  
Chevron Service Station 9-9609  
1206 4th St  
Marysville, Washington

WELL ID/ DATE	DTW (ft.)	DO	TPH-G ppb	Benzene ppb	Toluene ppb	Ethylbenzene ppb	Xylenes ppb	MTBE ppb
MW-2								
8/7/2007	---	---	200	< 1	< 1	16	2.7	< 1
8/21/2007	---	---	---	---	---	---	---	---
9/5/2007	---	---	< 50	< 1	< 1	< 1	< 2	---
<b>MTCA Method A Cleanup Levels:</b>			<b>800/1000</b>	<b>5</b>	<b>1,000</b>	<b>700</b>	<b>1,000</b>	<b>20</b>

Concentrations in bold type indicate the analyte was detected above the laboratory reporting limit.

Shaded concentrations 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

(ppb) = Parts per billion

--- = Not Sampled

**ATTACHMENT A**

**UNDERGROUND INJECTION CONTROL 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 9-9609

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 site is registered as UIC site # 30143.

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, 2010. 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 prior to use and the discharge from the well must meet the nonendangerment standard, of WAC 173-218-080. The registration forms need to be sent in at least 60 days prior to the injection date.





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,

A handwritten signature in black ink, appearing to read "M. Shaleen-Hansen".

Mary Shaleen-Hansen  
Water Quality Program

Cc: Erin Blakemore, Conestoga Rovers and Associates

**ATTACHMENT B**  
**LABORATORY ANALYTICAL REPORTS**

## ANALYTICAL REPORT

Job Number: 580-6825-1

Job Description: 9-9609

For:  
Conestoga-Rovers & Associates, Inc.  
8620 Holly Drive, Suite 210  
Everett, WA 98208

Attention: Andrea Petrusky



---

Heather Curbow  
Project Manager I  
heather.curbow@testamericainc.com  
08/22/2007

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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](http://www.testamericainc.com)

**Job Narrative**  
**580-J6825-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method 8260B: 5030/8260B:

Toluene-d8 surrogate recovery (84%) is below the QC recovery limit of 85%. All other surrogates are within their respective QC limits. All surrogates pass in the LCS/LCSD and associated samples except where matrix interference is indicated. No further action taken.

No other analytical or quality issues were noted.

## DATA REPORTING QUALIFIERS

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-6825-1

Lab Section	Qualifier	Description
GC/MS VOA	X	Surrogate exceeds the control limits

## EXECUTIVE SUMMARY - Detections

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-6825-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
580-6825-1	MW - 2				
Ethylbenzene		16	1.0	ug/L	8260B
m-Xylene & p-Xylene		2.7	2.0	ug/L	8260B
Xylenes, Total		2.7	2.0	ug/L	8260B
Gasoline		200	50	ug/L	NWTPH-Gx

## SAMPLE SUMMARY

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-6825-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-6825-1	MW - 2	Water	08/07/2007 1310	08/09/2007 1020

Andrea Petrusky  
 Conestoga-Rovers & Associates, Inc.  
 8620 Holly Drive, Suite 210  
 Everett, WA 98208

Job Number: 580-6825-1  
 Lab Sample Id: 580-6825-1  
 Client Matrix: Water  
 Date Sampled: 08/07/2007 1310  
 Date Received: 08/09/2007 1020

Client Sample ID: MW - 2

**GC/MS VOA**

Benzene	ND	ug/L	1.0	8260B	08/17/2007 0150	08/17/2007 0150	1.0
Toluene	ND	ug/L	1.0	8260B	08/17/2007 0150	08/17/2007 0150	1.0
Ethylbenzene	16	ug/L	1.0	8260B	08/17/2007 0150	08/17/2007 0150	1.0
m-Xylene & p-Xylene	2.7	ug/L	2.0	8260B	08/17/2007 0150	08/17/2007 0150	1.0
o-Xylene	ND	ug/L	1.0	8260B	08/17/2007 0150	08/17/2007 0150	1.0
Methyl tert-butyl ether	ND	ug/L	1.0	8260B	08/17/2007 0150	08/17/2007 0150	1.0
Xylenes, Total	2.7	ug/L	2.0	8260B	08/17/2007 0150	08/17/2007 0150	1.0
<b>GC VOA</b>							
Gasoline	200	ug/L	50	NWTPH-Gx	08/15/2007 2216	08/15/2007 2216	1.0



## Quality Control Results

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-6825-1

### Method Blank - Batch: 580-21990

Method: 8260B  
Preparation: 5030B

Lab Sample ID: MB 580-21990/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 08/16/2007 2231  
Date Prepared: 08/16/2007 2231

Analysis Batch: 580-21990  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA001  
Lab File ID: AG32916.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

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)	80		80 - 120	
Toluene-d8 (Surr)	84	X	85 - 120	
Ethylbenzene-d10	85		80 - 120	
4-Bromofluorobenzene (Surr)	95		75 - 120	
Trifluorotoluene (Surr)	99		80 - 120	

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

## Quality Control Results

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-6825-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-21990**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID: LCS 580-21990/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 08/16/2007 2125  
Date Prepared: 08/16/2007 2125

Analysis Batch: 580-21990  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA001  
Lab File ID: AG32913.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 580-21990/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 08/16/2007 2147  
Date Prepared: 08/16/2007 2147

Analysis Batch: 580-21990  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA001  
Lab File ID: AG32914.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	86	84	80 - 120	1	12		
Toluene	91	91	75 - 120	0	12		
Ethylbenzene	101	103	75 - 125	2	20		
m-Xylene & p-Xylene	101	101	75 - 130	0	20		
o-Xylene	100	101	80 - 120	1	20		
Methyl tert-butyl ether	89	89	66 - 127	1	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Fluorobenzene (Surr)	81		81		80 - 120		
Toluene-d8 (Surr)	88		87		85 - 120		
Ethylbenzene-d10	87		88		80 - 120		
4-Bromofluorobenzene (Surr)	94		96		75 - 120		
Trifluorotoluene (Surr)	96		91		80 - 120		

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

## Quality Control Results

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-6825-1

### Method Blank - Batch: 580-21917

**Method: NWTPH-Gx**  
**Preparation: 5030B**

Lab Sample ID: MB 580-21917/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 08/15/2007 1821  
Date Prepared: 08/15/2007 1821

Analysis Batch: 580-21917  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA003  
Lab File ID: CS171671.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
Gasoline	ND		50	50
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene (Surr)	98		50 - 150	
Trifluorotoluene (Surr)	93		50 - 150	
Ethylbenzene-d10	118		50 - 150	
Fluorobenzene (Surr)	106		50 - 150	
Toluene-d8 (Surr)	117		50 - 150	

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 580-21917

**Method: NWTPH-Gx**  
**Preparation: 5030B**

LCS Lab Sample ID: LCS 580-21917/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 08/15/2007 1946  
Date Prepared: 08/15/2007 1946

Analysis Batch: 580-21917  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA003  
Lab File ID: CS171675.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 580-21917/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 08/15/2007 2008  
Date Prepared: 08/15/2007 2008

Analysis Batch: 580-21917  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA003  
Lab File ID: CS171676.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Gasoline	94	89	79 - 110	5	8		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene (Surr)	100		102		50 - 150		
Trifluorotoluene (Surr)	102		100		50 - 150		
Ethylbenzene-d10	117		118		50 - 150		
Fluorobenzene (Surr)	110		110		50 - 150		
Toluene-d8 (Surr)	112		112		50 - 150		

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

**STL®**  
**SEVERN**  
**TRENT**

6825

**Chain of Custody Record** CRA

[illegible]

Comments

**DISTRIBUTION:** WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

STL8274-580 (12/02)

## LOGIN SAMPLE RECEIPT CHECK LIST

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-6825-1

Login Number: 6825

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.	NA	Lab Courier.
Cooler Temperature is recorded.	NA	Lab Courier.
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	

## ANALYTICAL REPORT

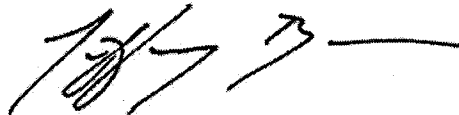
Job Number: 580-7201-1

Job Description: 9-9609 Marysville, WA

For:

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

Attention: Andrea Petrusky



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Designee for  
Heather Curbow  
Project Manager I  
heather.curbow@testamericainc.com  
09/19/2007

cc: Christine Schweigert

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Tel (253) 922-2310 Fax (253) 922-5047 [www.testamericainc.com](http://www.testamericainc.com)



## EXECUTIVE SUMMARY - Detections

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-7201-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
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No Detections

## SAMPLE SUMMARY

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-7201-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-7201-1	MW-2-GW	Water	09/05/2007 1310	09/06/2007 0945



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

Job Number: 580-7201-1  
Lab Sample Id: 580-7201-1  
Client Matrix: Water  
Date Sampled: 09/05/2007 1310  
Date Received: 09/06/2007 0945

Client Sample ID: MW-2-GW

#### GC/MS VOA

	Result/Qualifier	Unit	RL	Method	Action Limit		Date Prepared	Date Analyzed	Dilution
					Lower	Upper			
Benzene	ND	ug/L	1.0	8260B	-	-	09/07/2007 1313	09/07/2007 1313	1.0
Toluene	ND	ug/L	1.0	8260B	-	-	09/07/2007 1313	09/07/2007 1313	1.0
Ethylbenzene	ND	ug/L	1.0	8260B	-	-	09/07/2007 1313	09/07/2007 1313	1.0
m-Xylene & p-Xylene	ND	ug/L	2.0	8260B	-	-	09/07/2007 1313	09/07/2007 1313	1.0
o-Xylene	ND	ug/L	1.0	8260B	-	-	09/07/2007 1313	09/07/2007 1313	1.0
Xylenes, Total	ND	ug/L	2.0	8260B	-	-	09/07/2007 1313	09/07/2007 1313	1.0
<b>GC VOA</b>									
Gasoline	ND	ug/L	50	NWTPH-Gx	-	-	09/07/2007 1659	09/07/2007 1659	1.0

## Quality Control Results

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-7201-1

### Method Blank - Batch: 580-22925

Method: 8260B  
Preparation: 5030B

Lab Sample ID: MB 580-22925/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/07/2007 1250  
Date Prepared: 09/07/2007 1250

Analysis Batch: 580-22925  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA001  
Lab File ID: AG33294.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

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)	96	80 - 120
Toluene-d8 (Surr)	100	85 - 120
Ethylbenzene-d10	95	80 - 120
4-Bromofluorobenzene (Surr)	104	75 - 120
Trifluorotoluene (Surr)	109	80 - 120

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

## Quality Control Results

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-7201-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-22925**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID: LCS 580-22925/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/07/2007 1144  
Date Prepared: 09/07/2007 1144

Analysis Batch: 580-22925  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA001  
Lab File ID: AG33291.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 580-22925/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/07/2007 1206  
Date Prepared: 09/07/2007 1206

Analysis Batch: 580-22925  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA001  
Lab File ID: AG33292.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	97	92	80 - 120	5	12		
Toluene	97	97	75 - 120	0	12		
Ethylbenzene	104	98	75 - 125	6	20		
m-Xylene & p-Xylene	104	100	75 - 130	4	20		
o-Xylene	104	100	80 - 120	4	20		
Methyl tert-butyl ether	93	95	66 - 127	2	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Fluorobenzene (Surr)	95		94		80 - 120		
Toluene-d8 (Surr)	103		103		85 - 120		
Ethylbenzene-d10	101		99		80 - 120		
4-Bromofluorobenzene (Surr)	106		104		75 - 120		
Trifluorotoluene (Surr)	102		97		80 - 120		

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

## Quality Control Results

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-7201-1

### Method Blank - Batch: 580-22928

Method: NWTPH-Gx

Preparation: 5030B

Lab Sample ID: MB 580-22928/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/07/2007 1449  
Date Prepared: 09/07/2007 1449

Analysis Batch: 580-22928  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA041  
Lab File ID: Gx0008313.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
Gasoline	ND		50	50
Surrogate	% Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	100		50 - 150	
Trifluorotoluene (Surr)	90		50 - 150	
Ethylbenzene-d10	102		50 - 150	
Fluorobenzene (Surr)	99		50 - 150	
Toluene-d8 (Surr)	102		50 - 150	

### Lab Control Spike/

### Lab Control Spike Duplicate Recovery Report - Batch: 580-22928

Method: NWTPH-Gx

Preparation: 5030B

LCS Lab Sample ID: LCS 580-22928/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/07/2007 1511  
Date Prepared: 09/07/2007 1511

Analysis Batch: 580-22928  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA041  
Lab File ID: Gx0008314.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 580-22928/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/07/2007 1533  
Date Prepared: 09/07/2007 1533

Analysis Batch: 580-22928  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA041  
Lab File ID: Gx0008315.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Gasoline	81	81	79 - 110	0	8		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene (Surr)	100		100		50 - 150		
Trifluorotoluene (Surr)	97		94		50 - 150		
Ethylbenzene-d10	102		102		50 - 150		
Fluorobenzene (Surr)	101		101		50 - 150		
Toluene-d8 (Surr)	98		98		50 - 150		

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

**STL Seattle**  
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7201

**SEVERN**  
**TRENT**

[illegible]

**DISTRIBUTION:** WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

STL8274-580 (12/02)

## LOGIN SAMPLE RECEIPT CHECK LIST

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 580-7201-1

Login Number: 7201

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.	NA	Client Drop Off.
Cooler Temperature is acceptable.	NA	
Cooler Temperature is recorded.	NA	
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.	NA	
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	