

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

April 04, 2011

Project: Edmonds Terminal

Submittal Date: 03/23/2011

Group Number: 1238606

PO Number: 0015074659

Release Number: JOLITZ

State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-150 Grab Water Sample	6237131
MW-147 Grab Water Sample	6237132
MW-8R Grab Water Sample	6237133
DUP-1 Grab Water Sample	6237134
MW-149R Grab Water Sample	6237135
MW-524 Grab Water Sample	6237136
MW-523 Grab Water Sample	6237137
MW-522 Grab Water Sample	6237138
Trip_Blank Water Sample	6237139

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
Arcadis US, Inc.

Attn: Rebecca Andresen

ELECTRONIC COPY TO
Arcadis

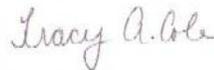
Attn: Scott Zorn

ELECTRONIC COPY TO
Arcadis

Attn: Dave Rasar

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,



Tracy A. Cole
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-150 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6237131
LLI Group # 1238606
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/22/2011 09:30 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/23/2011 09:00

Reported: 04/04/2011 08:43

UE150

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11083A20A	03/24/2011 14:36	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11083A20A	03/24/2011 14:36	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110820033A	03/24/2011 22:37	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110820033A	03/24/2011 08:00	Catherine R Wiker	1



Analysis Report

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Sample Description: MW-147 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6237132
LLI Group # 1238606
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/22/2011 10:45 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/23/2011 09:00

Reported: 04/04/2011 08:43

UE147

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 740	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 750	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11083A20A	03/24/2011 14:58	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11083A20A	03/24/2011 14:58	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110820033A	03/24/2011 23:39	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110820033A	03/24/2011 08:00	Catherine R Wiker	1



Analysis Report

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Sample Description: MW-8R Grab Water Sample
 Unocal Edmonds Terminal
 11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6237133
LLI Group # 1238606
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/22/2011 11:50 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 03/23/2011 09:00

Reported: 04/04/2011 08:43

UE08R

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11083A20A	03/24/2011 15:20	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11083A20A	03/24/2011 15:20	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110820033A	03/24/2011 22:58	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110820033A	03/24/2011 08:00	Catherine R Wiker	1



Analysis Report

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Sample Description: DUP-1 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6237134
LLI Group # 1238606
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/22/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/23/2011 09:00

Reported: 04/04/2011 08:43

UEFD1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 32	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11083A20A	03/24/2011 15:42	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11083A20A	03/24/2011 15:42	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 07:13	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

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Sample Description: MW-149R Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6237135
LLI Group # 1238606
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/22/2011 09:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/23/2011 09:00

Reported: 04/04/2011 08:43

UE149

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 61	ug/l 28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11083A20A	03/24/2011 16:04	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11083A20A	03/24/2011 16:04	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 07:34	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-524 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6237136
LLI Group # 1238606
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/22/2011 10:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/23/2011 09:00

Reported: 04/04/2011 08:43

UE524

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11083A20A	03/24/2011 16:25	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11083A20A	03/24/2011 16:25	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 07:55	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-523 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6237137
LLI Group # 1238606
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/22/2011 11:10 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/23/2011 09:00

Reported: 04/04/2011 08:43

UE523

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11083A20A	03/24/2011 16:47	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11083A20A	03/24/2011 16:47	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 15:00	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-522 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6237138
LLI Group # 1238606
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/22/2011 12:30 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/23/2011 09:00

Reported: 04/04/2011 08:43

UE522

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 150	ug/l 28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11083A20A	03/24/2011 17:09	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11083A20A	03/24/2011 17:09	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 16:44	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: Trip_Blank Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6237139
LLI Group # 1238606
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/22/2011

Chevron

Submitted: 03/23/2011 09:00

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Reported: 04/04/2011 08:43

UETR

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/29/2011 23:12	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/29/2011 23:12	Elizabeth J Marin	1

Quality Control Summary

 Client Name: Chevron
 Reported: 04/04/11 at 08:43 AM

Group Number: 1238606

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11083A20A NWTPH-Gx water C7-C12	Sample number(s): 6237131-6237138 N.D.	50.	ug/l	100	87	75-135	14	30
Batch number: 11088A20A NWTPH-Gx water C7-C12	Sample number(s): 6237139 N.D.	50.	ug/l	91		75-135		
Batch number: 110820033A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6237131-6237133 N.D. N.D.	30. 70.	ug/l ug/l	86	86	56-103	0	20
Batch number: 110870006A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6237134-6237138 N.D. N.D.	30. 70.	ug/l ug/l	80		56-103		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11088A20A NWTPH-Gx water C7-C12	Sample number(s): 6237139 97	106	57-157	7	30	UNSPK: P238298			
Batch number: 110870006A DRO C12-C24 w/Si Gel	Sample number(s): 6237134-6237138 92	92	60-120	0	20	UNSPK: P238298			

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Gx water C7-C12
 Batch number: 11083A20A
 Trifluorotoluene-F

6237131	75
6237132	82
6237133	75
6237134	75

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 04/04/11 at 08:43 AM

Group Number: 1238606

Surrogate Quality Control

6237135	75
6237136	76
6237137	74
6237138	75
Blank	77
LCS	127
LCSD	114

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11088A20A
Trifluorotoluene-F

6237139	75
Blank	74
LCS	117
MS	110
MSD	119

Limits: 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 110820033A
Orthoterphenyl

6237131	106
6237132	108
6237133	102
Blank	106
LCS	116
LCSD	115

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 110870006A
Orthoterphenyl

6237134	90
6237135	97
6237136	89
6237137	100
6237138	97
Blank	107
LCS	110
MS	106
MSD	105

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



223421

Acct. #: 11964

For Lancaster Laboratories use only

Sample #: 6237131-39

SCR#: _____

C# 1238606

Facility #: Edmonds Terminal
 Site Address: 11720 Union Rd, Edmonds WA
 Chevron PM: Kim Jolitz Lead Consultant: ARCADIS
 Consultant/Office: ARCADIS, Seattle
 Consultant Prj. Mgr.: Rebecca Andresen
 Consultant Phone #: 206-325-5254 Fax #: _____
 Sampler: DR, SM
 Service Order #: 80045762 Non SAR: _____

Matrix		Analyses Requested															
		Preservation Codes															
Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	H H								
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
				5	<input type="checkbox"/>												
				2													

Preservative Codes
 H = HCl T = Thiosulfate
 N = HNO₃ B = NaOH
 S = H₂SO₄ O = Other

J value reporting needed
 Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
 Confirm MTBE + Naphthalene
 Confirm highest hit by 8260
 Confirm all hits by 8260
 Run ___ oxy s on highest hit
 Run ___ oxy s on all hits

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	Oxygenates	TPH G	TPH D	Lead Total	VPH/EPH	NWTPH H	quantification	
MW-150	3/22/11	930	X			X			5						X	X					
MW-147		1045																			
MW-8R		1150																			
Dup-1																					
MW-149R		925																			
MW-524		1020																			
MW-523		1110																			
MW-522		1230																			
Trip Blank									2												

Comments / Remarks
 page 1 of 1

Turnaround Time Requested (TAT) (please circle)
 STD TAT 72 hour 48 hour
 24 hour 4 day 5 day

Data Package Options (please circle if required)
 QC Summary Type I - Full
 Type VI (Raw Data) Disk / EDD
 WIP (RWQCB) Standard Format
 Disk _____ Other.

Relinquished by: <u>[Signature]</u>	Date: <u>3/22/11</u>	Time: <u>1500</u>	Received by: <u>FedEx</u>	Date: <u>3/22/11</u>	Time: <u>1500</u>
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by Commercial Carrier: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
UPS FedEx Other _____	Temperature Upon Receipt _____ °C <u>1.2^u = 1.7^u</u>		Custody Seals Intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Date: <u>3/23/11</u>	Time: <u>900</u>

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

April 05, 2011

Project: Edmonds Terminal

Submittal Date: 03/24/2011
Group Number: 1238796
PO Number: 0015074659
Release Number: JOLITZ
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-139R Grab Water Sample	6238297
MW-518 Grab Water Sample	6238298
MW-518MS Grab Water Sample	6238299
MW-518MSD Grab Water Sample	6238300
MW-101 Grab Water Sample	6238301
MW-104 Grab Water Sample	6238302
MW-20R Grab Water Sample	6238303
MW-109 Grab Water Sample	6238304
MW-108 Grab Water Sample	6238305
LM-2 Grab Water Sample	6238306
MW-129R Grab Water Sample	6238307
DUP-2 Grab Water Sample	6238308
Trip Blank Water Sample	6238309

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Arcadis US, Inc.	Attn: Rebecca Andresen
ELECTRONIC COPY TO	Arcadis	Attn: Scott Zorn
ELECTRONIC COPY TO	Arcadis	Attn: Dave Rasar

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-139R Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238297
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 09:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UE139

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 00:40	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 00:40	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 17:05	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-518 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238298
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 10:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UE518

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 330	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 390	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 06:06	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 06:06	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 00:07	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-518MS Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238299
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 10:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UE518

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 1,400	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 1,100	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	82	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 06:28	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 06:28	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 00:29	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-518MSD Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238300
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 10:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UE518

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 1,500	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 1,100	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	99	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 06:50	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 06:50	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 00:50	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-101 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238301
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 12:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UE101

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 34	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 01:01	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 01:01	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 17:26	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-104 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238302
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 13:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UE104

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 890	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 290	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 01:23	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 01:23	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110870006A	03/31/2011 17:47	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110870006A	03/27/2011 16:15	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-20R Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238303
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 13:45 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UE20R

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Volatiles					
02102	Benzene	SW-846 8021B 71-43-2	ug/l 5.3	ug/l 0.2	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 390	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	190	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A53A	03/30/2011 23:05	Carrie E Miller	1
02102	Method 8021 Water Master	SW-846 8021B	1	11088A53A	03/30/2011 23:05	Carrie E Miller	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A53A	03/30/2011 23:05	Carrie E Miller	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110880007A	04/01/2011 16:47	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110880007A	03/28/2011 15:00	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-109 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238304
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 08:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UE109

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 01:45	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 01:45	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110880007A	04/01/2011 16:05	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110880007A	03/28/2011 15:00	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-108 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238305
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 09:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UE108

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 33	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 02:07	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 02:07	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110880007A	04/01/2011 16:26	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110880007A	03/28/2011 15:00	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: LM-2 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238306
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 11:50 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UELM2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 1,600	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	1,000	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 11:30	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 11:30	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110880007A	04/01/2011 17:08	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110880007A	03/28/2011 15:00	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-129R Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238307
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 14:55 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UE129

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 1,700	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	550	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 02:50	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 02:50	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110880007A	04/01/2011 17:28	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110880007A	03/28/2011 15:00	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: DUP-2 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238308
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/24/2011 09:45

Reported: 04/05/2011 09:06

UEFD2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 1,700	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	650	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 03:12	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 03:12	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110880007A	04/01/2011 17:49	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110880007A	03/28/2011 15:00	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: Trip Blank Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6238309
LLI Group # 1238796
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/23/2011

Chevron

Submitted: 03/24/2011 09:45

6001 Bollinger Canyon Rd L4310

Reported: 04/05/2011 09:06

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/29/2011 23:34	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/29/2011 23:34	Elizabeth J Marin	1

Quality Control Summary

 Client Name: Chevron
 Reported: 04/05/11 at 09:06 AM

Group Number: 1238796

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11088A20A NWTPH-Gx water C7-C12	N.D.	50.	ug/l	91		75-135		
Batch number: 11088A53A Benzene NWTPH-Gx water C7-C12	N.D.	0.2	ug/l	105	105	80-120	0	30
	N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 110870006A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	N.D.	30.	ug/l	80		56-103		
	N.D.	70.	ug/l					
Batch number: 110880007A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	N.D.	30.	ug/l	79	85	56-103	8	20
	N.D.	70.	ug/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11088A20A NWTPH-Gx water C7-C12	97	106	57-157	7	30				
Batch number: 110870006A DRO C12-C24 w/Si Gel	92	92	60-120	0	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Gx water C7-C12
 Batch number: 11088A20A
 Trifluorotoluene-F

6238297	73
6238298	75
6238299	110

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 04/05/11 at 09:06 AM

Group Number: 1238796

Surrogate Quality Control

6238300	119
6238301	72
6238302	79
6238304	77
6238305	74
6238306	73
6238307	72
6238308	81
6238309	74
Blank	74
LCS	117
MS	110
MSD	119

Limits: 63-135

Analysis Name: Method 8021 Water Master

Batch number: 11088A53A

	Trifluorotoluene-P	Trifluorotoluene-F
6238303	79	70
Blank	77	72
LCS	78	73
LCSD	77	76

Limits: 58-146 63-135

Analysis Name: NWTPH-Dx water w/Si Gel

Batch number: 110870006A

Orthoterphenyl

6238297	95
6238298	93
6238299	106
6238300	105
6238301	84
6238302	96
Blank	107
LCS	110
MS	106
MSD	105

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel

Batch number: 110880007A

Orthoterphenyl

6238303	76
6238304	95
6238305	66
6238306	105
6238307	112
6238308	112
Blank	97
LCS	107
LCSD	112

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 04/05/11 at 09:06 AM

Group Number: 1238796

Surrogate Quality Control

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody

220893



For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6238297-309 SCR#: _____

Grp #1238796

Facility #: <u>Edmonds Terminal</u> Site Address: <u>11720 Union Rd, Edmonds</u> Chevron PM: <u>Kim Dolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>ARCADIS, Seattle</u> Consultant Prj. Mgr.: <u>Rebecca Andresen</u> Consultant Phone #: <u>206 325 5254</u> Fax #: _____ Sampler: <u>Dr. SW</u> Service Order #: <u>B6045362</u> <input type="checkbox"/> Non SAR: _____				Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Analyses Requested Preservation Codes BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan Oxygenates MW TPH G MW TPH D <input checked="" type="checkbox"/> Extended Ring, Silica Gel Cleanup Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method VP/IEPH NWT/PH HClID <input type="checkbox"/> quantification <u>Benzene-80215</u>										Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits										
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8021	8260	Naphth	8260 full scan	Oxygenates	MW TPH G	MW TPH D	Lead Total	Diss.	Method	VP/IEPH	NWT/PH HClID	quantification	Benzene-80215	Comments / Remarks		
MW-139R	3/23/11	925	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			5															page 1 of 1		
MW-518		1040																								
MW-518MS		1040																								
MW-518MSD		1040																								
MW-101		1215																								
MW-104		1315																								
MW-20R		1245																								
MW-109		805																								
MW-108		940																								
MW-129R		1455																								
Dup-2																										
Trip Blank									2																	

Turnaround Time Requested (TAT) (please circle) STD. TAT <input checked="" type="radio"/> 72 hour 48 hour 24-hour 4 day 5 day			Relinquished by: <u>[Signature]</u> Date: <u>3/23/11</u> Time: <u>1600</u>		Received by: <u>FedEx</u> Date: <u>3/23/11</u> Time: <u>1600</u>	
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) Disk / EDD WIP (RWQCB) Standard Format Disk _____ Other.			Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____	
Relinquished by Commercial Carrier: UPS <input checked="" type="radio"/> FedEx Other: _____			Relinquished by: _____ Date: _____ Time: _____		Received by: <u>[Signature]</u> Date: <u>3/24/11</u> Time: <u>0945</u>	
Temperature Upon Receipt: <u>0.8 - 1.2°C</u>			Custody Seals Intact? <input checked="" type="radio"/> Yes No			

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

April 06, 2011

Project: Edmonds Terminal

Submittal Date: 03/25/2011

Group Number: 1238967

PO Number: 0015074659

Release Number: JOLITZ

State of Sample Origin: WA

Client Sample DescriptionMW-501 Grab Water Sample
MW-500 Grab Water Sample
MW-135 Grab Water Sample
MW-136 Grab Water Sample
RB-1 Grab Water Sample
Trip_Blank Water SampleLancaster Labs (LLI) #6239338
6239339
6239340
6239341
6239342
6239343

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Arcadis US, Inc.

COPY TO

Attn: Rebecca Andresen

ELECTRONIC Arcadis

COPY TO

Attn: Scott Zorn

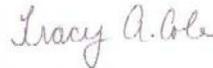
ELECTRONIC Arcadis

COPY TO

Attn: Dave Rasar

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,



Tracy A. Cole
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-501 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6239338
LLI Group # 1238967
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/24/2011 09:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/25/2011 09:15

Reported: 04/06/2011 08:03

ED501

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 89	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 03:34	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 03:34	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110900044A	04/05/2011 08:20	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110900044A	04/01/2011 13:30	Olivia I Santiago	1

Sample Description: MW-500 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6239339
LLI Group # 1238967
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/24/2011 10:55 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/25/2011 09:15

Reported: 04/06/2011 08:03

ED500

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 32	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 03:56	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 03:56	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110900044A	04/05/2011 08:41	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110900044A	04/01/2011 13:30	Olivia I Santiago	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-135 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6239340
LLI Group # 1238967
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/24/2011 09:45 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/25/2011 09:15

Reported: 04/06/2011 08:03

ED135

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 500	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	170	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 04:17	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 04:17	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110900044A	04/05/2011 09:11	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110900044A	04/01/2011 13:30	Olivia I Santiago	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-136 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6239341
LLI Group # 1238967
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/24/2011 11:10 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/25/2011 09:15

Reported: 04/06/2011 08:03

ED136

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 540	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	78	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 04:39	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 04:39	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110900044A	04/05/2011 09:33	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110900044A	04/01/2011 13:30	Olivia I Santiago	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: RB-1 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6239342
LLI Group # 1238967
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/24/2011 11:30 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/25/2011 09:15

Reported: 04/06/2011 08:03

EDRB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/30/2011 05:01	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/30/2011 05:01	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	110900044A	04/05/2011 09:54	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	110900044A	04/01/2011 13:30	Olivia I Santiago	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: Trip_Blank Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6239343
LLI Group # 1238967
Account # 11964

Project Name: Edmonds Terminal

Collected: 03/24/2011

Chevron

Submitted: 03/25/2011 09:15

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Reported: 04/06/2011 08:03

EDMTB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11088A20A	03/29/2011 23:56	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11088A20A	03/29/2011 23:56	Elizabeth J Marin	1

Quality Control Summary

Client Name: Chevron
Reported: 04/06/11 at 08:03 AM

Group Number: 1238967

Surrogate Quality Control

Batch number: 110900044A
Orthoterphenyl

6239338	84
6239339	81
6239340	92
6239341	90
6239342	91
Blank	91
LCS	98
LCSD	99

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



223423

For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6239338-43 SCR#: _____

1238967

Facility #: Edmonds Terminal
 Site Address: 11720 Unoco Rd, Edmonds WA
 Chevron PM: Km Jolitz Lead Consultant: ARCADIS
 Consultant/Office: ARCADIS, Seattle
 Consultant Prj. Mgr.: Rebecca Andresen
 Consultant Phone #: 2063255254 Fax #: _____
 Sampler: OR/SM
 Service Order #: 130015362 Non SAR: _____

Matrix		Analyses Requested												
		Preservation Codes												
Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	H H		VP/IEPH	NWT/PH H	HClD	quantification
					<input type="checkbox"/>									
				5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
				2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

Preservative Codes

H = HCl T = Thiosulfate
 N = HNO₃ B = NaOH
 S = H₂SO₄ O = Other

J value reporting needed
 Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation

Confirm MTBE + Naphthalene
 Confirm highest hit by 8260
 Confirm all hits by 8260
 Run ___ oxy s on highest hit
 Run ___ oxy s on all hits

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	Oxygenates	TPH G	TPH D	Lead Total	Diss.	Method	VP/IEPH	NWT/PH H	HClD	quantification
MW-501	3/24/11	925	X		X				5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X								
MW-500	↓	1055																					
MW-135	↓	945																					
MW-136	↓	1110																					
RB-1	↓	1130																					
Trip Blank	-	-	-						2														

Comments / Remarks

page 1 of 1

Turnaround Time Requested (TAT) (please circle)

STD. TAT 72 hour 48 hour
 24 hour 4 day 5 day

Relinquished by: <u>[Signature]</u>	Date: <u>3/26/11</u>	Time: <u>1500</u>	Received by: <u>FedEx</u>	Date: <u>3/26/11</u>	Time: <u>1500</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Data Package Options (please circle if required)

QC Summary Type I - Full
 Type VI (Raw Data) Disk / EDD
 WIP (RWQCB) Standard Format
 Disk _____ Other.

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by Commercial Carrier:	Date:		Time:	Date:	Time:
UPS <input checked="" type="radio"/> FedEx Other _____	Date:		Time:	Date:	Time:
Temperature Upon Receipt: <u>0.8-1.3</u> °C	Date:		Time:	Date:	Time:
Custody/Seals Intact? <input checked="" type="radio"/> Yes No	Date:		Time:	Date:	Time:

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

June 28, 2011

Project: Edmonds Terminal

Submittal Date: 06/16/2011
Group Number: 1251791
PO Number: 0015074659
Release Number: JOLITZ
State of Sample Origin: WA

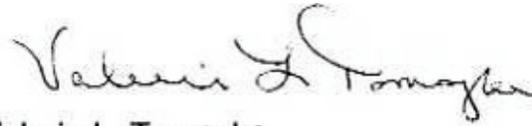
<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-519 Grab Water Sample	6317460
MW-104 Grab Water Sample	6317461
DUP-1 Grab Water Sample	6317462
MW-147 Grab Water Sample	6317463
MW-8R Grab Water Sample	6317464
MW-521 Grab Water Sample	6317465
MW-143 Grab Water Sample	6317466
MW-101 Grab Water Sample	6317467
DUP-2 Grab Water Sample	6317468
MW-523 Grab Water Sample	6317469
MW-522 Grab Water Sample	6317470
MW-520 Grab Water Sample	6317471
MW-20R Grab Water Sample	6317472
Trip_Blank Water Sample	6317473

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Arcadis	Attn: Rebecca Andresen
ELECTRONIC COPY TO	Arcadis	Attn: Scott Zorn
ELECTRONIC COPY TO	Arcadis	Attn: Dave Rasar

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,



Valerie L. Tomayko
Group Leader



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-519 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317460
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 12:55 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM519

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 260	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/23/2011 23:02	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/23/2011 23:02	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720026A	06/22/2011 18:23	Robert Brown	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720026A	06/22/2011 02:30	David V Hershey Jr	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-104 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317461
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 14:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM104

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 1,900	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 340	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/23/2011 23:29	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/23/2011 23:29	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720026A	06/22/2011 19:05	Robert Brown	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720026A	06/22/2011 02:30	David V Hershey Jr	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: DUP-1 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317462
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EMFD1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 1,900	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 350	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/23/2011 23:56	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/23/2011 23:56	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720026A	06/22/2011 19:26	Robert Brown	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720026A	06/22/2011 02:30	David V Hershey Jr	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-147 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317463
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 10:10 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM147

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 250	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 370	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/24/2011 00:22	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/24/2011 00:22	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720026A	06/22/2011 19:46	Robert Brown	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720026A	06/22/2011 02:30	David V Hershey Jr	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-8R Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317464
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 11:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM08R

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 44	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/24/2011 00:49	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/24/2011 00:49	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720026A	06/22/2011 20:07	Robert Brown	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720026A	06/22/2011 02:30	David V Hershey Jr	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-521 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317465
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 12:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM521

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 47	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/24/2011 01:16	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/24/2011 01:16	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720026A	06/22/2011 20:28	Robert Brown	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720026A	06/22/2011 02:30	David V Hershey Jr	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-143 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317466
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 14:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM143

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 1,500	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	220	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/24/2011 01:43	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/24/2011 01:43	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720026A	06/22/2011 20:49	Robert Brown	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720026A	06/22/2011 02:30	David V Hershey Jr	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-101 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317467
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 15:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM101

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 70	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/24/2011 02:10	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/24/2011 02:10	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 18:36	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: DUP-2 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317468
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EMFD2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 68	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	70	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/24/2011 02:37	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/24/2011 02:37	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 18:58	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-523 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317469
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 10:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM523

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 73	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/24/2011 03:04	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/24/2011 03:04	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 19:20	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-522 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317470
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 11:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM522

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 380	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	72	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/24/2011 03:31	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/24/2011 03:31	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 19:41	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-520 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317471
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 12:55 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM520

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 120	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/24/2011 03:57	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/24/2011 03:57	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 20:03	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-20R Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317472
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011 15:02 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/16/2011 09:10

Reported: 06/28/2011 08:40

EM20R

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 71	ug/l 50	1
GC Volatiles					
02102	Benzene	SW-846 8021B 71-43-2	ug/l 3.9	ug/l 0.2	1
GC Extractable TPH w/Si Gel					
ECY 97-602 NWTPH-Dx modified					
02211	DRO C12-C24 w/Si Gel	n.a.	320	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	72	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11171C53A	06/23/2011 00:35	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11171C53A	06/23/2011 00:35	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11171C53A	06/23/2011 00:35	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 20:24	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: Trip_Blank Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6317473
LLI Group # 1251791
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/15/2011

Chevron

Submitted: 06/16/2011 09:10

6001 Bollinger Canyon Rd L4310

Reported: 06/28/2011 08:40

San Ramon CA 94583

EM-TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/23/2011 19:26	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/23/2011 19:26	Marie D John	1

Quality Control Summary

 Client Name: Chevron
 Reported: 06/28/11 at 08:40 AM

Group Number: 1251791

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11171C53A	Sample number(s): 6317472							
Benzene	N.D.	0.2	ug/l	105	105	80-120	0	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	109	109	75-135	0	30
Batch number: 11173A53A	Sample number(s): 6317460-6317471, 6317473							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	109		75-135		
Batch number: 111720026A	Sample number(s): 6317460-6317466							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	86	84	56-103	3	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 111720035A	Sample number(s): 6317467-6317472							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	61		56-103		
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11173A53A	Sample number(s): 6317460-6317471, 6317473 UNSPK: P319390								
NWTPH-Gx water C7-C12	100	100	57-157	0	30				
Batch number: 111720035A	Sample number(s): 6317467-6317472 UNSPK: P319390								
DRO C12-C24 w/Si Gel	77	72	60-120	6	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

 Analysis Name: Method 8021 Water Master
 Batch number: 11171C53A
 Trifluorotoluene-P Trifluorotoluene-F

6317472	67	69
Blank	66	66
LCS	66	83

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 06/28/11 at 08:40 AM

Group Number: 1251791

Surrogate Quality Control

LCSD	65	84
Limits:	58-146	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11173A53A
Trifluorotoluene-F

6317460	66
6317461	72
6317462	71
6317463	70
6317464	68
6317465	69
6317466	67
6317467	66
6317468	66
6317469	66
6317470	67
6317471	67
6317473	73
Blank	66
LCS	84
MS	83
MSD	83

Limits: 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111720026A
Orthoterphenyl

6317460	103
6317461	105
6317462	102
6317463	104
6317464	99
6317465	105
6317466	107
Blank	103
LCS	112
LCSD	109

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111720035A
Orthoterphenyl

6317467	93
6317468	96
6317469	95
6317470	94
6317471	94
6317472	96
Blank	100
LCS	85

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 06/28/11 at 08:40 AM

Group Number: 1251791

Surrogate Quality Control

MS	104
MSD	96

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



Acct. #: 11964

For Lancaster Laboratories use only
Sample #: 6317460-73

SCR#: _____
223390

Analyses Requested

C# 1251791

Facility #: Edmonds Terminal
 Site Address: 11720 Unolo Rd, Edmonds WA
 Chevron PM: Kim Jolitz Lead Consultant: ARCADIS
 Consultant/Office: ARCADIS Seattle
 Consultant Prj. Mgr.: Rebecca Andresen
 Consultant Phone #: 206 325 5254 Fax #: _____
 Sampler: DR/SM/HW
 Service Order #: B0045362 Non SAR:

Matrix

Potable
 NPDES
 Water
 Oil
 Air

Total Number of Containers

Preservation Codes	
<input type="checkbox"/> BTEX + MTBE 8021	<input type="checkbox"/> 8260 Naphth
<input type="checkbox"/> 8260 full scan	Oxygenates
<input type="checkbox"/> NWTPH G	<input type="checkbox"/> Extended Rng.
<input type="checkbox"/> NWTPH D	<input checked="" type="checkbox"/> Silica Gel Cleanup
Lead Total	<input type="checkbox"/> Diss. <input type="checkbox"/> Method
VPHEPH	NWTPH HClID <input type="checkbox"/> quantification
Benzene	

Preservative Codes
 H = HCl T = Thiosulfate
 N = HNO₃ B = NaOH
 S = H₂SO₄ O = Other

- J value reporting needed
- Must meet lowest detection limits possible for 8260 compounds
- 8021 MTBE Confirmation
 - Confirm MTBE + Naphthalene
 - Confirm highest hit by 8260
 - Confirm all hits by 8260
 - Run ___ oxy s on highest hit
 - Run ___ oxy s on all hits

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8021	8260 full scan	Oxygenates	NWTPH G	NWTPH D	Lead Total	VPHEPH	NWTPH HClID	quantification	Benzene
MW-519	6/15/11	1255	X			X			5										
MW-104		1405																	
Dyp-1																			
MW-147		1010																	
MW-8R		1120																	
MW-521		1225																	
MW-143		1400																	
MW-101		1515																	
Dyp-2																			
MW-523		1005																	
MW-522		1140																	
MW-520		1255																	
MW-20R		1502																	X

Comments / Remarks
 page 1 of 1

Turnaround Time Requested (TAT) (please circle)
 STD. TAT 72 hour 48 hour
 24 hour 4 day 5 day

Relinquished by: [Signature] Date: 6/15/11 Time: 1600 Received by: FedEx Date: 6/15/11 Time: 1800

Data Package Options (please circle if required)
 QC Summary Type I - Full
 Type VI (Raw Data) Disk / EDD
 WIP (RWQCB) Standard Format
 Disk _____ Other.

Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____
 Relinquished by Commercial Carrier: _____ Received by: _____ Date: 6/14/11 Time: 910
 UPS FedEx Other _____ Temperature Upon Receipt _____ °C 1.8 - 4.7 Custody Seals Intact? Yes No

Chevron Northwest Region Analysis Request/Chain of Custody

220887



For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6317460-73 SCR#: _____

Facility #: <u>Edmonds Terminal</u> Site Address: <u>11720 Unico Rd, Edmonds WA</u> Chevron PM: <u>Kim Jolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>ARCADIS, Seattle</u> Consultant Prj. Mgr.: <u>Rebecca Andersen</u> Consultant Phone #: <u>206 325 5254</u> Fax #: _____ Sampler: <u>DR / sm / HW</u> Service Order #: <u>80045362</u> <input type="checkbox"/> Non SAR: _____				Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Analyses Requested Preservation Codes <input type="checkbox"/> BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan <input type="checkbox"/> Oxygenates <input checked="" type="checkbox"/> <u>NWTPHG</u> <input type="checkbox"/> TPH D <input type="checkbox"/> Extended Rng. <input type="checkbox"/> Silica Gel Cleanup Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method VPI/EPH NWTPH/H/ClD <input type="checkbox"/> quantification										G# <u>1251791</u> Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits							
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8021	8260 full scan	Oxygenates	NWTPHG	TPH D	Extended Rng.	Silica Gel Cleanup	Lead Total	Diss.	Method	VPI/EPH	NWTPH/H/ClD	quantification	Comments / Remarks
<u>Trip Blank</u>	<u>-</u>	<u>-</u>				<input checked="" type="checkbox"/>			<u>2</u>				<input checked="" type="checkbox"/>										<u>page 2 of 2</u>
Turnaround Time Requested (TAT) (please circle) <input checked="" type="checkbox"/> STD. TAT 72 hour 48 hour 24 hour 4 day 5 day										Relinquished by: <u>[Signature]</u> Date: <u>6/15/11</u> Time: <u>1600</u> Relinquished by: _____ Date: _____ Time: _____					Received by: <u>[Signature]</u> Date: <u>6/15/11</u> Time: <u>1600</u> Received by: _____ Date: _____ Time: _____								
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) Disk / EDD WIP (RWQCB) Standard Format Disk _____ Other.										Relinquished by: _____ Date: _____ Time: _____ Relinquished by Commercial Carrier: UPS FedEx Other _____					Received by: <u>[Signature]</u> Date: <u>6/16/11</u> Time: <u>910</u> Temperature Upon Receipt _____ °C <u>8°-4.7°</u> Custody Seals Intact? <input checked="" type="checkbox"/> Yes No								

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

June 29, 2011

Project: Edmonds Terminal

Submittal Date: 06/17/2011
Group Number: 1252072
PO Number: 0015074659
Release Number: JOLITZ
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-518 Grab Water Sample	6319389
MW-139R Unspiked Grab Water Sample	6319390
MW-139RMS Matrix Spike Grab Water Sample	6319391
MW-139RMSD Matrix Spike Dup Grab Water Sample	6319392
MW-509 Grab Water Sample	6319393
MW-512 Grab Water Sample	6319394
DUP-3 Grab Water Sample	6319395
MW-506 Grab Water Sample	6319396
MW-109 Grab Water Sample	6319397
MW-108 Grab Water Sample	6319398
LM-2 Grab Water Sample	6319399
MW-508 Grab Water Sample	6319400
MW-515 Grab Water Sample	6319401
MW-516 Grab Water Sample	6319402
MW-517 Grab Water Sample	6319403
MW-514 Grab Water Sample	6319404
MW-513 Grab Water Sample	6319405
Trip_Blank Water Sample	6319406

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Arcadis
COPY TO
ELECTRONIC Arcadis

Attn: Rebecca Andresen

Attn: Scott Zorn

COPY TO
ELECTRONIC Arcadis
COPY TO

Attn: Dave Rasar

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-518 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319389
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 10:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE518

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 140	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 200	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 14:09	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 14:09	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 20:46	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-139R Unspiked Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319390
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 11:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE139

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 56	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	870	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/23/2011 20:20	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/23/2011 20:20	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 21:08	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-139RMS Matrix Spike Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319391
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 11:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE139

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 1,100	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 650	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/23/2011 20:46	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/23/2011 20:46	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 21:29	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-139RMSD Matrix Spike Dup Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319392
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 11:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE139

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 1,100	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 610	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/23/2011 21:13	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/23/2011 21:13	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 21:51	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-509 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319393
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 12:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE509

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 11:55	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 11:55	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 10:18	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-512 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319394
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 13:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE512

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 74	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 200	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 12:17	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 12:17	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 10:38	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: DUP-3 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319395
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UEFD3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 79	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 190	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 12:39	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 12:39	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 10:59	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-506 Grab Water Sample
 Unocal Edmonds Terminal
 11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319396
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 14:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE506

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 50	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 13:01	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 13:01	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 11:20	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-109 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319397
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 10:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE109

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 96	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	100	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 13:22	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 13:22	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 11:40	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-108 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319398
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 11:10 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE108

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 140	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 13:44	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 13:44	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 12:01	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: LM-2 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319399
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 12:30 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UELM2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 1,800	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	520	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 14:06	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 14:06	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 12:22	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-508 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319400
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 14:50 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE508

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 150	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 14:28	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 14:28	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 12:42	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-515 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319401
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 10:26 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE515

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 200	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 14:50	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 14:50	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 13:03	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-516 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319402
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 11:33 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE516

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 170	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 15:12	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 15:12	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 13:24	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-517 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319403
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 12:41 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE517

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 89	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 15:33	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 15:33	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730028A	06/25/2011 00:24	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730028A	06/23/2011 09:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-514 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319404
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 13:45 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE514

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 170	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 230	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 15:55	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 15:55	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730028A	06/25/2011 00:46	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730028A	06/23/2011 09:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-513 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319405
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 14:43 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 06/29/2011 10:19

UE513

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 100	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 230	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 16:17	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 16:17	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730028A	06/25/2011 01:07	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730028A	06/23/2011 09:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: Trip_Blank Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319406
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011

Chevron

Submitted: 06/17/2011 09:15

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Reported: 06/29/2011 10:19

UETR

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 10:50	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 10:50	Laura M Krieger	1

Quality Control Summary

 Client Name: Chevron
 Reported: 06/29/11 at 10:19 AM

Group Number: 1252072

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11173A53A NWTPH-Gx water C7-C12	Sample number(s): 6319390-6319392 N.D.	50.	ug/l	109		75-135		
Batch number: 11174B20A NWTPH-Gx water C7-C12	Sample number(s): 6319393-6319406 N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 11175B20A NWTPH-Gx water C7-C12	Sample number(s): 6319389 N.D.	50.	ug/l	100		75-135		
Batch number: 111720035A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6319389-6319392 N.D. N.D.	30. 70.	ug/l ug/l	61		56-103		
Batch number: 111730001A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6319393-6319402 N.D. N.D.	30. 70.	ug/l ug/l	75	78	56-103	3	20
Batch number: 111730028A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6319403-6319405 N.D. N.D.	30. 70.	ug/l ug/l	75	79	56-103	5	20

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11173A53A NWTPH-Gx water C7-C12	Sample number(s): 6319390-6319392 100	100	57-157	0	30	UNSPK: 6319390			
Batch number: 11175B20A NWTPH-Gx water C7-C12	Sample number(s): 6319389 109	109	57-157	0	30	UNSPK: P320826			
Batch number: 111720035A DRO C12-C24 w/Si Gel	Sample number(s): 6319389-6319392 77	72	60-120	6	20	UNSPK: 6319390			

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 06/29/11 at 10:19 AM

Group Number: 1252072

Surrogate Quality Control

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11173A53A
Trifluorotoluene-F

6319390	69
6319391	83
6319392	83
Blank	66
LCS	84
MS	83
MSD	83

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11174B20A
Trifluorotoluene-F

6319393	87
6319394	85
6319395	85
6319396	86
6319397	86
6319398	85
6319399	85
6319400	85
6319401	85
6319402	84
6319403	84
6319404	83
6319405	83
6319406	85
Blank	83
LCS	112
LCSD	113

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11175B20A
Trifluorotoluene-F

6319389	83
Blank	81
LCS	113
MS	114
MSD	117

Limits: 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111720035A
Orthoterphenyl

6319389	96
6319390	86

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 06/29/11 at 10:19 AM

Group Number: 1252072

Surrogate Quality Control

6319391	104
6319392	96
Blank	100
LCS	85
MS	104
MSD	96

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111730001A
Orthoterphenyl

6319393	88
6319394	92
6319395	92
6319396	89
6319397	95
6319398	88
6319399	102
6319400	91
6319401	90
6319402	93
Blank	89
LCS	97
LCSD	99

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111730028A
Orthoterphenyl

6319403	100
6319404	95
6319405	102
Blank	100
LCS	102
LCSD	107

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



223961

For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6319389-406 SCR#: _____

Facility #: <u>Edmonds Terminal</u> Site Address: <u>11720 Undo Rd, Edmonds WA</u> Chevron PM: <u>Kim Jolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>ARCADIS, Seattle</u> Consultant Prj. Mgr.: <u>Rebecca Andresen</u> Consultant Phone #: <u>206 325 5254</u> Fax #: _____ Sampler: <u>DR/SM/HW</u> Service Order #: <u>B0045362</u> <input type="checkbox"/> Non SAR: _____			Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Analyses Requested Preservation Codes BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan Oxygenates TPH G <input checked="" type="checkbox"/> TPH D <input checked="" type="checkbox"/> Extended Rng. Silica Gel Cleanup <input checked="" type="checkbox"/> Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method <input type="checkbox"/> VPI/EPH NWTPH H-ACID <input type="checkbox"/> quantification										Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits						
Sample Identification			Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers										
MW-518			6/16/11	1005	<input checked="" type="checkbox"/>						5										
MW-139R				1100																	
MW-139RMS				1100																	
MW-139RMSD				1100																	
MW-509				1215																	
MW-512				1315																	
Dup-3																					
MW-506				1420																	
MW-109				1005																	
MW-108				1110																	
LM-2				1230																	
MW-508				1450																	
MW-515				1026																	
Turnaround Time Requested (TAT) (please circle) (STD. TAT) 24 hour 72 hour 48 hour 4 day 5 day												Relinquished by: <u>[Signature]</u> Date: <u>6/16/11</u> Time: <u>1630</u> Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____ Relinquished by Commercial Carrier: _____ Received by: <u>[Signature]</u> Date: <u>6/16/11</u> Time: <u>0915</u> UPS FedEx Other _____ Temperature Upon Receipt <u>25-3.6</u> °C Custody Seals Intact? <input checked="" type="checkbox"/> Yes No									

C# 1252012

page 1 of 2

Chevron Northwest Region Analysis Request/Chain of Custody



223962

For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6319389-406 SCR#: _____

Facility #: <u>Edmonds Terminal</u> Site Address: <u>11720 Union Rd, Edmonds, WA</u> Chevron PM: <u>Kim Jolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>ARCADIS, Seattle</u> Consultant Prj. Mgr.: <u>Rebecca Andresen</u> Consultant Phone #: <u>2063255254</u> Fax #: _____ Sampler: <u>DR/SM/HN</u> Service Order #: <u>80045362</u> <input type="checkbox"/> Non SAR: _____				Matrix Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>		Analyses Requested Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits															
Sample Identification			Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan	Oxygenates	TPH G	TPH D <input type="checkbox"/> Extended Rtg. <input type="checkbox"/> Silica Gel Cleanup <input type="checkbox"/> Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method <input type="checkbox"/>	VP/EPH	NWT/PH/HCID <input type="checkbox"/> quantification	G# <u>1252072</u>			
MW-516	6/16/11	1133	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Comments / Remarks page 2 of 2			
MW-517	↓	1241	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	↓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
MW-514	↓	1345	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	↓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
MW-513	↓	1443	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	↓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Trip Blank	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Turnaround Time Requested (TAT) (please circle) STD. TAT 72 hour 48 hour 24 hour 4 day 5 day			Relinquished by: <u>[Signature]</u> Date: <u>6/16/11</u> Time: <u>1630</u> Relinquished by: _____ Date: _____ Time: _____			Received by: <u>[Signature]</u> Date: <u>6/16/11</u> Time: <u>1650</u> Received by: _____ Date: _____ Time: _____															
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) Disk / EDD WIP (RWQCB) Standard Format Disk _____ Other.			Relinquished by: _____ Date: _____ Time: _____ Relinquished by Commercial Carrier: _____ Received by: _____ Date: <u>6/16/11</u> Time: <u>0916</u> UPS <u>FedEx</u> Other _____ Temperature Upon Receipt <u>26-30</u> C° Custody Seals Intact? <u>Yes</u> No			Received by: _____ Date: _____ Time: _____															

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

June 29, 2011

Project: Edmonds Terminal

Submittal Date: 06/18/2011
Group Number: 1252272
PO Number: 0015074659
Release Number: JOLITZ
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-136 Grab Water Sample	6320812
MW-503 Grab Water Sample	6320813
DUP-4 Grab Water Sample	6320814
MW-502 Grab Water Sample	6320815
MW-511 Grab Water Sample	6320816
MW-150 Grab Water Sample	6320817
MW-500 Grab Water Sample	6320818
MW-501 Grab Water Sample	6320819
MW-504 Grab Water Sample	6320820
MW-524 Grab Water Sample	6320821
MW-135 Grab Water Sample	6320822
MW-129R Grab Water Sample	6320823
MW-507 Grab Water Sample	6320824
MW-505 Grab Water Sample	6320825
MW-149R Unspiked Grab Water Sample	6320826
MW-149RMS Matrix Spike Grab Water Sample	6320827
MW-149RMSD Matrix Spike Dup Grab Water Sample	6320828
Trip_Blank Water Sample	6320829

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Arcadis
COPY TO
ELECTRONIC Arcadis

Attn: Rebecca Andresen

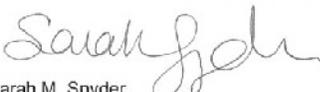
Attn: Scott Zorn

COPY TO
ELECTRONIC Arcadis
COPY TO

Attn: Dave Rasar

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist



Analysis Report

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Sample Description: MW-136 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320812
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 09:50 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET136

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 510	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	110	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 17:22	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 17:22	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740014A	06/25/2011 06:51	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740014A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

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Sample Description: MW-503 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320813
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 10:50 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET503

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 140	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 17:44	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 17:44	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740014A	06/25/2011 06:09	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740014A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

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Sample Description: DUP-4 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320814
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ETFD4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 160	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 14:31	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 14:31	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740014A	06/25/2011 06:30	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740014A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

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Sample Description: MW-502 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320815
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 11:45 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET502

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 150	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 14:53	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 14:53	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740015A	06/25/2011 15:15	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740015A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

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Sample Description: MW-511 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320816
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 13:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET511

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 100	ug/l 30	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	70	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 15:14	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 15:14	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740015A	06/25/2011 15:37	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740015A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-150 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320817
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 14:30 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET150

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 190	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 15:36	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 15:36	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740015A	06/25/2011 15:59	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740015A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

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Sample Description: MW-500 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320818
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 09:57 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET500

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 130	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 15:58	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 15:58	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740015A	06/25/2011 16:20	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740015A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

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Page 1 of 1

Sample Description: MW-501 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320819
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 11:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET501

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 340	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	82	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 16:20	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 16:20	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740015A	06/25/2011 16:42	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740015A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-504 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320820
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 13:16 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET504

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 60	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 16:41	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 16:41	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740015A	06/25/2011 17:03	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740015A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-524 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320821
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 14:44 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET524

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 36	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 17:03	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 17:03	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740015A	06/25/2011 17:25	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740015A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-135 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320822
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 09:50 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET135

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 550	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	210	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 17:25	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 17:25	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740015A	06/25/2011 17:46	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740015A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-129R Grab Water Sample
 Unocal Edmonds Terminal
 11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320823
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 10:55 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET129

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 1,600	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	310	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 17:47	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 17:47	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740015A	06/25/2011 18:08	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740015A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-507 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320824
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 12:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET507

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 200	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	88	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 18:09	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 18:09	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740015A	06/25/2011 18:29	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740015A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-505 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320825
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 13:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET505

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 100	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 18:30	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 18:30	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740016A	06/25/2011 19:52	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740016A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-149R Unspiked Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320826
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 14:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET149

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 82	ug/l 28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 13:03	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 13:03	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740016A	06/25/2011 20:12	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740016A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-149RMS Matrix Spike Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320827
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 14:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET149

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 1,200	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 670	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	84	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 13:25	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 13:25	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740016A	06/25/2011 20:33	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740016A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-149RMSD Matrix Spike Dup Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320828
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011 14:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/18/2011 10:15

Reported: 06/29/2011 10:22

ET149

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 1,200	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 650	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	70	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 13:47	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 13:47	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740016A	06/25/2011 20:54	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740016A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: Trip_Blank Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6320829
LLI Group # 1252272
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/17/2011

Chevron

Submitted: 06/18/2011 10:15

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Reported: 06/29/2011 10:22

ETTRB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 11:36	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 11:36	Laura M Krieger	1

Quality Control Summary

Client Name: Chevron

Group Number: 1252272

Reported: 06/29/11 at 10:22 AM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11174B20A NWTPH-Gx water C7-C12	Sample number(s): 6320812-6320813 N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 11175B20A NWTPH-Gx water C7-C12	Sample number(s): 6320814-6320829 N.D.	50.	ug/l	100		75-135		
Batch number: 111740014A DRO C12-C24 w/Si Gel	Sample number(s): 6320812-6320814 N.D.	30.	ug/l	71	76	56-103	7	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 111740015A DRO C12-C24 w/Si Gel	Sample number(s): 6320815-6320824 N.D.	30.	ug/l	78	78	56-103	0	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 111740016A DRO C12-C24 w/Si Gel	Sample number(s): 6320825-6320828 N.D.	30.	ug/l	70		56-103		
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11175B20A NWTPH-Gx water C7-C12	Sample number(s): 6320814-6320829 109	109	57-157	0	30	UNSPK: 6320826			
Batch number: 111740016A DRO C12-C24 w/Si Gel	Sample number(s): 6320825-6320828 77	75	60-120	3	20	UNSPK: 6320826			

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11174B20A
Trifluorotoluene-F

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 06/29/11 at 10:22 AM

Group Number: 1252272

Surrogate Quality Control

6320812 84
6320813 84
Blank 83
LCS 112
LCSD 113

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11175B20A
Trifluorotoluene-F

6320814 84
6320815 84
6320816 84
6320817 84
6320818 85
6320819 85
6320820 85
6320821 84
6320822 83
6320823 86
6320824 85
6320825 84
6320826 82
6320827 114
6320828 117
6320829 82
Blank 81
LCS 113
MS 114
MSD 117

Limits: 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111740014A
Orthoterphenyl

6320812 99
6320813 94
6320814 100
Blank 96
LCS 96
LCSD 103

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111740015A
Orthoterphenyl

6320815 96
6320816 97
6320817 101
6320818 88
6320819 100

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 06/29/11 at 10:22 AM

Group Number: 1252272

Surrogate Quality Control

6320820	99
6320821	95
6320822	106
6320823	112
6320824	91
Blank	84
LCS	106
LCSD	104

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111740016A
Orthoterphenyl

6320825	98
6320826	95
6320827	105
6320828	98
Blank	85
LCS	99
MS	105
MSD	98

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



223391

For Lancaster Laboratories use only
 Acct. #: 11964 Sample # 6320812-29 SCR#: _____

Facility #: <u>Edmonds Terminal</u> Site Address: <u>1720 Unoco Rd, Edmonds WA</u> Chevron PM: <u>Kim Jolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>ARCADIS, Seattle</u> Consultant Prj. Mgr.: <u>Rebecca Andresen</u> Consultant Phone #: <u>206-325-5254</u> Fax #: _____ Sampler: <u>PR/SM/HW</u> Service Order #: <u>80045302</u> <input type="checkbox"/> Non SAR: _____					Analyses Requested Preservation Codes H H BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan Oxygenates NWTPH G NWTPH D Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method VPH/EPH NWTPH H/ClID <input type="checkbox"/> quantification					Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits																	
Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air					Total Number of Containers BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan Oxygenates NWTPH G NWTPH D Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method VPH/EPH NWTPH H/ClID <input type="checkbox"/> quantification					Preservative Codes H H BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan Oxygenates NWTPH G NWTPH D Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method VPH/EPH NWTPH H/ClID <input type="checkbox"/> quantification																	
Sample Identification			Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Comments / Remarks page 2 of 2																
MW-505			6/17/11	1300	X		X		5																		
MW-149R			↓	1425			↓		↓																		
MW-149RMS			↓	1425			↓		↓																		
MW-149RMSD			↓	1425			↓		↓																		
Trip Blank			-	-			X		2																		
Turnaround Time Requested (TAT) (please circle) STD. TAT 72 hour 48 hour 24 hour 4 day 5 day					Relinquished by: <u>[Signature]</u> Date: <u>6/17/11</u> Time: <u>1630</u> Relinquished by: _____ Date: _____ Time: _____					Received by: <u>[Signature]</u> Date: <u>6/17/11</u> Time: <u>1630</u> Received by: _____ Date: _____ Time: _____																	
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) Disk / EDD WIP (RWQCB) Standard Format Disk _____ Other.					Relinquished by: _____ Date: _____ Time: _____ Relinquished by Commercial Carrier: UPS <u>FedEx</u> Other: _____ Temperature Upon Receipt <u>20-30</u> °C					Received by: <u>[Signature]</u> Date: <u>6/17/11</u> Time: <u>1630</u> Received by: _____ Date: _____ Time: _____ Custody Seals Intact? <u>Yes</u> No																	

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

June 29, 2011

Project: Edmonds Terminal

Submittal Date: 06/21/2011
Group Number: 1252553
PO Number: 0015074659
Release Number: JOLITZ
State of Sample Origin: WAClient Sample DescriptionMW-510 Grab Water Sample
RB-1 Composite Water Sample
Trip_Blank Water SampleLancaster Labs (LLI) #6322423
6322424
6322425

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Arcadis
COPY TO
ELECTRONIC Arcadis
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ELECTRONIC Arcadis
COPY TO

Attn: Rebecca Andresen

Attn: Scott Zorn

Attn: Dave Rasar

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-510 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6322423
LLI Group # 1252553
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/20/2011 09:40 by SM

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/21/2011 09:30

Reported: 06/29/2011 10:22

UE510

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 200	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 12,000	ug/l 140	5
02211	HRO C24-C40 w/Si Gel	n.a.	3,100	330	5

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 18:52	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 18:52	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740016A	06/25/2011 23:39	Glorines Suarez-Rivera	5
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740016A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: RB-1 Composite Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6322424
LLI Group # 1252553
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/20/2011 10:30 by SM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/21/2011 09:30

Reported: 06/29/2011 10:22

UERB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Extractable TPH w/Si Gel					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 29	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 11:58	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 11:58	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111740016A	06/25/2011 21:14	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111740016A	06/24/2011 08:00	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: Trip_Blank Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6322425
LLI Group # 1252553
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/20/2011

Chevron

Submitted: 06/21/2011 09:30

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Reported: 06/29/2011 10:22

UETB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 12:20	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 12:20	Laura M Krieger	1

Quality Control Summary

Client Name: Chevron
Reported: 06/29/11 at 10:22 AM

Group Number: 1252553

Surrogate Quality Control

Batch number: 111740016A
Orthoterphenyl

6322423	169*
6322424	95
Blank	85
LCS	99
MS	105
MSD	98

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



223959

For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 632242325 SCR#: _____

Facility #: <u>Edmonds Terminal</u> Site Address: <u>11720 Unoio Rd, Edmonds WA</u> Chevron PM: <u>Kim Jolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>ARCADIS - US / SEATTLE</u> Consultant Prj. Mgr.: <u>SCOTT ZORN</u> Consultant Phone #: <u>206-726-5254</u> Fax #: _____ Sampler: <u>SEAMUS MCGUIRE</u> Service Order #: <u>80045362</u> <input type="checkbox"/> Non SAR: _____				Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air Total Number of Containers: _____		Analyses Requested Preservation Codes: <u>HH</u> <input type="checkbox"/> BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan Oxygenates <input checked="" type="checkbox"/> TPH G <input checked="" type="checkbox"/> TPH D <input type="checkbox"/> Extended Rng. <input checked="" type="checkbox"/> Silica Gel Cleanup Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method VPH/EPH NWTTPH HClID <input type="checkbox"/> quantification										C# <u>1252553</u> Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits										
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total	BTEX + MTBE	8260	Naphth	8260 full scan	Oxygenates	TPH G	TPH D	Extended Rng.	Silica Gel Cleanup	Lead Total	Diss.	Method	VPH/EPH	NWTTPH HClID	quantification	Comments / Remarks	
MW-510	6-20-11	0910	X			X	X		6						X	X										page 1 of 1
RB-1	6-20-11	1030		X		X			5						X	X										
Trip Bank						X			2						X	X										
Turnaround Time Requested (TAT) (please circle)			Relinquished by: <u>[Signature]</u>			Date	Time	Received by: <u>FedEx</u>			Date	Time														
STD. TAT <u>72 hour</u> 48 hour 24 hour 4 day 5 day			Relinquished by: _____			Date	Time	Received by: _____			Date	Time														
Data Package Options (please circle if required)			Relinquished by: _____			Date	Time	Received by: _____			Date	Time														
QC Summary Type I - Full Type VI (Raw Data) Disk / EDD WIP (RWQCB) Standard Format Disk Other.			Relinquished by Commercial Carrier:			Received by:			Temperature Upon Receipt <u>2.4</u> °C			Custody Seals Intact? <u>Yes</u> No														
			UPS <u>FedEx</u> Other _____			<u>[Signature]</u>																				

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

REVISED

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

August 05, 2011

Project: Edmonds Terminal

Submittal Date: 06/17/2011
Group Number: 1252072
PO Number: 0015074659
Release Number: JOLITZ
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-518 Grab Water Sample	6319389
MW-139R Unspiked Grab Water Sample	6319390
MW-139RMS Matrix Spike Grab Water Sample	6319391
MW-139RMSD Matrix Spike Dup Grab Water Sample	6319392
MW-509 Grab Water Sample	6319393
MW-512 Grab Water Sample	6319394
DUP-3 Grab Water Sample	6319395
MW-506 Grab Water Sample	6319396
MW-109 Grab Water Sample	6319397
MW-108 Grab Water Sample	6319398
LM-2 Grab Water Sample	6319399
MW-508 Grab Water Sample	6319400
MW-515 Grab Water Sample	6319401
MW-516 Grab Water Sample	6319402
MW-517 Grab Water Sample	6319403
MW-514 Grab Water Sample	6319404
MW-513 Grab Water Sample	6319405
Trip_Blank Water Sample	6319406

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Arcadis
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Attn: Rebecca Andresen

Attn: Scott Zorn

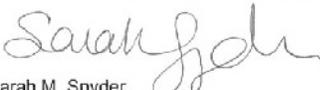
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ELECTRONIC Arcadis
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Attn: Dave Rasar

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist



Analysis Report

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Page 1 of 1

REVISED

Sample Description: MW-518 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319389
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 10:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE518

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 140	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 200	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11175B20A	06/25/2011 14:09	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11175B20A	06/25/2011 14:09	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 20:46	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

REVISED

Sample Description: MW-139R Unspiked Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319390
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 11:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE139

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 56	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	870	67	1

The sample extract was re-injected and confirmed the reported results. The sample was re-extracted past the method hold time. Results from the re-extraction are N.D. (<MDL) for both DRO and HRO. Since the hold time had expired prior to the re-extraction, all reported data is taken from the original extraction.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/23/2011 20:20	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/23/2011 20:20	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 21:08	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

REVISED

Sample Description: MW-139RMS Matrix Spike Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319391
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 11:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE139

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	1,100	50	1
GC Petroleum Hydrocarbons					
	ECY 97-602 NWTPH-Dx modified		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	650	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/23/2011 20:46	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/23/2011 20:46	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 21:29	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: MW-139RMSD Matrix Spike Dup Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319392
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 11:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE139

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 1,100	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 610	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11173A53A	06/23/2011 21:13	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11173A53A	06/23/2011 21:13	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111720035A	06/24/2011 21:51	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111720035A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: MW-509 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319393
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 12:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE509

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 11:55	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 11:55	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 10:18	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: MW-512 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319394
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 13:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE512

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 74	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 200	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 12:17	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 12:17	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 10:38	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: DUP-3 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319395
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UEFD3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 79	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 190	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 12:39	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 12:39	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 10:59	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



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Sample Description: MW-506 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319396
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 14:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE506

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 50	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 13:01	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 13:01	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 11:20	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: MW-109 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319397
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 10:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE109

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 96	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	100	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 13:22	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 13:22	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 11:40	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: MW-108 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319398
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 11:10 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE108

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 140	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 13:44	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 13:44	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 12:01	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: LM-2 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319399
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 12:30 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UELM2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 1,800	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	520	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 14:06	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 14:06	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 12:22	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: MW-508 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319400
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 14:50 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE508

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 150	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 14:28	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 14:28	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 12:42	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: MW-515 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319401
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 10:26 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE515

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 200	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 14:50	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 14:50	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 13:03	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: MW-516 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319402
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 11:33 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE516

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 170	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 15:12	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 15:12	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730001A	06/25/2011 13:24	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730001A	06/22/2011 09:00	Catherine R Wiker	1



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REVISED

Sample Description: MW-517 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319403
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 12:41 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE517

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 89	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 15:33	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 15:33	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730028A	06/25/2011 00:24	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730028A	06/23/2011 09:00	Cynthia J Salvatori	1



Analysis Report

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REVISED

Sample Description: MW-514 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319404
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 13:45 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE514

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 170	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 230	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 15:55	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 15:55	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730028A	06/25/2011 00:46	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730028A	06/23/2011 09:00	Cynthia J Salvatori	1



Analysis Report

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REVISED

Sample Description: MW-513 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319405
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011 14:43 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 06/17/2011 09:15

Reported: 08/05/2011 16:54

UE513

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 100	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 230	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 16:17	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 16:17	Laura M Krieger	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111730028A	06/25/2011 01:07	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111730028A	06/23/2011 09:00	Cynthia J Salvatori	1



Analysis Report

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REVISED

Sample Description: Trip_Blank Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6319406
LLI Group # 1252072
Account # 11964

Project Name: Edmonds Terminal

Collected: 06/16/2011

Chevron

Submitted: 06/17/2011 09:15

6001 Bollinger Canyon Rd L4310

Reported: 08/05/2011 16:54

San Ramon CA 94583

UETR

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11174B20A	06/24/2011 10:50	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11174B20A	06/24/2011 10:50	Laura M Krieger	1

Quality Control Summary

 Client Name: Chevron
 Reported: 08/05/11 at 04:54 PM

Group Number: 1252072

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11173A53A NWTPH-Gx water C7-C12	Sample number(s): 6319390-6319392 N.D.	50.	ug/l	109		75-135		
Batch number: 11174B20A NWTPH-Gx water C7-C12	Sample number(s): 6319393-6319406 N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 11175B20A NWTPH-Gx water C7-C12	Sample number(s): 6319389 N.D.	50.	ug/l	100		75-135		
Batch number: 111720035A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6319389-6319392 N.D. N.D.	30. 70.	ug/l ug/l	61		56-103		
Batch number: 111730001A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6319393-6319402 N.D. N.D.	30. 70.	ug/l ug/l	75	78	56-103	3	20
Batch number: 111730028A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6319403-6319405 N.D. N.D.	30. 70.	ug/l ug/l	75	79	56-103	5	20

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11173A53A NWTPH-Gx water C7-C12	Sample number(s): 6319390-6319392 100	100	57-157	0	30	UNSPK: 6319390			
Batch number: 11175B20A NWTPH-Gx water C7-C12	Sample number(s): 6319389 109	109	57-157	0	30	UNSPK: P320826			
Batch number: 111720035A DRO C12-C24 w/Si Gel	Sample number(s): 6319389-6319392 77	72	60-120	6	20	UNSPK: 6319390			

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 08/05/11 at 04:54 PM

Group Number: 1252072

Surrogate Quality Control

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11173A53A
Trifluorotoluene-F

6319390	69
6319391	83
6319392	83
Blank	66
LCS	84
MS	83
MSD	83

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11174B20A
Trifluorotoluene-F

6319393	87
6319394	85
6319395	85
6319396	86
6319397	86
6319398	85
6319399	85
6319400	85
6319401	85
6319402	84
6319403	84
6319404	83
6319405	83
6319406	85
Blank	83
LCS	112
LCSD	113

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11175B20A
Trifluorotoluene-F

6319389	83
Blank	81
LCS	113
MS	114
MSD	117

Limits: 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111720035A
Orthoterphenyl

6319389	96
6319390	86

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 08/05/11 at 04:54 PM

Group Number: 1252072

Surrogate Quality Control

6319391	104
6319392	96
Blank	100
LCS	85
MS	104
MSD	96

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111730001A
Orthoterphenyl

6319393	88
6319394	92
6319395	92
6319396	89
6319397	95
6319398	88
6319399	102
6319400	91
6319401	90
6319402	93
Blank	89
LCS	97
LCSD	99

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111730028A
Orthoterphenyl

6319403	100
6319404	95
6319405	102
Blank	100
LCS	102
LCSD	107

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



223962

For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6319389-406 SCR#: _____

Facility #: <u>Edmonds Terminal</u> Site Address: <u>11720 Union Rd, Edmonds, WA</u> Chevron PM: <u>Kim Jolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>ARCADIS, Seattle</u> Consultant Prj. Mgr.: <u>Rebecca Andresen</u> Consultant Phone #: <u>2063255254</u> Fax #: _____ Sampler: <u>DR/SM/HN</u> Service Order #: <u>80045362</u> <input type="checkbox"/> Non SAR: _____			Matrix Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>		Analyses Requested Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other										G# <u>1252072</u> <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits									
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	VPH/EPH	NWT/PH/H/Cl/D	quantification	Lead Total	Diss.	Method	Extended Rtg.	Silica Gel Cleanup	
MW-516	6/16/11	1133	X			X			5															
MW-517	↓	1241																						
MW-514	↓	1345																						
MW-513	↓	1443																						
Trip Blank	—	—							2															
Comments / Remarks <div style="font-size: 2em; font-family: cursive;">page 2 of 2</div>																								
Turnaround Time Requested (TAT) (please circle) STD. TAT <u>24 hour</u> 72 hour 48 hour 4 day 5 day										Relinquished by: <u>[Signature]</u> Date: <u>6/16/11</u> Time: <u>1630</u>			Received by: <u>[Signature]</u> Date: <u>6/16/11</u> Time: <u>1650</u>											
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) Disk / EDD WIP (RWQCB) Standard Format Disk _____ Other.										Relinquished by: _____ Date: _____ Time: _____			Received by: _____ Date: _____ Time: _____											
Relinquished by Commercial Carrier: UPS <u>FedEx</u> Other: _____										Received by: <u>[Signature]</u> Date: <u>6/16/11</u> Time: <u>0916</u>			Temperature Upon Receipt: <u>26-30</u> C° Custody Seals Intact? <u>Yes</u> No											

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

October 26, 2011

Project: Edmonds Terminal

Submittal Date: 09/28/2011
Group Number: 1268726
PO Number: 0015074659
Release Number: JOLITZ
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-524 Grab Water Sample	6421604
MW-8R Grab Water Sample	6421605
MW-20R Grab Water Sample	6421606
MW-101 Grab Water Sample	6421607
MW-518 Grab Water Sample	6421608
MW-522 Grab Water Sample	6421609
MW-150 Grab Water Sample	6421610
MW-147 Grab Water Sample	6421611
Dup-1 Grab Water Sample	6421612
MW-149R Grab Water Sample	6421613
MW-523 Grab Water Sample	6421614
MW-104 Grab Water Sample	6421615
MW-139R Grab Water Sample	6421616
Trip_Blank Water Sample	6421617

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Arcadis	Attn: Rebecca Andresen
ELECTRONIC COPY TO	Arcadis	Attn: Scott Zorn
ELECTRONIC COPY TO	Arcadis	Attn: Dave Rasar

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,



Valerie L. Tomayko
Principal Specialist



Analysis Report

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Sample Description: MW-524 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421604
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 10:39 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE524

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons					
	ECY 97-602 NWTPH-Dx modified		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11276B20A	10/04/2011 13:35	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11276B20A	10/04/2011 13:35	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112770031A	10/15/2011 04:57	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112770031A	10/05/2011 09:25	Cynthia J Salvatori	1



Analysis Report

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Sample Description: MW-8R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421605
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 11:51 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE08R

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 30	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	70	1
The reverse surrogate, capric acid, was present at 0%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11276B20A	10/04/2011 13:57	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11276B20A	10/04/2011 13:57	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112770031A	10/15/2011 05:19	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112770031A	10/05/2011 09:25	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-20R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421606
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 12:41 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE20R

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	SW-846 8021B		ug/l	ug/l	
02102	Benzene	71-43-2	0.9	0.2	1
GC Petroleum Hydrocarbons	ECY 97-602 NWTPH-Dx modified		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, was present at 0%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11277B53A	10/05/2011 16:29	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11277B53A	10/05/2011 16:29	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11277B53A	10/05/2011 16:29	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112770031A	10/15/2011 05:41	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112770031A	10/05/2011 09:25	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-101 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421607
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 13:57 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE101

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11276B20A	10/04/2011 14:44	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11276B20A	10/04/2011 14:44	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112770031A	10/15/2011 06:02	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112770031A	10/05/2011 09:25	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-518 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421608
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 14:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE518

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 230	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 66	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, was present at 0%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11276B20A	10/04/2011 15:06	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11276B20A	10/04/2011 15:06	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112770031A	10/15/2011 06:24	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112770031A	10/05/2011 09:25	Cynthia J Salvatori	1

Sample Description: MW-522 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421609
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 12:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE522

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons					
	ECY 97-602 NWTPH-Dx modified		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	29	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11276B20A	10/04/2011 15:28	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11276B20A	10/04/2011 15:28	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112770031A	10/15/2011 07:29	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112770031A	10/05/2011 09:25	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-150 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421610
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 10:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE150

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, was present at 0%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11276B20A	10/04/2011 15:50	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11276B20A	10/04/2011 15:50	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112770031A	10/15/2011 06:46	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112770031A	10/05/2011 09:25	Cynthia J Salvatori	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-147 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421611
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 11:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE147

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11276B20A	10/04/2011 16:12	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11276B20A	10/04/2011 16:12	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780010A	10/17/2011 03:42	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780010A	10/05/2011 19:40	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: Dup-1 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421612
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UEFD1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 42	ug/l 28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, was present at 1%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11276B20A	10/04/2011 16:34	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11276B20A	10/04/2011 16:34	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780010A	10/17/2011 04:03	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780010A	10/05/2011 19:40	Kathryn I DeHaven	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-149R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421613
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 10:10 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE149

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 30	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte in the Laboratory Control Spikes is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
 The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11278A20A	10/06/2011 01:00	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278A20A	10/06/2011 01:00	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780019A	10/16/2011 18:57	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780019A	10/06/2011 04:30	Roman Kuropatkin	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-523 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421614
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 11:30 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE523

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte in the Laboratory Control Spikes is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11278A20A	10/06/2011 01:22	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278A20A	10/06/2011 01:22	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780019A	10/16/2011 19:19	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780019A	10/06/2011 04:30	Roman Kuropatkin	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-104 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421615
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 13:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE104

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	380	50	1
GC Petroleum Hydrocarbons					
	ECY 97-602 NWTPH-Dx modified		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	37	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte in the Laboratory Control Spikes is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11278A20A	10/06/2011 01:44	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278A20A	10/06/2011 01:44	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780019A	10/16/2011 19:40	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780019A	10/06/2011 04:30	Roman Kuropatkin	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-139R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421616
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011 14:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 17:55

UE139

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte in the Laboratory Control Spikes is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11278A20A	10/06/2011 02:28	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278A20A	10/06/2011 02:28	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780019A	10/16/2011 20:02	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780019A	10/06/2011 04:30	Roman Kuropatkin	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: Trip_Blank Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6421617
LLI Group # 1268726
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/27/2011

Chevron

Submitted: 09/28/2011 09:00

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Reported: 10/26/2011 17:55

UETR

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWT	PH-Gx	ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	SW-846 8021B		ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWT PH-Gx	1	11277B53A	10/05/2011 15:35	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11277B53A	10/05/2011 15:35	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11277B53A	10/05/2011 15:35	Marie D John	1

Quality Control Summary

 Client Name: Chevron
 Reported: 10/26/11 at 05:55 PM

Group Number: 1268726

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11276B20A NWTPH-Gx water C7-C12	Sample number(s): 6421604-6421605, 6421607-6421612 N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 11277B53A Benzene NWTPH-Gx water C7-C12	Sample number(s): 6421606, 6421617 N.D.	0.2	ug/l	105	105	80-120	0	30
	N.D.	50.	ug/l	100	109	75-135	9	30
Batch number: 11278A20A NWTPH-Gx water C7-C12	Sample number(s): 6421613-6421616 N.D.	50.	ug/l	91	90	75-135	1	30
Batch number: 112770031A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6421604-6421610 N.D.	30.	ug/l	74	74	56-103	0	20
	N.D.	70.	ug/l					
Batch number: 112780010A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6421611-6421612 N.D.	30.	ug/l	73	70	56-103	4	20
	N.D.	70.	ug/l					
Batch number: 112780019A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6421613-6421616 N.D.	30.	ug/l	49*	54*	56-103	10	20
	N.D.	70.	ug/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11278A20A NWTPH-Gx water C7-C12	Sample number(s): 6421613-6421616 UNSPK: P422768 100	100	75-135	0	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Gx water C7-C12
 Batch number: 11276B20A

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 10/26/11 at 05:55 PM

Group Number: 1268726

Surrogate Quality Control

Trifluorotoluene-F

6421604	88
6421605	84
6421607	86
6421608	85
6421609	87
6421610	87
6421611	88
6421612	86
Blank	85
LCS	110
LCSD	108

Limits: 63-135

Analysis Name: Method 8021 Water Master
Batch number: 11277B53A

	Trifluorotoluene-P	Trifluorotoluene-F
--	--------------------	--------------------

6421606	81	80
6421617	79	72
Blank	79	72
LCS	80	80
LCSD	80	81

Limits: 58-146 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11278A20A

Trifluorotoluene-F

6421613	91
6421614	93
6421615	104
6421616	90
Blank	90
LCS	111
LCSD	108
MS	112
MSD	113

Limits: 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 112770031A

Orthoterphenyl

6421604	75
6421605	83
6421606	75
6421607	81
6421608	84
6421609	52
6421610	82
Blank	82
LCS	96

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 10/26/11 at 05:55 PM

Group Number: 1268726

Surrogate Quality Control

LCSD 96

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 112780010A
Orthoterphenyl

6421611	100
6421612	91
Blank	80
LCS	100
LCSD	96

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 112780019A
Orthoterphenyl

6421613	85
6421614	76
6421615	69
6421616	81
Blank	82
LCS	79
LCSD	78

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



223835
 For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6421604-17 SCR#: _____

Facility #: <u>Edmonds Terminal</u> Site Address: <u>1720 Uuoco Rd, Edmonds WA</u> Chevron PM: <u>Kim Jolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>ARCADIS, Seattle</u> Consultant Prj. Mgr.: <u>Rebecca Andresen</u> Consultant Phone #: <u>2063255259</u> Fax #: _____ Sampler: <u>DR, SLM, SWM</u> Service Order #: <u>38045362</u> <input type="checkbox"/> Non SAR: _____				Matrix Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>		Analyses Requested Preservation Codes BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan <input type="checkbox"/> Oxygenates <input type="checkbox"/> NWTPH G <input checked="" type="checkbox"/> NWTPH D <input checked="" type="checkbox"/> Extended Ring <input type="checkbox"/> Silica Gel Cleanup <input type="checkbox"/> Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method _____ VP/IEPH <input type="checkbox"/> NWTPH HClID <input type="checkbox"/> quantification <input type="checkbox"/> <u>Benzene - 8021B</u>										C# <u>1268726</u> Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits									
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH G	NWTPH D	Lead Total	Diss.	Method	VP/IEPH	NWTPH HClID	quantification	Benzene - 8021B	Comments / Remarks	
MW-524	9/27/11	1039	X			X			5						X	X									page 1 of 2
MW-8R		1151																							
MW-20R		1241																					X		
MW-101		1357																							
MW-518		1405																							
MW-522		1215																							
MW-150		1015																							
MW-147		1115																							
Dup-1																									
MW-149R		1010																							
MW-523		1130																							
MW-104		1320																							
MW-139R		1440																							

Turnaround Time Requested (TAT) (please circle) STD. TAT <input checked="" type="radio"/> 72 hour 48 hour 24 hour 4 day 5 day	Relinquished by: <u>[Signature]</u> Date: <u>9/27/11</u> Time: <u>1600</u> Relinquished by: _____ Date: _____ Time: _____	Received by: <u>FedEx</u> Date: <u>9/27/11</u> Time: <u>1600</u> Received by: _____ Date: _____ Time: _____
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) Disk / EDD WIP (RWQCB) Standard Format Disk _____ Other.	Relinquished by: _____ Date: _____ Time: _____ Relinquished by Commercial Carrier: UPS <input checked="" type="radio"/> FedEx <input type="radio"/> Other _____ Temperature Upon Receipt: <u>-2.1</u> C°	Received by: <u>Bramley Bandy</u> Date: <u>9-28-11</u> Time: <u>900</u> Custody Seals Intact? <input checked="" type="radio"/> Yes <input type="radio"/> No

Chevron Northwest Region Analysis Request/Chain of Custody



221607

For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6421604-17 SCR#: _____

Facility #: <u>Edmonds Terminal</u> Site Address: <u>11720 Unoco Rd, Edmonds WA</u> Chevron PM: <u>Kim Jolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>ARCADIS, Seattle</u> Consultant Prj. Mgr.: <u>Rebecca Andresen</u> Consultant Phone #: <u>2063255254</u> Fax #: _____ Sampler: <u>DR, SWM, SLM</u> Service Order #: <u>30045362</u> <input type="checkbox"/> Non SAR: _____				Matrix Potable <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>		Analyses Requested Preservation Codes BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan <input type="checkbox"/> Oxygenates <input type="checkbox"/> TPH G <input checked="" type="checkbox"/> TPH D <input type="checkbox"/> Extended Rng. <input type="checkbox"/> Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method <input type="checkbox"/> VPI/IEPH <input type="checkbox"/> NWTPH H CID <input type="checkbox"/> quantification <input type="checkbox"/> <u>Benzene 8021</u>										Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits								
Sample Identification				Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers											Comments / Remarks	
<u>Trip Blank</u>				—	—			<input checked="" type="checkbox"/>				<u>2</u>											page 2 of 2	
Turnaround Time Requested (TAT) (please circle) STD. TAT <input checked="" type="checkbox"/> 72 hour 48 hour 24 hour 4 day 5 day				Relinquished by: <u>[Signature]</u> Date: <u>9/27/11</u> Time: <u>1600</u> Relinquished by: _____ Date: _____ Time: _____				Received by: <u>[Signature]</u> Date: <u>9/27/11</u> Time: <u>1600</u> Received by: _____ Date: _____ Time: _____																
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) Disk / EDD WIP (RWQCB) Standard Format Disk _____ Other.				Relinquished by: _____ Date: _____ Time: _____ Relinquished by Commercial Carrier: UPS <input type="checkbox"/> <u>FedEx</u> Other: _____ Temperature Upon Receipt <u>13-21 C</u>				Received by: <u>[Signature]</u> Date: <u>9-28-11</u> Time: <u>900</u> Custody Seals Intact? <input checked="" type="checkbox"/> Yes No																

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

October 27, 2011

Project: Edmonds Terminal

Submittal Date: 09/29/2011
Group Number: 1268940
PO Number: 0015074659
Release Number: JOLITZ
State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-500 Grab Water Sample	6422766
DUP-2 Grab Water Sample	6422767
MW-501 Grab Water Sample	6422768
MW-501MS Grab Water Sample	6422769
MW-501MSD Grab Water Sample	6422770
MW-136 Grab Water Sample	6422771
MW-129R Grab Water Sample	6422772
MW-108 Grab Water Sample	6422773
MW-109 Grab Water Sample	6422774
LM-2 Grab Water Sample	6422775
MW-135 Grab Water Sample	6422776
RB-1 Grab Water Sample	6422777
Trip Blank Water Sample	6422778

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Arcadis
COPY TO
ELECTRONIC Arcadis
COPY TO
ELECTRONIC Arcadis
COPY TO

Attn: Rebecca Andresen

Attn: Scott Zorn

Attn: Dave Rasar

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,



Valerie L. Tomayko
Principal Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-500 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422766
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 09:27 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

M500-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 60	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 61	ug/l 30	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD target analyte recoveries are within the QC acceptance limits; however, the surrogate recoveries were again outside of the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11278A20A	10/06/2011 02:50	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278A20A	10/06/2011 02:50	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/16/2011 22:38	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: DUP-2 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422767
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

-DUP2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 62	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 45	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD target analyte recoveries are within the QC acceptance limits; however, the surrogate recoveries were again outside of the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11278A20A	10/06/2011 03:12	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278A20A	10/06/2011 03:12	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/16/2011 23:00	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-501 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422768
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 09:15 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

501--

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD target analyte recoveries are within the QC acceptance limits; however, the surrogate recoveries were again outside of the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11278A20A	10/06/2011 03:34	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278A20A	10/06/2011 03:34	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/16/2011 23:22	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-501MS Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422769
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 09:15 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

501--

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	1,100	50	1
GC Petroleum Hydrocarbons					
	ECY 97-602 NWTPH-Dx modified		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11278A20A	10/06/2011 03:56	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278A20A	10/06/2011 03:56	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/16/2011 23:43	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-501MSD Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422770
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 09:15 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

501--

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	1,100	50	1
GC Petroleum Hydrocarbons					
	ECY 97-602 NWTPH-Dx modified		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11278A20A	10/06/2011 04:18	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278A20A	10/06/2011 04:18	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/17/2011 00:05	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-136 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422771
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 11:04 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

136--

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 40	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD target analyte recoveries are within the QC acceptance limits; however, the surrogate recoveries were again outside of the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11279B20A	10/07/2011 13:03	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279B20A	10/07/2011 13:03	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/17/2011 00:27	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-129R Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422772
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 12:55 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

129R-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 2,700	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	230	67	1
The reverse surrogate, capric acid, was present at 6%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD target analyte recoveries are within the QC acceptance limits; however, the surrogate recoveries were again outside of the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11279B20A	10/07/2011 13:25	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279B20A	10/07/2011 13:25	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/17/2011 00:48	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-108 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422773
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 11:00 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

--108

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 30	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD target analyte recoveries are within the QC acceptance limits; however, the surrogate recoveries were again outside of the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11279B20A	10/07/2011 13:47	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279B20A	10/07/2011 13:47	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/17/2011 01:10	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-109 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422774
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 09:50 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

--109

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 32	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	75	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD target analyte recoveries are within the QC acceptance limits; however, the surrogate recoveries were again outside of the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11279B20A	10/07/2011 14:09	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279B20A	10/07/2011 14:09	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/17/2011 01:32	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: LM-2 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422775
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 13:20 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

-LM2-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD target analyte recoveries are within the QC acceptance limits; however, the surrogate recoveries were again outside of the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11279B20A	10/07/2011 14:31	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279B20A	10/07/2011 14:31	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/17/2011 01:53	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: MW-135 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422776
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 10:55 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

--135

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
The reverse surrogate, capric acid, was present at 0%.					

The recovery for a target analyte and surrogate in the Laboratory Control Spike is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11279B20A	10/07/2011 14:53	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279B20A	10/07/2011 14:53	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112780038A	10/17/2011 02:15	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112780038A	10/06/2011 08:20	Catherine R Wiker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: RB-1 Grab Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422777
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011 11:59 by SLM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/29/2011 09:05

Reported: 10/27/2011 22:45

RB-1-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Petroleum Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l N.D.	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at 0%.					

11681 10g Silica Gel Column Cleanup

The reverse surrogate, capric acid, was present at 0%.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11279B20A	10/07/2011 12:41	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279B20A	10/07/2011 12:41	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112790005A	10/18/2011 21:38	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112790005A	10/06/2011 16:25	Bronson L Cole	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: Trip Blank Water Sample
Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6422778
LLI Group # 1268940
Account # 11964

Project Name: Edmonds Terminal

Collected: 09/28/2011

Chevron

Submitted: 09/29/2011 09:05

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Reported: 10/27/2011 22:45

TBUNO

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11279B20A	10/07/2011 12:19	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279B20A	10/07/2011 12:19	Marie D John	1

Quality Control Summary

 Client Name: Chevron
 Reported: 10/27/11 at 10:45 PM

Group Number: 1268940

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11278A20A NWTPH-Gx water C7-C12	Sample number(s): 6422766-6422770 N.D.	50.	ug/l	91	90	75-135	1	30
Batch number: 11279B20A NWTPH-Gx water C7-C12	Sample number(s): 6422771-6422778 N.D.	50.	ug/l	109	91	75-135	18	30
Batch number: 112780038A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6422766-6422776 N.D.	30.	ug/l	0*		56-103		
	N.D.	70.	ug/l					
Batch number: 112790005A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number(s): 6422777 N.D.	30.	ug/l	64	75	56-103	16	20
	N.D.	70.	ug/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11278A20A NWTPH-Gx water C7-C12	Sample number(s): 6422766-6422770 UNSPK: 6422768	100	100	75-135	0	30			
Batch number: 112780038A DRO C12-C24 w/Si Gel	Sample number(s): 6422766-6422776 UNSPK: 6422768	0*	0*	60-120	0	20			

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

 Analysis Name: NWTPH-Gx water C7-C12
 Batch number: 11278A20A
 Trifluorotoluene-F

6422766	91
6422767	91
6422768	89

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 10/27/11 at 10:45 PM

Group Number: 1268940

Surrogate Quality Control

6422769 112
6422770 113
Blank 90
LCS 111
LCSD 108
MS 112
MSD 113

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11279B20A
Trifluorotoluene-F

6422771 90
6422772 91
6422773 91
6422774 89
6422775 87
6422776 88
6422777 90
6422778 90
Blank 89
LCS 113
LCSD 111

Limits: 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 112780038A
Orthoterphenyl

6422766 89
6422767 81
6422768 91
6422769 174*
6422770 159*
6422771 84
6422772 92
6422773 83
6422774 91
6422775 81
6422776 80
Blank 107
LCS 178*
MS 174*
MSD 159*

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 112790005A
Orthoterphenyl

6422777 81
Blank 82
LCS 86

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 10/27/11 at 10:45 PM

Group Number: 1268940

Surrogate Quality Control

LCSD 99

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



221609

For Lancaster Laboratories use only
 Accl. #: 11964 Sample #: 6422766-78 SCR#: _____
 Date: 9/29/11 ⁽³⁾ gr # 1268940

Facility #: Edmonds Terminal
 Site Address: 11720 Union Rd, Edmonds WA
 Chevron PM: Kim Jolitz Lead Consultant: ARCADIS
 Consultant/Office: ARCADIS / Seattle
 Consultant Prj. Mgr.: Rebecca Andresen
 Consultant Phone #: 2067255254 Fax #: _____
 Sampler: PR, SLN, SWM
 Service Order #: 30040362 Non SAR: _____

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix			Total Number of Containers	Analyses Requested													
					Soil	Water	Oil		8260 full scan	Oxygenates	TPH G	TPH D	Lead Total	VPHEPH	NWTPH HClID	quantification	Extended Ring	Silica Gel Cleanup	Diss.	Method		
MW-500	9/28/11	927	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
Dup-2																						
MW-501		915																				
MW-501MS		915																				
MW-501MSD		915																				
MW-136		1104																				
MW-129R		1255																				
MW-108		1100																				
MW-109		950																				
LM-2		1320																				
MW-135		1055																				
RB-1		1159																				
Trip Blank							2															

Preservative Codes
 H = HCl T = Thiosulfate
 N = HNO₃ B = NaOH
 S = H₂SO₄ O = Other
 J value reporting needed
 Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
 Confirm MTBE + Naphthalene
 Confirm highest hit by 8260
 Confirm all hits by 8260
 Run ___ oxy s on highest hit
 Run ___ oxy s on all hits

Comments / Remarks
 page 1 of 1

Turnaround Time Requested (TAT) (please circle)
 STD. TAT 72 hour 48 hour
 24 hour 4 day 5 day

Data Package Options (please circle if required)
 QC Summary Type I - Full
 Type VI (Raw Data) Disk / EDD
 WIP (RWQCB) Standard Format
 Disk _____ Other.

Relinquished by: <u>[Signature]</u>	Date: <u>9/28/11</u>	Time: <u>1600</u>	Received by: <u>Fed Ex</u>	Date: <u>9/28/11</u>	Time: <u>1600</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by Commercial Carrier:	Date:	Time:	Received by:	Date:	Time:
UPS FedEx <input checked="" type="checkbox"/> Other _____	Temperature Upon Receipt _____ °C <u>1.1-3.3</u>		Custody Seals Intact? <input checked="" type="radio"/> Yes <input type="radio"/> No	Date: <u>9/29/11</u>	Time: <u>905</u>

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

January 10, 2012

Project: Edmonds Terminal

Submittal Date: 12/14/2011

Group Number: 1280969

PO Number: 0015074659

Release Number: CENCI-THOMAS

State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-150 Grab Water Sample	6499074
MW-150 Filtered Grab Water Sample	6499075
MW-147 Grab Water Sample	6499076
MW-147 Filtered Grab Water Sample	6499077
MW-149R Grab Water Sample	6499078
MW-149R Filtered Grab Water Sample	6499079
MW-524 Grab Water Sample	6499080
MW-524 Filtered Grab Water Sample	6499081
MW-104 Grab Water Sample	6499082
MW-104 Filtered Grab Water Sample	6499083
MW-523 Grab Water Sample	6499084
MW-523 Filtered Grab Water Sample	6499085
DUP-1 Grab Water Sample	6499086
DUP-2 Grab Water Sample	6499087
Trip_Blank Water Sample	6499088

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Arcadis	Attn: Rebecca Andresen
ELECTRONIC COPY TO	Arcadis	Attn: Scott Zorn
ELECTRONIC COPY TO	Arcadis	Attn: Dave Rasar

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,



Valerie L. Tomayko
Principal Specialist

Sample Description: MW-150 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499074
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 11:37 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET150

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	N.D.	0.0097	1
08357	Acenaphthylene	208-96-8	N.D.	0.0097	1
08357	Anthracene	120-12-7	N.D.	0.0097	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0097	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0097	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0097	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0097	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0097	1
08357	Chrysene	218-01-9	N.D.	0.0097	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0097	1
08357	Fluoranthene	206-44-0	N.D.	0.0097	1
08357	Fluorene	86-73-7	N.D.	0.0097	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0097	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.026	0.0097	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	150	5.0	1
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified ug/l					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	380	250	5
00228	Sulfate	14808-79-8	89,400	3,000	10
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	390,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-150 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499074
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 11:37 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET150

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11349WAE026	12/19/2011 18:01	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11349WAE026	12/16/2011 10:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11353A94A	12/20/2011 06:06	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11353A94A	12/20/2011 06:06	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11353A94A	12/20/2011 06:06	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113510020A	12/20/2011 00:49	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530027A	12/28/2011 08:05	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530027A	12/20/2011 08:00	Cynthia J Salvatori	1
00368	Nitrate Nitrogen	EPA 300.0	1	11348196601B	12/14/2011 22:06	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11348196601B	12/17/2011 04:46	Ashley M Adams	10
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1

Sample Description: MW-150 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499075
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 11:37 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 1,370	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848002	12/19/2011 23:55	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848002	12/19/2011 09:27	Denise K Conners	1

Sample Description: MW-147 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499076
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 13:57 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET147

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.011	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	0.026	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.046	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.013	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	15	5.0	1
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	640	250	5
00228	Sulfate	14808-79-8	134,000	3,000	10
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	181,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-147 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499076
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 13:57 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET147

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11349WAE026	12/19/2011 18:32	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11349WAE026	12/16/2011 10:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11353A94A	12/20/2011 06:32	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11353A94A	12/20/2011 06:32	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11353A94A	12/20/2011 06:32	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113510020A	12/20/2011 01:12	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530027A	12/28/2011 08:26	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530027A	12/20/2011 08:00	Cynthia J Salvatori	1
00368	Nitrate Nitrogen	EPA 300.0	1	11348196601B	12/14/2011 23:12	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11348196601B	12/17/2011 05:52	Ashley M Adams	10
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1

Sample Description: MW-147 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499077
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 13:57 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 2,610	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848002	12/19/2011 23:59	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848002	12/19/2011 09:27	Denise K Conners	1

Sample Description: MW-149R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499078
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 11:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET149

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.012	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	N.D.	5.0	1
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	1,600	250	5
00228	Sulfate	14808-79-8	122,000	3,000	10
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	79,100	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-149R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499078
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 11:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET149

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11349WAE026	12/19/2011 19:04	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11349WAE026	12/16/2011 10:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11353A94A	12/20/2011 06:58	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11353A94A	12/20/2011 06:58	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11353A94A	12/20/2011 06:58	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113510020A	12/20/2011 01:34	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530027A	12/28/2011 08:47	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530027A	12/20/2011 08:00	Cynthia J Salvatori	1
00368	Nitrate Nitrogen	EPA 300.0	1	11348196601B	12/14/2011 23:25	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11348196601B	12/17/2011 06:05	Ashley M Adams	10
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1

Sample Description: MW-149R Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499079
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 11:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved		SW-846 6010B	ug/l	ug/l	
07058	Manganese	7439-96-5	16.3	0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848002	12/20/2011 00:03	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848002	12/19/2011 09:27	Denise K Conners	1

Sample Description: MW-524 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499080
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 13:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET524

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM					
08357	Acenaphthene	83-32-9	N.D.	0.0099	1
08357	Acenaphthylene	208-96-8	N.D.	0.0099	1
08357	Anthracene	120-12-7	N.D.	0.0099	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0099	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0099	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0099	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0099	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0099	1
08357	Chrysene	218-01-9	N.D.	0.0099	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0099	1
08357	Fluoranthene	206-44-0	N.D.	0.0099	1
08357	Fluorene	86-73-7	N.D.	0.0099	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0099	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
08357	Phenanthrene	85-01-8	N.D.	0.030	1
08357	Pyrene	129-00-0	0.013	0.0099	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified					
07105	Methane	74-82-8	N.D.	5.0	1
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0					
00368	Nitrate Nitrogen	14797-55-8	550	250	5
00228	Sulfate	14808-79-8	200,000	6,000	20
SM20 2320 B					
00202	Alkalinity to pH 4.5	n.a.	44,400	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-524 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499080
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 13:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET524

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11349WAE026	12/19/2011 19:35	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11349WAE026	12/16/2011 10:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 19:10	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 19:10	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 19:10	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113510020A	12/20/2011 01:57	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530027A	12/28/2011 09:08	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530027A	12/20/2011 08:00	Cynthia J Salvatori	1
00368	Nitrate Nitrogen	EPA 300.0	1	11348196601B	12/14/2011 23:39	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11348196601B	12/17/2011 06:19	Ashley M Adams	20
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1

Sample Description: MW-524 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499081
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 13:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 4.8	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848002	12/20/2011 00:06	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848002	12/19/2011 09:27	Denise K Conners	1

Sample Description: MW-104 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499082
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 11:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET104

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	0.22	0.095	10
08357	Acenaphthylene	208-96-8	N.D.	0.095	10
08357	Anthracene	120-12-7	N.D.	0.095	10
08357	Benzo(a)anthracene	56-55-3	N.D.	0.095	10
08357	Benzo(a)pyrene	50-32-8	N.D.	0.095	10
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.095	10
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.095	10
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.095	10
08357	Chrysene	218-01-9	N.D.	0.095	10
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.095	10
08357	Fluoranthene	206-44-0	N.D.	0.095	10
08357	Fluorene	86-73-7	0.40	0.095	10
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.095	10
08357	Naphthalene	91-20-3	8.5	0.29	10
08357	Phenanthrene	85-01-8	N.D.	0.29	10
08357	Pyrene	129-00-0	N.D.	0.095	10
Reporting limits were raised due to interference from the sample matrix.					
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	700	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	3.0	1
Reporting limits were raised due to interference from the sample matrix.					
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	1,700	50	10
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	38	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts. The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	530	250	5
00228	Sulfate	14808-79-8	52,800	1,500	5
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	112,000	460	1

Sample Description: MW-104 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499082
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 11:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET104

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Wet Chemistry					
	SM20 2320 B		ug/l as CaCO3	ug/l as CaCO3	
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11349WAE026	12/20/2011 07:11	Mark A Clark	10
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11349WAE026	12/16/2011 10:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 19:36	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 19:36	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 19:36	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113510020A	12/21/2011 17:53	Elizabeth J Marin	10
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530028A	12/27/2011 19:39	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530028A	12/20/2011 08:00	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	11348196601B	12/14/2011 23:52	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11348196601B	12/14/2011 23:52	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1

Sample Description: MW-104 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499083
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 11:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 765	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848002	12/20/2011 00:10	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848002	12/19/2011 09:27	Denise K Conners	1

Sample Description: MW-523 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499084
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 14:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET523

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	0.051	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.015	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	72	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:					
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.					
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	400	250	5
00228	Sulfate	14808-79-8	44,200	1,500	5
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	224,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-523 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499084
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 14:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ET523

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11349WAE026	12/19/2011 20:38	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11349WAE026	12/16/2011 10:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 20:01	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 20:01	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 20:01	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113510020A	12/20/2011 02:41	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530028A	12/27/2011 20:01	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530028A	12/20/2011 08:00	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	11348196601B	12/15/2011 00:05	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11348196601B	12/15/2011 00:05	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11350020202B	12/16/2011 09:37	Susan A Engle	1

Sample Description: MW-523 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499085
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 14:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 1,310	ug/l 0.44	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113571848002	12/28/2011 19:47	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113571848002	12/27/2011 09:33	James L Mertz	1

Sample Description: DUP-1 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499086
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ETDU1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0097	1
08357	Acenaphthylene	208-96-8	N.D.	0.0097	1
08357	Anthracene	120-12-7	N.D.	0.0097	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0097	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0097	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0097	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0097	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0097	1
08357	Chrysene	218-01-9	N.D.	0.0097	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0097	1
08357	Fluoranthene	206-44-0	N.D.	0.0097	1
08357	Fluorene	86-73-7	N.D.	0.0097	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0097	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.025	0.0097	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
 The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.
 The reverse surrogate, capric acid, was present at <1%.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial# Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: DUP-1 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499086
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ETDU1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11349WAE026	12/19/2011 21:10	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11349WAE026	12/16/2011 10:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 20:27	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 20:27	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 20:27	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530028A	12/27/2011 20:23	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530028A	12/20/2011 08:00	Kerrie A Freeburn	1

Sample Description: DUP-2 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499087
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ETDU2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	0.027	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.057	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.013	0.0096	1

GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1

GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
 The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.
 The reverse surrogate, capric acid, was present at <1%.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial# Batch#	Analysis Date and Time	Analyst	Dilution Factor
---------	---------------	--------	---------------	------------------------	---------	-----------------

Sample Description: DUP-2 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499087
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/14/2011 09:20

Reported: 01/10/2012 11:01

ETDU2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11349WAE026	12/19/2011 21:41	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11349WAE026	12/16/2011 10:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 20:52	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 20:52	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 20:52	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530028A	12/27/2011 20:45	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530028A	12/20/2011 08:00	Kerrie A Freeburn	1

Sample Description: Trip_Blank Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6499088
LLI Group # 1280969
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/13/2011

Chevron

Submitted: 12/14/2011 09:20

6001 Bollinger Canyon Rd L4310

Reported: 01/10/2012 11:01

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	SW-846 8021B		ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 17:53	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 17:53	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 17:53	Marie D John	1

Quality Control Summary

Client Name: Chevron
Reported: 01/10/12 at 11:01 AM

Group Number: 1280969

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11349WAE026	Sample number(s): 6499074, 6499076, 6499078, 6499080, 6499082, 6499084, 6499086-6499087							
Acenaphthene	N.D.	0.010	ug/l	93	97	74-109	4	30
Acenaphthylene	N.D.	0.010	ug/l	116*	102	70-110	13	30
Anthracene	N.D.	0.010	ug/l	108	100	66-111	7	30
Benzo(a)anthracene	N.D.	0.010	ug/l	94	95	72-114	2	30
Benzo(a)pyrene	N.D.	0.010	ug/l	98	100	60-127	2	30
Benzo(b)fluoranthene	N.D.	0.010	ug/l	101	102	58-151	1	30
Benzo(g,h,i)perylene	N.D.	0.010	ug/l	97	99	57-131	2	30
Benzo(k)fluoranthene	N.D.	0.010	ug/l	101	102	59-130	1	30
Chrysene	N.D.	0.010	ug/l	99	99	76-116	0	30
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	100	102	55-134	2	30
Fluoranthene	N.D.	0.010	ug/l	120*	102	75-116	16	30
Fluorene	N.D.	0.010	ug/l	97	99	75-114	2	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	99	100	53-158	1	30
Naphthalene	N.D.	0.030	ug/l	89	99	72-109	11	30
Phenanthrene	N.D.	0.030	ug/l	99	99	76-111	0	30
Pyrene	N.D.	0.010	ug/l	101	100	69-118	1	30
Batch number: 11353A94A	Sample number(s): 6499074, 6499076, 6499078							
Benzene	N.D.	0.5	ug/l	100	95	80-120	5	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 11354A94A	Sample number(s): 6499080, 6499082, 6499084, 6499086-6499088							
Benzene	N.D.	0.2	ug/l	100	100	80-120	0	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	118	109	75-135	8	30
Batch number: 113510020A	Sample number(s): 6499074, 6499076, 6499078, 6499080, 6499082, 6499084							
Methane	N.D.	5.0	ug/l	100		80-120		
Batch number: 113530027A	Sample number(s): 6499074, 6499076, 6499078, 6499080							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	56	60	50-120	6	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113530028A	Sample number(s): 6499082, 6499084, 6499086-6499087							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	45*	43*	50-120	6	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113501848002	Sample number(s): 6499075, 6499077, 6499079, 6499081, 6499083							
Manganese	N.D.	0.44	ug/l	100		90-110		
Batch number: 113571848002	Sample number(s): 6499085							
Manganese	N.D.	0.44	ug/l	102		90-110		
Batch number: 11348196601B	Sample number(s): 6499074, 6499076, 6499078, 6499080, 6499082, 6499084							
Nitrate Nitrogen	N.D.	50.	ug/l	101		90-110		

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron

Group Number: 1280969

Reported: 01/10/12 at 11:01 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Sulfate	N.D.	300.	ug/l	105		90-110		

Batch number: 11350020202B	Sample number(s): 6499074, 6499076, 6499078, 6499080, 6499082, 6499084
Alkalinity to pH 4.5	N.D. 460. ug/l as CaCO3 98 98-103

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 113510020A	Sample number(s): 6499074, 6499076, 6499078, 6499080, 6499082, 6499084 UNSPK: P498040								
Methane	-16499 (2)	-13499 (2)	35-157	30*	20				
Batch number: 113501848002	Sample number(s): 6499075, 6499077, 6499079, 6499081, 6499083 UNSPK: P501941 BKG: P501941								
Manganese	99	100	75-125	0	20	1.6	1.5	5 (1)	20
Batch number: 113571848002	Sample number(s): 6499085 UNSPK: P505341 BKG: P505341								
Manganese	38 (2)	63 (2)	75-125	2	20	8,150	8,060	1	20
Batch number: 11348196601B	Sample number(s): 6499074, 6499076, 6499078, 6499080, 6499082, 6499084 UNSPK: 6499074 BKG: 6499074								
Nitrate Nitrogen	97		90-110			380	390	1 (1)	20
Sulfate	121*		90-110			89,400	88,900	1	20
Batch number: 11350020202B	Sample number(s): 6499074, 6499076, 6499078, 6499080, 6499082, 6499084 UNSPK: 6499076 BKG: 6499076								
Alkalinity to pH 4.5	95		73-121			181,000	179,000	1	5
Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in waters by SIM

Batch number: 11349WAE026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6499074	106	104	111
6499076	109	98	108
6499078	112	107	114
6499080	99	98	106
6499082	126	93	104
6499084	108	100	107
6499086	111	105	113
6499087	110	98	107

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 01/10/12 at 11:01 AM

Group Number: 1280969

Surrogate Quality Control

Blank	97	88	111
LCS	94	106	104
LCSD	93	111	108

Limits: 64-147 68-132 53-129

Analysis Name: Method 8021 Water Master
Batch number: 11353A94A
Trifluorotoluene-P Trifluorotoluene-F

6499074	85	79
6499076	84	72
6499078	85	77
Blank	85	86
LCS	85	92
LCSD	85	94

Limits: 58-146 63-135

Analysis Name: Method 8021 Water Master
Batch number: 11354A94A
Trifluorotoluene-P Trifluorotoluene-F

6499080	84	75
6499082	85	85
6499084	85	89
6499086	86	75
6499087	85	73
6499088	85	76
Blank	85	84
LCS	84	96
LCSD	84	96

Limits: 58-146 63-135

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 113510020A
Propene

6499074	45
6499076	46
6499078	50
6499080	51
6499082	106
6499084	45
Blank	99
LCS	95
MS	38*
MSD	36*

Limits: 42-131

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 113530027A
Orthoterphenyl

6499074 76

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 01/10/12 at 11:01 AM

Group Number: 1280969

Surrogate Quality Control

6499076	74
6499078	72
6499080	75
Blank	75
LCS	75
LCSD	80

Limits: 50-150

Analysis Name: NWT PH-Dx water w/Si Gel
Batch number: 113530028A
Orthoterphenyl

6499082	62
6499084	55
6499086	59
6499087	53
Blank	56
LCS	68
LCSD	64

Limits: 50-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody

223879



For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6499074-88 SCR#: _____

Grp # 1280969

Facility #: Edmonds Terminal
 Site Address: 11720 UNCO Rd, Edmonds WA
 Chevron PM: Kim Solitz, Lead Consultant: ARCADIS
 Consultant/Office: ARCADIS / Seattle
 Consultant Prj. Mgr.: Rebecca Andresen
 Consultant Phone #: 2063255254 Fax #: _____
 Sampler: DR, SM, SM
 Service Order #: B0045362 Non SAR: _____

Matrix		Total Number of Containers	Analyses Requested											
Soil	Water		Oil	Air	Preservation Codes									
<input type="checkbox"/> Potable <input type="checkbox"/> NPDES	<input type="checkbox"/> TPH G	<input type="checkbox"/> 8021 <input type="checkbox"/> 8260	<input type="checkbox"/> Naphth	<input type="checkbox"/> PAH	<input type="checkbox"/> Diss.	<input type="checkbox"/> Methrod	<input type="checkbox"/> HCL	<input type="checkbox"/> HNO3	<input type="checkbox"/> H2SO4	<input type="checkbox"/> Thiosulfate	<input type="checkbox"/> NaOH	<input type="checkbox"/> Other	<input type="checkbox"/> J value reporting needed	<input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX-MTBE	8021	8260	Naphth	PAH	Diss.	Methrod	HCL	HNO3	H2SO4	Thiosulfate	NaOH	Other	J value reporting needed	Must meet lowest detection limits possible for 8260 compounds
MW-150	12/13/11	1137	X			X			13	X				X										
MW-147		1357																						
MW-149R		1115																						
MW-524		1305																						
MW-104		1120																						
MW-523		1400																						
Dup-1		1111																						
Dup-2		1111																						
Trip Blank		1111							2															

Preservative Codes
 H = HCl T = Thiosulfate
 N = HNO₃ B = NaOH
 S = H₂SO₄ O = Other

J value reporting needed
 Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
 Confirm MTBE + Naphthalene
 Confirm highest hit by 8260
 Confirm all hits by 8260
 Run ___ oxy s on highest hit
 Run ___ oxy s on all hits

Comments / Remarks
 All Manganese field filtered except for MW-523. Lab filter MW-523.
 MW-523 SUBMITTED PRESERVED - CAN'T FILTER AFTER PRESERVATION.
 Page 1 of 1 12/15/11
 LANCASTER WILL ANALYZE PAHS BY 8270 SIM. 12/15/11

Turnaround Time Requested (TAT) (please circle)

STD. TAT	72 hour	48 hour
24 hour	4 day	5 day

Relinquished by: [Signature] ARCADIS Date: 12/13/11 Time: 1600
 Received by: FedEx Date: 12/13/11 Time: 1600

Data Package Options (please circle if required)

QC Summary	Type I - Full
Type VI (Raw Data)	Disk / EDD
WIP (RWQCB)	Standard Format
Disk	Other.

Relinquished by: _____ Date: _____ Time: _____
 Relinquished by Commercial Carrier: _____
 UPS **FedEx** Other: _____
 Received by: [Signature] Date: 12-14-11 Time: 920
 Temperature Upon Receipt: 0.5 - 1.2°C
 Custody Seals Intact? Yes No

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

January 11, 2012

Project: Edmonds Terminal

Submittal Date: 12/15/2011

Group Number: 1281232

PO Number: 0015074659

Release Number: CENCI-THOMAS

State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-522 Grab Water Sample	6500658
MW-522 Filtered Grab Water Sample	6500659
MW-143 Grab Water Sample	6500660
MW-143 Filtered Grab Water Sample	6500661
MW-20R Grab Water Sample	6500662
MW-20R Filtered Grab Water Sample	6500663
MW-517 Grab Water Sample	6500664
MW-517 Filtered Grab Water Sample	6500665
MW-8R Grab Water Sample	6500666
MW-8R Filtered Grab Water Sample	6500667
MW-520 Grab Water Sample	6500668
MW-520 Filtered Grab Water Sample	6500669
MW-518 Grab Water Sample	6500670
MW-518 Filtered Grab Water Sample	6500671
MW-516 Grab Water Sample	6500672
MW-516 Filtered Grab Water Sample	6500673
MW-514 Grab Water Sample	6500674
MW-514 Filtered Grab Water Sample	6500675
MW-521 Grab Water Sample	6500676
MW-521 Filtered Grab Water Sample	6500677
MW-519 Grab Water Sample	6500678
MW-519 Filtered Grab Water Sample	6500679
MW-101 Grab Water Sample	6500680
MW-101 Filtered Grab Water Sample	6500681
MW-515 Grab Water Sample	6500682
MW-515 Filtered Grab Water Sample	6500683
Trip_Blank Water Sample	6500684

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Arcadis	Attn: Rebecca Andresen
ELECTRONIC COPY TO	Arcadis	Attn: Scott Zorn
ELECTRONIC COPY TO	Arcadis	Attn: Dave Rasar

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,



Matthew E. Barton
Senior Specialist

Sample Description: MW-522 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500658
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 09:27 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED522

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	0.093	0.0098	1
08357	Acenaphthylene	208-96-8	N.D.	0.0098	1
08357	Anthracene	120-12-7	0.015	0.0098	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0098	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0098	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0098	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0098	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0098	1
08357	Chrysene	218-01-9	N.D.	0.0098	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0098	1
08357	Fluoranthene	206-44-0	N.D.	0.0098	1
08357	Fluorene	86-73-7	0.13	0.0098	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0098	1
08357	Naphthalene	91-20-3	0.093	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.016	0.0098	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	230	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:					
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.					
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	106,000	3,000	10
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	203,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-522 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500658
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 09:27 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED522

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAC026	12/20/2011 17:39	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAC026	12/18/2011 08:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 21:18	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 21:18	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 21:18	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 00:19	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530028A	12/27/2011 21:07	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530028A	12/20/2011 08:00	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902A	12/15/2011 18:56	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902A	12/16/2011 13:37	Ashley M Adams	10
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-522 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500659
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 09:27 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 1,040	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848003	12/21/2011 04:22	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848003	12/19/2011 09:38	Denise K Conners	1

Sample Description: MW-143 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500660
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 10:51 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED143

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	0.12	0.0096	1
08357	Acenaphthylene	208-96-8	0.013	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	0.061	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.059	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.019	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	19,000	500	100
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	31	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:					
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.					
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	229,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-143 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500660
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 10:51 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED143

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAC026	12/20/2011 18:10	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAC026	12/18/2011 08:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 21:44	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 21:44	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 21:44	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 20:43	Elizabeth J Marin	100
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530028A	12/27/2011 21:51	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530028A	12/20/2011 08:00	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902A	12/15/2011 19:31	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902A	12/15/2011 19:31	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-143 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500661
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 10:51 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 4,010	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848003	12/21/2011 04:26	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848003	12/19/2011 09:38	Denise K Conners	1

Sample Description: MW-20R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500662
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 12:39 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED20R

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.022	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	0.013	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.092	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	65	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	20	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	1,400	50	10
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.</p> <p>The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	566,000	15,000	50
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	220,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-20R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500662
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 12:39 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED20R

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAC026	12/20/2011 18:41	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAC026	12/18/2011 08:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 22:09	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 22:09	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 22:09	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 21:00	Elizabeth J Marin	10
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530028A	12/27/2011 22:13	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530028A	12/20/2011 08:00	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902A	12/15/2011 19:43	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902A	12/16/2011 14:12	Ashley M Adams	50
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-20R Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500663
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 12:39 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 488	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848003	12/21/2011 04:30	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848003	12/19/2011 09:38	Denise K Conners	1

Sample Description: MW-517 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500664
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 13:37 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED517

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	0.013	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	0.077	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	0.087	0.028	1
08357	Phenanthrene	85-01-8	N.D.	0.028	1
08357	Pyrene	129-00-0	0.014	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	75	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts. The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	26,000	1,500	5
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	165,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-517 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500664
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 13:37 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED517

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAC026	12/20/2011 19:13	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAC026	12/18/2011 08:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 23:26	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 23:26	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 23:26	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 01:39	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530028A	12/27/2011 22:35	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530028A	12/20/2011 08:00	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902A	12/15/2011 19:55	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902A	12/15/2011 19:55	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-517 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500665
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 13:37 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 788	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848003	12/21/2011 04:34	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848003	12/19/2011 09:38	Denise K Conners	1

Sample Description: MW-8R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500666
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 09:10 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED-8R

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM					
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	0.022	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.012	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified					
07105	Methane	74-82-8	150	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:					
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.					
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	70,900	1,500	5
SM20 2320 B					
00202	Alkalinity to pH 4.5	n.a.	185,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-8R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500666
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 09:10 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED-8R

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAC026	12/20/2011 19:44	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAC026	12/18/2011 08:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/20/2011 23:52	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/20/2011 23:52	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/20/2011 23:52	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 01:55	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530028A	12/27/2011 22:56	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530028A	12/20/2011 08:00	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902A	12/15/2011 20:07	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902A	12/15/2011 20:07	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-8R Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500667
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 09:10 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 780	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848003	12/21/2011 04:38	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848003	12/19/2011 09:38	Denise K Conners	1

Sample Description: MW-520 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500668
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 11:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED520

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	0.078	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	0.022	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	0.026	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.082	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.014	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	740	25	5
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:					
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.					
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	51,000	1,500	5
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	161,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-520 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500668
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 11:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED520

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAC026	12/20/2011 20:15	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAC026	12/18/2011 08:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/21/2011 00:18	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/21/2011 00:18	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/21/2011 00:18	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 21:21	Elizabeth J Marin	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113530028A	12/27/2011 23:18	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113530028A	12/20/2011 08:00	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902A	12/15/2011 20:18	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902A	12/15/2011 20:18	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-520 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500669
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 11:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 1,080	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848003	12/21/2011 04:42	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848003	12/19/2011 09:38	Denise K Conners	1

Sample Description: MW-518 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500670
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 13:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED518

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.075	0.0097	1
08357	Acenaphthylene	208-96-8	0.017	0.0097	1
08357	Anthracene	120-12-7	N.D.	0.0097	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0097	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0097	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0097	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0097	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0097	1
08357	Chrysene	218-01-9	N.D.	0.0097	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0097	1
08357	Fluoranthene	206-44-0	N.D.	0.0097	1
08357	Fluorene	86-73-7	0.046	0.0097	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0097	1
08357	Naphthalene	91-20-3	0.51	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0097	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	440	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	1,500	50	10
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	40	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.</p> <p>The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	530	250	5
00228	Sulfate	14808-79-8	85,600	3,000	10
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	213,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-518 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500670
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 13:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED518

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAC026	12/20/2011 20:46	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAC026	12/18/2011 08:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/21/2011 00:44	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/21/2011 00:44	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/21/2011 00:44	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 21:36	Elizabeth J Marin	10
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540024A	12/28/2011 01:04	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540024A	12/21/2011 08:00	Catherine R Wiker	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902A	12/15/2011 20:53	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902A	12/16/2011 14:24	Ashley M Adams	10
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-518 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500671
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 13:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 807	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113501848003	12/21/2011 04:45	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113501848003	12/19/2011 09:38	Denise K Conners	1

Sample Description: MW-516 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500672
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 14:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED516

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	N.D.	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	0.012	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.043	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.011	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	150	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:					
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.					
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	21,400	1,500	5
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	N.D.	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-516 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500672
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 14:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED516

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAC026	12/20/2011 21:18	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAC026	12/18/2011 08:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/21/2011 01:09	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/21/2011 01:09	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/21/2011 01:09	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 02:59	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540024A	12/28/2011 01:25	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540024A	12/21/2011 08:00	Catherine R Wiker	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902A	12/15/2011 21:05	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902A	12/15/2011 21:05	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-516 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500673
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 14:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 402	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848001	12/21/2011 04:17	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848001	12/20/2011 08:47	Denise K Conners	1

Sample Description: MW-514 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500674
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 15:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED514

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.24	0.0096	1
08357	Acenaphthylene	208-96-8	0.018	0.0096	1
08357	Anthracene	120-12-7	0.047	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	0.010	0.0096	1
08357	Fluorene	86-73-7	0.40	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.32	0.029	1
08357	Phenanthrene	85-01-8	0.029	0.029	1
08357	Pyrene	129-00-0	0.024	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	150	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	0.5	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	340	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	39	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts. The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	19,300	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	152,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-514 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500674
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 15:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED514

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAC026	12/20/2011 21:49	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAC026	12/18/2011 08:30	Olivia Arosemena	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/21/2011 01:35	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/21/2011 01:35	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/21/2011 01:35	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 03:15	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540024A	12/28/2011 01:46	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540024A	12/21/2011 08:00	Catherine R Wiker	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902A	12/15/2011 21:17	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902A	12/15/2011 21:17	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-514 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500675
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 15:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 1,690	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848001	12/21/2011 04:21	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848001	12/20/2011 08:47	Denise K Conners	1

Sample Description: MW-521 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500676
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 09:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED521

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	0.025	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	0.024	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	200	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:					
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.					
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	143,000	6,000	20
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	145,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-521 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500676
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 09:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED521

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 15:40	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/21/2011 02:00	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/21/2011 02:00	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/21/2011 02:00	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 03:32	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540024A	12/28/2011 02:07	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540024A	12/21/2011 08:00	Catherine R Wiker	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902A	12/15/2011 21:28	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902A	12/16/2011 14:36	Ashley M Adams	20
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-521 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500677
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 09:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 1,040	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848001	12/21/2011 04:25	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848001	12/20/2011 08:47	Denise K Conners	1

Sample Description: MW-519 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500678
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 11:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED519

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	N.D.	0.010	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	1
08357	Anthracene	120-12-7	N.D.	0.010	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Fluoranthene	206-44-0	N.D.	0.010	1
08357	Fluorene	86-73-7	0.012	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
08357	Phenanthrene	85-01-8	N.D.	0.030	1
08357	Pyrene	129-00-0	N.D.	0.010	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	11,000	250	50
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:					
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.					
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	340	250	5
00228	Sulfate	14808-79-8	38,800	1,500	5
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	266,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-519 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500678
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 11:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED519

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 16:12	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/21/2011 02:25	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/21/2011 02:25	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/21/2011 02:25	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 22:08	Elizabeth J Marin	50
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540024A	12/28/2011 02:28	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540024A	12/21/2011 08:00	Catherine R Wiker	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902B	12/15/2011 21:40	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902B	12/15/2011 21:40	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-519 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500679
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 11:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 822	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848001	12/21/2011 04:29	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848001	12/20/2011 08:47	Denise K Conners	1

Sample Description: MW-101 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500680
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 13:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED101

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	320	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	32	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	75	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:					
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.					
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	910	250	5
00228	Sulfate	14808-79-8	35,300	1,500	5
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	130,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-101 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500680
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 13:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED101

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 16:45	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11354A94A	12/21/2011 02:51	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11354A94A	12/21/2011 02:51	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11354A94A	12/21/2011 02:51	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 04:05	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540024A	12/28/2011 02:49	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540024A	12/21/2011 08:00	Catherine R Wiker	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902B	12/15/2011 22:15	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902B	12/15/2011 22:15	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-101 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500681
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 13:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 50.1	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848001	12/21/2011 04:33	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848001	12/20/2011 08:47	Denise K Conners	1

Sample Description: MW-515 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500682
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 14:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED515

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	1
08357	Anthracene	120-12-7	N.D.	0.010	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	0.011	0.010	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Fluoranthene	206-44-0	0.023	0.010	1
08357	Fluorene	86-73-7	0.023	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	Naphthalene	91-20-3	N.D.	0.030	1
08357	Phenanthrene	85-01-8	N.D.	0.030	1
08357	Pyrene	129-00-0	0.022	0.010	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	86	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS recovery is outside the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts. The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	50,000	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	145,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-515 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500682
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 14:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

ED515

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 17:17	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/22/2011 19:58	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/22/2011 19:58	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/22/2011 19:58	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113610024A	12/28/2011 04:20	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540024A	12/28/2011 03:11	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540024A	12/21/2011 08:00	Catherine R Wiker	1
00368	Nitrate Nitrogen	EPA 300.0	1	11349196902B	12/15/2011 22:27	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11349196902B	12/15/2011 22:27	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020201A	12/21/2011 06:33	Susan A Engle	1

Sample Description: MW-515 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500683
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011 14:25 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/15/2011 09:30

Reported: 01/11/2012 13:41

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 419	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848001	12/21/2011 04:37	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848001	12/20/2011 08:47	Denise K Conners	1

Sample Description: Trip_Blank Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6500684
LLI Group # 1281232
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/14/2011

Chevron

Submitted: 12/15/2011 09:30

6001 Bollinger Canyon Rd L4310

Reported: 01/11/2012 13:41

San Ramon CA 94583

ED-TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	SW-846	8021B	ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/22/2011 19:04	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/22/2011 19:04	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/22/2011 19:04	Marie D John	1

Quality Control Summary

Client Name: Chevron

Group Number: 1281232

Reported: 01/11/12 at 01:41 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11351WAC026	Sample number(s): 6500658, 6500660, 6500662, 6500664, 6500666, 6500668, 6500670, 6500672, 6500674							
Acenaphthene	N.D.	0.010	ug/l	95	95	74-109	1	30
Acenaphthylene	N.D.	0.010	ug/l	101	100	70-110	1	30
Anthracene	N.D.	0.010	ug/l	100	99	66-111	1	30
Benzo (a) anthracene	N.D.	0.010	ug/l	92	93	72-114	1	30
Benzo (a) pyrene	N.D.	0.010	ug/l	100	100	60-127	0	30
Benzo (b) fluoranthene	N.D.	0.010	ug/l	100	99	58-151	1	30
Benzo (g, h, i) perylene	N.D.	0.010	ug/l	103	104	57-131	1	30
Benzo (k) fluoranthene	N.D.	0.010	ug/l	100	101	59-130	0	30
Chrysene	N.D.	0.010	ug/l	94	95	76-116	1	30
Dibenz (a, h) anthracene	N.D.	0.010	ug/l	104	104	55-134	0	30
Fluoranthene	N.D.	0.010	ug/l	101	99	75-116	2	30
Fluorene	N.D.	0.010	ug/l	97	98	75-114	1	30
Indeno (1, 2, 3-cd) pyrene	N.D.	0.010	ug/l	105	105	53-158	0	30
Naphthalene	N.D.	0.030	ug/l	94	92	72-109	2	30
Phenanthrene	N.D.	0.030	ug/l	98	97	76-111	1	30
Pyrene	N.D.	0.010	ug/l	95	97	69-118	1	30
Batch number: 11351WAG026	Sample number(s): 6500676, 6500678, 6500680, 6500682							
Acenaphthene	N.D.	0.010	ug/l	97		74-109		
Acenaphthylene	N.D.	0.010	ug/l	100		70-110		
Anthracene	N.D.	0.010	ug/l	96		66-111		
Benzo (a) anthracene	N.D.	0.010	ug/l	94		72-114		
Benzo (a) pyrene	N.D.	0.010	ug/l	97		60-127		
Benzo (b) fluoranthene	N.D.	0.010	ug/l	104		58-151		
Benzo (g, h, i) perylene	N.D.	0.010	ug/l	103		57-131		
Benzo (k) fluoranthene	N.D.	0.010	ug/l	103		59-130		
Chrysene	N.D.	0.010	ug/l	94		76-116		
Dibenz (a, h) anthracene	N.D.	0.010	ug/l	102		55-134		
Fluoranthene	N.D.	0.010	ug/l	102		75-116		
Fluorene	N.D.	0.010	ug/l	100		75-114		
Indeno (1, 2, 3-cd) pyrene	N.D.	0.010	ug/l	102		53-158		
Naphthalene	N.D.	0.030	ug/l	96		72-109		
Phenanthrene	N.D.	0.030	ug/l	97		76-111		
Pyrene	N.D.	0.010	ug/l	89		69-118		
Batch number: 11354A94A	Sample number(s): 6500658, 6500660, 6500662, 6500664, 6500666, 6500668, 6500670, 6500672, 6500674, 6500676, 6500678, 6500680							
Benzene	N.D.	0.2	ug/l	100	100	80-120	0	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	118	109	75-135	8	30
Batch number: 11356A53A	Sample number(s): 6500682, 6500684							
Benzene	N.D.	0.5	ug/l	105		80-120		
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	89		75-135		

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron

Group Number: 1281232

Reported: 01/11/12 at 01:41 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 113610024A	Sample number(s): 6500658, 6500660, 6500662, 6500664, 6500666, 6500668, 6500670, 6500672, 6500674, 6500676, 6500678, 6500680, 6500682							
Methane	N.D.	5.0	ug/l	107		80-120		
Batch number: 113530028A	Sample number(s): 6500658, 6500660, 6500662, 6500664, 6500666, 6500668							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	45*	43*	50-120	6	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113540024A	Sample number(s): 6500670, 6500672, 6500674, 6500676, 6500678, 6500680, 6500682							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	39*	39*	50-120	0	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113501848003	Sample number(s): 6500659, 6500661, 6500663, 6500665, 6500667, 6500669, 6500671							
Manganese	N.D.	0.44	ug/l	104		90-110		
Batch number: 113531848001	Sample number(s): 6500673, 6500675, 6500677, 6500679, 6500681, 6500683							
Manganese	N.D.	0.44	ug/l	100		90-110		
Batch number: 11349196902A	Sample number(s): 6500658, 6500660, 6500662, 6500664, 6500666, 6500668, 6500670, 6500672, 6500674, 6500676							
Nitrate Nitrogen	N.D.	50.	ug/l	97		90-110		
Sulfate	N.D.	300.	ug/l	95		90-110		
Batch number: 11349196902B	Sample number(s): 6500678, 6500680, 6500682							
Nitrate Nitrogen	N.D.	50.	ug/l	97		90-110		
Sulfate	N.D.	300.	ug/l	95		90-110		
Batch number: 11355020201A	Sample number(s): 6500658, 6500660, 6500662, 6500664, 6500666, 6500668, 6500670, 6500672, 6500674, 6500676, 6500678, 6500680, 6500682							
Alkalinity to pH 4.5	N.D.	460.	ug/l as CaCO3	99		98-103		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11351WAG026	Sample number(s): 6500676, 6500678, 6500680, 6500682 UNSPK: P502156								
Acenaphthene	91	93	55-124	1	30				
Acenaphthylene	104	103	49-132	2	30				
Anthracene	98	103	50-134	4	30				
Benzo(a)anthracene	94	96	38-144	1	30				
Benzo(a)pyrene	95	96	55-130	1	30				
Benzo(b)fluoranthene	94	103	54-137	8	30				
Benzo(g,h,i)perylene	101	102	43-139	0	30				
Benzo(k)fluoranthene	102	98	57-130	5	30				
Chrysene	93	93	74-117	1	30				
Dibenz(a,h)anthracene	101	103	46-139	1	30				

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 01/11/12 at 01:41 PM

Group Number: 1281232

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Fluoranthene	97	98	47-135	0	30				
Fluorene	97	103	59-124	4	30				
Indeno(1,2,3-cd)pyrene	100	102	39-146	1	30				
Naphthalene	118	125	52-131	5	30				
Phenanthrene	89	92	56-128	2	30				
Pyrene	89	89	65-126	1	30				
Batch number: 11356A53A Sample number(s): 6500682,6500684 UNSPK: P502156									
Benzene	108	108	80-130	0	30				
NWTPH-Gx water C7-C12	89	98	75-135	9	30				
Batch number: 113610024A Sample number(s):									
6500658,6500660,6500662,6500664,6500666,6500668,6500670,6500672,6500674,6500676,6500678,6500680,6500682 UNSPK: 6500658									
Methane	67	50	35-157	4	20				
Batch number: 113501848003 Sample number(s): 6500659,6500661,6500663,6500665,6500667,6500669,6500671 UNSPK: P499566 BKG: P499566									
Manganese	101	101	75-125	1	20	18.8	18.6	1 (1)	20
Batch number: 113531848001 Sample number(s): 6500673,6500675,6500677,6500679,6500681,6500683 UNSPK: P503190 BKG: P503190									
Manganese	98	97	75-125	0	20	7.6	11.5	41* (1)	20
Batch number: 11349196902A Sample number(s):									
6500658,6500660,6500662,6500664,6500666,6500668,6500670,6500672,6500674,6500676 UNSPK: 6500658 BKG: 6500658									
Nitrate Nitrogen	83*		90-110			N.D.	N.D.	0 (1)	20
Sulfate	115*		90-110			106,000	107,000	1	20
Batch number: 11349196902B Sample number(s): 6500678,6500680,6500682 UNSPK: 6500678 BKG: 6500678									
Nitrate Nitrogen	84*		90-110			340	330	2 (1)	20
Sulfate	80*		90-110			38,800	44,000	13	20
Batch number: 11355020201A Sample number(s):									
6500658,6500660,6500662,6500664,6500666,6500668,6500670,6500672,6500674,6500676,6500678,6500680,6500682 UNSPK: 6500658 BKG: 6500658									
Alkalinity to pH 4.5	100		73-121			203,000	209,000	3	5
Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in waters by SIM

Batch number: 11351WAC026

Nitrobenzene-d5

2-Fluorobiphenyl

Terphenyl-d14

6500658	113	100	106
---------	-----	-----	-----

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 01/11/12 at 01:41 PM

Group Number: 1281232

Surrogate Quality Control

6500660	106	82	80
6500662	111	95	104
6500664	120	100	105
6500666	108	101	104
6500668	111	101	106
6500670	135	94	109
6500672	111	96	104
6500674	127	101	109
Blank	94	92	105
LCS	103	102	107
LCSD	101	100	106

Limits: 64-147 68-132 53-129

Analysis Name: PAHs in waters by SIM

Batch number: 11351WAG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6500676	108	101	111
6500678	112	100	114
6500680	112	100	109
6500682	110	101	108
Blank	103	103	108
LCS	107	105	109
MS	112	100	113
MSD	118	99	113

Limits: 64-147 68-132 53-129

Analysis Name: Method 8021 Water Master

Batch number: 11354A94A

	Trifluorotoluene-P	Trifluorotoluene-F
6500658	85	98
6500660	86	89
6500662	86	91
6500664	85	76
6500666	85	81
6500668	85	89
6500670	84	80
6500672	85	78
6500674	83	79
6500676	86	92
6500678	85	88
6500680	85	92
Blank	85	84
LCS	84	96
LCSD	84	96

Limits: 58-146 63-135

Analysis Name: Method 8021 Water Master

Batch number: 11356A53A

	Trifluorotoluene-P	Trifluorotoluene-F
6500682	80	70
6500684	80	71

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 01/11/12 at 01:41 PM

Group Number: 1281232

Surrogate Quality Control

Blank	81	71
LCS	81	85
MS	79	81
MSD	79	82

Limits: 58-146 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 113530028A
Orthoterphenyl

6500658	53
6500660	62
6500662	55
6500664	57
6500666	55
6500668	62
Blank	56
LCS	68
LCSD	64

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 113540024A
Orthoterphenyl

6500670	55
6500672	55
6500674	54
6500676	56
6500678	53
6500680	53
6500682	54
Blank	53
LCS	62
LCSD	61

Limits: 50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 113610024A
Propene

6500658	57
6500660	100
6500662	96
6500664	56
6500666	56
6500668	84
6500670	97
6500672	54
6500674	55
6500676	55
6500678	102
6500680	52
6500682	57

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron

Group Number: 1281232

Reported: 01/11/12 at 01:41 PM

Surrogate Quality Control

Blank	108
LCS	105
MS	62
MSD	53

Limits: 42-131

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6500658-84 SCR#:

223881

1281232

Facility #: Edmonds Terminal
 Site Address: 11720 Unwold Rd, Edmonds WA
 Chevron PM: KM Jolitz Lead Consultant: ARCOIS
 Consultant/Office: ARCOIS, Seattle
 Consultant Prj. Mgr.: Rebecca Andresen
 Consultant Phone #: 2063255254 Fax #:
 Sampler: DR, SM, SM
 Service Order #: 80045362 Non SAR:

Matrix		Analyses Requested														
Potable	NPDES	Preservation Codes														
<input type="checkbox"/>	<input type="checkbox"/>	8021	8260	Naphth	TPH G	TPH D	Lead Total	Diss.	Method	PAH	HClID	quantification	Diss Manganese	methane	Sulfate/Nitrate	Total Alkalinity
		<input checked="" type="checkbox"/>														

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers
MW-522	12/14/11	927	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			13
MW-143		1051							
MW-20R		1239							
MW-517		1337							
MW-8R		910							
MW-520		1100							
MW-518		1300							
MW-516		1400							
MW-514		1500							
MW-521		905							
MW-519		1105							
MW-101		1305							
MW-515		1425							

Preservative Codes
 H = HCl T = Thiosulfate
 N = HNO₃ B = NaOH
 S = H₂SO₄ O = Other

J value reporting needed
 Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
 Confirm MTBE + Naphthalene
 Confirm highest hit by 8260
 Confirm all hits by 8260
 Run ___ oxy s on highest hit
 Run ___ oxy s on all hits

Comments / Remarks
 page 1 of 2
 All Diss. Mn
 Field filtered

Turnaround Time Requested (TAT) (please circle)
 STD. TAT 72 hour 48 hour
 24 hour 4 day 5 day

Relinquished by: [Signature] Date: 12/14/11 Time: 1600
 Received by: FedEx Date: 12/19/11 Time: 1700

Data Package Options (please circle if required)
 QC Summary Type I - Full
 Type VI (Raw Data) Disk / EDD
 WIP (RWQCB) Standard Format
 Disk _____ Other.

Relinquished by: _____ Date: _____ Time: _____
 Received by: _____ Date: _____ Time: _____

Relinquished by Commercial Carrier:
 UPS FedEx Other: _____
 Temperature Upon Receipt: 0.0-10.0

Received by: Bureau of Land Management Date: 12/5/11 Time: 930
 Custody Seals Intact? Yes No

Chevron Northwest Region Analysis Request/Chain of Custody

223880



For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6500658-84 SCR#: _____

Facility #: <u>Edmonds Terminal</u> Site Address: <u>11720 Umoed Rd, Edmonds WA</u> Chevron PM: <u>Kim Jolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>ARCADIS, Seattle</u> Consultant Prj. Mgr.: <u>Rebecca Andresen</u> Consultant Phone #: <u>206 325 5254</u> Fax #: _____ Sampler: <u>OR, SM, SM</u> Service Order #: <u>650045362</u> <input type="checkbox"/> Non SAR: _____			Matrix Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>		Analyses Requested Preservation Codes										1281232 Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits						
Sample Identification			Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil <input type="checkbox"/> Air <input type="checkbox"/>	Total Number of Containers	BTX-MRE 8021 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan	Oxygenates	TPH G	Extended Rng. <input type="checkbox"/> Silica Gel Cleanup <input type="checkbox"/>	Lead Total <input type="checkbox"/> Diss: <input type="checkbox"/> Method: _____	VP/IEPH	NWT/PH H CID <input type="checkbox"/> quantification	Comments / Remarks <p style="font-size: 2em; text-align: center;">page 2 of 2</p>			
Trip Blank			—	—			X			2X		X									
Turnaround Time Requested (TAT) (please circle) SFD, TAT <u>24 hour</u> 72 hour 48 hour 24 hour 4 day 5 day					Relinquished by: <u>[Signature]</u> Date: <u>12/19/11</u> Time: <u>1500</u>		Received by: <u>[Signature]</u> Date: <u>12/19/11</u> Time: <u>1600</u>														
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) Disk / EDD WIP (RWQCB) Standard Format Disk _____ Other.					Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____														
Relinquished by Commercial Carrier: UPS <u>FedEx</u> Other: _____					Received by: <u>[Signature]</u> Date: <u>12-15-11</u> Time: <u>930</u>		Temperature Upon Receipt: <u>0.6 - 1.2</u> °C Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No														

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m³	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

January 12, 2012

Project: Edmonds Terminal

Submittal Date: 12/16/2011

Group Number: 1281469

PO Number: 0015074659

Release Number: CENCI-THOMAS

State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-508 Grab Water Sample	6502142
MW-508 Filtered Grab Water Sample	6502143
MW-506 Grab Water Sample	6502144
MW-506 Filtered Grab Water Sample	6502145
MW-503 Grab Water Sample	6502146
MW-503 Filtered Grab Water Sample	6502147
MW-513 Grab Water Sample	6502148
MW-513 Filtered Grab Water Sample	6502149
MW-509 Grab Water Sample	6502150
MW-509 Filtered Grab Water Sample	6502151
MW-139R Grab Water Sample	6502152
MW-139R Filtered Grab Water Sample	6502153
MW-505 Grab Water Sample	6502154
MW-505 Filtered Grab Water Sample	6502155
MW-512 Unspiked Grab Water Sample	6502156
MW-512 Matrix Spike Grab Water Sample	6502157
MW-512 Matrix Spike Dup Grab Water Sample	6502158
MW-512 Filtered Grab Water Sample	6502159
Trip_Blank Water Sample	6502160

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Arcadis
COPY TO

Attn: Rebecca Andresen

ELECTRONIC Arcadis
COPY TO
ELECTRONIC Arcadis
COPY TO

Attn: Scott Zorn

Attn: Dave Rasar

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,



Robin C. Runkle
Senior Specialist

Sample Description: MW-508 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502142
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 11:53 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET508

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM					
08357	Acenaphthene	83-32-9	N.D.	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified					
07105	Methane	74-82-8	8,200	100	20
GC Petroleum ECY 97-602 NWTPH-Dx					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS recoveries are within the QC acceptance limits. The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.</p> <p>The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	268,000	15,000	50
SM20 2320 B					
			ug/l as CaCO3	ug/l as CaCO3	

Sample Description: MW-508 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502142
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 11:53 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET508

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Wet Chemistry			SM20 2320 B	ug/l as CaCO3	ug/l as CaCO3
00202	Alkalinity to pH 4.5	n.a.	270,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 18:54	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/22/2011 20:25	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/22/2011 20:25	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/22/2011 20:25	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113620027A	12/29/2011 16:05	Elizabeth J Marin	20
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540024A	12/28/2011 03:32	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540024A	12/21/2011 08:00	Catherine R Wiker	1
00368	Nitrate Nitrogen	EPA 300.0	1	11350196602B	12/16/2011 23:43	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11350196602B	12/19/2011 13:46	Ashley M Adams	50
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1

Sample Description: MW-508 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502143
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 11:53 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 570	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848002	12/21/2011 14:44	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848002	12/20/2011 09:19	Denise K Conners	1

Sample Description: MW-506 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502144
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 13:07 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET506

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	140	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts. The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	850	250	5
00228	Sulfate	14808-79-8	36,100	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	183,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-506 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502144
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 13:07 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET506

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 19:26	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/22/2011 20:52	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/22/2011 20:52	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/22/2011 20:52	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113620027A	12/29/2011 01:19	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540024A	12/28/2011 03:53	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540024A	12/21/2011 08:00	Catherine R Wiker	1
00368	Nitrate Nitrogen	EPA 300.0	1	11350196602B	12/17/2011 00:49	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11350196602B	12/17/2011 00:49	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1

Sample Description: MW-506 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502145
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 13:07 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 273	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848002	12/21/2011 14:47	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848002	12/20/2011 09:19	Denise K Conners	1

Sample Description: MW-503 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502146
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 14:21 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET503

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	130	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts. The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	24,200	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	137,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-503 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502146
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 14:21 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET503

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 19:59	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/22/2011 21:19	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/22/2011 21:19	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/22/2011 21:19	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113620027A	12/29/2011 01:35	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540024A	12/28/2011 04:13	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540024A	12/21/2011 08:00	Catherine R Wiker	1
00368	Nitrate Nitrogen	EPA 300.0	1	11350196602B	12/17/2011 01:02	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11350196602B	12/17/2011 01:02	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1

Sample Description: MW-503 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502147
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 14:21 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 478	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848002	12/21/2011 14:51	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848002	12/20/2011 09:19	Denise K Conners	1

Sample Description: MW-513 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502148
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 09:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET513

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	0.31	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	0.023	0.0095	1
08357	Fluorene	86-73-7	0.71	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	N.D.	0.028	1
08357	Phenanthrene	85-01-8	N.D.	0.028	1
08357	Pyrene	129-00-0	0.045	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	97	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	0.3	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	370	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	38	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside of the method required holding time, and LCS recovery is outside the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts. The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	16,700	1,500	5
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	156,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-513 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502148
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 09:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET513

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 20:31	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/22/2011 21:46	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/22/2011 21:46	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/22/2011 21:46	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113620027A	12/29/2011 01:51	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540025A	12/28/2011 15:27	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540025A	12/21/2011 08:00	Cynthia J Salvatori	1
00368	Nitrate Nitrogen	EPA 300.0	1	11350196602B	12/17/2011 01:15	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11350196602B	12/17/2011 01:15	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1

Sample Description: MW-513 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502149
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 09:15 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 1,280	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848002	12/21/2011 14:54	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848002	12/20/2011 09:19	Denise K Conners	1

Sample Description: MW-509 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502150
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 10:35 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET509

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	0.031	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	N.D.	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS recovery is outside the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts. The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	43,500	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	108,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-509 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502150
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 10:35 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET509

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 21:03	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/22/2011 22:13	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/22/2011 22:13	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/22/2011 22:13	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113620027A	12/29/2011 02:07	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540025A	12/28/2011 15:48	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540025A	12/21/2011 08:00	Cynthia J Salvatori	1
00368	Nitrate Nitrogen	EPA 300.0	1	11350196602B	12/17/2011 01:28	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11350196602B	12/17/2011 01:28	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1

Sample Description: MW-509 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502151
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 10:35 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 41.3	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848002	12/21/2011 14:58	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848002	12/20/2011 09:19	Denise K Conners	1

Sample Description: MW-139R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502152
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 12:35 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET139

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	0.086	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	0.2	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	N.D.	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS recovery is outside the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts. The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	35,200	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	114,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-139R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502152
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 12:35 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET139

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 21:35	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/22/2011 22:39	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/22/2011 22:39	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/22/2011 22:39	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113620027A	12/29/2011 02:23	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540025A	12/28/2011 16:09	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540025A	12/21/2011 08:00	Cynthia J Salvatori	1
00368	Nitrate Nitrogen	EPA 300.0	1	11350196602B	12/17/2011 01:41	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11350196602B	12/17/2011 01:41	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1

Sample Description: MW-139R Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502153
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 12:35 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 27.0	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113531848002	12/21/2011 15:01	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113531848002	12/20/2011 09:19	Denise K Conners	1

Sample Description: MW-505 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502154
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 13:45 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET505

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.050	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	390	5.0	1
GC Petroleum ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
Hydrocarbons					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS recovery is outside the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts. The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	92,300	3,000	10
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	245,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-505 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502154
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 13:45 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET505

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/28/2011 13:55	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/22/2011 23:06	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/22/2011 23:06	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/22/2011 23:06	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113620027A	12/29/2011 02:38	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540025A	12/28/2011 16:30	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540025A	12/21/2011 08:00	Cynthia J Salvatori	1
00368	Nitrate Nitrogen	EPA 300.0	1	11350196602B	12/17/2011 01:55	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11350196602B	12/19/2011 14:26	Ashley M Adams	10
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1

Sample Description: MW-505 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502155
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 13:45 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 1,410	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113541848001	12/23/2011 00:16	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113541848001	12/21/2011 08:13	Denise K Conners	1

Sample Description: MW-512 Unspiked Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502156
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 09:19 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET512

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	0.13	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	0.010	0.0095	1
08357	Fluorene	86-73-7	0.31	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	0.067	0.029	1
08357	Pyrene	129-00-0	0.018	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	120	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	0.4	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	1,400	25	5
GC Petroleum ECY 97-602 NWTPH-Dx ug/l					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	33	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
<p>The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside of the method required holding time, and LCS recovery is outside the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.</p> <p>The reverse surrogate, capric acid, was present at <1%.</p>					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	23,700	1,500	5
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	174,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-512 Unspiked Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502156
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 09:19 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET512

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 14:03	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/23/2011 00:28	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/23/2011 00:28	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/23/2011 00:28	Marie D John	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113620027A	12/29/2011 16:21	Elizabeth J Marin	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540025A	12/28/2011 16:51	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540025A	12/21/2011 08:00	Cynthia J Salvatori	1
00368	Nitrate Nitrogen	EPA 300.0	1	11350196602B	12/17/2011 02:08	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11350196602B	12/17/2011 02:08	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11355020202B	12/21/2011 09:58	Susan A Engle	1

Sample Description: MW-512 Matrix Spike Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502157
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 09:19 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET512

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	1.0	0.0097	1
08357	Acenaphthylene	208-96-8	1.0	0.0097	1
08357	Anthracene	120-12-7	0.95	0.0097	1
08357	Benzo(a)anthracene	56-55-3	0.91	0.0097	1
08357	Benzo(a)pyrene	50-32-8	0.92	0.0097	1
08357	Benzo(b)fluoranthene	205-99-2	0.91	0.0097	1
08357	Benzo(g,h,i)perylene	191-24-2	0.98	0.0097	1
08357	Benzo(k)fluoranthene	207-08-9	0.99	0.0097	1
08357	Chrysene	218-01-9	0.90	0.0097	1
08357	Dibenz(a,h)anthracene	53-70-3	0.98	0.0097	1
08357	Fluoranthene	206-44-0	0.95	0.0097	1
08357	Fluorene	86-73-7	1.3	0.0097	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.98	0.0097	1
08357	Naphthalene	91-20-3	1.1	0.029	1
08357	Phenanthrene	85-01-8	0.93	0.029	1
08357	Pyrene	129-00-0	0.88	0.0097	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	1,100	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	22	0.2	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	370	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
 The sample was re-extracted outside of the method required holding time, and LCS recovery is outside the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.
 The reverse surrogate, capric acid, was present at <1%.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial# Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-512 Matrix Spike Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502157
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 09:19 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET512

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 14:35	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/23/2011 06:44	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/23/2011 05:50	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/23/2011 05:50	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	2	11356A53A	12/23/2011 06:44	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540025A	12/28/2011 17:12	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540025A	12/21/2011 08:00	Cynthia J Salvatori	1

Sample Description: MW-512 Matrix Spike Dup Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502158
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 09:19 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET512

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	1.0	0.0096	1
08357	Acenaphthylene	208-96-8	0.99	0.0096	1
08357	Anthracene	120-12-7	0.99	0.0096	1
08357	Benzo(a)anthracene	56-55-3	0.92	0.0096	1
08357	Benzo(a)pyrene	50-32-8	0.93	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	0.99	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	0.98	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	0.94	0.0096	1
08357	Chrysene	218-01-9	0.89	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	0.99	0.0096	1
08357	Fluoranthene	206-44-0	0.95	0.0096	1
08357	Fluorene	86-73-7	1.3	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.98	0.0096	1
08357	Naphthalene	91-20-3	1.2	0.029	1
08357	Phenanthrene	85-01-8	0.95	0.029	1
08357	Pyrene	129-00-0	0.87	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	1,200	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	22	0.2	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	400	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
 The sample was re-extracted outside of the method required holding time, and LCS recovery is outside the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.
 The reverse surrogate, capric acid, was present at <1%.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial# Batch#	Analysis Date and Time	Analyst	Dilution Factor
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Sample Description: MW-512 Matrix Spike Dup Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502158
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 09:19 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

ET512

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11351WAG026	12/27/2011 15:08	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11351WAG026	12/18/2011 08:30	Kelli M Barto	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11356A53A	12/23/2011 07:10	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	11356A53A	12/23/2011 06:17	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11356A53A	12/23/2011 06:17	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	2	11356A53A	12/23/2011 07:10	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113540025A	12/28/2011 17:33	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113540025A	12/21/2011 08:00	Cynthia J Salvatori	1

Sample Description: MW-512 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502159
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011 09:19 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/16/2011 09:30

Reported: 01/12/2012 09:13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
07058	Manganese	SW-846 6010B 7439-96-5	ug/l 556	ug/l 0.44	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07058	Manganese	SW-846 6010B	1	113541848001	12/23/2011 00:19	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113541848001	12/21/2011 08:13	Denise K Conners	1

Sample Description: Trip_Blank Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6502160
LLI Group # 1281469
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/15/2011

Chevron

Submitted: 12/16/2011 09:30

6001 Bollinger Canyon Rd L4310

Reported: 01/12/2012 09:13

San Ramon CA 94583

ET-TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	SW-846 8021B		ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/26/2011 19:41	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/26/2011 19:41	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/26/2011 19:41	Catherine J Schwarz	1

Quality Control Summary

Client Name: Chevron
Reported: 01/12/12 at 09:13 AM

Group Number: 1281469

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11351WAG026	Sample number(s): 6502142, 6502144, 6502146, 6502148, 6502150, 6502152, 6502154, 6502156-6502158							
Acenaphthene	N.D.	0.010	ug/l	97		74-109		
Acenaphthylene	N.D.	0.010	ug/l	100		70-110		
Anthracene	N.D.	0.010	ug/l	96		66-111		
Benzo(a)anthracene	N.D.	0.010	ug/l	94		72-114		
Benzo(a)pyrene	N.D.	0.010	ug/l	97		60-127		
Benzo(b)fluoranthene	N.D.	0.010	ug/l	104		58-151		
Benzo(g,h,i)perylene	N.D.	0.010	ug/l	103		57-131		
Benzo(k)fluoranthene	N.D.	0.010	ug/l	103		59-130		
Chrysene	N.D.	0.010	ug/l	94		76-116		
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	102		55-134		
Fluoranthene	N.D.	0.010	ug/l	102		75-116		
Fluorene	N.D.	0.010	ug/l	100		75-114		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	102		53-158		
Naphthalene	N.D.	0.030	ug/l	96		72-109		
Phenanthrene	N.D.	0.030	ug/l	97		76-111		
Pyrene	N.D.	0.010	ug/l	89		69-118		
Batch number: 11356A53A	Sample number(s): 6502142, 6502144, 6502146, 6502148, 6502150, 6502152, 6502154, 6502156-6502158							
Benzene	N.D.	0.5	ug/l	105		80-120		
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	89		75-135		
Batch number: 11358A94A	Sample number(s): 6502160							
Benzene	N.D.	0.2	ug/l	85		80-120		
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 113620027A	Sample number(s): 6502142, 6502144, 6502146, 6502148, 6502150, 6502152, 6502154, 6502156							
Methane	N.D.	5.0	ug/l	98		80-120		
Batch number: 113540024A	Sample number(s): 6502142, 6502144, 6502146							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	39*	39*	50-120	0	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113540025A	Sample number(s): 6502148, 6502150, 6502152, 6502154, 6502156-6502158							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	45*		50-120		
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113531848002	Sample number(s): 6502143, 6502145, 6502147, 6502149, 6502151, 6502153							
Manganese	N.D.	0.44	ug/l	104		90-110		
Batch number: 113541848001	Sample number(s): 6502155, 6502159							
Manganese	N.D.	0.44	ug/l	105		90-110		

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1281469
Reported: 01/12/12 at 09:13 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11350196602B	Sample number(s): 6502142, 6502144, 6502146, 6502148, 6502150, 6502152, 6502154, 6502156							
Nitrate Nitrogen	N.D.	50.	ug/l	102		90-110		
Sulfate	N.D.	300.	ug/l	107		90-110		
Batch number: 11355020202B	Sample number(s): 6502142, 6502144, 6502146, 6502148, 6502150, 6502152, 6502154, 6502156							
Alkalinity to pH 4.5	N.D.	460.	ug/l as CaCO3	98		98-103		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11351WAG026	Sample number(s): 6502142, 6502144, 6502146, 6502148, 6502150, 6502152, 6502154, 6502156-6502158 UNSPK: 6502156								
Acenaphthene	91	93	55-124	1	30				
Acenaphthylene	104	103	49-132	2	30				
Anthracene	98	103	50-134	4	30				
Benzo(a)anthracene	94	96	38-144	1	30				
Benzo(a)pyrene	95	96	55-130	1	30				
Benzo(b)fluoranthene	94	103	54-137	8	30				
Benzo(g,h,i)perylene	101	102	43-139	0	30				
Benzo(k)fluoranthene	102	98	57-130	5	30				
Chrysene	93	93	74-117	1	30				
Dibenz(a,h)anthracene	101	103	46-139	1	30				
Fluoranthene	97	98	47-135	0	30				
Fluorene	97	103	59-124	4	30				
Indeno(1,2,3-cd)pyrene	100	102	39-146	1	30				
Naphthalene	118	125	52-131	5	30				
Phenanthrene	89	92	56-128	2	30				
Pyrene	89	89	65-126	1	30				
Batch number: 11356A53A	Sample number(s): 6502142, 6502144, 6502146, 6502148, 6502150, 6502152, 6502154, 6502156-6502158 UNSPK: 6502156								
Benzene	108	108	80-130	0	30				
NWTPH-Gx water C7-C12	89	98	75-135	9	30				
Batch number: 11358A94A	Sample number(s): 6502160 UNSPK: P503545								
Benzene	105	105	80-130	0	30				
NWTPH-Gx water C7-C12	100	109	75-135	9	30				
Batch number: 113620027A	Sample number(s): 6502142, 6502144, 6502146, 6502148, 6502150, 6502152, 6502154, 6502156 UNSPK: 6502142								
Methane	-6332 (2)	-6999 (2)	35-157	10	20				
Batch number: 113540025A	Sample number(s): 6502148, 6502150, 6502152, 6502154, 6502156-6502158 UNSPK: 6502156								
DRO C12-C24 w/Si Gel	44*	48*	60-120	8	20				

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1281469
Reported: 01/12/12 at 09:13 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 113531848002	Sample number(s): 6502143, 6502145, 6502147, 6502149, 6502151, 6502153 UNSPK: P500524								
Manganese	93	95	75-125	0	20	1,640	1,640	0	20
Batch number: 113541848001	Sample number(s): 6502155, 6502159 UNSPK: P501125 BKG: P501125								
Manganese	164*	166*	75-125	1	20	1,220	1,220	1	20
Batch number: 11350196602B	Sample number(s): 6502142, 6502144, 6502146, 6502148, 6502150, 6502152, 6502154, 6502156 UNSPK: 6502142								
Nitrate Nitrogen	94		90-110			N.D.	N.D.	0 (1)	20
Sulfate	78*		90-110			268,000	271,000	1	20
Batch number: 11355020202B	Sample number(s): 6502142, 6502144, 6502146, 6502148, 6502150, 6502152, 6502154, 6502156 UNSPK: P502907								
Alkalinity to pH 4.5	68*		73-121			174,000	178,000	2	5
Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in waters by SIM
Batch number: 11351WAG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6502142	103	100	106
6502144	108	104	110
6502146	110	105	113
6502148	121	98	110
6502150	108	104	107
6502152	109	104	109
6502154	108	101	106
6502156	115	84	114
6502157	112	100	113
6502158	118	99	113
Blank	103	103	108
LCS	107	105	109
MS	112	100	113
MSD	118	99	113
Limits:	64-147	68-132	53-129

Analysis Name: Method 8021 Water Master
Batch number: 11356A53A

	Trifluorotoluene-P	Trifluorotoluene-F

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 01/12/12 at 09:13 AM

Group Number: 1281469

Surrogate Quality Control

6502142	80	71
6502144	81	71
6502146	81	71
6502148	80	68
6502150	80	70
6502152	81	71
6502154	81	70
6502156	80	67
6502157	79	81
6502158	79	82
Blank	81	71
LCS	81	85
MS	79	81
MSD	79	82

Limits: 58-146 63-135

Analysis Name: Method 8021 Water Master
Batch number: 11358A94A

	Trifluorotoluene-P	Trifluorotoluene-F
6502160	86	75
Blank	84	76
LCS	84	90
LCSD		89
MS	85	88
MSD	85	93

Limits: 58-146 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 113540024A

	Orthoterphenyl
6502142	49*
6502144	52
6502146	53
Blank	53
LCS	62
LCSD	61

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 113540025A

	Orthoterphenyl
6502148	51
6502150	57
6502152	61
6502154	55
6502156	54
6502157	66
6502158	72
Blank	54
LCS	67
MS	66

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 01/12/12 at 09:13 AM

Group Number: 1281469

Surrogate Quality Control

MSD 72

Limits: 50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 113620027A
Propene

6502142	111
6502144	58
6502146	51
6502148	52
6502150	57
6502152	62
6502154	50
6502156	94
Blank	105
LCS	103
MS	56
MSD	49

Limits: 42-131

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m³	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

January 10, 2012

Project: Edmonds Terminal

Submittal Date: 12/17/2011

Group Number: 1281652

PO Number: 0015074659

Release Number: CENCI-THOMAS

State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLD) #</u>
MW-507 Grab Water Sample	6503541
MW-507 Filtered Grab Water Sample	6503542
MW-504 Grab Water Sample	6503543
MW-504 Filtered Grab Water Sample	6503544
MW-502 Unspiked Grab Water Sample	6503545
MW-502 Matrix Spike Grab Water Sample	6503546
MW-502 Matrix Spike Dup Grab Water Sample	6503547
MW-502 Filtered Grab Water Sample	6503548
MW-109 Grab Water Sample	6503549
MW-109 Filtered Grab Water Sample	6503550
MW-108 Grab Water Sample	6503551
MW-108 Filtered Grab Water Sample	6503552
LM-2 Grab Water Sample	6503553
LM-2 Filtered Grab Water Sample	6503554
MW-135 Grab Water Sample	6503555
MW-135 Filtered Grab Water Sample	6503556
MW-501 Grab Water Sample	6503557
MW-501 Filtered Grab Water Sample	6503558
MW-500 Grab Water Sample	6503559
MW-500 Filtered Grab Water Sample	6503560
MW-136 Grab Water Sample	6503561
MW-136 Filtered Grab Water Sample	6503562
DUP-3 Grab Water Sample	6503563
DUP-4 Grab Water Sample	6503564
Trip_Blank Water Sample	6503565

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Arcadis	Attn: Rebecca Andresen
ELECTRONIC COPY TO	Arcadis	Attn: Scott Zorn
ELECTRONIC COPY TO	Arcadis	Attn: Dave Rasar

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,



Valerie L. Tomayko
Principal Specialist

Sample Description: MW-507 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503541
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 09:27 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED507

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	0.061	0.028	1
08357	Phenanthrene	85-01-8	N.D.	0.028	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	150	5.0	1
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified ug/l					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	314,000	15,000	50
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	307,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-507 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503541
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 09:27 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED507

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 10:40	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/26/2011 22:41	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/26/2011 22:41	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/26/2011 22:41	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630020A	12/29/2011 23:24	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 11:04	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	11352373602A	12/17/2011 17:45	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11352373602A	12/20/2011 15:55	Ashley M Adams	50
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1

Sample Description: MW-507 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503542
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 09:27 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
06037	Manganese	SW-846 6020 7439-96-5	ug/l 1,400	ug/l 2.0	5

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113536050001A	12/23/2011 08:07	Parker D Lindstrom	5
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113536050001	12/19/2011 21:30	Annamaria Stipkovits	1

Sample Description: MW-504 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503543
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 11:47 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED504

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	170	5.0	1
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	66,300	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	225,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-504 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503543
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 11:47 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED504

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 11:10	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/26/2011 23:06	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/26/2011 23:06	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/26/2011 23:06	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630020A	12/29/2011 23:39	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 11:25	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	11352373601B	12/17/2011 17:32	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11352373601B	12/17/2011 17:32	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1

Sample Description: MW-504 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503544
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 11:47 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
06037	Manganese	SW-846 6020 7439-96-5	ug/l 400	ug/l 0.40	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113536050001A	12/23/2011 08:10	Parker D Lindstrom	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113536050001	12/19/2011 21:30	Annamaria Stipkovits	1

Sample Description: MW-502 Unspiked Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503545
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 13:47 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED502

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM					
08357	Acenaphthene	83-32-9	0.052	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	0.10	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.15	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified					
07105	Methane	74-82-8	5.7	5.0	1
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified					
02211	DRO C12-C24 w/Si Gel	n.a.	30	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	31,400	1,500	5
SM20 2320 B					
00202	Alkalinity to pH 4.5	n.a.	84,300	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-502 Unspiked Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503545
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 13:47 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED502

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 08:36	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/26/2011 23:32	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/26/2011 23:32	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/26/2011 23:32	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630020A	12/29/2011 23:56	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 11:46	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	11352373601B	12/17/2011 14:40	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11352373601B	12/17/2011 14:40	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1

Sample Description: MW-502 Matrix Spike Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503546
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 13:47 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED502

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.89	0.0096	1
08357	Acenaphthylene	208-96-8	0.93	0.0096	1
08357	Anthracene	120-12-7	1.0	0.0096	1
08357	Benzo(a)anthracene	56-55-3	0.86	0.0096	1
08357	Benzo(a)pyrene	50-32-8	0.94	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	0.91	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	0.97	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	0.91	0.0096	1
08357	Chrysene	218-01-9	0.86	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	1.0	0.0096	1
08357	Fluoranthene	206-44-0	1.0	0.0096	1
08357	Fluorene	86-73-7	0.99	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	1.0	0.0096	1
08357	Naphthalene	91-20-3	1.1	0.029	1
08357	Phenanthrene	85-01-8	0.96	0.029	1
08357	Pyrene	129-00-0	0.88	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	1,100	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	21	0.2	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	360	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1

The reverse surrogate, capric acid, was present at 1%.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 09:07	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/27/2011 00:49	Carrie E Miller	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/26/2011 23:57	Catherine J Schwarz	1

Sample Description: MW-502 Matrix Spike Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503546
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 13:47 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED502

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/26/2011 23:57	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	2	11358A94A	12/27/2011 00:49	Carrie E Miller	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 12:07	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1

Sample Description: MW-502 Matrix Spike Dup Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503547
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 13:47 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED502

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.89	0.0094	1
08357	Acenaphthylene	208-96-8	0.93	0.0094	1
08357	Anthracene	120-12-7	0.98	0.0094	1
08357	Benzo(a)anthracene	56-55-3	0.82	0.0094	1
08357	Benzo(a)pyrene	50-32-8	0.91	0.0094	1
08357	Benzo(b)fluoranthene	205-99-2	0.87	0.0094	1
08357	Benzo(g,h,i)perylene	191-24-2	0.93	0.0094	1
08357	Benzo(k)fluoranthene	207-08-9	0.88	0.0094	1
08357	Chrysene	218-01-9	0.82	0.0094	1
08357	Dibenz(a,h)anthracene	53-70-3	0.98	0.0094	1
08357	Fluoranthene	206-44-0	0.97	0.0094	1
08357	Fluorene	86-73-7	0.98	0.0094	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.98	0.0094	1
08357	Naphthalene	91-20-3	1.1	0.028	1
08357	Phenanthrene	85-01-8	0.94	0.028	1
08357	Pyrene	129-00-0	0.84	0.0094	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	1,200	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	21	0.2	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	500	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, was present at 1.2%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 09:38	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/28/2011 12:33	Carrie E Miller	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/27/2011 00:23	Catherine J Schwarz	1

Sample Description: MW-502 Matrix Spike Dup Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503547
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 13:47 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED502

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/27/2011 00:23	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	2	11358A94A	12/28/2011 12:33	Carrie E Miller	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 12:28	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1

Sample Description: MW-502 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503548
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 13:47 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
06037	Manganese	SW-846 6020 7439-96-5	ug/l 244	ug/l 0.40	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113536050001A	12/23/2011 08:13	Parker D Lindstrom	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113536050001	12/19/2011 21:30	Annamaria Stipkovits	1

Sample Description: MW-109 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503549
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 09:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED109

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM					
08357	Acenaphthene	83-32-9	N.D.	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.041	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified					
07105	Methane	74-82-8	310	5.0	1
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified					
02211	DRO C12-C24 w/Si Gel	n.a.	29	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	597,000	15,000	50
SM20 2320 B					
00202	Alkalinity to pH 4.5	n.a.	259,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-109 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503549
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 09:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED109

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 11:41	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/27/2011 01:14	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/27/2011 01:14	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/27/2011 01:14	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630020A	12/30/2011 00:12	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 12:49	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	11352373601B	12/17/2011 17:19	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11352373601B	12/20/2011 15:40	Ashley M Adams	50
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1

Sample Description: MW-109 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503550
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 09:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved		SW-846 6020	ug/l	ug/l	
06037	Manganese	7439-96-5	1,580	2.0	5

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113536050001A	12/23/2011 08:15	Parker D Lindstrom	5
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113536050001	12/19/2011 21:30	Annamaria Stipkovits	1

Sample Description: MW-108 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503551
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 10:50 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED108

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM					
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
The GC/MS semivolatile surrogate recoveries are outside of QC limits in this sample. Sufficient sample was unavailable to repeat the analysis.					
GC Volatiles ECY 97-602 NWTPh-Gx					
08274	NWTPh-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified					
07105	Methane	74-82-8	1,100	25	5
GC Petroleum ECY 97-602 NWTPh-Dx					
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	426,000	15,000	50
SM20 2320 B					
00202	Alkalinity to pH 4.5	n.a.	356,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-108 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503551
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 10:50 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED108

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011	12:12	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011	08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/27/2011	05:31	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/27/2011	05:31	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/27/2011	05:31	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630020A	12/30/2011	16:39	Elizabeth J Marin	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012	13:10	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011	02:30	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	11352373602A	12/17/2011	18:25	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11352373602A	12/20/2011	17:06	Ashley M Adams	50
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11356020201A	12/22/2011	09:35	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11356020201A	12/22/2011	09:35	Susan A Engle	1

Sample Description: MW-108 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503552
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 10:50 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
06037	Manganese	SW-846 6020 7439-96-5	ug/l 318	ug/l 2.0	5

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113536050001A	12/23/2011 08:18	Parker D Lindstrom	5
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113536050001	12/19/2011 21:30	Annamaria Stipkovits	1

Sample Description: LM-2 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503553
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 12:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

EDLM2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM ug/l					
08357	Acenaphthene	83-32-9	N.D.	0.0097	1
08357	Acenaphthylene	208-96-8	N.D.	0.0097	1
08357	Anthracene	120-12-7	0.015	0.0097	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0097	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0097	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0097	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0097	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0097	1
08357	Chrysene	218-01-9	N.D.	0.0097	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0097	1
08357	Fluoranthene	206-44-0	0.016	0.0097	1
08357	Fluorene	86-73-7	N.D.	0.0097	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0097	1
08357	Naphthalene	91-20-3	0.067	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0097	1
GC Volatiles ECY 97-602 NWTPH-Gx ug/l					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B ug/l					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l					
07105	Methane	74-82-8	85	5.0	1
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified ug/l					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0 ug/l					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	829,000	30,000	100
SM20 2320 B ug/l as CaCO3					
00202	Alkalinity to pH 4.5	n.a.	N.D.	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: LM-2 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503553
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 12:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

EDLM2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 12:43	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/27/2011 01:40	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/27/2011 01:40	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/27/2011 01:40	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630020A	12/30/2011 00:44	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 13:31	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	11352373602A	12/17/2011 19:18	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11352373602A	12/20/2011 17:20	Ashley M Adams	100
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1

Sample Description: LM-2 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503554
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 12:00 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
06037	Manganese	SW-846 6020 7439-96-5	ug/l 309	ug/l 2.0	5

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113536050001A	12/23/2011 08:21	Parker D Lindstrom	5
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113536050001	12/19/2011 21:30	Annamaria Stipkovits	1

Sample Description: MW-135 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503555
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 14:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED135

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM					
08357	Acenaphthene	83-32-9	N.D.	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	0.023	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	0.016	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B					
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified					
07105	Methane	74-82-8	250	5.0	1
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified					
02211	DRO C12-C24 w/Si Gel	n.a.	79	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	110	66	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	101,000	3,000	10
SM20 2320 B					
00202	Alkalinity to pH 4.5	n.a.	425,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-135 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503555
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 14:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED135

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 13:14	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/27/2011 02:57	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/27/2011 02:57	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/27/2011 02:57	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630020A	12/30/2011 01:00	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 14:55	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	11352373601B	12/17/2011 16:39	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11352373601B	12/20/2011 15:26	Ashley M Adams	10
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1

Sample Description: MW-135 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503556
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 14:20 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved		SW-846 6020	ug/l	ug/l	
06037	Manganese	7439-96-5	370	0.40	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113536050001A	12/23/2011 08:24	Parker D Lindstrom	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113536050001	12/19/2011 21:30	Annamaria Stipkovits	1

Sample Description: MW-501 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503557
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 09:35 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED501

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.017	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	0.011	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	0.91	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	1,400	25	5
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	5,800	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	219,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-501 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503557
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 09:35 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED501

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 13:45	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/27/2011 03:22	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/27/2011 03:22	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/27/2011 03:22	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630020A	12/30/2011 16:55	Elizabeth J Marin	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 13:52	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	11352373601B	12/17/2011 16:52	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11352373601B	12/17/2011 16:52	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1

Sample Description: MW-501 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503558
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 09:35 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved		SW-846 6020	ug/l	ug/l	
06037	Manganese	7439-96-5	1,650	2.0	5

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113556050002A	12/29/2011 21:14	David K Beck	5
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113556050002	12/22/2011 09:44	Denise K Conners	1

Sample Description: MW-500 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503559
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 11:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED500

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.12	0.010	1
08357	Acenaphthylene	208-96-8	0.018	0.010	1
08357	Anthracene	120-12-7	0.024	0.010	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	1
08357	Chrysene	218-01-9	N.D.	0.010	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	1
08357	Fluoranthene	206-44-0	0.020	0.010	1
08357	Fluorene	86-73-7	0.28	0.010	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	1
08357	Naphthalene	91-20-3	0.23	0.031	1
08357	Phenanthrene	85-01-8	N.D.	0.031	1
08357	Pyrene	129-00-0	0.021	0.010	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	9,400	250	50
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	4,300	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	175,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-500 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503559
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 11:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED500

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 14:16	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/27/2011 03:48	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/27/2011 03:48	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/27/2011 03:48	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630020A	12/30/2011 17:10	Elizabeth J Marin	50
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 14:13	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	11352373601B	12/17/2011 17:05	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11352373601B	12/17/2011 17:05	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1

Sample Description: MW-500 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503560
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 11:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved		SW-846 6020	ug/l	ug/l	
06037	Manganese	7439-96-5	344	0.40	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113556050002A	12/29/2011 08:43	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113556050002	12/22/2011 09:44	Denise K Conners	1

Sample Description: MW-136 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503561
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 14:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED136

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.19	0.0096	1
08357	Acenaphthylene	208-96-8	0.023	0.0096	1
08357	Anthracene	120-12-7	0.027	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	0.020	0.0096	1
08357	Fluorene	86-73-7	0.31	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	0.064	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	0.021	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	20,000	500	100
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	40	30	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	71	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,800	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	523,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-136 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503561
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 14:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

ED136

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/24/2011 14:47	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/27/2011 04:14	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/27/2011 04:14	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/27/2011 04:14	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630020A	12/30/2011 17:27	Elizabeth J Marin	100
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610010A	01/07/2012 14:34	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610010A	12/28/2011 02:30	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	11352373602A	12/17/2011 19:04	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11352373602A	12/17/2011 19:04	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11356020201A	12/22/2011 09:35	Susan A Engle	1

Sample Description: MW-136 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503562
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 14:05 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
06037	Manganese	SW-846 6020 7439-96-5	ug/l 12,600	ug/l 40.0	100

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113576050002A	01/03/2012 17:22	Parker D Lindstrom	100
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113576050002	12/27/2011 10:04	James L Mertz	1

Sample Description: DUP-3 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503563
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

EDFD3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/27/2011 12:59	Dale R Stonerod	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/27/2011 04:40	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/27/2011 04:40	Catherine J Schwarz	1

Sample Description: DUP-3 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503563
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

EDFD3

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/27/2011 04:40	Catherine J Schwarz	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610022A	01/04/2012 19:38	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610022A	12/28/2011 08:45	Kerrie A Freeburn	1

Sample Description: DUP-4 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503564
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

EDFD4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0096	1
08357	Acenaphthylene	208-96-8	N.D.	0.0096	1
08357	Anthracene	120-12-7	N.D.	0.0096	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0096	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	1
08357	Chrysene	218-01-9	N.D.	0.0096	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	1
08357	Fluoranthene	206-44-0	N.D.	0.0096	1
08357	Fluorene	86-73-7	N.D.	0.0096	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	1
08357	Naphthalene	91-20-3	N.D.	0.029	1
08357	Phenanthrene	85-01-8	N.D.	0.029	1
08357	Pyrene	129-00-0	N.D.	0.0096	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11353WAH026	12/27/2011 13:31	Dale R Stonerod	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11353WAH026	12/20/2011 08:00	Kerrie A Freeburn	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/27/2011 05:06	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/27/2011 05:06	Catherine J Schwarz	1

Sample Description: DUP-4 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503564
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/17/2011 09:45

Reported: 01/10/2012 13:07

EDFD4

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/27/2011 05:06	Catherine J Schwarz	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610022A	01/04/2012 19:59	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610022A	12/28/2011 08:45	Kerrie A Freeburn	1

Sample Description: Trip_Blank Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6503565
LLI Group # 1281652
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/16/2011

Chevron

Submitted: 12/17/2011 09:45

6001 Bollinger Canyon Rd L4310

Reported: 01/10/2012 13:07

San Ramon CA 94583

EDTRB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	SW-846 8021B		ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358A94A	12/26/2011 19:15	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358A94A	12/26/2011 19:15	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358A94A	12/26/2011 19:15	Catherine J Schwarz	1

Quality Control Summary

Client Name: Chevron
Reported: 01/10/12 at 01:07 PM

Group Number: 1281652

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11353WAH026	Sample number(s): 6503541,6503543,6503545-6503547,6503549,6503551,6503553,6503555,6503557,6503559,6503561,6503563-6503564							
Acenaphthene	N.D.	0.010	ug/l	93		74-109		
Acenaphthylene	N.D.	0.010	ug/l	97		70-110		
Anthracene	N.D.	0.010	ug/l	102		66-111		
Benzo(a)anthracene	N.D.	0.010	ug/l	90		72-114		
Benzo(a)pyrene	N.D.	0.010	ug/l	101		60-127		
Benzo(b)fluoranthene	N.D.	0.010	ug/l	102		58-151		
Benzo(g,h,i)perylene	N.D.	0.010	ug/l	104		57-131		
Benzo(k)fluoranthene	N.D.	0.010	ug/l	97		59-130		
Chrysene	N.D.	0.010	ug/l	92		76-116		
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	107		55-134		
Fluoranthene	N.D.	0.010	ug/l	102		75-116		
Fluorene	N.D.	0.010	ug/l	94		75-114		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	108		53-158		
Naphthalene	N.D.	0.030	ug/l	95		72-109		
Phenanthrene	N.D.	0.030	ug/l	101		76-111		
Pyrene	N.D.	0.010	ug/l	93		69-118		
Batch number: 11358A94A	Sample number(s): 6503541,6503543,6503545-6503547,6503549,6503551,6503553,6503555,6503557,6503559,6503561,6503563-6503565							
Benzene	N.D.	0.2	ug/l	85		80-120		
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 113630020A	Sample number(s): 6503541,6503543,6503545,6503549,6503551,6503553,6503555,6503557,6503559,6503561							
Methane	N.D.	5.0	ug/l	107		80-120		
Batch number: 113610010A	Sample number(s): 6503541,6503543,6503545-6503547,6503549,6503551,6503553,6503555,6503557,6503559,6503561							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	66		50-120		
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113610022A	Sample number(s): 6503563-6503564							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	69	64	50-120	8	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113536050001A	Sample number(s): 6503542,6503544,6503548,6503550,6503552,6503554,6503556							
Manganese	N.D.	0.40	ug/l	107		90-115		
Batch number: 113556050002A	Sample number(s): 6503558,6503560							
Manganese	N.D.	0.40	ug/l	108		90-115		

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1281652
Reported: 01/10/12 at 01:07 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCS D Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 113576050002A Manganese	N.D.	0.40	ug/l	105		90-115		
Batch number: 11352373601B Nitrate Nitrogen Sulfate	N.D. N.D.	50. 300.	ug/l ug/l	93 90		90-110 90-110		
Batch number: 11352373602A Nitrate Nitrogen Sulfate	N.D. N.D.	50. 300.	ug/l ug/l	98 99		90-110 90-110		
Batch number: 11356020201A Alkalinity to pH 4.5	N.D.	460.	ug/l as CaCO3	99		98-103		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11353WAH026	Sample number(s): 6503541, 6503543, 6503545-6503547, 6503549, 6503551, 6503553, 6503555, 6503557, 6503559, 6503561, 6503563-6503564 UNSPK: 6503545								
Acenaphthene	87	88	55-124	1	30				
Acenaphthylene	96	99	49-132	1	30				
Anthracene	105	104	50-134	3	30				
Benzo(a)anthracene	90	87	38-144	5	30				
Benzo(a)pyrene	98	96	55-130	4	30				
Benzo(b)fluoranthene	94	92	54-137	4	30				
Benzo(g,h,i)perylene	100	98	43-139	4	30				
Benzo(k)fluoranthene	95	93	57-130	4	30				
Chrysene	89	87	74-117	5	30				
Dibenz(a,h)anthracene	106	104	46-139	4	30				
Fluoranthene	104	102	47-135	3	30				
Fluorene	92	93	59-124	1	30				
Indeno(1,2,3-cd)pyrene	105	104	39-146	4	30				
Naphthalene	102	98	52-131	5	30				
Phenanthrene	99	99	56-128	3	30				
Pyrene	92	89	65-126	5	30				
Batch number: 11358A94A	Sample number(s): 6503541, 6503543, 6503545-6503547, 6503549, 6503551, 6503553, 6503555, 6503557, 6503559, 6503561, 6503563-6503565 UNSPK: 6503545								
Benzene	105	105	80-130	0	30				
NWTPH-Gx water C7-C12	100	109	75-135	9	30				
Batch number: 113630020A	Sample number(s): 6503541, 6503543, 6503545, 6503549, 6503551, 6503553, 6503555, 6503557, 6503559, 6503561 UNSPK: P503495								
Methane	63	60	35-157	5	20				

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1281652
Reported: 01/10/12 at 01:07 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 113610010A DRO C12-C24 w/Si Gel	43*	62	60-120	33*	20				
Sample number(s): 6503541,6503543,6503545-6503547,6503549,6503551,6503553,6503555,6503557,6503559,6503561 UNSPK: 6503545									
Batch number: 113536050001A Manganese	106	108	75-125	1	20	26.5	26.3	1	20
Sample number(s): 6503542,6503544,6503548,6503550,6503552,6503554,6503556 UNSPK: P502843 BKG: P502843									
Batch number: 113556050002A Manganese	99	99	75-125	0	20	3.3	3.2	5 (1)	20
Sample number(s): 6503558,6503560 UNSPK: P504698 BKG: P504698									
Batch number: 113576050002A Manganese	500 (2)	1100	75-125	4	20	8,130	8,610	6	20
Sample number(s): 6503562 UNSPK: P505341 BKG: P505341 (2)									
Batch number: 11352373601B Nitrate Nitrogen	111*		90-110			N.D.	N.D.	0 (1)	20
Sulfate	122*		90-110			31,400	31,100	1	20
Sample number(s): 6503541,6503551,6503553,6503561 UNSPK: 6503541 BKG: 6503541									
Batch number: 11352373602A Nitrate Nitrogen	120*		90-110			N.D.	N.D.	0 (1)	20
Sulfate	95		90-110			314,000	311,000	1	20
Sample number(s): 6503541,6503543,6503545,6503549,6503551,6503553,6503555,6503557,6503559,6503561 UNSPK: 6503559 BKG: 6503559									
Batch number: 11356020201A Alkalinity to pH 4.5	98		73-121			175,000	183,000	5	5
Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in waters by SIM
Batch number: 11353WAH026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6503541	117	104	115
6503543	114	103	112
6503545	115	98	111
6503546	115	95	110
6503547	112	97	108
6503549	111	99	110
6503551	73	66*	78
6503553	112	91	87
6503555	124	96	106
6503557	116	96	107

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 01/10/12 at 01:07 PM

Group Number: 1281652

Surrogate Quality Control

6503559	119	98	97
6503561	103	70	87
6503563	114	102	117
6503564	112	105	115
Blank	125	117	127
LCS	107	100	108
MS	115	95	110
MSD	112	97	108

Limits: 64-147 68-132 53-129

Analysis Name: Method 8021 Water Master
Batch number: 11358A94A

Trifluorotoluene-P Trifluorotoluene-F

6503541	85	75
6503543	86	75
6503545	86	75
6503546	85	88
6503547	85	93
6503549	86	89
6503551	82	76
6503553	84	75
6503555	85	76
6503557	85	95
6503559	85	92
6503561	86	75
6503563	85	76
6503564	85	75
6503565	86	76
Blank	84	76
LCS	84	90
LCSD		89
MS	85	88
MSD	85	93

Limits: 58-146 63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 113610010A

Orthoterphenyl

6503541	79
6503543	75
6503545	81
6503546	58
6503547	81
6503549	82
6503551	75
6503553	82
6503555	53
6503557	87
6503559	77
6503561	81
Blank	85
LCS	83
MS	58
MSD	81

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 01/10/12 at 01:07 PM

Group Number: 1281652

Surrogate Quality Control

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 113610022A
Orthoterphenyl

6503563	77
6503564	79
Blank	73
LCS	87
LCSD	83

Limits: 50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 113630020A
Propene

6503541	63
6503543	51
6503545	69
6503549	52
6503551	79
6503553	61
6503555	44
6503557	82
6503559	96
6503561	96
Blank	106
LCS	109
MS	51
MSD	45

Limits: 42-131

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody



Act. #: 11964 For Lancaster Laboratories use only Sample #: 6503541-65

223883

SCR#: _____

Q# 1281652

Facility #: Edmonds Terminal
 Site Address: 11720 Unolo Rd, Edmonds WA
 Chevron PM: Kim Jolitz Lead Consultant: ARCADIS
 Consultant/Office: ARCADIS, Seattle
 Consultant Prj. Mgr.: Rebecca Andresen
 Consultant Phone #: 206 325 5254 Fax #: _____
 Sampler: DR, SM, SM
 Service Order #: SC0045362 Non SAR:

Matrix		Total Number of Containers	Analyses Requested									
			Preservation Codes									
Soil	Potable	7	BTX	MTBE	8021	8260	Naphth	Oxygenates			Lead Total	Method
	Water		8260 full scan	TPH G	TPH D	Extended Rog.	Silica Gel Cleanup	PAH 8270			quantification	
Oil	Air	2										

Preservative Codes
 H = HCl T = Thiosulfate
 N = HNO₃ B = NaOH
 S = H₂SO₄ O = Other

J value reporting needed
 Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
 Confirm MTBE + Naphthalene
 Confirm highest hit by 8260
 Confirm all hits by 8260
 Run ___ oxy s on highest hit
 Run ___ oxy s on all hits

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air
<u>Dup-3</u>	<u>12/16/11</u>	<u>1</u>	<u>X</u>			<u>X</u>		
<u>Dup-4</u>	<u>↓</u>	<u>1</u>	<u>X</u>			<u>X</u>		
<u>Trip Blank</u>	<u>-</u>	<u>-</u>	<u>1</u>			<u>X</u>		

Comments / Remarks
page 2 of 2

Turnaround Time Requested (TAT) (please circle)

24 hour 72 hour 48 hour
 4 day 5 day

Relinquished by: <u>[Signature]</u>	Date: <u>12/16/11</u>	Time: <u>1600</u>	Received by: <u>FedEx</u>	Date: <u>12/16/11</u>	Time: <u>1600</u>
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by Commercial Carrier:			Received by:		
UPS	FedEx	Other: _____	Date: <u>12/16/11</u> Time: <u>1600</u>		
Temperature Upon Receipt: <u>5-7</u> C°			Custody Seals Intact? <u>Yes</u> No		

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m³	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

January 06, 2012

Project: Edmonds Terminal

Submittal Date: 12/20/2011
Group Number: 1281829
PO Number: 0015074659
Release Number: CENCI-THOMAS
State of Sample Origin: WA

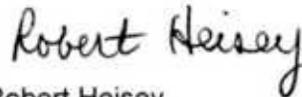
<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-511 Grab Water Sample	6504724
MW-511 Filtered Grab Water Sample	6504725
RB-1 Grab Water Sample	6504726
MW-129R Grab Water Sample	6504727
MW-129R Filtered Grab Water Sample	6504728
Trip_Blank Water Sample	6504729

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Arcadis	Attn: Rebecca Andresen
ELECTRONIC COPY TO	Arcadis	Attn: Scott Zorn
ELECTRONIC COPY TO	Arcadis	Attn: Dave Rasar

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,



Robert Heisey
Senior Specialist

Sample Description: MW-511 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6504724
LLI Group # 1281829
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/19/2011 10:27 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/20/2011 09:40

Reported: 01/06/2012 11:00

ET511

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0095	1
08357	Acenaphthylene	208-96-8	N.D.	0.0095	1
08357	Anthracene	120-12-7	N.D.	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	N.D.	0.0095	1
08357	Fluorene	86-73-7	N.D.	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	N.D.	0.028	1
08357	Phenanthrene	85-01-8	N.D.	0.028	1
08357	Pyrene	129-00-0	N.D.	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	N.D.	10	1
Reporting limits were raised due to interference from the instrument.					
GC Petroleum ECY 97-602 NWTPH-Dx			ug/l	ug/l	
Hydrocarbons modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	720	250	5
00228	Sulfate	14808-79-8	31,900	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	95,200	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

Sample Description: MW-511 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6504724
LLI Group # 1281829
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/19/2011 10:27 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/20/2011 09:40

Reported: 01/06/2012 11:00

ET511

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11355WAD026	12/22/2011	19:22	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11355WAD026	12/22/2011	02:30	Sherry L Morrow	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358B53A	12/28/2011	16:03	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358B53A	12/28/2011	16:03	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358B53A	12/28/2011	16:03	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630021A	12/30/2011	00:56	Elizabeth J Marin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610022A	01/04/2012	21:23	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610022A	12/28/2011	08:45	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	11354196902B	12/20/2011	21:22	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11354196902B	12/20/2011	21:22	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11358020201A	12/24/2011	06:58	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11358020201A	12/24/2011	06:58	Susan A Engle	1

Sample Description: MW-511 Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6504725
LLI Group # 1281829
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/19/2011 10:27 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/20/2011 09:40

Reported: 01/06/2012 11:00

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved					
06037	Manganese	SW-846 6020 7439-96-5	ug/l 1.5	ug/l 0.40	1

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113576050002A	01/03/2012 14:57	Parker D Lindstrom	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113576050002	12/27/2011 10:04	James L Mertz	1

Sample Description: RB-1 Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6504726
LLI Group # 1281829
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/19/2011 10:57 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/20/2011 09:40

Reported: 01/06/2012 11:00

ETRB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Volatiles					
02102	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.2	1
GC Petroleum Hydrocarbons					
ECY 97-602 NWTPH-Dx modified					
02211	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358B53A	12/28/2011 15:36	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358B53A	12/28/2011 15:36	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358B53A	12/28/2011 15:36	Catherine J Schwarz	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610022A	01/04/2012 21:45	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610022A	12/28/2011 08:45	Kerrie A Freeburn	1

Sample Description: MW-129R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6504727
LLI Group # 1281829
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/19/2011 10:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/20/2011 09:40

Reported: 01/06/2012 11:00

E129R

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM			ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.14	0.0095	1
08357	Acenaphthylene	208-96-8	0.027	0.0095	1
08357	Anthracene	120-12-7	0.043	0.0095	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0095	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	1
08357	Chrysene	218-01-9	N.D.	0.0095	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	1
08357	Fluoranthene	206-44-0	0.051	0.0095	1
08357	Fluorene	86-73-7	0.49	0.0095	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	1
08357	Naphthalene	91-20-3	0.062	0.028	1
08357	Phenanthrene	85-01-8	0.059	0.028	1
08357	Pyrene	129-00-0	0.011	0.0095	1
GC Volatiles ECY 97-602 NWTPH-Gx			ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	0.2	0.2	1
GC Miscellaneous RSKSOP-175 08/11/94 modified			ug/l	ug/l	
07105	Methane	74-82-8	11,000	250	50
GC Petroleum Hydrocarbons ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	45	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, was present at <1%.					
Wet Chemistry EPA 300.0			ug/l	ug/l	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	25,200	1,500	5
SM20 2320 B			ug/l as CaCO3	ug/l as CaCO3	
00202	Alkalinity to pH 4.5	n.a.	1,000,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-129R Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6504727
LLI Group # 1281829
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/19/2011 10:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/20/2011 09:40

Reported: 01/06/2012 11:00

E129R

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11355WAD026	12/22/2011 19:55	Dale R Stoneroad	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11355WAD026	12/22/2011 02:30	Sherry L Morrow	1
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358B53A	12/28/2011 16:30	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358B53A	12/28/2011 16:30	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358B53A	12/28/2011 16:30	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	113630021A	12/30/2011 18:23	Elizabeth J Marin	50
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	113610022A	01/04/2012 22:06	Elizabeth J Marin	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	113610022A	12/28/2011 08:45	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	11354196902B	12/20/2011 21:57	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11354196902B	12/20/2011 21:57	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11358020201A	12/24/2011 06:58	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11358020201A	12/24/2011 06:58	Susan A Engle	1

Sample Description: MW-129R Filtered Grab Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6504728
LLI Group # 1281829
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/19/2011 10:40 by DR

Chevron

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 12/20/2011 09:40

Reported: 01/06/2012 11:00

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved		SW-846 6020	ug/l	ug/l	
06037	Manganese	7439-96-5	7,000	4.0	10

General Sample Comments

State of Washington Lab Certification No. C259
 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06037	Manganese	SW-846 6020	1	113576050002A	01/03/2012 17:38	Parker D Lindstrom	10
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	113576050002	12/27/2011 10:04	James L Mertz	1

Sample Description: Trip_Blank Water Sample
Former Unocal Edmonds Terminal
11720 Unoco Road - Edmonds, WA

LLI Sample # WW 6504729
LLI Group # 1281829
Account # 11964

Project Name: Edmonds Terminal

Collected: 12/19/2011

Chevron

Submitted: 12/20/2011 09:40

6001 Bollinger Canyon Rd L4310

Reported: 01/06/2012 11:00

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx	ug/1	ug/1		
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	SW-846 8021B	ug/1	ug/1		
02102	Benzene	71-43-2	N.D.	0.2	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11358B53A	12/28/2011 13:21	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	11358B53A	12/28/2011 13:21	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11358B53A	12/28/2011 13:21	Catherine J Schwarz	1

Quality Control Summary

Client Name: Chevron
Reported: 01/06/12 at 11:00 AM

Group Number: 1281829

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11355WAD026	Sample number(s): 6504724, 6504727							
Acenaphthene	N.D.	0.010	ug/l	92	95	74-109	3	30
Acenaphthylene	N.D.	0.010	ug/l	98	99	70-110	0	30
Anthracene	N.D.	0.010	ug/l	97	100	66-111	3	30
Benzo(a)anthracene	N.D.	0.010	ug/l	88	91	72-114	4	30
Benzo(a)pyrene	N.D.	0.010	ug/l	94	97	60-127	3	30
Benzo(b)fluoranthene	N.D.	0.010	ug/l	96	97	58-151	1	30
Benzo(g,h,i)perylene	N.D.	0.010	ug/l	95	98	57-131	3	30
Benzo(k)fluoranthene	N.D.	0.010	ug/l	95	99	59-130	4	30
Chrysene	N.D.	0.010	ug/l	90	92	76-116	2	30
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	98	100	55-134	2	30
Fluoranthene	N.D.	0.010	ug/l	99	103	75-116	4	30
Fluorene	N.D.	0.010	ug/l	94	97	75-114	3	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	97	100	53-158	3	30
Naphthalene	N.D.	0.030	ug/l	94	96	72-109	2	30
Phenanthrene	N.D.	0.030	ug/l	96	99	76-111	3	30
Pyrene	N.D.	0.010	ug/l	90	92	69-118	3	30
Batch number: 11358B53A	Sample number(s): 6504724, 6504726-6504727, 6504729							
Benzene	N.D.	0.2	ug/l	105	105	80-120	0	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	89	91	75-135	2	30
Batch number: 113630021A	Sample number(s): 6504724, 6504727							
Methane	N.D.	10.	ug/l	92		80-120		
Batch number: 113610022A	Sample number(s): 6504724, 6504726-6504727							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	69	64	50-120	8	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 113576050002A	Sample number(s): 6504725, 6504728							
Manganese	N.D.	0.40	ug/l	105		90-115		
Batch number: 11354196902B	Sample number(s): 6504724, 6504727							
Nitrate Nitrogen	N.D.	50.	ug/l	109		90-110		
Sulfate	N.D.	300.	ug/l	107		90-110		
Batch number: 11358020201A	Sample number(s): 6504724, 6504727							
Alkalinity to pH 4.5	N.D.	460.	ug/l as CaCO3	98		98-103		

Sample Matrix Quality Control

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1281829
 Reported: 01/06/12 at 11:00 AM
 Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11358B53A Benzene	Sample number(s): 6504724,6504726-6504727,6504729 UNSPK: P508551 100 80-130								
Batch number: 113630021A Methane	Sample number(s): 6504724,6504727 UNSPK: P504697 -7166 -8332 35-157 14 20 (2) (2)								
Batch number: 113576050002A Manganese	Sample number(s): 6504725,6504728 UNSPK: P505341 BKG: P505341 500 (2) 1100 75-125 4 20 8,130 8,610 6 20 (2)								
Batch number: 11354196902B Nitrate Nitrogen Sulfate	Sample number(s): 6504724,6504727 UNSPK: 6504724 BKG: 6504724 101 90-110 720 740 3 (1) 20 107 90-110 31,900 31,900 0 20								
Batch number: 11358020201A Alkalinity to pH 4.5 Alkalinity to pH 8.3	Sample number(s): 6504724,6504727 UNSPK: P507760 BKG: 6504724 97 73-121 95,200 95,300 0 5 N.D. N.D. 0 (1) 5								

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in waters by SIM

Batch number: 11355WAD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6504724	110	105	115
6504727	126	80	88
Blank	110	109	121
LCS	106	106	113
LCSD	105	105	114

Limits: 64-147 68-132 53-129

Analysis Name: Method 8021 Water Master

Batch number: 11358B53A

	Trifluorotoluene-P	Trifluorotoluene-F
6504724	80	73
6504726	81	70
6504727	82	73
6504729	80	70
Blank	80	70
LCS	80	82
LCSD	80	84
MS	82	

Limits: 58-146 63-135

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 01/06/12 at 11:00 AM

Group Number: 1281829

Surrogate Quality Control

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 113610022A
Orthoterphenyl

6504724	76
6504726	80
6504727	75
Blank	73
LCS	87
LCSD	83

Limits: 50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 113630021A
Propene

6504724	57
6504727	83
Blank	107
LCS	101
MS	69
MSD	56

Limits: 42-131

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody

223886



For Lancaster Laboratories use only
 Acct. #: 11964 Sample #: 6504724-29 SCR#: _____

Grp# 1281829

Facility #: <u>Edmonds Terminal</u> Site Address: <u>11720 Unow Rd, Edmonds WA</u> Chevron PM: <u>Kim Jolitz</u> Lead Consultant: <u>ARCADIS</u> Consultant/Office: <u>Seattle / ARCADIS</u> Consultant Prj. Mgr.: <u>Rebecca Andresen</u> Consultant Phone #: <u>206 325 5254</u> Fax #: _____ Sampler: <u>RR, SM</u> Service Order #: <u>8045362</u> <input type="checkbox"/> Non SAR: _____			Matrix Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="10" style="text-align: center;">Analyses Requested</th> </tr> <tr> <th colspan="10" style="text-align: center;">Preservation Codes</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">H</td><td style="text-align: center;">H</td><td style="text-align: center;">-</td><td style="text-align: center;">-</td> </tr> <tr> <td style="text-align: center;">8260</td><td style="text-align: center;">8260</td> </tr> <tr> <td style="text-align: center;">N</td><td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">S</td><td style="text-align: center;">S</td> </tr> <tr> <td style="text-align: center;">T</td><td style="text-align: center;">T</td> </tr> <tr> <td style="text-align: center;">B</td><td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">O</td><td style="text-align: center;">O</td> </tr> </tbody> </table>										Analyses Requested										Preservation Codes										H	H	-	-	-	-	-	-	-	-	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	N	N	N	N	N	N	N	N	N	N	S	S	S	S	S	S	S	S	S	S	T	T	T	T	T	T	T	T	T	T	B	B	B	B	B	B	B	B	B	B	O	O	O	O	O	O	O	O	O	O
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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m³	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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