Oregon
Theodore R. Kulongoski, Governor

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

March 17, 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: Rose Web LLC, Start Card numbers 1006426 (MW1), 1006428 (MW3) and 1006429 (MW4), 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: SW 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.

Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

Special Standards
Request Form

REQUEST FOR WRITTEN APPROVAL TO USE CONSTRUCTION METHODS NOT INCLUDED IN OREGON ADMINISTRATIVE RULES 690-200 THROUGH 690-240

Before the request can be considered, this form must be completed. Requests shall be submitted to the Well Construction Program Coordinator, Water Resources Department, 725 Summer Street NE, Suite A, Salem OR 97301-1266. Requests may also be considered by the appropriate Regional Manager.

Date of request: 3/16/09 **Oral approval date (if applicable):** _____

Bonded Well Constructor (**name, license #, and mailing address**): Terry Jacques #10357

13600 SE AMBLER RD Clackamas OR 97015

(1) Location of Well: NE 1/4 NW 1/4 Tax lot 2900 Section 13,
Township 27 S ✗, Range 6 W ✗, Douglas County
Address at well site: 468 Garden Valley RD., Roseburg OR

(2) Start Card Number(s)(for work to be done): 1006426 thru 1006429

(3) Name and Address of Land Owner: Rosebelo LLC
2100 Sepulveda Suite 41 Manhattan Beach, CA. 90266

(4) Distance to the nearest septic tank, drainfield, closed sewage line (if water supply well)
unknown

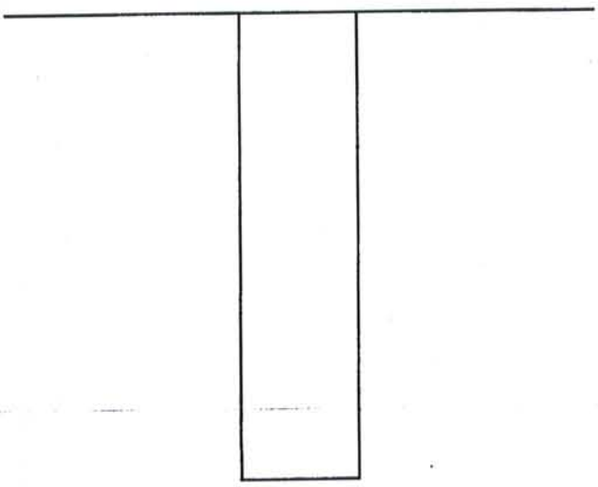
(5) The unusual site conditions which necessitate this request: NFA letter, recent analytical and well logs.

(6) The proposed construction methods that the bonded well constructor believes will be adequate for this well: (attach additional pages if needed)
abandon in place instead of overdrill to abandon.

MW2
S.C. 1006427
Don't Process
Conversation
Darryl on
3/17/09.
JB

Job/Bid Number: P09097

(7) Diagram showing the pertinent features of the proposed well design and construction: (attach additional pages if needed)



Concrete Seal 0' to 2'

Bentonite Seal 2' to 15'

Blank Casing _____ to _____

Well Screen _____ to _____

Filter Pack _____ to _____

Well Diameter 2"

Total Depth 11.5' to 15'

PLEASE NOTE:

(1) 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.

(2) If it should be determined at some future date that the well, due to its construction, is allowing ground water contamination, waste or loss of artesian pressure, the undersigned shall return to the site and rectify the problem.

(3) If oral approval was granted, a written request must be submitted to the Department either within three (3) working days of the date of oral approval or prior to the completion of the associated well work. Failure to submit a written request as described above may void prior oral approval.

I have read and understand the above information. I further attest that the information provided is accurate to the best of my knowledge.

Bonded Constructor Signature: _____

Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

Special Standards
Request Form

REQUEST FOR WRITTEN APPROVAL TO USE CONSTRUCTION METHODS NOT INCLUDED IN OREGON ADMINISTRATIVE RULES 690-200 THROUGH 690-240

Before the request can be considered, this form must be completed. Requests shall be submitted to the Well Construction Program Coordinator, Water Resources Department, 725 Summer Street NE, Suite A, Salem OR 97301-1266. Requests may also be considered by the appropriate Regional Manager.

Date of request: 3/16/09 **Oral approval date (if applicable):** _____

Bonded Well Constructor (**name, license #, and mailing address**): Terry Jacques #10357

13600 SE AMBLER RD Clackamas OR 97015

(1) Location of Well: NE 1/4 NW 1/4 Tax lot 2900 Section 13,
Township 27 S ✗, Range 6 W ✗, Douglas County
Address at well site: 468 Garden Valley RD., Roseburg OR

(2) Start Card Number(s)(for work to be done): 1006426 thru 1006429

(3) Name and Address of Land Owner: Roseweb LLC
2100 Sepulveda Suite 41 Manhattan Beach, CA. 90266

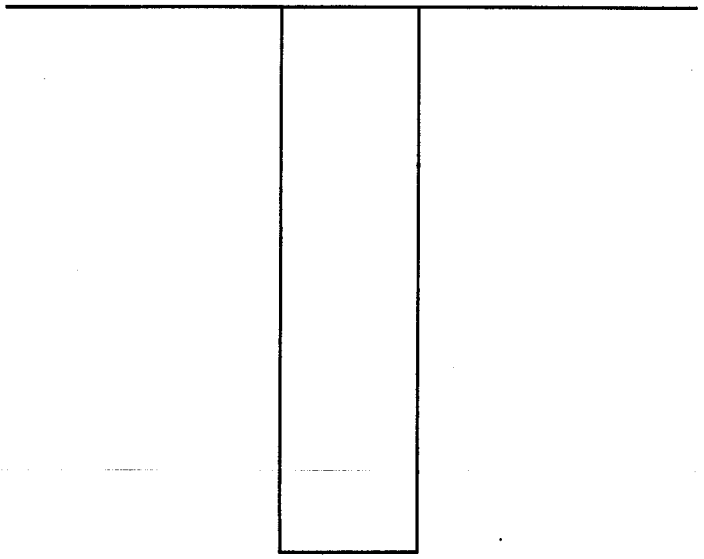
(4) Distance to the nearest septic tank, drainfield, closed sewage line (if water supply well)
Unknown

(5) The unusual site conditions which necessitate this request: NFA letter, recent analytical and well logs.

(6) The proposed construction methods that the bonded well constructor believes will be adequate for this well: (attach additional pages if needed)
abandon in place instead of overdrill to abandon.

Job/Bid Number: P09097

(7) Diagram showing the pertinent features of the proposed well design and construction: (attach additional pages if needed)



Concrete Seal 0' to 2'

Bentonite Seal 2' to 15'

Blank Casing _____ to _____

Well Screen _____ to _____

Filter Pack _____ to _____

Well Diameter 2"

Total Depth 11.5' to 15'

PLEASE NOTE:

(1) 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.

(2) If it should be determined at some future date that the well, due to its construction, is allowing ground water contamination, waste or loss of artesian pressure, the undersigned shall return to the site and rectify the problem.

(3) If oral approval was granted, a written request must be submitted to the Department either within three (3) working days of the date of oral approval or prior to the completion of the associated well work. Failure to submit a written request as described above may void prior oral approval.

I have read and understand the above information. I further attest that the information provided is accurate to the best of my knowledge.

Bonded Constructor Signature: _____

Water Resources Department

Online Start Card Purchase Receipt
3/16/2009

TERRENCE JACQUES; CASCADE DRILLING INC

The online purchase of the following start cards has been processed. Please print this for your records.

SC #	Well Type	Company	First Name	Last Name	Street	City	State	Zip	County	Street of Well	Taxlot
1006426 L84182	Monitor	ROSEWEB LLC	P09097		2100 SEPULUEDA SUITE 41	MANHATTAN BEACH	CA	90266	DOUG	486 NW GARDEN VALLEY RD ROSEBURG, OR	2900
1006427 L84183	Monitor	ROSEWEB LLC	P09097		2100 SEPULUEDA SUITE 41	MANHATTAN BEACH	CA	90266	DOUG	486 NW GARDEN VALLEY RD ROSEBURG, OR	2900
1006428 L84184	Monitor	ROSEWEB LLC	P09097		2100 SEPULUEDA SUITE 41	MANHATTAN BEACH	CA	90266	DOUG	486 NW GARDEN VALLEY RD ROSEBURG, OR	2900
1006429 L84185	Monitor	ROSEWEB LLC	P09097		2100 SEPULUEDA SUITE 41	MANHATTAN BEACH	CA	90266	DOUG	486 NW GARDEN VALLEY RD ROSEBURG, OR	2900

Return to Start Card Cart
Return to Main Menu

DOUG 54856
04-10-2007

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-0395)

WELL LABEL # L 84182

START CARD # 191738

(1) LAND OWNER

Owner Well I.D. MW-1

First Name _____ Last Name _____

Company ROSE WEB LLC

Address 2100 SEPULVEDA SUITE 41

City MANHATTAN BEACH State CA Zip 90266

(2) TYPE OF WORK

☒ New ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

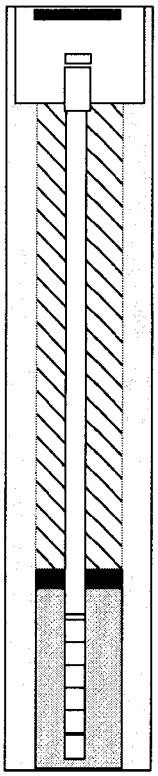
(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☒ Hollow Stem Auger ☐ Cable Mud ☐ Reverse Rotary ☐ Other _____

(4) CONSTRUCTION

Piezometer Well ☐

Depth of Completed Well 13 ft. Special Standard ☒



MONUMENT/VAULT Below Ground From 0 To 1

BORE HOLE
Diameter 10 From 0 To 13

CASING
Dia. 2 From 0 To 3
Gauge Sch 40 Wld Thrd
Material ○ Steel ◉ Plastic ☐ ☒

LINER
Dia. _____ From ☐ _____ To _____
Gauge _____ Wld Thrd
Material ○ Steel ○ Plastic ☐ ☐

SEAL
From 1 To 3
Material Bentonite Chips
Amount 2.00 S Grout weight _____

SCREEN
Casing/Liner _____ Material PVC
Diameter 2 From 3 To 13
Slot Size .010

FILTER
From 3 To 13 Material Sand Size of pack 10/20

(5) WELL TESTS

○ Pump ○ Bailer ○ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature _____ °F Lab analysis ☐ Yes By _____

Supervising Geologist/Engineer _____

Water quality concerns? ☐ Yes (describe below)

From	To	Description	Amount	Units

(6) LOCATION OF WELL (legal description)

County Douglas Twp 27.00 S N/S Range 6.00 W E/W WM

Sec 13 NE 1/4 of the NW 1/4 Tax Lot 2900

Tax Map Number _____ Lot _____

Lat ° ' " or _____ DMS or DD

Long ° ' " or _____ DMS or DD

◉ Street address of well ○ Nearest address

486 NW GARDEN VALLEY RD, ROSEBURG

(7) STATIC WATER LEVEL

	Date	SWL(psi)	+ SWL(ft)
Existing Well / Predeepening			
Completed Well			

Flowing Artesian? ☐ Dry Hole? ☒

WATER BEARING ZONES Depth water was first found _____

SWL Date	From	To	Est Flow	SWL(psi)	+ SWL(ft)

(8) WELL LOG

Ground Elevation _____

Material	From	To
Asphalt	0	.41
Silt & Gravel	.41	5
Weathered Rock	5	13

Date Started 03-06-2007 Completed 03-06-2007

(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 10511 Date 04-10-2007

Electronically Submitted
Signed PAUL R SMITH (E-filed)

(bonded) Monitor Well Constructor Certification

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 construction standards. This report is true to the best of my knowledge and belief.

License Number 10442 Date 04-10-2007

Electronically Submitted
Signed BILL KLOSTERMANN (E-filed)

Contact Info (optional) Geo-Tech Explorations Div. of Boart Longyear Co.

New S/C 1006426

ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version: 0.31

DOUG 54857
04-10-2007

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OR 690-240-0395)

WELL LABEL # L 84183

START CARD # 191739

(1) LAND OWNER

Owner Well I.D. MW-2

First Name _____ Last Name _____

Company ROSE WEBB LLC

Address 2100 SEPULVEDA SUITE 41

City MANHATTAN BEACH State CA Zip 90266

(2) TYPE OF WORK

☒ New ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

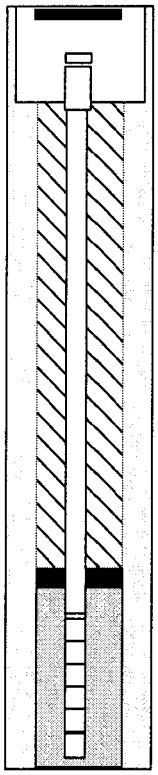
(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☒ Hollow Stem Auger ☐ Cable Mud ☐ Reverse Rotary ☐ Other _____

(4) CONSTRUCTION

Piezometer Well ☐

Depth of Completed Well 15 ft. Special Standard ☒



MONUMENT/VAULT Below Ground From 0 To 1

BORE HOLE
Diameter 10 From 0 To 15

CASING
Dia. 2 From ☐ 0 To 3
Gauge Sch 40 Wld Thrd
Material ◯ Steel ◉ Plastic ☐ ☒

LINER
Dia. _____ From ☐ _____ To _____
Gauge _____ Wld Thrd
Material ◯ Steel ◯ Plastic ☐ ☐

SEAL
From 1 To 3
Material Bentonite Chips
Amount 2.00 S Grout weight _____

SCREEN
Casing/Liner _____ Material PVC
Diameter 2 From 3 To 15
Slot Size .010

FILTER
From 3 To 15 Material Sand Size of pack 10/20

(5) WELL TESTS

◯ Pump ◯ Bailer ◯ Air ◯ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature _____ °F Lab analysis ☐ Yes By _____

Supervising Geologist/Engineer _____

Water quality concerns? ☐ Yes (describe below)

From	To	Description	Amount	Units

(6) LOCATION OF WELL (legal description)

County Douglas Twp 27.00 S N/S Range 6.00 W E/W WM
Sec 13 NE 1/4 of the NW 1/4 Tax Lot 2900
Tax Map Number _____ Lot _____
Lat ° ' " or _____ DMS or DD
Long ° ' " or _____ DMS or DD
◉ Street address of well ◯ Nearest address
468 NW GARDEN VALLEY RD, ROSEBURG

(7) STATIC WATER LEVEL

	Date	SWL(psi)	+ SWL(ft)
Existing Well / Predeepening			
Completed Well			

Flowing Artesian? ☐ Dry Hole? ☒

WATER BEARING ZONES Depth water was first found _____

SWL Date	From	To	Est Flow	SWL(psi)	+ SWL(ft)

(8) WELL LOG

Ground Elevation _____

Material	From	To
Asphalt	0	.41
Silt & Gravels	.41	5
Weathered Rock	5	15

Date Started 03-06-2007 Completed 03-06-2007

(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 10511 Date 04-10-2007
Electronically Submitted
Signed PAUL R SMITH (E-filed)

(bonded) Monitor Well Constructor Certification
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 construction standards. This report is true to the best of my knowledge and belief.

License Number 10442 Date 04-10-2007
Electronically Submitted
Signed BILL KLOSTERMANN (E-filed)
Contact Info (optional) Geo-Tech Explorations Div. of Boart Longyear Co.

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version: 0.31

New s/c 1006427

DOUG 54858
04-10-2007

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-0395)

WELL LABEL # L 84184

START CARD # 191740

New S/C 1006428

(1) LAND OWNER

Owner Well I.D. MW-3

First Name _____ Last Name _____

Company ROSE WEB LLC

Address 2100 SEPULVEDA SUITE 41

City MANHATTAN BEACH State CA Zip 90266

(2) TYPE OF WORK

☒ New ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

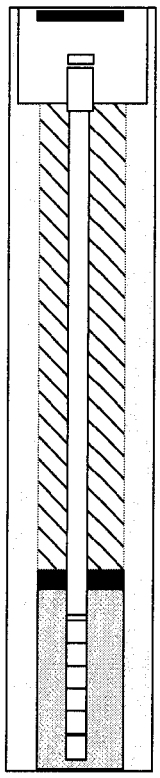
(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☒ Hollow Stem Auger ☐ Cable Mud ☐ Reverse Rotary ☐ Other _____

(4) CONSTRUCTION

Piezometer Well ☐

Depth of Completed Well 12 ft. Special Standard ☒



MONUMENT/VAULT Below Ground
From 0 To 1

BORE HOLE
Diameter 10 From 0 To 12

CASING
Dia. 2 From 0 To 3
Gauge Sch 40 Wld ☐ Thrd ☒
Material ○ Steel ◉ Plastic

LINER
Dia. _____ From ☐ _____ To _____
Gauge _____ Wld ☐ Thrd ☐
Material ○ Steel ○ Plastic

SEAL
From 1 To 3
Material Bentonite Chips
Amount 2.00 S Grout weight _____

SCREEN
Casing/Liner _____ Material PVC
Diameter 2 From 3 To 12
Slot Size .010

FILTER
From 3 To 12 Material Sand Size of pack 10/20

(5) WELL TESTS

○ Pump ○ Bailer ○ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature _____ °F Lab analysis ☐ Yes By _____

Supervising Geologist/Engineer _____

Water quality concerns? ☐ Yes (describe below)

From	To	Description	Amount	Units

(6) LOCATION OF WELL (legal description)

County Douglas Twp 27.00 S N/S Range 6.00 W E/W WM
Sec 13 NE 1/4 of the NW 1/4 Tax Lot 2900
Tax Map Number _____ Lot _____
Lat ° ' " or _____ DMS or DD
Long ° ' " or _____ DMS or DD
◉ Street address of well ○ Nearest address

468 GARDEN VALLEY RD, ROSEBURG

(7) STATIC WATER LEVEL

	Date	SWL(psi)	+ SWL(ft)
Existing Well / Predeepening			
Completed Well			

Flowing Artesian? ☐ Dry Hole? ☒

WATER BEARING ZONES Depth water was first found _____

SWL Date	From	To	Est Flow	SWL(psi)	+ SWL(ft)

(8) WELL LOG

Ground Elevation _____

Material	From	To
Asphalt	0	.41
Silt & Gravel	.41	4
Weathered Rock	4	12

Date Started 03-07-2007 Completed 03-07-2007

(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 10511 Date 04-10-2007
Electronically Submitted
Signed PAUL R SMITH (E-filed)

(bonded) Monitor Well Constructor Certification
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 construction standards. This report is true to the best of my knowledge and belief.

License Number 10442 Date 04-10-2007
Electronically Submitted
Signed BILL KLOSTERMANN (E-filed)
Contact Info (optional) Geo-Tech Explorations Div. of Boart Longyear Co.

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version: 0.31

DOUG 54859
04-10-2007

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-0395)

WELL LABEL # L 84185

START CARD # 191741

(1) LAND OWNER

Owner Well I.D. MW-4

First Name _____ Last Name _____

Company ROSE WEB LLC

Address 2100 SEPULVEDA SUITE 41

City MANHATTAN BEACH State CA Zip 90266

(2) TYPE OF WORK

☒ New ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

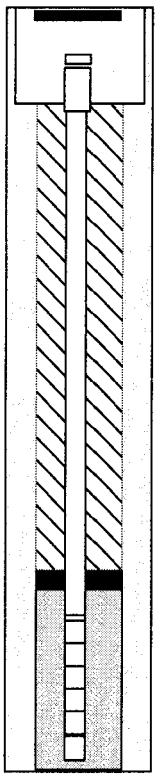
(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☒ Hollow Stem Auger ☐ Cable Mud ☐ Reverse Rotary ☐ Other _____

(4) CONSTRUCTION

Piezometer Well ☐

Depth of Completed Well 11.5 ft. Special Standard ☒



MONUMENT/VAULT Below Ground From 0 To 1

BORE HOLE
Diameter 10 From 0 To 11.5

CASING
Dia. 2 From ☐ 0 To 3
Gauge Sch 40 Wld Thrd
Material ○ Steel ◉ Plastic ☐ ☒

LINER
Dia. _____ From ☐ _____ To _____
Gauge _____ Wld Thrd
Material ○ Steel ○ Plastic ☐ ☐

SEAL
From 1 To 3
Material Bentonite Chips
Amount 2.00 S Grout weight _____

SCREEN
Casing/Liner _____ Material PVC
Diameter 2 From 3 To 11.5
Slot Size .010

FILTER
From 3 To 11.5 Material Sand Size of pack 10/20

(5) WELL TESTS

○ Pump ○ Bailer ○ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature _____ °F Lab analysis ☐ Yes By _____

Supervising Geologist/Engineer _____

Water quality concerns? ☐ Yes (describe below)

From	To	Description	Amount	Units

(6) LOCATION OF WELL (legal description)

County Douglas Twp 27.00 S N/S Range 6.00 W E/W WM

Sec 13 NE 1/4 of the NW 1/4 Tax Lot 2900

Tax Map Number _____ Lot _____

Lat ° ' " or _____ DMS or DD

Long ° ' " or _____ DMS or DD

◉ Street address of well ○ Nearest address

468 GARDEN VALLEY RD, ROSEBURG

(7) STATIC WATER LEVEL

	Date	SWL(psi)	+ SWL(ft)
Existing Well / Predeepening			
Completed Well			

Flowing Artesian? ☐ Dry Hole? ☒

WATER BEARING ZONES Depth water was first found _____

SWL Date	From	To	Est Flow	SWL(psi)	+ SWL(ft)

(8) WELL LOG

Ground Elevation _____

Material	From	To
Asphalt	0	.41
Silt & Gravel	.41	4
Weathered Rock	4	11.5

Date Started 03-07-2007 Completed 03-07-2007

(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 10511 Date 04-10-2007

Electronically Submitted
Signed PAUL R SMITH (E-filed)

(bonded) Monitor Well Constructor Certification
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 construction standards. This report is true to the best of my knowledge and belief.

License Number 10442 Date 04-10-2007

Electronically Submitted
Signed BILL KLOSTERMANN (E-filed)

Contact Info (optional) Geo-Tech Explorations Div. of Boart Longyear Co.

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version: 0.31

New S/C 1006429

Map of well

Oregon

Theodore R. Kulongoski, Governor

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

MAR 09 2007

March 7, 2007

BOART LONGYEAR
GREG MCINNIS #1464
19700 SW TETON
TUALATIN OR 97062

FINAL ORDER

Dear Greg:

The Special Standard request you submitted for owner: Rose Web LLC, Start Card numbers 191738 thru 191741, is hereby approved for the following: You may construct these four monitoring wells with a minimum two-foot bentonite filter pack seal (See OAR 690-240-0460). The placement of the bentonite shall conform to the Department's rules and the manufacturer's specifications and result in a seal that is free of voids or bridges. Care shall be taken to minimize the introduction of bentonite dust. Only sodium bentonite chips manufactured to be greater than 1/4 inch or tablets shall be used below the water level in the sealing interval. Your Special Standard request form is enclosed. All other construction requirements 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
Well Construction Program Coordinator
Well Construction and Compliance Section

enclosure

cc: John Unger, 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.

Map of well

Oregon

Theodore R. Kulongoski, Governor

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

RECEIVED
MAR 09 2007

March 7, 2007

BOART LONGYEAR
GREG MCINNIS #1464
19700 SW TETON
TUALATIN OR 97062

FINAL ORDER

Dear Greg:

The Special Standard request you submitted for owner: Rose Web LLC, Start Card numbers 191738 thru 191741, is hereby approved for the following: You may construct these four monitoring wells with a minimum two-foot bentonite filter pack seal (See OAR 690-240-0460). The placement of the bentonite shall conform to the Department's rules and the manufacturer's specifications and result in a seal that is free of voids or bridges. Care shall be taken to minimize the introduction of bentonite dust. Only sodium bentonite chips manufactured to be greater than 1/4 inch or tablets shall be used below the water level in the sealing interval. Your Special Standard request form is enclosed. All other construction requirements 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
Well Construction Program Coordinator
Well Construction and Compliance Section

enclosure

cc: John Unger, 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.

Map of well

Oregon
Theodore R. Kulongoski, Governor

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

RECEIVED
MAR 09 2007

March 7, 2007

BOART LONGYEAR
GREG MCINNIS #1464
19700 SW TETON
TUALATIN OR 97062

FINAL ORDER

Dear Greg:

The Special Standard request you submitted for owner: Rose Web LLC, Start Card numbers 191738 thru 191741, is hereby approved for the following: You may construct these four monitoring wells with a minimum two-foot bentonite filter pack seal (See OAR 690-240-0460). The placement of the bentonite shall conform to the Department's rules and the manufacturer's specifications and result in a seal that is free of voids or bridges. Care shall be taken to minimize the introduction of bentonite dust. Only sodium bentonite chips manufactured to be greater than 1/4 inch or tablets shall be used below the water level in the sealing interval. Your Special Standard request form is enclosed. All other construction requirements 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
Well Construction Program Coordinator
Well Construction and Compliance Section

enclosure

cc: John Unger, 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.

Map of well

Oregon
Theodore R. Kulongoski, Governor

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

March 7, 2007

BOART LONGYEAR
GREG MCINNIS #1464
19700 SW TETON
TUALATIN OR 97062

FINAL ORDER

Dear Greg:

The Special Standard request you submitted for owner: Rose Web LLC, Start Card numbers 191738 thru 191741, is hereby approved for the following: You may construct these four monitoring wells with a minimum two-foot bentonite filter pack seal (See OAR 690-240-0460). The placement of the bentonite shall conform to the Department's rules and the manufacturer's specifications and result in a seal that is free of voids or bridges. Care shall be taken to minimize the introduction of bentonite dust. Only sodium bentonite chips manufactured to be greater than 1/4 inch or tablets shall be used below the water level in the sealing interval. Your Special Standard request form is enclosed. All other construction requirements 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
Well Construction Program Coordinator
Well Construction and Compliance Section

enclosure

cc: John Unger, 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.

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Western Region Eugene Office
1102 Lincoln Street, Suite 210
Eugene, OR 97401
(541) 686-7838
FAX (541) 686-7551
TTY (541) 687-5603

MAR 13 2009

March 10, 2009

Mr. Jeff Goold
Shell Oil Products US
HSE-Environmental Services
20945 S. Wilmington Avenue
Carson, CA 90810

Re: LUST #10-06-1727
UST Facility ID # 1383
Shell Oil Products, US (Former)
468 NW Garden Valley Blvd, Roseburg, Oregon
Risk-Based Closure - No Further Action

Dear Mr. Goold:

The Department of Environmental Quality (DEQ) has reviewed the file for the leaking underground storage tank (LUST) cleanup site referenced above. Recent correspondence in the site file includes a report entitled *Request for No Further Action*, sent to the DEQ on your behalf by Delta Environmental on May 21, 2008. The Department has completed its review of this report and other information available in the file.

DEQ has determined the investigation, cleanup, and risk evaluation of the petroleum release meet the requirements of the Oregon Administrative Rules (OAR) 340-122-0205 through 340-122-0360 and for site closure pursuant to Risk-Based Cleanups in accordance with OAR 340-122-0244 and 340-122-0250, 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 the following.

Background

The site is located at 468 NW Garden Valley Boulevard, Roseburg, Oregon, T27S, R6W, S13BA, Tax Lot 2800. There is one building on the site, the former gas station with a canopy over the former filling area. The remainder of the site is paved or covered by concrete.

In September 2006, four 10,000-gallon underground storage tanks (USTs), four dispensers, and associated piping were decommissioned by excavation and removal. All USTs and associated pumps and piping appeared to be in good condition based on visual analysis. One pit water sample and four soil samples were collected during decommissioning activities and indicated that there had been a petroleum release.

After tank decommissioning and removal, Delta oversaw an effort to determine the nature and extent of associated contamination. Six GeoProbe® borings were conducted on-site in the fall of 2006. Monitoring wells were installed in the winter of 2007, and monitoring continued for six quarterly events.

The site is located within the City of Roseburg, on Garden Valley Boulevard. The site is currently unoccupied. Zoning is general commercial (C-3). Much of the surrounding area is also zoned commercial on a fairly busy thoroughfare. The subject property is currently owned by Rosewebb LLC. The exposure scenarios applicable to the subject property are occupational and construction/excavation worker direct contact to soil, excavation worker direct contact to groundwater, and occupational vapor intrusion from groundwater.

Beneath surface treatments, mixed clay and sand are present down to a surface of weathered basalt, followed by basaltic bedrock at <15' below grade. GeoProbe borings generally met refusal at depths of approximately 6 feet. The shallow groundwater flow is to the south, varying to the southeast or southwest seasonally, with a gradient of about 0.05 ft/ft based on monitoring wells.

The subject and surrounding properties are connected to a municipal water supply. Because adjacent and downgradient land use is commercial and groundwater concentrations of contaminants are so low, Delta did not conduct a beneficial water use survey.

Tank Decommissioning

Raven and Associates, a subcontractor to Delta Environmental, conducted decommissioning activities on September 19 and 20, 2006. A petroleum release was identified during the UST decommissioning completed in September 2006 and was reported to the Department on October 16, 2006. The tank was disposed of in the Douglas County Landfill via Roseburg Disposal Company. Approximately 100 gallons of water and fuel was recovered from the tanks and excavation and was disposed of with Oil Re-Refining of Portland. The excavation was subsequently filled with crushed rock.

During the initial characterization of the site, one water sample was collected from the excavation and twelve soil samples were collected from various parts of the excavation to provide a preliminary characterization of contamination. Soil samples were analyzed for petroleum hydrocarbons by the HCID[1] method. The HCID results indicated diesel range hydrocarbons (TPH-Dx[2]) in one sample from the south sidewall of the UST excavation. Follow-up analysis of this sample showed 161 mg/kg[3] TPH-Dx, 0.0387 mg/kg pyrene, and no other PAH[4] or BTEX[5] compounds at common detection limits. Water was collected

[1] HCID: Hydrocarbon Identification
[2] TPH-Dx: Total Petroleum Hydrocarbon-Diesel
[3] mg/kg: milligrams per kilogram, or parts per million
[4] PAH: polycyclic aromatic hydrocarbons

from the pit and analyzed for BTEX (EPA Method 8021B) and PAH concentrations (EPA method 8270M-SIM). Benzene, toluene, ethylbenzene, xylenes, and several PAHs were detected above applicable risk-based concentrations, and additional investigation was deemed necessary.

Site Characterization

To assess the extent of remaining contamination, Delta conducted a direct push probe investigation of on-site soil and groundwater in October and November of 2006. Six borings were advanced to depths of about 6 feet below grade. Six soil samples were analyzed for HCID and appropriate TPH constituents. Gasoline-range hydrocarbons (TPH-Gx), diesel-range hydrocarbons (TPH-Dx), and heavy-oil range hydrocarbons (TPH-O) were detected in two samples and an additional sample contained only heavy-oil range hydrocarbons. Three samples were analyzed for BTEX constituents; one had a detection of n-propylbenzene at a level well below 1 mg/kg, no other BTEX constituents were detected. Three samples were analyzed for PAH concentrations; two contained low levels of fluorine and three contained low levels of phenanthrene[6]. Three groundwater samples were analyzed for HCID and TPH; one contained 267 µg/L[7] of TPH-Gx, 7040 µg/L of TPH-Dx, and 2210 µg/L of heavy-oil range organics. The only VOC[8] detected in this sample was n-propylbenzene (very low levels).

In March of 2007, four monitoring wells were installed to determine the impact of contamination to on-site groundwater.

Remedial Investigation and Groundwater Monitoring

Six soil samples were collected as part of monitoring well construction. Low levels of TPH (Gx and Dx) and lead were found in a few samples, along with very low concentrations of several toxic petroleum constituents. Following well installation, groundwater monitoring was initiated. Groundwater elevations are generally around 3 feet below grade, and the groundwater gradient is generally to the south or southeast. Initial groundwater analysis showed that benzene, methyl tetr-butyl ether (MTBE) and TPH are contaminants of potential concern (COPC). Five quarterly monitoring events throughout 2007 and early 2008 followed the initial sampling when wells were installed. Concentrations of the COPC consistently declined in all wells in which they were detected through late 2007 and early 2008.

No active remediation has been performed at the site.

Risk-Based Site Evaluation and Public Participation

---

[5] BTEX: benzene, toluene, ethylbenzene, total xylenes
[6] Note that DEQ does not define risk-based concentrations for phenanthrene.
[7] µg/L: micrograms per liter, or parts per billion (ppb)
[8] VOC: volatile organic compound

Urban residential, occupational workers, and construction/excavation workers were considered appropriate receptors for the site, and residents were considered for the adjacent area. DEQ generic exposure pathways for soil direct contact, soil and groundwater volatilization to outdoor air, and vapor intrusion to indoor air from the guidance document *Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites* (RBDM) dated September 29, 1999, were considered appropriate for the site with the exception of the following.

Contaminants in soil ingestion, direct contact, and inhalation – It is extremely unlikely that this site would be used for residential purposes, based on zoning and nearby land use. Furthermore, the site is entirely paved and most likely to be used in a retail or similar fashion. Therefore, only construction worker and excavation worker scenarios are considered applicable.

Contaminants in soil leaching to groundwater – The site and surrounding area are supplied with municipal water and will continue to be in the future. Therefore, this pathway is not applicable.

Contaminants in groundwater being ingested and/or inhaled – The site and surrounding area are supplied with municipal water and will continue to be in the future. Therefore, this pathway is not applicable.

Soil samples collected from the edges of the final excavation and direct-push borings contain up to 452 mg/kg of TPH-Gx, 2610mg/kg of TPH-Dx, 0.0424 mg/kg of n-propylbenzene, 0.379 mg/kg of fluorine, 0.393 mg/kg of phenanthrene, and 0.0387 mg/kg of pyrene. After the initial excavation, measured PAHs and VOCs in soil are below applicable RBCs for direct contact, volatilization to outdoor air, and vapor intrusion into buildings (urban residential). Site-specific RBCs for TPH were calculated based on constituent data, and all soils are below site-specific TPH RBCs. Benzene was not detected in any analyzed soil sample.

Groundwater monitoring continued for a total of 6 quarterly sampling events. TPH-Gx was detected at up to 160 µg/L in the most recent sampling event, prior to that it was below detection limits of 200 µg/L.TPH-Dx was detected at up to 648 µg/L in the early sampling events at MW-2, but has been consistently below detection limits for three quarters. The calculated site specific RBC for TPH in drinking water is 570 µg/L based on constituent data. Benzene has been below detection limits for 4 quarters, and was present up to 1.22 µg/L in early sampling. MTBE was present in two wells at the beginning of monitoring, but has been below applicable RBCs for 3 quarters. No others VOCs or PAHs have been detected in groundwater monitoring.

As part of the public participation process required under OAR 340-122-0260, the DEQ sent letters to adjacent property owners and the City of Roseburg Public Works Department on October 16th, 2008, regarding the proposed risk-based closure of the site and asking that

responses be submitted by November 19th, 2008. Comments were received from one neighboring property owner alleging that this site is contributing to contamination on the neighboring property. DEQ does not believe that it is reasonably likely to be the case.

Regulatory Site Closure

All conditions for site closure pursuant to Risk-Based Cleanups have been met.

The Department's current 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 other conditions at the site, other than the release of the petroleum product specifically addressed in your reports.

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

We appreciate your efforts to comply with the regulations to ensure that this property has been adequately cleaned up. If you have any questions regarding this matter, please feel free to contact me in Eugene at (541) 687-7329.

Sincerely,

Seth Sadofsky
Remedial Action Specialist

Greg Aitken
Western Region Tanks Program Manager

cc: Kevin McCarthy, Delta Env., 4640 SW Macadam Avenue Suite 210, Portland, 97239
Gordon Webb, 2100 Sepulveda, Suite 41, Manhattan Beach CA 90266
Stephen Shropshire, Jordan Schrader PO Box 230669, Portland, 97281

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Shell Products US - Environmental Services

Certificate of Analysis Number:

08050156

Report To:	**Project Name:** INC#97689999,S AP#121296
Delta Consultants	**Site:** 468 Garden Valley Rd
Jeff Schatz	**Site Address:** 468 Garden Valley Road
4640 SW Macadam Avenue,St e.110	Roseburg OR
Portland	**PO Number:** 4700002340
OR	**State:** Oregon
97239-	**State Cert.N o.:** TX200001
ph: (503) 863-2109 fax:	**Date Reported:** 5/28/2008

This Report Contains A Total Of22 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

5/28/2008

Date

Testr esults meeta ll requirements ofN ELAC,unl ess specified in the narrative.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Case Narrative for:

Shell Products US - Environmental Services

Certificate of Analysis Number:

08050156

Report To:		Project Name:	INC#97689999,S AP#121296
Delta Consultants		Site:	468 Garden Valley Rd
Jeff Schatz		Site Address:	468 Garden Valley Road
4640 SW Macadam Avenue,St e.110			Roseburg OR
Portland		PO Number:	4700002340
OR		State:	Oregon
97239-		State Cert.N o.:	TX200001
ph: (503) 863-2109	fax:	Date Reported:	5/28/2008

Results are reported on a wetw eightb asis unless dry-weightc orrection is denoted in the units field on the analytical report(" mg\kg-dry " or " ug\kg-dry ").

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested atr andom from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory.S ince the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group.T he validity of the analytical procedures for which data is reported in this analytical reporti s determined by the Laboratory Control Sample (LCS) and the Method Blank (MB).T he Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Due to limited sample volume,a Matrix Spike (MS) or Matrix Spike Duplicate (MSD) was note xtracted with Batch ID:78454 for the Diesel Range Organics analysis by Method NWTPH-Dx. A Laboratory Control Sample (LCS) and a Laboratory Control Sample Duplicate (LCSD) were extracted with the analytical batch and serve as the batch quality control (QC). The LCS and LCSD recovered acceptably and precision criteria were met.

Due to limited sample volume,a Matrix Spike (MS) or Matrix Spike Duplicate (MSD) was nota nalyzed with Batch ID:R 237513 for the Volatile Organics analysis by SW846 Method 8260B. A Laboratory Control Sample (LCS) and a Laboratory Control Sample Duplicate (LCSD) were extracted with the analytical batch and serve as the batch quality control (QC). The LCS and LCSD recovered acceptably and precision criteria were met.

Due to limited sample volume,a Matrix Spike (MS) or Matrix Spike Duplicate (MSD) was nota nalyzed with Batch ID:R 237602 for the Gasoline Range Organics analysis by SW846 Method 8015. A Laboratory Control Sample (LCS) and a Laboratory Control Sample Duplicate (LCSD) were extracted with the analytical batch and serve as the batch quality control (QC). The LCS and LCSD recovered acceptably and precision criteria were met.

Due to limited sample volume,a Matrix Spike (MS) or Matrix Spike Duplicate (MSD) was note xtracted with Batch ID:78517 for the SIM Semivolatile Organics analysis by Method 8270C. A Laboratory Control Sample (LCS) and a Laboratory Control Sample Duplicate (LCSD) were extracted with the analytical batch and serve as the batch quality control (QC). The LCS and LCSD recovered acceptably and precision criteria were met.

Some of the percentr ecoveries and RPD's on the QC reportf or the MS/MSD may be different than the calculated recoveries and RPD's using the sample resulta nd the MS/MSD results thata ppear on the reportb ecause, the actual raw resulti s used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this reportw ill be footnoted in the analytical resultp age(s) or the quality control summary page(s).

Please do noth esitate to contactu s if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This reports hall notb e reproduced excepti n full,w ithout the written approvalo f the laboratory.T he reported results are only representative of the samples submitted for testing.

SPL, Inc.i s pleased to be ofs ervice to you.W e anticipate working with you in fulfilling all your currenta nd future analytical needs.

5/28/2008

Erica Cardenas
Project Manager

Date

Testr esults meet all requirements of NELAC,unl ess specified in the narrative.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Shell Products US - Environmental Services

Certificate of Analysis Number:

08050156

Report To: Delta Consultants
Jeff Schatz
4640 SW Macadam Avenue,St e.110

Portland
OR
97239-
ph: (503) 863-2109 fax:

Fax To:

Project Name: INC#97689999,S AP#121296
Site: 468 Garden Valley Rd
Site Address: 468 Garden Valley Road
Roseburg OR
PO Number: 4700002340
State: Oregon
State Cert.N o.: TX200001
Date Reported: 5/28/2008

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW1	08050156-01	Water	5/1/2008	5/2/2008 10:00:00 AM		☐
MW2	08050156-02	Water	5/1/2008	5/2/2008 10:00:00 AM		☐
MW3	08050156-03	Water	5/1/2008	5/2/2008 10:00:00 AM		☐
MW4	08050156-04	Water	5/1/2008	5/2/2008 10:00:00 AM		☐
Trip Blank	08050156-05	Water	5/1/2008	5/2/2008 10:00:00 AM		☐

E Cardenas

5/28/2008

Erica Cardenas
ProjectM anager

Date

Richard R.R eed
Laboratory Director

Ted Yen
Quality Assurance Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW1 **Collected:** 05/01/2008 0:00 **SPL Sample ID:** 08050156-01

Site: 468 Garden Valley Rd

Analyses/Method	Result	QUAL	Rep.Limit		Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				**MCL**	**NWTPH-DX**	**Units: mg/L**		
Diesel Range Organics (C12-C24)	ND		0.5		1	05/07/08 13:48	RLR	4422542
Oil Range Organics (C24-C32)	ND		1		1	05/07/08 13:48	RLR	4422542
Surr:n -Pentacosane	78.8		% 20-131		1	05/07/08 13:48	RLR	4422542

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C/3630	05/03/2008 13:13	N_M	2.00

GASOLINE RANGE ORGANICS				**MCL**	**NWTPH-GX**	**Units: mg/L**		
Gasoline Range Organics	ND		0.05		1	05/13/08 20:55	DMN	4438458
Surr:1 ,4-Difluorobenzene	102		% 60-155		1	05/13/08 20:55	DMN	4438458
Surr:4 -Bromofluorobenzene	106		% 50-158		1	05/13/08 20:55	DMN	4438458
SIM SEMIVOLATILES ORGANICS BY METHOD 8270C				**MCL**	**SW8270C**	**Units: ug/L**		
1-Methylnaphthalene	ND		1		1	05/22/08 18:56	S_G	4456466
2-Methylnaphthalene	ND		1		1	05/22/08 18:56	S_G	4456466
Acenaphthene	ND		1		1	05/22/08 18:56	S_G	4456466
Acenaphthylene	ND		1		1	05/22/08 18:56	S_G	4456466
Anthracene	ND		1		1	05/22/08 18:56	S_G	4456466
Benz(a)anthracene	ND		1		1	05/22/08 18:56	S_G	4456466
Benzo(a)pyrene	ND		1		1	05/22/08 18:56	S_G	4456466
Benzo(b)fluoranthene	ND		1		1	05/22/08 18:56	S_G	4456466
Benzo(g,h,i)perylene	ND		1		1	05/22/08 18:56	S_G	4456466
Benzo(k)fluoranthene	ND		1		1	05/22/08 18:56	S_G	4456466
Chrysene	ND		1		1	05/22/08 18:56	S_G	4456466
Dibenz(a,h)anthracene	ND		1		1	05/22/08 18:56	S_G	4456466
Dibenzofuran	ND		1		1	05/22/08 18:56	S_G	4456466
Fluoranthene	ND		1		1	05/22/08 18:56	S_G	4456466
Fluorene	ND		1		1	05/22/08 18:56	S_G	4456466
Indeno(1,2,3-cd)pyrene	ND		1		1	05/22/08 18:56	S_G	4456466
Naphthalene	ND		1		1	05/22/08 18:56	S_G	4456466
Phenanthrene	ND		1		1	05/22/08 18:56	S_G	4456466
Pyrene	ND		1		1	05/22/08 18:56	S_G	4456466
Surr:2 -Fluorobiphenyl	78.2		% 10-146		1	05/22/08 18:56	S_G	4456466
Surr:N itrobenzene-d5	81.9		% 10-195		1	05/22/08 18:56	S_G	4456466
Surr:T erphenyl-d14	69.0		% 10-149		1	05/22/08 18:56	S_G	4456466

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	05/05/2008 14:43	N_M	1.00

Qualifiers:

ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - ResultO ver Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW1 **Collected:** 05/01/2008 0:00 **SPL Sample ID:** 08050156-01

Site: 468 Garden Valley Rd

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
1,2,4-Trimethylbenzene	ND		0.5	1	05/14/08 3:56	DY	4437041
1,2-Dibromoethane	ND		0.5	1	05/14/08 3:56	DY	4437041
1,2-Dichloroethane	ND		0.5	1	05/14/08 3:56	DY	4437041
1,3,5-Trimethylbenzene	ND		0.5	1	05/14/08 3:56	DY	4437041
Benzene	ND		0.5	1	05/14/08 3:56	DY	4437041
Ethylbenzene	ND		0.5	1	05/14/08 3:56	DY	4437041
Isopropylbenzene	ND		0.5	1	05/14/08 3:56	DY	4437041
Methyl tert-butyl ether	5.2		0.5	1	05/14/08 3:56	DY	4437041
Naphthalene	ND		0.5	1	05/14/08 3:56	DY	4437041
n-Propylbenzene	ND		1	1	05/14/08 3:56	DY	4437041
Toluene	ND		0.5	1	05/14/08 3:56	DY	4437041
m,p-Xylene	ND		0.5	1	05/14/08 3:56	DY	4437041
o-Xylene	ND		0.5	1	05/14/08 3:56	DY	4437041
Xylenes,Total	ND		0.5	1	05/14/08 3:56	DY	4437041
Surr:1 ,2-Dichloroethane-d4	98.8		% 71-140	1	05/14/08 3:56	DY	4437041
Surr:4 -Bromofluorobenzene	101		% 70-130	1	05/14/08 3:56	DY	4437041
Surr:T oluene-d8	97.1		% 61-121	1	05/14/08 3:56	DY	4437041

Qualifiers:

ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - ResultO ver Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW2 **Collected:** 05/01/2008 0:00 **SPL Sample ID:** 08050156-02

Site: 468 Garden Valley Rd

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	NWTPH-DX	Units: mg/L		
Diesel Range Organics (C12-C24)	ND		0.5	1	05/07/08 14:08	RLR	4422543
Oil Range Organics (C24-C32)	ND		1	1	05/07/08 14:08	RLR	4422543
Surr:n -Pentacosane	42.0		% 20-131	1	05/07/08 14:08	RLR	4422543

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C/3630	05/03/2008 13:13	N_M	2.00

GASOLINE RANGE ORGANICS			MCL	NWTPH-GX	Units: mg/L		
Gasoline Range Organics	0.16		0.05	1	05/10/08 19:59	DMN	4432584
Surr:1 ,4-Difluorobenzene	103		% 60-155	1	05/10/08 19:59	DMN	4432584
Surr:4 -Bromofluorobenzene	108		% 50-158	1	05/10/08 19:59	DMN	4432584

SIM SEMIVOLATILES ORGANICS BY METHOD 8270C			MCL	SW8270C	Units: ug/L		
1-Methylnaphthalene	ND		1	1	05/22/08 19:30	S_G	4456467
2-Methylnaphthalene	ND		1	1	05/22/08 19:30	S_G	4456467
Acenaphthene	ND		1	1	05/22/08 19:30	S_G	4456467
Acenaphthylene	ND		1	1	05/22/08 19:30	S_G	4456467
Anthracene	ND		1	1	05/22/08 19:30	S_G	4456467
Benz(a)anthracene	ND		1	1	05/22/08 19:30	S_G	4456467
Benzo(a)pyrene	ND		1	1	05/22/08 19:30	S_G	4456467
Benzo(b)fluoranthene	ND		1	1	05/22/08 19:30	S_G	4456467
Benzo(g,h,i)perylene	ND		1	1	05/22/08 19:30	S_G	4456467
Benzo(k)fluoranthene	ND		1	1	05/22/08 19:30	S_G	4456467
Chrysene	ND		1	1	05/22/08 19:30	S_G	4456467
Dibenz(a,h)anthracene	ND		1	1	05/22/08 19:30	S_G	4456467
Dibenzofuran	ND		1	1	05/22/08 19:30	S_G	4456467
Fluoranthene	ND		1	1	05/22/08 19:30	S_G	4456467
Fluorene	ND		1	1	05/22/08 19:30	S_G	4456467
Indeno(1,2,3-cd)pyrene	ND		1	1	05/22/08 19:30	S_G	4456467
Naphthalene	ND		1	1	05/22/08 19:30	S_G	4456467
Phenanthrene	ND		1	1	05/22/08 19:30	S_G	4456467
Pyrene	ND		1	1	05/22/08 19:30	S_G	4456467
Surr:2 -Fluorobiphenyl	82.5		% 10-146	1	05/22/08 19:30	S_G	4456467
Surr:N itrobenzene-d5	87.5		% 10-195	1	05/22/08 19:30	S_G	4456467
Surr:T erphenyl-d14	71.1		% 10-149	1	05/22/08 19:30	S_G	4456467

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	05/05/2008 14:43	N_M	1.00

Qualifiers:

ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - ResultO ver Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW2 **Collected:** 05/01/2008 0:00 **SPL Sample ID:** 08050156-02

Site: 468 Garden Valley Rd

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
1,2,4-Trimethylbenzene	ND		0.5	1	05/14/08 4:18	DY	4437042
1,2-Dibromoethane	ND		0.5	1	05/14/08 4:18	DY	4437042
1,2-Dichloroethane	ND		0.5	1	05/14/08 4:18	DY	4437042
1,3,5-Trimethylbenzene	ND		0.5	1	05/14/08 4:18	DY	4437042
Benzene	ND		0.5	1	05/14/08 4:18	DY	4437042
Ethylbenzene	ND		0.5	1	05/14/08 4:18	DY	4437042
Isopropylbenzene	ND		0.5	1	05/14/08 4:18	DY	4437042
Methyl tert-butyl ether	ND		0.5	1	05/14/08 4:18	DY	4437042
Naphthalene	ND		0.5	1	05/14/08 4:18	DY	4437042
n-Propylbenzene	ND		1	1	05/14/08 4:18	DY	4437042
Toluene	ND		0.5	1	05/14/08 4:18	DY	4437042
m,p-Xylene	ND		0.5	1	05/14/08 4:18	DY	4437042
o-Xylene	ND		0.5	1	05/14/08 4:18	DY	4437042
Xylenes,Total	ND		0.5	1	05/14/08 4:18	DY	4437042
Surr:1 ,2-Dichloroethane-d4	98.5		% 71-140	1	05/14/08 4:18	DY	4437042
Surr:4 -Bromofluorobenzene	102		% 70-130	1	05/14/08 4:18	DY	4437042
Surr:T oluene-d8	97.7		% 61-121	1	05/14/08 4:18	DY	4437042

Qualifiers:

ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - ResultO ver Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW3 **Collected:** 05/01/2008 0:00 **SPL Sample ID:** 08050156-03

Site: 468 Garden Valley Rd

Analyses/Method	Result	QUAL	Rep.Limit		Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				**MCL**	**NWTPH-DX**	**Units: mg/L**		
Diesel Range Organics (C12-C24)	ND		0.5		1	05/07/08 14:28	RLR	4422544
Oil Range Organics (C24-C32)	ND		1		1	05/07/08 14:28	RLR	4422544
Surr:n -Pentacosane	80.8		% 20-131		1	05/07/08 14:28	RLR	4422544

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C/3630	05/03/2008 13:13	N_M	2.00

GASOLINE RANGE ORGANICS				MCL	NWTPH-GX	Units: mg/L		
Gasoline Range Organics	ND		0.05		1	05/10/08 20:27	DMN	4432585
Surr:1 ,4-Difluorobenzene	103		% 60-155		1	05/10/08 20:27	DMN	4432585
Surr:4 -Bromofluorobenzene	107		% 50-158		1	05/10/08 20:27	DMN	4432585

SIM SEMIVOLATILES ORGANICS BY METHOD 8270C				MCL	SW8270C	Units: ug/L		
1-Methylnaphthalene	ND		1		1	05/22/08 20:04	S_G	4456468
2-Methylnaphthalene	ND		1		1	05/22/08 20:04	S_G	4456468
Acenaphthene	ND		1		1	05/22/08 20:04	S_G	4456468
Acenaphthylene	ND		1		1	05/22/08 20:04	S_G	4456468
Anthracene	ND		1		1	05/22/08 20:04	S_G	4456468
Benz(a)anthracene	ND		1		1	05/22/08 20:04	S_G	4456468
Benzo(a)pyrene	ND		1		1	05/22/08 20:04	S_G	4456468
Benzo(b)fluoranthene	ND		1		1	05/22/08 20:04	S_G	4456468
Benzo(g,h,i)perylene	ND		1		1	05/22/08 20:04	S_G	4456468
Benzo(k)fluoranthene	ND		1		1	05/22/08 20:04	S_G	4456468
Chrysene	ND		1		1	05/22/08 20:04	S_G	4456468
Dibenz(a,h)anthracene	ND		1		1	05/22/08 20:04	S_G	4456468
Dibenzofuran	ND		1		1	05/22/08 20:04	S_G	4456468
Fluoranthene	ND		1		1	05/22/08 20:04	S_G	4456468
Fluorene	ND		1		1	05/22/08 20:04	S_G	4456468
Indeno(1,2,3-cd)pyrene	ND		1		1	05/22/08 20:04	S_G	4456468
Naphthalene	ND		1		1	05/22/08 20:04	S_G	4456468
Phenanthrene	ND		1		1	05/22/08 20:04	S_G	4456468
Pyrene	ND		1		1	05/22/08 20:04	S_G	4456468
Surr:2 -Fluorobiphenyl	87.5		% 10-146		1	05/22/08 20:04	S_G	4456468
Surr:N itrobenzene-d5	92.0		% 10-195		1	05/22/08 20:04	S_G	4456468
Surr:T erphenyl-d14	74.2		% 10-149		1	05/22/08 20:04	S_G	4456468

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	05/05/2008 14:43	N_M	1.00

Qualifiers:

ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - ResultO ver Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW3 **Collected:** 05/01/2008 0:00 **SPL Sample ID:** 08050156-03

Site: 468 Garden Valley Rd

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
1,2,4-Trimethylbenzene	ND		0.5	1	05/14/08 4:40	DY	4437043
1,2-Dibromoethane	ND		0.5	1	05/14/08 4:40	DY	4437043
1,2-Dichloroethane	ND		0.5	1	05/14/08 4:40	DY	4437043
1,3,5-Trimethylbenzene	ND		0.5	1	05/14/08 4:40	DY	4437043
Benzene	ND		0.5	1	05/14/08 4:40	DY	4437043
Ethylbenzene	ND		0.5	1	05/14/08 4:40	DY	4437043
Isopropylbenzene	ND		0.5	1	05/14/08 4:40	DY	4437043
Methyl tert-butyl ether	ND		0.5	1	05/14/08 4:40	DY	4437043
Naphthalene	ND		0.5	1	05/14/08 4:40	DY	4437043
n-Propylbenzene	ND		1	1	05/14/08 4:40	DY	4437043
Toluene	ND		0.5	1	05/14/08 4:40	DY	4437043
m,p-Xylene	ND		0.5	1	05/14/08 4:40	DY	4437043
o-Xylene	ND		0.5	1	05/14/08 4:40	DY	4437043
Xylenes,Total	ND		0.5	1	05/14/08 4:40	DY	4437043
Surr:1 ,2-Dichloroethane-d4	99.8		% 71-140	1	05/14/08 4:40	DY	4437043
Surr:4 -Bromofluorobenzene	102		% 70-130	1	05/14/08 4:40	DY	4437043
Surr:T oluene-d8	96.9		% 61-121	1	05/14/08 4:40	DY	4437043

Qualifiers:

ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - ResultO ver Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW4 **Collected:** 05/01/2008 0:00 **SPL Sample ID:** 08050156-04

Site: 468 Garden Valley Rd

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			**MCL**	**NWTPH-DX**	**Units: mg/L**		
Diesel Range Organics (C12-C24)	ND		0.5	1	05/07/08 14:48	RLR	4422547
Oil Range Organics (C24-C32)	ND		1	1	05/07/08 14:48	RLR	4422547
Surr:n -Pentacosane	92.2		% 20-131	1	05/07/08 14:48	RLR	4422547

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C/3630	05/03/2008 13:13	N_M	2.00

GASOLINE RANGE ORGANICS			MCL	NWTPH-GX	Units: mg/L		
Gasoline Range Organics	0.097		0.05	1	05/10/08 20:55	DMN	4432586
Surr:1 ,4-Difluorobenzene	99.8		% 60-155	1	05/10/08 20:55	DMN	4432586
Surr:4 -Bromofluorobenzene	107		% 50-158	1	05/10/08 20:55	DMN	4432586

SIM SEMIVOLATILES ORGANICS BY METHOD 8270C			MCL	SW8270C	Units: ug/L		
1-Methylnaphthalene	ND		1	1	05/22/08 20:38	S_G	4456469
2-Methylnaphthalene	ND		1	1	05/22/08 20:38	S_G	4456469
Acenaphthene	ND		1	1	05/22/08 20:38	S_G	4456469
Acenaphthylene	ND		1	1	05/22/08 20:38	S_G	4456469
Anthracene	ND		1	1	05/22/08 20:38	S_G	4456469
Benz(a)anthracene	ND		1	1	05/22/08 20:38	S_G	4456469
Benzo(a)pyrene	ND		1	1	05/22/08 20:38	S_G	4456469
Benzo(b)fluoranthene	ND		1	1	05/22/08 20:38	S_G	4456469
Benzo(g,h,i)perylene	ND		1	1	05/22/08 20:38	S_G	4456469
Benzo(k)fluoranthene	ND		1	1	05/22/08 20:38	S_G	4456469
Chrysene	ND		1	1	05/22/08 20:38	S_G	4456469
Dibenz(a,h)anthracene	ND		1	1	05/22/08 20:38	S_G	4456469
Dibenzofuran	ND		1	1	05/22/08 20:38	S_G	4456469
Fluoranthene	ND		1	1	05/22/08 20:38	S_G	4456469
Fluorene	ND		1	1	05/22/08 20:38	S_G	4456469
Indeno(1,2,3-cd)pyrene	ND		1	1	05/22/08 20:38	S_G	4456469
Naphthalene	ND		1	1	05/22/08 20:38	S_G	4456469
Phenanthrene	ND		1	1	05/22/08 20:38	S_G	4456469
Pyrene	ND		1	1	05/22/08 20:38	S_G	4456469
Surr:2 -Fluorobiphenyl	84.0		% 10-146	1	05/22/08 20:38	S_G	4456469
Surr:N itrobenzene-d5	95.3		% 10-195	1	05/22/08 20:38	S_G	4456469
Surr:T erphenyl-d14	73.0		% 10-149	1	05/22/08 20:38	S_G	4456469

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	05/05/2008 14:43	N_M	1.00

Qualifiers:

ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - ResultO ver Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW4 **Collected:** 05/01/2008 0:00 **SPL Sample ID:** 08050156-04

Site: 468 Garden Valley Rd

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
1,2,4-Trimethylbenzene	ND		0.5	1	05/14/08 5:02	DY	4437044
1,2-Dibromoethane	ND		0.5	1	05/14/08 5:02	DY	4437044
1,2-Dichloroethane	ND		0.5	1	05/14/08 5:02	DY	4437044
1,3,5-Trimethylbenzene	ND		0.5	1	05/14/08 5:02	DY	4437044
Benzene	ND		0.5	1	05/14/08 5:02	DY	4437044
Ethylbenzene	ND		0.5	1	05/14/08 5:02	DY	4437044
Isopropylbenzene	ND		0.5	1	05/14/08 5:02	DY	4437044
Methyl tert-butyl ether	1.8		0.5	1	05/14/08 5:02	DY	4437044
Naphthalene	ND		0.5	1	05/14/08 5:02	DY	4437044
n-Propylbenzene	ND		1	1	05/14/08 5:02	DY	4437044
Toluene	ND		0.5	1	05/14/08 5:02	DY	4437044
m,p-Xylene	ND		0.5	1	05/14/08 5:02	DY	4437044
o-Xylene	ND		0.5	1	05/14/08 5:02	DY	4437044
Xylenes,Total	ND		0.5	1	05/14/08 5:02	DY	4437044
Surr:1 ,2-Dichloroethane-d4	99.8		% 71-140	1	05/14/08 5:02	DY	4437044
Surr:4 -Bromofluorobenzene	101		% 70-130	1	05/14/08 5:02	DY	4437044
Surr:T oluene-d8	97.1		% 61-121	1	05/14/08 5:02	DY	4437044

Qualifiers:

ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - ResultO ver Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: Trip Blank **Collected:** 05/01/2008 0:00 **SPL Sample ID:** 08050156-05

Site: 468 Garden Valley Rd

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			**MCL**	**NWTPH-GX**	**Units: mg/L**		
Gasoline Range Organics	ND		0.05	1	05/08/08 14:44	DMN	4427274
Surr:1 ,4-Difluorobenzene	102		% 60-155	1	05/08/08 14:44	DMN	4427274
Surr:4 -Bromofluorobenzene	104		% 50-158	1	05/08/08 14:44	DMN	4427274
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
1,2,4-Trimethylbenzene	ND		0.5	1	05/13/08 22:24	DY	4437040
1,2-Dibromoethane	ND		0.5	1	05/13/08 22:24	DY	4437040
1,2-Dichloroethane	ND		0.5	1	05/13/08 22:24	DY	4437040
1,3,5-Trimethylbenzene	ND		0.5	1	05/13/08 22:24	DY	4437040
Benzene	ND		0.5	1	05/13/08 22:24	DY	4437040
Ethylbenzene	ND		0.5	1	05/13/08 22:24	DY	4437040
Isopropylbenzene	ND		0.5	1	05/13/08 22:24	DY	4437040
Methyl tert-butyl ether	ND		0.5	1	05/13/08 22:24	DY	4437040
Naphthalene	ND		0.5	1	05/13/08 22:24	DY	4437040
n-Propylbenzene	ND		1	1	05/13/08 22:24	DY	4437040
Toluene	ND		0.5	1	05/13/08 22:24	DY	4437040
m,p-Xylene	ND		0.5	1	05/13/08 22:24	DY	4437040
o-Xylene	ND		0.5	1	05/13/08 22:24	DY	4437040
Xylenes,Total	ND		0.5	1	05/13/08 22:24	DY	4437040
Surr:1 ,2-Dichloroethane-d4	99.2		% 71-140	1	05/13/08 22:24	DY	4437040
Surr:4 -Bromofluorobenzene	102		% 70-130	1	05/13/08 22:24	DY	4437040
Surr:T oluene-d8	97.2		% 61-121	1	05/13/08 22:24	DY	4437040

Qualifiers:

ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - ResultO ver Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

Quality Control Documentation

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Quality Control Report

Shell Products US - Environmental Services

INC#97689999, SAP#121296

Analysis: DieselR ange Organics **WorkOrder:** 08050156
Method: NWTPH-Dx **Lab Batch ID:** 78454

Method Blank

RunID: TH_X_080507A-4422533 Units: mg/L
Analysis Date: 05/07/2008 10:29 Analyst: RLR
Preparation Date: 05/03/2008 13:13 Prep By: N_M Method SW3510C/363(

Analyte	Result	Rep Limit
Diesel Range Organics (C12-C24)	ND	0.25
Oil Range Organics (C24-C32)	ND	0.50
Surr: n-Pentacosane	130.4	20-131

Samples in AnalyticalB atch:

Lab Sample ID	Client Sample ID
08050156-01B	MW1
08050156-02B	MW2
08050156-03B	MW3
08050156-04B	MW4

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: TH_X_080507A-4422534 Units: mg/L
Analysis Date: 05/07/2008 10:49 Analyst: RLR
Preparation Date: 05/03/2008 13:13 Prep By: N_M Method SW3510C/3630

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
DieselR ange Organics (C12-C24)	1.00	1.47	147	1.00	1.47	147	0.2	20	21	175
Oil Range Organics (C24-C32)	1.00	1.41	141	1.00	1.38	138	2.6	20	40	160
Surr:n -Pentacosane	0.0500	0.0647	129	0.0500	0.0648	130	0.2	30	20	131

Qualifiers:
ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount ofs pike added.C ontrol limits do not apply.
TNTC - Too numerous to count
MI- Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Reporth ave been rounded.R PD and percentr ecovery values calculated by the SPL LIMS system are derived from QC data prior to the application ofr ounding rules.

5/28/2008 2:21:37 PM

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Quality Control Report

Shell Products US - Environmental Services

INC#97689999, SAP#121296

Analysis: Gasoline Range Organics
Method: NWTPH-Gx
WorkOrder: 08050156
Lab Batch ID: R236882

Method Blank

RunID: HP_U_080508G-4427273 Units: mg/L
Analysis Date: 05/08/2008 13:02 Analyst: DMN
Preparation Date: 05/08/2008 13:02 Prep By: Method

Samples in AnalyticalB atch:

Lab Sample ID	Client Sample ID
08050156-05A	Trip Blank

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	102.9	60-155
Surr: 4-Bromofluorobenzene	104.0	50-158

Laboratory Control Sample (LCS)

RunID: HP_U_080508G-4427272 Units: mg/L
Analysis Date: 05/08/2008 12:06 Analyst: DMN
Preparation Date: 05/08/2008 12:06 Prep By: Method SW5030B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1.00	1.06	106	64	131
Surr:1 ,4-Difluorobenzene	0.100	0.106	106	60	155
Surr:4 -Bromofluorobenzene	0.100	0.108	108	50	158

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08050396-05
RunID: HP_U_080508G-4427275 Units: mg/L
Analysis Date: 05/08/2008 16:07 Analyst: DMN

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	1	0.940	90.1	1	0.947	90.7	0.689	36	36	140
Surr:1 ,4-Difluorobenzene	ND	0.1	0.105	105	0.1	0.106	106	0.190	30	60	155
Surr:4 -Bromofluorobenzene	ND	0.1	0.108	108	0.1	0.108	108	0.0923	30	50	158

Qualifiers:
ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI- Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount ofs pike added.C ontrol limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Reporth ave been rounded.R PD and percentr ecovery values calculated by the SPL LIMS system are derived from QC data prior to the application ofr ounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Quality Control Report

Shell Products US - Environmental Services

INC#97689999, SAP#121296

Analysis: Gasoline Range Organics
Method: NWTPH-Gx
WorkOrder: 08050156
Lab Batch ID: R237216

Method Blank

RunID: HP_U_080510C-4432581 Units: mg/L
Analysis Date: 05/10/2008 14:52 Analyst: DMN
Preparation Date: 05/10/2008 14:52 Prep By: Method

Samples In AnalyticalB atch:

Lab Sample ID	Client Sample ID
08050156-02A	MW2
08050156-03A	MW3
08050156-04A	MW4

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	102.5	60-155
Surr: 4-Bromofluorobenzene	106.3	50-158

Laboratory Control Sample (LCS)

RunID: HP_U_080510C-4432580 Units: mg/L
Analysis Date: 05/10/2008 13:57 Analyst: DMN
Preparation Date: 05/10/2008 13:57 Prep By: Method SW5030B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1.00	1.07	107	64	131
Surr:1 ,4-Difluorobenzene	0.100	0.106	106	60	155
Surr:4 -Bromofluorobenzene	0.100	0.11	110	50	158

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08050495-01
RunID: HP_U_080510C-4432582 Units: mg/L
Analysis Date: 05/10/2008 16:44 Analyst: DMN

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	0.446	1	1.03	58.6	1	0.962	51.7	7.01	36	36	140
Surr:1 ,4-Difluorobenzene	ND	0.1	0.108	108	0.1	0.107	107	1.12	30	60	155
Surr:4 -Bromofluorobenzene	ND	0.1	0.112	112	0.1	0.112	112	0.536	30	50	158

Qualifiers:
ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount ofs pike added.C ontrol limits do not apply.
TNTC - Too numerous to count
MI- Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Reporth ave been rounded.R PD and percentr ecovery values calculated by the SPL LIMS system are derived from QC data prior to the application ofr ounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Quality Control Report

Shell Products US - Environmental Services

INC#97689999, SAP#121296

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08050156
Lab Batch ID: R237513

Method Blank

RunID: MSDVOA1_080513C-4437039 Units: ug/L
Analysis Date: 05/13/2008 22:02 Analyst: DY
Preparation Date: 05/13/2008 22:02 Prep By: Method

Analyte	Result	Rep Limit
1,2,4-Trimethylbenzene	ND	0.50
1,2-Dibromoethane	ND	0.50
1,2-Dichloroethane	ND	0.50
1,3,5-Trimethylbenzene	ND	0.50
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Isopropylbenzene	ND	0.50
Methyl tert-butyl ether	ND	0.50
Naphthalene	ND	0.50
n-Propylbenzene	ND	1.0
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes,Total	ND	0.50
Surr: 1,2-Dichloroethane-d4	99.4	71-140
Surr: 4-Bromofluorobenzene	101.9	70-130
Surr: Toluene-d8	98.9	61-121

Samples in AnalyticalB atch:

Lab Sample ID	Client Sample ID
08050156-01C	MW1
08050156-02C	MW2
08050156-03C	MW3
08050156-04C	MW4
08050156-05B	Trip Blank

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: MSDVOA1_080513C-44370 Units: ug/L
Analysis Date: 05/13/2008 20:34 Analyst: DY
Preparation Date: 05/13/2008 20:34 Prep By: Method SW5030B

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
1,2,4-Trimethylbenzene	20.0	20.2	101	20.0	20.0	99.8	1.3	20	70	130
1,2-Dibromoethane	20.0	19.5	97.3	20.0	19.9	99.4	2.1	20	71	134
1,2-Dichloroethane	20.0	19.5	97.6	20.0	19.5	97.6	0.0	20	73	128
1,3,5-Trimethylbenzene	20.0	18.1	90.3	20.0	17.7	88.3	2.2	20	70	130
Benzene	20.0	19.6	98.2	20.0	19.6	98.1	0.2	20	70	130
Ethylbenzene	20.0	20.1	100	20.0	19.9	99.5	0.8	20	70	130
Isopropylbenzene	20.0	19.9	99.5	20.0	19.5	97.7	1.8	20	70	130
Methyl tert-butyl ether	20.0	19.6	98.0	20.0	19.6	98.0	0.0	20	60	140
Naphthalene	20.0	20.6	103	20.0	19.8	99.0	3.8	20	41	176
n-Propylbenzene	20.0	19.7	98.6	20.0	19.4	97.2	1.4	20	70	130
Toluene	20.0	20.1	101	20.0	19.9	99.5	1.2	20	73	130

Qualifiers:

ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount ofs pike added.C ontrol limits do not apply.
TNTC - Too numerous to count
MI- Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Reporth ave been rounded.R PD and percentr ecovery values calculated by the SPL LIMS system are derived from QC data prior to the application ofr ounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Quality Control Report

Shell Products US - Environmental Services

INC#97689999, SAP#121296

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08050156
Lab Batch ID: R237513

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: MSDVOA1_080513C-44370 Units: ug/L
Analysis Date: 05/13/2008 20:34 Analyst: DY
Preparation Date: 05/13/2008 20:34 Prep By: Method SW5030B

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
m,p-Xylene	40.0	41.2	103	40.0	40.8	102	1.1	20	70	130
o-Xylene	20.0	20.7	104	20.0	20.4	102	1.4	20	70	130
Xylenes,Total	60.0	61.9	103	60.0	61.2	102	1.2	20	70	130
Surr:1 ,2-Dichloroethane-d4	50.0	48.6	97.1	50.0	49.0	98.0	0.9	30	71	140
Surr:4 -Bromofluorobenzene	50.0	49.8	99.7	50.0	49.3	98.6	1.1	30	70	130
Surr:T oluene-d8	50.0	49.3	98.6	50.0	49.3	98.5	0.1	30	61	121

Qualifiers:
ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount ofs pike added.C ontrol limits do not apply.
TNTC - Too numerous to count
MI- Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Reporth ave been rounded.R PD and percentr ecovery values calculated by the SPL LIMS system are derived from QC data prior to the application ofr ounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Quality Control Report

Shell Products US - Environmental Services

INC#97689999, SAP#121296

Analysis: Gasoline Range Organics
Method: NWTPH-Gx

WorkOrder: 08050156
Lab Batch ID: R237602

Method Blank

RunID: HP_U_080513B-4438457 Units: mg/L
Analysis Date: 05/13/2008 20:27 Analyst: DMN
Preparation Date: 05/13/2008 20:27 Prep By: Method

Samples in AnalyticalB atch:

Lab Sample ID	Client Sample ID
08050156-01A	MW1

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	101.1	60-155
Surr: 4-Bromofluorobenzene	105.0	50-158

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: HP_U_080513B-4438455 Units: mg/L
Analysis Date: 05/13/2008 18:36 Analyst: DMN
Preparation Date: 05/13/2008 18:36 Prep By: Method SW5030B

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Gasoline Range Organics	1.00	1.06	106	1.00	1.05	105	1.5	36	64	131
Surr:1 ,4-Difluorobenzene	0.100	0.106	106	0.100	0.106	106	0.0	30	60	155
Surr:4 -Bromofluorobenzene	0.100	0.110	110	0.100	0.110	110	0.5	30	50	158

Qualifiers:
ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount ofs pike added.C ontrol limits do not apply.
TNTC - Too numerous to count
MI- Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Reporth ave been rounded.R PD and percentr ecovery values calculated by the SPL LIMS system are derived from QC data prior to the application ofr ounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Quality Control Report

Shell Products US - Environmental Services

INC#97689999, SAP#121296

Analysis: SIM Semivolatiles Organics by Method 8270C
Method: SW8270C

WorkOrder: 08050156
Lab Batch ID: 78517

Method Blank

RunID: S_080522C-4456465 Units: ug/L
Analysis Date: 05/22/2008 18:22 Analyst: S_G
Preparation Date: 05/05/2008 14:43 Prep By: N_M Method SW3510C

Samples in AnalyticalB atch:

Lab Sample ID	Client Sample ID
08050156-01D	MW1
08050156-02D	MW2
08050156-03D	MW3
08050156-04D	MW4

Analyte	Result	Rep Limit
1-Methylnaphthalene	ND	1.0
2-Methylnaphthalene	ND	1.0
Acenaphthene	ND	1.0
Acenaphthylene	ND	1.0
Anthracene	ND	1.0
Benz(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
Benzo(b)fluoranthene	ND	1.0
Benzo(g,h,i)perylene	ND	1.0
Benzo(k)fluoranthene	ND	1.0
Chrysene	ND	1.0
Dibenz(a,h)anthracene	ND	1.0
Dibenzofuran	ND	1.0
Fluoranthene	ND	1.0
Fluorene	ND	1.0
Indeno(1,2,3-cd)pyrene	ND	1.0
Naphthalene	ND	1.0
Phenanthrene	ND	1.0
Pyrene	ND	1.0
Surr: 2-Fluorobiphenyl	78.7	10-146
Surr: Nitrobenzene-d5	85.8	10-195
Surr: Terphenyl-d14	71.4	10-149

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: S_080523B-4461712 Units: ug/L
Analysis Date: 05/23/2008 19:01 Analyst: S_G
Preparation Date: 05/05/2008 14:43 Prep By: N_M Method SW3510C

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
1-Methylnaphthalene	2.00	1.71	85.7	2.00	1.66	82.9	3.3	50	25	174
2-Methylnaphthalene	2.00	1.83	91.6	2.00	1.78	88.8	3.2	50	20	170
Acenaphthene	2.00	1.90	94.8	2.00	1.80	90.0	5.3	50	30	150
Acenaphthylene	2.00	1.77	88.6	2.00	1.75	87.7	1.0	50	33	250
Anthracene	2.00	1.74	86.9	2.00	1.82	91.0	4.6	50	27	150
Benz(a)anthracene	2.00	1.76	88.1	2.00	1.70	85.1	3.4	50	33	150
Benzo(a)pyrene	2.00	1.65	82.6	2.00	1.54	76.8	7.3	50	17	163
Benzo(b)fluoranthene	2.00	1.93	96.5	2.00	1.67	83.6	14.3	50	24	170

Qualifiers:
ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount ofs pike added.C ontrol limits do not apply.
TNTC - Too numerous to count
MI- Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Reporth ave been rounded.R PD and percentr ecovery values calculated by the SPL LIMS system are derived from QC data prior to the application ofr ounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Quality Control Report

Shell Products US - Environmental Services

INC#97689999, SAP#121296

Analysis: SIM Semivolatiles Organics by Method 8270C
Method: SW8270C
WorkOrder: 08050156
Lab Batch ID: 78517

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: S_080523B-4461712 Units: ug/L
Analysis Date: 05/23/2008 19:01 Analyst: S_G
Preparation Date: 05/05/2008 14:43 Prep By: N_M Method SW3510C

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Benzo(g,h,i)perylene	2.00	1.76	88.2	2.00	1.78	88.9	0.9	50	10	145
Benzo(k)fluoranthene	2.00	2.02	101	2.00	1.79	89.7	11.8	50	11	162
Chrysene	2.00	1.87	93.3	2.00	1.77	88.6	5.2	50	17	168
Dibenz(a,h)anthracene	2.00	1.83	91.5	2.00	1.78	89.2	2.5	50	10	138
Dibenzofuran	2.00	1.40	69.9	2.00	1.32	66.0	5.7	50	30	160
Fluoranthene	2.00	1.82	90.9	2.00	1.81	90.5	0.3	50	26	160
Fluorene	2.00	1.76	88.0	2.00	1.65	82.6	6.3	50	30	150
Indeno(1,2,3-cd)pyrene	2.00	1.95	97.3	2.00	1.91	95.6	1.7	50	10	190
Naphthalene	2.00	1.71	85.4	2.00	1.61	80.3	6.1	50	21	140
Phenanthrene	2.00	1.87	93.6	2.00	1.85	92.4	1.3	50	10	140
Pyrene	2.00	1.75	87.3	2.00	1.67	83.3	4.7	50	30	150
Surr:2 -Fluorobiphenyl	2.00	1.91	95.7	2.00	1.82	91.1	4.9	50	10	146
Surr:N itrobenzene-d5	2.00	2.20	110	2.00	2.11	106	4.2	50	10	195
Surr:T erphenyl-d14	2.00	1.52	76.1	2.00	1.46	72.8	4.4	50	10	149

Qualifiers:
ND/U - NotD etected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount ofs pike added.C ontrol limits do not apply.
TNTC - Too numerous to count
MI- Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Reporth ave been rounded.R PD and percentr ecovery values calculated by the SPL LIMS system are derived from QC data prior to the application ofr ounding rules.

Sample Receipt Checklist

And

Chain of Custody

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON,T X 77054
(713) 660-0901

Sample Receipt Checklist

Workorder:	**08050156**	Received By:	**BB**
Date and Time Received:	**5/2/2008 10:00:00 AM**	Carrier name:	**Fedex-Standard Overnight**
Temperature:	**2.0°C**	Chilled by:	**Water Ice**

1.	**Shipping container/cooler in good condition?**	Yes	☑	No	☐	NotPr esent ☐
2.	**Custody seals intact on shippping container/cooler?**	Yes	☑	No	☐	NotPr esent ☐
3.	**Custody seals intact on sample bottles?**	Yes	☐	No	☐	NotPr esent ☑
4.	**Chain of custody present?**	Yes	☑	No	☐	
5.	**Chain of custody signed when relinquished and received?**	Yes	☑	No	☐	
6.	**Chain of custody agrees with sample labels?**	Yes	☑	No	☐	
7.	**Samples in proper container/bottle?**	Yes	☑	No	☐	
8.	**Sample containers intact?**	Yes	☑	No	☐	
9.	**Sufficient sample volume for indicated test?**	Yes	☑	No	☐	
10.	**All samples received within holding time?**	Yes	☑	No	☐	
11.	**Container/Temp Blank temperature in compliance?**	Yes	☑	No	☐	
12.	**Water - VOA vials have zero headspace?**	Yes	☑	No	☐	VOA Vials NotPr esent ☐
13.	**Water - Preservation checked upon receipt (except VOA*)?**	Yes	☑	No	☐	NotA pplicable ☐

***VOA Preservation Checked After Sample Analysis**

SPL Representative: _____ **Contact Date & Time:** _____

Client Name Contacted: _____

Non Conformance Issues: _____

Client Instructions: _____

0805 Disk

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- ☐ XENCO (____)
- ☐ CALSCIENCE (____)
- ☐ TEST AMERICA (____)
- ☒ STL (Houston, TX)
- ☐ OTHER (____)

Please Check Appropriate Box:
- ☒ ENV. SERVICES
- ☐ MOTIVA RETAIL
- ☐ SHELL RETAIL
- ☐ MOTIVA SD&CM
- ☐ CONSULTANT
- ☐ LUBES
- ☐ SHELL PIPELINE
- ☐ OTHER ____

Print Bill To Contact Name: Jeff Gold

PO #:

INCIDENT # (ENV. SERVICES): 97689999 ☐ CHECK IF NO INCIDENT # APPLIES

SAP #: 121296

DATE: 5/1/08

PAGE: 1 of 1

CONSULTANT COMPANY: Delta Consultants

ADDRESS: 4640 SW Macadam Ave., Suite 110

CITY: Portland, OR 97239

TELEPHONE: 503-863-2161 **FAX:** 503.639.7619 **E-MAIL:** JSchatz@DeltaEnv.com

SITE ADDRESS (Street, City and State): 468 Garden Valley Rd, Roseburg, OR

CONSULTANT PROJECT CONTACT (Report to): Jeff Schatz

CONSULTANT PROJECT NO.: SORA6 85A-1

SAMPLER NAME(S) (Print): Katy McQuinn

LAB USE ONLY:

TURNAROUND TIME (CALENDAR DAYS): ☒ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

DELIVERABLES: ☐ LEVEL 1 ☐ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY) ____

TEMPERATURE ON RECEIPT °C: Cooler #1 ____ Cooler #2 ____ Cooler #3 ____

SPECIAL INSTRUCTIONS OR NOTES:
- ☐ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

Field Sample Identification	Sampling Date	Sampling Time	Matrix	HCl	HNO3	H2SO4	NONE	OTHER	No. of Cont.	NWTPH-Gx	NWTPH-Dx with Silica gel cleanup (D and O range)	OR EBDM VOCs (8260B)	PAHs (8270 SIM)	Container PID Readings or Laboratory Notes
MW1	5/1		water	6			2		15	X	X	X	X	
MW2				6			2		10					
MW3				6			2		10					
MW4	5/1			6			2		10	X	X	X	X	
trip blank	/	/	water	4					4	X		X		

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Kmq [signature] 5/1/08 1500			
	Brenda Blanco	5/2/08	10:00