NEW ▼	EQ Office  NWR ▼ Eirst Last	2	DLPRR Rev	view	Incident Comments	Contractor Maintenance
5 01 6	Records Next Back	RR# 10448	Incident Dat	ta	Reported By KEVIN	The state of the s
Lookup LUST	Log Number	03-07-1448	Site Type F	Regulated	RepBy Phone (503) 63	
Site Name Sh	nell 121704		Received Date	9/14/2007	Company DELTA	ENVIRONMENTAL CONSUL
Site Address 14	1951 Bangy Road				County Clackar	mas 🔻
Other					Facility Id 838	Lookup UST
CityLa	ike Oswego		Zip Code 9703	35	Phone	
Re	sponsible Party		Mail Contact	ts <u>Invo</u>	ice Contact	
First Name Je	ff		F	irst Name Jeff		
Last Name Go	oold		L	ast Name Goold		
Organization Sh	ell Oil Products US		Org	ganization Shell	Oil Products US	
Address PC	) BOX 4369			Address PO B	OX 4369	
Address2				Address2		
City Ho	puston			City Houst		
State TX	▼ Zip Code	77210		State TX	▼ Zip Cod	e 77210
Phone 42	5-844-2355				44-2355	
É-Mail				E-Mail		
Site Assessment		riscovery teAssessment	Cause Unknown		Source Other	Confirmation Lab:RP
Contaminant	S					Impacted Media
☐ Heating Oil ☐ Waste Oil ☐ Other Pet. Dist.	☐ Leaded Gasoline ☐ Unleaded Gasolin ☐ Chemical	Misc. Gasone Lubricant MTBE	Diesel  Solven  Unkno		☐ Groundwate ☐ Surface Wa ☐ Drinking Wa	ter $\Gamma$ Vapor
Accept		<u>H</u> old		<u>D</u> eclii	ne	Close

RP# 104789 Finhw. Rag. 1113/09ck

Invoice # 104853 Contact #77

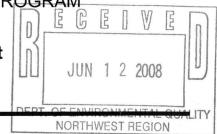
addresses Changer

Q Time # 40074



OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY UNDERGROUND STORAGE TANK PROGRAM

#### **Cost Recovery Agreement**



This document serves as an agreement between the undersigned (hereinafter "you") and the Department of Environmental Quality (DEQ) regarding DEQ review and oversight of the investigation and/or cleanup of petroleum (hazardous substances) at the property located at:

Facility Name: Shell Station, SAP 121704

Address: 14951 SW BANGY LANE

LAKE OSWEGO, OR 97035-0000

USTC No.: 03-07-1448

DEQ agrees to review environmental documents submitted by you or on your behalf regarding the investigation and/or cleanup of the above-referenced site. Additional details regarding DEQ oversight will be established upon review of the initial site data.

DEQ requires that persons requesting DEQ review and oversight of investigation and cleanup activities agree to the terms of this cost recovery agreement and pay project oversight costs.

DEQ project oversight costs will include direct costs and indirect costs. Direct costs include site-specific expenses and legal costs. Indirect costs are those general management and support costs of the DEQ, including the Land Quality Division (LQ), allocable to DEQ oversight of this agreement and not charged as direct, site-specific costs. Indirect charges are based on a percentage of direct personal services costs. Review and oversight costs shall not include any unreasonable costs or costs not otherwise recoverable by DEQ under ORS 465.255.

DEQ costs are due within thirty (30) days of issuance of the monthly statement, by a check made payable to the "Department of Environmental Quality". Nine percent interest shall be charged on past due accounts.

Electing not to enter into this agreement does not release you from any responsibility that you might have for any reporting requirements, investigation and/or cleanup of petroleum (hazardous substances) at the above referenced facility. This does not preclude the DEQ from conducting audits or inspections of all or portions of the investigation and cleanup activities associated with this facility. Enforcement action may be initiated if any violation of Oregon Administrative Rules (OARs) or Oregon Revised Statutes (ORSs) is found.

Either DEQ or you may terminate this agreement by giving 15 days advance written notice to the other. Only those costs incurred or obligated by DEQ prior to the effective date of any termination of the agreement shall be recoverable under this agreement. Termination of this agreement will not affect any other right DEQ may have for recovery of costs under any applicable law.

You will hold DEQ harmless for any claims (including but not limited to claims of property damage or personal injury) arising from DEQ review and/or oversight activities under this agreement.

This agreement is not and shall not be construed to be an admission by you of any liability under ORS 465.255 or any other law or as a waiver by you of any defense to such liability. This agreement is not and shall not be construed to be a waiver, release, or settlement of claims that DEQ may have against you or any other responsible person nor is this agreement a waiver of any enforcement authority that DEQ may have.

The DEQ Tanks Program will be responsible for the review and oversight of the investigation and cleanup activities associated with the property. Please refer all site-specific inquiries to the UST Regional Offices in Northwest Region – Portland, Western Region – Salem and Eugene and Eastern Region – The Dalles. For locations and phone numbers of the regional offices, please see the UST Regional Office list at <a href="http://www.deq.state.or.us/about/locations.htm">http://www.deq.state.or.us/about/locations.htm</a>

All inquiries regarding cost recovery and/or invoices should be directed to Dawn Ismerio at 503-229-5812.

If the terms of this agreement are acceptable, please have it executed by an authorized officer in the space provided below. In order to more effectively schedule your project, please return this agreement within 30 days of receipt to the regional office responsible for your site.

eccepted and agreed to this day of da
By: Mood
Title: Py & Magn
ease provide the following information as to where the invoices should be sent.
Individual Name: Jeff Goold
Title: Environmental Engineer
Company Name: Shell Oil Products U.S.
Mail Address: P.O. Box 4912
City, State, Zip: Houston, Texas 77210-4912
Phone Number: 425-844-2355

# **NWR'S NFA TRACKING CHECKLIST**

ROUTE TO	ACTIVITY	RESPONSIBLE PERSON	DATE COMPLETED
	UST database checked by Project Manager (PM) to make sure fees paid and tanks closed and verify w/ Greg UST compliance issues have been resolved	BNP	12/18/08
	OTIS updated with soil disposal, public notice, site status in comments <u>not</u> file status field and other applicable information by PM	BNP	12/18/08
	Draft NFA prepared by PM and submitted to NRS-4 Hydro or Manager for review	BNP	12/18/08
	Draft NFA approved by NRS-4 Hydro (or Manager, if necessary) and submitted for data entry	MHA	14/23/08
(X	To Administrative staff for proofreading letter and verify staff completed cost recovery entry	LK	1/29/09
2	SEQUENT and green sheet updated with final invoice request date	LK	1/13/09
	<b>OPTIONAL STEP:</b> Expedited payment request by responsible party (RP) is handled by ====>>		
	OPTIONAL STEP: Estimated Expedited Payment Amount given to RP by ====>>	,	
	Final invoice paid notice received from Business Office; PM informed by Julie; Julie verify SITE TYPE/STATUS is updated and correct, PM end date		
	Final NFA drafted and signed by PM (and Manager, if necessary) and send for data entry		
	SEQUENT updated with filed closed information and file closure activities complete	UK	2/24/09
	Copies made (including copy of NFA, EES, enclosures, attachments, if applicable, and release form for NFA binders) and mailed	rule UC	3/3/09

# **NFA PROCESS COMPLETE**

June 22, 2009

Mr. Jeff Goold Shell Oil Products US 20945 Wilmington Avenue Carson, CA 90810 JUN 2 4 2009

Re:

Monitoring Well Abandonment Shell-Branded Service Station

(SAP No. 121704)

14951 SW Bangy Lane, Lake Oswego, Oregon

Delta Project No. SOR20-9AA-1

DEQ Lust No. 03-92-0115 03-07-1448



Dear Mr. Goold:

Delta Consultants (Delta) is pleased to present this letter report documenting the abandonment of three monitoring wells (MW-3, MW-4, and MW-5), one air-sparge well (AS-1), and three remediation points (RW-1, RW-2, and RW-3) at the Shell-branded station at 14951 SW Bangy Lane in Lake Oswego, Oregon (Site).

May 19 and 20, 2009, Delta subcontracted Cascade Drilling, Inc. (Cascade) of Portland, Oregon, to abandon all monitoring wells at the Site. Cascade is an Oregon Licensed Well Constructor in accordance with OAR 690-240-0135.

Cascade, on behalf of Delta, obtained a variance from the Oregon Water Resources Department (WRD) to decommission monitoring wells MW-2, MW-4 and MW-5 in place. Wells RW-1, RW-2, and RW-3 were identified as shallow remediation points for which no documentation was available. Solid casing extended to approximately 3 feet below ground surface (bgs). The air sparge well and remediation points were also decommissioned in place. All wells and remediation points were abandoned by filling with hydrated bentonite chips to an approximate depth of one foot bgs. To restore original surface conditions, RW-2, RW-3, MW-5, and AS-1 were completed with concrete patches and RW-1, MW-3, and MW-4 were completed with cold asphalt patches.

No waste was generated during abandonment activities.

Delta appreciates the opportunity to provide environmental services to Shell Oil Products. Please contact any of the undersigned if you have any questions regarding the content of this report.

Sincerely,

**Delta Consultants** 

Katy McQuinn

(kmcquinn@deltaenv.com)

Project Scientist

Jessica Eckart

(jeckart@deltaenv.com)

Project Manager

Kevin McCarthy

(kmccarthy@deltaenv.com)

Portfolio Manager

Attachments: Attachment A - Oregon WRD Well Abandonment Cards and Monitoring Well Reports

### ATTACHMENT A

OREGON WRD WELL ABANDONMENT CARDS AND MONITORING WELL REPORTS

#### CLAC 65990

#### STATE OF OREGON MONITORING WELL REPORT

06-11-2009

	rage 1014
WELL LABEL # L	
START CARD # 1006647	

(as required by ORS 537.765 & OAR 690-240-0395)

First Name Last Name pop157-3316 Company TEXACO REFINING AND MARKETING Address 50 KilksLAND WAY Cipy Signature and State WA Zip 98033 All LMETHOD ARREST Now   Despening   Conversion      All restance (repair/recondition)   Abandonment      All restance   Market Name   Company   To Gauge   Wid Thrd Material   Steel   Plastic   Dameter   From   To Gauge   Wid Thrd Material   Steel   Plastic   Dameter   State   Dameter   State		1000047
Computer TEMACORETINING AND MARKETINO	(1) LAND OWNER Owner Well I.D. MW-3	(6) LOCATION OF WELL (legal description)
Completed Well   Section	107137-3310	County Clackamas Twp 2.00 S N/S Range 1.00 E E/W WM
Comparison   Comparison   Conversion   Conversion   Conversion   Alteration (repatriceondition)	Company TEXACO REFINING AND MARKETING  Address 550 KIRKI AND WAY	Sec 7 NW 1/4 of the NW 1/4 Tax Lot 1100
Conversion   Alteration   Cepatrizecondition   Cepatrizecondition   Alteration   Cepatrizecondition   Cepatrize		lax Map Number Lot
Alteration (repair/econdition)   Abandonment	1 70055	
Spring   S		
Rotary Air   Cable   Hallow Stem Auger   Cable Must		
Reverse Rotary   Other Chip in place		
A CONSTRUCTION   Piezometer Well		
Depth of Completed Well 25	(4) CONSTRUCTION	Existing Well / Predeepening SWL(psi) + SWL(ft)
MONUMENT/VAULT Below Ground From To  BORE HOLE Diameter   From   To   To   Gauge   Wild Thrd   Material   Steel   Plastic		Completed Well
MONUMENT/AULT   Below Ground   SWL Date   From   To   Est Flow   SWL/fish   + SWL	Depth of Completed Well 25 rt. Special Standard	
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Diameter 4 From 5 To 25  CASING Dia From To Gauge Wild Thrd Material Steel Plastic   P	FromTo	SWL Date From 10 Est Flow SWL(psi) + SWL(ft)
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CASING Dia From To Gauge Wid Thrd Material Steel Plastic        LINER Dia From To Gauge Wid Thrd Material Steel Plastic        SEAL From To Gauge Wid Thrd Material Steel Plastic        SEAL From To Gauge Wid Thrd Material Steel Plastic        SEAL From To Gauge Wid Thrd Material Steel Plastic        SEAL From Material Bentonite Chips Amount 3.00 S Grout weight  SCREEN Casing/Liner Material Diameter From To Slot Size  Date Started 05.19-2009 Completed 05.19-2009  (unbonded) Monitor Well Constructor Certification 1 certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon monitoring well construction standards. Materials used and information reported above are true to the best of my knowledge and belief. License Number 10595  Pump Bailer Orl I stem/Pump depth Duration (hr)  From To Description Amount Units From To To Description Amount Units	Diameter 4 From 0 To 25	
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Dia		(8) WELL LOG Ground Flevation
LINER   Dia.   From   To   Gauge   Wild Thrd   Material   Steel   Plastic		
LINER  Dia From To Gauge Wild Thrd Material Steel Plastic   SEAL  From To To 5  Material Bentanite Chips Amount 3 00 S Grout weight  SCREEN  Casing/Liner Material Diameter From To Slot Size  FILTER Material Size of pack  FILTER  Material Size of pack  FILTER  Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)  Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)  Emperature "F Lab analysis Yes By Upervising Geologis/Engineer  Vater quality concerns?   Yes (describe below) From To Description Amount Units  From To Description Amount Units  License Number 10357 Date 06-11-2009  Electronically Submitted  Signed 3 SAM HEUSER (E-filed)  (bonded) Monitor Well Constructor Certification  I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this will during the construction dates reported above. All work performed of unity this time is in compliance with Oregon monitoring well construction standards. This report is true to the best of my knowledge and belief. License Number 10357 Date 06-11-2009  Electronically Submitted  Signed TERENCE JACQUES (E-filed)  Contact Info (optional)	- Wild Time	Thum To
DiaFromTo	Material Osteel OPlastic [	
DiaFromTo	LINER	
Gauge   Wild Thrd   Material   Steel   Plastic		
SEAL From To		
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Material Amount 3.00 S Grout weight  SCREEN  Casing/Liner Material  Diameter From To Slot Size  Date Started 05-19-2009 Completed 05-19-2009  (unbonded) Monitor Well Constructor Certification  I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon monitoring well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.  License Number 105595 Date 06-11-2009  Electronically Submitted  Signed SaM HEUSER (E-filed)  (bonded) Monitor Well Constructor Certification  I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon monitoring well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.  License Number 105595 Date 06-11-2009  Electronically Submitted  Signed TERRENCE JACQUES (E-filed)  Contact Info (optional)		
Amount 3.00 S Grout weight  SCREEN  Casing/Liner Material  Diameter From To  Slot Size  FILTER From To Material Size of pack  FILTER  Pump Bailer Air Flowing Artesian Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)  Emperature F Lab analysis Yes By  upervising Geologist/Engineer  Vater quality concerns? Yes (describe below) From To Description Amount Units  From To Description Amount Units  Firm To D	From 0 To 25	
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FILTER Material  Size of pack    Cunbonded   Monitor Well Constructor Certification	Slot Size	Date Started 05-19-2009 Completed 05-19-2009
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From To Description Amount Units License Number 10357 Date 06-11-2009  Electronically Submitted Signed TERRENCE JACQUES (E-filed)  Contact Info (optional)	upervising Geologist/Engineer	work performed during this time is in compliance with Oregon monitoring well construction standards. This report is true to the best of my knowledge and belief
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Contact Info (optional)	Description Office	Electronically Submitted
Contact Info (optional)		Signed TERRENCE JACQUES (E-filed)
	ONORIU WATER PROUE	Contact Info (optional)

## MONITORING WELL REPORT - continuation page

CLAC 65990

WEL	L	l.D.	# ]	 P	age 2	of 4

06-11-2009

START CARD # 1006647

(A) CONSTRUCTION	T	
(4) CONSTRUCTION	(7) STATIC WATER LEVEL	
BORE HOLE FILTER PACK Dia From To From To Material Size	Water Bearing Zones	
Did 110iii 10 110iii 10 Materiai Size	POTOGES 443	
	SWL Date From To Est Flow SWL(psi) +	SWL(ft)
		117
SEAL sacks/ grout		
Material From To Amt lbs weight		
	(8) WELL LOG	
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	Material From	To
CASING/LINER		
Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd		
Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd		
<del>XXIIIIXX</del> HH		
CODEENS		
SCREENS		
Perf/S Casing/Screen Scrm Slot # of Tele/ creen Liner Dia From To size/slot length slots pipe size		
creen Liner Dia From To size/slot length slots pipe size		
5) WELL TESTS		
	Comments/Remarks	
Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)		
	4" well abandoned by chipping in place to depth with 3 bags of bentor	nite chips
	from Oft to 25ft	
Water Quality Concerns	Monument removed	
From To Description Amount Units		
	Original Start Card: 52340	
	Well ID: Unknown	

#### MONITORING WELL REPORT -

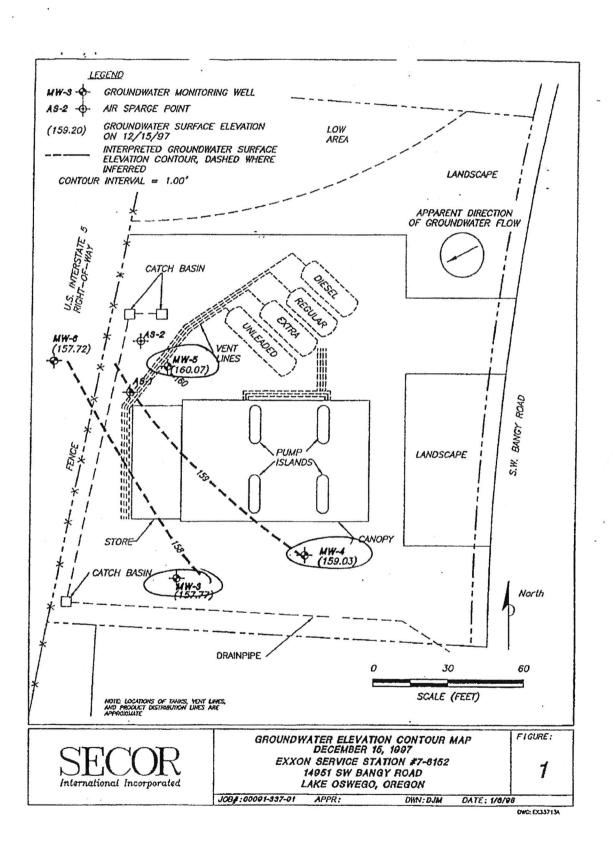
Map with location identified must be attached and shall include an approximate scale and north arrow

CLAC 65990 06-11-2009 WELL I.D. # L

START CARD # 1006647

Page 3 of 4

Map of well



### MONITORING WELL REPORT - continuation page

CLAC 65990 06-11-2009 WELL I.D. # L

START CARD # 1006647

Page 4 of 4

Map of well



Water Resources Department
North Mall Office Building
725 Summer Street NE, Suite A
Salem, OR 97301-1266
503-986-0900
FAX 503-986-0904

April 29, 2009

TERRENCE JACQUES #10357 CASCADE DRILLING INC 13600 SE AMBLER RD CLACKAMAS OR 97015

#### FINAL ORDER

Dear Terry:

The Special Standard request you submitted for owner: Texaco Refining and Marketing, Start Card numbers 1006647 (MW3), 1006648 (MW4) and 1006649 (MW5), is hereby approved for the following: You may abandon these wells in place per OAR 690-240-0510(2). Bentonite grout may only be used to abandon the portion of the wells that is below the static water level. Above the static water level another approved sealing material must be used. Your Special Standard request form is enclosed. All other standards must be adhered to.

The Well Construction Standards serve to protect ground water resources. By approving and issuing this special construction standard the Oregon Water Resources Department is not representing that a well constructed in accordance with this condition will maintain structural integrity or that it meets engineering standards. The well constructor/or landowner is responsible for ensuring that a well is constructed in a manner that protects ground water resources as required under Oregon Administrative Rules 690-200 through 690-240.

If you have any questions regarding this letter, I may be contacted at (503) 986-0851, or by e-mail at Kristopher.R.Byrd@wrd.state.or.us.

Sincerely.

Kristopher Byrd, Coordinate Well Construction Program

Well Construction and Compliance Section

enclosure

cc: Lorraine Ramsey, NW Region Well Inspector

File

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

#### CLAC 65991

#### STATE OF OREGON MONITORING WELL REPORT

06-11-2009

	Page 1 of 4
WELL LABEL # L	
START CARD # 1006648	

(as required by ORS 537.765 & OAR 690-240-0395)

	START CARD# 1006648
(1) LAND OWNER Owner Well I.D. MW-4	(6) LOCATION OF WELL (legal description)
First Name Last Name P09157-3316 Company TEXACO REFINING AND MARKETING Address 550 KIRKLAND WAY	County         Clackamas         Twp _ 2.00 _ S         N/S         Range _ 1.00 _ F         E/W WM           Sec _ 7         NW         1/4 of the _ NW         1/4 Tax Lot 1100         Tax Lot 1100
City KIRKLAND State WA Zip 98033	Tax Map Number Lot  Lat ' ' or DMS or DD
(2) TYPE OF WORK New Deepening Conversion	Long " or DMS or DD
Alteration (repair/recondition) Abandonment	Street address of well Nearest address
(3) DRILL METHOD	I 4905 SW BANGY RD LAKE OSWEGO OR
Rotary Air Rotary Mud Cable Hollow Stem Auger Cable Mud Reverse Rotary Other Chip in place	(7) STATIC WATER LEVEL  Date SWL(psi) + SWL(ft)
(4) CONSTRUCTION Piezometer Well	Existing Well / Predeepening
Depth of Completed Well 33 ft. Special Standard	Completed Well Flowing Artesian? Dry Hole?
MONUMENT/VAULT Below Ground From To	WATER BEARING ZONES  Depth water was first found  SWL Date From To Est Flow SWL(psi) + SWL(ft)
BORE HOLE	
Diameter 4 From 0 To 33	
CASING	(8) WELL LOG Ground Floretion
Dia. From To	Glound Elevation
Gauge Wld Thrd  Material Steel Plastic	Material From To
LINER	
Dia. From To	
Gauge Wld Thrd	
Material Steel Plastic	
SEAL	
From 0 To 33	
Material Bentonite Chips	
Amount 4.00 S Grout weight	
SCREEN	
Casing/Liner Material	
Diameter From To	
Slot Size	Date Started 05-19-2009 Completed 05-19-2009
FILTER	(unbonded) Monitor Well Constructor Certification
FromToMaterialSize of pack	I certify that the work I performed on the construction, deepening, alteration or
A MUNICIPAL PROGRA	abandonment of this well is in compliance with Oregon monitoring well construction standards. Materials used and information reported above are true to
5) WELL TESTS	the best of my knowledge and belief.
Pump Bailer Air Flowing Artesian  Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)	License Number 10595 Date 06-11-2009
The gamme Brawdown British script unip deput Burgton (iii)	Electronically Submitted Signed SAM HEUSER (Fafiled)
	Signed SAM HEUSER (E-filed) (bonded) Monitor Well Constructor Certification
emperature °F Lab analysis Yes By	I accept responsibility for the construction, deepening, alteration, or abandonment
	work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon monitoring well
upervising Geologist/Engineer  Vater quality concerns? Yes (describe below)	construction standards. This report is true to the best of my knowledge and belief.
From To Description Amount Units	License Number 10357 Date 06-11-2009
	Electronically Submitted
	Signed TERRENCE JACQUES (E-filed)
ORIGINAL - WATER RESOURCE	Contact Info (optional)

## MONITORING WELL REPORT - continuation page

CLAC 65991

WELL I.D. # L \_\_\_\_\_\_ Page 2 of 4

06-	11	-2	no	9
vv		-	v	-

START CARD # 1006648

	00-11-2007 STATE CITED II 10000-10
(4) CONSTRUCTION BORE HOLE FILTER PACK	(7) STATIC WATER LEVEL
Dia From To From To Material Size	Water Bearing Zones
	SWL Date From To Est Flow SWL(psi) + SWI
SEAL gagles/ grout	
SEAL sacks/ grout  Material From To Amt lbs weight	
Tion To Aint 105 Weight	
	(8) WELL LOG
	Material From To
CASING/LINER	
Casing Liner Dia + From To Gauge Stl Plstc Wld Th	ard
	-
	-
SCREENS	
Perf/S Casing/ Screen Scrn Slot # of Te	le/
creen Liner Dia From To size/slot length slots pipe	
width	
S) WELL TESTS	
	Comments/Remarks
Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)	
	I 1
	4" well abandoned by chipping in place to depth with 4 bags of bentonite cl
	from 0ft to 33ft
Water Quality Concerns	Monument removed
From To Description Amount Units	
	Original Start Card: 52341 Well ID: Unknown
	1
	1

#### MONITORING WELL REPORT -

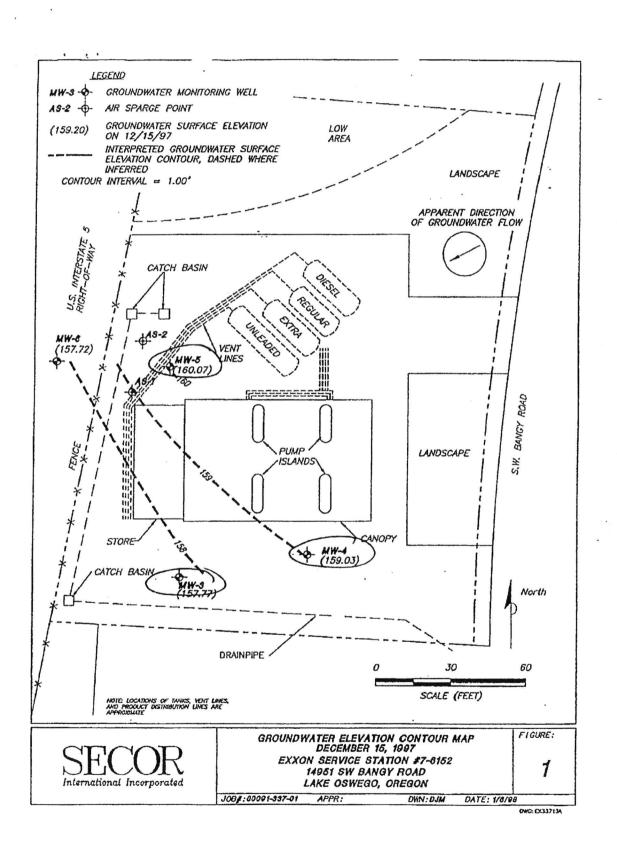
Map with location identified must be attached and shall include an approximate scale and north arrow

CLAC 65991 06-11-2009 WELL I.D. # L

START CARD # 1006648

Page 3 of 4

Map of well



### MONITORING WELL REPORT - continuation page

CLAC 65991 06-11-2009

WELL I.D. #L	
START CARD # 1006648	Page 4 of

Map of well



Water Resources Department North Mall Office Building 725 Summer Street NE, Suite A Salem, OR 97301-1266 503-986-0900 FAX 503-986-0904

April 29, 2009

TERRENCE JACQUES #10357 CASCADE DRILLING INC 13600 SE AMBLER RD CLACKAMAS OR 97015

#### FINAL ORDER

Dear Terry:

The Special Standard request you submitted for owner: Texaco Refining and Marketing, Start Card numbers 1006647 (MW3), 1006648 (MW4) and 1006649 (MW5), is hereby approved for the following: You may abandon these wells in place per OAR 690-240-0510(2). Bentonite grout may only be used to abandon the portion of the wells that is below the static water level. Above the static water level another approved sealing material must be used. Your Special Standard request form is enclosed. All other standards must be adhered to.

The Well Construction Standards serve to protect ground water resources. By approving and issuing this special construction standard the Oregon Water Resources Department is not representing that a well constructed in accordance with this condition will maintain structural integrity or that it meets engineering standards. The well constructor/or landowner is responsible for ensuring that a well is constructed in a manner that protects ground water resources as required under Oregon Administrative Rules 690-200 through 690-240.

If you have any questions regarding this letter, I may be contacted at (503) 986-0851, or by e-mail at Kristopher.R.Byrd@wrd.state.or.us.

Sincerely.

Kristopher Byrd, Coordinator
Well Construction Program

Well Construction and Compliance Section

enclosure

cc: Lorraine Ramsey, NW Region Well Inspector

File

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

#### CLAC 65992

#### STATE OF OREGON MONITORING WELL REPORT

06-11-2009

	Page 1 of 4
WELL LABEL # L	
START CARD # 1006649	•

(as required by ORS 537.765 & OAR 690-240-0395)

		1000049
(1) LAND OWNER		(6) LOCATION OF WELL (legal description)
	Last Name P09157-3316	County Clackamas Twp 2.00 S N/S Range 1.00 E E/W WM
Address 550 KIRKLAND	IING AND MARKETING	Sec 7 NW 1/4 of the NW 1/4 Tax Lot 1100
City KIRKLAND	State WA Zip 98033	Tax Map Number         Lot           Lat         " or         DMS or DD
(2) TYPE OF WORK		Long o DMS or DD
	Addition) Abandonment	Street address of well     Nearest address
		14905 SW BANGY RD
(3) DRILL METHOL Rotary Air Rotary M	Mud Cable Hollow Stem Auger Cable Mud	LAKE OSWEGO OR
Reverse Rotary O		(7) STATIC WATER LEVEL
(4) CONSTRUCTION	N Piezometer Well	Date SWL(psi) + SWL(ft)  Existing Well / Predeepening
	Completed Well 25 ft. Special Standard	Completed Well
		WATER BEARING ZONES Depth water was first found
	MONUMENT/VAULT Below Ground	Deput water was first found
	FromTo	SWL Date From To Est Flow SWL(psi) + SWL(ft)
	BORE HOLE	
	Diameter 4 From 0 To 25	
	CASING	
	CASING	(8) WELL LOG Ground Elevation
	Dia. From To  Gauge Wid Thrd	Material From To
120	Gauge Wld Thrd  Material Steel Plastic	
	Material Obles Of Mater	
	LINER	
1901	Dia From To	
	Gauge Wld Thrd	
	Material Steel Plastic	
	SEAL	
1901,		
1221	From 0 To 25  Material Bentonite Chips	
	Amount 3.00 S Grout weight	
	*	
	SCREEN	
	Casing/Liner Material	
	Diameter From To Slot Size	
		Date Started <u>05-20-2009</u> Completed <u>05-20-2009</u>
	FILTER Material Size of pack	(unbonded) Monitor Well Constructor Certification
rom To N	Material Size of pack	I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon monitoring well
5) WELL TESTS		construction standards. Materials used and information reported above are true to
Pump Bailer	r Air Flowing Artesian	the best of my knowledge and belief.
Yield gal/min Drawd		License Number 10595 Date 06-11-2009 Electronically Submitted
		Signed SAM HEUSER (E-filed)
		(bonded) Monitor Well Constructor Certification
emperature °F La	b analysis Yes By	I accept responsibility for the construction, deepening, alteration, or abandonment
upervising Geologist/Engine		work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon monitoring well
Vater quality concerns?	Yes (describe below)	construction standards. This report is true to the best of my knowledge and belief.
From To	Description Amount Units	License Number 10357 Date 06-11-2009
		Electronically Submitted
		Signed TERRENCE JACQUES (E-filed) Contact Info (optional)
	ONIONIU III.	

### MONITORING WELL REPORT - continuation page

CLAC 65992

WELL I.D. # L \_\_\_\_\_ Page 2 of 4

06-1	11	20	nn
110-			117

START CARD # 1006649

***		
(4) CONSTRUCTION	(7) STATIC WATER LEVEL	
BORE HOLE FILTER PACK Dia From To From To Material Size	Water Bearing Zones	
	SWL Date From To Est Flow SWL(psi) + SWL(ft)	
	Service Sweepers Sweepers	7
		1
		4
		+
		1
SEAL sacka/ grout		
Material From To Amt lbs weight		1
		1
		_
	(8) WELL LOG	
	Material From To	7
		٦
CASING/LINER		$\dashv$
Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd		$\neg$
		4
		$\dashv$
H K KI H TE TE TE TO THE KI		-
		$\dashv$
		4
SCREENS		$\dashv$
		7
Perf/S Casing/Screen Scrn Slot # of Tele/ creen Liner Dia From To size/slot length slots pipe size		7
width		$\dashv$
		٦
		4
		1
		J
5) WELL TESTS		
*	Comments/Remarks	
Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)		_
	4" well abandoned by chipping in place to depth with 3 bags of bentonite chips from 0ft to 25ft	
Water Quality Concerns		
Water Quality Concerns From To Description Amount Units	Monument removed	
From To Description Amount Units	Original Start Card: 52042	
	Original Start Card: 52042 Well ID: Unknown	
	1 1	1

#### MONITORING WELL REPORT -

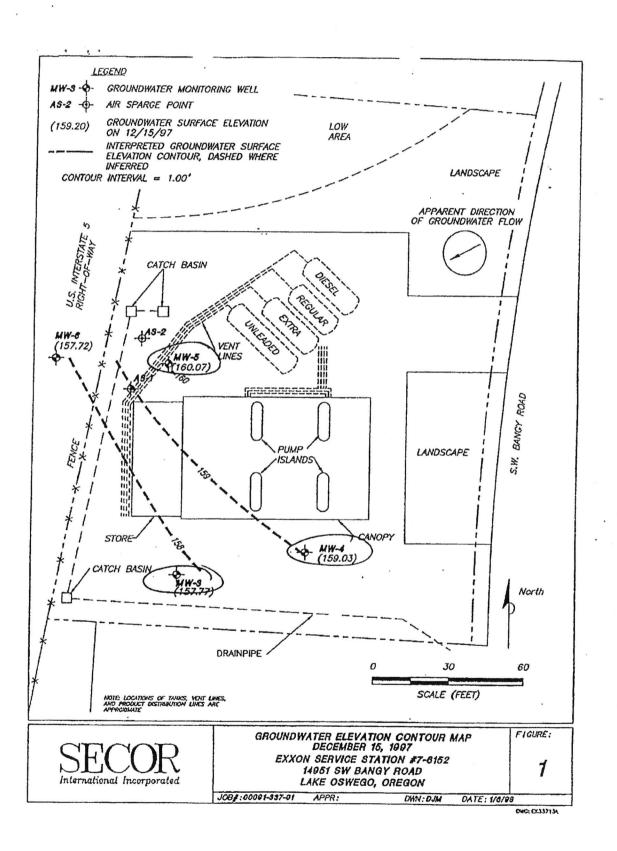
Map with location identified must be attached and shall include an approximate scale and north arrow

CLAC 65992 06-11-2009 WELL I.D. # L

Page 3 of 4

START CARD # 1006649

Map of well



## MONITORING WELL REPORT - continuation page

CLAC 65992 06-11-2009 WELL I.D. # L \_\_\_\_\_\_\_ Page 4 of 4

Map of well



Water Resources Department North Mall Office Building 725 Summer Street NE, Suite A Salem, OR 97301-1266 503-986-0900 FAX 503-986-0904

April 29, 2009

TERRENCE JACQUES #10357 CASCADE DRILLING INC 13600 SE AMBLER RD CLACKAMAS OR 97015

#### FINAL ORDER

Dear Terry:

The Special Standard request you submitted for owner: Texaco Refining and Marketing, Start Card numbers 1006647 (MW3), 1006648 (MW4) and 1006649 (MW5), is hereby approved for the following: You may abandon these wells in place per OAR 690-240-0510(2). Bentonite grout may only be used to abandon the portion of the wells that is below the static water level. Above the static water level another approved sealing material must be used. Your Special Standard request form is enclosed. All other standards must be adhered to.

The Well Construction Standards serve to protect ground water resources. By approving and issuing this special construction standard the Oregon Water Resources Department is not representing that a well constructed in accordance with this condition will maintain structural integrity or that it meets engineering standards. The well constructor/or landowner is responsible for ensuring that a well is constructed in a manner that protects ground water resources as required under Oregon Administrative Rules 690-200 through 690-240.

If you have any questions regarding this letter, I may be contacted at (503) 986-0851, or by e-mail at Kristopher.R.Byrd@wrd.state.or.us.

Sincerely,

Kristopher Byrd, Coordinate Well Construction Program

Well Construction and Compliance Section

enclosure

cc: Lorraine Ramsey, NW Region Well Inspector

File

This is a final order in other than a contested case. This order is subject to Judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.





#### Department of Environmental Quality

Northwest Region Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 (503) 229-5263

Fax: (503) 229-6945

TTY: (503) 229-5471

February 24, 2009

JEFF GOOLD SHELL OIL PRODUCTS US 20945 S WILMINGTON AVENUE CARSON CA 90810-1039

Re: No Further Action Letter

Shell Service Station SAP N0.121704 UST Cleanup File No. 03-07-1448

UST Facility No. 838

Dear Mr. Goold:

The Department of Environmental Quality (DEQ) has completed its review of the information submitted to date, regarding the Shell branded service station located at 14951 SW Bangy Road, in Clackamas County, Lake Oswego, Oregon. The DEQ has determined that the investigation appears to have met the requirements of Oregon Administrative Rules (OAR) 340-122-0205 through 340-122-0360 and that No Further Action (NFA) is required at this time.

This determination is a result of our evaluation and judgment based on the regulations and facts as we now understand them:

#### SITE INFORMATION

The DEQ record indicates the property was previously listed under Exxon-Texaco Bangy Road, UST Cleanup File No. 03-88-0034. The release was discovered in 1988 when free product was discovered on the groundwater in the tank nest. Free product recovery was initiated by installing a skimmer in the monitoring wells, followed by a more effective remedial vapor extraction system. The system operated from 1989 to 1996. Oxygen release compound was added in two wells in 1996 to enhance natural degradation. In August 1996, final compliance groundwater monitoring was initiated. The site received a NFA determination in March 2000.

The site at present is an active retail gasoline station. Above ground structures include a station building and dispenser islands located east of the station building. The site is primarily covered with asphalt and concrete pavement. The USTs are located within a common excavation in the northern portion of the site. Local access to the site is from SW Bangy Lane to the east.

#### DUE DILLIGENCE SITE ASSESSMENT

In August 2007, Delta Consultants, Inc. conducted a Phase II Environmental Site Assessment on behalf of Shell Oil Products US (Shell) in conjunction with the property transaction. Four soil exploration borings were completed to a depth of 20 feet below ground surface (bgs) using a

Jeff Goold 03-07-1448 Page 2 of 4

direct-push hydraulic drive point. Attempts to complete more soil borings to the northeast side of the dispenser area and the northern portion of the tank pit were not successful because buried asphalt and concrete or utility was encountered. Soil samples were collected continuously at approximate 5-foot intervals. The soils encountered were logged and field screened using a PID and field observations including soil color and odor. In the absence of any field indicators, one soil sample from the sample interval directly above the soil/groundwater interface or at termination in each soil boring was collected. The soil samples selected for chemical analysis were properly preserved and submitted to the lab for analysis for petroleum hydrocarbons and related constituents.

Following borehole advancement, the probe rods were removed and a temporary well was lowered into the open annulus of the boring. The temporary well was constructed of 1-inch polyvinyl chloride piping with 5-feet of machine slotted screen. A groundwater sample was collected from the temporary well using polyethylene tubing and a peristaltic pump. The soil and groundwater samples were properly preserved and submitted for laboratory analysis for petroleum hydrocarbons and related constituents.

All soil and groundwater laboratory results were reviewed for detections of petroleum constituents above the laboratory reporting limits, and compared to the most stringent screening level risk-based concentrations (RBCs), including the recent revisions for ethylbenzene and naphthalene.

#### **FINDINGS**

None of the soil samples collected and submitted for laboratory analysis during the investigation contained concentrations of any constituent in excess of the most stringent screening level RBCs with one exception. One soil sample collected at a depth of 10 feet bgs in the southern portion of the property had a concentration of 28.5 milligrams per kilogram gasoline-range hydrocarbons in excess of the RBC for leaching to groundwater pathway under a residential use scenario.

Two groundwater samples collected from the western portion of the property contained concentrations of one or more constituents in excess of screening level RBCs. Benzene was detected at concentrations of 2.13 and 2.71micrograms per liter (µg/l); gasoline range hydrocarbons were detected at concentrations of 1,200 µg/l and 1,370 µg/l; and diesel range hydrocarbons were detected at concentrations of 249 µg/l and 398 µg/l. The concentrations of these and other petroleum-related constituents, such as ethylbenzene and naphthalene, exceeded the screening level RBCs for ingestion and inhalation pathway for drinking water under the residential and occupational exposure scenario. The concentrations of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene exceeded only the residential exposure pathway. The groundwater analysis data seem to be consistent with historical groundwater data from a pre-existing monitoring well in the same portion of the property.

Jeff Goold 03-07-1448 Page 3 of 4

#### CONCLUSIONS AND NFA DETERMINATION

The findings in the due diligence site assessment are consistent with the previous delineation of extent and magnitude of contamination. Together, they indicate that the site has been sufficiently investigated for the current and any likely future land use. One soil sample had a concentration of gasoline-range hydrocarbons in excess of the RBC for leaching to groundwater pathway under a residential use scenario. Two groundwater samples contained concentrations of one or more constituents in excess of screening level RBCs. Benzene, gasoline range hydrocarbons, diesel range hydrocarbons, and other constituents such as ethylbenzene and naphthalene, exceeded the screening level RBCs for ingestion and inhalation pathway for drinking water under the residential and occupational exposure scenario. The concentrations of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene in groundwater samples exceeded only the residential exposure pathway. The leaching, ingestion and inhalation pathways are not considered complete since there are no present or likely future users of groundwater. Detection of some petroleum hydrocarbons and related constituents in soil and groundwater seem to be residual in nature and do not constitute a new release. The shallow groundwater underlying the site should not be developed.

Additionally, it is our understanding that Shell has included as part of the divestment and sale contract a prohibition on the installation, extraction, or storage of potable water at the site and/or re-development of the site for residential purposes.

This DEQ determination will not apply if new or undisclosed facts show the cleanup does not comply with referenced rules. This determination also does not apply to any conditions at the site other than the release of the petroleum product.

Please note that pursuant to OAR 340-122-0360 (2), you must retain a copy of your report until ten (10) years after the first transfer of the property.

Your efforts to comply with the regulations to ensure that your property has been adequately cleaned up have been appreciated. If you have any questions, please feel free to contact me at (503) 229-5858.

Respectfully,

Bijan N. Pour

UST Cleanup Specialist

DEQ Northwest Region

Jeff Goold 03-07-1448 Page 4 of 4

Mike Kortenhof, Manager

UST Cleanup and Compliance Section

cc: Kevin McCarthy

Delta Consultants, Inc.

4640 SW Macadam Avenue Suite 110

Portland OR 97239

December 3, 2008

Mr. Bijan Pour Oregon Department of Environmental Quality 2020 SW 4th Avenue, Suite 400 Portland, OR 97201

Subject:

Request for No Further Action

14951 SW Bangy Road

Lake Oswego, Oregon (SAP No. 121704) Current DEQ LUST No. 03-07-1448 Historical DEQ LUST No. 03-88-0034

Dear Mr. Pour:



On behalf of Shell Oil Products US (Shell), Delta Consultants (Delta) is submitting this letter requesting a No Further Action (NFA) status for the above-referenced property (site, Figure 1). In August 2007, Delta completed a Phase II Environmental Site Assessment (Phase II) in which soil and groundwater samples were collected and tested for petroleum hydrocarbons and related constituents. Petroleum hydrocarbon impacts were observed in soil and groundwater samples collected during the Phase II at concentrations exceeding the most stringent risk based concentrations (RBCs). As a result, Delta reported a release and the Oregon Department of Environmental Quality (DEQ) issued leaking underground storage tank (LUST) number 03-07-1448 to this site.

Delta completed a review of documents on file with the DEQ. DEQ issued a NFA status for this site in March 2000 for LUST number 03-88-0034 (historical site incident number). Based on evaluation of the 2007 Phase II data, Delta believes that the current findings are related to the historical release reported in 1988 and that DEQ issue a NFA status for this site. In 1997, benzene was detected in MW-5 at concentrations of 1.58 and 18.6 micrograms per liter (µg/L) and in 2007, benzene was detected in TKSB-3 and DSSB-4 (near former monitoring well MW-5) at 2.13 and 2.71 µg/L, respectively (Figure 2). Additionally in 2007, gasoline range hydrocarbons (TPH-G) were detected at concentrations of 1,200 µg/L (TKSB-3) and 1,370 µg/L (DSSB-4) as well as diesel-range hydrocarbons (TPH-D) at concentrations of 249 µg/L (TKSB-3) and 398 µg/L (DSSB-4), which exceeded the risk-based concentrations (RBCs) for the occupational and residential ingestion and inhalation pathway for drinking water (only residential for TPH-D in TKSB-3). Furthermore, petroleum-related constituents such as benzene, ethylbenzene, and naphthalene exceeded the occupational and residential pathways for ingestion and inhalation of tap water with 1,2,4-trimethylbenzene and 1,3,5trimethylbenzene exceeding only the residential pathway. However, these results are consistent with historical groundwater sample data from well MW-5. Additional assessment is not warranted for this site and it is Delta's opinion that concentrations detected during the 2007 Phase II are consistent with and related to the historical release.

Request for No Further Action SAP 121704, 14951 SW Bangy Rd, Lake Oswego, OR December 3, 2008 Page 2 of 2

Please contact the undersigned if you have any questions.

Sincerely,

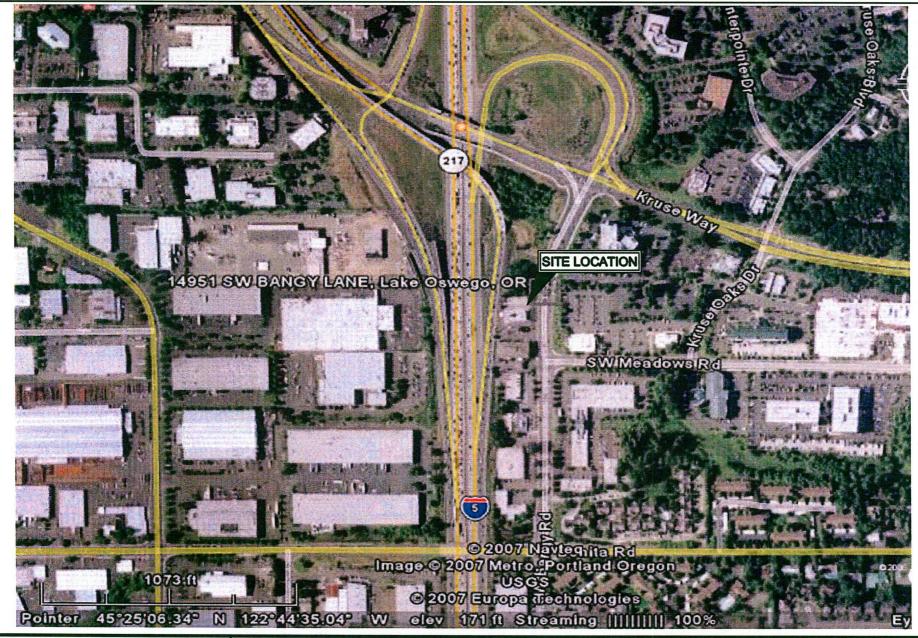
**DELTA CONSULTANTS** 

Jessica Eckart, R.G. Project Manager

Attachment:

Figure 1 – Site Location Map Figure 2 – Site Map

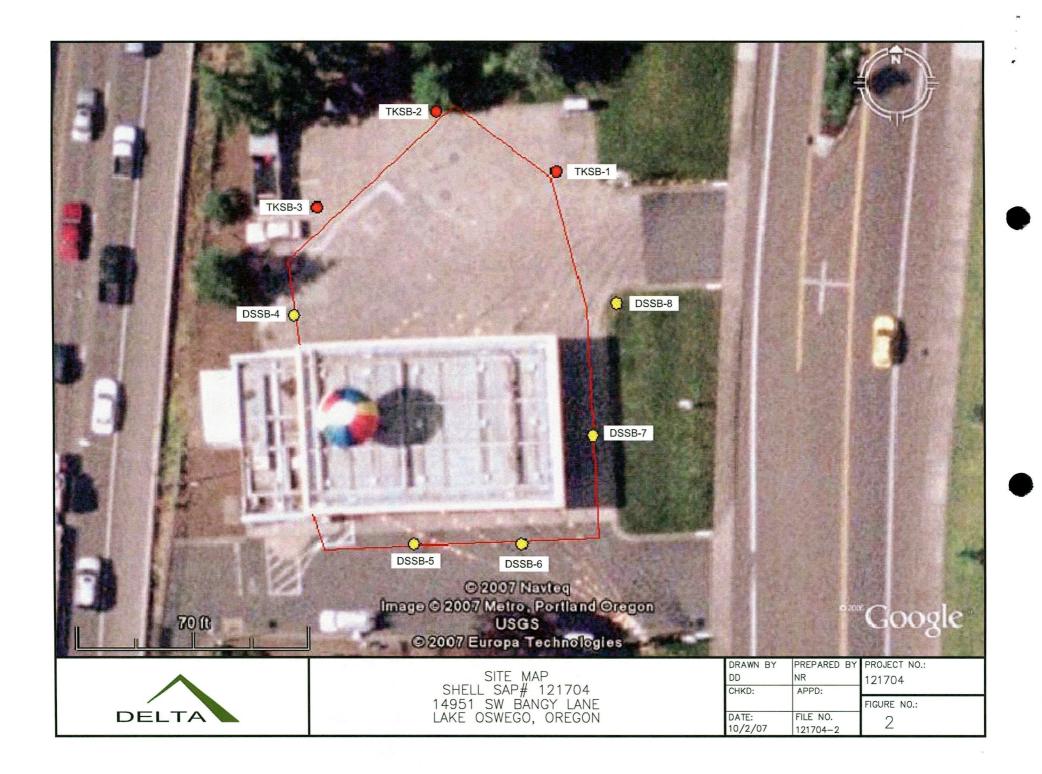
Kevin McCarthy Project Manager





SITE LOCATION MAP SHELL SAP# 121704 14951 SW BANGY LANE LAKE OSWEGO, OREGON

PREPARED BY	PROJECT NO.:
GT	PTSHL-ORDW-A121704
APPD:	
	FIGURE NO.:
FILE NO.	1
121704-1	1
	GT APPD: FILE NO.



#### **DANA Kevin**

From: KORTENHOF Mike

**Sent:** Wednesday, July 23, 2008 3:50 PM

To: 'Kevin McCarthy'; Elisabeth Silver; Jeff Schatz

Cc: DANA Kevin

Subject: RE: Shell Divestment Sites Update Meeting

Thanks. I appreciate your flexibility. See you on the 13th. Mike

----Original Message----

From: Kevin McCarthy [mailto:KMcCarthy@deltaenv.com]

Sent: Wednesday, July 23, 2008 3:43 PM

To: KORTENHOF Mike; Elisabeth Silver; Jeff Schatz

Cc: DANA Kevin

Subject: RE: Shell Divestment Sites Update Meeting

Mike – 1 pm on August 13th is a go for the Delta folks. Let us know if anything else changes. Cheers, Kevin

Kevin McCarthy Project Manager DELTA Consultants 4640 SW Macadam Avenue; Suite 110

Portland, OR 97239 Direct: 503.863.2102 Cell: 360.556.9742 Toll Free: 800.477.7411 Fax: 503.639.7619 kmccarthy@deltaenv.com

Confidentiality Notice: If you are not the intended recipient of this email, please delete it. Thank you.

From: KORTENHOF Mike [mailto:KORTENHOF.Mike@deq.state.or.us]

Sent: Wednesday, July 23, 2008 3:20 PM

To: Kevin McCarthy; Elisabeth Silver; Jeff Schatz

Cc: DANA Kevin

Subject: RE: Shell Divestment Sites Update Meeting

Hi Kevin, Elisabeth and Jeff. I've ended up with a conflict I can't avoid for this update meeting. Could we reschedule? I could do it at 1:00pm on the 13th, or would be happy to find another day it that's more convenient. Mike

Michael H. Kortenhof, RG, PE

Manager

Hazardous Waste Compliance and Underground Storage Tanks

Oregon DEQ - Northwest Region

2020 SW 4th Avenue, Suite 400, Portland OR 97201

voice: 503-229-5474

toll free in Oregon: 800-452-4011

fax: 503-229-6945

e-mail: kortenhof.mike@deq.state.or.us

web: www.deq.state.or.us

#### ----Original Appointment----

From: Kevin McCarthy [mailto:KMcCarthy@deltaenv.com]

Sent: Wednesday, June 04, 2008 1:32 PM

To: Elisabeth Silver; Jeff Schatz; KORTENHOF Mike; DANA Kevin

**Subject:** Shell Divestment Sites Update Meeting

When: Wednesday, August 13, 2008 10:00 AM-12:00 PM (GMT-08:00) Pacific Time (US & Canada).

Where: 2020 SW 4th Ave, Portland, OR





From: KORTENHOF Mike

Sent: Wednesday, June 04, 2008 12:20 PM

To: 'Kevin McCarthy'

Cc: Jeff Schatz; Elisabeth Silver; DANA Kevin; COLLINSWORTH Bart

Subject: RE: Meeting on June 4

Kevin, thanks for arranging today's conversation about moving forward with these incidents. We were glad to get the opportunity to talk with you, Jeff and Elisabeth about them.

Yes, please do go ahead and have cost recovery agreements submitted. I've cc'd Bart Collinsworth who is acting manager for UST work in our Western Region, where sites in Lane, Jackson, Yamhill, Polk and Marion counties will be handled. As we discussed, I don't expect to be able to assign a project manager to the sites in Northwest Region that will require substantial technical work before August, but if you can propose those that appear to be detections of contamination that we'd already approved leaving in place, Kevin Dana can review and get those files closed if we agree. I suggest we schedule a meeting for mid-August to check in on the status and plans for DEQ review of the other projects. The afternoon of August 13th or any time on August 14th would work well on our end, but feel free to suggest other times if that work better for you.

Thanks again, Mike

Michael H. Kortenhof, RG, PE Manager Hazardous Waste Compliance and Underground Storage Tanks Oregon DEQ - Northwest Region 2020 SW 4th Avenue, Suite 400, Portland OR 97201

voice: 503-229-5474

toll free in Oregon: 800-452-4011

fax: 503-229-6945

e-mail: kortenhof.mike@deq.state.or.us

web: www.deq.state.or.us

----Original Message----

From: Kevin McCarthy [mailto:KMcCarthy@deltaenv.com]

**Sent:** Monday, May 19, 2008 1:59 PM

To: KORTENHOF Mike

**Cc:** Jeff Schatz; Elisabeth Silver **Subject:** RE: Meeting on June 4

Mike - Here is a list of the Shell sites which had a new LUST incident ID opened last fall. Twenty-three of them did not have concentrations greater than the most stringent RBCs and closure was requested in the due diligence report we submitted. The remaining 33 sites (LUST IDs in BOLD in table) had at least one concentration greater than the most stringent RBCs. We have prepared Cost Recovery Agreements for all of the sites (regardless of whether the concentrations were > or < than RBCs), and we wanted to confirm this would be correct. If you could simply reply in the affirmative or let me know if you see any inaccuracies by replying to this email, I would really appreciate it. Cheers, Kevin

SAP #	ADDRESS	CITY	COUNTY S	STATE	ZIP	I	D
120475	1080 WEST 7TH AVENUE	EUGENE	LANE	OREGON		97402	20-07-1366
120507	1125 EAST PINE STREET	CENTRAL POINT	JACKSON	OREGON	97502-2456		15-07-1572
120522	11465 SW PACIFIC HWY	TIGARD	WASHINGTON	OREGON	97223-8627		34-07-1370
120535	11834 SW PACIFIC HIGHWAY	TIGARD	WASHINGTON	OREGON	97223-0000		34-07-1312
120586	12805 NW CORNELL ROAD	CEDAR MILL	WASHINGTON	OREGON	97229-5813		34-07-1311
120676	3640 GLENWOOD DRIVE	EUGENE	LANE	OREGON		97403	20-07-1575
120712	1220 NW WATERHOUSE AVE	BEAVERTON	WASHINGTON	OREGON	97006-0000		34-07-1279
120775	17395 SW FARMINGTON ROAD	ALOHA	WASHINGTON	OREGON	97007-3214	1	34-07-1280
120794	18122 SE MCLOUGHLIN BLVD	PORTLAND	MULTNOMAH	OREGON	97267-6108		03-07-1259
121194	3840 SOUTHEAST STARK	PORTLAND	MULTNOMAH	OREGON	97214-3239		26-07-1122
121592	825 IVY STREET	JUNCTION CITY	LANE	OREGON		97448	20-07-1462
121618	86623 EAST FRANKLIN BLVD	EUGENE	LANE	OREGON	97405-0000		20-07-1374
121704	14951 SW BANGY LANE	LAKE OSWEGO	CLACKAMAS	OREGON	97035-0000		03-07-1448
124656	204 HIGHWAY 99W (HANCOCK ST)	NEWBERG	YAMHILL	OREGON	97132-2456		36-07-1437
124775	125 SW WASHINGTON STREET (SR 223)	DALLAS	POLK	OREGON	351	97338	27-07-1501
124782	4292 LIBERTY ROAD S	SALEM	MARION	OREGON	97302-5757		24-07-1488
143633	18777 S E MCLOUGHLIN	MILWAUKIE	CLACKAMAS	OREGON	97267-6724		03-07-1250

146766	621 SE GRAND AVENUE	PORTLAND	MULTNOMAH	OREGON	97214-2227		26-07-1251
168254	4124 MAIN STREET (BUS 126)	SPRINGFIELD	LANE	OREGON	97478-5907		20-07-1458
116459	1259 SE TUALATIN VALLEY HWY	HILLSBORO	WASHINGTON	OREGON	97123-5073		34-07-1294
120440	10120 SW CAPITOL HIGHWAY	PORTLAND	MULTNOMAH	OREGON	97219-0000		26-07-1364
120720	16002 SE 82ND DRIVE	CLACKAMAS	CLACKAMAS	OREGON	97015-0000		03-07-1282
120769	1714 NE 33RD AVENUE	PORTLAND	MULTNOMAH	OREGON	97212-0000		26-07-1358
120816	19165 SW TUALATIN VALLEY HWY	BEAVERTON	WASHINGTON	OREGON	97006-2830		34-07-1271
120975	2355 NW TOWN CENTER DRIVE (N of NW Cornell Rd)	BEAVERTON	WASHINGTON	OREGON	97006-8909		34-07-1272
121671	9215 SE POWELL	PORTLAND	MULTNOMAH	OREGON		97266	26-07-1360
124770	2485 MISSION STREET SE (SR 22/BUS 99E)	SALEM	MARION	OREGON	97302-1118		24-07-1478
124789	4397 COMMERCIAL STREET SE	SALEM	MARION	OREGON	97302-3968		24-07-1569
125277	6820 NORTH FESSENDEN	PORTLAND	MULTNOMAH	OREGON	97203-1815		26-07-1362
165725	6950 NE CORNELL ROAD	HILLSBORO	WASHINGTON	OREGON		97124	34-07-1293
168258	6085 WEST 11TH	EUGENE	LANE	OREGON		97402	20-07-1460
168257	1720 NE HWY 99 W	MCMINNVILLE	YAMHILL	OREGON	97128-2745		36-07-1461
120442	10131 NE SANDY BLVD	PORTLAND	MULTNOMAH	OREGON	97220-3327		26-07-1319
120448	25737 SE STARK STREET	TROUTDALE	MULTNOMAH	OREGON	97060-0000		26-07-1318
120512	11290 BULL SW MOUNTAIN ROAD	TIGARD	WASHINGTON	OREGON	97224-2713		34-07-1365
120559	12155 SE FOSTER ROAD	PORTLAND	MULTNOMAH	OREGON	97266-0000		26-07-1359
120669	1491 LANCASTER DRIVE SE	SALEM	MARION	OREGON	97317-6163		24-07-1477
120678	15 NE BROADWAY STREET	PORTLAND	MULTNOMAH	OREGON	97232-0000		26-07-1357
120789	18031 SE STARK ST	PORTLAND	MULTNOMAH	OREGON		97233	26-07-1444
121028	2690 RIVER ROAD	EUGENE	LANE	OREGON	97404-2058		20-07-1451
121152	3502 PORTLAND ROAD NE	SALEM	MARION	OREGON	97301-0308		24-07-1606
121154	3515 SE 122ND AVE	PORTLAND	MULTNOMAH	OREGON	97236-0000		26-07-1313
121354	515 NE 82ND AVENUE	PORTLAND	MULTNOMAH	OREGON	97220-5801		26-07-1317
121357	519 NE BROADWAY	PORTLAND	MULTNOMAH	OREGON		97232	26-07-1356
121512	7090 SW NYBERG ROAD ( E of I-5)	TUALATIN	WASHINGTON	OREGON		97062	34-07-1363
121534	7433 NORTH INTERSTATE AVENUE	PORTLAND	MULTNOMAH	OREGON	97217-5527		26-07-1321
121624	8725 SW HALL BLVD	TIGARD	WASHINGTON	OREGON		97223	34-07-1320
121672	9218 SE DIVISION	PORTLAND	MULTNOMAH	OREGON	97266-1453		26-07-1449
121713	5524 SE 82ND	PORTLAND	MULTNOMAH	OREGON		97266	26-07-1322
124396	20800 NE SANDY BLVD	FAIRVIEW	MULTNOMAH	OREGON	97024-0000		26-07-1446
124731	5820 NE GLISAN STREET	PORTLAND	MULTNOMAH	OREGON	-	97213	26-07-1445
124776	2795 MARKET STREET NE (SR 213)	SALEM	MARION	OREGON	97301-1642		24-07-1502
143625	608 NORTH STATE St	LAKE OSWEGO	CLACKAMAS	OREGON		97034	03-07-1315
143653	5829 NE MARTIN LUTHER KING BLVD (SR 99E)	PORTLAND	MULTNOMAH	OREGON	97211-3117		26-07-1314
124657	2005 SW HIGHWAY 99W	MCMINNVILLE	YAMHILL	OREGON		97128	36-07-1653

Kevin McCarthy
Project Manager
DELTA Consultants
4640 SW Macadam Avenue; Suite 110
Portland, OR 97239
Direct: 503.863.2102
Cell: 360.556.9742
Toll Free: 800.477.7411

Confidentiality Notice: If you are not the intended recipient of this email, please delete it. Thank you.

----Original Message----

From: KORTENHOF Mike [mailto:KORTENHOF.Mike@deq.state.or.us]

Sent: Friday, May 09, 2008 3:30 PM

To: Kevin McCarthy Cc: DANA Kevin

Fax: 503.639.7619 kmccarthy@deltaenv.com

Subject: RE: Meeting on June 4

Hi Kevin, thanks for calling. This confirms our conversation about managing the sites reported by Shell last Fall. We will plan to meet with you on June 4 at 10:00am. In the mean time please encourage Shell to submit cost recovery agreements for each of the projects. Please call Kevin if you need more information about that. We have a waiting list and some staff vacancies so it could be a 3 to 6 month wait before

we can assign a project manager to any of the projects. In the mean time we encourage Shell to work on their cleanups on their own, particularly for any that may have significant contamination that is an ongoing environmental or human health risk. In any event any work performed on active projects should be reported to us within 30 days to be included in the file. Please don't hesitate to give Kevin or me a call if you have questions in the meantime. Looking forward to meeting with you in June, Mike

#### Mike

Michael H. Kortenhof, RG, PE
Manager
Hazardous Waste Compliance and Underground Storage Tanks
Oregon DEQ - Northwest Region
2020 SW 4th Avenue, Suite 400, Portland OR 97201
voice: 503-229-5474
toll free in Oregon: 800-452-4011
fax: 503-229-6945
e-mail: kortenhof.mike@deq.state.or.us

----Original Message----

web: www.deq.state.or.us

From: kmccarthy@deltaenv.com [mailto:kmccarthy@deltaenv.com]

Sent: Thursday, May 08, 2008 8:53 AM

To: KORTENHOF Mike

Subject: Meeting on June 4

Mike - Thanks for speaking with me yesterday. I wanted to make it easier to send out an email by providing something you could simply reply to. We look forward to meeting with in June. Cheers, Kevin

#### **DANA** Kevin

From:

**KORTENHOF Mike** 

Sent:

Friday, May 09, 2008 3:30 PM 'kmccarthy@deltaenv.com'

Cc:

DANA Kevin

Subject:

RE: Meeting on June 4

Hi Kevin, thanks for calling. This confirms our conversation about managing the sites reported by Shell last Fall. We will plan to meet with you on June 4 at 10:00am. In the mean time please encourage Shell to submit cost recovery agreements for each of the projects. Please call Kevin if you need more information about that. We have a waiting list and some staff vacancies so it could be a 3 to 6 month wait before we can assign a project manager to any of the projects. In the mean time we encourage Shell to work on their cleanups on their own, particularly for any that may have significant contamination that is an ongoing environmental or human health risk. In any event any work performed on active projects should be reported to us within 30 days to be included in the file. Please don't hesitate to give Kevin or me a call if you have questions in the meantime. Looking forward to meeting with you in June, Mike

#### Mike

Michael H. Kortenhof, RG, PE

Manager

Hazardous Waste Compliance and Underground Storage Tanks

Oregon DEQ - Northwest Region

2020 SW 4th Avenue, Suite 400, Portland OR 97201

voice: 503-229-5474

toll free in Oregon: 800-452-4011

fax: 503-229-6945

e-mail: kortenhof.mike@deq.state.or.us

web: www.deq.state.or.us

----Original Message----

From: kmccarthy@deltaenv.com [mailto:kmccarthy@deltaenv.com]

Sent: Thursday, May 08, 2008 8:53 AM

To: KORTENHOF Mike

Subject: Meeting on June 4

Mike - Thanks for speaking with me yesterday. I wanted to make it easier to send out an email by providing something you could simply reply to. We look forward to meeting with in June. Cheers, Kevin

#### **DANA Kevin**

From: Kevin McCarthy [KMcCarthy@deltaenv.com]

Sent: Friday, January 04, 2008 3:07 PM

To: Terry Jacques; Darryl Metzger; locatesdownunder@hotmail.com; SCHERZINGER Bruce;

s.flaherty@stratuscorp.net; Christina Woodcock; Sarah Rockwell; Kortland Orr; denali@ak.net;

DANA Kevin; Matt Neal; jeff.goold@shell.com; David.kremer@shell.com

Cc: Devon Roulette: Brian Pletcher; Jeff Schatz; Timothy Browning; Todd Vanek

Subject: We moved!

All – We have finally moved into our new office, and here is the new contact/mailing information:

**DELTA Consultants** 

4640 SW Macadam Avenue

Suite 110

Portland, Oregon 97239

Main line - 503-639-8098 Fax line - 503-639-7619

My direct line and other information is below:

Kevin McCarthy
Project Manager
DELTA Consultants
4640 SW Macadam Avenue; Suite 110
Portland, OR 97239
Direct: 503.863.2102

Cell: 360.556.9742 Toll Free: 800.477.7411 Fax: 503.639.7619

kmccarthy@deltaenv.com

Confidentiality Notice: If you are not the intended recipient of this email, please delete it. Thank you.



### Department of Environmental Quality

Northwest Region Portland Office

2020 SW 4<sup>th</sup> Avenue, Suite 400 Portland, OR 97201-4987 (503) 229-5263 FAX (503) 229-6945 TTY (503) 229-5471

October 22, 2007

JEFF GOOLD SHELL OIL PRODUCTS US 20945 S WILMINGTON AVE CARSON CA 90810-1039

RE:

Shell Station #121704

File No.: 03-07-1448

On September 14, 2007, a release was reported from an underground storage tank (UST) system at your facility located at 14951 SW Bangy Road in Lake Oswego, Oregon. As the responsible party for the facility, you are required to clean up the release according to OAR 340-122-0201 through 340-122-0360. These rules require cleaning up the soil, groundwater, surface water and any other media contaminated by petroleum to the appropriate standards or demonstrating that the contamination does not pose a risk to human health or the environment. We are looking forward to working with you to bring this site to closure.

An Initial Report Form for UST Cleanup Projects is enclosed. This form needs to be completed and returned to this office within twenty (20) days from the date the release was reported. An outline of additional reporting requirements that includes due dates for submittals is also enclosed. A copy of the UST Cleanup regulations or an application for a letter of authorization for soil treatment will be provided upon request. As the responsible party, you should be aware of the requirements for cleanup, even if you have hired a qualified contractor or consultant to assist you.

#### Please reference the DEQ File Number listed above in all future correspondence and reports.

By law, DEQ is required to recover project oversight costs. DEQ oversight begins with the initial site characterization and continues through site closure. Oversight includes activities such as reviewing reports, preparing correspondence, answering technical questions, site inspections, and enforcement actions. You will be receiving an invoice each month for all oversight activities performed to date.

DEQ's highest priority for oversight are those sites that pose the greatest hazard to human health, safety and the environment. As a result, many lower environmental priority sites will not be reviewed in detail or receive a final "No Further Action" or "closure" letter from DEQ until the higher priority sites are addressed. However, all projects, simple or complex, require at least some oversight. At a minimum, review is conducted to determine the environmental priority of the cleanup project.

Jeff Goold, File #03-07-1448 October 22, 2007 Page 2

For those responsible parties who desire DEQ oversight regardless of environmental priority, we have developed a Responsible Party Priority Site Program. To receive oversight and more effectively schedule your project, you will be asked to sign an agreement requesting priority review and confirming your agreement to pay DEQ oversight costs in a timely manner.

Not entering into the Agreement does not release you from responsibility for investigation and/or cleanup of the contamination, nor does it mean that you are exempt from paying for DEQ oversight costs. Please be aware that there may be a waiting list for assignment to the next available project manager, and that these projects are assigned on a first come, first served basis.

Please read the attached information on the cost recovery and invoice process. We have also included information about the Responsible Party Priority Site Program and an agreement, if you are interested in expediting review of your project. You may contact the Land Quality Division at (503) 229-6635 if you have questions about cost recovery.

Thank you for your cooperation and continued efforts to comply with the regulations. If you have any questions about the regulations and/or your cleanup project, please call (503) 229-5263 and ask to speak to the Underground Storage Tank Duty Officer.

Sincerely,

Michael H. Kortenhof, Manager UST Cleanup and Compliance Section

Enclosures

# Portland Maps

New Search | Mapping | Advanced | Google Earth | Help | PortlandOnline

14951 SW BANGY RD - - CLACKAMAS COUNTY

Summary | Elevation | Garbage | Hazard | Natural Resources | Photo | Property | Water | Sewer | Tax Map | UGB | Watershed | Zip Code | Zoning

**Aerial Photo** 2006 / '05 / '04 / '03 / '02 / '01 6" / 2' / 4' / 10' / 20' Streets: On / Off Lots: On / Off Dot: On / Off 100 FT 0 F

City of Portland, Corporate GIS

10/9/2007

THE GIS APPLICATIONS ACCESSED THROUGH THIS WEB SITE PROVIDE A VISUAL DISPLAY OF DATA FOR YOUR CONVENIENCE. EVERY REASONABLE EFFORT HAS BEEN MADE TO ASSURE THE ACCURACY OF THE MAPS AND ASSOCIATED DATA. HE CITY OF PORTLAND MAKES NO WARRANTY, REPRESENTATION OR GUARANTY AS TO THE CONTENT, SEQUENCE, ACCURACY, THE LINES OF ANY OF THE DATA PROVIDED HEREN. THE USER OF THESE APPLICATIONS SHOULD NOT RELY ON THE DATA PROVIDED HEREN. THE USER OF THESE APPLICATIONS SHOULD NOT RELY ON THE DATA PROVIDED HEREN. THE USER OF THE CITY OF PORTLAND EXPLICITLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTES, INCLIDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR. PURPOSE THE CITY OF FORTLAND SHALL ASSUME NO LIABILITY FOR ANY ERRORS, OMISSIONS, OR INACCURACIES IN THE INFORMATION PROVIDED REGARDLESS OF HOW CAUSED. THE CITY OF PORTLAND SHALL ASSUME NO LIABILITY FOR ANY ERRORS, OMISSIONS, OR INACCURACIES IN THE INFORMATION PROVIDED REGARDLESS OF HOW CAUSED. THE CITY OF PORTLAND SHALL ASSUME NO LIABILITY FOR ANY ERRORS, OMISSIONS, OR INACCURACIES IN THE INFORMATION OR DATA PURINSHED HEREUNDER. TO BE SURE OF COMPLETE ACCURACY, PLEASE CHECK WITH CITY STAFF FOR UPDATED INFORMATION.

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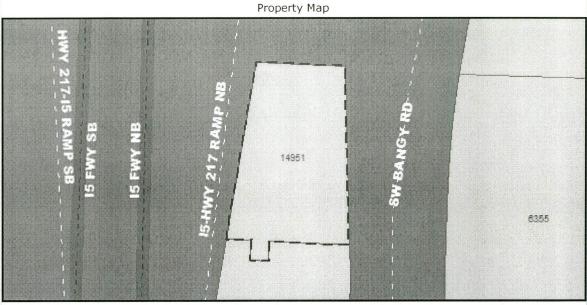
New Search | Mapping | Advanced | Google Earth | Help | PortlandOnline

14951 SW BANGY RD - - CLACKAMAS COUNTY Explorer | Property | Maps | Crime | Census | Transportation Summary | Assessor | Permits/Cases | Block | Schools | Parks | Businesses | CIPs | Development | River Rewards | Noise | Storage Tank

#### **14951 SW BANGY RD**

N N	Description
	Size n/a
	Number of Bedrooms
	Bathrooms





Property Value (2006)
Market Value \$1,990,550.00
Assessed Value \$0.00
Taxes ()
Property Taxes \$0.00
Total Taxes \$0.00
Misc Info
Year Built 0
Foundation Type
Interior Finish
Roof Style
Roof Cover Type
Flooring Type
Heating/AC Type

City of Portland, Corporate GIS

Assessor Data Updated 10/2/2007

THE GIS APPLICATIONS ACCESSED THROUGH THIS WEB SITE PROVIDE A VISUAL DISPLAY OF DATA FOR YOUR CONVENIENCE, EVERY REASONABLE EFFORT HAS BEEN MADE TO ASSURE THE ACCURACY OF THE MAPS AND ASSOCIATED DATA. THE CITY OF PORTLAND MAKES NO WARRANTY, REPRESENTATION OR GUARANTY AS TO THE CONTENT, SEQUENCE, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE DATA PROVIDED BEER IN THE USER OF THESE APPLICATIONS SHOULD NOT RELEVON THE DATA PROVIDED BEER NOT ANY REASON. THE CITY OF PORTLAND EXPLICITLY DISCLAMIS ANY REPRESENTATIONS AND WARRANTE IN EXCLUDING WITHOUT LIMITATION. THE IMPLIED WARRANTES OF MERCHANT MILITY AND PRINTESS FOR A PARTICULAR



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December 2005

# OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY 4 2007

### Initial (Twenty Day) Report Form for UST Cleanup Projects

Quality
This report is due twenty (20) days from the date of the release.
DEQ USTC File No. 03-07-1448
DEQ USTC File No. 03-07-1448  DEQ Facility ID No. 538
Site Name: Shell Station No. 121704
Site Address: 14951 Bangy Rd., Lalce Oswego, OR
INITIAL CLEANUP INFORMATION
(1) Type of contamination (check all that apply):
X Gasoline Diesel Waste Oil Heating Oil
Other (specify)
(2) Estimate quantity of release (based on information known to date):
∠ <100 gal 100-499 gal 500-999 gal 1,000-5,000 gal >5,000 gal.
SITE INFORMATION (Circle N for "no" or Y for "yes")
(3) N Y Did any water enter the excavation? If yes, please describe and identify the depth to groundwater in feet below ground surface:
(4) <b>N</b> Y Was a sheen or odor observed on any water in the excavation?
<b>Note:</b> If groundwater is encountered, soil samples from the soil/water interface must be collected and analyzed for BTEX and by the appropriate TPH method.
At sites where diesel or other non-gasoline products have been released, the water may also have to be screened or tested for polynuclear aromatic hydrocarbons (PAHs). Please refer to OAR 340-122-0218.
(5) N Y Was water pumped from the excavation?
N Y If yes, did groundwater recharge within 24 hours after pumping? N//
Please describe the pumping procedure and disposal option selected for the purged excavation water:  N/A
(6) N Y Were any water samples collected from the excavation? If yes, please describe: Four grab groundwater samples were collected from Site borings.
(7) N Y Have any soil and/or water sample results been received at this time?
If so, please attach any lab reports.

Page 1 of 4

DEQ-05-LQ-089

December 2005 Page 2 of 4 DEQ-05-LQ-089

### IF GROUNDWATER HAS BEEN ENCOUNTERED, PLEASE ANSWER QUESTIONS #8-13, BELOW.

IF NO WATER HAS BEEN ENCOUNTERED, PLEASE SKIP TO QUESTION #14

(8)	What a	are th	ne known uses of groundwater within a 500-toot radius of the release site?
	X no	n-us	e industrial agricultural drinking supply
(9)			ater in this area is being used as a drinking water supply, please check the type and size of served by the supply:
	C	omn	nunity (community well used for drinking water year round)
	siz	e:	<1,000 people 1,000 - 5,000 people >5,000 people
	In	term	nittent use (public water used for drinking water only on a part-time basis)
	siz	e:	<50 people 50 - 300 people > 300 people
	Pi	rivat	e wells (individual private well or wells used for drinking water)
	siz	e:	<10 people 10 - 25 people >25 people
(10)			Is there any evidence this water supply has been or is likely to be impacted from the petroleum product release? If yes, estimate how difficult it would be to replace the existing supply:  _bottled water is the only alternative _on-site water treatment; bulk water delivery; new wells are available _able to connect to existing water supply _do not know what alternatives would be available  Are/were vapors present in on-site or nearby buildings? If yes:  A. Are you monitoring and/or mitigating any potential fire and safety hazards posed by vapors and free product? Explain:
			B. Estimate the number of people potentially affected by vapors:
			1-2 people 3-10 people >10 people
(12)	) <b>N</b>	Υ	Are vapors or is petroleum contamination present in the utility corridors?  If yes, please explain:
(13)	N	Υ	Are natural areas located within 1/4 mile of the site? If so, please describe types (parks, rivers,
			wetlands, sensitive habitats, etc.) and proximity: ( Small wetland ava r
	_		South of the station, adjacent to a Chovy's Restaurant
(14)	N	Y	If groundwater was not encountered in the excavation, do you believe that this cleanup project can be conducted under the requirements for an UST Cleanup Matrix site? If yes, then refer to OAR 340-122-0305 through 0360.

		COMPANIANG
ARE	A/SITE	CONDITIONS:
(15)		Mean annual rainfall: <20 inches >45 inches
(16)		Soil type(s) of the naturally occurring soils, not the backfill around the tank:
	-	clays, compact tills, shales, and unfractured metamorphic and igneous rocks
		sandy loams, loamy sands, silty clays, clay loams, moderately permeable limestone, dolomite, sandstones, moderately fractured igneous and metamorphic rock
	X	fine and silty sands, sands and gravels, highly fractured igneous and metamorphic rock, permeable basalts and lavas, karst limestones and dolomites
<u>soii</u>	L MANA	AGEMENT
(17)	If soil s	ample results have been received:
	N Y	Will the level of contamination detected require removal of contaminated soil for treatment or disposal?
(18)	a berm	taminated soil temporarily stockpiled on-site prior to treatment or disposal must be contained within led area, kept covered, and the entire area secured to prevent unauthorized access by the public. If ven't done this, please explain why:  Cuttings from Investigation activities were contained to DOT— approved 55—gellen drums pending fransport to approved dispusal facility.
		violation to stockpile petroleum contaminated soil (PCS) on-site for greater than 30 days Q Solid Waste Letter Authorization (SWLA) Permit.
(19)		aminated soil is currently stockpiled on-site, please indicate when disposal will occur or when ent will begin:
(20)	Estima	ted volume of contaminated soil (specify tons or cubic yards):
(21)	Intende	ed disposition of soils (please check one):
		On-site/off-site treatment, Solid Waste Letter Authorization Permit Application attached.
		Thermal treatment off-site at an authorized facility.
	1/	Facility name:
	<u> </u>	Landfill disposal.

Note: Please attach additional information as necessary to explain any unusual circumstances associated with this project.

Name of Landfill: Hilshoo (and fill)

December 2005 Page 4 of 4 DEQ-05-LQ-089

Initial (Twenty Day) Report Form for UST Cleanup Projects

This initial report is intended to provide the Department with the basic initial information about activities associated with the release. Future reports should provide a more detailed and complete picture of the cleanup project.

Please be aware that a DEQ permit/authorization is required for the following activities:

- 1) Soil aeration, bioremediation (on-site or off-site), or on-site thermal treatment.
- Water discharges to a stream/storm drain from the excavation or treatment tank.

If these activities will be included in your cleanup project, contact the regional DEQ office for the appropriate application forms, information on permit fees and guidance documents.

2, R. G. Phone: (503) 639-8098 Individual:

Address:

State OK Zip 97223 City:

- 1. Please return this form to the regional office in which the site is located. If you have questions, call the contact person in your regional office.
- 2. For all tanks, except heating oil tanks, you must submit an UST Decommissioning Checklist and Site Assessment Report to the appropriate regional office within 30 days of the UST decommissioning. Failure to do so can result in delays to your project and may result in continued billing for the annual tank permit fees.
  - 3. Addresses and phone numbers for the regional offices can be found in the UST Cleanup Manual or viewed and downloaded from this DEQ Webpage: http://www.deq.state.or.us/wmc/tank/regoffices.htm
- 4. Copies of the UST Cleanup Manual and other UST program forms and checklists can be viewed and downloaded from DEQ's Website: http://www.deq.state.or.us/wmc/tank/ust-lust.htm

or in the Portland area by calling Steve Paiko at 503-229-6652

or outside the Portland area leaving a message on the UST Help Line (toll-free in Oregon) at 1-800-742-7878

#### KEEP A COPY OF THIS REPORT FOR YOUR FACILITY RECORDS

December 2005 Page 5 of 4 DEQ-05-LQ-089





September 13, 2007

4:11:06PM

Client:

Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn:

Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Nbr:

SAP 121704

P/O Nbr:

Date Received: 08/30/07

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
TKSB-1-8	NQH3608-01	08/27/07 11:15
TKSB-1	NQH3608-02	08/27/07 11:15
TKSB-3-8	NQH3608-03	08/27/07 10:00
TKSB-3	NQH3608-04	08/27/07 10:00
DSSB-4-8	NQH3608-05	08/27/07 09:30
DSSB-4	NQH3608-06	08/27/07 09:30
DSSB-5-10	NQH3608-07	08/27/07 12:30
DSSB-5	NQH3608-08	08/27/07 12:30
Trip Blank	NQH3608-09	08/27/07 00:01

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

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Oregon Certification Number: TN200001

The Chain(s) of Custody, 3 pages, are included and are an integral part of this report.

These results relate only to the items tested. This report shall not be reproduced except in full and with permission of the laboratory.

All solids results are reported in wet weight unless specifically stated.

Estimated uncertainity is available upon request.

This report has been electronically signed.

Report Approved By:

Mark Hollingsworth

Program Manager - National Accounts





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

#### ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NQH3608-01 (TKSB-1	-8 - Soil) Samp	led: 08/2'	7/07 11:15					
Total Metals by EPA Method 6010B								
Lead	5.53		mg/kg	0.994	1	09/07/07 08:01	SW846 6010B	7085913
Volatile Organic Compounds by EPA M	Method 8260B							
Tertiary Butyl Alcohol	ND		mg/kg	0.0478	1	09/08/07 02:15	SW846 8260B	7090348
Diisopropyl Ether	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
Ethyl tert-Butyl Ether	ND		mg/kg	0.00478	1	09/08/07 02:15	SW846 8260B	7090348
Tert-Amyl Methyl Ether	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
Benzene	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
1,2-Dibromoethane (EDB)	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
1,2-Dichloroethane	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
Ethylbenzene	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
Isopropylbenzene	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
Methyl tert-Butyl Ether	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
n-Propylbenzene	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
Toluene	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
1,3,5-Trimethylbenzene	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
1,2,4-Trimethylbenzene	ND		mg/kg	0.00191	1	09/08/07 02:15	SW846 8260B	7090348
Xylenes, total	ND		mg/kg	0.00478	1	09/08/07 02:15	SW846 8260B	7090348
Surr: 1,2-Dichloroethane-d4 (54-145%)	103 %					09/08/07 02:15	SW846 8260B	7090348
Surr: Dibromofluoromethane (67-129%)	104 %					09/08/07 02:15	SW846 8260B	7090348
Surr: Toluene-d8 (66-142%)	98 %					09/08/07 02:15	SW846 8260B	7090348
Surr: 4-Bromofluorobenzene (68-150%)	96 %					09/08/07 02:15	SW846 8260B	7090348
Polyaromatic Hydrocarbons by EPA 82	70C SIM							
Acenaphthene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Acenaphthylene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Anthracene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Benzo (a) anthracene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Benzo (a) pyrene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	
Benzo (b) fluoranthene	ND		mg/kg	0.00331	1		3W846 8270CSIN	
Benzo (g,h,i) perylene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Benzo (k) fluoranthene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Chrysene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Dibenz (a,h) anthracene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Fluoranthene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Fluorene	ND	*	mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Indeno (1,2,3-cd) pyrene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
2-Methylnaphthalene	ND		mg/kg	0.00331	1	09/03/07 05:54	3W846 8270CSIN	7085875
Naphthalene	ND		mg/kg	0.00331	1		3W846 8270CSIN	
Phenanthrene	ND		mg/kg	0.00331	1		3W846 8270CSIN	
Pyrene	ND		mg/kg	0.00331	1		3W846 8270CSIN	
Surr: Nitrobenzene-d5 (34-87%)	91 %	Z10				09/03/07 05:54	SW846 8270CSIN	7085875
Surr: 2-Fluorobiphenyl (30-93%)	77 %						SW846 8270CSIN	
Surr: Terphenyl-d14 (49-123%)	99 %					09/03/07 05:54	SW846 8270CSIN	7085875

Extractable Petroleum Hydrocarbons





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

					Dilution	Analysis		
Analyte	Result	Flag	Units	MRL	Factor	Date/Time	Method	Batch
Sample ID: NQH3608-01 (TKSB-1-	8 - Soil) - cont	Sampled:	08/27/07 11	15				
Extractable Petroleum Hydrocarbons - co		. Sampicu.	00/2//0/ 11	.10				
Diesel	ND		mg/kg	3.89	1	09/02/07 00:06	NWTPH-Dx	7085991
Motor Oil	ND		mg/kg	3.89	1	09/02/07 00:06	NWTPH-Dx	7085991
Surr: o-Terphenyl (50-150%)	118 %		mg/kg	3.07	•	09/02/07 00:06	NWTPH-Dx	7085991
	110 /0					0,7,0,2,0,7,00,00		
Purgeable Petroleum Hydrocarbons					7.0	00/06/07/04/07	NIMEDIA C	7000010
GRO (C4-C12) NW	ND		mg/kg	4.84	50	09/06/07 04:07	NWTPH-Gx	7090910
Surr: a,a,a-Trifluorotoluene (52-145%)	95 %					09/06/07 04:07	NWTPH-Gx	7090910
Sample ID: NQH3608-02 (TKSB-1 -	- Ground Wat	ter) Sample	ed: 08/27/07	11:15				
Dissolved Metals by EPA Method 6010I	3							
Lead	ND		mg/L	0.00500	1	09/06/07 00:19	SW846 6010B	7090249
Volatile Organic Compounds by EPA M	ethod 8260B							
Tert-Amyl Methyl Ether	ND		ug/L	1.00	1	09/05/07 10:15	SW846 8260B	7090635
Ethyl tert-Butyl Ether	ND		ug/L	1.00	1	09/05/07 10:15	SW846 8260B	7090635
Diisopropyl Ether	ND		ug/L	1.00	1	09/05/07 10:15	SW846 8260B	7090635
Benzene	ND		ug/L	1.00	1	09/07/07 23:45	SW846 8260B	7091613
Tertiary Butyl Alcohol	ND		ug/L	20.0	1	09/05/07 10:15	SW846 8260B	7090635
1,2-Dibromoethane (EDB)	ND		ug/L	1.00	1	09/07/07 23:45	SW846 8260B	7091613
1,1-Dichloroethane	ND		ug/L	1.00	1	09/07/07 23:45	SW846 8260B	7091613
Ethylbenzene	ND		ug/L	1.00	1	09/07/07 23:45	SW846 8260B	7091613
Isopropylbenzene	ND		ug/L	1.00	1	09/07/07 23:45	SW846 8260B	7091613
Methyl tert-Butyl Ether	ND		ug/L	1.00	1	09/07/07 23:45	SW846 8260B	7091613
n-Propylbenzene	ND		ug/L	1.00	1	09/07/07 23:45	SW846 8260B	7091613
Toluene	ND		ug/L	1.00	1	09/07/07 23:45	SW846 8260B	7091613
1,3,5-Trimethylbenzene	ND		ug/L	1.00	1	09/07/07 23:45	SW846 8260B	7091613
1,2,4-Trimethylbenzene	ND		ug/L	1.00	1	09/07/07 23:45	SW846 8260B	7091613
Xylenes, total	ND		ug/L	3.00	1	09/07/07 23:45	SW846 8260B	7091613
Surr: 1,2-Dichloroethane-d4 (62-142%)	87 %					09/07/07 23:45	SW846 8260B	7091613
Surr: Dibromofluoromethane (78-123%)	90 %					09/07/07 23:45	SW846 8260B	7091613
Surr: Toluene-d8 (79-120%)	91 %					09/07/07 23:45 09/07/07 23:45	SW846 8260B SW846 8260B	7091613 7091613
Surr: 4-Bromofluorobenzene (75-133%)	98 %					09/07/07 23.43	S# 040 0200D	7071013
Polyaromatic Hydrocarbons by EPA 827			/T	0.120	1	00/05/07 00:57	3W846 8270CSIN	7085854
Acenaphthene	ND		ug/L	0.120 0.120	1 1		3W846 8270CSIN	
Acenaphthylene	ND		ug/L		1		3W846 8270CSIN	
Anthracene	ND		ug/L	0.120 0.120	1		3W846 8270CSIN	
Benzo (a) anthracene	ND		ug/L	0.120	1		3W846 8270CSIN	
Benzo (a) pyrene	ND		ug/L	0.120	1		3W846 8270CSIN	
Benzo (b) fluoranthene	ND ND		ug/L	0.120	1		3W846 8270CSIN	
Benzo (g,h,i) perylene	ND ND		ug/L	0.120	1		3W846 8270CSIN	
Benzo (k) fluoranthene	ND ND		ug/L ug/L	0.120	1		3W846 8270CSIN	
Chrysene Dibenz (a,h) anthracene	ND		ug/L ug/L	0.120	1		3W846 8270CSIN	
Fluoranthene	ND ND		ug/L ug/L	0.120	1		3W846 8270CSIN	
Fluoralitielle	ND		ug/L	0.120	1	57105101 00.51	, 0 10 02 / 0 C S I V	. 000001





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NQH3608-02 (TKSB-1	- Ground V	Vater) - cont	. Sampled: 08	8/27/07 11:15				
Polyaromatic Hydrocarbons by EPA 82	70C SIM - co	ont.						
Fluorene	ND		ug/L	0.120	1	09/05/07 00:57	3W846 8270CSIN	7085854
Indeno (1,2,3-cd) pyrene	ND		ug/L	0.120	1	09/05/07 00:57	3W846 8270CSIN	7085854
2-Methylnaphthalene	ND		ug/L	0.120	1	09/05/07 00:57	3W846 8270CSIN	7085854
Naphthalene	ND		ug/L	0.120	1	09/05/07 00:57	3W846 8270CSIN	7085854
Phenanthrene	ND		ug/L	0.120	1		3W846 8270CSIN	
Pyrene	ND		ug/L	0.120	1	09/05/07 00:57	3W846 8270CSIN	7085854
Surr: Nitrobenzene-d5 (24-125%)	95 %		_			09/05/07 00:57	SW846 8270CSIN	7085854
Surr: 2-Fluorobiphenyl (30-120%)	88 %					09/05/07 00:57	SW846 8270CSIN	7085854
Surr: Terphenyl-d14 (29-149%)	82 %					09/05/07 00:57	SW846 8270CSIN	7085854
Extractable Petroleum Hydrocarbons								
Diesel	ND		ug/L	95.7	1	09/01/07 23:16	NWTPH-Dx	7085915
Motor Oil	149	QP1, QP6	ug/L	95.7	1	09/01/07 23:16	NWTPH-Dx	7085915
Surr: o-Terphenyl (50-150%)	79 %					09/01/07 23:16	NWTPH-Dx	7085915
Purgeable Petroleum Hydrocarbons								
GRO (C4-C12) NW	ND		ug/L	100	1	09/06/07 01:17	NWTPH-Gx	7090564
Surr: a,a,a-Trifluorotoluene (46-153%)	83 %					09/06/07 01:17	NWTPH-Gx	7090564
Sample ID: NQH3608-03 (TKSB-3- Total Metals by EPA Method 6010B Lead	6.80		mg/kg	0.954	1	09/07/07 08:26	SW846 6010B	7085913
Volatile Organic Compounds by EPA M	Method 8260B	3						
Tertiary Butyl Alcohol	ND		mg/kg	0.0496	1	09/08/07 02:46	SW846 8260B	7090348
Diisopropyl Ether	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
Ethyl tert-Butyl Ether	ND		mg/kg	0.00496	1	09/08/07 02:46	SW846 8260B	7090348
Tert-Amyl Methyl Ether	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
Benzene	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
1,2-Dibromoethane (EDB)	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
1,2-Dichloroethane	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
Ethylbenzene	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
Isopropylbenzene	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
Methyl tert-Butyl Ether	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
n-Propylbenzene	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
Toluene	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
1,3,5-Trimethylbenzene	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
1,2,4-Trimethylbenzene	ND		mg/kg	0.00198	1	09/08/07 02:46	SW846 8260B	7090348
Xylenes, total	ND		mg/kg	0.00496	1	09/08/07 02:46	SW846 8260B	7090348
Surr: 1,2-Dichloroethane-d4 (54-145%) Surr: Dibromofluoromethane (67-129%)	102 %					09/08/07 02:46	SW846 8260B SW846 8260B	7090348 7090348
Surr: Dibromojiuoromethane (67-129%) Surr: Toluene-d8 (66-142%)	103 % 98 %					09/08/07 02:46 09/08/07 02:46	SW846 8260B SW846 8260B	7090348
Surr: 4-Bromofluorobenzene (68-150%)	95 %					09/08/07 02:46		7090348
Polyaromatic Hydrocarbons by EPA 82	70C SIM							
Acenaphthene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
			0 0					



2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

St. Paul, MN : Mike Lee

Attn

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NQH3608-03 (TKSB-3	5-8 - Soil) - cont	t. Sampled	: 08/27/07 10:00					
Polyaromatic Hydrocarbons by EPA 82	270C SIM - cont.							
Acenaphthylene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Anthracene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Benzo (a) anthracene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Benzo (a) pyrene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Benzo (b) fluoranthene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Benzo (g,h,i) perylene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Benzo (k) fluoranthene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Chrysene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Dibenz (a,h) anthracene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Fluoranthene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Fluorene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Indeno (1,2,3-cd) pyrene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
2-Methylnaphthalene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Naphthalene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Phenanthrene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Pyrene	ND		mg/kg	0.00324	1	09/03/07 06:14	3W846 8270CSIN	7085875
Surr: Nitrobenzene-d5 (34-87%)	95 %	Z10					SW846 8270CSIA	7085875
Surr: 2-Fluorobiphenyl (30-93%) Surr: Terphenyl-d14 (49-123%)	81 % 95 %						SW846 8270CSIN SW846 8270CSIN	7085875 7085875
Extractable Petroleum Hydrocarbons								
Diesel	ND		mg/kg	3.95	1	09/02/07 00:22	NWTPH-Dx	7085991
Motor Oil	ND		mg/kg	3.95	1	09/02/07 00:22	NWTPH-Dx	7085991
Surr: o-Terphenyl (50-150%)	96 %					09/02/07 00:22	NWTPH-Dx	7085991
Purgeable Petroleum Hydrocarbons								
GRO (C4-C12) NW	ND		mg/kg	4.95	50	09/07/07 11:36	NWTPH-Gx	7090910
Surr: a,a,a-Trifluorotoluene (52-145%)	95 %					09/07/07 11:36	NWTPH-Gx	7090910
Sample ID: NQH3608-04 (TKSB-3		ter) Sampl	ed: 08/27/07 10	00				
Dissolved Metals by EPA Method 6010 Lead	ль ND		mg/L	0.00500	1	09/06/07 00:24	SW846 6010B	7090249
Volatile Organic Compounds by EPA N			mg L	0.00300		57700707 00.2T	55.5 00102	
			/I	1.00	1	09/05/07 10:40	SW846 8260B	7090635
Tert-Amyl Methyl Ether	ND		ug/L	1.00	-	09/05/07 10:40	SW846 8260B	7090635
Ethyl tert-Butyl Ether	ND		ug/L	1.00	1		SW846 8260B	
Diisopropyl Ether	ND		ug/L	1.00	1	09/05/07 10:40	SW846 8260B	7090635 7090635
Benzene Terriera Putul Alashal	2.13		ug/L	1.00	1	09/05/07 10:40 09/05/07 10:40	SW846 8260B SW846 8260B	7090635
Tertiary Butyl Alcohol	ND		ug/L	20.0	1	09/05/07 10:40	SW846 8260B SW846 8260B	7090635
1,2-Dibromoethane (EDB)	ND		ug/L	1.00	1	09/05/07 10:40	SW846 8260B SW846 8260B	7090635
1,1-Dichloroethane	ND		ug/L	1.00	1	09/05/07 10:40	SW846 8260B	7090635
Ethylbenzene	119 5.66		ug/L	1.00	1	09/03/07 10:40	SW846 8260B SW846 8260B	7090633
Isopropylbenzene Methyl text Butyl Ether	5.66		ug/L	1.00	1	09/05/07 10:40	SW846 8260B	7091613
Methyl tert-Butyl Ether	ND		ug/L	1.00	1	09/08/07 10:40	SW846 8260B SW846 8260B	7090633
n-Propylbenzene	14.5		ug/L	1.00	1	09/00/07 00.11	3 W 040 0200D	1071013





2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Mike Lee

Attn

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704

08/30/07 08:10

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NQH3608-04 (TKSB-3	3 - Ground W	ater) - cont.	Sampled: 08/2	7/07 10:00				
Volatile Organic Compounds by EPA								
Toluene	3.50		ug/L	1.00	1	09/05/07 10:40	SW846 8260B	7090635
1,3,5-Trimethylbenzene	19.9		ug/L	1.00	1	09/08/07 00:11	SW846 8260B	7091613
1,2,4-Trimethylbenzene	25.0		ug/L	1.00	1	09/08/07 00:11	SW846 8260B	7091613
Xylenes, total	40.2		ug/L	3.00	1	09/05/07 10:40	SW846 8260B	7090635
Surr: 1,2-Dichloroethane-d4 (62-142%)	105 %					09/05/07 10:40	SW846 8260B	7090635
Surr: 1,2-Dichloroethane-d4 (62-142%)	88 %					09/08/07 00:11	SW846 8260B	7091613
Surr: Dibromofluoromethane (78-123%)	96 %					09/05/07 10:40	SW846 8260B	7090635
Surr: Dibromofluoromethane (78-123%)	91 %					09/08/07 00:11	SW846 8260B	7091613
Surr: Toluene-d8 (79-120%)	99 %					09/05/07 10:40	SW846 8260B	7090635
Surr: Toluene-d8 (79-120%)	92 %					09/08/07 00:11	SW846 8260B	7091613
Surr: 4-Bromofluorobenzene (75-133%)	93 %					09/05/07 10:40	SW846 8260B	7090635
Surr: 4-Bromofluorobenzene (75-133%)	95 %					09/08/07 00:11	SW846 8260B	7091613
Polyaromatic Hydrocarbons by EPA 82	270C SIM							
Acenaphthene	ND		ug/L	0.0962	1		3W846 8270CSIN	
Acenaphthylene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Anthracene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Benzo (a) anthracene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Benzo (a) pyrene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Benzo (b) fluoranthene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Benzo (g,h,i) perylene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Benzo (k) fluoranthene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Chrysene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Dibenz (a,h) anthracene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Fluoranthene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Fluorene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
Indeno (1,2,3-cd) pyrene	ND		ug/L	0.0962	1	09/05/07 01:17	3W846 8270CSIN	7085854
2-Methylnaphthalene	12.3		ug/L	0.385	4		3W846 8270CSIN	
Naphthalene	17.8		ug/L	0.385	4		3W846 8270CSIN	
Phenanthrene	ND		ug/L ug/L	0.0962	1		3W846 8270CSIN	
	ND		ug/L ug/L	0.0962	1		3W846 8270CSIN	
Pyrene	98 %		ug/L	0.0702	1		SW846 8270CSIN	7085854
Surr: Nitrobenzene-d5 (24-125%) Surr: 2-Fluorobiphenyl (30-120%)	95 % 85 %						SW846 8270CSIN	
Surr: 7-F (40700) Surr: Terphenyl-d14 (29-149%)	79 %						SW846 8270CSIN	
	7770					07/03/07 01.17	,,, 0,10 027 00011	, 002027
Extractable Petroleum Hydrocarbons	249	OD2a OD6	ug/I	95.7	1	09/01/07 23:33	NWTPH-Dx	7085915
Diesel Mater Oil		QP3a, QP6	ug/L	95.7 95.7	1	09/01/07 23:33	NWTPH-Dx	7085915
Motor Oil	ND		ug/L	95.7	1			7085915
Surr: o-Terphenyl (50-150%)	96 %					09/01/07 23:33	NWTPH-Dx	/003913
Purgeable Petroleum Hydrocarbons								
GRO (C4-C12) NW	1200		ug/L	100	1	09/06/07 01:45	NWTPH-Gx	7090564
Surr: a,a,a-Trifluorotoluene (46-153%)	88 %					09/06/07 01:45	NWTPH-Gx	7090564





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

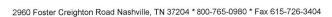
NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NQH3608-05 (DSSB-4-	-8 - Soil) Samp	led: 08/2'	7/07 09:30					
Total Metals by EPA Method 6010B								
Lead	6.63		mg/kg	1.00	1	09/07/07 08:30	SW846 6010B	7085913
Volatile Organic Compounds by EPA M	Method 8260B							
Tertiary Butyl Alcohol	ND		mg/kg	0.0491	1	09/08/07 03:17	SW846 8260B	7090348
Diisopropyl Ether	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
Ethyl tert-Butyl Ether	ND		mg/kg	0.00491	1	09/08/07 03:17	SW846 8260B	7090348
Tert-Amyl Methyl Ether	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
Benzene	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
1,2-Dibromoethane (EDB)	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
1,2-Dichloroethane	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
Ethylbenzene	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
Isopropylbenzene	ND		mg/kg	0.00196	- 1	09/08/07 03:17	SW846 8260B	7090348
Methyl tert-Butyl Ether	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
n-Propylbenzene	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
Toluene	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
1,3,5-Trimethylbenzene	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
1,2,4-Trimethylbenzene	ND		mg/kg	0.00196	1	09/08/07 03:17	SW846 8260B	7090348
Xylenes, total	ND		mg/kg	0.00491	1	09/08/07 03:17	SW846 8260B	7090348
Surr: 1,2-Dichloroethane-d4 (54-145%)	102 %					09/08/07 03:17	SW846 8260B	7090348
Surr: Dibromofluoromethane (67-129%)	104 %					09/08/07 03:17	SW846 8260B	7090348
Surr: Toluene-d8 (66-142%)	98 %					09/08/07 03:17	SW846 8260B	7090348
Surr: 4-Bromofluorobenzene (68-150%)	94 %					09/08/07 03:17	SW846 8260B	7090348
Polyaromatic Hydrocarbons by EPA 82	270C SIM							
Acenaphthene	ND		mg/kg	0.00329	1	09/03/07 06:34	3W846 8270CSIN	
Acenaphthylene	ND		mg/kg	0.00329	1	09/03/07 06:34	3W846 8270CSIN	
Anthracene	ND		mg/kg	0.00329	1	09/03/07 06:34	3W846 8270CSIN	
Benzo (a) anthracene	ND		mg/kg	0,00329	1	09/03/07 06:34	3W846 8270CSIN	
Benzo (a) pyrene	ND		mg/kg	0.00329	1	09/03/07 06:34	3W846 8270CSIN	
Benzo (b) fluoranthene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Benzo (g,h,i) perylene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Benzo (k) fluoranthene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Chrysene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Dibenz (a,h) anthracene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Fluoranthene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Fluorene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Indeno (1,2,3-cd) pyrene	ND		mg/kg	0.00329	1	09/03/07 06:34	3W846 8270CSIN	7085875
2-Methylnaphthalene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Naphthalene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Phenanthrene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Pyrene	ND		mg/kg	0.00329	1		3W846 8270CSIN	
Surr: Nitrobenzene-d5 (34-87%)	93 %	Z10					SW846 8270CSIA	
Surr: 2-Fluorobiphenyl (30-93%)	80 %						SW846 8270CSIN	
Surr: Terphenyl-d14 (49-123%)	93 %					09/03/07 06:34	SW846 8270CSIN	/085875





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received: 08/30/07 08:10

		- A	NALITICAL RE	TOKI	D'I d'	A		
Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NQH3608-05 (DSSB-4-	-8 - Soil) - cont	. Sampled	: 08/27/07 09:30					
Extractable Petroleum Hydrocarbons -								
Diesel	ND		mg/kg	3.91	1	09/02/07 00:37	NWTPH-Dx	7085991
Motor Oil	ND		mg/kg	3.91	1	09/02/07 00:37	NWTPH-Dx	7085991
Surr: o-Terphenyl (50-150%)	93 %					09/02/07 00:37	NWTPH-Dx	7085991
Purgeable Petroleum Hydrocarbons								
GRO (C4-C12) NW	ND		mg/kg	4.99	50	09/06/07 05:31	NWTPH-Gx	7090910
Surr: a,a,a-Trifluorotoluene (52-145%)	94 %					09/06/07 05:31	NWTPH-Gx	7090910
Sample ID: NQH3608-06 (DSSB-4	- Ground Wa	ter) Sampl	ed: 08/27/07 09:	30				
Dissolved Metals by EPA Method 6010								
Lead	ND		mg/L	0.00500	1	09/06/07 00:28	SW846 6010B	7090249
Volatile Organic Compounds by EPA M	Method 8260B							
Tert-Amyl Methyl Ether	ND		ug/L	1.00	1.	09/05/07 11:04	SW846 8260B	7090635
Ethyl tert-Butyl Ether	ND		ug/L	1.00	1	09/05/07 11:04	SW846 8260B	7090635
Diisopropyl Ether	ND		ug/L	1.00	1	09/05/07 11:04	SW846 8260B	7090635
Benzene	2.71		ug/L	1.00	1	09/05/07 11:04	SW846 8260B	7090635
Tertiary Butyl Alcohol	ND		ug/L	20.0	1	09/05/07 11:04	SW846 8260B	7090635
1,2-Dibromoethane (EDB)	ND		ug/L	1.00	1	09/05/07 11:04	SW846 8260B	7090635
1,1-Dichloroethane	ND		ug/L	1.00	1	09/05/07 11:04	SW846 8260B	7090635
Ethylbenzene	18.8		ug/L	1.00	1	09/05/07 11:04	SW846 8260B	7090635
Isopropylbenzene	4.31	H2	ug/L	1.00	1	09/10/07 17:36	SW846 8260B	7090180
Methyl tert-Butyl Ether	ND		ug/L	1.00	1	09/05/07 11:04	SW846 8260B	7090635
n-Propylbenzene	5.83	H2	ug/L	1.00	1	09/10/07 17:36	SW846 8260B	7090180
Toluene	ND		ug/L	1.00	1	09/05/07 11:04	SW846 8260B	7090635
1,3,5-Trimethylbenzene	6.07	H2	ug/L	1.00	1	09/10/07 17:36	SW846 8260B	7090180
1,2,4-Trimethylbenzene	ND		ug/L	1.00	1	09/05/07 11:04	SW846 8260B	7090635
Xylenes, total	ND		ug/L	3.00	1	09/05/07 11:04	SW846 8260B	7090635
Surr: 1,2-Dichloroethane-d4 (62-142%)	103 %					09/05/07 11:04	SW846 8260B	7090635
Surr: 1,2-Dichloroethane-d4 (62-142%)	96 %					09/10/07 17:36	SW846 8260B	7090180
Surr: Dibromofluoromethane (78-123%)	125 %	Z10				09/05/07 11:04	SW846 8260B	7090635
Surr: Dibromofluoromethane (78-123%)	97 %					09/10/07 17:36	SW846 8260B	7090180
Surr: Toluene-d8 (79-120%)	99 %					09/05/07 11:04	SW846 8260B	7090635
Surr: Toluene-d8 (79-120%)	105 %					09/10/07 17:36	SW846 8260B	7090180
Surr: 4-Bromofluorobenzene (75-133%)	92 %					09/05/07 11:04 09/10/07 17:36	SW846 8260B SW846 8260B	7090635 7090180
Surr: 4-Bromofluorobenzene (75-133%)	98 %					09/10/07 17:30	SW 040 0200D	7090180
Polyaromatic Hydrocarbons by EPA 82			a/I	0.106	1	00/05/07 01:37	3W846 8270CSIN	7085854
Acenaphthylone	ND ND		ug/L	0.106	1		3W846 8270CSIN	
Acenaphthylene	ND		ug/L	0.106	1		3W846 8270CSIN	
Anthracene	ND		ug/L		1		3W846 8270CSIN	
Benzo (a) anthracene	ND		ug/L	0.106 0.106			3W846 8270CSIN	
Benzo (a) pyrene	ND		ug/L		1		3W846 8270CSIN	
Benzo (b) fluoranthene	ND		ug/L	0.106	1		3W846 8270CSIN	
Benzo (g,h,i) perylene	ND		ug/L	0.106	1		3W846 8270CSIN	
Benzo (k) fluoranthene	ND		ug/L	0.106	1	09/03/07/01:37	) W 040 02/UCSIN	7003034





2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

Received:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704 08/30/07 08:10

		A	NALYTICAL RE	CPORT				
Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NQH3608-06 (DSSB-4	- Ground W	/ater) - cont.	Sampled: 08/27	7/07 09:30				
Polyaromatic Hydrocarbons by EPA 82			Sumplear out	707 0210				
Chrysene	ND		ug/L	0.106	1	09/05/07 01:37	3W846 8270CSIN	7085854
Dibenz (a,h) anthracene	ND		ug/L	0.106	1		3W846 8270CSIN	
Fluoranthene	ND		ug/L	0.106	1		3W846 8270CSIN	
Fluorene	ND		ug/L	0.106	1		3W846 8270CSIN	
Indeno (1,2,3-cd) pyrene	ND		ug/L	0.106	1		3W846 8270CSIN	
2-Methylnaphthalene	2.59		ug/L	0.106	1		3W846 8270CSIN	
Naphthalene	4.41		ug/L	0.106	1	09/05/07 01:37	3W846 8270CSIN	7085854
Phenanthrene	ND		ug/L	0.106	1	09/05/07 01:37	3W846 8270CSIN	7085854
Pyrene	ND		ug/L	0.106	1	09/05/07 01:37	3W846 8270CSIN	7085854
Surr: Nitrobenzene-d5 (24-125%)	96 %		8-			09/05/07 01:37	SW846 8270CSIN	7085854
Surr: 2-Fluorobiphenyl (30-120%)	89 %						SW846 8270CSIN	7085854
Surr: Terphenyl-d14 (29-149%)	80 %					09/05/07 01:37	SW846 8270CSIN	7085854
Extractable Petroleum Hydrocarbons								
	200	OD2 OD6	/I	06.2	ì	09/01/07 23:51	NWTPH-Dx	7085915
Diesel	398	QP3, QP6	ug/L	96.2 96.2	1	09/01/07 23:51	NWTPH-Dx	7085915
Motor Oil	ND		ug/L	96.2	1			
Surr: o-Terphenyl (50-150%)	99 %					09/01/07 23:51	NWTPH-Dx	7085915
Purgeable Petroleum Hydrocarbons								
GRO (C4-C12) NW	1370		ug/L	100	1	09/06/07 02:13	NWTPH-Gx	7090564
Surr: a,a,a-Trifluorotoluene (46-153%)	92 %					09/06/07 02:13	NWTPH-Gx	7090564
Sample ID: NQH3608-07 (DSSB-5	-10 - Soil) Sa	ampled: 08/2	7/07 12:30					
Total Metals by EPA Method 6010B	20 2011, 20							
Lead	5.78		mg/kg	1.01	1	09/07/07 08:37	SW846 6010B	7085913
Lead	3.76		mg/kg	1.01		07/07/07 00:57	511010 00102	7000715
Volatile Organic Compounds by EPA	Method 8260E	3						
Tertiary Butyl Alcohol	ND		mg/kg	0.0485	1	09/08/07 03:48	SW846 8260B	7090348
Diisopropyl Ether	ND		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
Ethyl tert-Butyl Ether	ND		mg/kg	0.00485	1	09/08/07 03:48	SW846 8260B	7090348
Tert-Amyl Methyl Ether	ND		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
Benzene	ND		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
1,2-Dibromoethane (EDB)	ND		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
1,2-Dichloroethane	ND		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
Ethylbenzene	ND		mg/kg	0.00194	, 1	09/08/07 03:48	SW846 8260B	7090348
Isopropylbenzene	ND		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
Methyl tert-Butyl Ether	ND		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
n-Propylbenzene	ND		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
Toluene	ND		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
1,3,5-Trimethylbenzene	0.00227		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
1,2,4-Trimethylbenzene	0.00830		mg/kg	0.00194	1	09/08/07 03:48	SW846 8260B	7090348
Xylenes, total	ND		mg/kg	0.00485	1	09/08/07 03:48	SW846 8260B	7090348
Surr: 1,2-Dichloroethane-d4 (54-145%)	104 %					09/08/07 03:48	SW846 8260B	7090348
Surr: Dibromofluoromethane (67-129%)	106 %					09/08/07 03:48	SW846 8260B	7090348
Surr: Toluene-d8 (66-142%)	98 %					09/08/07 03:48	SW846 8260B	7090348
Surr: 4-Bromofluorobenzene (68-150%)	96 %					09/08/07 03:48	SW846 8260B	7090348





2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NQH3608-07 (DSSB-5	-10 - Soil) - cont	. Sampled:	08/27/07 12:30					
Polyaromatic Hydrocarbons by EPA 82	270C SIM							
Acenaphthene	ND		mg/kg	0.00326	1	09/03/07 07:30	3W846 8270CSIN	7085875
Acenaphthylene	ND		mg/kg	0.00326	1	09/03/07 07:30	3W846 8270CSIN	7085875
Anthracene	ND		mg/kg	0.00326	1	09/03/07 07:30	3W846 8270CSIN	7085875
Benzo (a) anthracene	ND		mg/kg	0.00326	1	09/03/07 07:30	3W846 8270CSIN	7085875
Benzo (a) pyrene	ND		mg/kg	0.00326	1	09/03/07 07:30	3W846 8270CSIN	7085875
Benzo (b) fluoranthene	ND		mg/kg	0.00326	1	09/03/07 07:30	3W846 8270CSIN	7085875
Benzo (g,h,i) perylene	ND		mg/kg	0.00326	1	09/03/07 07:30	3W846 8270CSIN	7085875
Benzo (k) fluoranthene	ND		mg/kg	0.00326	1	09/03/07 07:30	3W846 8270CSIN	7085875
Chrysene	ND		mg/kg	0.00326	1	09/03/07 07:30	3W846 8270CSIN	7085875
Dibenz (a,h) anthracene	ND		mg/kg	0.00326	1	09/03/07 07:30	3W846 8270CSIN	7085875
Fluoranthene	ND		mg/kg	0.00326	1		3W846 8270CSIN	
Fluorene	ND		mg/kg	0.00326	1		3W846 8270CSIN	
Indeno (1,2,3-cd) pyrene	ND		mg/kg	0.00326	1		3W846 8270CSIN	
2-Methylnaphthalene	ND		mg/kg	0.00326	1		3W846 8270CSIN	
Naphthalene	ND		mg/kg	0.00326	1		3W846 8270CSIN	
Phenanthrene	ND		mg/kg	0.00326	1		3W846 8270CSIN	
Pyrene	ND		mg/kg	0.00326	1		3W846 8270CSIN	
Surr: Nitrobenzene-d5 (34-87%)	95 %	Z10					SW846 8270CSIA	
Surr: 2-Fluorobiphenyl (30-93%)	81 %						SW846 8270CSIN SW846 8270CSIN	7085875 7085875
Surr: Terphenyl-d14 (49-123%)	95 %					09/03/0/ 07:30	W 640 627 0CSIN	/0030/3
Extractable Petroleum Hydrocarbons						W 20100000000000000000000000000000000000		
Diesel	ND		mg/kg	3.96	1	09/02/07 00:53	NWTPH-Dx	7085991
Motor Oil	ND		mg/kg	3.96	1	09/02/07 00:53	NWTPH-Dx	7085991
Surr: o-Terphenyl (50-150%)	93 %					09/02/07 00:53	NWTPH-Dx	7085991
Purgeable Petroleum Hydrocarbons								
GRO (C4-C12) NW	28.5		mg/kg	4.97	50	09/06/07 15:07	NWTPH-Gx	7090910
Surr: a,a,a-Trifluorotoluene (52-145%)	93 %					09/06/07 15:07	NWTPH-Gx	7090910
Sample ID: NQH3608-08 (DSSB-5	- Ground Wate	er) Sampled	: 08/27/07 12:30	)				
Dissolved Metals by EPA Method 601	0B							
Lead	ND		mg/L	0.00500	1	09/06/07 00:33	SW846 6010B	7090249
Volatile Organic Compounds by EPA	Method 8260B							
Tert-Amyl Methyl Ether	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
Ethyl tert-Butyl Ether	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
Diisopropyl Ether	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
Benzene	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
Tertiary Butyl Alcohol	ND		ug/L	20.0	1	09/05/07 11:29	SW846 8260B	7090635
1,2-Dibromoethane (EDB)	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
1,1-Dichloroethane	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
Ethylbenzene	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
Isopropylbenzene	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
Methyl tert-Butyl Ether	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
				-11-01-0				





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NQH3608-08 (DSSB-5	- Ground Wat	ter) - cont.	Sampled: 08/27	7/07 12:30				
Volatile Organic Compounds by EPA			s percentage ( second s					
n-Propylbenzene	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
Toluene	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
1,3,5-Trimethylbenzene	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
1,2,4-Trimethylbenzene	ND		ug/L	1.00	1	09/05/07 11:29	SW846 8260B	7090635
Xylenes, total	ND		ug/L	3.00	1	09/05/07 11:29	SW846 8260B	7090635
Surr: 1,2-Dichloroethane-d4 (62-142%)	100 %		8			09/05/07 11:29	SW846 8260B	7090635
Surr: Dibromofluoromethane (78-123%)	96 %					09/05/07 11:29	SW846 8260B	7090635
Surr: Toluene-d8 (79-120%)	98 %					09/05/07 11:29	SW846 8260B	7090635
Surr: 4-Bromofluorobenzene (75-133%)	91 %					09/05/07 11:29	SW846 8260B	7090635
Polyaromatic Hydrocarbons by EPA 82	270C SIM							
Acenaphthene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Acenaphthylene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Anthracene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Benzo (a) anthracene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Benzo (a) pyrene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Benzo (b) fluoranthene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Benzo (g,h,i) perylene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Benzo (k) fluoranthene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Chrysene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Dibenz (a,h) anthracene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Fluoranthene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Fluorene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Indeno (1,2,3-cd) pyrene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
2-Methylnaphthalene	10.9		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Naphthalene	15.2		ug/L	0.286	2	09/05/07 11:28	3W846 8270CSIN	7085854
Phenanthrene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Pyrene	ND		ug/L	0.143	1	09/05/07 01:58	3W846 8270CSIN	7085854
Surr: Nitrobenzene-d5 (24-125%)	96 %		49.2				SW846 8270CSIN	
Surr: 2-Fluorobiphenyl (30-120%)	93 %						SW846 8270CSIN	
Surr: Terphenyl-d14 (29-149%)	89 %						SW846 8270CSIN	
Extractable Petroleum Hydrocarbons								
Diesel	ND		ug/L	95.2	1	09/02/07 00:08	NWTPH-Dx	7085915
Motor Oil	ND		ug/L	95.2	1	09/02/07 00:08	NWTPH-Dx	7085915
Surr: o-Terphenyl (50-150%)	ND 99 %		ug/L	93.2		09/02/07 00:08	NWTPH-Dx	7085915
	22.70					07/02/07 00.00	111111111111111111111111111111111111111	,000713
Purgeable Petroleum Hydrocarbons						9 2 3		=005===
GRO (C4-C12) NW	ND		ug/L	100	1	09/06/07 02:41	NWTPH-Gx	7090564
Surr: a,a,a-Trifluorotoluene (46-153%)	86 %					09/06/07 02:41	<i>NWTPH-Gx</i>	7090564



Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NQH3608-09 (Trip Blan	ık - Ground '	Water) San	pled: 08/27/	07 00:01				
Volatile Organic Compounds by EPA M	ethod 8260B							
Tert-Amyl Methyl Ether	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
Ethyl tert-Butyl Ether	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
Diisopropyl Ether	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
Benzene	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
Tertiary Butyl Alcohol	ND		ug/L	20.0	1	09/07/07 18:34	SW846 8260B	7091613
1,2-Dibromoethane (EDB)	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
1,1-Dichloroethane	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
Ethylbenzene	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
Isopropylbenzene	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
Methyl tert-Butyl Ether	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
n-Propylbenzene	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
Toluene	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
1,3,5-Trimethylbenzene	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
1,2,4-Trimethylbenzene	ND		ug/L	1.00	1	09/07/07 18:34	SW846 8260B	7091613
Xylenes, total	ND		ug/L	3.00	1	09/07/07 18:34	SW846 8260B	7091613
Surr: 1,2-Dichloroethane-d4 (62-142%)	108 %					09/07/07 18:34	SW846 8260B	7091613
Surr: Dibromofluoromethane (78-123%)	100 %					09/07/07 18:34	SW846 8260B	7091613
Surr: Toluene-d8 (79-120%)	91 %					09/07/07 18:34	SW846 8260B	7091613
Surr: 4-Bromofluorobenzene (75-133%)	101 %					09/07/07 18:34	SW846 8260B	7091613





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

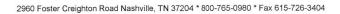
Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

#### SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Dissolved Metals by EPA Method 6010B							
SW846 6010B	7090249	NQH3608-02	50.00	50.00	09/04/07 08:53	JMR	EPA 3010A / 6010 D
SW846 6010B	7090249	NQH3608-04	50.00	50.00	09/04/07 08:53	JMR	EPA 3010A / 6010 D
SW846 6010B	7090249	NQH3608-06	50.00	50.00	09/04/07 08:53	JMR	EPA 3010A / 6010 D
SW846 6010B	7090249	NQH3608-08	50.00	50.00	09/04/07 08:53	JMR	EPA 3010A / 6010 D
Extractable Petroleum Hydrocarbons							
NWTPH-Dx	7085991	NQH3608-01	25.73	1.00	08/31/07 15:25	CDJ	EPA 3550B
NWTPH-Dx	7085915	NQH3608-02	1045.00	1.00	08/31/07 12:45	AML	EPA 3510C
NWTPH-Dx	7085991	NQH3608-03	25.30	1.00	08/31/07 15:25	CDJ	EPA 3550B
NWTPH-Dx	7085915	NQH3608-04	1045.00	1.00	08/31/07 12:45	AML	EPA 3510C
NWTPH-Dx	7085991	NQH3608-05	25.60	1.00	08/31/07 15:25	CDJ	EPA 3550B
NWTPH-Dx	7085915	NQH3608-06	1040.00	1.00	08/31/07 12:45	AML	EPA 3510C
NWTPH-Dx	7085991	NQH3608-07	25.28	1.00	08/31/07 15:25	CDJ	EPA 3550B
NWTPH-Dx	7085915	NQH3608-08	1050.00	1.00	08/31/07 12:45	AML	EPA 3510C
Polyaromatic Hydrocarbons by EPA 8270	C SIM						
SW846 8270CSIM	7085875	NQH3608-01	30.17	1.00	08/31/07 09:58	CDJ	EPA 3550B
SW846 8270CSIM	7085854	NQH3608-02	830.00	1.00	08/31/07 12:00	KYH	EPA 3510C
SW846 8270CSIM	7085875	NQH3608-03	30.85	1.00	08/31/07 09:58	CDJ	EPA 3550B
SW846 8270CSIM	7085854	NQH3608-04	1040.00	1.00	08/31/07 12:00	KYH	EPA 3510C
SW846 8270CSIM	7085854	NQH3608-04RE1	1040.00	1.00	08/31/07 12:00	KYH	EPA 3510C
SW846 8270CSIM	7085875	NQH3608-05	30.35	1.00	08/31/07 09:58	CDJ	EPA 3550B
SW846 8270CSIM	7085854	NQH3608-06	940.00	1.00	08/31/07 12:00	KYH	EPA 3510C
SW846 8270CSIM	7085875	NQH3608-07	30.60	1.00	08/31/07 09:58	CDJ	EPA 3550B
SW846 8270CSIM	7085854	NQH3608-08	700.00	1.00	08/31/07 12:00	KYH	EPA 3510C
SW846 8270CSIM	7085854	NQH3608-08RE1	700.00	1.00	08/31/07 12:00	KYH	EPA 3510C
Purgeable Petroleum Hydrocarbons							
NWTPH-Gx	7090910	NQH3608-01	5.17	5.00	08/31/07 09:01	NKN	EPA 5035A (GC)
NWTPH-Gx	7090910	NQH3608-03	5.05	5.00	08/31/07 09:05	NKN	EPA 5035A (GC)
NWTPH-Gx	7090910	NQH3608-05	5.01	5.00	08/31/07 09:06	NKN	EPA 5035A (GC)
NWTPH-Gx	7090910	NQH3608-07	5.03	5.00	08/31/07 09:07	NKN	EPA 5035A (GC)
NWTPH-Gx	7090910	NQH3608-07RE1	5.03	5.00	08/31/07 09:07	NKN	EPA 5035A (GC)
Total Metals by EPA Method 6010B							
SW846 6010B	7085913	NQH3608-01	0.50	100.00	08/31/07 08:14	LTB	EPA 3051 / 6010
SW846 6010B	7085913	NQH3608-03	0.52	100.00	08/31/07 08:14	LTB	EPA 3051 / 6010
SW846 6010B	7085913	NQH3608-05	0.50	100.00	08/31/07 08:14	LTB	EPA 3051 / 6010
SW846 6010B	7085913	NQH3608-07	0.50	100.00	08/31/07 08:14	LTB	EPA 3051 / 6010
Volatile Organic Compounds by EPA Me							
SW846 8260B	7090348	NQH3608-01	5.23	5.00	08/31/07 12:47	NKN	EPA 5035
SW846 8260B	7090348	NQH3608-01	5.23	5.00	08/31/07 12:47	NKN	EPA 5035
SW846 8260B	7090348	NQH3608-03	5.04	5.00	08/31/07 12:47	NKN	EPA 5035
SW846 8260B	7090348	NQH3608-03	5.04	5.00	08/31/07 12:47	NKN	EPA 5035
SW846 8260B	7090348	NQH3608-05	5.09	5.00	08/31/07 12:47	NKN	EPA 5035
SW846 8260B	7090348	NQH3608-05	5.09	5.00	08/31/07 12:47	NKN	EPA 5035
SW846 8260B	7090348	NQH3608-07	5.15	5.00	08/31/07 12:47	NKN	EPA 5035
SW846 8260B	7090348	NQH3608-07	5.15	5.00	08/31/07 12:47	NKN	EPA 5035





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

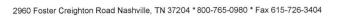
SAP 121704

Received:

08/30/07 08:10

#### PROJECT QUALITY CONTROL DATA Blank

Total Metals by EPA Method 6010B   To85913-BLK1	Analyte	Blank Value	Q Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
Toksolved Metals by EPA Method 6010B    Toksolved Metals by EPA Method 6010B    Toksolved Metals by EPA Method 6010B    Toksolved Metals by EPA Method 8260B    Toksolved 8	Total Metals by EPA Method	1 6010B					
Dissolved Metals by EPA Method 6010B		4 001010					
Page		< 0.857	mg/kg	7085913	7085913-BLK1	09/07/07 05:57	
Page							
Page	Dissolved Metals by EPA Me	ethod 6010B					
Volatile Organic Compounds by EPA Method 8260B           Volatile Organic Compounds by EPA Method 8260B           7090180 – BLK1           Benzene         ≪0.330         ug/L         7090180         7090180-BLK1         09/1007 16-21           1,2-Dibromethane (EDB)         ≪0.320         ug/L         7090180         7090180-BLK1         09/1007 16-21           1,1-Dichloroschane         ≪0.600         ug/L         7090180         7090180-BLK1         09/1007 16-21           Ethylbenzene         ≪0.420         ug/L         7090180         7090180-BLK1         09/1007 16-21           Benypoplbenzene         ≪0.410         ug/L         7090180         7090180-BLK1         09/1007 16-21           Methyl enr-Buyl Ether         ≪0.310         ug/L         7090180         7090180-BLK1         09/1007 16-21           1,2-4 Trimethylbenzene         ≪0.420         ug/L         7090180         7090180-BLK1         09/1007 16-21           1,2-4 Trimethylbenzene         ≪0.240         ug/L         7090180         7090180-BLK1         09/1007 16-21           1,2-4 Trimethylbenzene         ≪0.240         ug/L         7090180         7090180-BLK1         09/1007 16-21           1,2-4 Trimethylbenzene         ≪0.240         ug/L         7							
Page		< 0.00300	mg/L	7090249	7090249-BLK1	09/05/07 23:28	
Page							
Benzene	Volatile Organic Compound	s by EPA Method 8260B					
1.2-Ditromoethane (EDB)	7090180-BLK1						
	Benzene	< 0.330					
Ehlylbenzene	1,2-Dibromoethane (EDB)	< 0.320					
Supropylbenzene	1,1-Dichloroethane	< 0.600					
Methyl tert-Butyl Ether         <0.310         ug/L         7090180         7090180-BLK1         09/10/07 16:21           n-Propylbenzene         <0.350	Ethylbenzene	< 0.420					
Propylbenzene   40,350   ug/L   7090180   7090180-BLK1   09/10/07   16:21	Isopropylbenzene	< 0.410					
Toluene	Methyl tert-Butyl Ether	< 0.310					
1,3,5-Trimethylbenzene	n-Propylbenzene						
1,2,4-Trimethylbenzene	Toluene	< 0.420					
Xylenes, total         <0.450         ug/L         7090180         7090180-BLK1         09/10/07 16:21           Surrogate: 1,2-Dichloroethane-d4         95%         7090180         7090180-BLK1         09/10/07 16:21           Surrogate: Dibromofluoromethane         96%         7090180         7090180-BLK1         09/10/07 16:21           Surrogate: Toluene-d8         105%         7090180         7090180-BLK1         09/10/07 16:21           TO90348-BLK1           Tertiary Butyl Alcohol         <0.0131         mg/kg         7090348         7090348-BLK1         09/07/07 22:08           Ethyl tert-Butyl Ether         <0.000660         mg/kg         7090348         7090348-BLK1         09/07/07 22:08           Tert-Amyl Methyl Ether         <0.000570         mg/kg         7090348         7090348-BLK1         09/07/07 22:08           Benzene         <0.000600         mg/kg         7090348         7090348-BLK1         09/07/07 22:08           1,2-Dibromoethane (EDB)         <0.000610         mg/kg         7090348         7090348-BLK1         09/07/07 22:08           1,2-Dibromoethane         <0.000540         mg/kg         7090348         7090348-BLK1         09/07/07 22:08           1,2-Dichloroethane         <0.000540         mg/kg         7090348	1,3,5-Trimethylbenzene		=				
Surrogate: 1,2-Dichloroethane-d4         95%         7090180         7090180-BLKI         09/10/07         16:21           Surrogate: Dibromofluoromethane         96%         7090180         7090180-BLKI         09/10/07         16:21           Surrogate: Toluene-d8         105%         7090180         7090180-BLKI         09/10/07         16:21           Surrogate: 4-Bromofluorobenzene         95%         7090180         7090180-BLKI         09/10/07         16:21           Toluene-d8         105%         7090180         7090180-BLKI         09/10/07         16:21           Toluene-d8         10918         7090180         7090180-BLKI         09/10/07         22:08           Toluene-d8         1000460         mg/kg         7090348         7090348-BLKI         09/07	1,2,4-Trimethylbenzene		-				
Surrogate: Dibromofluoromethane         96%         7090180         7090180         7090180-BLK1         09/10/07         16:21           Surrogate: Toluene-d8         105%         7090180         7090180-BLK1         09/10/07         16:21           Toluene-d8         105%         7090180         7090180         709180-BLK1         09/10/07         16:21           Toluene-d8         105%         7090180         7090180         709180-BLK1         09/10/07         16:21           Toluene delbal Liliane delbal Lilian	Xylenes, total		ug/L				
Surrogate: Toluene-d8		95%					
Topolar	Surrogate: Dibromofluoromethane	96%					
7090348-BLK1           Tertiary Butyl Alcohol         <0.0131         mg/kg         7090348         7090348-BLK1         09/07/07         22:08           Diisopropyl Ether         <0.000460	Surrogate: Toluene-d8						
Tertiary Butyl Alcohol         <0.0131         mg/kg         7090348         7090348-BLK1         09/07/07         22:08           Diisopropyl Ether         <0.000460	Surrogate: 4-Bromofluorobenzene	95%		7090180	7090180-BLK1	09/10/07 16:21	
Tertiary Butyl Alcohol         <0.0131         mg/kg         7090348         7090348-BLK1         09/07/07         22:08           Diisopropyl Ether         <0.000460	7000040 DI I/4						
Diisopropyl Ether		< 0.0131	mg/kg	7090348	7090348-BLK1	09/07/07 22:08	
Ethyl tert-Butyl Ether							
Tert-Amyl Methyl Ether						09/07/07 22:08	
Benzene         <0.000600         mg/kg         7090348         7090348-BLK1         09/07/07         22:08           1,2-Dibromoethane (EDB)         <0.000610	N-0-300 • 0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0			7090348	7090348-BLK1	09/07/07 22:08	
1,2-Dibromoethane (EDB)       <0.000610				7090348	7090348-BLK1	09/07/07 22:08	
1,2-Dichloroethane       <0.000540				7090348	7090348-BLK1	09/07/07 22:08	
Ethylbenzene         <0.000630         mg/kg         7090348         7090348-BLK1         09/07/07         22:08           Isopropylbenzene         <0.000550				7090348	7090348-BLK1	09/07/07 22:08	
Isopropylbenzene         <0.000550         mg/kg         7090348         7090348-BLK1         09/07/07         22:08           Methyl tert-Butyl Ether         <0.000530	5,6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			7090348	7090348-BLK1	09/07/07 22:08	
Methyl tert-Butyl Ether         <0.000530         mg/kg         7090348         7090348-BLK1         09/07/07         22:08           n-Propylbenzene         <0.000670				7090348	7090348-BLK1	09/07/07 22:08	
n-Propylbenzene <0.000670 mg/kg 7090348 7090348-BLK1 09/07/07 22:08 Toluene <0.000660 mg/kg 7090348 7090348-BLK1 09/07/07 22:08				7090348	7090348-BLK1	09/07/07 22:08	
Toluene <0.000660 mg/kg 7090348 7090348-BLK1 09/07/07 22:08		< 0.000670		7090348	7090348-BLK1	09/07/07 22:08	
				7090348	7090348-BLK1	09/07/07 22:08	
	1,3,5-Trimethylbenzene		mg/kg		7090348-BLK1	09/07/07 22:08	
1,2,4-Trimethylbenzene <0.000590 mg/kg 7090348 7090348-BLK1 09/07/07 22:08				7090348	7090348-BLK1	09/07/07 22:08	
Xylenes, total <0.00130 mg/kg 7090348 7090348-BLK1 09/07/07 22:08		< 0.00130	-, -,	7090348	7090348-BLK1	09/07/07 22:08	
Surrogate: 1,2-Dichloroethane-d4 99% 7090348 7090348-BLK1 09/07/07 22:08		99%	~ ~	7090348	7090348-BLK1	09/07/07 22:08	
Surrogate: Dibromofluoromethane 103% 7090348 7090348-BLK1 09/07/07 22:08	Surrogate: Dibromofluoromethane	103%		7090348	7090348-BLK1	09/07/07 22:08	





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Mike Lee Attn

Work Order:

NQH3608

Project Name:

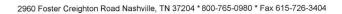
14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received:

SAP 121704

08/30/07 08:10

Notatile Organic Compounds by EPA Methods 2608    T090348 - ELK1	Analyte	Blank Value Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
	Volatile Organic Compounds by	EPA Method 8260B					
	7090348-BLK1						
Terl-Ang) Melly Elber	Surrogate: Toluene-d8	99%		7090348	7090348-BLK1	09/07/07 22:08	
Text-Nambly Ether	Surrogate: 4-Bromofluorobenzene	95%		7090348	7090348-BLK1	09/07/07 22:08	
Accessors	7090635-BLK1						
Elby  tert-Buy  Elber	Tert-Amyl Methyl Ether	< 0.450	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Acy loairiné	Acetone	<7.41	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Disspropy Ether	Ethyl tert-Butyl Ether	<0.440	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Benzene	Acrylonitrile	<3.93	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Terting Buyl Alcohol	Diisopropyl Ether	<0.440	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Bromobenzene	Benzene	< 0.330	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Bromochloromethane	Tertiary Butyl Alcohol	<4.61	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Bromodichiloromethane   0.390   ug/L   7090635   7090635-BLK1   0905/07 03:14	Bromobenzene	< 0.450	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Bromoform	Bromochloromethane	< 0.700	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Part   Part	Bromodichloromethane	<0.390	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
2-Butanone         < 3.06         ug/L         7090635         7090635-BLK1         09/05/07         03:14           tert-Butylbenzene         < 0.400	Bromoform	< 0.540	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
tert-Butylbenzene         <0,400         ug/L         7090635         7090635-BLK1         09/05/07 03:14           n-Butylbenzene         <0.780	Bromomethane	< 0.420	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
n-Buylbenzene         0,780         ug/L         7090635         7090635-BLK1         09/05/07         03:14           Carbon disulfide         <0,230         ug/L         7090635         7090635-BLK1         09/05/07         03:14           Carbon Tetrachloride         <0,410         ug/L         7090635         7090635-BLK1         09/05/07         03:14           Chlorobtenzene         <0,340         ug/L         7090635         7090635-BLK1         09/05/07         03:14           Chlorobtename         <0,480         ug/L         7090635         7090635-BLK1         09/05/07         03:14           Chlorochtane         <0,350         ug/L         7090635         7090635-BLK1         09/05/07         03:14           Chloroform         <0,510         ug/L         7090635         7090635-BLK1         09/05/07         03:14           Chloroform         <0,510         ug/L         7090635         7090635-BLK1         09/05/07         03:14           Chlorotoluene         <0,510         ug/L         7090635         7090635-BLK1         09/05/07         03:14           2-Chlorotoluene         <0,210         ug/L         7090635         7090635-BLK1         09/05/07         03:14           1,2-Dirboros-3-chl	2-Butanone	<3.06	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Carbon disulfide         C0.230         ug/L         7090635         7090635-BLK1         09/05/07         03:14           Carbon Tetrachloride         <0.410	tert-Butylbenzene	< 0.400	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Carbon Tetrachloride         40.410         ug/L         7090635         7090635 -BLK1         09/05/07         03:14           Chlorobenzene         40.340         ug/L         7090635         7090635 -BLK1         09/05/07         03:14           Chlorodibromomethane         40.480         ug/L         7090635         7090635 -BLK1         09/05/07         03:14           Butyl acetate         44.49         ug/L         7090635         7090635 -BLK1         09/05/07         03:14           Chlorothane         40.350         ug/L         7090635         7090635 -BLK1         09/05/07         03:14           Chlorotform         40.510         ug/L         7090635         7090635 -BLK1         09/05/07         03:14           Chlorotfoluene         40.310         ug/L         7090635         7090635 -BLK1         09/05/07         03:14           4-Chlorotoluene         40.210         ug/L         7090635         7090635 -BLK1         09/05/07         03:14           4-Chlorotoluene         40.410         ug/L         7090635         7090635 -BLK1         09/05/07         03:14           1,2-Dirborno-strane (EDB)         40.320         ug/L         7090635         7090635 -BLK1         09/05/07         03:14	n-Butylbenzene	< 0.780	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Chlorobenzene         <0,340         ug/L         7090635         7090635-BLK1         09/05/07         03:14           Chlorodibromomethane         <0,480	Carbon disulfide	<0.230	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Chlorodibromomethane	Carbon Tetrachloride	< 0.410	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Butyl acetate         4.49         ug/L         7090635         7090635-BLK1         09/05/07 03:14           Chloroethane         <0.350	Chlorobenzene	<0.340	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Chloroethane	Chlorodibromomethane	< 0.480	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Chloroform	Butyl acetate	<4.49	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Chloromethane	Chloroethane	< 0.350	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
2-Chlorotoluene	Chloroform	< 0.510	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
4-Chlorotoluene	Chloromethane	<0.310	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,2-Dibromo-3-chloropropane       <1.01	2-Chlorotoluene	< 0.210	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,2-Dibromoethane (EDB)       <0.320       ug/L       7090635       7090635-BLK1       09/05/07       03:14         Dibromomethane       <0.430	4-Chlorotoluene	< 0.410	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Dibromomethane         <0.430         ug/L         7090635         7090635-BLK1         09/05/07 03:14           1,2-Dichlorobenzene         <0.440	1,2-Dibromo-3-chloropropane	<1.01	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,2-Dichlorobenzene       <0.440	1,2-Dibromoethane (EDB)	< 0.320	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,3-Dichlorobenzene       <0.410	Dibromomethane	< 0.430	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,4-Dichlorobenzene       <0.360	1,2-Dichlorobenzene	<0.440	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Dichlorodifluoromethane         <0.290         ug/L         7090635         7090635-BLK1         09/05/07         03:14           1,2-Dichloroethane         <0.460	1,3-Dichlorobenzene	< 0.410	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,2-Dichloroethane       <0.460	1,4-Dichlorobenzene	< 0.360	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,1-Dichloroethane     <0.600	Dichlorodifluoromethane	<0.290	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,1-Dichloroethene     <0.270     ug/L     7090635     7090635-BLK1     09/05/07     03:14       trans-1,2-Dichloroethene     <0.200	1,2-Dichloroethane	< 0.460	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
trans-1,2-Dichloroethene <0.200 ug/L 7090635 7090635-BLK1 09/05/07 03:14 cis-1,2-Dichloroethene <0.540 ug/L 7090635 7090635-BLK1 09/05/07 03:14	1,1-Dichloroethane	< 0.600	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
cis-1,2-Dichloroethene <0.540 ug/L 7090635 7090635-BLK1 09/05/07 03:14	1,1-Dichloroethene	<0.270	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
	trans-1,2-Dichloroethene	<0.200	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,3-Dichloropropane <0.480 ug/L 7090635 7090635-BLK1 09/05/07 03:14	cis-1,2-Dichloroethene	< 0.540	ug/L	7090635	7090635-BLK1	09/05/07 03:14	
	1,3-Dichloropropane	< 0.480	ug/L	7090635	7090635-BLK1	09/05/07 03:14	





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
Volatile Organic Compounds by	EPA Method 8260B						
7090635-BLK1							
2,2-Dichloropropane	< 0.370		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,2-Dichloropropane	< 0.370		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
trans-1,3-Dichloropropene	< 0.310		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,1-Dichloropropene	< 0.280		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
cis-1,3-Dichloropropene	< 0.330		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Ethylbenzene	< 0.420		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Hexachlorobutadiene	< 0.660		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
2-Hexanone	<2.19		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Isopropylbenzene	< 0.410		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
p-Isopropyltoluene	< 0.320		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Methyl Acetate	<1.44		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Methyl tert-Butyl Ether	< 0.310		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Methylene Chloride	<2.10		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
4-Methyl-2-pentanone	<4.15		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Naphthalene	< 0.650		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
n-Propylbenzene	< 0.350		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Ethyl Acetate	<3.39		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Styrene	< 0.390		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,1,2,2-Tetrachloroethane	< 0.270		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,1,1,2-Tetrachloroethane	< 0.470		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Tetrachloroethene	< 0.320		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Toluene	< 0.420		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,2,4-Trichlorobenzene	< 0.620		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,2,3-Trichlorobenzene	< 0.620		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,1,1-Trichloroethane	< 0.350		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,1,2-Trichloroethane	< 0.570		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Trichloroethene	< 0.510		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Trichlorofluoromethane	< 0.400		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,2,3-Trichloropropane	< 0.520		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,3,5-Trimethylbenzene	< 0.240		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
1,2,4-Trimethylbenzene	< 0.350		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Vinyl chloride	< 0.260		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
o-Xylene	< 0.370		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
m,p-Xylene	< 0.450		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Xylenes, total	< 0.450		ug/L	7090635	7090635-BLK1	09/05/07 03:14	
Surrogate: 1,2-Dichloroethane-d4			45, 2	7090635	7090635-BLK1	09/05/07 03:14	
Surrogate: Dibromofluoromethane	105% 102%			7090635	7090635-BLK1	09/05/07 03:14	
Surrogate: Dibromojiuoromeinane Surrogate: Toluene-d8				7090635	7090635-BLK1	09/05/07 03:14	
	89%			7090635	7090635-BLK1	09/05/07 03:14	
Surrogate: 4-Bromofluorobenzene	131%			7070033	7070033-BLK1	03/03/07/03.17	
7091613-BLK1							
Tert-Amyl Methyl Ether	< 0.450		ug/L	7091613	7091613-BLK1	09/07/07 15:58	





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
Volatile Organic Compounds b	y EPA Method 8260B						
7091613-BLK1							
Acetone	<7.41		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Ethyl tert-Butyl Ether	< 0.440		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Acrylonitrile	<3.93		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Diisopropyl Ether	< 0.440		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Benzene	0.350		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Tertiary Butyl Alcohol	<4.61		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Bromobenzene	< 0.450		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Bromochloromethane	< 0.700		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Bromodichloromethane	< 0.390		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Bromoform	< 0.540		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Bromomethane	< 0.420		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
2-Butanone	<3.06		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
tert-Butylbenzene	< 0.400		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
n-Butylbenzene	< 0.780		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
sec-Butylbenzene	< 0.260		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Carbon disulfide	< 0.230		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Carbon Tetrachloride	< 0.410		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Chlorobenzene	< 0.340		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Chlorodibromomethane	< 0.480		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Chloroethane	< 0.350		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Chloroform	< 0.510		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Chloromethane	< 0.310		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
2-Chlorotoluene	< 0.210		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
4-Chlorotoluene	< 0.410		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,2-Dibromo-3-chloropropane	<1.01		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,2-Dibromoethane (EDB)	< 0.320		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Dibromomethane	< 0.430		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,2-Dichlorobenzene	< 0.440		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,3-Dichlorobenzene	< 0.410		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,4-Dichlorobenzene	< 0.360		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Dichlorodifluoromethane	< 0.290		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,2-Dichloroethane	< 0.460		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,1-Dichloroethane	< 0.600		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,1-Dichloroethene	< 0.270		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
trans-1,2-Dichloroethene	< 0.200		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
cis-1,2-Dichloroethene	< 0.540		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,3-Dichloropropane	< 0.480		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
2,2-Dichloropropane	<0.370		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,2-Dichloropropane	< 0.370		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
trans-1,3-Dichloropropene	< 0.310		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,1-Dichloropropene	<0.280		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
cis-1,3-Dichloropropene	< 0.330		ug/L	7091613	7091613-BLK1	09/07/07 15:58	





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

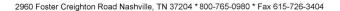
Project Number:

SAP 121704

Received:

08/30/07 08:10

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
Volatile Organic Compounds by EP.	A Method 8260B						
7091613-BLK1							
Ethylbenzene	< 0.420		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Hexachlorobutadiene	< 0.660		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
2-Hexanone	<2.19		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Isopropylbenzene	< 0.410		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
p-Isopropyltoluene	< 0.320		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Methyl tert-Butyl Ether	< 0.310		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Methylene Chloride	2.19		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
4-Methyl-2-pentanone	<4.15		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Naphthalene	< 0.650		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
n-Propylbenzene	< 0.350		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Styrene	< 0.390		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,1,2,2-Tetrachloroethane	< 0.270		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,1,1,2-Tetrachloroethane	< 0.470		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Tetrachloroethene	< 0.320		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Toluene	< 0.420		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,2,4-Trichlorobenzene	< 0.620		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,2,3-Trichlorobenzene	< 0.620		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,1,1-Trichloroethane	< 0.350		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,1,2-Trichloroethane	< 0.570		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Trichloroethene	< 0.510		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Trichlorofluoromethane	< 0.400		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,2,3-Trichloropropane	< 0.520		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,3,5-Trimethylbenzene	< 0.240		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
1,2,4-Trimethylbenzene	< 0.350		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Vinyl chloride	< 0.260		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Xylenes, total	< 0.450		ug/L	7091613	7091613-BLK1	09/07/07 15:58	
Surrogate: 1,2-Dichloroethane-d4	113%			7091613	7091613-BLK1	09/07/07 15:58	
Surrogate: Dibromofluoromethane	106%			7091613	7091613-BLK1	09/07/07 15:58	
Surrogate: Toluene-d8	91%			7091613	7091613-BLK1	09/07/07 15:58	
Surrogate: 4-Bromofluorobenzene	101%			7091613	7091613-BLK1	09/07/07 15:58	
Polyaromatic Hydrocarbons by EPA	8270C SIM						
7085854-BLK1							
Acenaphthene	< 0.0420		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Acenaphthylene	< 0.0260		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Anthracene	< 0.0420		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Benzo (a) anthracene	< 0.0340		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Benzo (a) pyrene	< 0.0260		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Benzo (b) fluoranthene	< 0.0250		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Benzo (g,h,i) perylene	< 0.0250		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Benzo (k) fluoranthene	< 0.0250		ug/L	7085854	7085854-BLK1	09/04/07 18:15	







Client Delta Environmental (Minnesota) / Shell 5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Mike Lee Attn

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

08/30/07 08:10 Received:

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
Polyaromatic Hydrocarbons by l	EPA 8270C SIM						
7085854-BLK1							
Chrysene	< 0.0350		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Dibenz (a,h) anthracene	< 0.0310		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Fluoranthene	< 0.0360		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Fluorene	< 0.0360		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Indeno (1,2,3-cd) pyrene	< 0.0250		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
1-Methylnaphthalene	< 0.0430		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
2-Methylnaphthalene	< 0.0810		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Naphthalene	< 0.0390		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Phenanthrene	< 0.0610		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Pyrene	< 0.0340		ug/L	7085854	7085854-BLK1	09/04/07 18:15	
Surrogate: Nitrobenzene-d5	107%			7085854	7085854-BLK1	09/04/07 18:15	
Surrogate: 2-Fluorobiphenyl	85%			7085854	7085854-BLK1	09/04/07 18:15	
Surrogate: Terphenyl-d14	102%			7085854	7085854-BLK1	09/04/07 18:15	
7085875-BLK1							
Acenaphthene	< 0.00112		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Acenaphthylene	< 0.00153		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Anthracene	< 0.00287		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Benzo (a) anthracene	< 0.00186		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Benzo (a) pyrene	< 0.00264		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Benzo (b) fluoranthene	< 0.00165		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Benzo (g,h,i) perylene	< 0.00210		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Benzo (k) fluoranthene	< 0.00159		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Chrysene	< 0.00159		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Dibenz (a,h) anthracene	< 0.00275		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Fluoranthene	< 0.00145		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Fluorene	< 0.00132		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Indeno (1,2,3-cd) pyrene	< 0.00287		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
1-Methylnaphthalene	< 0.00121		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
2-Methylnaphthalene	< 0.00121		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Naphthalene	< 0.00134		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Phenanthrene	< 0.00102		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Pyrene	< 0.00159		mg/kg	7085875	7085875-BLK1	09/02/07 23:29	
Surrogate: Nitrobenzene-d5	96%	Z10		7085875	7085875-BLK1	09/02/07 23:29	
Surrogate: 2-Fluorobiphenyl	83%			7085875	7085875-BLK1	09/02/07 23:29	
Surrogate: Terphenyl-d14	102%			7085875	7085875-BLK1	09/02/07 23:29	
Extractable Petroleum Hydrocar	bons						
7085915-BLK1	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~						
Diesel	<37.0		ug/L	7085915	7085915-BLK1	09/01/07 21:50	
Motor Oil	<37.0		ug/L	7085915	7085915-BLK1	09/01/07 21:50	
Surrogate: o-Terphenyl	98%		~	7085915	7085915-BLK1	09/01/07 21:50	





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Extractable Petroleum Hydrocarbons						
7085991-BLK1						
Diesel	<2.00		mg/kg	7085991	7085991-BLK1	09/03/07 12:20
Motor Oil	<2.00		mg/kg	7085991	7085991-BLK1	09/03/07 12:20
Surrogate: o-Terphenyl	91%			7085991	7085991-BLK1	09/03/07 12:20
Purgeable Petroleum Hydrocarbons						
7090564-BLK1						
GRO (C4-C12) NW	68.2		ug/L	7090564	7090564-BLK1	09/05/07 21:59
Surrogate: a,a,a-Trifluorotoluene	86%			7090564	7090564-BLK1	09/05/07 21:59
7090564-BLK2						
GRO (C4-C12) NW	68.1		ug/L	7090564	7090564-BLK2	09/06/07 04:33
Surrogate: a,a,a-Trifluorotoluene	87%			7090564	7090564-BLK2	09/06/07 04:33
7090910-BLK1						
GRO (C4-C12) NW	< 0.0180		mg/kg	7090910	7090910-BLK1	09/06/07 03:24
Surrogate: a,a,a-Trifluorotoluene	96%			7090910	7090910-BLK1	09/06/07 03:24
7090910-BLK2						
GRO (C4-C12) NW	< 0.0180		mg/kg	7090910	7090910-BLK2	09/06/07 03:45
Surrogate: a,a,a-Trifluorotoluene	93%			7090910	7090910-BLK2	09/06/07 03:45





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

# PROJECT QUALITY CONTROL DATA Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons									
7090910-DUP1									
GRO (C4-C12) NW	ND	ND		mg/kg		37	7090910	NQH3399-03	09/06/07 09:03
Surrogate: a,a,a-Trifluorotoluene		28.4		ug/L			7090910	NQH3399-03	09/06/07 09:03







Client Delta Environmental (Minnesota) / Shell 5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

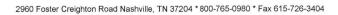
Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

# PROJECT QUALITY CONTROL DATA LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Total Metals by EPA Method 6010	В							
7085913-BS1								
Lead	100	96.6		mg/kg	97%	80 - 120	7085913	09/07/07 06:14
Dissolved Metals by EPA Method 6	5010B							
7090249-BS1								
Lead	0.0500	0.0449		mg/L	90%	80 - 120	7090249	09/05/07 23:32
Volatile Organic Compounds by El	PA Method 8260B							
7090180-BS1								
Benzene	50.0	45.2		ug/L	90%	78 - 125	7090180	09/10/07 14:40
1,2-Dibromoethane (EDB)	50.0	53.2		ug/L	106%	80 - 132	7090180	09/10/07 14:40
1,1-Dichloroethane	50.0	47.2		ug/L	94%	79 - 120	7090180	09/10/07 14:40
Ethylbenzene	50.0	44.4		ug/L	89%	73 - 134	7090180	09/10/07 14:40
Isopropylbenzene	50.0	41.0		ug/L	82%	74 - 121	7090180	09/10/07 14:40
Methyl tert-Butyl Ether	50.0	48.5		ug/L	97%	69 - 122	7090180	09/10/07 14:40
n-Propylbenzene	50.0	50.8		ug/L	102%	76 - 133	7090180	09/10/07 14:40
Toluene	50.0	51.3		ug/L	103%	78 - 122	7090180	09/10/07 14:40
1,3,5-Trimethylbenzene	50.0	49.3		ug/L	99%	72 - 136	7090180	09/10/07 14:40
1,2,4-Trimethylbenzene	50.0	49.1		ug/L	98%	73 - 134	7090180	09/10/07 14:40
Xylenes, total	150	127		ug/L	85%	79 - 130	7090180	09/10/07 14:40
Surrogate: 1,2-Dichloroethane-d4	25.0	23.8			95%	62 - 142	7090180	09/10/07 14:40
Surrogate: Dibromofluoromethane	25.0	23.8			95%	78 - 123	7090180	09/10/07 14:40
Surrogate: Toluene-d8	25.0	26.1			104%	79 - 120	7090180	09/10/07 14:40
Surrogate: 4-Bromofluorobenzene	25.0	24.5			98%	75 - 133	7090180	09/10/07 14:40
7090348-BS1								
Tertiary Butyl Alcohol	500	445		ug/kg	89%	22 - 159	7090348	09/07/07 21:06
Diisopropyl Ether	50.0	49.3		ug/kg	99%	70 - 122	7090348	09/07/07 21:06
Ethyl tert-Butyl Ether	50.0	50.7		ug/kg	101%	66 - 126	7090348	09/07/07 21:06
Tert-Amyl Methyl Ether	50.0	50.4		ug/kg	101%	67 - 130	7090348	09/07/07 21:06
Benzene	50.0	54.6		ug/kg	109%	78 - 123	7090348	09/07/07 21:06
1,2-Dibromoethane (EDB)	50.0	55.1		ug/kg	110%	79 - 129	7090348	09/07/07 21:06
1,2-Dichloroethane	50.0	54.7		ug/kg	109%	73 - 131	7090348	09/07/07 21:06
Ethylbenzene	50.0	54.3		ug/kg	109%	78 - 127	7090348	09/07/07 21:06
Isopropylbenzene	50.0	53.4		ug/kg	107%	73 - 123	7090348	09/07/07 21:06
Methyl tert-Butyl Ether	50.0	49.9		ug/kg	100%	62 - 129	7090348	09/07/07 21:06
n-Propylbenzene	50.0	50.5		ug/kg	101%	71 - 135	7090348	09/07/07 21:06
Toluene	50.0	54.4		ug/kg	109%	77 - 124	7090348	09/07/07 21:06
1,3,5-Trimethylbenzene	50.0	53.9		ug/kg	108%	74 - 133	7090348	09/07/07 21:06
1,2,4-Trimethylbenzene	50.0	51.0		ug/kg	102%	72 - 132	7090348	09/07/07 21:06
Xylenes, total	150	161		ug/kg	108%	77 - 128	7090348	09/07/07 21:06
Surrogate: 1,2-Dichloroethane-d4	50.0	48.9			98%	54 - 145	7090348	09/07/07 21:06
Surrogate: Dibromofluoromethane	50.0	52.1			104%	67 - 129	7090348	09/07/07 21:06







Client Delta Environmental (Minnesota) / Shell 5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

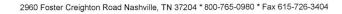
Project Number:

SAP 121704

Received:

08/30/07 08:10

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Volatile Organic Compounds by E	PA Method 8260B							
7090348-BS1								
Surrogate: Toluene-d8	50.0	49.8			100%	66 - 142	7090348	09/07/07 21:06
Surrogate: 4-Bromofluorobenzene	50.0	48.6			97%	68 - 150	7090348	09/07/07 21:06
7090635-BS1								
Tert-Amyl Methyl Ether	50.0	47.0		ug/L	94%	63 - 133	7090635	09/05/07 00:46
Acetone	250	253		ug/L	101%	63 - 147	7090635	09/05/07 00:46
Ethyl tert-Butyl Ether	50.0	46.2		ug/L	92%	65 - 126	7090635	09/05/07 00:46
Acrylonitrile	250	245		ug/L	98%	76 - 125	7090635	09/05/07 00:46
Diisopropyl Ether	50.0	46.8		ug/L	94%	74 - 120	7090635	09/05/07 00:46
Benzene	50.0	51.5		ug/L	103%	78 - 125	7090635	09/05/07 00:46
Tertiary Butyl Alcohol	500	730		ug/L	146%	33 - 181	7090635	09/05/07 00:46
Bromobenzene	50.0	49.7		ug/L	99%	71 - 142	7090635	09/05/07 00:46
Bromochloromethane	50.0	45.6		ug/L	91%	76 - 129	7090635	09/05/07 00:46
Bromodichloromethane	50.0	55.7		ug/L	111%	71 - 134	7090635	09/05/07 00:46
Bromoform	50.0	51.2		ug/L	102%	49 - 129	7090635	09/05/07 00:46
Bromomethane	50.0	50.7		ug/L	101%	42 - 154	7090635	09/05/07 00:46
2-Butanone	250	230		ug/L	92%	74 - 130	7090635	09/05/07 00:46
tert-Butylbenzene	50.0	59.2		ug/L	118%	79 - 128	7090635	09/05/07 00:46
n-Butylbenzene	50.0	53.6		ug/L	107%	68 - 138	7090635	09/05/07 00:46
Carbon disulfide	50.0	55.2		ug/L	110%	65 - 122	7090635	09/05/07 00:46
Carbon Tetrachloride	50.0	63.6		ug/L	127%	62 - 142	7090635	09/05/07 00:46
Chlorobenzene	50.0	54.0		ug/L	108%	82 - 125	7090635	09/05/07 00:46
Chlorodibromomethane	50.0	52.0		ug/L	104%	67 - 135	7090635	09/05/07 00:46
Chloroethane	50.0	46.5		ug/L	93%	57 - 138	7090635	09/05/07 00:46
Chloroform	50.0	53.6		ug/L	107%	75 - 122	7090635	09/05/07 00:46
Chloromethane	50.0	30.1		ug/L	60%	31 - 147	7090635	09/05/07 00:46
2-Chlorotoluene	50.0	54.0		ug/L	108%	74 - 135	7090635	09/05/07 00:46
4-Chlorotoluene	50.0	57.3		ug/L	115%	74 - 133	7090635	09/05/07 00:46
1,2-Dibromo-3-chloropropane	50.0	36.7		ug/L	73%	45 - 140	7090635	09/05/07 00:46
1,2-Dibromoethane (EDB)	50.0	56.2		ug/L	112%	80 - 132	7090635	09/05/07 00:46
Dibromomethane	50.0	51.0		ug/L	102%	69 - 132	7090635	09/05/07 00:46
1.2-Dichlorobenzene	50.0	56.4		ug/L	113%	82 - 133	7090635	09/05/07 00:46
1.3-Dichlorobenzene	50.0	58.2		ug/L	116%	77 - 132	7090635	09/05/07 00:46
1,4-Dichlorobenzene	50.0	56.8		ug/L	114%	79 - 125	7090635	09/05/07 00:46
Dichlorodifluoromethane	50.0	22.8		ug/L	46%	34 - 120	7090635	09/05/07 00:46
1,2-Dichloroethane	50.0	56.3		ug/L	113%	64 - 134	7090635	09/05/07 00:46
1,1-Dichloroethane	50.0	58.4		ug/L ug/L	117%	79 - 120	7090635	09/05/07 00:46
1,1-Dichloroethene	50.0	57.7		ug/L ug/L	115%	71 - 123	7090635	09/05/07 00:46
trans-1,2-Dichloroethene	50.0	61.1		ug/L ug/L	122%	74 - 127	7090635	09/05/07 00:46
cis-1,2-Dichloroethene		52.0			104%	71 - 126	7090635	09/05/07 00:46
	50.0			ug/L		80 - 128	7090635	09/05/07 00:46
1,3-Dichloropropane	50.0	55.7		ug/L	111%			
2,2-Dichloropropane	50.0	50.1		ug/L	100%	25 - 156	7090635	09/05/07





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Volatile Organic Compounds by E	CPA Method 8260B							
7090635-BS1								
1,2-Dichloropropane	50.0	50.0		ug/L	100%	73 - 120	7090635	09/05/07 00:46
trans-1,3-Dichloropropene	50.0	52.3		ug/L	105%	61 - 124	7090635	09/05/07 00:46
1,1-Dichloropropene	50.0	58.3		ug/L	117%	79 - 138	7090635	09/05/07 00:46
cis-1,3-Dichloropropene	50.0	59.3		ug/L	119%	70 - 135	7090635	09/05/07 00:46
Ethylbenzene	50.0	55.3		ug/L	111%	73 - 134	7090635	09/05/07 00:46
Hexachlorobutadiene	50.0	64.5		ug/L	129%	58 - 145	7090635	09/05/07 00:46
2-Hexanone	250	233		ug/L	93%	72 - 136	7090635	09/05/07 00:46
Isopropylbenzene	50.0	58.4		ug/L	117%	74 - 121	7090635	09/05/07 00:46
p-Isopropyltoluene	50.0	52.3		ug/L	105%	70 - 133	7090635	09/05/07 00:46
Methyl Acetate	50.0	37.4		ug/L	75%	58 - 185	7090635	09/05/07 00:46
Methyl tert-Butyl Ether	50.0	52.4		ug/L	105%	69 - 122	7090635	09/05/07 00:46
Methylene Chloride	50.0	53.4		ug/L	107%	75 - 127	7090635	09/05/07 00:46
4-Methyl-2-pentanone	250	241		ug/L	96%	77 - 132	7090635	09/05/07 00:46
Naphthalene	50.0	34.8		ug/L	70%	65 - 145	7090635	09/05/07 00:46
n-Propylbenzene	50.0	56.3		ug/L	113%	76 - 133	7090635	09/05/07 00:46
Styrene	50.0	68.6		ug/L	137%	80 - 145	7090635	09/05/07 00:46
1,1,2,2-Tetrachloroethane	50.0	46.7		ug/L	93%	71 - 137	7090635	09/05/07 00:46
1,1,1,2-Tetrachloroethane	50.0	61.8		ug/L	124%	72 - 136	7090635	09/05/07 00:46
Tetrachloroethene	50.0	58.4		ug/L	117%	70 - 131	7090635	09/05/07 00:46
Toluene	50.0	55.2		ug/L	110%	78 - 122	7090635	09/05/07 00:46
1,2,4-Trichlorobenzene	50.0	45.6		ug/L	91%	63 - 140	7090635	09/05/07 00:46
1,2,3-Trichlorobenzene	50.0	44.9		ug/L	90%	60 - 144	7090635	09/05/07 00:46
1,1,1-Trichloroethane	50.0	57.4		ug/L	115%	69 - 128	7090635	09/05/07 00:46
1,1,2-Trichloroethane	50.0	56.0		ug/L	112%	81 - 127	7090635	09/05/07 00:46
Trichloroethene	50.0	55.9		ug/L	112%	73 - 133	7090635	09/05/07 00:46
Trichlorofluoromethane	50.0	50.4		ug/L	101%	49 - 139	7090635	09/05/07 00:46
1,2,3-Trichloropropane	50.0	45.5		ug/L	91%	52 - 151	7090635	09/05/07 00:46
1,3,5-Trimethylbenzene	50.0	57.7		ug/L	115%	72 - 136	7090635	09/05/07 00:46
1,2,4-Trimethylbenzene	50.0	57.0		ug/L	114%	73 - 134	7090635	09/05/07 00:46
Vinyl chloride	50.0	43.8		ug/L	88%	54 - 137	7090635	09/05/07 00:46
o-Xylene	50.0	59.1		ug/L	118%	79 - 130	7090635	09/05/07 00:46
m,p-Xylene	100	115		ug/L	115%	79 - 131	7090635	09/05/07 00:46
Xylenes, total	150	174		ug/L	116%	79 - 130	7090635	09/05/07 00:46
Surrogate: Dibromofluoromethane	25.0	23.4			94%	78 - 123	7090635	09/05/07 00:46
Surrogate: Toluene-d8	25.0	25.0			100%	79 - 120	7090635	09/05/07 00:46
7090635-BS2								
Butyl acetate	500	410		ug/L	82%	12 - 172	7090635	09/05/07 01:36
Ethyl Acetate	500	526		ug/L	105%	12 - 172	7090635	09/05/07 01:36
Surrogate: 1,2-Dichloroethane-d4	25.0	26.4			105%	62 - 142	7090635	09/05/07 01:36
Surrogate: Dibromofluoromethane	25.0	26.0			104%	78 - 123	7090635	09/05/07 01:36
Surrogate: Toluene-d8	25.0	18.6	Z10		75%	79 - 120	7090635	09/05/07 01:36







Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Mike Lee Attn

Work Order:

NQH3608

Project Name:

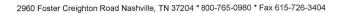
14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received:

SAP 121704 08/30/07 08:10

#### PROJECT QUALITY CONTROL DATA LCS - Cont.

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Volatile Organic Compounds by E	CPA Method 8260B							
7090635-BS2								
Surrogate: 4-Bromofluorobenzene	25.0	23.6			95%	75 - 133	7090635	09/05/07 01:36
7091613-BS1								
Tert-Amyl Methyl Ether	50.0	52.7		ug/L	105%	63 - 133	7091613	09/07/07 14:13
Acetone	250	253		ug/L	101%	63 - 147	7091613	09/07/07 14:13
Ethyl tert-Butyl Ether	50.0	52.6		ug/L	105%	65 - 126	7091613	09/07/07 14:13
Acrylonitrile	250	258		ug/L	103%	76 - 125	7091613	09/07/07 14:13
Diisopropyl Ether	50.0	49.7		ug/L	99%	74 - 120	7091613	09/07/07 14:13
Benzene	50.0	51.1		ug/L	102%	78 - 125	7091613	09/07/07 14:13
Tertiary Butyl Alcohol	500	538		ug/L	108%	33 - 181	7091613	09/07/07 14:13
Bromobenzene	50.0	47.2		ug/L	94%	71 - 142	7091613	09/07/07 14:13
Bromochloromethane	50.0	49.2		ug/L	98%	76 - 129	7091613	09/07/07 14:13
Bromodichloromethane	50.0	59.4		ug/L	119%	71 - 134	7091613	09/07/07 14:13
Bromoform	50.0	56.7		ug/L	113%	49 - 129	7091613	09/07/07 14:13
Bromomethane	50.0	44.8		ug/L	90%	42 - 154	7091613	09/07/07 14:13
2-Butanone	250	262		ug/L	105%	74 - 130	7091613	09/07/07 14:13
tert-Butylbenzene	50.0	52.0		ug/L	104%	79 - 128	7091613	09/07/07 14:13
n-Butylbenzene	50.0	49.1		ug/L	98%	68 - 138	7091613	09/07/07 14:13
sec-Butylbenzene	50.0	54.1		ug/L	108%	78 - 129	7091613	09/07/07 14:13
Carbon disulfide	50.0	52.9		ug/L	106%	65 - 122	7091613	09/07/07 14:13
Carbon Tetrachloride	50.0	58.0		ug/L	116%	62 - 142	7091613	09/07/07 14:13
Chlorobenzene	50.0	51.8		ug/L	104%	82 - 125	7091613	09/07/07 14:13
Chlorodibromomethane	50.0	50.2		ug/L	100%	67 - 135	7091613	09/07/07 14:13
Chloroethane	50.0	44.0		ug/L	88%	57 - 138	7091613	09/07/07 14:13
Chloroform	50.0	51.5		ug/L	103%	75 - 122	7091613	09/07/07 14:13
Chloromethane	50.0	34.6		ug/L	69%	31 - 147	7091613	09/07/07 14:13
2-Chlorotoluene	50.0	46.2		ug/L	92%	74 - 135	7091613	09/07/07 14:13
4-Chlorotoluene	50.0	46.2		ug/L	92%	74 - 133	7091613	09/07/07 14:13
1,2-Dibromo-3-chloropropane	50.0	51.5		ug/L	103%	45 - 140	7091613	09/07/07 14:13
1,2-Dibromoethane (EDB)	50.0	49.9		ug/L	100%	80 - 132	7091613	09/07/07 14:13
Dibromomethane	50.0	53.5		ug/L	107%	69 - 132	7091613	09/07/07 14:13
1,2-Dichlorobenzene	50.0	46.6		ug/L	93%	82 - 133	7091613	09/07/07 14:13
1,3-Dichlorobenzene	50.0	47.4		ug/L	95%	77 - 132	7091613	09/07/07 14:13
1,4-Dichlorobenzene	50.0	48.9		ug/L	98%	79 - 125	7091613	09/07/07 14:13
Dichlorodifluoromethane	50.0	32.4		ug/L	65%	34 - 120	7091613	09/07/07 14:13
1,2-Dichloroethane	50.0	57.5		ug/L	115%	64 - 134	7091613	09/07/07 14:13
1,1-Dichloroethane	50.0	51.6		ug/L	103%	79 - 120	7091613	09/07/07 14:13
1,1-Dichloroethene	50.0	55.4		ug/L	111%	71 - 123	7091613	09/07/07 14:13
trans-1,2-Dichloroethene	50.0	54.1		ug/L	108%	74 - 127	7091613	09/07/07 14:13
cis-1,2-Dichloroethene	50.0	52.7		ug/L	105%	71 - 126	7091613	09/07/07 14:13
1,3-Dichloropropane	50.0	50.4		ug/L	101%	80 - 128	7091613	09/07/07 14:13
2,2-Dichloropropane	50.0	57.3		ug/L	115%	25 - 156	7091613	09/07/07 14:13





Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

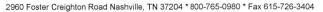
Project Number:

SAP 121704

Received:

08/30/07 08:10

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Volatile Organic Compounds by El	PA Method 8260B							
7091613-BS1								
1,2-Dichloropropane	50.0	44.9		ug/L	90%	73 - 120	7091613	09/07/07 14:13
trans-1,3-Dichloropropene	50.0	56.1		ug/L	112%	61 - 124	7091613	09/07/07 14:13
1,1-Dichloropropene	50.0	51.8		ug/L	104%	79 - 138	7091613	09/07/07 14:13
cis-1,3-Dichloropropene	50.0	52.3		ug/L	105%	70 - 135	7091613	09/07/07 14:13
Ethylbenzene	50.0	51.8		ug/L	104%	73 - 134	7091613	09/07/07 14:13
Hexachlorobutadiene	50.0	55.8		ug/L	112%	58 - 145	7091613	09/07/07 14:13
2-Hexanone	250	225		ug/L	90%	72 - 136	7091613	09/07/07 14:13
Isopropylbenzene	50.0	49.9		ug/L	100%	74 - 121	7091613	09/07/07 14:13
p-Isopropyltoluene	50.0	53.2		ug/L	106%	70 - 133	7091613	09/07/07 14:13
Methyl tert-Butyl Ether	50.0	50.3		ug/L	101%	69 - 122	7091613	09/07/07 14:13
Methylene Chloride	50.0	56.4		ug/L	113%	75 - 127	7091613	09/07/07 14:13
4-Methyl-2-pentanone	250	233		ug/L	93%	77 - 132	7091613	09/07/07 14:13
Naphthalene	50.0	55.5		ug/L	111%	65 - 145	7091613	09/07/07 14:13
n-Propylbenzene	50.0	47.5		ug/L	95%	76 - 133	7091613	09/07/07 14:13
Styrene	50.0	55.8		ug/L	112%	80 - 145	7091613	09/07/07 14:13
1,1,2,2-Tetrachloroethane	50.0	46.5		ug/L	93%	71 - 137	7091613	09/07/07 14:13
1,1,1,2-Tetrachloroethane	50.0	60.6		ug/L	121%	72 - 136	7091613	09/07/07 14:13
Tetrachloroethene	50.0	50.4		ug/L	101%	70 - 131	7091613	09/07/07 14:13
Toluene	50.0	50.1		ug/L	100%	78 - 122	7091613	09/07/07 14:13
1,2,4-Trichlorobenzene	50.0	47.6		ug/L	95%	63 - 140	7091613	09/07/07 14:13
1,2,3-Trichlorobenzene	50.0	52.1		ug/L	104%	60 - 144	7091613	09/07/07 14:13
1,1,1-Trichloroethane	50.0	58.0		ug/L	116%	69 - 128	7091613	09/07/07 14:13
1,1,2-Trichloroethane	50.0	52.0		ug/L	104%	81 - 127	7091613	09/07/07 14:13
Trichloroethene	50.0	52.4		ug/L	105%	73 - 133	7091613	09/07/07 14:13
Trichlorofluoromethane	50.0	57.7		ug/L	115%	49 - 139	7091613	09/07/07 14:13
1,2,3-Trichloropropane	50.0	45.1		ug/L	90%	52 - 151	7091613	09/07/07 14:13
1,3,5-Trimethylbenzene	50.0	48.3		ug/L	97%	72 - 136	7091613	09/07/07 14:13
1,2,4-Trimethylbenzene	50.0	50.5		ug/L	101%	73 - 134	7091613	09/07/07 14:13
Vinyl chloride	50.0	40.8		ug/L	82%	54 - 137	7091613	09/07/07 14:13
Xylenes, total	150	157		ug/L	105%	79 - 130	7091613	09/07/07 14:13
Surrogate: 1,2-Dichloroethane-d4	25.0	24.5			98%	62 - 142	7091613	09/07/07 14:13
Surrogate: Dibromofluoromethane	25.0	23.5			94%	78 - 123	7091613	09/07/07 14:13
Surrogate: Toluene-d8	25.0	22.8			91%	79 - 120	7091613	09/07/07 14:13
Surrogate: 4-Bromofluorobenzene	25.0	22.1			88%	75 - 133	7091613	09/07/07 14:13
Polyaromatic Hydrocarbons by EP	A 8270C SIM							
7085854-BS1	3. Same Same Same Same Same Same Same Same							
Acenaphthene	1.00	0.890	MNR1	ug/L	89%	48 - 133	7085854	09/04/07 18:36
Acenaphthylene	1.00	0.960	MNR1	ug/L	96%	49 - 139	7085854	09/04/07 18:36
Anthracene	1.00	0.940	MNR1	ug/L	94%	55 - 146	7085854	09/04/07 18:36
Benzo (a) anthracene	1.00	0.990	MNR1	ug/L	99%	54 - 143	7085854	09/04/07 18:36





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Mike Lee

Attn

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

# PROJECT QUALITY CONTROL DATA LCS - Cont.

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Polyaromatic Hydrocarbons by F	EPA 8270C SIM							
7085854-BS1								
Benzo (a) pyrene	1.00	0.860	MNR1	ug/L	86%	47 - 140	7085854	09/04/07 18:3
Benzo (b) fluoranthene	1.00	1.18	MNR1	ug/L	118%	56 - 142	7085854	09/04/07 18:3
Benzo (g,h,i) perylene	1.00	1.15	MNR1	ug/L	115%	39 - 142	7085854	09/04/07 18:3
Benzo (k) fluoranthene	1.00	0.750	MNR1	ug/L	75%	54 - 147	7085854	09/04/07 18:3
Chrysene	1.00	0.870	MNR1	ug/L	87%	60 - 145	7085854	09/04/07 18:3
Dibenz (a,h) anthracene	1.00	1.14	MNR1	ug/L	114%	35 - 146	7085854	09/04/07 18:3
Fluoranthene	1.00	0.970	MNR1	ug/L	97%	56 - 135	7085854	09/04/07 18:3
Fluorene	1.00	0.960	MNR1	ug/L	96%	52 - 141	7085854	09/04/07 18:3
Indeno (1,2,3-cd) pyrene	1.00	1.03	MNR1	ug/L	103%	41 - 139	7085854	09/04/07 18:30
1-Methylnaphthalene	1.01	0.870	MNR1	ug/L	86%	42 - 130	7085854	09/04/07 18:3
2-Methylnaphthalene	1.00	0.910	MNR1	ug/L	91%	46 - 136	7085854	09/04/07 18:30
Naphthalene	1.00	0.860	MNR1	ug/L	86%	47 - 129	7085854	09/04/07 18:30
Phenanthrene	1.00	0.850	MNR1	ug/L	85%	50 - 133	7085854	09/04/07 18:30
Pyrene	1.00	1.02	MNR1	ug/L	102%	56 - 140	7085854	09/04/07 18:30
Surrogate: Nitrobenzene-d5	1.00	1.12			112%	24 - 125	7085854	09/04/07 18:30
Surrogate: 2-Fluorobiphenyl	1.00	0.900			90%	30 - 120	7085854	09/04/07 18:30
Surrogate: Terphenyl-d14	1.00	1.05			105%	29 - 149	7085854	09/04/07 18:30
7085875-BS1								
Acenaphthene	0.0333	0.0313		mg/kg	94%	42 - 114	7085875	09/01/07 18:0
Acenaphthylene	0.0333	0.0340		mg/kg	102%	51 - 118	7085875	09/01/07 18:0
Anthracene	0.0333	0.0340		mg/kg	102%	49 - 139	7085875	09/01/07 18:0
Benzo (a) anthracene	0.0333	0.0370		mg/kg	111%	56 - 122	7085875	09/01/07 18:0
Benzo (a) pyrene	0.0333	0.0313		mg/kg	94%	56 - 113	7085875	09/01/07 18:0
Benzo (b) fluoranthene	0.0333	0.0270		mg/kg	81%	60 - 123	7085875	09/01/07 18:0
Benzo (g,h,i) perylene	0.0333	0.0377		mg/kg	113%	48 - 126	7085875	09/01/07 18:01
Benzo (k) fluoranthene	0.0333	0.0290		mg/kg	87%	61 - 124	7085875	09/01/07 18:03
Chrysene	0.0333	0.0327		mg/kg	98%	60 - 127	7085875	09/01/07 18:01
Dibenz (a,h) anthracene	0.0333	0.0380		mg/kg	114%	54 - 119	7085875	09/01/07 18:01
Fluoranthene	0.0333	0.0387		mg/kg	116%	51 - 118	7085875	09/01/07 18:07
Fluorene	0.0333	0.0340		mg/kg	102%	46 - 118	7085875	09/01/07 18:03
Indeno (1,2,3-cd) pyrene	0.0333	0.0333		mg/kg	100%	40 - 125	7085875	09/01/07 18:07
1-Methylnaphthalene	0.0337	0.0300		mg/kg	89%	49 - 110	7085875	09/01/07 18:07
2-Methylnaphthalene	0.0333	0.0323		mg/kg	97%	55 - 114	7085875	09/01/07 18:07
Naphthalene	0.0333	0.0297		mg/kg	89%	36 - 106	7085875	09/01/07 18:03
Phenanthrene	0.0333	0.0320		mg/kg	96%	47 - 118	7085875	09/01/07 18:07
Pyrene	0.0333	0.0370		mg/kg	111%	48 - 124	7085875	09/01/07 18:03
Surrogate: Nitrobenzene-d5	0.0333	0.0327	Z10		98%	34 - 87	7085875	09/01/07 18:07
Surrogate: 2-Fluorobiphenyl	0.0333	0.0307			92%	30 - 93	7085875	09/01/07 18:07
Surrogate: Terphenyl-d14	0.0333	0.0333			100%	49 - 123	7085875	09/01/07 18:07

#### **Extractable Petroleum Hydrocarbons**



Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

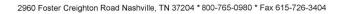
NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Extractable Petroleum Hydrocarbons	•							
7085915-BS1								
Diesel	1000	747		ug/L	75%	35 - 122	7085915	09/01/07 22:07
Surrogate: o-Terphenyl	20.0	18.1			91%	50 - 150	7085915	09/01/07 22:07
7085991-BS1								
Diesel	40.0	33.2		mg/kg	83%	59 - 135	7085991	09/01/07 23:03
Surrogate: o-Terphenyl	0.800	0.841			105%	50 - 150	7085991	09/01/07 23:03
Purgeable Petroleum Hydrocarbons								
7090564-BS1								
GRO (C4-C12) NW	1000	846		ug/L	85%	66 - 125	7090564	09/06/07 03:08
Surrogate: a,a,a-Trifluorotoluene	30.0	36.2			121%	46 - 153	7090564	09/06/07 03:08
7090564-BS2								
GRO (C4-C12) NW	1000	842		ug/L	84%	66 - 125	7090564	09/06/07 08:47
Surrogate: a,a,a-Trifluorotoluene	30.0	37.4			125%	46 - 153	7090564	09/06/07 08:47
7090910-BS2								
GRO (C4-C12) NW	10.0	9.20		mg/kg	92%	72 - 126	7090910	09/06/07 19:21
Surrogate: a,a,a-Trifluorotoluene	30.0	33.7			112%	52 - 145	7090910	09/06/07 19:21







and of the control of

Client Delta Environmental (Minnesota) / Shell 5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

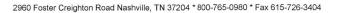
Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

## PROJECT QUALITY CONTROL DATA LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Total Metals by EPA Method 6010B												
7085913-BSD1												
Lead		97.2		mg/kg	100	97%	80 - 120	0.7	20	7085913		09/07/07 06:18
Volatile Organic Compounds by EPA	A Method 8	8260B										
7090180-BSD1												
Benzene		45.8		ug/L	50.0	92%	78 - 125	1	15	7090180		09/10/07 15:05
1,2-Dibromoethane (EDB)		54.0		ug/L	50.0	108%	80 - 132	1	16	7090180		09/10/07 15:05
1,1-Dichloroethane		47.8		ug/L	50.0	96%	79 - 120	1	17	7090180		09/10/07 15:05
Ethylbenzene		44.8		ug/L	50.0	90%	73 - 134	1	15	7090180		09/10/07 15:05
Isopropylbenzene		40.6		ug/L	50.0	81%	74 - 121	1	17	7090180		09/10/07 15:05
Methyl tert-Butyl Ether		49.5		ug/L	50.0	99%	69 - 122	2	16	7090180		09/10/07 15:05
n-Propylbenzene		50.4		ug/L	50.0	101%	76 - 133	1	18	7090180		09/10/07 15:05
Toluene		52.0		ug/L	50.0	104%	78 - 122	1	15	7090180		09/10/07 15:05
1,3,5-Trimethylbenzene		48.8		ug/L	50.0	98%	72 - 136	0.9	20	7090180		09/10/07 15:05
1,2,4-Trimethylbenzene		49.2		ug/L	50.0	98%	73 - 134	0.1	18	7090180		09/10/07 15:05
Xylenes, total		128		ug/L	150	86%	79 - 130	1	16	7090180		09/10/07 15:05
Surrogate: 1,2-Dichloroethane-d4		24.0		ug/L	25.0	96%	62 - 142			7090180		09/10/07 15:05
Surrogate: Dibromofluoromethane		24.1		ug/L	25.0	96%	78 - 123			7090180		09/10/07 15:05
Surrogate: Toluene-d8		26.3		ug/L	25.0	105%	79 - 120			7090180		09/10/07 15:05
Surrogate: 4-Bromofluorobenzene		23.6		ug/L	25.0	94%	75 - 133			7090180		09/10/07 15:05
7090348-BSD1												
Tertiary Butyl Alcohol		453		ug/kg	500	91%	22 - 159	2	47	7090348		09/07/07 21:37
Diisopropyl Ether		45.0		ug/kg	50.0	90%	70 - 122	9	40	7090348		09/07/07 21:37
Ethyl tert-Butyl Ether		46.6		ug/kg	50.0	93%	66 - 126	8	50	7090348		09/07/07 21:37
Tert-Amyl Methyl Ether		47.3		ug/kg	50.0	95%	67 - 130	6	43	7090348		09/07/07 21:37
Benzene		50.0		ug/kg	50.0	100%	78 - 123	9	42	7090348		09/07/07 21:37
1,2-Dibromoethane (EDB)		50.6		ug/kg	50.0	101%	79 - 129	9	50	7090348		09/07/07 21:37
1,2-Dichloroethane		50.8		ug/kg	50.0	102%	73 - 131	7	42	7090348		09/07/07 21:37
Ethylbenzene		49.0		ug/kg	50.0	98%	78 - 127	10	42	7090348		09/07/07 21:37
Isopropylbenzene		48.8		ug/kg	50.0	98%	73 - 123	9	44	7090348		09/07/07 21:37
Methyl tert-Butyl Ether		46.8		ug/kg	50.0	94%	62 - 129	6	47	7090348		09/07/07 21:37
n-Propylbenzene		45.6		ug/kg	50.0	91%	71 - 135	10	50	7090348		09/07/07 21:37
Toluene		49.6		ug/kg	50.0	99%	77 - 124	9	50	7090348		09/07/07 21:37
1,3,5-Trimethylbenzene		48.8		ug/kg	50.0	98%	74 - 133	10	50	7090348		09/07/07 21:37
1,2,4-Trimethylbenzene		46.5		ug/kg	50.0	93%	72 - 132	9	50	7090348		09/07/07 21:37
Xylenes, total		147		ug/kg	150	98%	77 - 128	10	50	7090348		09/07/07 21:37
Surrogate: 1,2-Dichloroethane-d4		49.6		ug/kg	50.0	99%	54 - 145			7090348		09/07/07 21:37
Surrogate: Dibromofluoromethane		52.7		ug/kg	50.0	105%	67 - 129			7090348		09/07/07 21:37
Surrogate: Toluene-d8		49.1		ug/kg	50.0	98%	66 - 142			7090348		09/07/07 21:37
Surrogate: 4-Bromofluorobenzene		48.4		ug/kg	50.0	97%	68 - 150			7090348		09/07/07 21:37





THE LEADER IN ENVIRONMENTAL TESTING

Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

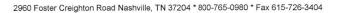
Project Number:

SAP 121704

Received:

08/30/07 08:10

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Volatile Organic Compounds by EPA	A Method 8	8260B										
7090635-BSD1												
Tert-Amyl Methyl Ether		46.4	MNR1	ug/L	50.0	93%	63 - 133	1	16	7090635		09/05/07 01:11
Acetone		291	MNR1	ug/L	250	116%	63 - 147	14	22	7090635		09/05/07 01:11
Ethyl tert-Butyl Ether		45.5	MNR1	ug/L	50.0	91%	65 - 126	1	16	7090635		09/05/07 01:11
Acrylonitrile		248	MNR1	ug/L	250	99%	76 - 125	1	15	7090635		09/05/07 01:11
Diisopropyl Ether		47.9	MNR1	ug/L	50.0	96%	74 - 120	2	17	7090635		09/05/07 01:11
Benzene		50.3	MNR1	ug/L	50.0	101%	78 - 125	2	15	7090635		09/05/07 01:11
Tertiary Butyl Alcohol		751	MNR1	ug/L	500	150%	33 - 181	3	20	7090635		09/05/07 01:11
Bromobenzene		49.7	MNR1	ug/L	50.0	99%	71 - 142	0.1	17	7090635		09/05/07 01:11
Bromochloromethane		44.6	MNR1	ug/L	50.0	89%	76 - 129	2	15	7090635		09/05/07 01:11
Bromodichloromethane		55.0	MNR1	ug/L	50.0	110%	71 - 134	1	17	7090635		09/05/07 01:11
Bromoform		51.3	MNR1	ug/L	50.0	103%	49 - 129	0.1	19	7090635		09/05/07 01:11
Bromomethane		55.8	MNR1	ug/L	50.0	112%	42 - 154	10	41	7090635		09/05/07 01:11
2-Butanone		238	MNR1	ug/L	250	95%	74 - 130	4	17	7090635		09/05/07 01:11
tert-Butylbenzene		59.8	MNR1	ug/L	50.0	120%	79 - 128	1	20	7090635		09/05/07 01:11
n-Butylbenzene		54.8	MNR1	ug/L	50.0	110%	68 - 138	2	23	7090635		09/05/07 01:11
Carbon disulfide		57.0	MNR1	ug/L	50.0	114%	65 - 122	3	50	7090635		09/05/07 01:11
Carbon Tetrachloride		63.5	MNR1	ug/L	50.0	127%	62 - 142	0.2	18	7090635		09/05/07 01:11
Chlorobenzene		52.9	MNR1	ug/L	50.0	106%	82 - 125	2	15	7090635		09/05/07 01:11
Chlorodibromomethane		51.3	MNR1	ug/L	50.0	103%	67 - 135	1	18	7090635		09/05/07 01:11
Chloroethane		47.0	MNR1	ug/L	50.0	94%	57 - 138	1	36	7090635		09/05/07 01:11
Chloroform		52.8	MNR1	ug/L	50.0	106%	75 - 122	2	16	7090635		09/05/07 01:11
Chloromethane		31.5	MNR1	ug/L	50.0	63%	31 - 147	5	46	7090635		09/05/07 01:11
2-Chlorotoluene		55.2	MNR1	ug/L	50.0	110%	74 - 135	2	17	7090635		09/05/07 01:11
4-Chlorotoluene		57.6	MNR1	ug/L	50.0	115%	74 - 133	0.6	16	7090635		09/05/07 01:11
1,2-Dibromo-3-chloropropane		36.2	MNR1	ug/L	50.0	72%	45 - 140	1	20	7090635		09/05/07 01:11
1,2-Dibromoethane (EDB)		55.6	MNR1	ug/L	50.0	111%	80 - 132	1	16	7090635		09/05/07 01:11
Dibromomethane		51.0	MNR1	ug/L	50.0	102%	69 - 132	0.2	16	7090635		09/05/07 01:11
1,2-Dichlorobenzene		57.2	MNR1	ug/L	50.0	114%	82 - 133	1	16	7090635		09/05/07 01:11
1,3-Dichlorobenzene		59.1	MNR1	ug/L	50.0	118%	77 - 132	1	17	7090635		09/05/07 01:11
1,4-Dichlorobenzene		57.2	MNR1	ug/L	50.0	114%	79 - 125	0.6	16	7090635		09/05/07 01:11
Dichlorodifluoromethane		22.6	MNR1	ug/L	50.0	45%	34 - 120	0.7	21	7090635		09/05/07 01:11
1,2-Dichloroethane		55.4	MNR1	ug/L	50.0	111%	64 - 134	2	19	7090635		09/05/07 01:11
1,1-Dichloroethane		46.6	R7,	ug/L	50.0	93%	79 - 120	22	17	7090635		09/05/07 01:11
1,1-Dichloroethene		58.9	MNR1	ug/L	50.0	118%	71 - 123	2	34	7090635		09/05/07 01:11
trans-1,2-Dichloroethene		61.8	MNR1	ug/L	50.0	124%	74 - 127	1	21	7090635		09/05/07 01:11
cis-1,2-Dichloroethene		51.3	MNR1	ug/L	50.0	103%	71 - 126	1	16	7090635		09/05/07 01:11
1,3-Dichloropropane		54.5	MNR1	ug/L	50.0	109%	80 - 128	2	16	7090635		09/05/07 01:11
2,2-Dichloropropane		49.1	MNR1	ug/L	50.0	98%	25 - 156	2	16	7090635		09/05/07 01:11
1,2-Dichloropropane		48.8	MNR1	ug/L	50.0	98%	73 - 120	2	15	7090635		09/05/07 01:11
trans-1,3-Dichloropropene		51.6	MNR1	ug/L	50.0	103%	61 - 124	1	19	7090635		09/05/07 01:11
1,1-Dichloropropene		57.1	MNR1	ug/L	50.0	114%	79 - 138	2	17	7090635		09/05/07 01:11





Client Delta Environmental (Minnesota) / Shell 5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Volatile Organic Compounds by EPA	A Method 8	8260B										
7090635-BSD1												
cis-1,3-Dichloropropene		58.6	MNR1	ug/L	50.0	117%	70 - 135	1	19	7090635		09/05/07 01:11
Ethylbenzene		54.4	MNR1	ug/L	50.0	109%	73 - 134	2	15	7090635		09/05/07 01:11
Hexachlorobutadiene		64.8	MNR1	ug/L	50.0	130%	58 - 145	0.6	35	7090635		09/05/07 01:11
2-Hexanone		237	MNR1	ug/L	250	95%	72 - 136	2	18	7090635		09/05/07 01:11
Isopropylbenzene		57.6	MNR1	ug/L	50.0	115%	74 - 121	1	17	7090635		09/05/07 01:11
p-Isopropyltoluene		53.1	MNR1	ug/L	50.0	106%	70 - 133	1	21	7090635		09/05/07 01:11
Methyl Acetate		42.4	MNR1	ug/L	50.0	85%	58 - 185	12	21	7090635		09/05/07 01:11
Methyl tert-Butyl Ether		52.9	MNR1	ug/L	50.0	106%	69 - 122	1	16	7090635		09/05/07 01:11
Methylene Chloride		54.1	MNR1	ug/L	50.0	108%	75 - 127	1	19	7090635		09/05/07 01:11
4-Methyl-2-pentanone		237	MNR1	ug/L	250	95%	77 - 132	2	18	7090635		09/05/07 01:11
Naphthalene		36.5	MNR1	ug/L	50.0	73%	65 - 145	5	34	7090635		09/05/07 01:11
n-Propylbenzene		56.8	MNR1	ug/L	50.0	114%	76 - 133	1	18	7090635		09/05/07 01:11
Styrene		67.9	MNR1	ug/L	50.0	136%	80 - 145	1	22	7090635		09/05/07 01:11
1,1,2,2-Tetrachloroethane		43.8	MNR1	ug/L	50.0	88%	71 - 137	7	16	7090635		09/05/07 01:11
1,1,1,2-Tetrachloroethane		59.7	MNR1	ug/L	50.0	119%	72 - 136	4	16	7090635		09/05/07 01:11
Tetrachloroethene		57.8	MNR1	ug/L	50.0	116%	70 - 131	1	20	7090635		09/05/07 01:11
Toluene		54.2	MNR1	ug/L	50.0	108%	78 - 122	2	15	7090635		09/05/07 01:11
1,2,4-Trichlorobenzene		46.9	MNR1	ug/L	50.0	94%	63 - 140	3	26	7090635		09/05/07 01:11
1,2,3-Trichlorobenzene		46.2	MNR1	ug/L	50.0	92%	60 - 144	3	33	7090635		09/05/07 01:11
1,1,1-Trichloroethane		56.4	MNR1	ug/L	50.0	113%	69 - 128	2	17	7090635		09/05/07 01:11
1,1,2-Trichloroethane		54.8	MNR1	ug/L	50.0	110%	81 - 127	2	16	7090635		09/05/07 01:11
Trichloroethene		57.7	MNR1	ug/L	50.0	115%	73 - 133	3	17	7090635		09/05/07 01:11
Trichlorofluoromethane		51.2	MNR1	ug/L	50.0	102%	49 - 139	2	42	7090635		09/05/07 01:11
1,2,3-Trichloropropane		44.6	MNR1	ug/L	50.0	89%	52 - 151	2	18	7090635		09/05/07 01:11
1,3,5-Trimethylbenzene		58.4	MNR1	ug/L	50.0	117%	72 - 136	1	20	7090635		09/05/07 01:11
1,2,4-Trimethylbenzene		58.0	MNR1	ug/L	50.0	116%	73 - 134	2	18	7090635		09/05/07 01:11
Vinyl chloride		45.1	MNR1	ug/L	50.0	90%	54 - 137	3	50	7090635		09/05/07 01:11
o-Xylene		58.7	MNR1	ug/L	50.0	117%	79 - 130	0.7	16	7090635		09/05/07 01:11
m,p-Xylene		114	MNR1	ug/L	100	114%	79 - 131	1	16	7090635		09/05/07 01:11
Xylenes, total		172	MNR1	ug/L	150	115%	79 - 130	0.9	16	7090635		09/05/07 01:11
Surrogate: 1,2-Dichloroethane-d4		24.3		ug/L	25.0	97%	62 - 142			7090635		09/05/07 01:11
Surrogate: Dibromofluoromethane		22.9		ug/L	25.0	92%	78 - 123			7090635		09/05/07 01:11
Surrogate: Toluene-d8		25.0		ug/L	25.0	100%	79 - 120			7090635		09/05/07 01:11
Surrogate: 4-Bromofluorobenzene		22.8		ug/L	25.0	91%	75 - 133			7090635		09/05/07 01:11
7090635-BSD2												
Butyl acetate		484		ug/L	500	97%	12 - 172	17	50	7090635		09/05/07 02:00
Ethyl Acetate		635		ug/L	500	127%	12 - 172	19	50	7090635		09/05/07 02:00
Surrogate: 1,2-Dichloroethane-d4		32.6		ug/L	25.0	130%	62 - 142			7090635		09/05/07 02:00
Surrogate: Dibromofluoromethane		32.2	Z10	ug/L	25.0	129%	78 - 123			7090635		09/05/07 02:00
Surrogate: Toluene-d8		22.9		ug/L	25.0	92%	79 - 120			7090635		09/05/07 02:00





THE LEADER IN ENVIRONMENTAL TESTING 2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

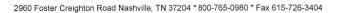
NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

Analyte	Orig. Val.	Duplicate	Q Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Volatile Organic Compounds by 1	EPA Method	8260B									
7090635-BSD2											
Surrogate: 4-Bromofluorobenzene		24.3	ug/L	25.0	97%	75 - 133			7090635		09/05/07 02:00
7091613-BSD1											
Tert-Amyl Methyl Ether		54.9	ug/L	50.0	110%	63 - 133	4	16	7091613		09/07/07 14:39
Acetone		265	ug/L	250	106%	63 - 147	4	22	7091613		09/07/07 14:39
Ethyl tert-Butyl Ether		53.9	ug/L	50.0	108%	65 - 126	2	16	7091613		09/07/07 14:39
Acrylonitrile		262	ug/L	250	105%	76 - 125	1	15	7091613		09/07/07 14:39
Diisopropyl Ether		51.7	ug/L	50.0	103%	74 - 120	4	17	7091613		09/07/07 14:39
Benzene		50.4	ug/L	50.0	101%	78 - 125	1	15	7091613		09/07/07 14:39
Tertiary Butyl Alcohol		640	ug/L	500	128%	33 - 181	17	20	7091613		09/07/07 14:39
Bromobenzene		48.7	ug/L	50.0	97%	71 - 142	3	17	7091613		09/07/07 14:39
Bromochloromethane		49.1	ug/L	50.0	98%	76 - 129	0.2	15	7091613		09/07/07 14:39
Bromodichloromethane		59.8	ug/L	50.0	120%	71 - 134	0.7	17	7091613		09/07/07 14:39
Bromoform		58.1	ug/L	50.0	116%	49 - 129	2	19	7091613		09/07/07 14:39
Bromomethane		44.4	ug/L	50.0	89%	42 - 154	1	41	7091613		09/07/07 14:39
2-Butanone		250	ug/L	250	100%	74 - 130	5	17	7091613		09/07/07 14:39
tert-Butylbenzene		51.3	ug/L	50.0	103%	79 - 128	1	20	7091613		09/07/07 14:39
n-Butylbenzene		47.9	ug/L	50.0	96%	68 - 138	2	23	7091613		09/07/07 14:39
sec-Butylbenzene		53.2	ug/L	50.0	106%	78 - 129	2	21	7091613		09/07/07 14:39
Carbon disulfide		52.6	ug/L	50.0	105%	65 - 122	0.5	50	7091613		09/07/07 14:39
Carbon Tetrachloride		58.2	ug/L	50.0	116%	62 - 142	0.3	18	7091613		09/07/07 14:39
Chlorobenzene		50.5	ug/L	50.0	101%	82 - 125	3	15	7091613		09/07/07 14:39
Chlorodibromomethane		51.1	ug/L	50.0	102%	67 - 135	2	18	7091613		09/07/07 14:39
Chloroethane		44.4	ug/L	50.0	89%	57 - 138	0.8	36	7091613		09/07/07 14:39
Chloroform		52.3	ug/L	50.0	105%	75 - 122	2	16	7091613		09/07/07 14:39
Chloromethane		36.5	ug/L	50.0	73%	31 - 147	5	46	7091613		09/07/07 14:39
2-Chlorotoluene		46.8	ug/L	50.0	94%	74 - 135	1	17	7091613		09/07/07 14:39
4-Chlorotoluene		45.9	ug/L	50.0	92%	74 - 133	0.5	16	7091613		09/07/07 14:39
1,2-Dibromo-3-chloropropane		52.6	ug/L	50.0	105%	45 - 140	2	20	7091613		09/07/07 14:39
1,2-Dibromoethane (EDB)		49.1	ug/L	50.0	98%	80 - 132	2	16	7091613		09/07/07 14:39
Dibromomethane		58.5	ug/L	50.0	117%	69 - 132	9	16	7091613		09/07/07 14:39
1,2-Dichlorobenzene		46.7	ug/L	50.0	93%	82 - 133	0.2	16	7091613		09/07/07 14:39
1,3-Dichlorobenzene		47.3	ug/L	50.0	95%	77 - 132	0.2	17	7091613		09/07/07 14:39
1,4-Dichlorobenzene		48.4	ug/L	50.0	97%	79 - 125	1	16	7091613		09/07/07 14:39
Dichlorodifluoromethane		31.8	ug/L	50.0	64%	34 - 120	2	21	7091613		09/07/07 14:39
1,2-Dichloroethane		57.8	ug/L	50.0	116%	64 - 134	0.5	19	7091613		09/07/07 14:39
1,1-Dichloroethane		52.0	ug/L	50.0	104%	79 - 120	0.8	17	7091613		09/07/07 14:39
1,1-Dichloroethene		54.5	ug/L	50.0	109%	71 - 123	2	34	7091613		09/07/07 14:39
trans-1,2-Dichloroethene		54.4	ug/L	50.0	109%	74 - 127	0.7	21	7091613		09/07/07 14:39
cis-1,2-Dichloroethene		54.0	ug/L	50.0	108%	71 - 126	3	16	7091613		09/07/07 14:39
1,3-Dichloropropane		51.0	ug/L	50.0	102%	80 - 128	1	16	7091613		09/07/07 14:39





Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

1.2.Dichlorogropane	Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
1.2.   1.2.	Volatile Organic Compounds by I	EPA Method 8	3260B										
1.2.   1.2.	7091613-BSD1												
trains-1,3-Dichlotopropene			56.2		ug/L	50.0	112%	25 - 156	2	16	7091613		09/07/07 14:39
1,1-Dichloropropene   \$2.6   ug/L   \$0.0   105%   79-138   1   7   7091613   909707   14.35	1,2-Dichloropropane		44.1		ug/L	50.0	88%	73 - 120	2	15	7091613		09/07/07 14:39
Section   Sect	trans-1,3-Dichloropropene		55.3		ug/L	50.0	111%	61 - 124	1	19	7091613		09/07/07 14:39
Ethylbenzene 50.1 ug/L 50.0 10% 73 -134 3 15 7091613 090707 14.35 14.24 Lexandrobutadicine 54.6 ug/L 50.0 10% 73 -134 3 15 7091613 090707 14.35 14.25	1,1-Dichloropropene		52.6		ug/L	50.0	105%	79 - 138	1	17	7091613		09/07/07 14:39
Hexachlorobitadiene	cis-1,3-Dichloropropene		52.2		ug/L	50.0	104%	70 - 135	0.3	19	7091613		09/07/07 14:39
2-He-kamone 238 wg/L 250 95% 72-136 5 18 7091613 090707 14.35 [aspropylbarzane 50.6 wg/L 50.0 101% 74-121 1 1 7 7091613 090707 14.35 [aspropylbarzane 50.6 wg/L 50.0 101% 74-121 1 1 7 7091613 090707 14.35 [aspropylbarzane 52.2 wg/L 50.0 105% 69-122 4 1 16 7091613 090707 14.35 [aspropylbarzane 52.5 wg/L 50.0 105% 69-122 4 1 16 7091613 090707 14.35 [aspropylbarzane 52.5 wg/L 50.0 105% 69-122 4 1 16 7091613 090707 14.35 [aspropylbarzane 52.5 wg/L 50.0 105% 69-122 4 1 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 125% 75-127 0.5 18 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 125% 75-127 0.5 18 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 125% 75-127 0.5 18 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 975% 76-133 2 1 18 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 975% 76-133 2 1 18 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 975% 76-133 2 2 18 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 975% 76-133 2 2 18 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 975% 76-133 2 2 18 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 wg/L 50.0 125% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95% 72-136 0.7 16 7091613 090707 14.35 [aspropylbarzane 55.0 wg/L 50.0 95	Ethylbenzene		50.1		ug/L	50.0	100%	73 - 134	3	15	7091613		09/07/07 14:39
Sopropylebanzene   50.6   wg/L   wg	Hexachlorobutadiene		54.6		ug/L	50.0	109%	58 - 145	2	35	7091613		09/07/07 14:39
p-isspropyloluene   \$2.2   ug/L   \$0.0   104%   70 - 133   2   2   1   7091613   09007/07   14.35   Methyl terb-Buryl Ether   \$2.5   ug/L   \$0.0   105%   69 - 122   4   16   7091613   09007/07   14.35   4-Methyle-Chloride   \$5.2   ug/L   \$0.0   112%   65 - 145   0.8   34   7091613   09007/07   14.35   4-Methyle-Chloride   \$5.0   ug/L   \$0.0   112%   65 - 145   0.8   34   7091613   09007/07   14.35   4-Methyle-Chloride   \$5.0   ug/L   \$0.0   112%   65 - 145   0.8   34   7091613   09007/07   14.35   4-Methyle-Chloride   \$5.0   ug/L   \$0.0   112%   65 - 145   0.8   34   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   108%   80 - 143   2.2   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   108%   80 - 143   2.2   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   108%   80 - 143   2.2   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   108%   80 - 143   3.2   2.2   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   108%   80 - 143   3.2   2.2   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   108%   80 - 143   3.2   2.2   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   108%   80 - 142   3.3   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   108%   80 - 142   3.3   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   108%   80 - 142   3.3   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   103%   80 - 142   3.3   7091613   09007/07   14.35   4-Methyle-Chloride   \$4.5   ug/L   \$0.0   103%   80 - 142   10   10   10   10   10   10   10   1	2-Hexanone		238		ug/L	250	95%	72 - 136	5	18	7091613		09/07/07 14:39
Methyl tert-Buryl Ether	Isopropylbenzene		50.6		ug/L	50.0	101%	74 - 121	1	17	7091613		09/07/07 14:39
Methylene Chloride 56.2 ugl. 50. 112% 75-127 0.5 19 7091613 090707 14:35 4:46thylene Chloride 244 ugl. 250 98% 77-132 5. 18 7091613 090707 14:35 Naphthalene 56.0 ugl. 50. 18% 77-132 5. 18 7091613 090707 14:35 Naphthalene 56.0 ugl. 50. 18% 77-132 5. 18 7091613 090707 14:35 Syrene 54.0 ugl. 50. 18% 80-145 3. 2 18 7091613 090707 14:35 Syrene 54.0 ugl. 50. 18% 80-145 3. 2 18 7091613 090707 14:35 Syrene 64.8 ugl. 50. 18% 80-145 3. 2 18 7091613 090707 14:35 Syrene 66.1 ugl. 50. 18% 80-145 3. 2 18 7091613 090707 14:35 Tetrachlorocthane 60.1 ugl. 50. 18% 80-145 3. 2 2 7091613 090707 14:35 Tetrachlorocthane 48.9 ugl. 50. 98% 71-137 6. 16 7091613 090707 14:35 Tetrachlorocthane 48.9 ugl. 50. 98% 70-131 3. 2 0 7091613 090707 14:35 Tetrachlorocthane 49.7 ugl. 50. 98% 78-122 8. 15 7091613 090707 14:35 Tetrachlorocthane 49.7 ugl. 50. 98% 70-131 3. 2 0 7091613 090707 14:35 Tetrachlorocthane 51.0 ugl. 50. 98% 70-131 3. 2 0 7091613 090707 14:35 Tetrachlorocthane 55.9 ugl. 50. 98% 70-131 3. 2 0 7091613 090707 14:35 Tetrachlorocthane 55.9 ugl. 50. 112% 60-144 2. 3 3 7091613 090707 14:35 Trichlorocthane 55.9 ugl. 50. 112% 60-144 2. 3 3 7091613 090707 14:35 Trichlorocthane 55.9 ugl. 50. 112% 60-144 2. 3 3 7091613 090707 14:35 1,1,2-Trichlorocthane 57.2 ugl. 50. 112% 60-144 2. 3 3 7091613 090707 14:35 1,1,2-Trichlorocthane 57.2 ugl. 50. 112% 60-144 2. 3 3 7091613 090707 14:35 1,1,3-Trichlorocthane 57.2 ugl. 50. 112% 60-144 2. 3 3 7091613 090707 14:35 1,1,3-Trichlorocthane 49.3 ugl. 50. 98% 72-136 2. 2 0 7091613 090707 14:35 1,1,3-Trimethylbenzene 49.3 ugl. 50. 98% 72-136 2. 2 0 7091613 090707 14:35 1,1,3-Trimethylbenzene 49.3 ugl. 50. 98% 72-136 2. 2 0 7091613 090707 14:35 1,1,3-Trimethylbenzene 49.3 ugl. 50. 98% 72-136 2. 2 0 7091613 090707 14:35 1,1,3-Trimethylbenzene 49.3 ugl. 50. 98% 72-136 2. 2 0 7091613 090707 14:35 1,1,3-Trimethylbenzene 49.3 ugl. 50. 98% 72-136 2. 2 0 7091613 090707 14:35 1,1,3-Trimethylbenzene 49.3 ugl. 50. 98% 72-136 2. 2 0 7091613 090707 14:35 1,1,3-Trimethylbenzene 49. 3 ugl. 50. 98% 72-136 2. 2 0 7091613	p-Isopropyltoluene		52.2		ug/L	50.0	104%	70 - 133	2	21	7091613		09/07/07 14:39
4. Medhyl-2-pentanone	Methyl tert-Butyl Ether		52.5		ug/L	50.0	105%	69 - 122	4	16	7091613		09/07/07 14:39
Naphthalene	Methylene Chloride		56.2		ug/L	50.0	112%	75 - 127	0.5	19	7091613		09/07/07 14:39
n-Propylbenzene 48.5 ug/L 50.0 97% 76-133 2 18 7091613 0907/07 14:35 Syrene 54.0 ug/L 50.0 108% 80-145 3 22 7091613 0907/07 14:35 11,12,2-Tetrachloroethane 49.5 ug/L 50.0 108% 80-145 3 22 7091613 0907/07 14:35 11,12,2-Tetrachloroethane 60.1 ug/L 50.0 108% 70-131 3 20 7091613 0907/07 14:35 Tetrachloroethane 48.9 ug/L 50.0 98% 70-131 3 20 7091613 0907/07 14:35 Tetrachloroethane 48.9 ug/L 50.0 98% 70-131 3 20 7091613 0907/07 14:35 Tetrachloroethane 47.6 ug/L 50.0 108% 80-145 20 88 15 7091613 0907/07 14:35 Tetrachloroethane 47.6 ug/L 50.0 108% 80-140 0.1 26 7091613 0907/07 14:35 11,12-Tichloroethane 55.9 ug/L 50.0 108% 81-127 0.9 16 7091613 0907/07 14:35 11,12-Tichloroethane 55.9 ug/L 50.0 108% 81-127 0.9 16 7091613 0907/07 14:35 11,12-Tichloroethane 55.0 ug/L 50.0 108% 81-127 0.9 16 7091613 0907/07 14:35 11,12-Tichloroethane 55.2 ug/L 50.0 108% 81-127 0.9 16 7091613 0907/07 14:35 11,12-Tichloroethane 57.2 ug/L 50.0 108% 81-127 0.9 16 7091613 0907/07 14:35 11,12-Tichloroethane 57.2 ug/L 50.0 108% 81-127 0.9 16 7091613 0907/07 14:35 11,13-Tichloroptopane 46.8 ug/L 50.0 108% 82 12 10 108% 82 12 10 108% 82 12 10 108% 82 12 12 12 12 12 12 12 12 12 12 12 12 12	4-Methyl-2-pentanone		244		ug/L	250	98%	77 - 132	5	18	7091613		09/07/07 14:39
Syrene   \$4.0   \text{ug/L}   \$50.0   \$10.8 \text{ 80 - 145}   \$3   \$22   \$7091613   \$090707   \$14.35   \$1,1,2,2-Tetrachloroethane   \$49.5   \text{ug/L}   \$50.0   \$99.0   \$71-137   \$6   \$16   \$7091613   \$090707   \$14.35   \$1,1,1,2-Tetrachloroethane   \$60.1   \text{ug/L}   \$50.0   \$10.0   \$72-136   \$0.7   \$16   \$7091613   \$090707   \$14.35   \$1,1,1,2-Tetrachloroethane   \$48.9   \text{ug/L}   \$50.0   \$99.0   \$71-137   \$0.0   \$1.0   \$7091613   \$090707   \$14.35   \$1000   \$1000   \$1.0	Naphthalene		56.0		ug/L	50.0	112%	65 - 145	0.8	34	7091613		09/07/07 14:39
1,1,2,2-Tetrachloroethane 1,1,1,2-Tetrachloroethane 1,1,1,2-Tetrachlor	n-Propylbenzene		48.5		ug/L	50.0	97%	76 - 133	2	18	7091613		09/07/07 14:39
1,1,1,2-Tertachloroethane	Styrene		54.0		ug/L	50.0	108%	80 - 145	3	22	7091613		09/07/07 14:39
Tetrachloroethene 48.9 ug/L 50.0 98% 70-131 3 20 7091613 09/07/07 14:35 Toluene 49.7 ug/L 50.0 99% 78-122 0.8 15 7091613 09/07/07 14:35 1,2,4-Trichlorobenzene 47.6 ug/L 50.0 95% 63-140 0.1 26 7091613 09/07/07 14:35 1,2,3-Trichlorobenzene 51.0 ug/L 50.0 102% 60-144 2 33 7091613 09/07/07 14:35 1,1,1-Trichloroethane 55.9 ug/L 50.0 102% 60-144 2 33 7091613 09/07/07 14:35 1,1,1-Trichloroethane 55.9 ug/L 50.0 103% 81-127 0.9 16 7091613 09/07/07 14:35 1,1,2-Trichloroethane 52.1 ug/L 50.0 104% 73-133 0.6 17 7091613 09/07/07 14:35 1,2,3-Trichloroptopane 46.8 ug/L 50.0 104% 73-133 0.6 17 7091613 09/07/07 14:35 1,2,3-Trichloroptopane 46.8 ug/L 50.0 104% 73-133 0.6 17 7091613 09/07/07 14:35 1,3,5-Trinethylbenzene 49.3 ug/L 50.0 94% 52-151 4 18 7091613 09/07/07 14:35 1,3,4-Trimethylbenzene 50.4 ug/L 50.0 99% 72-136 2 20 7091613 09/07/07 14:35 1,3,4-Trimethylbenzene 50.4 ug/L 50.0 103% 73-134 0.04 18 7091613 09/07/07 14:35 1,3,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 40.0 ug/L 50.0 80% 54-	1,1,2,2-Tetrachloroethane		49.5		ug/L	50.0	99%	71 - 137	6	16	7091613		09/07/07 14:39
Toluene 49,7 ug/L 50,0 99% 78-122 0.8 15 7091613 09/07/07 14:35 1,2,4-Trichlorobenzene 47.6 ug/L 50,0 95% 63-140 0.1 26 7091613 09/07/07 14:35 1,2,3-Trichlorobenzene 51.0 ug/L 50,0 102% 60-144 2 33 7091613 09/07/07 14:35 1,1,1-Trichloroethane 55.9 ug/L 50,0 112% 69-128 4 17 7091613 09/07/07 14:35 1,1,1-Trichloroethane 51.6 ug/L 50,0 103% 81-127 0.9 16 7091613 09/07/07 14:35 Trichloroethane 52.1 ug/L 50,0 104% 73-133 0.6 17 7091613 09/07/07 14:35 Trichloroethane 57.2 ug/L 50,0 104% 73-133 0.6 17 7091613 09/07/07 14:35 Trichloroptopane 46.8 ug/L 50,0 94% 52-151 4 18 7091613 09/07/07 14:35 1,1,2-Trimethylbenzene 49,3 ug/L 50,0 99% 72-136 2 20 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 50,4 ug/L 50,0 99% 72-136 2 20 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 50,4 ug/L 50,0 80% 54-137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 50,4 ug/L 50,0 80% 54-137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40,0 ug/L 50,0 80% 54-137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40,0 ug/L 50,0 80% 54-137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40,0 ug/L 50,0 80% 54-137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40,0 ug/L 50,0 80% 54-137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40,0 ug/L 50,0 80% 54-137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40,0 ug/L 50,0 80% 54-137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 42,8 ug/L 25,0 99% 78-123 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 42,8 ug/L 25,0 99% 78-123 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 42,8 ug/L 25,0 99% 78-123 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 42,8 ug/L 25,0 99% 78-123 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 42,8 ug/L 25,0 99% 78-123 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 42,8 ug/L 25,0 99% 78-123 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 42,8 ug/L 25,0 99% 78-123 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 42,8 ug/L 25,0 99% 78-123 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 42,8 ug/L 25,0 99% 78-123 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 42,8 ug/L 2	1,1,1,2-Tetrachloroethane		60.1		ug/L	50.0	120%	72 - 136	0.7	16	7091613		09/07/07 14:39
1,2,4-Trichlorobenzene	Tetrachloroethene		48.9		ug/L	50.0	98%	70 - 131	3	20	7091613		09/07/07 14:39
1,2,3-Trichlorobenzene   51,0   ug/L   50,0   102%   60 - 144   2   33   7091613   09/07/07   14:35   1,1,1-Trichloroethane   55,9   ug/L   50,0   112%   69 - 128   4   17   7091613   09/07/07   14:35   1,1,2-Trichloroethane   51,6   ug/L   50,0   103%   81 - 127   0.9   16   7091613   09/07/07   14:35   1,1,2-Trichloroethane   52,1   ug/L   50,0   104%   73 - 133   0.6   17   7091613   09/07/07   14:35   1,2,3-Trichloroptomethane   57,2   ug/L   50,0   114%   49 - 139   0.8   42   7091613   09/07/07   14:35   1,2,3-Trichloroptomethane   46,8   ug/L   50,0   94%   52 - 151   4   18   7091613   09/07/07   14:35   1,3,3-Trimethylbenzene   49,3   ug/L   50,0   99%   72 - 136   2   20   7091613   09/07/07   14:35   1,2,4-Trimethylbenzene   50,4   ug/L   50,0   101%   73 - 134   0.04   18   7091613   09/07/07   14:35   1,2,4-Trimethylbenzene   40,0   ug/L   50,0   101%   73 - 134   0.04   18   7091613   09/07/07   14:35   1,2,4-Trimethylbenzene   40,0   ug/L   50,0   101%   73 - 134   0.04   18   7091613   09/07/07   14:35   1,2,2-Dichloroethane-d4   25,4   ug/L   150   103%   79 - 130   2   16   7091613   09/07/07   14:35   1,2-Dichloroethane-d4   25,4   ug/L   25,0   102%   62 - 142   7091613   09/07/07   14:35   1,2-Dichloroethane-d8   23,4   ug/L   25,0   99%   78 - 123   7091613   09/07/07   14:35   1,2-Dichloroethane-d8   23,4   ug/L   25,0   99%   75 - 133   7091613   09/07/07   14:35   1,2-Dichloroethane-d8   23,4   ug/L   25,0   99%   75 - 133   7091613   09/07/07   14:35    Purgeable Petroleum Hydrocarbons   7090564-BSD1	Toluene		49.7		ug/L	50.0	99%	78 - 122	0.8	15	7091613		09/07/07 14:39
1,2,3-Trichlorobenzene 51.0 ug/L 50.0 102% 60 - 144 2 33 7091613 09/07/07 14:35 1,1-Trichloroethane 55.9 ug/L 50.0 112% 69 - 128 4 17 7091613 09/07/07 14:35 1,1-Trichloroethane 51.6 ug/L 50.0 103% 81 - 127 0.9 16 7091613 09/07/07 14:35 1,1-Trichloroethane 52.1 ug/L 50.0 104% 73 - 133 0.6 17 7091613 09/07/07 14:35 1,2-Trichloropthane 57.2 ug/L 50.0 144% 49 - 139 0.8 42 7091613 09/07/07 14:35 1,3-Trichloropthane 46.8 ug/L 50.0 94% 52 - 151 4 18 7091613 09/07/07 14:35 1,3-Trimethylbenzene 49.3 ug/L 50.0 99% 72 - 136 2 20 7091613 09/07/07 14:35 1,2-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:35 1,3-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:35 1	1,2,4-Trichlorobenzene		47.6		ug/L	50.0	95%	63 - 140	0.1	26	7091613		09/07/07 14:39
1,1,1-Trichloroethane 55.9 ug/L 50.0 112% 69 - 128 4 17 7091613 09/07/07 14:35 1,1,2-Trichloroethane 51.6 ug/L 50.0 103% 81 - 127 0.9 16 7091613 09/07/07 14:35 17ichloroethane 52.1 ug/L 50.0 104% 73 - 133 0.6 17 7091613 09/07/07 14:35 17ichloroethane 57.2 ug/L 50.0 114% 49 - 139 0.8 42 7091613 09/07/07 14:35 1,2,3-Trichloroptopane 46.8 ug/L 50.0 94% 52 - 151 4 18 7091613 09/07/07 14:35 1,3,5-Trimethylbenzene 49.3 ug/L 50.0 99% 72 - 136 2 20 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 50.4 ug/L 50.0 101% 73 - 134 0.04 18 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:35 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 102% 62 - 14			51.0		ug/L	50.0	102%	60 - 144	2	33	7091613		09/07/07 14:39
1,1,2-Trichloroethane 51.6 ug/L 50.0 103% 81-127 0.9 16 7091613 09/07/07 14:39 Trichloroethane 52.1 ug/L 50.0 104% 73-133 0.6 17 7091613 09/07/07 14:39 Trichlorofluoromethane 57.2 ug/L 50.0 114% 49-139 0.8 42 7091613 09/07/07 14:39 1,2,3-Trichloropropane 46.8 ug/L 50.0 94% 52-151 4 18 7091613 09/07/07 14:39 1,3,5-Trimethylbenzene 49.3 ug/L 50.0 99% 72-136 2 20 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 50.4 ug/L 50.0 101% 73-134 0.04 18 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:39 Xylenes, total 154 ug/L 150 103% 79-130 2 16 7091613 09/07/07 14:39 Surrogate: 1,2-Dichloroethane-d4 25.4 ug/L 25.0 102% 62-142 7091613 09/07/07 14:39 Surrogate: Dibromofluoromethane 24.8 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 Surrogate: Toluene-d8 23.4 ug/L 25.0 99% 75-133 7091613 09/07/07 14:39 Surrogate: 4-Bromofluorobenzene 22.5 ug/L 25.0 90% 75-133 7091613 09/07/07 14:39  Purgeable Petroleum Hydrocarbons 7090564-BSD1 GRO (C4-C12) NW 829 ug/L 1000 83% 66-125 2 27 7090564 09/06/07 03:36			55.9			50.0	112%	69 - 128	4	17	7091613		09/07/07 14:39
Trichloroethene 52.1 ug/L 50.0 104% 73 - 133 0.6 17 7091613 09/07/07 14:39 Trichlorofluoromethane 57.2 ug/L 50.0 114% 49 - 139 0.8 42 7091613 09/07/07 14:39 1,2,3-Trichloropropane 46.8 ug/L 50.0 94% 52 - 151 4 18 7091613 09/07/07 14:39 1,3,5-Trimethylbenzene 50.4 ug/L 50.0 99% 72 - 136 2 20 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 50.4 ug/L 50.0 101% 73 - 134 0.04 18 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78 - 120 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78 - 123 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78 - 120 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 75 - 133 5 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 2	1,1,2-Trichloroethane		51.6		ug/L	50.0	103%	81 - 127	0.9	16	7091613		09/07/07 14:39
Trichlorofluoromethane 57.2 ug/L 50.0 114% 49-139 0.8 42 7091613 09/07/07 14:39 1,2,3-Trichloropropane 46.8 ug/L 50.0 94% 52-151 4 18 7091613 09/07/07 14:39 1,3,5-Trimethylbenzene 49.3 ug/L 50.0 99% 72-136 2 20 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 50.4 ug/L 50.0 101% 73-134 0.04 18 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 50.0 80% 54-137 2 50 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 ug/L 25.0 99% 78-123 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 40.0 ug/L 25.0 ug/L 2	Trichloroethene		52.1		ug/L	50.0	104%	73 - 133	0.6	17	7091613		09/07/07 14:39
1,3,5-Trimethylbenzene 49.3 ug/L 50.0 99% 72 - 136 2 20 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 50.4 ug/L 50.0 101% 73 - 134 0.04 18 7091613 09/07/07 14:39 Vinyl chloride 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:39 Xylenes, total 154 ug/L 150 103% 79 - 130 2 16 7091613 09/07/07 14:39 Surrogate: 1,2-Dichloroethane-d4 25.4 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:39 Surrogate: Dibromofluoromethane 24.8 ug/L 25.0 99% 78 - 123 7091613 09/07/07 14:39 Surrogate: Toluene-d8 23.4 ug/L 25.0 94% 79 - 120 7091613 09/07/07 14:39 Surrogate: 4-Bromofluorobenzene 22.5 ug/L 25.0 90% 75 - 133 7091613 09/07/07 14:39  Purgeable Petroleum Hydrocarbons 7090564-BSD1 GRO (C4-C12) NW 829 ug/L 1000 83% 66 - 125 2 27 7090564 09/06/07 03:36	Trichlorofluoromethane		57.2			50.0	114%	49 - 139	0.8	42	7091613		09/07/07 14:39
1,3,5-Trimethylbenzene 49.3 ug/L 50.0 99% 72 - 136 2 20 7091613 09/07/07 14:39 1,2,4-Trimethylbenzene 50.4 ug/L 50.0 101% 73 - 134 0.04 18 7091613 09/07/07 14:39 Vinyl chloride 40.0 ug/L 50.0 80% 54 - 137 2 50 7091613 09/07/07 14:39 Xylenes, total 154 ug/L 150 103% 79 - 130 2 16 7091613 09/07/07 14:39 Surrogate: 1,2-Dichloroethane-d4 25.4 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:39 Surrogate: Dibromofluoromethane 24.8 ug/L 25.0 99% 78 - 123 7091613 09/07/07 14:39 Surrogate: Toluene-d8 23.4 ug/L 25.0 94% 79 - 120 7091613 09/07/07 14:39 Surrogate: 4-Bromofluorobenzene 22.5 ug/L 25.0 90% 75 - 133 7091613 09/07/07 14:39  Purgeable Petroleum Hydrocarbons 7090564-BSD1 GRO (C4-C12) NW 829 ug/L 1000 83% 66 - 125 2 27 7090564 09/06/07 03:36	1,2,3-Trichloropropane		46.8		ug/L	50.0	94%	52 - 151	4	18	7091613		09/07/07 14:39
Vinyl chloride  Vinyl chloride  Vinyl chloride  Xylenes, total  Xylenes, total  Surrogate: 1,2-Dichloroethane-d4  25.4  ug/L  25.0  102%  62 - 142  7091613  09/07/07 14:39  Surrogate: Dibromofluoromethane  24.8  ug/L  25.0  102%  62 - 142  7091613  09/07/07 14:39  Surrogate: Toluene-d8  Surrogate: Toluene-d8  Surrogate: 4-Bromofluorobenzene  22.5  ug/L  25.0  90%  75 - 133  7091613  09/07/07 14:39  7091613  09/07/07 14:39  7091613  09/07/07 14:39  7091613  09/07/07 14:39  7091613  09/07/07 14:39  7091613  09/07/07 14:39  7091613  09/07/07 14:39  7091614  7091615  7091616  7091616  7091617  7091618  7091618  7091619	1,3,5-Trimethylbenzene		49.3		ug/L	50.0	99%	72 - 136	2	20	7091613		09/07/07 14:39
Xylenes, total 154 ug/L 150 103% 79 - 130 2 16 7091613 09/07/07 14:39 Surrogate: 1,2-Dichloroethane-d4 25.4 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:39 Surrogate: Dibromofluoromethane 24.8 ug/L 25.0 99% 78 - 123 7091613 09/07/07 14:39 Surrogate: Toluene-d8 23.4 ug/L 25.0 94% 79 - 120 7091613 09/07/07 14:39 Surrogate: 4-Bromofluorobenzene 22.5 ug/L 25.0 90% 75 - 133 7091613 09/07/07 14:39  Purgeable Petroleum Hydrocarbons 7090564-BSD1 GRO (C4-C12) NW 829 ug/L 1000 83% 66 - 125 2 27 7090564 09/06/07 03:36	1,2,4-Trimethylbenzene		50.4		ug/L	50.0	101%	73 - 134	0.04	18	7091613		09/07/07 14:39
Surrogate: 1,2-Dichloroethane-d4 25.4 ug/L 25.0 102% 62 - 142 7091613 09/07/07 14:39 Surrogate: Dibromofluoromethane 24.8 ug/L 25.0 99% 78 - 123 7091613 09/07/07 14:39 Surrogate: Toluene-d8 23.4 ug/L 25.0 94% 79 - 120 7091613 09/07/07 14:39 Surrogate: 4-Bromofluorobenzene 22.5 ug/L 25.0 90% 75 - 133 7091613 09/07/07 14:39  Purgeable Petroleum Hydrocarbons 7090564-BSD1 GRO (C4-C12) NW 829 ug/L 1000 83% 66 - 125 2 27 7090564 09/06/07 03:36			40.0		ug/L	50.0	80%	54 - 137	2	50	7091613		09/07/07 14:39
Surrogate: Dibromofluoromethane 24.8 ug/L 25.0 99% 78 - 123 7091613 09/07/07 14:39 Surrogate: Toluene-d8 23.4 ug/L 25.0 94% 79 - 120 7091613 09/07/07 14:39 Surrogate: 4-Bromofluorobenzene 22.5 ug/L 25.0 90% 75 - 133 7091613 09/07/07 14:39  Purgeable Petroleum Hydrocarbons 7090564-BSD1 GRO (C4-C12) NW 829 ug/L 1000 83% 66 - 125 2 27 7090564 09/06/07 03:36	Xylenes, total		154		ug/L	150	103%	79 - 130	2	16	7091613		09/07/07 14:39
Surrogate: Toluene-d8 23.4 ug/L 25.0 94% 79 - 120 7091613 09/07/07 14:39 Surrogate: 4-Bromofluorobenzene 22.5 ug/L 25.0 90% 75 - 133 7091613 09/07/07 14:39  Purgeable Petroleum Hydrocarbons 7090564-BSD1 GRO (C4-C12) NW 829 ug/L 1000 83% 66 - 125 2 27 7090564 09/06/07 03:36	Surrogate: 1,2-Dichloroethane-d4		25.4		ug/L	25.0	102%	62 - 142			7091613		09/07/07 14:39
Surrogate: Toluene-d8 23.4 ug/L 25.0 94% 79 - 120 7091613 09/07/07 14:39 Surrogate: 4-Bromofluorobenzene 22.5 ug/L 25.0 90% 75 - 133 7091613 09/07/07 14:39  Purgeable Petroleum Hydrocarbons 7090564-BSD1 GRO (C4-C12) NW 829 ug/L 1000 83% 66 - 125 2 27 7090564 09/06/07 03:36			24.8			25.0	99%	78 - 123			7091613		09/07/07 14:39
Surrogate: 4-Bromofluorobenzene       22.5       ug/L       25.0       90%       75 - 133       7091613       09/07/07       14:39         Purgeable Petroleum Hydrocarbons         7090564-BSD1         GRO (C4-C12) NW       829       ug/L       1000       83%       66 - 125       2       27       7090564       09/06/07       03:36			23.4			25.0	94%	79 - 120			7091613		09/07/07 14:39
<b>7090564-BSD1</b> GRO (C4-C12) NW 829 ug/L 1000 83% 66 - 125 2 27 7090564 09/06/07 03:36						25.0	90%	75 - 133			7091613		09/07/07 14:39
<b>7090564-BSD1</b> GRO (C4-C12) NW 829 ug/L 1000 83% 66 - 125 2 27 7090564 09/06/07 03:36	Purgeable Petroleum Hydrocarbo	ns											
GRO (C4-C12) NW 829 ug/L 1000 83% 66 - 125 2 27 7090564 09/06/07 03:36													
			829		ug/L	1000	83%	66 - 125	2	27	7090564		09/06/07 03:36
	Surrogate: a,a,a-Trifluorotoluene		37.1		ug/L	30.0	124%	46 - 153			7090564		09/06/07 03:36



#### THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons												
7090564-BSD2 GRO (C4-C12) NW Surrogate: a,a,a-Trifluorotoluene		821 37.1		ug/L ug/L	1000	82% 124%	66 - 125 46 - 153	3	27	7090564 7090564		09/06/07 09:15 09/06/07 09:15
7090910-BSD2		2112		8-								
GRO (C4-C12) NW Surrogate: a,a,a-Trifluorotoluene		11.2 33.5		mg/kg ug/L	10.0 30.0	112% 112%	72 - 126 52 - 145	20	37	7090910 7090910		09/06/07 19:42 09/06/07 19:42





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

#### PROJECT QUALITY CONTROL DATA Matrix Spike

						Target		Sample	Analyzed
Analyte	Orig. Val.	MS Val	Q Units	Spike Conc	% Rec.	Range	Batch	Spiked	Date/Time
Total Metals by EPA Method 6010	В								
7085913-MS1									
Lead	4.91	93.4	mg/kg	97.7	91%	75 - 125	7085913	NQH3510-02	09/07/07 06:32
	(010B								
Dissolved Metals by EPA Method (	9010B								
<b>7090249-MS1</b> Lead	ND	0.0469	mg/L	0.0500	94%	75 - 125	7090249	NQH3676-07	09/06/07 00:51
Leau	ND	0.0409	mg/L	0.0300	3170	70 120	7070217	112115070 07	0,700,07
Volatile Organic Compounds by E	PA Method 8260	)B							
7090348-MS1									
Tertiary Butyl Alcohol	ND	339	ug/kg	500	68%	10 - 167	7090348	NQI0151-07	09/08/07 07:54
Diisopropyl Ether	ND	35.9	ug/kg	50.0	72%	43 - 131	7090348	NQI0151-07	09/08/07 07:54
Ethyl tert-Butyl Ether	ND	34.8	ug/kg	50.0	70%	45 - 136	7090348	NQI0151-07	09/08/07 07:54
Tert-Amyl Methyl Ether	ND	32.8	ug/kg	50.0	66%	37 - 149	7090348	NQI0151-07	09/08/07 07:54
Benzene	ND	45.2	ug/kg	50.0	90%	41 - 134	7090348	NQI0151-07	09/08/07 07:54
1,2-Dibromoethane (EDB)	ND	38.1	ug/kg	50.0	76%	33 - 147	7090348	NQI0151-07	09/08/07 07:54
1,2-Dichloroethane	ND	40.3	ug/kg	50.0	81%	39 - 143	7090348	NQI0151-07	09/08/07 07:54
Ethylbenzene	ND	45.0	ug/kg	50.0	90%	27 - 143	7090348	NQI0151-07	09/08/07 07:54
Isopropylbenzene	ND	42.7	ug/kg	50.0	85%	20 - 140	7090348	NQI0151-07	09/08/07 07:54
Methyl tert-Butyl Ether	ND	31.8	ug/kg	50.0	64%	26 - 147	7090348	NQI0151-07	09/08/07 07:54
n-Propylbenzene	ND	37.5	ug/kg	50.0	75%	12 - 160	7090348	NQI0151-07	09/08/07 07:54
Toluene	ND	46.6	ug/kg	50.0	93%	31 - 145	7090348	NQI0151-07	09/08/07 07:54
1,3,5-Trimethylbenzene	ND	40.8	ug/kg	50.0	82%	15 - 157	7090348	NQI0151-07	09/08/07 07:54
1,2,4-Trimethylbenzene	ND	38.9	ug/kg	50.0	78%	10 - 156	7090348	NQI0151-07	09/08/07 07:54
Xylenes, total	ND	136	ug/kg	150	91%	27 - 140	7090348	NQI0151-07	09/08/07 07:54
Surrogate: 1,2-Dichloroethane-d4		50.7	ug/kg	50.0	101%	54 - 145	7090348	NQI0151-07	09/08/07 07:54
Surrogate: Dibromofluoromethane		52.8	ug/kg	50.0	106%	67 - 129	7090348	NQI0151-07	09/08/07 07:54
Surrogate: Toluene-d8		50.0	ug/kg	50.0	100%	66 - 142	7090348	NQI0151-07	09/08/07 07:54
Surrogate: 4-Bromofluorobenzene		47.3	ug/kg	50.0	95%	68 - 150	7090348	NQI0151-07	09/08/07 07:54
Polyaromatic Hydrocarbons by EP	A 8270C SIM								
7085875-MS1									
Acenaphthene	ND	0.0236	mg/kg	0.0323	73%	43 - 114	7085875	NQH2677-02R E1	09/02/07 23:49
Acenaphthylene	ND	0.0265	mg/kg	0.0323	82%	44 - 118	7085875	NQH2677-02R E1	09/02/07 23:49
Anthracene	ND	0.0294	mg/kg	0.0323	91%	45 - 139	7085875	NQH2677-02R E1	09/02/07 23:49
Benzo (a) anthracene	ND	0.0313	mg/kg	0.0323	97%	39 - 122	7085875	NQH2677-02R E1	09/02/07 23:49
Benzo (a) pyrene	ND	0.0255	mg/kg	0.0323	79%	41 - 117	7085875	NQH2677-02R E1	09/02/07 23:49





#### THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

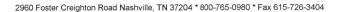
SAP 121704

Received:

08/30/07 08:10

#### PROJECT QUALITY CONTROL DATA Matrix Spike - Cont.

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Polyaromatic Hydrocarbons by EPA 8	270C SIM									
7085875-MS1										
Benzo (b) fluoranthene	ND	0.0184		mg/kg	0.0323	57%	15 - 157	7085875	NQH2677-02R E1	09/02/07 23:49
Benzo (g,h,i) perylene	ND	0.0332		mg/kg	0.0323	103%	10 - 146	7085875	NQH2677-02R E1	09/02/07 23:49
Benzo (k) fluoranthene	ND	0.0265		mg/kg	0.0323	82%	20 - 149	7085875	NQH2677-02R E1	09/02/07 23:49
Chrysene	ND	0.0268		mg/kg	0.0323	83%	18 - 155	7085875	NQH2677-02R E1	09/02/07 23:49
Dibenz (a,h) anthracene	ND	0.0349		mg/kg	0.0323	108%	10 - 163	7085875	NQH2677-02R E1	09/02/07 23:49
Fluoranthene	ND	0.0342		mg/kg	0.0323	106%	11 - 149	7085875	NQH2677-02R E1	09/02/07 23:49
Fluorene	ND	0.0284		mg/kg	0.0323	88%	26 - 149	7085875	NQH2677-02R E1	09/02/07 23:49
Indeno (1,2,3-cd) pyrene	ND	0.0307		mg/kg	0.0323	95%	10 - 147	7085875	NQH2677-02R E1	09/02/07 23:49
1-Methylnaphthalene	ND	0.0226		mg/kg	0.0326	69%	23 - 110	7085875	NQH2677-02R E1	09/02/07 23:49
2-Methylnaphthalene	ND	0.0242		mg/kg	0.0323	75%	34 - 114	7085875	NQH2677-02R E1	09/02/07 23:49
Naphthalene	ND	0.0216		mg/kg	0.0323	67%	36 - 113	7085875	NQH2677-02R E1	09/02/07 23:49
Phenanthrene	0.00165	0.0281		mg/kg	0.0323	82%	10 - 154	7085875	NQH2677-02R E1	09/02/07 23:49
Pyrene	ND	0.0287		mg/kg	0.0323	89%	10 - 173	7085875	NQH2677-02R E1	09/02/07 23:49
Surrogate: Nitrobenzene-d5		0.0300	Z10	mg/kg	0.0323	93%	34 - 87	7085875	NQH2677-02R E1	09/02/07 23:49
Surrogate: 2-Fluorobiphenyl		0.0239		mg/kg	0.0323	74%	30 - 93	7085875	NQH2677-02R E1	09/02/07 23:49
Surrogate: Terphenyl-d14		0.0326		mg/kg	0.0323	101%	49 - 123	7085875	NQH2677-02R E1	09/02/07 23:49
Extractable Petroleum Hydrocarbons 7085991-MS1										
Diesel	ND	36.6		mg/kg	38.7	95%	35 - 145	7085991	NQH3673-03	09/01/07 23:19
Surrogate: o-Terphenyl		0.854		mg/kg	0.773	110%	50 - 150	7085991	NQH3673-03	09/01/07 23:19
Purgeable Petroleum Hydrocarbons										
7090564-MS1				1407						00/04/05 11.5
GRO (C4-C12) NW	1200	2130		ug/L	1000	93%	28 - 181	7090564	NQH3608-04	09/06/07 11:54
Surrogate: a,a,a-Trifluorotoluene		40.5		ug/L	30.0	135%	46 - 153	7090564	NQH3608-04	09/06/07 11:54





Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Mike Lee

Client

Attn

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704 08/30/07 08:10

PROJECT QUALITY CONTROL DATA

Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD Lim	it Batch	Sample Duplicated	Analyzed Date/Time
Total Metals by EPA Method 6010	В										
7085913-MSD1											
Lead	4.91	94.5		mg/kg	99.2	90%	75 - 125	1 20	7085913	NQH3510-02	09/07/07 06:36
Dissolved Metals by EPA Method	6010B										
7090249-MSD1											
Lead	ND	0.0454		mg/L	0.0500	91%	75 - 125	3 20	7090249	NQH3676-07	09/06/07 00:55
Volatile Organic Compounds by E	PA Method 8	3260B									
7090348-MSD1											
Tertiary Butyl Alcohol	ND	312		ug/kg	500	62%	10 - 167	8 47	7090348	NQI0151-07	09/08/07 08:25
Diisopropyl Ether	ND	32.2		ug/kg	50.0	64%	43 - 131	11 40	7090348	NQI0151-07	09/08/07 08:25
Ethyl tert-Butyl Ether	ND	31.0		ug/kg	50.0	62%	45 - 136	11 50	7090348	NQI0151-07	09/08/07 08:25
Tert-Amyl Methyl Ether	ND	29.6		ug/kg	50.0	59%	37 - 149	10 43	7090348	NQI0151-07	09/08/07 08:25
Benzene	ND	40.9		ug/kg	50.0	82%	41 - 134	10 42	7090348	NQI0151-07	09/08/07 08:25
1,2-Dibromoethane (EDB)	ND	32.9		ug/kg	50.0	66%	33 - 147	15 50		NQI0151-07	09/08/07 08:25
1,2-Dichloroethane	ND	36.0		ug/kg	50.0	72%	39 - 143	11 42		NQI0151-07	09/08/07 08:25
Ethylbenzene	ND	40.8		ug/kg	50.0	82%	27 - 143	10 42		NQI0151-07	09/08/07 08:25
Isopropylbenzene	ND	40.9		ug/kg	50.0	82%	20 - 140	4 44		NQI0151-07	09/08/07 08:25
Methyl tert-Butyl Ether	ND	28.5		ug/kg	50.0	57%	26 - 147	11 47		NQI0151-07	09/08/07 08:25
n-Propylbenzene	ND	35.8		ug/kg	50.0	72%	12 - 160	5 50		NQI0151-07	09/08/07 08:25
Toluene	ND	41.8		ug/kg	50.0	84%	31 - 145	11 50		NQI0151-07	09/08/07 08:25
1,3,5-Trimethylbenzene	ND	38.0		ug/kg	50.0	76%	15 - 157	7 50		NQI0151-07	09/08/07 08:25
1,2,4-Trimethylbenzene	ND	36.1		ug/kg	50.0	72%	10 - 156	8 50		NQI0151-07	09/08/07 08:25
Xylenes, total	ND	124		ug/kg	150	82%	27 - 140	10 50		NQI0151-07	09/08/07 08:25
Surrogate: 1,2-Dichloroethane-d4	ND	51.3		ug/kg	50.0	103%	54 - 145	10 50	7090348	NQI0151-07	09/08/07 08:25
urrogate: Dibromofluoromethane		53.3		ug/kg	50.0	107%	67 - 129		7090348	NQI0151-07	09/08/07 08:25
urrogate: Toluene-d8		49.3		ug/kg	50.0	99%	66 - 142		7090348	NQI0151-07	09/08/07 08:25
urrogate: 10tuene-as urrogate: 4-Bromofluorobenzene		47.4		ug/kg	50.0	95%	68 - 150		7090348	NQI0151-07	09/08/07 08:25
Polyaromatic Hydrocarbons by EF	PA 8270C SII	М									e.
7085875-MSD1											
Acenaphthene	ND	0.0289		mg/kg	0.0328	88%	43 - 114	20 38	7085875	NQH2677-02R	09/03/07 00:09
Acenaphthylene	ND	0.0305		mg/kg	0.0328	93%	44 - 118	14 40	7085875	E1 NQH2677-02R	09/03/07 00:09
Anthracene	ND	0.0305		mg/kg	0.0328	93%	45 - 139	4 37	7085875	E1 NQH2677-02R	09/03/07 00:09
Benzo (a) anthracene	ND	0.0325		mg/kg	0.0328	99%	39 - 122	4 37	7085875	E1 NQH2677-02R	09/03/07 00:09
Benzo (a) pyrene	ND	0.0266		mg/kg	0.0328	81%	41 - 117	4 37	7085875	E1 NQH2677-02R E1	09/03/07 00:09
Benzo (b) fluoranthene	ND	0.0410	R	mg/kg	0.0328	125%	15 - 157	76 50	7085875	NQH2677-02R E1	09/03/07 00:09
Benzo (g,h,i) perylene	ND	0.0341		mg/kg	0.0328	104%	10 - 146	3 50	7085875	NQH2677-02R E1	09/03/07 00:09





THE LEADEN IN ENTINOMISMINE TEO

Client Delta Environmental (Minnesota) / Shell 5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number: Received: SAP 121704

08/30/07 08:10

#### PROJECT QUALITY CONTROL DATA Matrix Spike Dup - Cont.

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Polyaromatic Hydrocarbons by EPA	8270C SIN	<b>A</b>										
7085875-MSD1 Benzo (k) fluoranthene	ND	0.0230		mg/kg	0.0328	70%	20 - 149	14	50	7085875	NQH2677-02R E1	09/03/07 00:09
Chrysene	ND	0.0279		mg/kg	0.0328	85%	18 - 155	4	50	7085875	NQH2677-02R E1	09/03/07 00:09
Dibenz (a,h) anthracene	ND	0.0358		mg/kg	0.0328	109%	10 - 163	3	42	7085875	NQH2677-02R E1	09/03/07 00:09
Fluoranthene	ND	0.0364		mg/kg	0.0328	111%	11 - 149	6	43	7085875	NQH2677-02R E1	09/03/07 00:09
Fluorene	ND	0.0315		mg/kg	0.0328	96%	26 - 149	10	30	7085875	NQH2677-02R E1	09/03/07 00:09
Indeno (1,2,3-cd) pyrene	ND	0.0315		mg/kg	0.0328	96%	10 - 147	3	50	7085875	NQH2677-02R E1	09/03/07 00:09
1-Methylnaphthalene	ND	0.0276		mg/kg	0.0331	83%	23 - 110	20	43	7085875	NQH2677-02R E1	09/03/07 00:09
2-Methylnaphthalene	ND	0.0295		mg/kg	0.0328	90%	34 - 114	20	44	7085875	NQH2677-02R E1	09/03/07 00:09
Naphthalene	ND	0.0266		mg/kg	0.0328	81%	36 - 113	21	353	7085875	NQH2677-02R E1	09/03/07 00:09
Phenanthrene	0.00165	0.0292		mg/kg	0.0328	84%	10 - 154	4	50	7085875	NQH2677-02R E1	09/03/07 00:09
Pyrene	ND	0.0312		mg/kg	0.0328	95%	10 - 173	8	50	7085875	NQH2677-02R E1	09/03/07 00:09
Surrogate: Nitrobenzene-d5		0.0341	Z10	mg/kg	0.0328	104%	34 - 87			7085875	NQH2677-02R E1	09/03/07 00:09
Surrogate: 2-Fluorobiphenyl		0.0279		mg/kg	0.0328	85%	30 - 93			7085875	NQH2677-02R E1	09/03/07 00:09
Surrogate: Terphenyl-d14		0.0315		mg/kg	0.0328	96%	49 - 123			7085875	NQH2677-02R E1	09/03/07 00:09
Extractable Petroleum Hydrocarbon	ıs											
7085991-MSD1		τ.										
Diesel	ND	32.5		mg/kg	39.9	81%	35 - 145	12	43	7085991	NQH3673-03	09/01/07 23:34
Surrogate: o-Terphenyl		0.848		mg/kg	0.798	106%	50 - 150			7085991	NQH3673-03	09/01/07 23:34
Purgeable Petroleum Hydrocarbons												
7090564-MSD1												
GRO (C4-C12) NW	1200	2250		ug/L	1000	105%	28 - 181	5	27	7090564	NQH3608-04	09/06/07 12:22
Surrogate: a,a,a-Trifluorotoluene		41.8		ug/L	30.0	139%	46 - 153			7090564	NQH3608-04	09/06/07 12:22



Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

#### CERTIFICATION SUMMARY

#### TestAmerica - Nashville, TN

Method	Matrix	AIHA	Nelac	Oregon	
NWTPH-Dx	Soil	 N/A	X	X	
NWTPH-Dx	Water	N/A	X	X	
NWTPH-Gx	Soil	N/A	X	X	
NWTPH-Gx	Water	N/A	X	X	
SW846 6010B	Soil	N/A	X	X	
SW846 6010B	Water	N/A	X	X	
SW846 8260B	Soil	N/A	X	X	
SW846 8260B	Water	N/A	X	X	
SW846 8270CSIM	Soil	N/A	X	X	
SW846 8270CSIM	Water	N/A	X	X	





Client Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

#### NELAC CERTIFICATION SUMMARY

TestAmerica Analytical - Nashville does not hold NELAC certifications for the following analytes included in this report

Method

**Matrix** 

**Analyte** 

NWTPH-Gx Soil Water

GRO (C4-C12) NW

GRO (C4-C12) NW





lient Delta Environmental (Minnesota) / Shell

5910 Rice Creek Pkwy, Ste 100

St. Paul, MN 55126

Attn Mike Lee

Work Order:

NQH3608

Project Name:

14951 SW Bangy Lane, Lake Oswego, OR

Project Number:

SAP 121704

Received:

08/30/07 08:10

#### DATA QUALIFIERS AND DEFINITIONS

MNR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike.

QP1 The primary contamination elutes between C18 - C40, which is in the motor oil range.

QP3 The primary contamination elutes between C8 - C18, which is in the kerosene range.

QP3a The primary contamination elutes between C8 - C18, which is in the kerosene range.

QP6 The contamination did not match any standards in our library.

R The RPD exceeded the method control limit. The individual analyte QA/QC recoveries, however, were within acceptance limits.

R7 LCS/LCSD RPD exceeded the acceptance limit. Recovery met acceptance criteria.

Z10 Surrogate outside laboratory historical limits but within method guidelines. No effect on data.

ND Not detected at the reporting limit (or method detection limit if shown)

#### METHOD MODIFICATION NOTES





DSIZ

Cooler Received/Opened On8-30-078:10	NQH3608
1. Tracking # 8747 (last 4 digits, FedEx)	
Courier: _Fed-Ex IR Gun ID101507	
2. Temperature of rep. sample or temp blank when opened 2. 5 Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank from	TOP3 VES NO (V)
4. Were custody seals on outside of cooler?	YES NO NA
If yes, how many and where:	TESINONA
5. Were the seals intact, signed, and dated correctly?	YESNONA
6. Were custody papers inside cooler?	VESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	WS
7. Were custody seals on containers: YES NO and Intact	
Were these signed and dated correctly?	YESNONA
8. Packing mat'l used? Bubblewap Plastic bag Peanuts Vermiculite Foam Insert F	Paper Other None
9. Cooling process: (ce lice-pack lice (direct contact) Dr	
10. Did all containers arrive in good condition (unbroken)?	YESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	Y€3NONA
12. Did all container labels and tags agree with custody papers?	<b>УБ</b> SNОNA
13a. Were VOA vials received?	Y€\$NONA
b. Was there any observable headspace present in any VOA vial?	YESWNA
14. Was there a Trip Blank in this cooler? YESNONA If multiple coolers, sequ	
I certify that I unloaded the cooler and answered questions 7-14 (initial)	Th
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH lev	el? YESNONA
b. Did the bottle labels indicate that the correct preservatives were used	
If preservation in-house was needed, record standard ID of preservative used her	Y/235NOK⅓
Freeding about Hol	
16. Was residual chlorine present?	
16. Was residual chlorine present?	reYESNON
	YESNONa
16. Was residual chlorine present?  I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	YESNONONONO
<ul> <li>16. Was residual chlorine present?</li> <li><u>I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intian)</u></li> <li>17. Were custody papers properly filled out (ink, signed, etc)?</li> </ul>	YESNONa
<ul> <li>16. Was residual chlorine present?</li> <li><u>I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial 17).</u></li> <li>Were custody papers properly filled out (ink, signed, etc)?</li> <li>18. Did you sign the custody papers in the appropriate place?</li> </ul>	YESNONA YESNONA
<ul> <li>16. Was residual chlorine present?</li> <li><u>I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial</u></li> <li>17. Were custody papers properly filled out (ink, signed, etc)?</li> <li>18. Did you sign the custody papers in the appropriate place?</li> <li>19. Were correct containers used for the analysis requested?</li> </ul>	YESNONA YESNONA YESNONA
16. Was residual chlorine present?  Lecrtify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intia 17. Were custody papers properly filled out (ink, signed, etc)?  18. Did you sign the custody papers in the appropriate place?  19. Were correct containers used for the analysis requested?  20. Was sufficient amount of sample sent in each container?  Lecrtify that Lentered this project into LIMS and answered questions 17-20 (intial)  Lecrtify that Lattached a label with the unique LIMS number to each container (intial)	YESNONA YESNONA YESNONA YESNONA YESNONA YESNONA
<ul> <li>16. Was residual chlorine present?</li> <li><u>I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial</u></li> <li>17. Were custody papers properly filled out (ink, signed, etc)?</li> <li>18. Did you sign the custody papers in the appropriate place?</li> <li>19. Were correct containers used for the analysis requested?</li> <li>20. Was sufficient amount of sample sent in each container?</li> <li><u>I certify that I entered this project into LIMS and answered questions 17-20 (intial)</u></li> </ul>	YESNONA YESNONA YESNONA YESNONA YESNONA YESNONA

Cooler Received/Opened On: 8/30/07 @ 8:10

Tracking # 90/8	
Fed-Ex Gun ID:92171982	
1. Temperature of rep. sample or temp blank when opened: 4/2 Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen	? YES NO.NA
4. Were custody seals on outside of cooler?	YES NO NA
If yes, how many and where:	725 NA
5. Were the seals intact, signed, and dated correctly?	YESNONA
6. Were custody papers inside cooler?	YES NO NA
certify that I opened the cooler and answered questions 1-6 (intial)	i LoNOZ.NA
7. Were custody seals on containers:  YES NO and Intact	YESNOKA
Were these signed and dated correctly?	YESNONA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pape	
9. Cooling process:	
10. Did all containers arrive in good condition (unbroken)?	SNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	ESNONA
12. Did all container labels and tags agree with custody papers?	VESNONA
13a. Were VOA vials received?	YESNONA
b. Was there any observable headspace present in any VOA vial?	YESNO(NA
14. Was there a Trip Blank in this cooler? YESNO If multiple coolers, sequence	
certify that   unloaded the cooler and answered questions 7-14 (intial)	77
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNON
b. Did the bottle labels indicate that the correct preservatives were used	YESNONA
If preservation in-house was needed, record standard ID of preservative used here	
16. Was residual chlorine present?	YESNONA
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	
17. Were custody papers properly filled out (ink, signed, etc)?	YESNONA
18. Did you sign the custody papers in the appropriate place?	YESNONA
19. Were correct containers used for the analysis requested?	YASNONA
20. Was sufficient amount of sample sent in each container?	ESNONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	死
I certify that I attached a label with the unique LIMS number to each container (intial)	TV
21. Were there Non-Conformance issues at login? YESMØ Was a PIPE generated? YESMØ	D #

TEST AMERICA		She	ell C	)il	Pro	ducts	US C	hair	Of (	Cust	ody	Reco	ord			
2960 Foster Creighton Drive, Nashville, TN 37204	SOP US Project Manager	to be invoiced:		_									# (S&E ON	i vi		,
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2000 W. Int'l Airport Rd #A10, Anchorage AK 99502	☐ TECHNICAL SERVICES					TO BILL:							12000000		DAT	TE: 8/27/87
11922 East 1st Avenue, Spokane, WA 99206	☐ CRMT HOUSTON	☐ BILL CONSULTANT	l l	-							SA	P OF CKIY	IT#(TS/CF		PAC	∋E: of
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TELEPHONE: FAX: 651.639.9449 651.639.9473	E-MAIL:	on@deltaenv.com				1.20	, 0	0		1				£	AB UŚE O	VLY.
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SPECIAL INSTRUCTIONS OR NOTES:	<b>NQH3608</b> 09/14/07 23:59			(EPA 6010B)	3	) by 8015M NOCs+ 5 Shell Oxygenate	rbons - 8270C SIM	8015M w silica gel clean	1.P for Cd, Cr, Pb by SW 6010B Dissolved Cd, Cr, Pb-SW 6010B		5260B+5 Shell Oxygenates					Container PID Readings or Laboratory Notes
Field Sample Identification		CL HNO3 H2SO4 NONE OTHER	NO. OF CONT.	SOIL: TOTAL Lead by	WATER: DISSOLVED	NWTPH-Gx (Gasoline) CUSTOM - OR RBDM V	Polyaromatic Hydroca	NWTPH-Dx (Diesel) by	SOIL: TO WATER:	PCB's by 8082	VOCs Full List by 8280					
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From:

**TORAN Greg** 

Sent:

Wednesday, October 03, 2007 5:09 PM

To:

DANA Kevin

Subject: RE: facilities 838 and 1356

Thanks, one is closed it was a dup

#### **Gregory Toran**

----Original Message----

From: DANA Kevin

Sent: Wednesday, October 03, 2007 5:02 PM

To: TORAN Greg

Subject: FW: facilities 838 and 1356

Don't know if Paiko mentioned this to you or not . . . .

----Original Message----

From: CLARK Liz

Sent: Tuesday, September 25, 2007 11:39 AM

To: PAIKO Steven J Cc: DANA Kevin

Subject: facilities 838 and 1356

Hi, I am accepting releases for Kevin while he on vacation. In looking up facility ID numbers I noticed that facilities 838 and 1356 are the same location - one listed as a Shell and the other as a Texaco. Perhaps the same facility? Thanks

Liz Clark
Department of Environmental Quality
Eastern Region, The Dalles
Solid Waste Permit Coordinator
UST Duty Officer

From:

**CLARK Liz** 

Sent:

Friday, September 28, 2007 9:47 AM

To:

DANA Kevin

Subject: Releases Accepted

Hi Kevin, I wanted to let you know that as of this morning I have accepted 19 releases for you - all but 3 are for Shell Oil. Ginny Deck has been working with Bruce Dyer on an OLPRR problem, apparently when I accept releases for NWR, they don't necessarily show up as accepted when you go into OLPRR. We also had an issue with Shell Oil and had to go in and change addresses on those releases that had been accepted. I made the changes and created QTime numbers for each site so that I could charge my time. I didn't send out letters and CRAs because Mike said that you would want to do that. I am attaching a spreadsheet of the releases and I am sending you the hard copies from each release that I accepted. Welcome back from vacation!

Liz Clark
Department of Environmental Quality
Eastern Region, The Dalles
Solid Waste Permit Coordinator
UST Duty Officer

From:

**DECK Ginny** 

Sent:

Thursday, September 27, 2007 9:48 PM

To:

DANA Kevin

Subject: shell sites - address changes I made

Kevin, you may have seen other emails about all the Shell station release reports and the address changes for both the RP & Invoice Contacts. To try to minimize the group angst, I went ahead and changed some sites for you in the database. To avoid confusion, I deleted the previous contacts and replaced them with the correct ones. I also set up Qtime numbers for these 5 sites so I could charge my time. Because you had not yet charged time for your own entry that you did on Sept 5 before your vacation, I have charged my time in October so it makes more sense on the invoice when it goes out.

Please see the other emails about the specific address record numbers to use for any more sites that are reported in Shell's site assessment effort.

Those sites are:

From:

**DECK Ginny** 

Sent:

Tuesday, September 25, 2007 7:15 PM

To:

CLARK Liz; DANA Kevin; 'BELYEA David'; KORTENHOF Mike

Subject:

RE: Shell Invoicee & RP changes

Importance: High

Liz and Kevin, the Invoice Contacts will need to be changed on all these sites in the LUST database before setting up a Qtime number. Please be sure to correct the contact information before creating a Qtime project. Please <u>delete</u> the old Invoice Contact record and add the new one using address record Party ID # 104853 for the Invoice Contact (read on to see why I'm suggesting this).

It's even worse, though. The RP information was also reported incorrectly to us, so that will have to be changed as well. Additionally, the address system is becoming cluttered with multiple records for Jeff Goold and Shell because OLPRR no longer allows us to check the contact information.

Furthermore, the contractor has started using ADDR Line 2, which is a hold over from our old database and has no field in our new database. It is not carried over to the LUST database contacts screen.

To avoid adding more address records to a list that is already too long, on all new OLPRRs that I review, what I plan to do is this:

- · Accept the contact information as given via OLPRR.
- Go into the database; <u>delete</u> the RP and Invoice Contact. Add the correct information.
- For the RP, please use Party ID # 104789 (search on Jeff Goold, Shell).
- For the Invoice Contact, please use Party ID # 104853 (search on Shell%Env).
- Charge the site for this time; it's cost recoverable

For updating existing records, I'm also deleting the wrong record (rather than putting an end date) and then adding the correct record. I'm using the Release Reported date as the contact Start Date.

Mike & Dave, I'm hoping we can implement some changes that I suggested long ago for OLPRR and the LUST database contacts screen. This data cleanup would be easier and parts of it avoidable entirely if we had some of that functionality.

Shell wants Jeff's RP correspondence to be sent to a new address so they can log it and store it permanently; they'll send a copy to Jeff in his Seattle office. Set up the RP contact with Party ID # 104789:

Jeff Goold Shell Oil Products US 20945 S Wilmington Ave Carson, CA 90810-1039 425-844-2355 jeff.goold@shell.com

<u>Invoices</u> should be sent to (Party ID # 104853):

Shell Oil Products – Environmental Invoice Accounts Payable OSP 2660A- Jeff Goold PO Box 4912 Houston TX 77210-4912 (425) 844-2355

Optionally, I am also entering Jeff's Seattle address as "Contact"; project managers might like to cc correspondence to this address for faster delivery (Party ID # 77):

Jeff Goold Shell Oil Products US 2555 13th Ave SW Seattle WA 98134-1013 425-844-2355 jeff.goold@shell.com

This is Jeff's office in Seattle. Correspondence should be sent to the RP address in Carson CA for logging in and permanent record. They'll send a copy to Jeff in Seattle, or you may cc him there.

Please ask me if you have any questions at all.

----Original Message----

From: CLARK Liz

Sent: Tuesday, September 25, 2007 3:46 PM

To: DECK Ginny; HUNTER Laurie

Cc: ISMERIO Dawn; DANA Kevin; KORTENHOF Mike; 'BELYEA David'; 'DECK Ginny'

Subject: RE: Shell Invoicee change - 35 sites

I have been accepting these releases for Kevin Dana during the month of September because he is on vacation. I have not created QTime numbers for them. If I accept any more I will change the address before accepting them. Let me know if I should do anything else. Thanks, Liz

-----Original Message-----

From: DECK Ginny

Sent: Tuesday, September 25, 2007 3:40 PM

To: HUNTER Laurie

Cc: ISMERIO Dawn; DANA Kevin; CLARK Liz; KORTENHOF Mike; 'BELYEA David'; DECK Ginny

Subject: Shell Invoicee change - 35 sites

Importance: High

Laurie, this is big, I know. It is for me, too. Shell Oil Products has 42 or so sites that have been reported to us since August 1 with the wrong invoice address. They are still reporting sites, but we'll catch those as we review them and set them up correctly in the database and Qtime. I've attached a list of sites generated by querying the LUST database. Hopefully this is all of them. It's possible that not all of them are set up in Qtime yet, which means they're not in CRIS either. If you could note those, it would help us identify which sites we need to update before setting up Qtime numbers.

The correct invoice address is:

Shell Oil Products – Environmental Invoice Accounts Payable OSP 2660A- Jeff Goold PO Box 4912 Houston TX 77210-4912 (425) 844-2355

I have set up an address record in the address system with all this information. It is address record # 104853. Please use this record if possible to avoid setting up any additional ones. The address system is currently cluttered with many new address records for Jeff Goold and Shell.

Please be assured that I have researched this and confirmed with Jeff Goold himself.

From:

**HUNTER Laurie** 

Sent:

Tuesday, September 25, 2007 5:33 PM

To:

DECK Ginny; ISMERIO Dawn

Cc:

DANA Kevin; CLARK Liz; KORTENHOF Mike; BELYEA David

Subject:

FW: Shell Invoicee change - 35 sites

Importance: High

Ginny,

This didn't turn out to be such a big thing for me after all.

Only 13 of the log #'s on your spreadsheet were set up in CRIS. Twelve of those have been updated (log #'s highlighted in yellow on your spreadsheet. The one highlighted in green is currently set up with Delta Environmental Consultants as the RP and not Shell.

Can you or Dawn confirm who the RP should be for T33122 (20-07-1374)? Once I get your answer I will update CRIS accordingly.

Let me know if there is anything else I need to do.

Laurie x5698

----Original Message----

From: DECK Ginny

Sent: Tuesday, September 25, 2007 3:40 PM

To: HUNTER Laurie

Cc: ISMERIO Dawn; DANA Kevin; CLARK Liz; KORTENHOF Mike; 'BELYEA David'; DECK Ginny

Subject: Shell Invoicee change - 35 sites

Importance: High

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Sent:

Tuesday, September 25, 2007 3:46 PM

To:

DECK Ginny; HUNTER Laurie

Cc:

ISMERIO Dawn; DANA Kevin; KORTENHOF Mike; 'BELYEA David'; 'DECK Ginny'

Subject: RE: Shell Invoicee change - 35 sites

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Sent: Tuesday, September 25, 2007 3:40 PM

To: HUNTER Laurie

Cc: ISMERIO Dawn; DANA Kevin; CLARK Liz; KORTENHOF Mike; 'BELYEA David'; DECK Ginny

Subject: Shell Invoicee change - 35 sites

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Please be assured that I have researched this and confirmed with Jeff Goold himself.

Cc:

#### **DANA Kevin**

**CLARK Liz** From:

Tuesday, September 25, 2007 11:39 AM Sent:

PAIKO Steven J To:

DANA Kevin Subject: facilities 838 and 1356

Hi, I am accepting releases for Kevin while he on vacation. In looking up facility ID numbers I noticed that facilities 838 and 1356 are the same location - one listed as a Shell and the other as a Texaco. Perhaps the same facility? Thanks

Liz Clark Department of Environmental Quality Eastern Region, The Dalles Solid Waste Permit Coordinator **UST Duty Officer** 

From:

**DECK Ginny** 

Sent:

Thursday, September 20, 2007 12:41 PM

To:

'Kevin McCarthy'

Cc:

DANA Kevin

Subject: RE: Invoicing address for Shell

OK. Thanks for the clarifying detail. There are so many of these that I want it to be straight before I ask the business office and Kevin Dana to make changes. We have to change each of 35 sites by hand in a few different databases as well as change the other new sites submitted online still in the queue for processing, so you can understand my concern.

For the invoices we'll use:

Shell Oil Products - Environmental Invoice Accounts Payable OSP 2660A- Jeff Goold PO Box 4912

Houston TX 77210-4912

----Original Message----

From: Kevin McCarthy [mailto:KMcCarthy@deltaenv.com]

Sent: Thursday, September 20, 2007 12:28 PM

To: DECK Ginny

Subject: RE: Invoicing address for Shell

I have. David Kremer was Jeff's replacement while he was out on medical leave, he doesn't work in Shell business office. Adding the name just identifies who the Shell PM is for invoicing purposes.

Kevin McCarthy Project Manager **DELTA Consultants** 7150 SW Hampton, Suite 220 Tigard, OR 97223

Direct: 503.639.8098, ext.108 Cell: 360.556.9742

Toll Free: 800.477.7411 Fax: 503.639.7619 kmccarthy@deltaenv.com

Confidentiality Notice: If you are not the intended recipient of this email, please delete it. Thank you.

From: DECK Ginny [mailto:DECK.Ginny@deq.state.or.us]

Sent: Thursday, September 20, 2007 12:24 PM

**To:** Kevin McCarthy Cc: DANA Kevin

Subject: RE: Invoicing address for Shell

Kevin, have you talked with Jeff? I don't think he wants to get the invoices. I'm sure that David Kremer is a person in the Shell business office.

----Original Message----

From: Kevin McCarthy [mailto:KMcCarthy@deltaenv.com]

Sent: Thursday, September 20, 2007 11:38 AM

To: DECK Ginny

Cc: Jeff Schatz; DANA Kevin

Subject: RE: OLPRR Incident Report in Accepted Status. Log Number: 20-07-1374

Let's move forward with that address then, it sounds more direct than the tax department PO Box. The only change would be to remove David Kremer and insert Jeff Goold. Like the example below:

Shell Oil Products – Environmental Invoice Accounts Payable OSP 2660A- Jeff Goold PO Box 4912 Houston TX 77210-4912

Cheers, Kevin

Kevin McCarthy Project Manager DELTA Consultants 7150 SW Hampton, Suite 220 Tigard, OR 97223 Direct: 503.639.8098, ext.108

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kmccarthy@deltaenv.com

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From: DECK Ginny [mailto:DECK.Ginny@deq.state.or.us]

Sent: Thursday, September 20, 2007 11:31 AM

To: Kevin McCarthy

Subject: RE: OLPRR Incident Report in Accepted Status. Log Number: 20-07-1374

Actually, we have another invoice address that we've been using that is different from the one you gave me for the Shell PO Box. What we've been using is:

Shell Oil Products – Environmental Invoice Accounts Payable OSP 2660A- David Kremer PO Box 4912 Houston TX 77210-4912

It is important that we have the correct information at this time to avoid unnecessary corrections to our databases and any delays in invoicing and payment. Would you please research this and verify with Shell exactly where they want their invoices sent? Thanks.

----Original Message----

From: Kevin McCarthy [mailto:KMcCarthy@deltaenv.com]

Sent: Thursday, September 20, 2007 8:18 AM

To: DECK Ginny

Subject: RE: OLPRR Incident Report in Accepted Status. Log Number: 20-07-1374

If they have going to us, that's fine, we can forward them on.

Kevin McCarthy
Project Manager
DELTA Consultants
7150 SW Hampton, Suite 220
Tigard, OR 97223
Direct: 503.639.8098, ext.108

From: Kevin McCarthy [KMcCarthy@deltaenv.com]

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From: DECK Ginny [mailto:DECK.Ginny@deq.state.or.us]

Sent: Wednesday, September 19, 2007 5:12 PM

To: Kevin McCarthy

Cc: DANA Kevin; Jeff Schatz

Subject: RE: OLPRR Incident Report in Accepted Status. Log Number: 20-07-1374

I think our business office has been sending Shell's invoices to DELTA Environmental. Please confirm if you want us to change that and start sending invoices instead to Jeff Goold at PO Box 4369 in Houston.

I will update my sites for the RP Contact to be Jeff Goold at his address in Carson, CA, shown below, to receive correspondence other than invoices.

----Original Message----

From: Kevin McCarthy [mailto:KMcCarthy@deltaenv.com]

Sent: Monday, September 17, 2007 1:50 PM

To: DECK Ginny

Cc: DANA Kevin; Jeff Schatz

Subject: RE: OLPRR Incident Report in Accepted Status. Log Number: 20-07-1374

Ginny/Kevin - Apparently we were giving you the wrong mailing address for the release reports. While the PO Box is correct for future invoicing (it is the Shell Tax Department) the initial release form and regulatory coorespondance should be sent to the Carson refinery, still care of Jeff Goold. Address is below. We will change this for all future release reports, but if you could make a global change for the previous ones, I would greatly appreciate it. Cheers, Kevin

Jeff Goold Shell Oil Products US 20945 Wilmington Avenue Carson, CA 90810

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Sent: Monday, September 17, 2007 11:47 AM

To: Kevin McCarthy

Subject: RE: OLPRR Incident Report in Accepted Status. Log Number: 20-07-1374

Thanks, Kevin. Yes you are doing a lot of these! Shell must be buying a bunch of facilities. Are there more to come?

From: Kevin McCarthy [KMcCarthy@deltaenv.com]

Sent: Monday, September 17, 2007 1:50 PM

To: DECK Ginny

Cc: DANA Kevin; Jeff Schatz

Subject: RE: OLPRR Incident Report in Accepted Status. Log Number: 20-07-1374

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Direct: 503.639.8098, ext.108
Cell: 360.556.9742
Toll Free: 800.477.7411
Fax: 503.639.7619
kmccarthy@deltaenv.com

Confidentiality Notice: If you are not the intended recipient of this email, please delete it. Thank you.

----Original Message----

From: DECK Ginny [mailto:DECK.Ginny@deq.state.or.us]

Sent: Monday, September 17, 2007 11:47 AM

To: Kevin McCarthy

Subject: RE: OLPRR Incident Report in Accepted Status. Log Number: 20-07-1374

Thanks, Kevin. Yes you are doing a lot of these! Shell must be buying a bunch of facilities. Are there more to come?

----Original Message----

From: Kevin McCarthy [mailto:KMcCarthy@deltaenv.com]

Sent: Monday, September 17, 2007 11:07 AM

To: DECK Ginny

Subject: RE: OLPRR Incident Report in Accepted Status. Log Number:

20-07-1374

Ginny - Yes, your right. Sorry about that, I've been filling out so many of these I got the Shell SAP # wrong. Thanks for your patience. Cheers, Kevin

Kevin McCarthy Project Manager

From:

Oregon DEQ - Do not reply [OregonDEQ@deq.state.or.us]

Sent:

Friday, September 14, 2007 4:14 PM

To:

**DEQTanksReviewNWR** 

Subject:

OLPRR LUST Tank Start Notification for DEQ Staff

New LUST Incident information submitted to State of Oregon DEQ for review.

Contractor :

DELTA ENVIRONMENTAL CONSULTANTS INC.

Reported by:

KEVIN MCCARTHY

Phone Number:

(503) 639-8098 X108

Site Name:

Shell 121704

Site Address:

14951 SW Bangy Road

Site City:

McMinnville

Site Zip Code: 97035

Site County:

Clackamas

Received by State of Oregon DEQ: 9/14/2007 4:13:59 PM.



### Department of Environmental Quality

Northwest Region 2020 SW Fourth Avenue Suite 400 Portland, OR 97201-4987 (503) 229-5263 Voice TTY (503) 229-5471

March 15, 2000

TOM WILSON EQUILON ENTERPRISES PO BOX 2180 RM 2753C HOUSTON TEXAS 77252-2180

Re:

Exxon-Texaco Bangy Road

File No. 03-88-0034 Facility ID. No. 838

Dear Mr. Palagyi:

The Department of Environmental Quality has completed its review of the information submitted to date concerning the underground storage tank (UST) decommissioning and cleanup conducted at 14951 SW Bangy Lane in Lake Oswego, Oregon. The Department has determined that the cleanup appears to have met the requirements of Oregon Administrative Rules (OAR) 340-122-205 through 340-122-360 that were in place at the time of cleanup and that no further action is required at this time.

This determination is a result of our evaluation and judgment based on the regulations and facts as we now understand them, including:

- 1. A leak from the UST systems was discovered in 1988 when free product was discovered on the groundwater in the tank nest.
- 2. Free product recovery was initiated in 1988 by installing a free product skimmer in the monitoring wells. Less than five gallons of product were recovered by this effort. Because free product recovery was not effective, a vapor extraction system was installed in 1989. This system was operated until 1996 when volatile organic compounds were no longer being removed by the system. Oxygen release compound was installed in two wells in 1996 to enhance natural degradation.
- 3. Beginning in August 1996, final compliance monitoring was initiated. No EDC, EDB or dissolved lead were detected at the site in excess of the cleanup levels in OAR 340-122-242 (the rules in place at the time of cleanup). The compliance monitoring wells for this project were monitoring wells MW-1 through MW-6. No ethylbenzene, toluene, and xylenes were detected in the groundwater in excess of their cleanup standards during the compliance monitoring. Benzene was detected at a maximum concentration of 18.6 ppm during the final eight quarters on sampling in MW-5. This detection was the only one to exceed the cleanup standard of 5 ppb. The arithmetic mean for the last six quarters of sampling was 3.57 ppm. No benzene was dectected above the cleanup level in the other wells during final compliance

Tony Palagyi March 15, 2000 Page 2

monitoring. Based on these results, the Department has determined that the site has met the cleanup standard for benzene.

The Department's determination will not be applicable if new or undisclosed facts show that the cleanup does not comply with the referenced rules. The Department's determination also does not apply to any conditions at the site other than the release of the petroleum product specifically addressed in the report(s).

Please note that pursuant to OAR 340-122-360(2), a copy of your report must be retained until ten (10) years after the first transfer of the property. We recommend that a copy of this information be kept with the permanent facility records.

Your efforts to comply with the regulations to ensure that your facility has been adequately cleaned up have been appreciated. If you have any questions, please feel free to contact me at (503) 229-5474.

Sincerely,

Andree Pollock, Manager

UST Cleanup and Compliance Section

(avp:AVP)

PETROLEUM RELEASE FOR
Please Check All That Apply

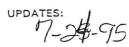
-INCIDENT INFORMATION-

				/	
LOG NBR: 03-91-005/	RECEIVED BY:		DRI	GULATED UST	
UST FAC NBR:		1619	)/n	ON-REGULATED (	JST
				EATING OIL TANK	ζ.
SITE NAME: TEVACO STA		1			
SITE ADDRESS:			FUNI	DING	
SITE CITY:					YYOR A.F.
SITE COUNTY: PHON	E:			IST	HSRAF FINANCIAL ASST
				VOICE START	☐ INVOICE STOP
PROJECT MANAGER:					☐ NFA SENT
	MAIL CON	TACTS			
9443027-14-040h01404-14-04-04-04-04-04-04-04-04-04-04-04-04-04			DTV		
REPORTED BY		RESPONSIBLE PA	s		
NAME:		NAME:	heresa	Geye	
COMPANY:					ses LC
PORESS:		ADDRESS:	OBOXZ	2969	
CITY: ZIP: _		CITY: Kirk	land	zip: <u>98</u>	1033
STATE:PHONE:		STATE: _ U	PHONE: _		
INVOICE CONTACT  NAME:  COMPANY:		COMPANY:			
ADDRESS:	:	CITY:			
CITY:ZIP: _					
STATE:PHONE:		STATE:			
•	SITE ASSE	SSMENT		est of the second	
DATE DISCOVERED:	1		☐ FUTHER CI	LEANUP REQ.	
			□ NO FURTH	ER CLEANUP REC	Q.
☐ EMERGENCY RESP.	* (11)	99 X	☐ OFFSITE M	IGRATION	
☐ ENFORCEMENT	16 0//6	( )	. L.I.I	S. SCORE (Region	n)
	DISCOVERY:		CAU	JSE <sup>‡</sup>	
CONFIRMATION:	RM) ROUTINE	MONITORING		L) TANK LEAK	
SI) STAFF  LD) LAB: DEQ  LR) LAB: RP  LO) LAB: OTHER  RR) RP REPORT  CN) CONTRACTOR  OT) OTHER	DC) DECOMMI CP) COMPLAIN IC) INVENTOR SA) SITE ASSES TT) TANK TEST	SSIONING T Y CONTROL SSMENT		PL) PIPE LEAK DE) OVERFILL S) SURFACE SPIL DY) PUMP/VALVE DT) OTHER JN) UNKNOWN	L LEAK

- /		-CONTAMINANTS - IMPACTS		*****************
4	. 7	,		9
<i>.</i>	CONTAMINANTS:		MEDIA/IMPACT:	
	UG) UNLEADED GASOLINE LG) LEADED GASOLINE MG) MISC. GASOLINE DS) DIESEL FO) FUEL OIL WO) WASTE OIL LB) LUBRICANT	SV) SOLVENT BF) BUNKER FUEL OP) OTHER PET. DIST. CH) CHEMICAL HO) HEATING OIL UN) UNKNOWN OT) OTHER	SL) SOIL GW) GROUND SW) SURFACE DW) DRINKIN FV) FACILITY FP) FACILITY	WATER G WATER (VAPOR)
		SITE - MANAGEMENT	and the same of th	
RELEAS CLEAN	SE STOPPED: 12 , 3 , 9/	FINAL REQUEST INVOICE NO FURTHER AC	DATE: 9	16,99
			£ "	
		CONT. MANAGEMENT		
		SOIL - MANAGEMENT	44.4	
SWLA F	PERMIT NUMBER:			
		: ids TRFAT	MENT METHOD: ARE	ATION
	IT OF SOIL (yds 3) TREATED ON SITE: IT OF SOIL (yds 3) TREATED OFF SITE:		☐ THE	RMAL LOGICAL ER
AMOU	NT OF SOIL (yds 3) DISPOSED OF:	TREATED	UNTREATED	
FINAL !	DISPOSITION OF SOIL:	☐ ONSITE☐ LANDFILL	☐ ROAD BASE ☐ OTHER	
NOTES	COMMENTS:	-	· 2	

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# \* PETROLEUM RELEASE FORM \* Please Check All That Apply

INCIDENT INFORMATION-	
LOG NBR: 03-88-034 RECEIVED BY: Peters  UST FAC NBR: 438 DATE REPORTED: 4-29-88  SITE NAME: EXXON Station	REGULATED UST NON-REGULATED UST HEATING OIL TANK
SITE ADDRESS: 14951 SAN BANGULAND  SITE CITY: Lake Oswed ZIP: 97034  SITE COUNTY: (Lank PHONE;	FUNDING  LUST HSRAF OHC FINANCIAL ASST
PROJECT MANAGER:	☐ INVOICE START ☐ INVOICE STOP ☐ NFA SENT ☐ DATE:
REPORTED BY  RESPONSIBLE	
COMPANY: EXXON (ISA)  LODRESS: DECX 3537  ADDRESS: CITY: POILUIL ZIP: 980001  CITY: LOTY: H	EQUILON ENTERPRISES LLC. PO BOX 2180, RM 2753C OUS TON ZIP: 77252-218
COMPANY: COMPANY: ADDRESS:	
CITY: ZIP: CITY:	ZIP:
SITE ASSESSMENT	
DATE DISCOVERED: 4-27-86	☐ FURTHER CLEANUP REQ. ☐ NO FURTHER CLEANUP REQ. ☐ OFFSITE MIGRATION ☐ LI.P.S. SCORE (Region)
CONFIRMATION: DISCOVERY:	CAUSE:
SI) STAFF  LD) LAB:DEQ  DC) DECOMMISSIONING  CP) COMPLAINT  CO) LAB:OTHER  RR) RP REPORT  CN) CONTRACTOR  TT) TANK TEST  OT) OTHER  OT) OTHER	TL) TANK LEAK PL) PIPE LEAK OF) OVERFILL SS) SURFACE SPILL PV) PUMP/VALVE LEAK OT) OTHER UN) UNKNOWN

AMINANTS:    Color   C		CON	TAMINANTS	- IMPACTS				
SUIS UNLEADED GASOLINE SY) SOLVENT SET GW GROUNDWATER  LG) LEADED GASOLINE SP; BUNKER FUEL SW) SURFACE WATER  MG) MISC. GASOLINE OP) OTHER PET. DIST.  DS) DIESEL  HO) HEATING OIL DW) DRINKING WATER  FV) FACILITY (VAPOR)  FV) FACILITY (FREE PROD)  SITE - SOIL MANAGEMENT  SITE - SOIL MANAGEMENT  REMEDIATION COMPLETED: 7-71-99  NO FURTHER ACTION: 3-15-00  SWLA PERMIT NUMBER: DATE ISSUED:  AMOUNT OF SOIL (yds3) TREATED ON SITE: TREATED AREATION  AMOUNT OF SOIL (yds3) TREATED OFF SITE: ROAD BASE								
RELEASE STOPPED:	G UG) UNLEADED GASOLINE G LG) LEADED GASOLINE G MG) MISC. GASOLINE G DS) DIESEL G FO) FUEL OIL G WO) WASTE OIL	BF) BUNKER FUEL OP) OTHER PET. C CH) CHEMICAL HO) HEATING OIL UN) UNKNOWN	DIST.		GW) G SW) S DW) D	ROUNDWATER URFACE WATER PRINKING WATER ACILITY (VAPOR)	D)	
RELEASE STOPPED: 12-19-88  CLEANUP STARTED: 2-19-88  NO FURTHER ACTION: 3-15-00  SWLA PERMIT NUMBER: DATE ISSUED: TREATMENT METHOD: AREATION THERMAL BIOLOGICAL OTHER  AMOUNT OF SOIL (yds3) TREATED OFF SITE: UNTREATED  AMOUNT OF SOIL (yds3) DISPOSED OF: TREATED UNTREATED  SWLA PERMIT NUMBER: TREATMENT METHOD: AREATION THERMAL BIOLOGICAL OTHER  OTHER OTHER SOIL (yds3) DISPOSED OF: ROAD BASE	•	S1	TE-SOU MA	NAGEMENT				
AMOUNT OF SOIL (yds3) TREATED ON SITE:  AMOUNT OF SOIL (yds3) TREATED OFF SITE:  TREATMENT METHOD:  THERMAL  BIOLOGICAL  OTHER  AMOUNT OF SOIL (yds3) DISPOSED OF:  ONSITE  ROAD BASE	CLEANUP STARTED: 4-19-88		REMEDIA	ATION COMPLET	ED: 12 3-15		-	
AMOUNT OF SOIL (yds3) TREATED ON SITE:  AMOUNT OF SOIL (yds3) TREATED OFF SITE:  THERMAL  BIOLOGICAL  OTHER  AMOUNT OF SOIL (yds3) DISPOSED OF:  ONSITE  ROAD BASE	SWLA PERMIT NUMBER:	-	DATEIS					
AMOUNT OF SOIL (yds3) DISPOSED OF: ONSITE	AMOUNT OF SOIL (yds3) TREATED ON AMOUNT OF SOIL (yds3) TREATED OF	SITE:		TREATMENT M	ETHOD:	☐ THERMAL ☐ BIOLOGICAL		-
SINAL DISPOSITION OF SOIL	AMOUNT OF SOIL (yds3) DISPOSED O	F:	TREATED		NTREATED			
	FINAL DISPOSITION OF SOIL:						-	
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NOTES/COMMENTS:	NOTES/COMMENTS:			l.				Action of the second of the se

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