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DATE: September 27, 2006

UST # 8394



GROUNDWATER MONITORING REPORT

Facility No.: 256380 Address: 200 South 36th Street, Bellingham, Washington
ConocoPhillips Site Manager: Jim Trotter
Consultant / Contact Person: SECOR International Inc. / Alice Larsen
Primary Agency/Regulatory ID No.: Washington State Department of Ecology / Site ID No. 8394
SECOR Project No: 01CP.01571.02

WORK PERFORMED THIS QUARTER(S) [2nd - 2006]:

- On June 30, 2006 SECOR personnel monitored, purged and sampled eight of the existing network of eight groundwater monitoring wells (MW-1 through MW-8). Groundwater monitoring wells MW-5 through MW-8 were installed on January 9, 2006.
- Groundwater samples were collected using a peristaltic pump, with dedicated polyethylene tubing in the well casing and a new section of silicon tubing in the pump head. Complete groundwater monitoring, purging, and sampling procedures are provided in Attachment B.
- Samples were submitted to Lancaster Laboratories for analysis of gasoline-range hydrocarbons (TPH-g) per Ecology Method NWTPH-Gx, diesel (TPH-d) and motor-oil (TPH-o) range hydrocarbons per Ecology Method NWTPH-Dx modified with an acid/silica gel cleanup, benzene, toluene, ethylbenzene, total xylenes (BTEX) per United States Environmental Protection Agency (USEPA) Method 8021. The laboratory analytical report is presented in Attachment A.

WORK PROPOSED FOR NEXT QUARTER [3rd - 2006]:

- Measure depth to water, purge, and sample eight groundwater monitoring wells (MW-1 through MW-8). Submit groundwater samples for analysis for NWTPH-Gx, NWTPH-Dx, BTEX and methyl tertiary butyl ether (MTBE).

DATA SUMMARY THIS QUARTER:

Frequency of Sampling Events:	<u>Quarterly</u>	(03/06,06/06,09/06,12/06)
Depth to Groundwater:	<u>4.46 ft. (MW-5)</u>	(Measured Feet Below
	<u>8.88 ft. (MW-1)</u>	Top of Well Casing)
Groundwater Gradient:	<u>Northeast</u>	(Apparent Flow Direction)
	<u>0.02 feet per foot</u>	(Approximate Magnitude)
Maximum TPH-G Concentrations:	<u>190 µg/L (MW-7)</u>	(ppb / well ID)
Maximum TPH-D Concentrations:	<u>1,000 µg/L (MW-7)</u>	(ppb / well ID)
Maximum TPH-O Concentrations:	<u>None Detected</u>	(ppb / well ID)
Maximum Benzene Concentration:	<u>8.6 µg/L (MW-5)</u>	(ppb / well ID)
Maximum Dissolved Lead Concentration:	<u>None Detected</u>	(ppb / well ID)
Measurable Free Product Detected:	<u>No</u>	(Yes - ID well(s)/No)
Free Product Recovered This Quarter:	<u>None</u>	(Gallons)
Cumulative Free Product Recovered to Date:	<u>None</u>	(Gallons)
Water Wells or	<u>i.) One Water Well</u>	(Type)
Surface Waters w/in 2,000 ft:	<u>ii.) Connelly Creek</u>	
Radius and Respective	<u>i.) 1600 ft. West</u>	(Respective Distance
Direction From Site:	<u>ii.) 1000 ft. Southwest</u>	& Direction)
Current Remedial Action:	<u>NA</u>	(SVE/AS/P&T/NA etc.)
Permits for Discharge:	<u>None</u>	(NPDES, POTW, etc.)

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DISCUSSION:

- The groundwater samples were received by Lancaster Laboratories on July 5, 2006. Based on a review of the laboratory reports, it appears that the submitted water samples were analyzed within the specified holding times and that Lancaster followed their appropriate quality assurance/quality control (QA/QC) procedures during analysis.
- Diesel range-hydrocarbons (TPH-d) were detected at concentrations less than the Model Toxics Control Act Method A Cleanup Levels for groundwater (MTCA A) in the groundwater sample collected from MW-7 at 1,000 micrograms per liter ($\mu\text{g/L}$). TPH-d was detected at concentrations less than MTCA A but greater than the laboratory reporting limits (RLs) in the groundwater sample collected from MW-4 at 130 $\mu\text{g/L}$. TPH-d was not detected at concentrations greater than the RLs in any of the remaining samples collected this quarter.
- Heavy oil range-hydrocarbons (TPH-o) were not detected at concentrations greater than the RLs in any of the samples collected this quarter.
- Gasoline range hydrocarbons (TPH-g) were detected at concentrations greater than the RLs in the groundwater samples collected from MW-5 and MW-7 at 57 $\mu\text{g/L}$ and 190 $\mu\text{g/L}$, respectively. TPH-g was not detected at concentrations greater than the RLs in any of the remaining samples collected this quarter.
- Benzene was detected at concentrations greater than MTCA A in the groundwater samples collected from MW-5 at 8.6 $\mu\text{g/L}$. Benzene was detected at concentrations less than MTCA A but greater than the RLs in the groundwater sample collected from MW-7 at 0.2 $\mu\text{g/L}$.
- No BTEX constituents were detected at concentrations greater than the RLs in any of the remaining groundwater samples collected this quarter.
- MTBE was detected at concentrations less than MTCA A but greater than the RLs in the groundwater samples collected from MW-1, MW-4 and MW-7 at 1.3 $\mu\text{g/L}$, 0.8 $\mu\text{g/L}$ and 2.0 $\mu\text{g/L}$, respectively. None of the remaining samples collected this quarter contained MTBE concentrations greater than the RLs.
- No drums were left on site.

ATTACHMENTS:

Figure 1: Site Location Map

Figure 2: Site Plan with Groundwater Elevations (6/30/06)

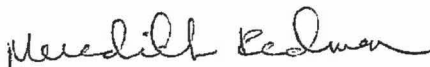
Figure 3: Site Plan with Groundwater Analytical Results (9/15/05 – 6/30/06)

Table 1: Summary of Cumulative Groundwater Elevations and Sample Analytical Results

Attachment A: Laboratory Analytical Report and Chain of Custody Record

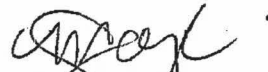
Attachment B: SECOR Monitoring Well Gauging, Purging and Sampling Procedures; Groundwater Monitoring Field Data Records

Prepared By:



Meredith Redmon
Project Scientist

Reviewed By:

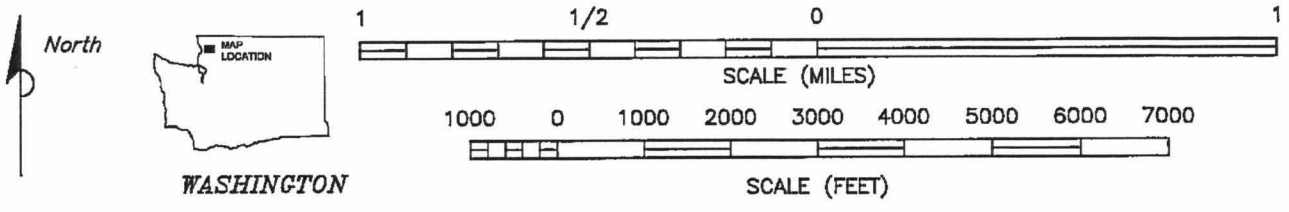
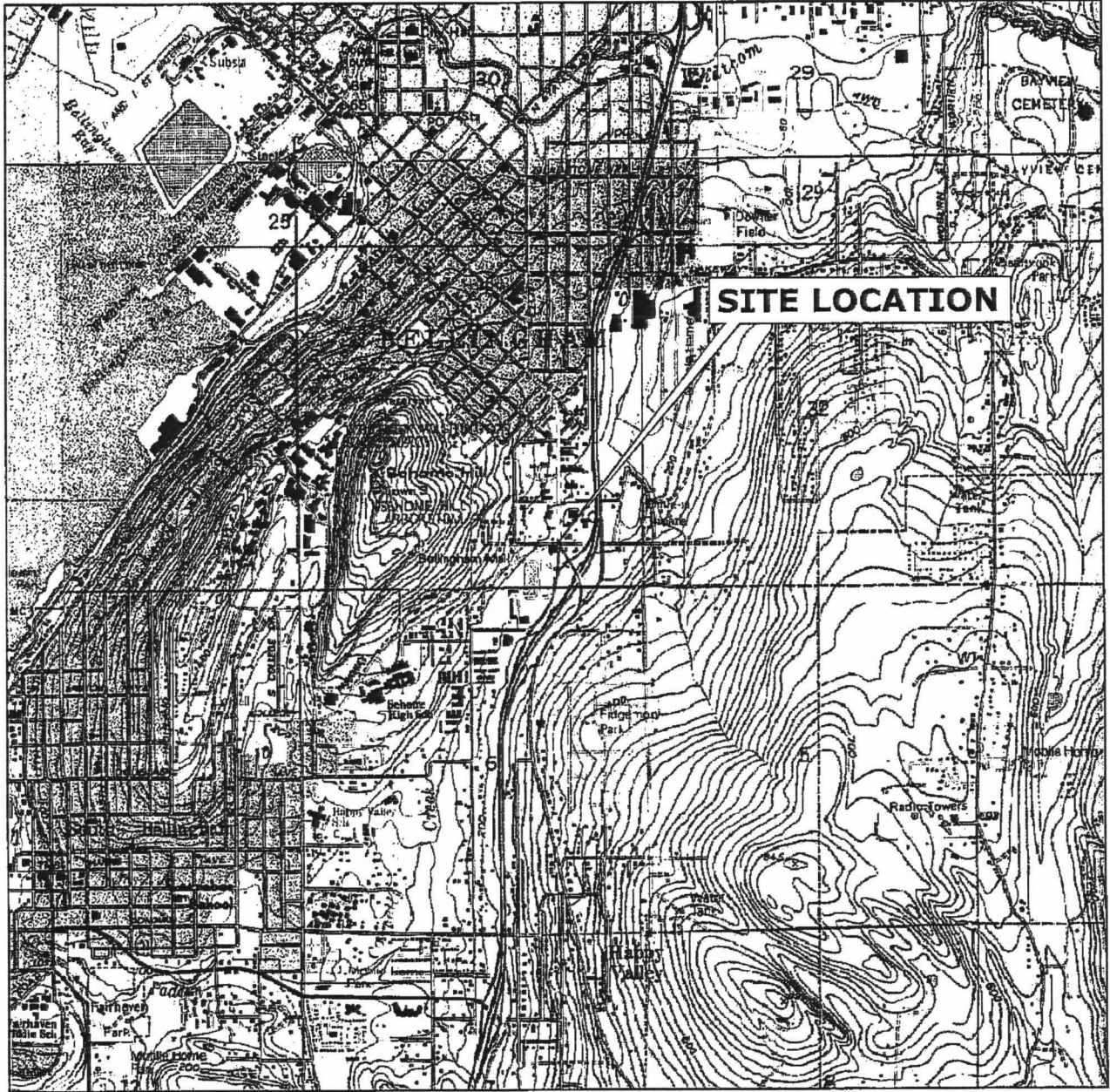


Marc Sauze, P.E.
Senior Project Engineer


cc: LUST Coordinator, Washington State Department of Ecology, Northwest Regional Office
Mr. Frank Diehl, Keith Oil Corporation
Mark Adams, Washington State Department of Ecology, Northwest Regional Office

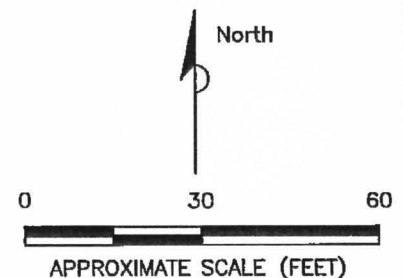
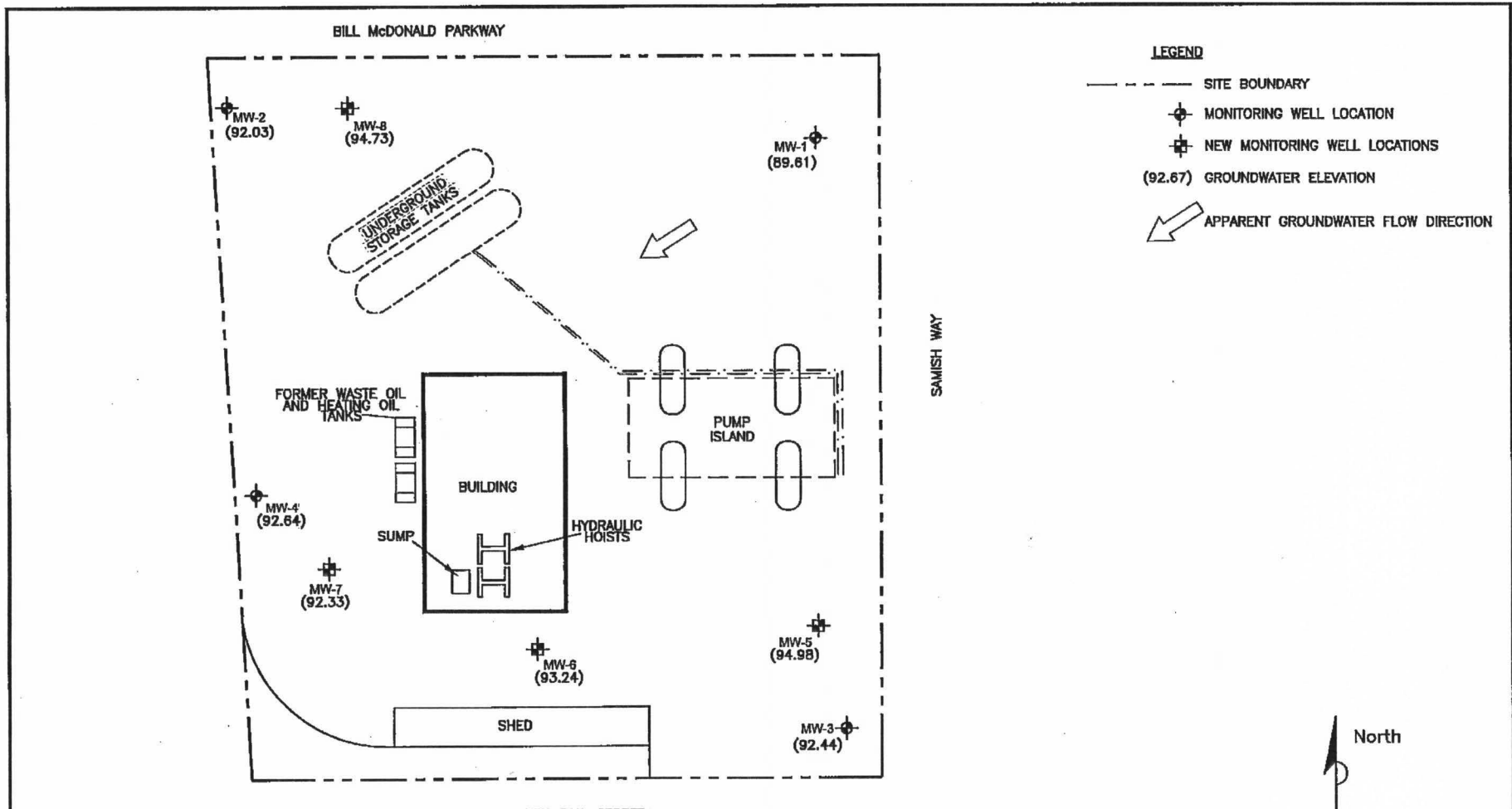
P:\Staff\CONOCOPHILLIPS\6380 Bellingham\SECOR\GWM 06\2Q06\6380 2Q06 GWM.doc

FIGURES



REFERENCE: USGS 7.5 MINUTE QUADRANGLE; BELLINGHAM SOUTH, WASHINGTON; 1972

 SECOR 12034 134th COURT, SUITE 102 REDMOND, WASHINGTON PHONE: (425) 372-1800 FAX: (425) 372-1850	PREPARED FOR: ConocoPhillips FACILITY NO 256380 200 SOUTH 36th STREET BELLINGHAM, WASHINGTON		SITE LOCATION MAP		FIGURE: 1
	JOB NUMBER: 01CP.06380.11	DRAWN BY: S. SIMMONS	CHECKED BY:	APPROVED BY:	DATE: 1/31/06



SOURCE:
 BASE MAP FROM: ENVIRONMENTAL RESOLUTIONS, INC.
 (ER) TITLED GROUNDWATER SAMPLE ANALYSIS MAP-
 08/10/03, PLATE 1, DATED 07/08/03, PROJECT
 NO. 31065. CADD FILE 31065.13.DWG

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PREPARED FOR:
ConocoPhillips
 FACILITY NO. 256380
 200 SOUTH 36th STREET
 BELLINGHAM, WASHINGTON

**SITE PLAN WITH GROUNDWATER
 ELEVATIONS (6/30/06)**

FIGURE:
2

JOB NUMBER: 01CP.06380.11	DRAWN BY: CFS	CHECKED BY:	APPROVED BY:	DATE: 09/26/06
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LEGEND

- SITE BOUNDARY
- ⊕ MONITORING WELL LOCATION
- ⊕ NEW MONITORING WELL LOCATIONS

ANALYTES

TPH-G	TOTAL PETROLEUM HYDROCARBONS GASOLINE
TPH-D	TOTAL PETROLEUM HYDROCARBONS DIESEL
TPH-O	TOTAL PETROLEUM HYDROCARBONS OIL
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
MTBE	METHYL TERTIARY BUTYL ETHER

- ND NOT DETECTED AT OR ABOVE THE LABORATORY METHOD REPORTING LIMIT
 - NOT ANALYZED OR NOT APPLICABLE
 BOLD ABOVE WASHINGTON STATE MTCA CLEANUP LEVEL
 * SEE TABLE 3
 ** SEE TABLE 7
- NOTES**
 ALL LOCATIONS ARE APPROXIMATE
 ALL UNITS ARE IN MICROGRAMS PER LITER (µg/L)

DATE	6/9/05	9/15/05	12/15/05	3/10/06	6/30/06
MW-2	µg/L	µg/L	µg/L	µg/L	µg/L
TPH-G	<100	<48	<48	<48	<48
TPH-D	<238	<75	<75	<78	<78
TPH-O	<475	<84	<84	<85	<85
B	<1	<0.5	<0.2	<0.2	<0.2
T	<1	<0.5	<0.2	<0.2	<0.2
E	<1	<0.5	<0.2	<0.2	<0.2
X	<1	<1.5	<0.6	<0.6	<0.6
MTBE	<1	---	---	---	<0.3

DATE	6/9/05	9/15/05	12/15/05	3/10/06	6/30/06
MW-1	µg/L	µg/L	µg/L	µg/L	µg/L
TPH-G	<100	<48	<48	<48	<48
TPH-D	<238	<180	170	<78	<78
TPH-O	<472	<200	110	<85	<85
B	<1	<0.5	<0.2	0.6	<0.2
T	<1	<0.5	<0.2	<0.2	<0.2
E	<1	<0.5	<0.2	<0.2	<0.2
X	<3	<1.5	<0.6	<0.6	<0.6
MTBE	1.28	---	---	---	<0.3

DATE	1/11/06	3/10/06	6/30/06
MW-8	µg/L	µg/L	µg/L
TPH-G	<48	<48	<48
TPH-D	<78	<75	<77
TPH-O	<85	<84	<85
B	<0.2	<0.2	<0.2
T	<0.2	<0.2	<0.2
E	<0.6	<0.2	<0.2
X	<0.6	<0.6	<0.6
MTBE	---	---	<0.3

DATE	6/9/05	9/15/05	12/15/05	3/10/06	6/30/06
MW-4	µg/L	µg/L	µg/L	µg/L	µg/L
TPH-G	<100	<66	<66	<48	<48
TPH-D	<237	150	180	<75	130
TPH-O	<473	<85	<84	<84	<85
B	<1	<0.5	<0.2	<0.2	<0.2
T	<1	<0.5	<0.2	<0.2	<0.2
E	<1	<0.5	<0.2	<0.2	<0.2
X	<1	<1.5	<0.6	<0.6	<0.6
MTBE	<1	---	---	---	0.8

DATE	1/11/06	3/10/06	6/30/06
MW-5	µg/L	µg/L	µg/L
TPH-G	<48	65	57
TPH-D	<75	<75	<78
TPH-O	<84	<84	<85
B	1.7	13	8.8
T	<0.2	0.7	<0.2
E	<0.2	<0.2	<0.2
X	<0.6	<0.6	<0.6
MTBE	---	---	0.8

DATE	1/11/06	3/10/06	6/30/06
MW-7	µg/L	µg/L	µg/L
TPH-G	180	140	180
TPH-D	780	540	1,000
TPH-O	<84	<84	<480
B	<0.2	<0.2	<0.2
T	<0.2	<0.2	<0.2
E	<0.2	<0.2	<0.2
X	<0.6	<0.6	<0.6
MTBE	2.8	---	9.0

DATE	1/11/06	3/10/06	6/30/06
MW-8	µg/L	µg/L	µg/L
TPH-G	<48	<48	<48
TPH-D	<75	<78	<80
TPH-O	<84	<85	<100
B	<0.2	<0.2	<0.2
T	<0.2	<0.2	<0.2
E	<0.2	<0.2	<0.2
X	<0.6	<0.6	<0.6
MTBE	---	---	<0.3

DATE	6/9/05	9/15/05	12/15/05	3/10/06	6/30/06
MW-3	µg/L	µg/L	µg/L	µg/L	µg/L
TPH-G	<100	<48	<48	<48	<48
TPH-D	<238	<75	<75	<78	<78
TPH-O	<475	<84	<84	<84	<85
B	<1	<0.5	<0.2	<0.2	<0.2
T	<1	<0.5	<0.2	<0.2	<0.2
E	<1	<0.5	<0.2	<0.2	<0.2
X	<3	<1.5	<0.6	<0.6	<0.6
MTBE	<1	---	---	---	<0.3

SOURCE:
 BASE MAP FROM: ENVIRONMENTAL RESOLUTIONS, INC.
 (ER) TITLED GROUNDWATER SAMPLE ANALYSIS MAP--
 05/10/03, PLATE 1, DATED 07/08/03, PROJECT
 NO. 31065. CADD FILE 31065.13.DWG

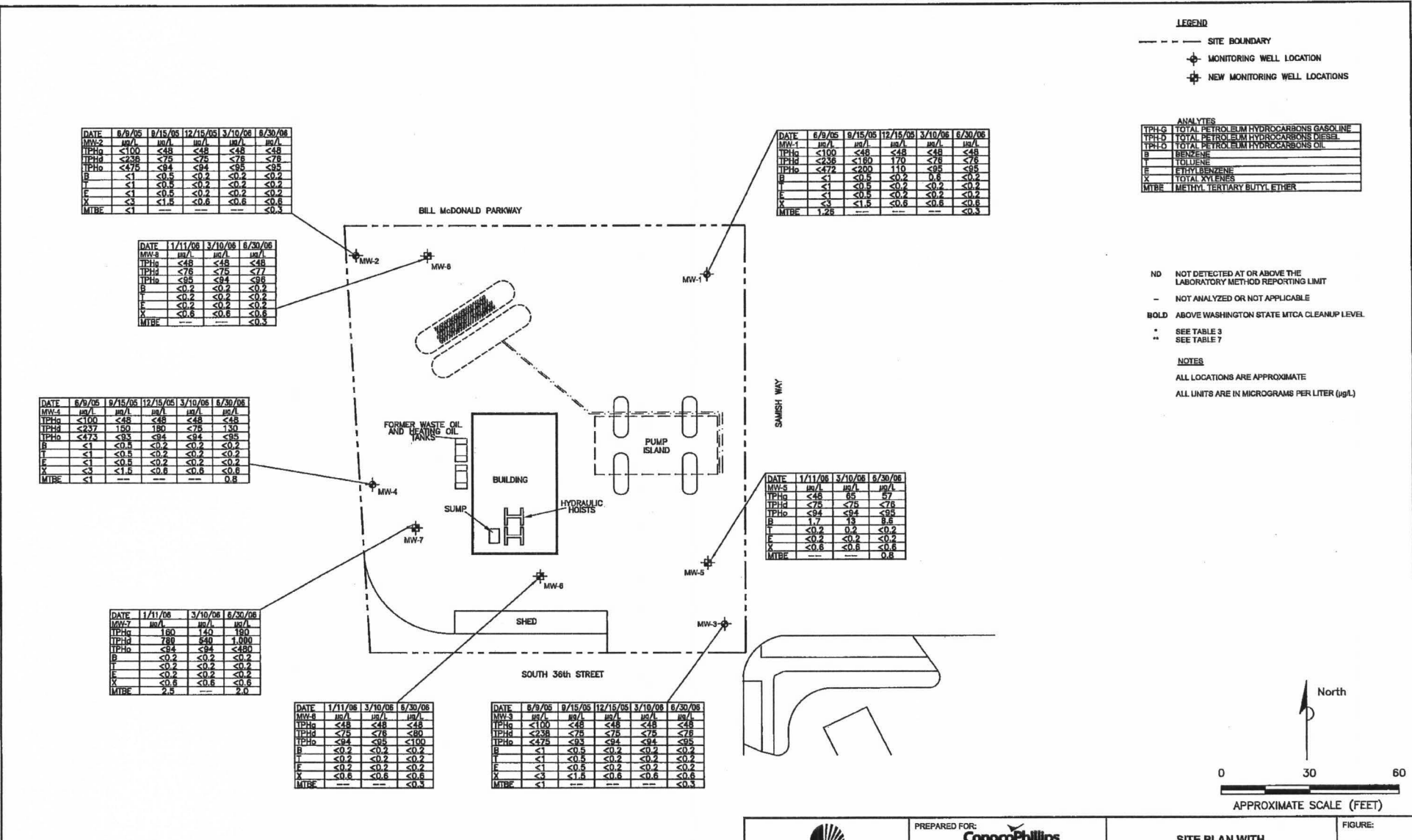
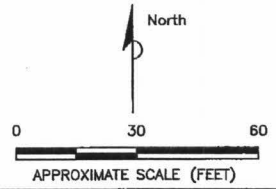
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PREPARED FOR:
ConocoPhillips
 FACILITY NO. 256380
 200 SOUTH 36th STREET
 BELLINGHAM, WASHINGTON

SITE PLAN WITH ANALYTICAL RESULTS (6/9/05 - 6/30/06)

FIGURE:
3
 DATE: 08/28/06

JOB NUMBER: 01CP-06380.11 DRAWN BY: CFS CHECKED BY: APPROVED BY: DATE: 08/28/06
 FILEPATH: 20060927.1732072 Z:\OTHER OFFICE CAD\Redmond\ConocoPhillips 6380\6380-F2F3-092606.dwg



TABLES

TABLE 1
GROUNDWATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS
 ConocoPhillips Facility No. 256380
 200 South 36th Street
 Bellingham, Washington
 Page 1 of 1

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	MTBE	Total Pb	Diss Pb
MW1 TOC Elevation 98.49	09/15/05	6.60	91.89	<48	<160	<200	<0.5	<0.5	<0.5	<1.5	--	--	<0.87
	12/15/05	5.94	92.55	<48	170	110	<0.2	<0.2	<0.2	<0.6	--	--	--
	03/10/06	5.82	92.67	<48	<76	<95	0.6	<0.2	<0.2	<0.6	--	--	--
	06/30/06	8.88	89.61	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	1.3	--	--
MW2 TOC Elevation 100.74	9/15/2005	5.40	95.34	<48	<75	<94	<0.5	<0.5	<0.5	<1.5	--	--	<0.87
	12/15/2005	8.44	92.30	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	3/10/2006	8.28	92.46	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	--	--	--
	6/30/2006	8.71	92.03	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	<0.3	--	--
MW3 TOC Elevation 97.84	9/15/2005	7.20	90.64	<48	<75	<93	<0.5	<0.5	<0.5	<1.5	--	--	<0.87
	12/15/2005	5.09	92.75	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	3/10/2006	4.75	93.09	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	6/30/2006	5.40	92.44	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	<0.3	--	--
MW4 TOC Elevation 99.44	9/15/2005	6.10	93.34	<48	150	<93	<0.5	<0.5	<0.5	<1.5	--	--	<0.87
	12/15/2005	6.73	92.71	<48	180	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	3/10/2006	6.28	93.16	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	6/30/2006	6.80	92.64	<48	130	<95	<0.2	<0.2	<0.2	<0.6	0.8	--	--
MW-5 TOC Elevation 101.14	1/11/2006	4.04	NE	<48	<75	<94	1.7	<0.2	<0.2	<0.6	--	<8.4	--
	3/10/2006	3.81	95.63	65	<75	<94	13	0.2	<0.2	<0.6	--	--	--
	6/30/2006	4.46	94.98	57	<76	<95	8.6	<0.2	<0.2	<0.6	<5.0	--	--
MW-6 TOC Elevation 99.74	1/11/2006	4.89	NE	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	<8.4	--
	3/10/2006	5.47	94.27	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	--	--	--
	6/30/2006	6.50	93.24	<48	<80	<100	<0.2	<0.2	<0.2	<0.6	<0.3	--	--
MW-7 TOC Elevation 99.64	1/11/2006	6.07	NE	160	780 ^b	<94 ^b	<0.2	<0.2	<0.2	<0.6	2.5	<8.4	--
	3/10/2006	6.71	92.93	140	540	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	6/30/2006	7.31	92.33	190	1,000	<480	0.2	<0.2	<0.2	<0.6	2.0	--	--
MW-8 TOC Elevation 102.7	1/11/2006	7.00	NE	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	--	<8.4	--
	3/10/2006	7.50	95.20	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	6/30/2006	7.97	94.73	<48	<77	<96	<0.2	<0.2	<0.2	<0.6	<0.3	--	--
MTCA Method A Cleanup Levels				1000/800 ^a	500	500	5	1000	700	1000	20	15	15

EXPLANATION:

TOC = Top of Casing

All concentrations are in µg/L (ppb).

Wellhead elevations were taken from prior consultants reports.

DTW = Depth to water in feet below top of casing

GW Elev. = Groundwater elevation relative to top of casing elevation

TPH-G = Total Petroleum Hydrocarbons as Gasoline by Ecology Method NWTPH-Gx

TPH-D and TPH-O = Total Petroleum Hydrocarbons as Diesel and Oil, respectively, by Ecology Method NWTPH-Dx

B = Benzene; T = Toluene; E = Ethylbenzene; X = Total Xylenes

BTEX = Aromatic compounds by EPA Method 8020, 8021B or 8260B, refer to laboratory reports.

Prior to 12/12/03 Total Pb by EPA Method 8020; Diss Pb = Dissolved lead by EPA Method 8020

After 9/03/03 Total Pb = Total lead by ICP-USEPA Method 6010; Diss Pb = Dissolved lead by ICP-USEPA Method 6010

-- = Not Analyzed or Sampled

< = Less than the stated laboratory reporting limit

Shaded values equal or exceed MTCA Method A Cleanup Levels.

^a Concentration levels stated by MTCA Method A for TPH-G are 1000 µg/L when no benzene is present and 800 µg/L when benzene is present.

Data collected before 12/12/03 are taken from prior consultants.

^b = The recovery for the laboratory control sample (LCS) with this sample is below quality control limits. Since no sample remained from a reextraction the data is reported. The observed sample pattern includes #2 fuel/diesel and individual peaks eluting in the diesel organic range (DRO)

**ATTACHMENT A
LABORATORY ANALYTICAL REPORT
AND CHAIN-OF-CUSTODY RECORD**



Analysis Report

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

ANALYTICAL RESULTS

Prepared for:

ConocoPhillips
1230 West Washington Street
Suite 212
Tempe AZ 85281

Prepared by:

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

SAMPLE GROUP

The sample group for this submittal is 996001. Samples arrived at the laboratory on Wednesday, July 05, 2006. The PO# for this group is 4506583796 and the release number is TROTTER.

<u>Client Description</u>	<u>Lancaster Labs Number</u>
MW4 Grab Water Sample	4807591
MW7 Grab Water Sample	4807592
MW6 Grab Water Sample	4807593
MW5 Grab Water Sample	4807594
MW3 Grab Water Sample	4807595
MW1 Grab Water Sample	4807596
MW8 Grab Water Sample	4807597
MW2 Grab Water Sample	4807598
Trip Blank Grab Water Sample	4807599

ELECTRONIC SECOR
COPY TO
ELECTRONIC SECOR International
COPY TO

Attn: August Welch

Attn: Marc Sauze



Analysis Report

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

Questions? Contact your Client Services Representative
Megan A Moeller at (717) 656-2300

Respectfully Submitted,

A handwritten signature in black ink that reads "Valerie L. Tomayko".

Valerie L. Tomayko
Group Leader



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2881 • www.lancasterlabs.com

Page 1 of 1

Lancaster Laboratories Sample No. WW 4807596

MW1 Grab Water Sample
 Site# 1571 (2556380)
 200 S 36th St-Bellingham, WA
 Collected: 06/30/2006 12:43

by TP

Account Number: 11817

Submitted: 07/05/2006 09:45
 Reported: 09/12/2006 at 11:11
 Discard: 10/13/2006

ConocoPhillips
 1230 West Washington Street
 Suite 212
 Tempe AZ 85281

BELL1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	76.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	95.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	1.3	0.3	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	48.	ug/l	1

State of Washington Lab Certification No. C259

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	07/10/2006 22:26	Matthew E Barton	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/07/2006 23:36	Steven A Skiles	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	07/07/2006 23:36	Steven A Skiles	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/07/2006 23:36	Steven A Skiles	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	07/07/2006 08:15	Mariam G Attalla	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4807598

MW2 Grab Water Sample
 Site# 1571 (2556380)
 200 S 36th St-Bellingham, WA
 Collected: 06/30/2006 14:09

by TP

Account Number: 11817

Submitted: 07/05/2006 09:45
 Reported: 09/12/2006 at 11:11
 Discard: 10/13/2006

ConocoPhillips
 1230 West Washington Street
 Suite 212
 Tempe AZ 85281

BELL2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	76.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	95.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	0.3	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	48.	ug/l	1

State of Washington Lab Certification No. C259

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	07/10/2006 23:04	Matthew E Barton	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/08/2006 00:42	Steven A Skiles	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	07/08/2006 00:42	Steven A Skiles	1
01146	GC VOA Water Prep	SW-846 5030E	1	07/08/2006 00:42	Steven A Skiles	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	07/07/2006 08:15	Mariam G Attalla	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4807595

MW3 Grab Water Sample
Site# 1571 (2556380)
200 S 36th St-Bellingham, WA
Collected: 06/30/2006 12:01

by TP

Account Number: 11817

Submitted: 07/05/2006 09:45
Reported: 09/12/2006 at 11:11
Discard: 10/13/2006

ConocoPhillips
1230 West Washington Street
Suite 212
Tempe AZ 85281

BELL3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	76.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	95.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	0.3	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	48.	ug/l	1

State of Washington Lab Certification No. C259

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	07/10/2006 22:07	Matthew E Barton	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/07/2006 23:04	Steven A Skiles	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	07/07/2006 23:04	Steven A Skiles	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/07/2006 23:04	Steven A Skiles	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx	1	07/07/2006 08:15	Mariam G Attalla	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4807591

MW4 Grab Water Sample
 Site# 1571 (2556380)
 200 S 36th St-Bellingham, WA
 Collected: 06/30/2006 09:26

by TP

Account Number: 11817

Submitted: 07/05/2006 09:45
 Reported: 09/12/2006 at 11:11
 Discard: 10/13/2006

ConocoPhillips
 1230 West Washington Street
 Suite 212
 Tempe AZ 85281

BELL4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	130.	76.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	95.	ug/l	1
	The observed sample pattern includes #2 fuel/diesel and individual peaks eluting in the DRO range.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	0.8	0.3	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	48.	ug/l	1

State of Washington Lab Certification No. C259

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	07/10/2006 23:23	Matthew E Barton	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/07/2006 20:52	Steven A Skiles	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	07/07/2006 20:52	Steven A Skiles	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/07/2006 20:52	Steven A Skiles	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	07/07/2006 08:15	Mariam G Attalla	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4807594

MW5 Grab Water Sample

Site# 1571 (2556380)
200 S 36th St-Bellingham, WA
Collected: 06/30/2006 11:19 by TP

Account Number: 11817

Submitted: 07/05/2006 09:45
Reported: 09/12/2006 at 11:11
Discard: 10/13/2006

ConocoPhillips
1230 West Washington Street
Suite 212
Tempe AZ 85281

BELL5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	76.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	95.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	8.6	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	5.0	ug/l	1
Due to the presence of an interferent near its retention time, the normal reporting limit was not attained for the compound listed below. The presence or concentration of this compound cannot be determined due to the presence of this interferent.						
MTBE						
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	57.	48.	ug/l	1

State of Washington Lab Certification No. C259

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	07/11/2006 00:21	Matthew E Barton	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/07/2006 22:31	Steven A Skiles	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	07/07/2006 22:31	Steven A Skiles	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/07/2006 22:31	Steven A Skiles	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4807594

MW5 Grab Water Sample

Site# 1571 (2556380)

200 S 36th St-Bellingham, WA

Collected: 06/30/2006 11:19 by TP

Account Number: 11817

Submitted: 07/05/2006 09:45

Reported: 09/12/2006 at 11:11

Discard: 10/13/2006

ConocoPhillips

1230 West Washington Street

Suite 212

Tempe AZ 85281

BELL5

02135 Extraction - DRO Water
Special

ECY 97-602 NWTPH-Dx
06/97

1 07/07/2006 08:15 Mariam G Attalla

1



Analysis Report

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Lancaster Laboratories Sample No. WW 4807593

MW6 Grab Water Sample
 Site# 1571 (2556380)
 200 S 36th St-Bellingham, WA
 Collected: 06/30/2006 10:39 by TP

Account Number: 11817

Submitted: 07/05/2006 09:45
 Reported: 09/12/2006 at 11:11
 Discard: 10/13/2006

ConocoPhillips
 1230 West Washington Street
 Suite 212
 Tempe AZ 85281

BELL6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	80.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	100.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	0.3	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	48.	ug/l	1

State of Washington Lab Certification No. C259

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	07/10/2006 23:42	Matthew E Barton	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/07/2006 21:58	Steven A Skiles	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	07/07/2006 21:58	Steven A Skiles	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/07/2006 21:58	Steven A Skiles	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	07/07/2006 08:15	Mariam G Attalla	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4807592

MW7 Grab Water Sample
 Site# 1571 (2556380)
 200 S 36th St-Bellingham, WA
 Collected: 06/30/2006 10:02

by TP

Account Number: 11817

Submitted: 07/05/2006 09:45
 Reported: 09/12/2006 at 11:11
 Discard: 10/13/2006

ConocoPhillips
 1230 West Washington Street
 Suite 212
 Tempe AZ 85281

BELL7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	1,000.	380.	ug/l	5
02096	Heavy Range Organics	n.a.	N.D.	480.	ug/l	5
	The observed sample pattern includes #2 fuel/diesel and individual peaks eluting in the DRO range.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	0.2	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	2.0	0.3	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	190.	48.	ug/l	1

State of Washington Lab Certification No. C259

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	07/11/2006 18:37	Matthew E Barton	5
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/07/2006 21:25	Steven A Skiles	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	07/07/2006 21:25	Steven A Skiles	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/07/2006 21:25	Steven A Skiles	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	07/07/2006 08:15	Mariam G Attalla	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4807597

MW8 Grab Water Sample
 Site# 1571 (2556380)
 200 S 36th St-Bellingham, WA
 Collected: 06/30/2006 13:27 by TP

Account Number: 11817

Submitted: 07/05/2006 09:45
 Reported: 09/12/2006 at 11:11
 Discard: 10/13/2006

ConocoPhillips
 1230 West Washington Street
 Suite 212
 Tempe AZ 85281

BELL8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	77.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	96.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	0.3	ug/l	1
08274	TPH by NWTTPH-Gx waters					
01648	TPH by NWTTPH-Gx waters	n.a.	N.D.	48.	ug/l	1

State of Washington Lab Certification No. C259

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02211	TPH by NWTTPH-Dx(water) w/SiGel	ECY 97-602 NWTTPH-Dx modified	1	07/10/2006 22:45	Matthew E Barton	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/08/2006 00:09	Steven A Skiles	1
08274	TPH by NWTTPH-Gx waters	ECY 97-602 NWTTPH-Gx modified	1	07/08/2006 00:09	Steven A Skiles	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/08/2006 00:09	Steven A Skiles	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTTPH-Dx 06/97	1	07/07/2006 08:15	Mariam G Attalla	1



Analysis Report

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Lancaster Laboratories Sample No. WW 4807599

Trip Blank Grab Water Sample
Site# 1571 (2556380)
200 S 36th St-Bellingham, WA
Collected: 06/30/2006

Account Number: 11817

Submitted: 07/05/2006 09:45
Reported: 09/12/2006 at 11:11
Discard: 10/13/2006

ConocoPhillips
1230 West Washington Street
Suite 212
Tempe AZ 85281

BELLT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	0.3	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	48.	ug/l	1

State of Washington Lab Certification No. C259

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
08214	BTEX, MTBE (8021)	SW-846 8021B	1	07/07/2006 20:19	Steven A Skiles	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	07/07/2006 20:19	Steven A Skiles	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/07/2006 20:19	Steven A Skiles	1

Quality Control Summary

 Client Name: ConocoPhillips
 Reported: 09/12/06 at 11:11 AM

Group Number: 996001

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 061870018A	Sample number(s): 4807591-4807598							
Diesel Range Organics	N.D.	0.080	mg/l	84	79	51-113	6	20
Heavy Range Organics	N.D.	0.10	mg/l					
Batch number: 06188A07A	Sample number(s): 4807591-4807599							
Benzene	N.D.	0.2	ug/l	101	96	86-119	6	30
Toluene	N.D.	0.2	ug/l	101	96	82-119	5	30
Ethylbenzene	N.D.	0.2	ug/l	102	98	81-119	4	30
Total Xylenes	N.D.	0.6	ug/l	102	98	82-120	4	30
Methyl tert-Butyl Ether	N.D.	0.3	ug/l	104	97	82-124	7	30
TPH by NWTPH-Gx waters	N.D.	48.	ug/l	91	109	70-130	17	30

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 06188A07A	Sample number(s): 4807591-4807599 UNSPK: 4807591, 4807592								
Benzene	101	101	78-131	1	30				
Toluene	103	103	78-129	0	30				
Ethylbenzene	104	104	75-133	0	30				
Total Xylenes	104	104	84-131	0	30				
Methyl tert-Butyl Ether	97	92	70-134	5	30				
TPH by NWTPH-Gx waters	97	99	63-154	2	30				

Surrogate Quality Control

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

Analysis Name: TPH by NWTPH-Dx(water) w/SiGel
 Batch number: 061870018A
 Orthoterphenyl

4807591	96
4807592	113
4807593	92
4807594	80
4807595	87
4807596	60

*- Outside of specification

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

Quality Control Summary

Client Name: ConocoPhillips
Reported: 09/12/06 at 11:11 AM

Group Number: 996001

Surrogate Quality Control

4807597 89
4807598 87
Blank 92
LCS 107
LCSD 101

Limits: 50-150

Analysis Name: BTEX, MTBE (8021)
Batch number: 06188A07A

	Trifluorotoluene-P	Trifluorotoluene-F
4807591	111	86
4807592	111	88
4807593	110	87
4807594	111	90
4807595	111	85
4807596	111	87
4807597	109	82
4807598	111	86
4807599	108	88
Blank	112	88
LCS	112	92
LCSD	110	93
MS	110	91
MSD	109	91

Limits: 69-129

63-135

*- Outside of specification

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

ConocoPhillips Analysis Request/Chain of Custody



000666

Acct. #: 11817 For Lancaster Laboratories use only
 Group # 996001 Sample #: 4807591-99

Site #: <u>01571</u> WNO #: _____ Site Address: <u>Bellingham, WA</u> ConocoPhillips PM: <u>Jim Trotter</u> Company Code: <u>SEC</u> Core Work Order#: _____ Total Lab Budget: _____ Consultant/Office: <u>Redmond, WA</u> Consultant Prj. Mgr: <u>Marc Sauze</u> Consultant Phone #: <u>425 372-1600</u> Fax #: <u>425 372-1650</u> Sampler: <u>Tammy Parise</u>		Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Analyses Requested <small>List total number of containers in the box under each analysis.</small> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="10">Preservation Codes</th> </tr> <tr> <td>H</td><td>H</td><td>H</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td style="font-size: small;">TPHbx</td> <td style="font-size: small;">TPHbx w/sigel</td> <td style="font-size: small;">BIEX/MIPE</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>										Preservation Codes										H	H	H								TPHbx	TPHbx w/sigel	BIEX/MIPE								SCR#: _____ Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other	
Preservation Codes																																													
H	H	H																																											
TPHbx	TPHbx w/sigel	BIEX/MIPE																																											
Sample Identification		Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Remarks																																			
MW 4		6-30-06	9:26																																										
MW 7			10:02																																										
MW 6			10:39																																										
MW 5			11:19																																										
MW 3			12:01																																										
MW 1			12:43																																										
MW 8			1:27																																										
MW 2			2:09																																										
Trip blank																																													
Turnaround Time Requested in Business Days (TAT) (please circle): STD. TAT 5 day 48 hour 24 hour other _____						Relinquished by: <u>Tammy Parise</u> Date: <u>7/3/06</u> Time: <u>10:20</u>		Received by: _____ Date: _____ Time: _____		Date: _____ Time: _____																																			
Reporting Requirements (please circle) NJ Reduced NY ASP Cat. A Raw Data Diskette NY ASP Cat. B Full Type I Other _____						Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____		Date: _____ Time: _____																																			
						Relinquished by Commercial Carrier: UPS _____ FedEx <input checked="" type="checkbox"/> Other _____		Received by: <u>Kathy Binkley</u> Date: <u>7-5-06</u> Time: <u>0945</u> Temperature Upon Receipt: <u>4.6 + 6.0</u> °C																																					

Lancaster Laboratories Explanation of Symbols and Abbreviations

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

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
Cal	(diet) calories	lb.	pound(s)
meq	milliequivalents	kg	kilogram(s)
g	gram(s)	mg	milligram(s)
ug	microgram(s)	l	liter(s)
ml	milliliter(s)	ul	microliter(s)
m3	cubic meter(s)	fib >5 um/ml	fibers greater than 5 microns in length per ml
<	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.		

U.S. EPA data qualifiers:

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

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

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ATTACHMENT B
SECOR MONITORING WELL GAUGING, PURGING AND
SAMPLING PROCEDURES
GROUNDWATER MONITORING FIELD DATA RECORDS

SECOR MONITORING WELL GAUGING, PURGING AND SAMPLING PROCEDURES

Monitoring well purging and sampling was conducted based on USEPA approved (Puls and Barcelona, 1996) low-flow sampling techniques whenever possible.

Purging Procedures

- A. Using a decontaminated instrument (i.e., tape measure, continuity meter, or interface probe) measure the depth to groundwater in reference to the measuring point at the top of the casing. Measure the total depth of the well and diameter of the well casing to calculate the volume of water in the well casing.
- B. Based on previously obtained data, if a monitoring well is suspected of containing LPH concentrations, lower a transparent bailer into the well to evaluate the presence of a hydrocarbon sheen on the water table.
- C. Decontaminate the purge pump and/or PVC bailers by scrubbing in Alconox detergent solution, followed by a tap water rinse and then a de-ionized water rinse.
- D. Purge by low-flow pumping (less than 0.5 liters per minute) for approximately five minutes. Monitor the static water level in the well using a decontaminated instrument and adjust the pumping rate to maintain a minimal drawdown. If low-flow purging is not possible and bailing is used to purge the well, then a minimum of three well volumes will be removed. When purging 3 well volumes, parameters should be measured after each casing volume is removed. If the well goes dry, the procedure listed in step E2 (below) should be followed.
- E. Conduct field measurements (i.e., pH, specific conductivity, temperature, and oxidation-reduction potential) note clarity, color, turbidity, and odor of purge water, and measure depth to groundwater.
 1. If the well has not been purged dry and drawdown is minimal, continue to pump and conduct field measurements (including depth to water) again every three to five minutes during purging.
 - a) If the first through third series of measurements vary by less than 10 percent, the well has been adequately purged. If bailers are used to purge the well, then the water level is allowed to recover to 80 percent of its static condition, or for two hours, whichever comes first prior to beginning the sampling procedure.
 - b) If the measurements vary by 10 percent or greater, repeat Step E1 above.
 - c) If a minimum of three parameters cannot be measured during purging and or drawdown cannot be controlled to minimal, remove three well volumes with a bailer prior to sampling.
 2. If the well has been purged dry, measure the water level and allow the well to recharge to 80 percent, or for two hours, whichever occurs first. Calculate the percent recovery, and begin the sampling procedure.

Sampling Procedures

- Use the pump and a clean, dedicated section of tubing to collect the groundwater sample from the screened interval of the water column. If the pump cannot be used, collect the water sample with a clean, dedicated polyethylene disposable bailer.
- Transfer the groundwater sample into the appropriate container(s). Where applicable, some containers are completely filled to achieve zero headspace. Label the samples according to location and date of collection.
- Enter the samples into Chain-of-Custody and preserve on ice until delivery to the analytical laboratory. Complete the Well Development or Purging/Sampling Log to be stored in the project file.

Reference:

Puls, R.W., and Barcelona M.J., 1996. EPA Ground Water Issue Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures, EPA/540/S-95/504.

SECOR

DAILY FIELD LOG

Page: 1 of 1
Date: 6/30/2006

Client: ConocoPhillips	Site No: 256380	Project No: 01CP.06380.12
Scope of Work: <input checked="" type="checkbox"/> Quarter Monitoring/Sampling		
Describe Daily Activities:		
Gauged <u>8</u> monitoring wells.	Number of drums left on site: <u>0</u>	
Purged <u>8</u> monitoring wells.		
Sampled <u>8</u> monitoring wells.		
Field Notes:		
8:50-arrive on site, talk to employer about work on site, - familiarize self to site & well locations - set up decon		
9:26 sample MW 4 (needs new lock)		
10:02 sample MW 7		
10:39 sample MW 6		
11:19 sample MW 5		
12:01 sample MW 3		
12:43 sample MW 1 (Coordinate lunch break on site)		
1:27 sample MW 8 (more ice for coolers)		
2:09 sample MW 2		
Arrived on Site: <u>8:50</u>	Departed Site: <u>2:35</u>	
Decontamination Procedures: 3-Stage (Alconox Wash, Tap Water Rinse, & Distilled Water Rinse)		
Daily Health and Safety Log Completed?: <u>Yes</u>	Utility Locations Checked?: <u>N/A</u>	
Important Conversations: <u>NO</u>		
Important Changes in Scope of Work: <u>NO</u>		
Weather Conditions: <u>Sunny 70-80's</u>	Subcontractors On Site: <u>NO</u>	
SECOR Personnel On Site: <u>Tammy Parise</u>		
Signed: <u>Tammy Parise</u>	Date: <u>6/30/06</u>	

SECOR GROUNDWATER SAMPLING FIELD DATA SHEET

SECOR PN: _____ DATE: 6/30/2006 WELL NO. MW-1
 FACILITY NAME: 256380 Bellingham TEMPERATURE: 80 °F or °C
 FIELD PERSONNEL: Tammy Parise WEATHER: Sunny

FIELD MEASUREMENTS:

- A. Static Water Level (SWL) below top of casing/piezometer: 8.88 FT. or IN.
- B. Thickness of Free Product, if present: _____ Inches _____ FT. or IN.
- C. Total Depth of well (TD) from top of casing/piezometer: _____ FT. or IN.
- D. Height of Water Column in casing (h = TD - SWL): _____ FT. or IN.

E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	3 Well Vols.	5 Well Vols.		
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water _____ =	_____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water _____ =	_____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water _____ =	_____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: 12:31 END: 12:43

OBSERVATIONS:

	Time	Turbidity	Color	ORP	pH	Temp.	Conduct	SWL
1st Volume:	<u>12:30</u>	<u>L</u>	<u>C</u>	<u>-26</u>	<u>6.46</u>	<u>19.59</u>	<u>1.17</u>	<u>6.20</u>
2nd Volume:	<u>12:39</u>	<u>↓</u>	<u>↓</u>	<u>-18</u>	<u>6.46</u>	<u>20.72</u>	<u>1.13</u>	<u>6.15</u>
3rd Volume:	<u>12:42</u>	<u>↓</u>	<u>↓</u>	<u>-17</u>	<u>6.27</u>	<u>21.23</u>	<u>1.13</u>	<u>6.15</u>
4th Volume:	_____	_____	_____	_____	_____	_____	_____	_____
Addl. Volumes:	_____	_____	_____	_____	_____	_____	_____	_____

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons .25 gallons
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

SAMPLES COLLECTED: Depth to Water at time of sample collection: 6.15

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-1</u>	<u>12:43</u>	<u>4 VOAS/1 amber</u>	<u>HCL</u>
_____	_____	_____	_____
_____	_____	_____	_____

COMMENTS:

Casing Capacities:
 2-inch hole.....0.16 gal/in ft.
 4-inch hole.....0.65 gal/in ft.
 6.5-inch hole.....1.70 gal/in ft.
 8-inch hole.....2.60 gal/in ft.
 10-inch hole.....4.10 gal/in ft.

Recharge Calculation at Time of Sample Collection:

Total Depth of Well: _____
 Original Water Column: _____ x 0.80 = --- (_____)
 Collect sample when Depth to Water measures
Less than or equal to:

SECOR GROUNDWATER SAMPLING FIELD DATA SHEET

SECOR PN: _____ DATE: 6/30/2006 WELL NO. MW-2
 FACILITY NAME: 256380 Bellingham TEMPERATURE: 85 °F or °C
 FIELD PERSONNEL: Tammy Parise WEATHER: Sunny

FIELD MEASUREMENTS:

- A. Static Water Level (SWL) below top of casing/piezometer: 8.71 FT. or IN.
- B. Thickness of Free Product, if present: _____ Inches _____ FT. or IN.
- C. Total Depth of well (TD) from top of casing/piezometer: _____ FT. or IN.
- D. Height of Water Column in casing (h = TD - SWL): _____ FT. or IN.

E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	3 Well Vols.	5 Well Vols.			
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water	=	_____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water	=	_____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water	=	_____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: 1:57 END: 2:09

OBSERVATIONS:

	Time	Turbidity	Color	ORP	pH	Temp.	Conduct.	SWL
1st Volume:	<u>2:02</u>	<u>L</u>	<u>C</u>	<u>120</u>	<u>6.46</u>	<u>14.44</u>	<u>0.98</u>	<u>8.71</u>
2nd Volume:	<u>2:05</u>	<u>↓</u>	<u>↓</u>	<u>117</u>	<u>6.40</u>	<u>14.43</u>	<u>0.98</u>	<u>8.71</u>
3rd Volume:	<u>2:08</u>	<u>↓</u>	<u>↓</u>	<u>116</u>	<u>6.41</u>	<u>14.52</u>	<u>0.98</u>	<u>8.71</u>
4th Volume:	_____	_____	_____	_____	_____	_____	_____	_____
Addl. Volumes:	_____	_____	_____	_____	_____	_____	_____	_____

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons 25 gallons
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

SAMPLES COLLECTED: Depth to Water at time of sample collection: _____

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-2</u>	<u>2:09</u>	<u>4 VOAS/1 amber</u>	<u>HCL</u>
_____	_____	_____	_____
_____	_____	_____	_____

COMMENTS:

Casing Capacities:
 2-inch hole.....0.16 gal/lin ft.
 4-inch hole.....0.65 gal/lin ft.
 6.5-inch hole.....1.70 gal/lin ft.
 8-inch hole.....2.60 gal/lin ft.
 10-inch hole.....4.10 gal/lin ft.

Recharge Calculation at Time of Sample Collection:
 Total Depth of Well:
 Original Water Column: _____ x 0.80 = --(_____)
 Collect sample when Depth to Water measures
Less than or equal to:

SECOR GROUNDWATER SAMPLING FIELD DATA SHEET

SECOR PN: _____ DATE: 6/30/2006 WELL NO. MW-3
 FACILITY NAME: 256380 Bellingham TEMPERATURE: 80 °F or °C
 FIELD PERSONNEL: Tammy Parise WEATHER: Sunny

FIELD MEASUREMENTS:

- A. Static Water Level (SWL) below top of casing/piezometer: 5.40 FT. or IN.
 B. Thickness of Free Product, if present: _____ Inches _____ FT. or IN.
 C. Total Depth of well (TD) from top of casing/piezometer: _____ FT. or IN.
 D. Height of Water Column in casing (h = TD - SWL): _____ FT. or IN.
 E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:
- | | | | | |
|---------------|---------------------|---------------------|-------------------------|----------------|
| | <u>3 Well Vols.</u> | <u>5 Well Vols.</u> | | |
| 2" Diameter = | 0.5 gals/ft | 0.82 gals/ft | x feet of water _____ = | _____ PV (Gal) |
| 4" Diameter = | 2.0 gals/ft | 3.25 gals/ft | x feet of water _____ = | _____ PV (Gal) |
| 6" Diameter = | 4.4 gals/ft | 7.35 gals/ft | x feet of water _____ = | _____ PV (Gal) |

PURGING METHOD: LOW FLOW DURATION: START: 11:49 END: 12:07

OBSERVATIONS:

	Time	Turbidity	Color	ORP	pH	Temp.	Conduct.	SWL
1st Volume:	<u>11:54</u>	<u>L</u>	<u>C</u>	<u>-40</u>	<u>6.48</u>	<u>16.89</u>	<u>1.43</u>	<u>5.30</u>
2nd Volume:	<u>11:57</u>	<u>L</u>	<u>↓</u>	<u>-37</u>	<u>6.44</u>	<u>16.72</u>	<u>1.41</u>	<u>5.30</u>
3rd Volume:	<u>12:00</u>	<u>HA</u>	<u>↓</u>	<u>-35</u>	<u>6.42</u>	<u>16.60</u>	<u>1.41</u>	<u>5.30</u>
4th Volume:	_____	_____	_____	_____	_____	_____	_____	_____
Addl. Volumes:	_____	_____	_____	_____	_____	_____	_____	_____

TOTAL VOLUME OF WATER PURGED FROM WELL: ~~25 gallons~~ 75 gallons
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

SAMPLES COLLECTED: Depth to Water at time of sample collection: 5.30

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-3</u>	<u>12:01</u>	<u>4 VOAS/1 amber</u>	<u>HCL</u>
_____	_____	_____	_____
_____	_____	_____	_____

COMMENTS:

Some debris in last observation.

Casing Capacities:
 2-inch hole.....0.16 gal/in ft.
 4-inch hole.....0.65 gal/in ft.
 6.5-inch hole.....1.70 gal/in ft.
 8-inch hole.....2.60 gal/in ft.
 10-inch hole.....4.10 gal/in ft.

Recharge Calculation at Time of Sample Collection:

Total Depth of Well: _____
 Original Water Column: _____ x 0.80 = -- (_____)
 Collect sample when Depth to Water measures
Less than or equal to:

SECOR
GROUNDWATER SAMPLING FIELD DATA SHEET

SECOR PN: _____ DATE: 6/30/2006 WELL NO. MW-4
 FACILITY NAME: 256380 Bellingham TEMPERATURE: 70 °F or °C
 FIELD PERSONNEL: Tammy Parise WEATHER: Sunny

FIELD MEASUREMENTS:

- A. Static Water Level (SWL) below top of casing/piezometer: 6.80 FT. or IN.
 B. Thickness of Free Product, if present: _____ Inches _____ FT. or IN.
 C. Total Depth of well (TD) from top of casing/piezometer: _____ FT. or IN.
 D. Height of Water Column in casing (h = TD - SWL): _____ FT. or IN.
 E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:
- | | | | |
|---------------|---------------------|---------------------|--|
| | <u>3 Well Vols.</u> | <u>5 Well Vols.</u> | |
| 2" Diameter = | 0.5 gals/ft | 0.82 gals/ft | x feet of water _____ = _____ PV (Gal) |
| 4" Diameter = | 2.0 gals/ft | 3.25 gals/ft | x feet of water _____ = _____ PV (Gal) |
| 6" Diameter = | 4.4 gals/ft | 7.35 gals/ft | x feet of water _____ = _____ PV (Gal) |

PURGING METHOD: LOW FLOW DURATION: START: 9:14 END: 9:26

OBSERVATIONS:

	Time	Turbidity	Color	ORP	pH	Temp.	Conduct.	SWL
1st Volume:	<u>9:19</u>	<u>L</u>	<u>C</u>	<u>130</u>	<u>6.44</u>	<u>15.84</u>	<u>1.14</u>	<u>6.80</u>
2nd Volume:	<u>9:22</u>	<u>↓</u>	<u>↓</u>	<u>120</u>	<u>6.23</u>	<u>16.24</u>	<u>1.14</u>	<u>6.98</u>
3rd Volume:	<u>9:25</u>	<u>↓</u>	<u>↓</u>	<u>127</u>	<u>6.20</u>	<u>16.53</u>	<u>1.14</u>	<u>6.98</u>
4th Volume:	_____	_____	_____	_____	_____	_____	_____	_____
Addl. Volumes:	_____	_____	_____	_____	_____	_____	_____	_____

TOTAL VOLUME OF WATER PURGED FROM WELL: 25 gallons ¹⁸ 125 gallons
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

SAMPLES COLLECTED: Depth to Water at time of sample collection: 6.98

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-4</u>	<u>9:26</u>	<u>4 VOAS/1 amber</u>	<u>HCL</u>
_____	_____	_____	_____
_____	_____	_____	_____

COMMENTS:
Needs new log.

Casing Capacities:
 2-inch hole.....0.16 gal/lin ft.
 4-inch hole.....0.65 gal/lin ft.
 6.5-inch hole.....1.70 gal/lin ft.
 8-inch hole.....2.60 gal/lin ft.
 10-inch hole.....4.10 gal/lin ft.

Recharge Calculation at Time of Sample Collection:
 Total Depth of Well: _____
 Original Water Column: _____ x 0.80 = _____
 Collect sample when Depth to Water measures
Less than or equal to:

SECOR GROUNDWATER SAMPLING FIELD DATA SHEET

SECOR PN: _____ DATE: 6/30/2006 WELL NO. MW-5
 FACILITY NAME: 256380 Bellingham TEMPERATURE: 75 °F or °C
 FIELD PERSONNEL: Tammy Parise WEATHER: Sunny

FIELD MEASUREMENTS:

- A. Static Water Level (SWL) below top of casing/piezometer: 4.96 FT. or IN.
- B. Thickness of Free Product, if present: _____ Inches _____ FT. or IN.
- C. Total Depth of well (TD) from top of casing/piezometer: _____ FT. or IN.
- D. Height of Water Column in casing (h = TD - SWL): _____ FT. or IN.
- E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	<u>3 Well Vols.</u>	<u>5 Well Vols.</u>		
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water	= _____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water	= _____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water	= _____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: 10:07 END: 10:19

OBSERVATIONS:

	Time	Turbidity	Color	ORP	pH	Temp.	Conduct.	SWL
1st Volume:	<u>10:12</u>	<u>L</u>	<u>C</u>	<u>-28</u>	<u>6.55</u>	<u>19.81</u>	<u>1.10</u>	<u>4.87</u>
2nd Volume:	<u>11:15</u>	<u>↓</u>	<u>↓</u>	<u>-21</u>	<u>6.48</u>	<u>20.07</u>	<u>1.08</u>	<u>4.90</u>
3rd Volume:	<u>10:18</u>	<u>↓</u>	<u>↓</u>	<u>-10</u>	<u>6.45</u>	<u>20.34</u>	<u>1.07</u>	<u>4.92</u>
4th Volume:	_____	_____	_____	_____	_____	_____	_____	_____
Addl. Volumes:	_____	_____	_____	_____	_____	_____	_____	_____

TOTAL VOLUME OF WATER PURGED FROM WELL: ~~25 gallons~~ 1/8 gallon
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

SAMPLES COLLECTED: Depth to Water at time of sample collection: 4.92

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-5</u>	<u>10:19</u>	<u>4 VOAS/1 amber</u>	<u>HCL</u>
_____	_____	_____	_____
_____	_____	_____	_____

COMMENTS:

Casing Capacities:
 2-inch hole.....0.16 gal/lin ft.
 4-inch hole.....0.65 gal/lin ft.
 6.5-inch hole.....1.70 gal/lin ft.
 8-inch hole.....2.60 gal/lin ft.
 10-inch hole.....4.10 gal/lin ft.

Recharge Calculation at Time of Sample Collection:
 Total Depth of Well: _____
 Original Water Column: _____ x 0.80 = -()
 Collect sample when Depth to Water measures
Less than or equal to:

SECOR GROUNDWATER SAMPLING FIELD DATA SHEET

SECOR PN: _____ DATE: 6/30/2006 WELL NO. MW- 6
 FACILITY NAME: 256380 Bellingham TEMPERATURE: 70 °F or °C
 FIELD PERSONNEL: Tammy Parise WEATHER: Sunny

FIELD MEASUREMENTS:

- A. Static Water Level (SWL) below top of casing/piezometer: 6.50 FT. or IN.
- B. Thickness of Free Product, if present: _____ Inches _____ FT. or IN.
- C. Total Depth of well (TD) from top of casing/piezometer: _____ FT. or IN.
- D. Height of Water Column in casing (h = TD - SWL): _____ FT. or IN.

E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	<u>3 Well Vols.</u>	<u>5 Well Vols.</u>		
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water	= _____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water	= _____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water	= _____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: 10:27 END: 11:39

OBSERVATIONS:

	Time	Turbidity	Color	ORP	pH	Temp.	Conduct.	SWL
1st Volume:	<u>10:32</u>	<u>↓</u>	<u>C</u>	<u>-50</u>	<u>6.88</u>	<u>17.53</u>	<u>1.42</u>	<u>6.15</u>
2nd Volume:	<u>10:35</u>	<u>↓</u>	<u>↓</u>	<u>-46</u>	<u>6.79</u>	<u>17.54</u>	<u>1.37</u>	<u>6.17</u>
3rd Volume:	<u>10:38</u>	<u>↓</u>	<u>↓</u>	<u>-47</u>	<u>6.77</u>	<u>17.58</u>	<u>1.36</u>	<u>6.17</u>
4th Volume:	_____	_____	_____	_____	_____	_____	_____	_____
Addl. Volumes:	_____	_____	_____	_____	_____	_____	_____	_____

TOTAL VOLUME OF WATER PURGED FROM WELL: ~~25 gallons~~ 25 gallons
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

SAMPLES COLLECTED: Depth to Water at time of sample collection: 6.17

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW- 6</u>	<u>11:39</u>	<u>4 VOAS/ 1 amber</u>	<u>HCL</u>
_____	_____	_____	_____
_____	_____	_____	_____

COMMENTS:

- Casing Capacities:**
- 2-inch hole.....0.16 gal/lin ft.
 - 4-inch hole.....0.65 gal/lin ft.
 - 6.5-inch hole.....1.70 gal/lin ft.
 - 8-inch hole.....2.60 gal/lin ft.
 - 10-inch hole.....4.10 gal/lin ft.

Recharge Calculation at Time of Sample Collection:

Original Water Column: _____ x 0.80 = --- (_____)
 Collect sample when Depth to Water measures Less than or equal to:

SECOR GROUNDWATER SAMPLING FIELD DATA SHEET

SECOR PN: _____ DATE: 6/30/2006 WELL NO. MW-7
 FACILITY NAME: 256380 Bellingham TEMPERATURE: 7.0 °F or °C
 FIELD PERSONNEL: Tammy Parise WEATHER: Sunny

FIELD MEASUREMENTS:

- A. Static Water Level (SWL) below top of casing/piezometer: 7.31 FT. or IN.
- B. Thickness of Free Product, if present: _____ Inches _____ FT. or IN.
- C. Total Depth of well (TD) from top of casing/piezometer: _____ FT. or IN.
- D. Height of Water Column in casing (h = TD - SWL): _____ FT. or IN.

E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	3 Well Vols.	5 Well Vols.		
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water	= _____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water	= _____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water	= _____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: 9:50 END: 10:02

OBSERVATIONS:

	Time	Turbidity	Color	ORP	pH	Temp.	Conduct.	SWL
1st Volume:	<u>9:55</u>	<u>L</u>	<u>C</u>	<u>-33</u>	<u>6.57</u>	<u>17.02</u>	<u>1.50</u>	<u>7.40</u>
2nd Volume:	<u>9:58</u>	<u>↓</u>	<u>↓</u>	<u>-43</u>	<u>6.51</u>	<u>17.01</u>	<u>1.47</u>	<u>7.42</u>
3rd Volume:	<u>10:01</u>	<u>↓</u>	<u>↓</u>	<u>-48</u>	<u>6.52</u>	<u>17.08</u>	<u>1.47</u>	<u>7.45</u>
4th Volume:	_____	_____	_____	_____	_____	_____	_____	_____
Addl. Volumes:	_____	_____	_____	_____	_____	_____	_____	_____

TOTAL VOLUME OF WATER PURGED FROM WELL: 175 gallons = 25 gallons
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

SAMPLES COLLECTED: Depth to Water at time of sample collection: 7.45

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-7</u>	<u>10:02</u>	<u>4 VOAS/1 amber</u>	<u>HCL</u>
_____	_____	_____	_____
_____	_____	_____	_____

COMMENTS:
Rebas

Casing Capacities:
 2-inch hole.....0.16 gal/in ft.
 4-inch hole.....0.65 gal/in ft.
 6.5-inch hole.....1.70 gal/in ft.
 8-inch hole.....2.60 gal/in ft.
 10-inch hole.....4.10 gal/in ft.

Recharge Calculation at Time of Sample Collection:
 Original Water Column: _____ x 0.80 = ---
 Collect sample when Depth to Water measures
Less than or equal to:

**SECOR
GROUNDWATER SAMPLING FIELD DATA SHEET**

SECOR PN: _____ DATE: 6/30/2006 WELL NO. MW-8
 FACILITY NAME: 256380 Bellingham TEMPERATURE: 80 °F or °C
 FIELD PERSONNEL: Tammy Parise WEATHER: Sunny

FIELD MEASUREMENTS:

- A. Static Water Level (SWL) below top of casing/piezometer: 79.7 FT. or IN.
 B. Thickness of Free Product, if present: _____ Inches _____ FT. or IN.
 C. Total Depth of well (TD) from top of casing/piezometer: _____ FT. or IN.
 D. Height of Water Column in casing (h = TD - SWL): _____ FT. or IN.
 E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:
- | | | | |
|---------------|---------------------|---------------------|----------------------------------|
| | <u>3 Well Vols.</u> | <u>5 Well Vols.</u> | |
| 2" Diameter = | 0.5 gals/ft | 0.82 gals/ft | x feet of water = _____ PV (Gal) |
| 4" Diameter = | 2.0 gals/ft | 3.25 gals/ft | x feet of water = _____ PV (Gal) |
| 6" Diameter = | 4.4 gals/ft | 7.35 gals/ft | x feet of water = _____ PV (Gal) |

PURGING METHOD: LOW FLOW DURATION: START: 1:15 END: 1:27

OBSERVATIONS:

	Time	Turbidity	Color	ORP	pH	Temp.	Conduct.	SWL
1st Volume:	<u>1:20</u>	<u>L</u>	<u>C</u>	<u>9</u>	<u>6.90</u>	<u>19.54</u>	<u>1.58</u>	<u>8.15</u>
2nd Volume:	<u>1:23</u>	<u>↓</u>	<u>↓</u>	<u>11</u>	<u>6.47</u>	<u>20.08</u>	<u>1.53</u>	<u>8.15</u>
3rd Volume:	<u>1:26</u>	<u>↓</u>	<u>↓</u>	<u>22</u>	<u>6.45</u>	<u>20.10</u>	<u>1.53</u>	<u>8.15</u>
4th Volume:	_____	_____	_____	_____	_____	_____	_____	_____
Addl. Volumes:	_____	_____	_____	_____	_____	_____	_____	_____

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons , 25 gallons
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

SAMPLES COLLECTED: Depth to Water at time of sample collection: _____

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-8</u>	<u>1:27</u>	<u>4 VOAS/1 amber</u>	<u>HCL</u>
_____	_____	_____	_____
_____	_____	_____	_____

COMMENTS:

Casing Capacities:
 2-inch hole.....0.16 gal/lin ft.
 4-inch hole.....0.65 gal/lin ft.
 6.5-inch hole.....1.70 gal/lin ft.
 8-inch hole.....2.60 gal/lin ft.
 10-inch hole.....4.10 gal/lin ft.

Recharge Calculation at Time of Sample Collection:
 Total Depth of Well: _____
 Original Water Column: _____ x 0.80 = _____
 Collect sample when Depth to Water measures
Less than or equal to:

ConocoPhillips Analysis Request/Chain of Custody



000666

For Lancaster Laboratories use only

Acct. #: _____ Group #: _____ Sample #: _____

SCR#: _____

Site #: <u>01571</u> WNO #: _____ Site Address: <u>Edinburgh, WA</u> ConocoPhillips PM: <u>Jim Trotter</u> Company Code: <u>SEC</u> Core Work Order#: _____ Total Lab Budget: _____ Consultant/Office: <u>Redmond, WA</u> Consultant Prj. Mgr: <u>Marc Sauze</u> Consultant Phone #: <u>425 372-1600</u> Fax #: <u>425 372-1650</u> Sampler: <u>Tammy Parise</u>			Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Analyses Requested <small>List total number of containers in the box under each analysis.</small> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th colspan="3">Preservation Codes</th> <th colspan="10">Preservative Codes</th> </tr> <tr> <td>H</td><td>L</td><td>H</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td colspan="3" style="font-size: small;"> H = HCl T = Thiosulfate N = HNO₃ B = NaOH S = H₂SO₄ O = Other </td> <td colspan="17" rowspan="8" style="vertical-align: top; padding: 5px;"> Remarks </td> </tr> <tr> <td colspan="3" style="font-size: small;"> TPH 6X TPH by w/sig el BTEX/MTBE </td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>										Preservation Codes			Preservative Codes										H	L	H																			H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other			Remarks																	TPH 6X TPH by w/sig el BTEX/MTBE																																																																																																																																
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MW 3		12:01																																																																																																																																																																																																			
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Turnaround Time Requested in Business Days (TAT) (please circle): STD. TAT 5 day 48 hour 24 hour other _____				Relinquished by: <u>Tammy Parise</u> Date: <u>7/30/06</u> Time: <u>10:30</u>		Received by: _____ Date: _____ Time: _____	
Reporting Requirements (please circle) NJ Reduced NY ASP Cat. A Raw Data Diskette NY ASP Cat. B Full Type I Other _____				Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____	
Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____				Temperature Upon Receipt _____ C°			