~~CASE # NA~~

SUSTAINABLE STRATEGIES FOR GLOBAL LEADERS

File @ UST # 4420

TEXACO 63-232-0057

RECEIVED
JAN 29 2008
DEPT. OF ECOLOGY
TCP-NWRO

January 15, 2008

Mr. David Kremer
Shell Oil Products US
20945 S. Wilmington Avenue
Carson, California 90810-1039

SUBJ: SHELL GRASP MONITORING REPORT
Shell Service Station
1935 N. Northgate Way
Seattle, Washington
Delta Project ST193-5NG-X

DELTA

Dear Mr. Kremer:

Delta Consultants (Delta), has prepared this Shell GRASP Monitoring Report for the above referenced site.

GRASP (GRoundwater ASsessment Program) is a voluntary initiative by SHELL to install groundwater monitoring wells at numerous retail service stations nationwide that do not have any active release cases but have been identified to be in close proximity to one or more public water supply wells. The purpose of this program is to proactively monitor the groundwater beneath these sites and, in the event of a subsurface release, to respond quickly to protect public wells from this impact.

If you have any questions regarding this site, please contact Mr. Matthew Miller (Delta) at (425) 498-7722.

Sincerely,

DELTA CONSULTANTS

Russell Greisler
Senior Staff Geologist

State of Washington
532
Licensed Geologist
Matthew Miller

Matthew Miller, LG
Project Specialist

Attachments: Shell GRASP Monitoring Report

cc: John Wietfield, Department of Ecology, 3190 160th Avenue SE Bellevue, Washington 98008-5452

a member of: Inogen Environmental Alliance

4006 148TH AVENUE NE REDMOND, WASHINGTON 98052 USA
PHONE 425.882.3528 / 800.477.7411 FAX 425.869.1892 WWW.DELTAENV.COM

January 15, 2008

SHELL GRASP MONITORING REPORT

Station Address:	1935 N. Northgate Way Seattle, Washington
SHELL GRASP Incident No.:	97420024
DELTA Project No.:	ST19-35N-G
SHELL Environmental Engin./Phone No.:	David Kremer / (916) 853-8906
DELTA Project Manager/Phone No.:	Matthew Miller / (425) 498-7722

Current Phase of Project:	GRASP Groundwater Monitoring
Frequency of Sampling:	Annual
Frequency of Monitoring:	Annual
Is Separate Phase Hydrocarbon Present On-site (Well #'s):	☐ Yes ☒ No
Cumulative SPH Recovered to Date :	None
SPH Recovered This Quarter :	None
Sensitive Receptor(s) Information:	Unknown
Approximate Depth to Groundwater:	15.18 to 26.50 feet
Groundwater Gradient	West @ approximately 0.19 ft/ft
Summary of Unusual Activity:	None

Matthew Miller
Project Manager (Delta)

ATTACHED:

- Table 1 – Groundwater Gauging and Analytical Results
- Figure 1 – Site Location Map
- Figure 2 – Groundwater Elevation Contour Map
- Figure 3 – Hydrocarbon Distribution in Groundwater Map
- Appendix A – Field Data Sheets
- Appendix B – Field Procedures
- Appendix C – Laboratory Report and Chain-of-Custody Documents

TABLE

TABLE 1
GROUNDWATER GAUGING AND ANALYTICAL DATA
1935 N. Northgate Way
Seattle, Washington

Sample I.D. TOC[1]	Sample Date	TPH-G (µg/l)	TPH-D (µg/l)	TPH-O (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	TBA (µg/l)	Ethanol (µg/l)	Depth to GW (feet)	SPH (feet)	GW Elev.[1] (feet)
MW-1	01/14/03	<250	<250	<750	<1	<1	<1	<1	<1	<5	<5	<5	<50	NA	12.48	0.00	300.86
313.34	05/20/03	<250	<250	<500	<1	<1	<1	<1	<1	<5	<5	<5	<50	NA	11.57	0.00	301.77
	08/19/03	<250	<280	<560	<1	<1	<1	<1	<1	<5	<5	<5	<50	<5,000	13.50	0.00	299.84
	11/06/03	<250	<250	<500	<1	<1	<1	<1	<1	<5	<5	<5	<50	<5,000	12.70	0.00	300.64
	04/27/04	<250	<250	<500	<1	<1	<1	<1	<1	<5	<5	<5	<50	<5,000	11.50	0.00	301.84
	06/21/05	<50	<250	<500	<1	<1	<1	<1	<1	<2	<2	<5	<50	<5,000	14.96	0.00	298.38
	05/31/06	**99.2**	<243	<485	<0.500	<0.500	<0.500	<3.00	<5.00	<1.00	<1.00	<1.00	<50.0	<150	14.58	0.00	298.76
	07/13/07	<50.0	<250	<500	<0.500	<0.500	<0.500	<3.00	<5.00	<1.00	<1.00	<1.00	<50.0	<250	15.74	0.00	297.60
MW-2	01/14/03	<250	<250	<750	<1	<1	<1	<1	<1	<5	<5	<5	<50	NA	8.35	0.00	307.00
315.35	05/20/03	<250	<250	<500	<1	<1	<1	<1	<1	<5	<5	<5	<50	NA	7.64	0.00	307.71
	08/19/03	<250	<280	<560	<1	<1	<1	<1	<1	<5	<5	<5	<50	<5,000	8.15	0.00	307.20
	11/06/03	<250	<250	<500	<1	<1	<1	<1	<1	<5	<5	<5	<50	<5,000	7.05	0.00	308.30
	04/27/04	<250	<250	<500	<1	<1	<1	<1	<1	<5	<5	<5	<50	<5,000	5.91	0.00	309.44
	06/21/05	<50	<250	<500	<1	<1	<1	<1	<1	<2	<2	<5	<50	<5,000	14.26	0.00	301.09
	05/31/06	<50.0	<243	<485	<0.500	<0.500	<0.500	<3.00	<5.00	<1.00	<1.00	<1.00	<50.0	<150	14.47	0.00	300.88
	07/13/07	<50.0	<250	<500	<0.500	<0.500	<0.500	<3.00	<5.00	<1.00	<1.00	<1.00	<50.0	<250	15.18	0.00	300.17
MW-3	01/14/03	<250	<250	<750	<1	<1	<1	<1	<1	<5	<5	<5	<50	NA	26.30	0.00	284.54
310.84	05/20/03	<250	<250	<500	<1	<1	<1	<1	<1	<5	<5	<5	<50	NA	24.85	0.00	285.99
	08/19/03	<250	<280	<560	<1	<1	<1	<1	<1	<5	<5	<5	<50	<5,000	25.32	0.00	285.52
	11/06/03	<250	<250	<500	<1	<1	<1	<1	<1	<5	<5	<5	<50	<5,000	24.11	0.00	286.73
	04/27/04	<250	<250	<500	<1	<1	<1	<1	<1	<5	<5	<5	<50	<5,000	23.78	0.00	287.06
	06/21/05	<50	<250	<500	<1	<1	<1	<1	<1	<2	<2	<5	<50	<5,000	25.63	0.00	285.21
	05/31/06	<50.0	<245	<490	<0.500	<0.500	<0.500	<3.00	<5.00	<1.00	<1.00	<1.00	<50.0	<150	26.09	0.00	284.75
	07/13/07	<50.0	<250	<500	<0.500	<0.500	<0.500	<3.00	<5.00	<1.00	<1.00	<1.00	<50.0	<250	26.50	0.00	284.34

TABLE 1
GROUNDWATER GAUGING AND ANALYTICAL DATA
1935 N. Northgate Way
Seattle, Washington

Sample I.D. TOC[1]	Sample Date	TPH-G (µg/l)	TPH-D (µg/l)	TPH-O (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	TBA (µg/l)	Ethanol (µg/l)	Depth to GW (feet)	SPH (feet)	GW Elev.[1] (feet)
MTCA Method A Cleanup Levels:		**1000[2]**	**500**	**500**	**5**	**1000**	**700**	**1000**	**20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Notes:
µg/l = micrograms per liter
TOC = Top of well casing elevation (feet)
SPH = Separate-phase hydrocarbons
TPH-G = Total Petroleum Hydrocarbons as Gasoline
TPH-D = Total Petroleum Hydrocarbons as Diesel
TPH-O = Total Petroleum Hydrocarbons as Oil
MTBE = Methyl tert-butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
TAME = tert-Amyl methyl ether
TBA = t-Butyl Alcohol
NA = Not analyzed
<n = Below the detection limit
TPH-D and TPH-O quantified using Northwest Method NWTPH-Dx
TPH-G quantified using Northwest Method NWTPH-Gx
BTEX Compounds, MTBE, DIPE, ETBE, TAME, and TBA analyzed using EPA Method 8260B
[1]TOC elevation and groundwater elevation relative to Mean Sea Level
[2]MTCA Method A Cleanup Level for TPH-Gasoline is 800 µg/l if benzene is detectable in groundwater.

FIGURES

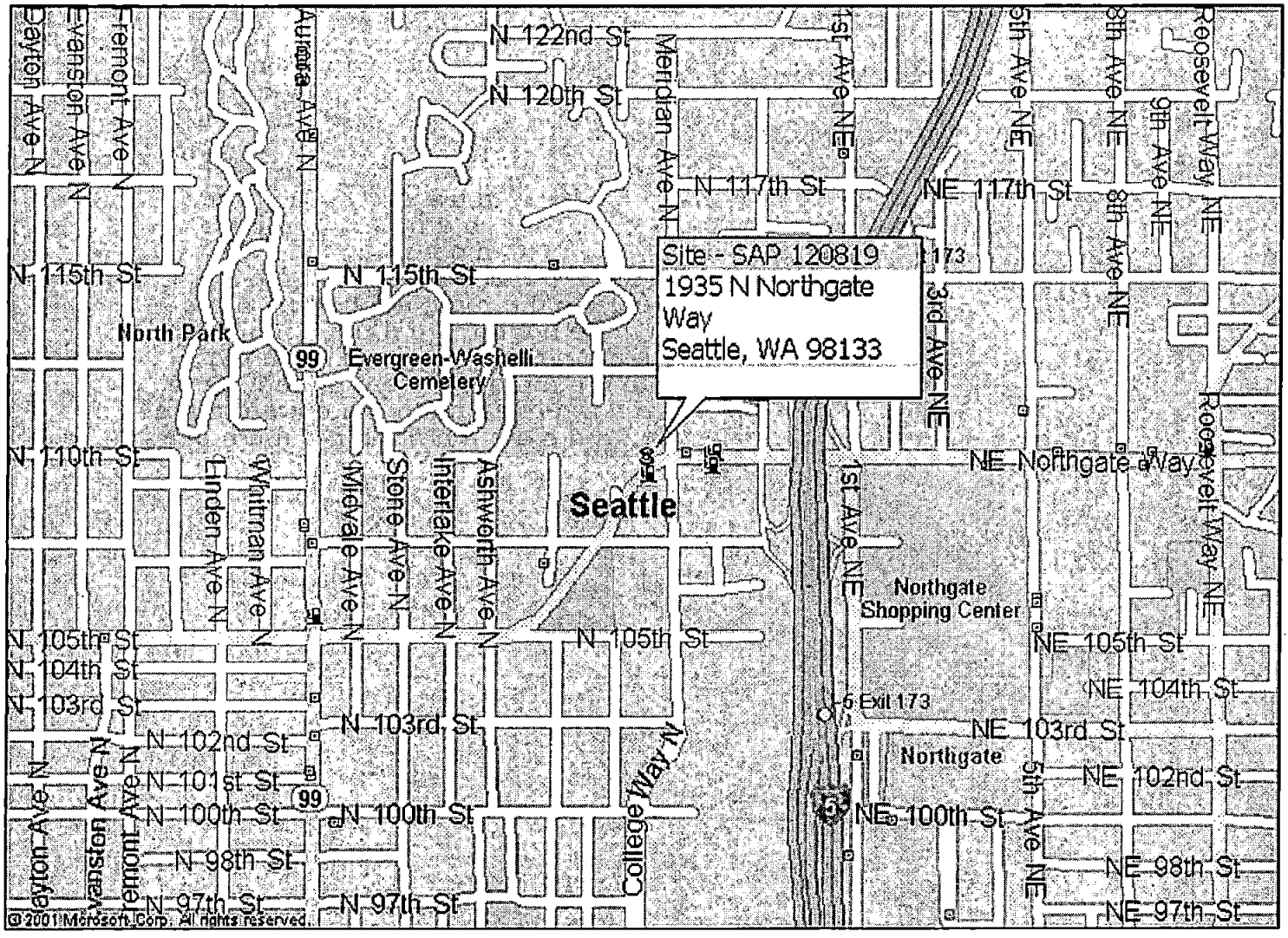


FIGURE 1

SITE LOCATION MAP

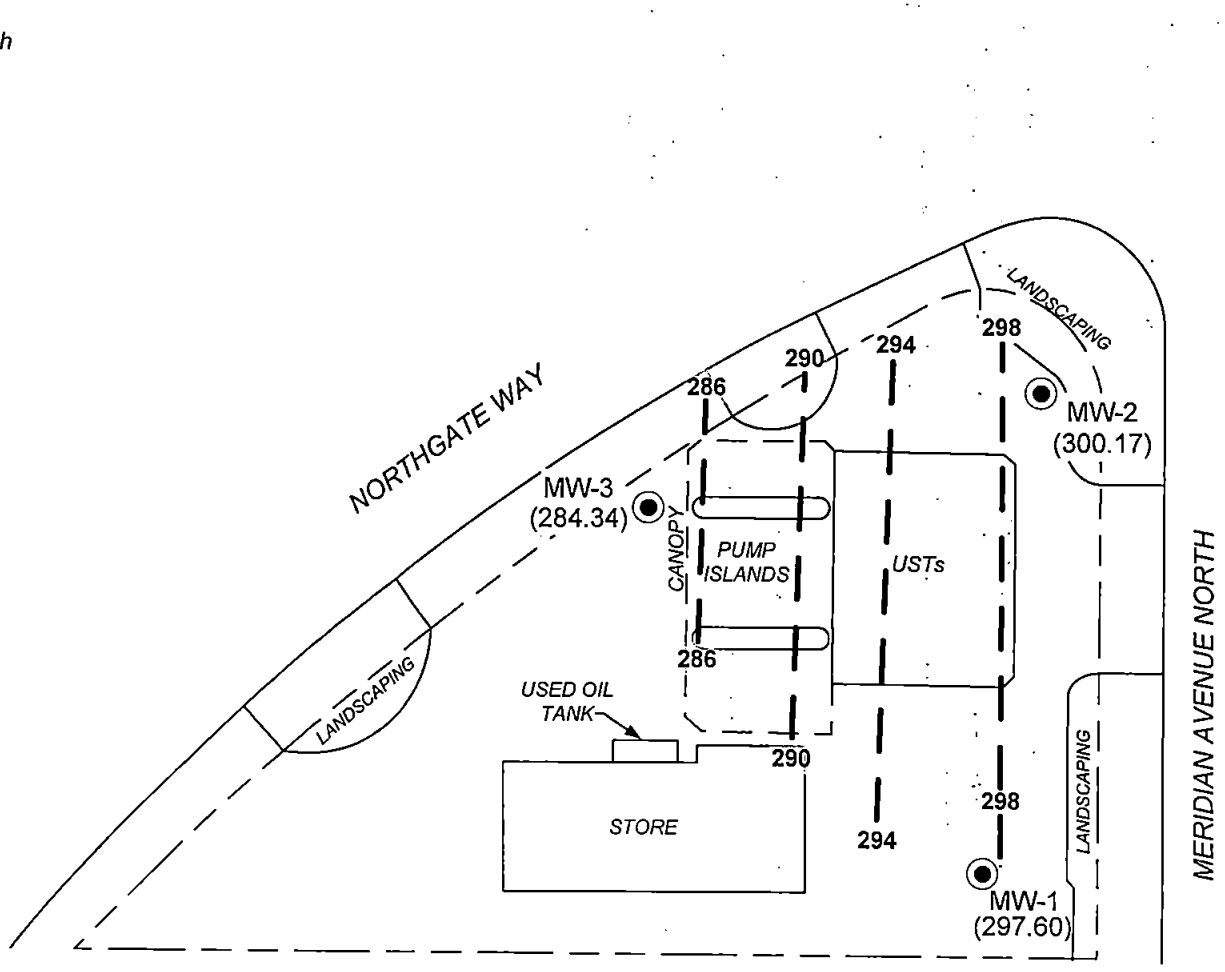
Shell Oil Products US - SAP 120819

1935 N Northgate Way

Seattle, Washington

PROJECT NO. ST193-5NG-X	DRAWN BY SB 5-17-04
FILE NO. 1	PREPARED BY SB
REVISION NO. 1	REVIEWED BY DL

DELTA



Legend

MW-1	Groundwater Monitoring Well
(298.38)	Groundwater Elevation, July 13, 2007
290	Groundwater Elevation Contour, July 13, 2007

0 40 FT

APPROX. SCALE

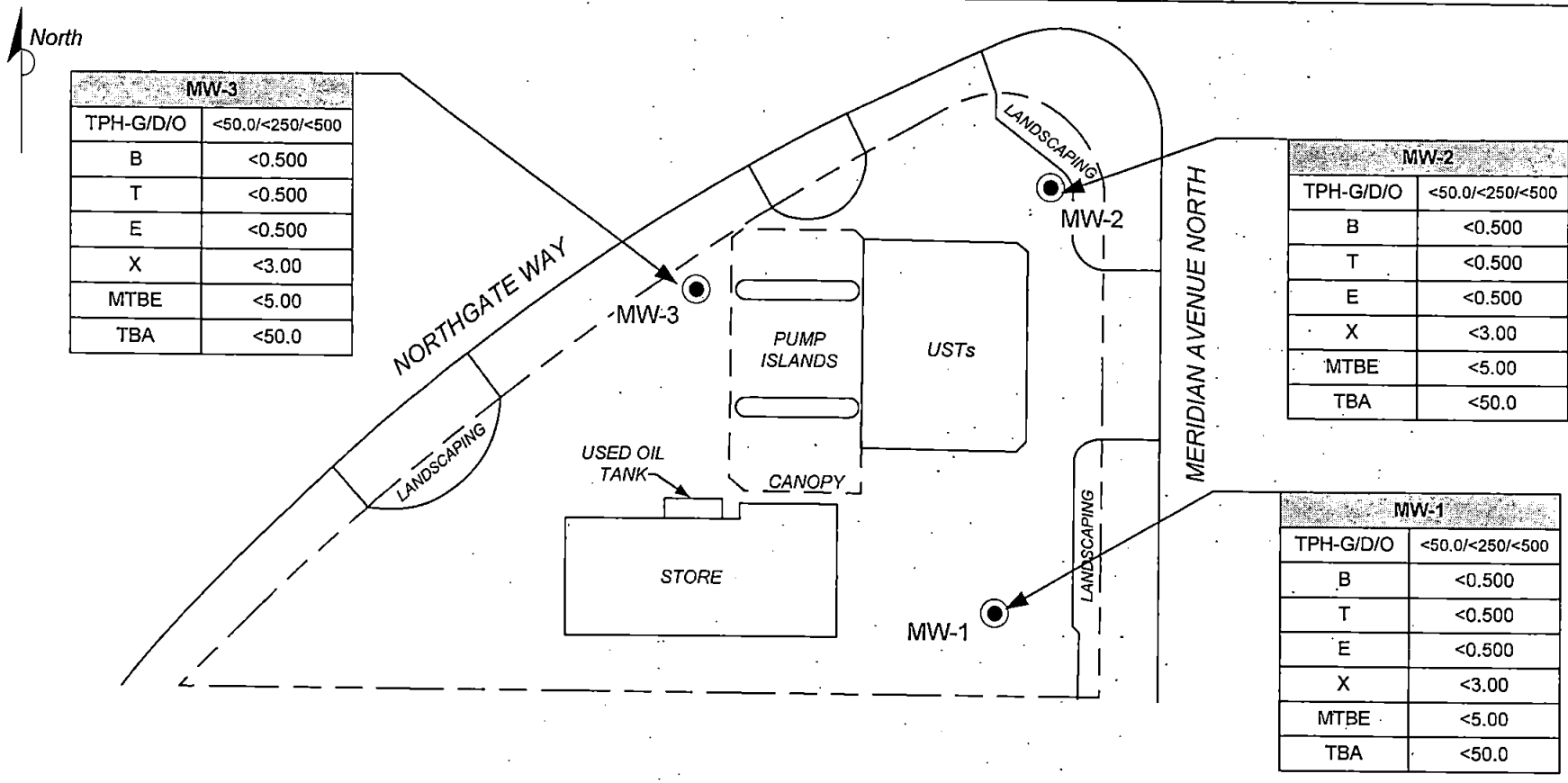
Site map based on drawing prepared by WGR Southwest, Inc. dated 7/00

FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP

Shell Oil Products US - SAP 120819
1935 North Northgate Way
Seattle, Washington

PROJECT NO. ST193-5NG-X	DRAWN BY JP 7-13-07
FILE NO. 1	PREPARED BY JP
REVISION NO. 1	REVIEWED BY MM

DELTA



MW-3	
TPH-G/D/O	<50.0/<250/<500
B	<0.500
T	<0.500
E	<0.500
X	<3.00
MTBE	<5.00
TBA	<50.0

MW-2	
TPH-G/D/O	<50.0/<250/<500
B	<0.500
T	<0.500
E	<0.500
X	<3.00
MTBE	<5.00
TBA	<50.0

MW-1	
TPH-G/D/O	<50.0/<250/<500
B	<0.500
T	<0.500
E	<0.500
X	<3.00
MTBE	<5.00
TBA	<50.0

LEGEND

◉ Groundwater Monitoring Well

TPH-G/D/O Total Petroleum Hydrocarbons in the Gasoline/Diesel/Oil ranges

B Benzene

T Toluene

E Ethylbenzene

X Total Xylenes

MTBE Methyl tert-Butyl Ether

TBA Tert-Butyl Alcohol

<N Not Detected above Laboratory Method Reporting Limit

Note: All concentrations reported in micrograms per liter (µg/l).

0 40 FT

APPROX. SCALE

Site map based on drawing prepared by WGR Southwest, Inc. dated 7/00

FIGURE 3

HYDROCARBON DISTRIBUTION IN GROUNDWATER, JULY 13, 2007

Shell Oil Products US - SAP 120819

1935 North Northgate Way

Seattle, Washington

PROJECT NO. ST193-5NG-X	DRAWN BY RG 1-9-08
FILE NO. 1	PREPARED BY RG
REVISION NO. 1	REVIEWED BY MM

DELTA

APPENDIX A

FIELD DATA SHEETS

<30' 30-75'

Shell SAP #120819
1935 N. Northgate, Seattle
2007 Annual Sampling
Site Contact #

Delta Project: ST193-5NG-X Activity Code #255 (G10: NP Sample two wells; G11: NP sample one well)
Mobe (G1: Travel to site)
Project Manager: Matthew Miller (425) 269-7178
Incident # 97420024
Quarter to be sampled **2nd Qtr 2007**
Purge Sampling

No purge sampling

Subjective analysis = depth to water/depth to product and dissolved oxygen, well integrity
Sampling parameters = DTW/DTP, pH, conductivity, temperature, ORP, DO, Turbitity

Well ID	NWTPH-Gx/BTEX	NWTPH-Dx	EDB EDC	Oxygenates*	Total Lead	Sulfate Sulfide	Subjective Analysis	Potential Product?	Do Not Monitor
MW-1	X	X		X					
MW-2	X	X		X					
MW-3	X	X		X					
Trip Blank	X								

Deep

* Oxygenates include MTBE, TBA, DIPE, ETBE, TAME and Ethanol

Note: Sample ID = well name-date
example: Date 2/12/07 for MW-2; Sample ID = MW-2-0207

Approval: _____
Date: 6/11/7

Delta Consultants
Daily Field Log

Project Name: Shell SA 120819 Project No.: ST1939NG-X

Date: 7-13-07 Location: 1935 N. Northgate Seattle

Delta Representative: Jason Ruark Weather: 70's cloudy

Field Log: 11:30 arrived on site
Signed H+S plan
Checked in

12:00 Began Sampling MW-1

12:20 MOB To MW-2

12:28 Sample MW-2

12:45 MOB TO MW-3

12:55 Sample MW-3

13:10 Cleaned up. Checked out

Initials: JR Page 1 of 1

GROUNDWATER SAMPLING FIELD SHEET

DELTA PROJECT NUMBER: ST193-5NG-X
CLIENT: Shell
SAP No./Incident No.: 120819/97420024
PAGE: 1 of 1
SITE ADDRESS/LOCATION: 1935 N. Northgate Way, Seattle
DATE: 7-13-07
FIELD PERSONNEL: Jason Ruark
WEATHER: 70s cloudy

Well ID	Time	Well Diameter (In.)	Depth to Bottom (feet)	Depth to Water (feet)	Depth to LPH (feet)	LPH Thickness (feet)	Calc. Purge (gal)	Actual Purge (gal)	Purge Method (B/LF/P)	Sample Appearance/Comments
MW-1	12:08	2"	—	15.74	—	—	—	—	—	
MW-2	12:28	2"	—	15.18	—	—	—	—	—	
MW-3	12:55	2"	—	26.50	—	—	—	—	—	

Additional Field Parameters: (Pre-Purge / Post-Purge / Low-flow Cell)

Well ID	pH	Conductivity (ms/cm)	Turbidity (NTU)	DO (mg/L)	Temp. (°C / °F)	TDS (g/L)	ORP (mV)	Comments
MW-1	—	—	—	3.2	—	—	—	
MW-2	—	—	—	3.1	—	—	—	
MW-3	—	—	—	3.3	—	—	—	

System Instructions:

Remedial System On-Site (Y/N)? NA — Comments:
Operational Upon Arrival (Y/N)? NA — Comments:
Shut Down System 1 / 24 hours before gauging (Y/N)? NA — Time/Date Downed:
Re-Start System (Y/N)? NA — Time/Date Restarted:
Purge Method: NA — Comments:

Purge Water Disposal Method:

- ☐ Treated through mobile carbon treatment unit and discharged on-site
- ☐ Placed in drums on site — No. of drums: —
- ☐ Transported off-site for treatment — Facility/Location:

Measuring Device(s): Water level indicator

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, and SITE INSPECTION FORM

COST CENTER #

DATE 7-13-07

ADDRESS 1935 N NorthGate

CITY & STATE Seattle WA

Well ID	Observations Upon Arrival: Manway Cover Type, Size, & Condition	Observations Upon Arrival: Well Cap Type & Condition	Observations Upon Arrival: Well Lock Condition (if present)	Observations Upon Arrival: Well Pad Condition	Note Repairs Made: Detailed Explanation of Maintenance Recommended and Performed	Repair Date and PM Initials
MW-1		Good	None	Good	Need to re-tap the Bolt holes	
MW-2		Good	None	Good	Needs Rubber Gasket	
MW-3		Good	None	Good	Need to re tap the Bolt holes New Gasket	
On-site Drinking Water Well						

Remediation Compound	Type and Condition of Enclosure	Condition of Area Inside Enclosure	Equipment Condition	Emergency Contact Info Visible	Cleaning / Repairs Recommended and Conducted	Repair Date and PM Initials
—	—	—	—	—	—	—

Number of Drums On-site	Drum Condition	Labeled Correctly and Writing Legible	Drums Scheduled for Pickup	Drums Located to Min Business Interference	Detailed Explanation of Any Issues Resolved	Date Drums Removed from Site and PM Initials
2	Good	Yes	—	—	* Not our Drums- Contain Gasoline - 1-55 gal 1-50 gal	

[1]Groundwater monitoring well covers must be painted in accordance with applicable regulations.

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Laura Ruos

Field Personnel Signature

Job Clearance Form

CONTACTOR INSTRUCTIONS PRIOR TO START OF WORK: 1. Review form, check appropriate boxes, read and sign bottom of this form. 2. Inform dealer, manager, or site representative of the job to be performed and potential safety concerns and obtain signature.

Station #	Station Address:	Work Order Number:	Date:
SAP 120899	1935 North Northgate Way	ST193SV6-X	7-13-07

Contractor Company Name:	Contractor person in charge (print name):	Number of Workers:	JSA Reference Number:	Start Time:	End Time:	Labor:	Travel Time:	Travel Distance:
Delta		1	610 Sampling					15 mi

Problem/Work Description:
Sampling 3 ground water wells using non purge methods

Return Call: yes / no
Damage Claim: yes / no

PPE REQUIRED (CHECK AND/OR FILL BLANK SPACE)

- ☑ SAFETY VEST
- ☑ HARD HAT
- ☑ SHOES & BOOTS
- ☐ HEARING PROTECTION
- ☐ RESPIRATOR
- ☐ PROTECTIVE CLOTHING
- ☑ GLOVES
- ☑ SAFETY GLASSES/GOGGLES
- ☐ WELDING PPE
- ☐ OTHER:

Contractor to complete the section below if circumstances, either on-site or specific to this job, may generate additional hazards that are not described in the JSA

TASK/STEP	Hazards not covered by JSA	How to reduce or eliminate risk, PPE to be Worn
Separate work area from traffic	High traffic area	Use Vehicle cones and or barricades to reduce risk

WORK DOCUMENTATION REQUIREMENTS: Lower Risk - no JSA required | Medium Risk / Higher Risk ✓ - JSA required | Higher Risk - JSA required & appropriate checklist completed (see below)

Examples of Higher / Medium risk tasks:

- ☐ Work at heights: in all cases on open sites - on closed sites if no JSA present
- ☐ Trenching or excavation related to underground tank / product line
- ☐ Heavy lifting
- ☐ Work in confined spaces (e.g. tank, interceptor or deep manhole entry)
- ☐ Hot work with risk of product or vapor ignition
- ☐ LPG system degassing, installation or maintenance

This form must be completed for each job and updated and re-signed if circumstances change or additional hazards identified

SIGN IN

Operating sites: to be signed by the Site Representative
Non-operating sites: to be signed by the Contractor Representative only

Contractor representative name	Signature
Jason Rank	Jason Rank

GENERAL SAFETY CHECKS

- Have all site personnel been informed? ✓
- Has fuel delivery service been informed? —
- Is a fuel delivery due? —
- Have isolation procedures been agreed - lock out/tag out? ✓
- Are work areas cordoned off to protect workers, site staff & public? —
- Other?

Site Representative Name	Signature

SIGN OUT

Contractor signature: Jason Rank

GENERAL SAFETY CHECKS

- Has the work area been left tidy and safe? Yes
- Are site personnel aware of status of work including remaining isolation? ✓
- Are changes to equipment documented and communicated? ✓
- Other? ✓

Site Representative Name	Signature

PARTS - Ordered, replaced, and/or disposed of (include model and serial #'s as appropriate)

The contractor, through is authorized representative, shall sign, issue, and be solely responsible for all job clearance forms and the obligations arising there under applicable to the work.

7/11/2007

APPENDIX B

FIELD PROCEDURES

GROUNDWATER MONITORING AND SAMPLING

Before the sampling event, Delta measured depth to water in each groundwater monitoring well at the facility with an electronic water level meter. This information was recorded on waterproof field sheets. Groundwater elevations (GWE) were measured to an accuracy of 0.01 feet. Samples were withdrawn from each well using a disposable polyethylene bailer and placed in the appropriate laboratory-provided container. Samples were labeled, placed into ice filled coolers, logged onto chain-of-custody forms and transported to the laboratory.

APPENDIX C

LABORATORY REPORT AND
CHAIN-OF-CUSTODY DOCUMENTS

TestAmerica
ANALYTICAL TESTING CORPORATION

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

July 27, 2007

Matthew Miller
Delta Environmental
4006 148th Ave NE
Redmond, WA/USA 98052

RE: Shell-1935 N. Northgate Way; Seattle, WA

Enclosed are the results of analyses for samples received by the laboratory on 07/13/07 13:55. The following list is a summary of the Work Orders contained in this report, generated on 07/27/07 16:42.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
BQG0335	Shell-1935 N. Northgate Way;	97420024 SAP#120819

Sandra Yakamavich

Sandra Yakamavich, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

TestAmerica
ANALYTICAL TESTING CORPORATION

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	BQG0335-01	Water	07/13/07 12:08	07/13/07 13:55
MW-2	BQG0335-02	Water	07/13/07 12:28	07/13/07 13:55
MW-3	BQG0335-03	Water	07/13/07 12:55	07/13/07 13:55
Trip Blank	BQG0335-04	Water	07/13/07 13:55	07/13/07 13:55

TestAmerica - Seattle, WA

Sandra Yakamavich

Sandra Yakamavich, Project Manager

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TestAmerica
ANALYTICAL TESTING CORPORATION

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

Volatile Petroleum Products by NWTPH-Gx

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0335-01 (MW-1)		**Water**					**Sampled: 07/13/07 12:08**			
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	7G18049	07/18/07 14:32	07/20/07 23:22	
Surrogate(s): 4-BFB (FID)			*96.0%*		*58 - 144 %*	"			"	
BQG0335-02 (MW-2)		**Water**					**Sampled: 07/13/07 12:28**			
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	7G18049	07/18/07 14:32	07/20/07 23:54	
Surrogate(s): 4-BFB (FID)			*92.5%*		*58 - 144 %*	"			"	
BQG0335-03 (MW-3)		**Water**					**Sampled: 07/13/07 12:55**			
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	7G18049	07/18/07 14:32	07/21/07 00:26	
Surrogate(s): 4-BFB (FID)			*94.7%*		*58 - 144 %*	"			"	

TestAmerica - Seattle, WA

Sandra Yakamavich

Sandra Yakamavich, Project Manager

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TestAmerica
ANALYTICAL TESTING CORPORATION

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0335-01 (MW-1)		**Water**			**Sampled: 07/13/07 12:08**					
tert-Amyl Methyl Ether	EPA 8260B	ND	----	1.00	ug/l	1x	7G17042	07/17/07 10:48	07/17/07 21:21	
Benzene	"	ND	----	0.500	"	"	"	"	"	
tert-Butyl Alcohol	"	ND	----	50.0	"	"	"	"	"	
Diisopropyl ether	"	ND	----	1.00	"	"	"	"	"	
Ethyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Ethanol	"	ND	----	250	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
Surrogate(s): 1,2-DCA-d4			*100%*		*70 - 130 %*	"			"	
Toluene-d8			*99.6%*		*75 - 125 %*	"			"	
4-BFB			*95.8%*		*75 - 125 %*	"			"	
BQG0335-02 (MW-2)		**Water**			**Sampled: 07/13/07 12:28**					
tert-Amyl Methyl Ether	EPA 8260B	ND	----	1.00	ug/l	1x	7G17042	07/17/07 10:48	07/17/07 21:51	
Benzene	"	ND	----	0.500	"	"	"	"	"	
tert-Butyl Alcohol	"	ND	----	50.0	"	"	"	"	"	
Diisopropyl ether	"	ND	----	1.00	"	"	"	"	"	
Ethyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Ethanol	"	ND	----	250	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
Surrogate(s): 1,2-DCA-d4			*101%*		*70 - 130 %*	"			"	
Toluene-d8			*101%*		*75 - 125 %*	"			"	
4-BFB			*98.4%*		*75 - 125 %*	"			"	

TestAmerica - Seattle, WA

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Sandra Yakamavich

Sandra Yakamavich, Project Manager

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Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0335-03 (MW-3)		**Water**			**Sampled: 07/13/07 12:55**					
tert-Amyl Methyl Ether	EPA 8260B	ND	----	1.00	ug/l	1x	7G19061	07/19/07 16:34	07/19/07 19:07	
Benzene	"	ND	----	0.500	"	"	"	"	"	
tert-Butyl Alcohol	"	ND	----	50.0	"	"	"	"	"	
Diisopropyl ether	"	ND	----	1.00	"	"	"	"	"	
Ethyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Ethanol	"	ND	----	250	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
Surrogate(s): 1,2-DCA-d4			*89.8%*		*70 - 130 %*	"			"	
Toluene-d8			*103%*		*75 - 125 %*	"			"	
4-BFB			*98.4%*		*75 - 125 %*	"			"	
BQG0335-04 (Trip Blank)		**Water**			**Sampled: 07/13/07 13:55**					
tert-Amyl Methyl Ether	EPA 8260B	ND	----	1.00	ug/l	1x	7G19061	07/19/07 16:34	07/19/07 18:37	
Benzene	"	ND	----	0.500	"	"	"	"	"	
tert-Butyl Alcohol	"	ND	----	50.0	"	"	"	"	"	
Diisopropyl ether	"	ND	----	1.00	"	"	"	"	"	
Ethyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Ethanol	"	ND	----	250	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
Surrogate(s): 1,2-DCA-d4			*89.3%*		*70 - 130 %*	"			"	
Toluene-d8			*101%*		*75 - 125 %*	"			"	
4-BFB			*98.8%*		*75 - 125 %*	"			"	

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Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

Semivolatile Petroleum Products by NWTPH-Dx

TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0335-01 (MW-1)		**Water**				**Sampled: 07/13/07 12:08**				
Diesel Range Hydrocarbons	NWTPH-Dx	ND	-----	0.250	mg/l	1x	7070114	07/20/07 09:21	07/20/07 18:02	
Heavy Oil Range Hydrocarbons	"	ND	-----	0.500	"	"	"	"	"	
Surrogate(s): 2-FBP			*90.9%*		*50 - 150 %*	"			"	
p-Terphenyl-d14			*95.2%*		*50 - 150 %*	"			"	
BQG0335-02 (MW-2)		**Water**				**Sampled: 07/13/07 12:28**				
Diesel Range Hydrocarbons	NWTPH-Dx	ND	-----	0.250	mg/l	1x	7070114	07/20/07 09:21	07/20/07 18:39	
Heavy Oil Range Hydrocarbons	"	ND	-----	0.500	"	"	"	"	"	
Surrogate(s): 2-FBP			*104%*		*50 - 150 %*	"			"	
p-Terphenyl-d14			*104%*		*50 - 150 %*	"			"	
BQG0335-03 (MW-3)		**Water**				**Sampled: 07/13/07 12:55**				
Diesel Range Hydrocarbons	NWTPH-Dx	ND	-----	0.250	mg/l	1x	7070114	07/20/07 09:21	07/20/07 19:16	
Heavy Oil Range Hydrocarbons	"	ND	-----	0.500	"	"	"	"	"	
Surrogate(s): 2-FBP			*85.5%*		*50 - 150 %*	"			"	
p-Terphenyl-d14			*83.3%*		*50 - 150 %*	"			"	

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Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

Volatile Petroleum Products by NWTPH-Gx - Laboratory Quality Control Results

TestAmerica - Seattle, WA

QC Batch: 7G18049 **Water Preparation Method: EPA 5030B (P/T)**

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (7G18049-BLK1)							Extracted: 07/18/07 14:32							
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	---	50.0	ug/l	1x	--	--	--	--	--	--	07/20/07 16:58	
Surrogate(s): 4-BFB (FID)		*Recovery: 94.3%*			*Limits: 58-144%*	"							*07/20/07 16:58*	
LCS (7G18049-BS1)							Extracted: 07/18/07 14:32							
Gasoline Range Hydrocarbons	NWTPH-Gx	1060	---	50.0	ug/l	1x	--	1000	106%	(80-120)	--	--	07/20/07 17:30	
Surrogate(s): 4-BFB (FID)		*Recovery: 97.7%*			*Limits: 58-144%*	"							*07/20/07 17:30*	
Duplicate (7G18049-DUP1)					QC Source: BQG0333-02		Extracted: 07/18/07 14:32							
Gasoline Range Hydrocarbons	NWTPH-Gx	84.3	---	50.0	ug/l	1x	85.0	--	--	--	0.851%	(25)	07/20/07 19:07	
Surrogate(s): 4-BFB (FID)		*Recovery: 95.0%*			*Limits: 58-144%*	"							*07/20/07 19:07*	
Duplicate (7G18049-DUP2)					QC Source: BQG0333-03		Extracted: 07/18/07 14:32							
Gasoline Range Hydrocarbons	NWTPH-Gx	168	---	50.0	ug/l	1x	173	--	--	--	2.81%	(25)	07/20/07 20:11	QP
Surrogate(s): 4-BFB (FID)		*Recovery: 93.6%*			*Limits: 58-144%*	"							*07/20/07 20:11*	
Matrix Spike (7G18049-MS1)					QC Source: BQG0333-02		Extracted: 07/18/07 14:32							
Gasoline Range Hydrocarbons	NWTPH-Gx	1170	---	50.0	ug/l	1x	85.0	1000	108%	(75-131)	--	--	07/20/07 21:47	
Surrogate(s): 4-BFB (FID)		*Recovery: 98.9%*			*Limits: 58-144%*	"							*07/20/07 21:47*	

TestAmerica - Seattle, WA

Sandra Yakamavich

Sandra Yakamavich, Project Manager

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
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PH: (425) 420.9200 FAX: (425) 420.9210

Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

Oxygenates by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica - Seattle, WA

QC Batch: 7G17042 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (7G17042-BLK1)													Extracted: 07/17/07 10:48	
tert-Amyl Methyl Ether	EPA 8260B	ND	---	1.00	ug/l	1x	--	--	--	--	--	--	07/17/07 13:29	
Benzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
tert-Butyl Alcohol	"	ND	---	50.0	"	"	--	--	--	--	--	--	"	
Diisopropyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Ethyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Ethanol	"	ND	---	250	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1,2-DCA-d4		*Recovery: 104%*			*Limits: 70-130%*	"							*07/17/07 13:29*	
Toluene-d8		*91.6%*			*75-125%*	"							"	
4-BFB		*106%*			*75-125%*	"							"	
LCS (7G17042-BS1)													Extracted: 07/17/07 10:48	
tert-Amyl Methyl Ether	EPA 8260B	20.7	---	1.00	ug/l	1x	--	20.0	104%	(75-125)	--	--	07/17/07 11:39	
Benzene	"	19.7	---	0.500	"	"	--	"	98.6%	(80-120)	--	--	"	
tert-Butyl Alcohol	"	113	---	50.0	"	"	--	100	113%	(75-125)	--	--	"	
Diisopropyl ether	"	19.3	---	1.00	"	"	--	20.0	96.7%	"	--	--	"	
Ethyl tert-butyl ether	"	20.4	---	1.00	"	"	--	"	102%	"	--	--	"	
Ethanol	"	446	---	250	"	"	--	400	112%	"	--	--	"	
Ethylbenzene	"	19.3	---	0.500	"	"	--	20.0	96.4%	"	--	--	"	
Methyl tert-butyl ether	"	20.5	---	5.00	"	"	--	"	103%	(75-126)	--	--	"	
Toluene	"	19.2	---	0.500	"	"	--	"	96.0%	(75-125)	--	--	"	
o-Xylene	"	19.7	---	1.00	"	"	--	"	98.4%	(75-130)	--	--	"	
m,p-Xylene	"	38.2	---	2.00	"	"	--	40.0	95.6%	(75-125)	--	--	"	
Xylenes (total)	"	57.9	---	3.00	"	"	--	60.0	96.5%	"	--	--	"	
Surrogate(s): 1,2-DCA-d4		*Recovery: 106%*			*Limits: 70-130%*	"							*07/17/07 11:39*	
Toluene-d8		*98.9%*			*75-125%*	"							"	
4-BFB		*97.2%*			*75-125%*	"							"	

Sandra Yakamavich

Sandra Yakamavich, Project Manager

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
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PH: (425) 420.9200 FAX: (425) 420.9210

Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

Oxygenates by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica - Seattle, WA

QC Batch: 7G17042 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (7G17042-BSD1)								Extracted: 07/17/07 10:48						
tert-Amyl Methyl Ether	EPA 8260B	20.1	---	1.00	ug/l	1x	--	20.0	101%	(75-125)	2.94%	(25)	07/17/07 12:15	
Benzene	"	18.5	---	0.500	"	"	--	"	92.6%	(80-120)	6.28%	(20)	"	
tert-Butyl Alcohol	"	103	---	50.0	"	"	--	100	103%	(75-125)	8.64%	(25)	"	
Diisopropyl ether	"	19.0	---	1.00	"	"	--	20.0	95.1%	"	1.67%	"	"	
Ethyl tert-butyl ether	"	19.9	---	1.00	"	"	--	"	99.4%	"	2.83%	"	"	
Ethanol	"	452	---	250	"	"	--	400	113%	"	1.33%	"	"	
Ethylbenzene	"	18.6	---	0.500	"	"	--	20.0	93.1%	"	3.53%	(20)	"	
Methyl tert-butyl ether	"	20.3	---	5.00	"	"	--	"	101%	(75-126)	1.23%	"	"	
Toluene	"	18.6	---	0.500	"	"	--	"	93.0%	(75-125)	3.23%	"	"	
o-Xylene	"	19.0	---	1.00	"	"	--	"	95.2%	(75-130)	3.31%	"	"	
m,p-Xylene	"	36.8	---	2.00	"	"	--	40.0	92.1%	(75-125)	3.73%	"	"	
Xylenes (total)	"	55.9	---	3.00	"	"	--	60.0	93.1%	"	3.59%	"	"	
Surrogate(s): 1,2-DCA-d4		*Recovery: 104%*			*Limits: 70-130%*	"							*07/17/07 12:15*	
Toluene-d8		*101%*			*75-125%*	"							"	
4-BFB		*98.0%*			*75-125%*	"							"	

QC Batch: 7G19061 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (7G19061-BLK1)								Extracted: 07/19/07 15:00						
tert-Amyl Methyl Ether	EPA 8260B	ND	---	1.00	ug/l	1x	--	--	--	--	--	--	07/19/07 18:07	
Benzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
tert-Butyl Alcohol	"	ND	---	50.0	"	"	--	--	--	--	--	--	"	
Diisopropyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Ethyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Ethanol	"	ND	---	250	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1,2-DCA-d4		*Recovery: 97.0%*			*Limits: 70-130%*	"							*07/19/07 18:07*	
Toluene-d8		*102%*			*75-125%*	"							"	
4-BFB		*99.0%*			*75-125%*	"							"	

TestAmerica - Seattle, WA

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Sandra Yakamavich, Project Manager

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
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Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

Oxygenates by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica - Seattle, WA

QC Batch: 7G19061 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (7G19061-BS1)							**Extracted: 07/19/07 15:00**							
tert-Amyl Methyl Ether	EPA 8260B	19.2	---	1.00	ug/l	1x	--	20.0	96.0%	(75-125)	--	--	07/19/07 16:32	
Benzene	"	18.8	---	0.500	"	"	--	"	94.0%	(80-120)	--	--	"	
tert-Butyl Alcohol	"	86.2	---	50.0	"	"	--	100	86.2%	(75-125)	--	--	"	
Diisopropyl ether	"	19.7	---	1.00	"	"	--	20.0	98.5%	"	--	--	"	
Ethyl tert-butyl ether	"	19.3	---	1.00	"	"	--	"	96.6%	"	--	--	"	
Ethanol	"	329	---	250	"	"	--	400	82.2%	"	--	--	"	
Ethylbenzene	"	19.6	---	0.500	"	"	--	20.0	98.2%	"	--	--	"	
Methyl tert-butyl ether	"	18.9	---	5.00	"	"	--	"	94.6%	(75-126)	--	--	"	
Toluene	"	20.1	---	0.500	"	"	--	"	100%	(75-125)	--	--	"	
o-Xylene	"	20.4	---	1.00	"	"	--	"	102%	(75-130)	--	--	"	
m,p-Xylene	"	40.0	---	2.00	"	"	--	40.0	99.9%	(75-125)	--	--	"	
Xylenes (total)	"	60.3	---	3.00	"	"	--	60.0	101%	"	--	--	"	
Surrogate(s): 1,2-DCA-d4		*Recovery: 96.0%*			*Limits: 70-130%*	"							*07/19/07 16:32*	
Toluene-d8		*101%*			*75-125%*	"							"	
4-BFB		*101%*			*75-125%*	"							"	
LCS Dup (7G19061-BSD1)							**Extracted: 07/19/07 15:00**							
tert-Amyl Methyl Ether	EPA 8260B	19.1	---	1.00	ug/l	1x	--	20.0	95.6%	(75-125)	0.365%	(25)	07/19/07 16:58	
Benzene	"	17.9	---	0.500	"	"	--	"	89.6%	(80-120)	4.80%	(20)	"	
tert-Butyl Alcohol	"	89.9	---	50.0	"	"	--	100	89.9%	(75-125)	4.16%	(25)	"	
Diisopropyl ether	"	19.5	---	1.00	"	"	--	20.0	97.4%	"	1.07%	"	"	
Ethyl tert-butyl ether	"	19.1	---	1.00	"	"	--	"	95.6%	"	0.988%	"	"	
Ethanol	"	361	---	250	"	"	--	400	90.2%	"	9.17%	"	"	
Ethylbenzene	"	18.6	---	0.500	"	"	--	20.0	93.0%	"	5.44%	(20)	"	
Methyl tert-butyl ether	"	19.0	---	5.00	"	"	--	"	95.0%	(75-126)	0.475%	"	"	
Toluene	"	18.8	---	0.500	"	"	--	"	93.8%	(75-125)	6.79%	"	"	
o-Xylene	"	19.4	---	1.00	"	"	--	"	96.8%	(75-130)	4.98%	"	"	
m,p-Xylene	"	38.1	---	2.00	"	"	--	40.0	95.2%	(75-125)	4.79%	"	"	
Xylenes (total)	"	57.4	---	3.00	"	"	--	60.0	95.8%	"	4.86%	"	"	
Surrogate(s): 1,2-DCA-d4		*Recovery: 93.2%*			*Limits: 70-130%*	"							*07/19/07 16:58*	
Toluene-d8		*101%*			*75-125%*	"							"	
4-BFB		*101%*			*75-125%*	"							"	

TestAmerica - Seattle, WA

Sandra Yakamavich

Sandra Yakamavich, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

TestAmerica
ANALYTICAL TESTING CORPORATION

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

Semivolatile Petroleum Products by NWTPH-Dx - Laboratory Quality Control Results

TestAmerica - Spokane, WA

QC Batch: 7070114 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (7070114-BLK1)								Extracted: 07/20/07 09:21						
Diesel Range Hydrocarbons	NWTPH-Dx	ND	---	0.250	mg/l	1x	--	--	--	--	--	--	07/20/07 16:11	
Heavy Oil Range Hydrocarbons	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2-FBP		*Recovery: 88.1%*			*Limits: 50-150%*	"							*07/20/07 16:11*	
p-Terphenyl-d14		*90.6%*			*50-150%*	"							"	
LCS (7070114-BS1)								Extracted: 07/20/07 09:21						
Diesel Range Hydrocarbons	NWTPH-Dx	2.16	---	0.250	mg/l	1x	--	2.50	86.2%	(50-150)	--	--	07/20/07 16:48	
Surrogate(s): 2-FBP		*Recovery: 103%*			*Limits: 50-150%*	"							*07/20/07 16:48*	
p-Terphenyl-d14		*99.4%*			*50-150%*	"							"	
LCS Dup (7070114-BSD1)								Extracted: 07/20/07 09:21						
Diesel Range Hydrocarbons	NWTPH-Dx	2.17	---	0.250	mg/l	1x	--	2.50	86.9%	(50-150)	0.777%	(11.8)	07/20/07 17:25	
Surrogate(s): 2-FBP		*Recovery: 102%*			*Limits: 50-150%*	"							*07/20/07 17:25*	
p-Terphenyl-d14		*102%*			*50-150%*	"							"	

TestAmerica - Seattle, WA

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Delta Environmental	Project Name:	**Shell-1935 N. Northgate Way; Seattle, WA**	
4006 148th Ave NE	Project Number:	97420024 SAP#120819	Report Created:
Redmond, WA/USA 98052	Project Manager:	Matthew Miller	07/27/07 16:42

Notes and Definitions

Report Specific Notes:

QP - Hydrocarbon result partly due to individual peak(s) in quantitation range.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR/NA - Not Reported / Not Available

dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.

wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.

RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Sandra Yakamavich

Sandra Yakamavich, Project Manager

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BQG-0335

SHELL Chain Of Custody Record

LAB:
- ☐ TA - Irvine, California
- ☐ TA - Morgan Hill, California
- ☐ TA - Sacramenta, California
- ☐ TA - Nashville, Tennesee
- ☐ Calscience
- ☑ Other_____

NAME OF PERSON TO BILL: Jeff Goold
- ☑ ENVIRONMENTAL SERVICES
- ☐ NETWORK DEV / FE
- ☐ BILL CONSULTANT
- ☐ COMPLIANCE
- ☐ RMT/CRMT

☐ CHECK BOX TO VERIFY IF NO INCIDENT # APPLIES

INCIDENT # (ES ONLY): 9 7 4 2 0 0 2 4

DATE: 7-13-07

PO #:

SAP or CRMT #: 1 2 0 8 1 9

PAGE: 1 of 1

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	GLOBAL ID NO.:
Delta Consultants, Inc.		1935 N. Northgate Way, Seattle	WA	

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	CONSULTANT PROJECT NO.:
4006 148th Ave Ne, Redmond WA 98052				577-3516

PROJECT CONTACT (Hardcopy or PDF Report to):	TELEPHONE:	FAX:	E-MAIL:	SAMPLER NAME(S) (Print):
Matthew Miller	(425)498-7722	(425)869-1892	mrmiller@deltaenv.com	Javan Ruark

LAB USE ONLY

TAT (STD IS 10 BUSINESS DAYS / RUSH IS CALENDAR DAYS): ☑ STD ☐ 5 DAY ☐ 3 DAY ☐ 2 DAY ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: _____

SPECIAL INSTRUCTIONS OR NOTES:
- ☐ EDD NOT NEEDED
- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMB RATE APPLIES
- ☐ RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	NWTPH - Gx	NWTPH-DX (w/Silica-gel)	BTEX (8260B)	5 Oxygenates (8260B) (MTBE, TBA, DIPE, TAME, ETBE)	Ethanol (8260B)	TBA (8260B)	EDC (8260B)	EDB (8011)	Total Lead
	MW-1	7/13/07	12:08	W	8	X	X	X	X	X				
	MW-2	↓	12:28	W	8	↓	↓	↓	↓	↓				
	MW-3	↓	12:55	W	8	↓	↓	↓	↓	↓				
	Trip Blank	7/13	1355	W	2				X					
		8/7/17/07												

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

TEMPERATURE ON RECEIPT C°
01
02
03
04

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Javan Ruark	Cathy Gamble	7/13/07	13:55
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/02/06 Revision

w/o 16.4

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