



# 3R-069

## OCTOBER 2011 ANNUAL GROUNDWATER MONITORING REPORT

**CONOCOPHILLIPS HAMPTON No. 4M  
SAN JUAN COUNTY, NEW MEXICO  
API# 30-045-25810  
NMOCD# 3R-069**

**Prepared For:**

**CONOCOPHILLIPS COMPANY  
Risk Management and Remediation  
420 South Keeler Avenue  
Bartlesville, OK, 74004**

**MARCH 2012  
REF. NO. 074927 (2)**  
This report is printed on recycled paper.

## TABLE OF CONTENTS

	<u>Page</u>
1.0    INTRODUCTION .....	1
1.1       BACKGROUND .....	1
2.0    SAMPLING METHODOLOGY AND ANALYTICAL RESULTS.....	2
2.1       GROUNDWATER SAMPLING METHODOLOGY.....	2
2.2       GROUNDWATER ANALYTICAL RESULTS.....	3
3.0    CONCLUSIONS AND RECOMMENDATIONS .....	4

LIST OF FIGURES  
(Following Text)

- FIGURE 1 SITE LOCATION MAP
- FIGURE 2 SITE PLAN
- FIGURE 3 GEOLOGICAL CROSS SECTION
- FIGURE 4 OCTOBER 2011 GROUNDWATER POTENTIOMETRIC SURFACE MAP

LIST OF TABLES  
(Following Text)

- TABLE 1 SITE HISTORY TIMELINE
- TABLE 2 MONITOR WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS (NOVEMBER 2007 - OCTOBER 2011)
- TABLE 3 GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY (OCTOBER 1997 - OCTOBER 2011)

LIST OF APPENDICES

- APPENDIX A OCTOBER 2011 ANNUAL GROUNDWATER SAMPLING FIELD FORMS
- APPENDIX B OCTOBER 2011 ANNUAL GROUNDWATER LABORATORY ANALYTICAL REPORT

## **1.0 INTRODUCTION**

This report details the results of annual groundwater monitoring conducted by Conestoga-Rovers & Associates (CRA) in October 2011 at the ConocoPhillips Company (ConocoPhillips) Hampton No. 4M site (Site) located in Unit Letter N, Section 13, Township 30N, Range 11W, of San Juan County, New Mexico.

The Site is located on federal land approximately ¼ mile south of Hampton Arroyo and 2 miles southeast of Aztec, New Mexico off Hwy 173 on Hampton Canyon Road. The Site consists of a gas well and associated equipment and installations. The location and general features of the Hampton No. 4M site are presented as **Figure 1** and **Figure 2**, respectively.

## **1.1 BACKGROUND**

The Hampton No. 4M gas well was spudded on November 22, 1983 by Southland Royalty Company (Southland). Burlington Resources, Inc. (Burlington) acquired Southland in January of 1996; Burlington was subsequently acquired by ConocoPhillips in March of 2006.

The Public Service Company of New Mexico (PNM) operated a dehydration unit and an unlined earthen pit at the site from 1990 to 1996. Closure of the dehydrator pit revealed impacted soil and groundwater in 1996. While drilling a monitor well upgradient of the former pit in January 1997, impacted groundwater was encountered adjacent to Burlington equipment. A groundwater seep was discovered in April 1997. PNM, Burlington, and the New Mexico Oil Conservation Division (NMOCD) agreed on the installation of a collection trench. In March 2000, the NMOCD named Burlington responsible party of impacts upgradient of the pit, while PNM was named responsible party of impacts downgradient of the pit. Burlington excavated approximately 120 cubic yards of impacted soil from the vicinity of MW-13 and MW-14 in mid-2000, destroying both wells in the process. Maps outlining the excavation area for these activities, as well as a former excavation conducted by Burlington in December 1997 are provided in **Attachment A**. Tetra Tech Inc. (Tetra Tech) began conducting monitoring events at the Site in November 2007. The existing monitor well network consists of 9 wells: MW-1, MW-5, MW-7, MW-9, MW-11, MW-12, MW-15, MW-16, and TMW-1. The groundwater seep is also part of the current program to monitor the progression of natural attenuation at the Site. On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech to CRA of Albuquerque, NM. A generalized geologic cross section for the Site is provided as **Figure 3**. Detailed Site history is presented in **Table 1**.

## **2.0 SAMPLING METHODOLOGY AND ANALYTICAL RESULTS**

### **2.1 GROUNDWATER SAMPLING METHODOLOGY**

#### **Groundwater Elevation Measurements**

On October 11, 2011 groundwater elevation measurements were collected from Monitor Wells MW-1, MW-5, MW-7, MW-9, MW-11, MW-12, MW-15, MW-16, and TMW-1 using an oil/water interface probe. Groundwater elevations are detailed in **Table 2**. A groundwater potentiometric surface map is presented as **Figure 4**. Based on October 2011 monitoring event data, groundwater flow is to the north and is consistent with historic records at this Site.

#### **Groundwater sampling**

Monitor Wells MW-1, MW-9, MW-12, and MW-15 were sampled on October 4, 2011. Monitor Well MW-11 was sampled on October 11, 2011 and Monitor Well MW-5 was sampled on October 12, 2011. Monitor Well MW-7 and the groundwater seep were dry and TMW-1 did not have sufficient water for collection of a sample. MW-16 was not sampled due to the presence of approximately 0.6 feet of a light non-aqueous phase liquid (LNAPL).

Approximately three well volumes were purged from each monitor well with a 1.5 inch dedicated polyethylene disposable bailer prior to sampling. Purge water was disposed of in the Site produced water tank. The Groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Pace Analytical Services, Inc. of Lenexa, KS. Samples were analyzed for the presence of benzene, toluene, ethylbenzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B. CRA groundwater sampling field forms are included as **Appendix A**.

## **2.2        GROUNDWATER ANALYTICAL RESULTS**

The New Mexico Water Quality Control Commission (NMWQCC) mandates that groundwater quality in New Mexico be protected, and has issued groundwater quality standards in Title 20, Chapter 6, Part 2, Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC). Groundwater quality standards have been set for the protection of human health, domestic water supply, and irrigation use. Exceedences of NMWQCC groundwater quality standards in Site monitor wells are discussed below. Results are summarized in **Table 3**. The corresponding laboratory analytical report for the October 2011 sampling event is included as **Appendix B**.

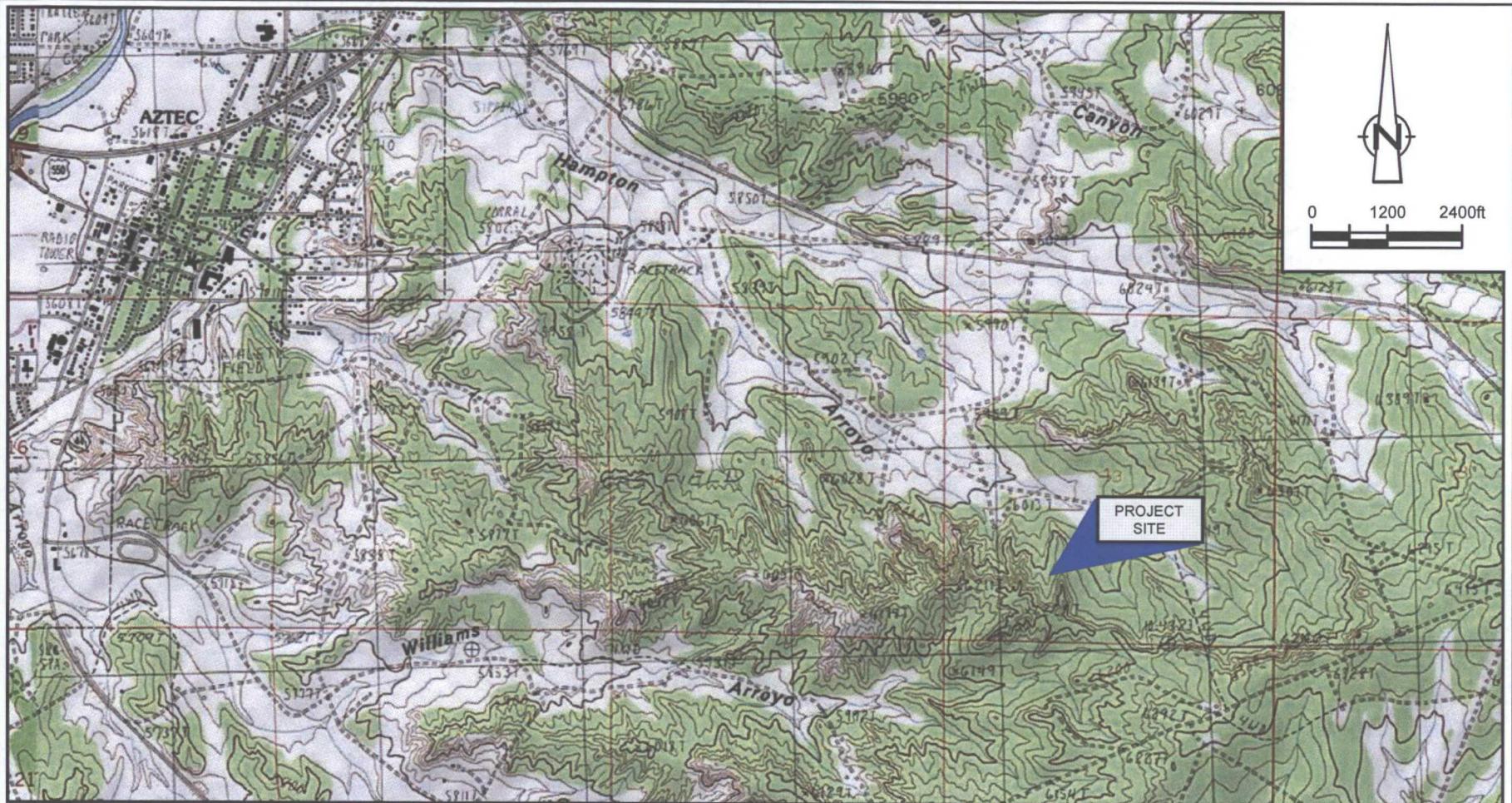
- **Benzene**
  - The NMWQCC standard for benzene is 0.010 milligrams per liter (mg/L). The groundwater sample collected from MW-5 during October 2011 contained benzene at a concentration of 0.0652 mg/L; the groundwater sample collected from MW-12 contained a concentration of 0.494 mg/L.
- **Toluene**
  - The NMWQCC standard for toluene is 0.750 milligrams per liter (mg/L). The groundwater sample collected from MW-5 contained a concentration of toluene of 1.22 mg/L.
- **Total Xylenes**
  - The NWQCC standard for total xylenes is 0.620 mg/L. The groundwater sample collected from MW-5 contained total xylenes at a concentration of 3.21 mg/L.

### **3.0 CONCLUSIONS AND RECOMMENDATIONS**

Groundwater samples collected from MW-5 and MW-12 have consistently exceeded NMWQCC groundwater quality standards for BTEX constituents since monitoring began at the Site. LNAPL was encountered in MW-16 on both October 4 and October 11, 2011. CRA replaced two saturated oil absorbent socks in MW-16 on October 4, 2011 after bailing approximately one gallon of free product from the well. The oil absorbent socks were again removed on October 11, 2011 after they were found to be saturated. Due to the rapidity of saturation, the oil absorbent socks were not replaced.

CRA recommends continued annual groundwater sampling and free product removal at the Site. Once all monitored groundwater quality parameters approach compliance levels, CRA will begin sampling on a quarterly basis. When eight consecutive quarters of data within compliance levels has been achieved, remediation Site closure will be requested.

## FIGURES



SOURCE: USGS 7.5 MINUTE QUAD  
"AZTEC, NEW MEXICO"

LAT/LONG: 36.8089° NORTH, 107.9463° WEST  
COORDINATE: NAD83 DATUM, U.S. FOOT  
STATE PLANE ZONE - NEW MEXICO WEST

Figure 1

**SITE LOCATION MAP  
HAMPTON No. 4M SITE  
SECTION 13, T30N-R11W, AZTEC, NEW MEXICO  
*ConocoPhillips Company***





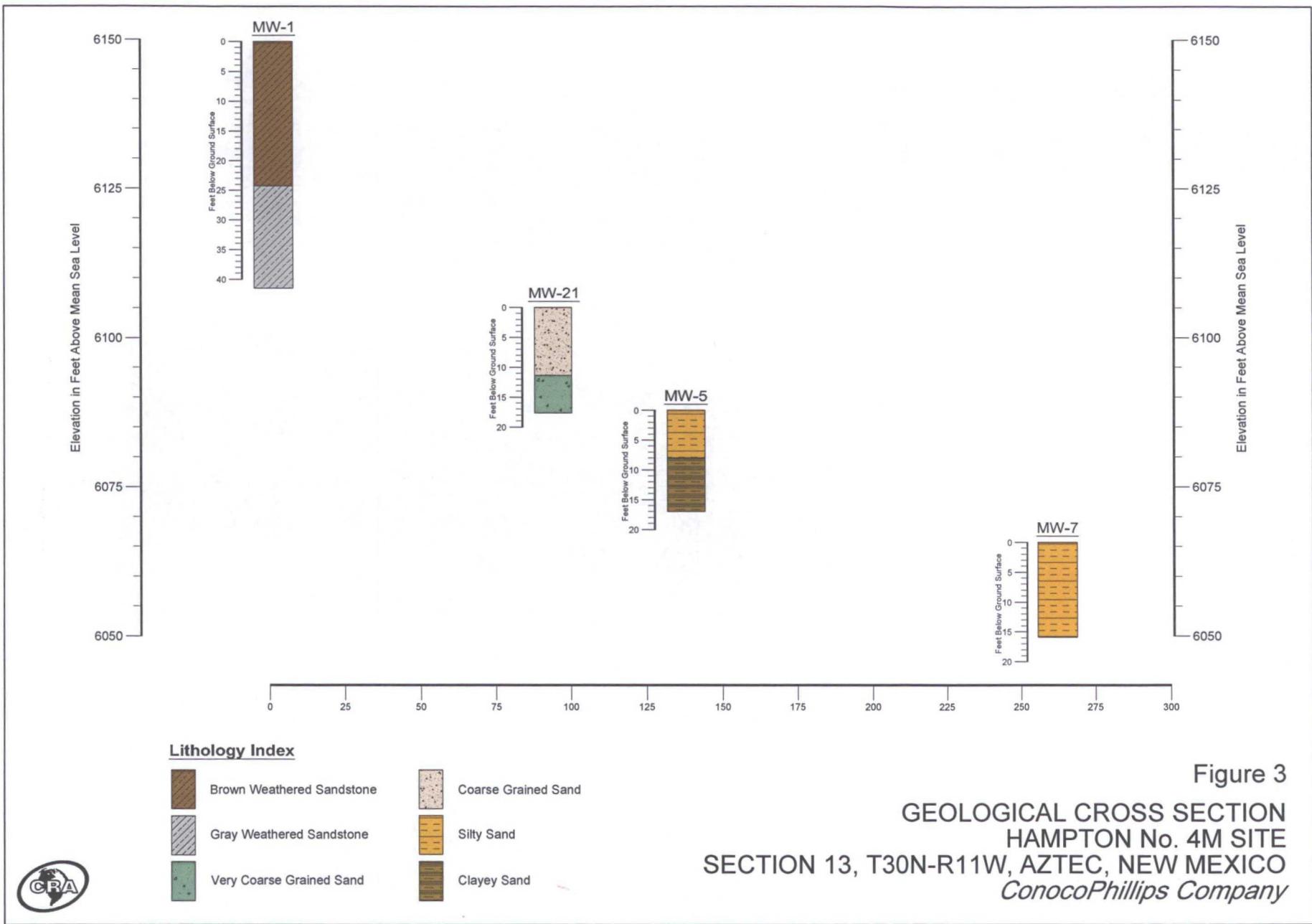
LEGEND

-  Monitor Well Location
-  Seep
-  El Paso Gas Pipeline

LAT/LONG: 36.8089° NORTH, 107.9463° WEST  
COORDINATE: NAD83 DATUM, U.S. FOOT  
STATE PLANE ZONE - NEW MEXICO WEST

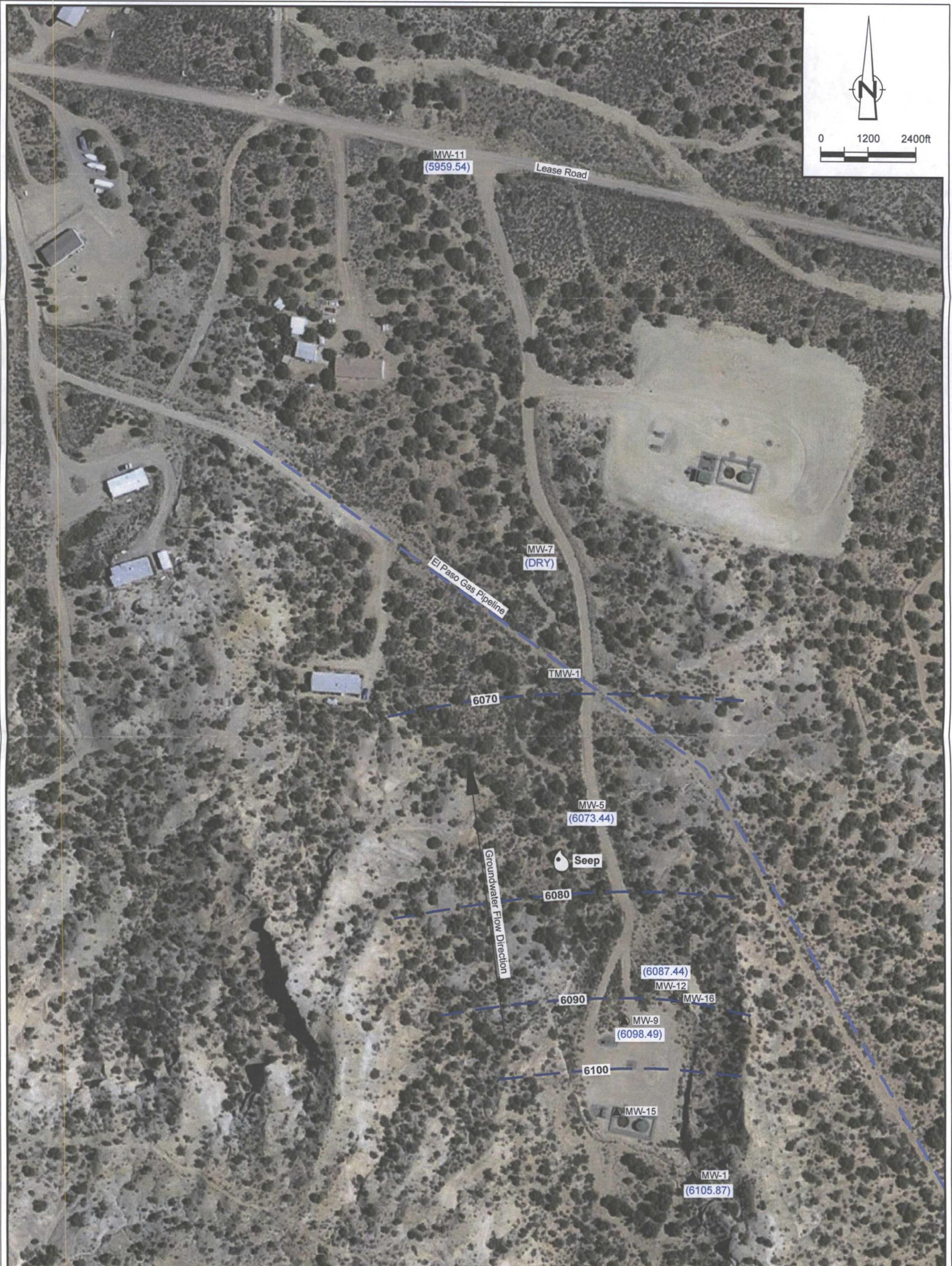
Figure 2  
SITE MAP  
HAMPTON No. 4M SITE  
SECTION 13, T30N-R11W, AZTEC, NEW MEXICO  
*ConocoPhillips Company*





074927-95(002)GN-DL001 JAN 09/2012





#### LEGEND

- Monitor Well Location
- Seep
- El Paso Gas Pipeline
- Groundwater Elevation, Ft
- Groundwater Elevation Contour, Ft
- Groundwater Flow Direction

LAT/LONG: 36.8089° NORTH, 107.9463° WEST  
COORDINATE: NAD83 DATUM, U.S. FOOT  
STATE PLANE ZONE - NEW MEXICO WEST

OCTOBER 2011 GROUNDWATER POTENTIOMETRIC SURFACE MAP  
HAMPTON No. 4M SITE  
SECTION 13, T30N-R11W, AZTEC, NEW MEXICO  
*ConocoPhillips Company*

Figure 4

**TABLES**

TABLE 1

Page 1 of 3

**SITE HISTORY TIMELINE**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY, NM**

Date	Event/Action	Description/Comments
11/22/1983	Well Spudded	Hampton No. 4M spudded by Southland Royalty Company (Southland Royalty).
3/1/1990	Operator Change	Southland Royalty entered into an agreement with Gas Company of New Mexico (predecessor to Public Service Company of New Mexico – PNM) to sell production from the Hampton No. 4M well. PNM installed and operated dehydration equipment in the northern-most portion of the site as part of the contract.
6/30/1995	Transfer of Dehydration Equipment Ownership	Williams Field Services purchased the dehydration equipment from PNM.
1/2/1996	Transfer of Well Ownership	Burlington Resources completed the acquisition of Southland Royalty Company.
4/23/1996	Site Assessment	PNM discovered potential hydrocarbon contamination beneath PNM's dehydrator discharge pit during a site assessment. PNM subsequently began pit closure work.
12/16/1996	Site Assessment	PNM discovered hydrocarbon-impacted groundwater while drilling to determine the vertical extent of hydrocarbon contamination beneath a former unlined, earthen dehydrator discharge pit located on the north end of the Hampton No. 4M well pad. Total BTEX in groundwater was 20,620 parts per billion (ug/L) and benzene was 3,840 ug/L.
1/13/1997	NMOCD Notified of Contamination	PNM notified NMOCD in writing of the discovery of groundwater contamination at the site.
1/28/1997	LNAPL Discovered	PNM gauged Monitor Well MW-2 and discovered approximately 4 feet of LNAPL.
1/31/1997	Monitor Well Installation	PNM installed two monitor wells upgradient from PNM's former pit. Impacted groundwater was discovered in the well adjacent to Burlington's equipment.
1/31/1997	Monitor Well Installation	PNM installed MW-3 and MW-4.
4/14/1997	Seep Discovered	During a site visit, Burlington discovered a surface seep north of the well pad with LNAPL discharging to a small drainage area. Burlington notified NMOCD and PNM on the same day.
4/16/1997	On-Site Meeting	Burlington hosted an on-site meeting with PNM and NMOCD to discuss the seep. NMOCD asked for immediate action to contain the seep. The group agreed to install a collection trench.
4/17/1997	Collection Trench Constructed	Burlington constructed a collection trench between the seep and the wellhead. A sandstone shelf was encountered 6 to 8 feet bgs. Black to grey saturated soil was found above the sandstone. Hydrocarbon vapors were monitored during construction of the trench with a photoionization detector (PID). PID readings were between 1,000–2,000 ppm.
4/30/1997	Site Assessment	Burlington attempted to excavate the area of the former tank discharge pit. Sandstone was encountered at one foot below the bottom of the pit. The excavator could not penetrate the sandstone. There was no indication of hydrocarbon contamination in this area. Burlington subsequently excavated 9 to 10 test holes in the vicinity of the well pad. No hydrocarbon impacts were found in any of the test holes.
6/05/1997 through 6/6/1997	Monitor Well Installation	Burlington advanced 7 boreholes around the well pad. Each of the 7 boreholes was subsequently completed as a temporary monitor well.
8/1/1997	NMOCD Letter Issued	NMOCD issued a letter to PNM and Burlington. PNM was directed to assess contamination downgradient of its pit and Burlington was directed to submit an assessment plan for the portion of the site upgradient of the PNM disposal pit.

TABLE 1

Page 2 of 3

**SITE HISTORY TIMELINE  
CONOCOPHILLIPS COMPANY  
HAMPTON No. 4M  
SAN JUAN COUNTY, NM**

<b>Date</b>	<b>Event/Action</b>	<b>Description/Comments</b>
November 1997	Recovery Well System Installation	PNM installed an LNAPL recovery well system adjacent to PNM's former pit in November 1997 (exact dates unknown).
December 1997 - 2000	Pit Excavations	Hydrocarbon impacted soil was excavated from December 1997 to 2000 at various locations to the depth of groundwater. Potassium permanganate was applied to the excavations.
January 1998	LNAPL Recovery Initiated	PNM initiated LNAPL recovery (exact date unknown).
2/23/1998	Letter From Downgradient Land Owner	Mr. J. Burton Everett, the owner of property downgradient of the Site, wrote a letter to the NMOCD, expressing concern over the migration of hydrocarbons onto his property.
3/13/1998	NMOCD Letter Issued	NMOCD sent a letter to PNM directing the removal, within 30 days, of the remaining source areas of LNAPL in the vicinity and immediately downgradient of PNM's former pit.
April/May 1998	Monitor Well Installation	LNAPL was discovered upgradient from the dehydration pit and Burlington installed two additional monitor wells.
10/28/1998	Burlington Responds to NMOCD Letter	Burlington responded to NMOCD's letter of September 1, 1998. The letter stated that if PNM did not begin remediation of PNM's former pit by October 30, 1998, Burlington would begin remediating the entire site, starting at PNM's former pit and working south to Burlington's former pit.
November 1998	LNAPL Recovery Efforts Terminated	PNM's LNAPL recovery efforts were terminated (exact date unknown) as a result of Burlington's removal of PNM's system during excavation activities.
4/14/1999	Seep Sampled	NMOCD sampled a groundwater seep to the northwest of the well pad. The analytical results revealed benzene in excess of NMWQCC groundwater quality standards.
3/24/2000	Order No. R-11134-A Issued to Burlington and PNM	<p>NMOCD issued Order No. R-11134-A to Burlington and PNM. The Order:</p> <ol style="list-style-type: none"> <li>1) denied the application by PNM for rescinding the prior directive,</li> <li>2) declared Burlington the responsible party for any contamination south and upgradient to the PNM disposal pit,</li> <li>3) declared PNM the responsible party for any soil contamination remaining below its former pit,</li> <li>4) directed PNM and Burlington to share responsibility of remediation for any groundwater or soil contamination, other than soil contamination below the former PNM pit, remaining north and downgradient of the property for which Burlington is responsible,</li> <li>5) directed PNM and Burlington to submit remediation plans to NMOCD,</li> <li>6) directed both PNM and Burlington to begin remedial activities within 10 days of NMOCD approval of the plans,</li> <li>7) directed PNM to have oversight and reporting responsibilities for GW remediation in the area north and downgradient of the property for which Burlington is responsible, and</li> <li>8) retained jurisdiction for NMOCD for any further orders as may be necessary.</li> </ol>
Second Quarter 2000	Pit Excavation	Burlington excavated approximately 120 cubic yards of hydrocarbon-impacted soil to groundwater depth in the vicinity of MW-13 and MW-14 in mid-2000 (exact dates unknown). Both wells were destroyed in the process. A shale confining layer was discovered at the bottom of the excavation. The excavated soil was landfarmed on a nearby wellpad lease.

TABLE 1

Page 3 of 3

**SITE HISTORY TIMELINE  
CONOCOPHILLIPS COMPANY  
HAMPTON No. 4M  
SAN JUAN COUNTY, NM**

<b>Date</b>	<b>Event/Action</b>	<b>Description/Comments</b>
Third Quarter 2001	Excavation Backfilled	Burlington backfilled the mid-2000 excavation area with clean fill.
3/31/2006	Operator Change	ConocoPhillips Company completed the acquisition of Burlington Resources.
11/8/2007	Groundwater Monitoring	Tetra Tech conducted quarterly groundwater monitoring activities.
1/17/2008	Groundwater Monitoring	Tetra Tech conducted quarterly groundwater monitoring activities.
3/19/2008	Groundwater Monitoring	Tetra Tech conducted quarterly groundwater monitoring activities.
7/22/2008	Groundwater Monitoring	Tetra Tech conducted quarterly groundwater monitoring activities.
10/23/2008	Groundwater Monitoring	Tetra Tech conducted quarterly groundwater monitoring activities.
1/29/2009	Groundwater Monitoring	Tetra Tech conducted quarterly groundwater monitoring activities.
9/24/2009	Groundwater Monitoring	Tetra Tech completed annual groundwater monitoring activities.
9/28/2010	Groundwater Monitoring	Tetra Tech completed annual groundwater monitoring activities. LNAPL was encountered in MW-16. Tetra Tech purged LNAPL from the well and placed two absorbent socks in MW-16.
12/15/2010	Assessment of MW-16	Tetra Tech returned to the Site to check the status of the absorbent socks in MW-16. The socks were saturated. Tetra Tech purged approximately 3.5 gallons of LNAPL and water from the well and placed three additional absorbent socks in MW-16.
6/15/2011	Transfer of Site Consulting Responsibilities	Site consulting responsibilities were transferred from Tetra Tech to Conestoga-Rovers & Associates (CRA), Inc. of Albuquerque, NM.
10/4/11 and 10/11/11	Groundwater Monitoring	CRA completed annual groundwater monitoring activities. Oil absorbent socks in MW-16 were found saturated and were replaced on 10/4/11. The new socks were found to be saturated on 10/11/11, and were not replaced due to the rapidity of saturation. One gallon of LNAPL was recovered during the sampling event.

TABLE 2

Page 1 of 2

**MONITOR WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Monitor Well	TOC Elevation (ft AMSL)	Sample Date	Depth to Water (ft)	GW Elevation (ft AMSL)
MW-1	6149.42	11/8/2007	42.81	6106.61
		1/17/2008	42.96	6106.46
		3/19/2008	42.93	6106.49
		7/22/2008	42.74	6106.68
		10/23/2008	32.80	6116.62
		1/21/2009	42.90	6106.52
		9/24/2009	43.09	6106.33
		9/28/2010	43.19	6106.23
		10/11/2011	43.55	6105.87
MW-5	6090.825	11/8/2007	16.52	6074.31
		1/17/2008	15.65	6075.18
		3/19/2008	13.64	6077.19
		7/22/2008	15.72	6075.11
		10/23/2008	16.53	6074.3
		1/21/2009	16.04	6074.79
		9/24/2009	16.89	6073.94
		9/28/2010	16.55	6074.28
		10/11/2011	17.39	6073.44
MW-7	6066.91	11/8/2007	20.22	6046.69
		1/17/2008	20.50	6046.41
		3/19/2008	20.02	6046.89
		7/22/2008	19.29	6047.62
		10/23/2008	19.95	6046.96
		1/21/2009	20.44	6046.47
		9/24/2009	20.55	6046.36
		9/28/2010	21.24	6045.67
		10/11/2011	DRY	<6066.9
MW-9	6122.515	11/8/2007	22.91	6099.61
		1/17/2008	22.76	6099.76
		3/19/2008	22.38	6100.14
		7/22/2008	23.10	6099.42
		10/23/2008	23.02	6099.5
		1/21/2009	22.85	6099.67
		9/24/2009	23.64	6098.88
		9/28/2010	23.70	6098.82
		10/11/2011	24.03	6098.49
MW-11	6015.75	11/8/2007	56.00	5959.75
		1/17/2008	55.86	5959.89
		3/19/2008	55.88	5959.87
		7/22/2008	55.71	5960.04
		10/23/2008	55.91	5959.84
		1/21/2009	55.75	5960
		9/24/2009	56.02	5959.73
		9/28/2010	56.06	5959.69
		10/11/2011	56.21	5959.54

TABLE 2

Page 2 of 2

**MONITOR WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Monitor Well	TOC Elevation (ft AMSL)	Sample Date	Depth to Water (ft)	GW Elevation (ft AMSL)
MW-12	6109.02	11/8/2007	20.46	6088.56
		1/17/2008	20.24	6088.78
		3/19/2008	19.85	6089.17
		7/22/2008	20.54	6088.48
		10/23/2008	20.61	6088.41
		1/21/2009	20.37	6088.65
		9/24/2009	21.23	6087.79
		9/28/2010	21.27	6087.75
		10/11/2011	21.58	6087.44
		11/8/2007	18.03	NA
MW-15	No survey - DTW only	1/17/2008	18.20	NA
		3/19/2008	17.60	NA
		7/22/2008	17.79	NA
		10/23/2008	18.01	NA
		1/21/2009	18.20	NA
		9/24/2009	18.33	NA
		9/28/2010	18.25	NA
		10/11/2011	18.65	NA
		11/8/2007	25.03	NA
		1/17/2008	24.88	NA
MW-16	No survey - DTW only	3/19/2008	24.37	NA
		7/22/2008	25.00	NA
		10/23/2008	25.57	NA
		1/21/2009	24.97	NA
		9/24/2009	25.75	NA
		9/28/2010	25.41	NA
		10/11/2011	28.26	NA
		11/8/2007	19.06	NA
		1/17/2008	19.37	NA
		3/19/2008	18.55	NA
TMW-1	No survey - DTW only	7/22/2008	18.10	NA
		10/23/2008	19.19	NA
		1/21/2009	19.25	NA
		9/24/2009	19.61	NA
		9/28/2010	19.11	NA
		10/11/2011	19.39	NA

**Notes:**

ft = feet

AMSL = Above mean sea level

DTW = Depth to water

NA = Not available

TABLE 3

**GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
MW-1	MW-1	10/30/1997	(orig)	0.0024	0.0023	< 0.0002	0.0011
	MW-1	1/12/1998	(orig)	0.0043	0.0033	0.0002	0.001
	MW-1	4/14/1998	(orig)	0.001	0.0013	< 0.0005	< 0.0005
	MW-1	7/1/1998	(orig)	0.0013	0.001	< 0.0005	0.0037
	MW-1	10/5/1998	(orig)	< 0.001	< 0.001	< 0.001	< 0.003
	MW-1	1/27/1999	(orig)	0.0008	0.0009	< 0.0005	< 0.0015
	MW-1	7/12/1999	(orig)	0.0011	0.0005	< 0.0005	< 0.0005
	MW-1	9/24/2003	(orig)	0.0009 J	0.001	<	0.0004 J
	MW-1	12/15/2003	(orig)	0.0011	0.0009 J	<	<
	MW-1	3/15/2004	(orig)	<	<	<	<
	MW-1	6/21/2004	(orig)	<	<	<	<
	MW-1	9/29/2004	(orig)	<	<	<	<
	MW-1	12/31/2004	(orig)	<	0.0009 J	<	0.0033 J
	MW-1	3/22/2005	(orig)	<	0.0003 J	<	<
	MW-1	10/24/2005	(orig)	<	<	<	<
	MW-1	12/12/2005	(orig)	<	0.0007 J	<	0.0006 J
	MW-1	3/20/2006	(orig)	0.0011	0.0009 J	<	0.0006 J
	MW-1	6/21/2006	(orig)	0.0003 J	0.0014	0.0004 J	0.0018 J
	MW-1	10/18/2006	(orig)	<	0.0002	0.0002	0.0013
	MW-1	12/12/2006	(orig)	<	0.0002	0.0002	0.0014
	MW-1	3/26/2007	(orig)	< 0.0003	0.0003 J	0.0002 J	0.0004 J
	MW-1	6/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-1	11/8/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-1	1/15/2008	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-1	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-1	7/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-1	10/23/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-1	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-1	9/24/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	MW-1	9/28/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
GW-074927-100411-CM-002		10/4/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003

TABLE 3

**GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
MW-5	MW-5	10/29/1997	(orig)	5.934	10.024	0.709	8.188
	MW-5	1/12/1998	(orig)	7.521	11.213	0.779	8.436
	MW-5	4/14/1998	(orig)	7	11	0.72	7.8
	MW-5	7/1/1998	(orig)	6.5	10	0.78	7.5
	MW-5	10/5/1998	(orig)	6.8	8.4	0.74	6.9
	MW-5	11/9/1998	(orig)	6.2	8.2	0.67	6.5
	MW-5	1/27/1999	(orig)	6.4	8.9	0.66	6.7
	MW-5	5/5/1999	(orig)	6.8	9.8	0.9	7.8
	MW-5	5/26/1999	(orig)	6.6	10	0.65	8.1
	MW-5	7/12/1999	(orig)	6.3	10	0.75	8.8
	MW-5	8/17/1999	(orig)	5.4	9.8	0.67	7.5
	MW-5	8/17/1999	(Duplicate)	5.9	8.9	0.5	6.2
	MW-5	10/21/1999	(orig)	5.2	9.6	0.65	6.9
	MW-5	1/27/2000	(orig)	4.7	10	0.68	7.4
	MW-5	6/13/2000	(orig)	8.4	19	1.7	22
	MW-5	3/29/2001	(orig)	3.89	9.6	0.64	7.73
	MW-5	6/26/2001	(orig)	3.8	11	0.7	9
	MW-5	9/18/2001	(orig)	4.1	11	0.76	10
	MW-5	12/18/2001	(orig)	3.2	9.7	0.6	7.8
	MW-5	3/22/2002	(orig)	3.5	10	0.83	8.5
	MW-5	6/28/2002	(orig)	3.7	12	0.76	10
	MW-5	9/23/2002	(orig)	3	9.8	0.64	8.3
	MW-5	12/31/2002	(orig)	2.9	8.9	0.58	7.3
	MW-5	3/27/2003	(orig)	1.22	4.87	0.487	6.01
	MW-5	6/27/2003	(orig)	2.04	8.55	0.64	8.05
	MW-5	9/24/2003	(orig)	2.11	9.09	0.7	9.2
	MW-5	12/15/2003	(orig)	2.15	9.24	0.72	8.81
	MW-5	6/21/2004	(orig)	1.61	8.74	0.64	8.22
	MW-5	9/29/2004	(orig)	1.71	7.25	0.67	8.09
	MW-5	12/31/2004	(orig)	1.82	9.15	0.73	9.03
	MW-5	3/15/2005	(orig)	1.37	8.1	0.66	8.71
	MW-5	3/22/2005	(orig)	0.42	1.42	0.11	1.16
	MW-5	10/24/2005	(orig)	1.07	6.66	0.61	7.62
	MW-5	12/12/2005	(orig)	0.9	5.93	0.52	6.28
	MW-5	3/20/2006	(orig)	0.82	6.27	0.51	6.04
	MW-5	6/21/2006	(orig)	0.93	6.11	0.58	6.69
	MW-5	10/18/2006	(orig)	0.69	5.14	0.5	5.87
	MW-5	12/18/2006	(orig)	0.64	5.09	0.5	5.61
	MW-5	3/26/2007	(orig)	0.66	6.47	0.53	5.45
	MW-5	6/26/2007	(orig)	0.74	8.07	0.64	7.32
	MW-5	11/8/2007	(orig)	0.41	4.8	0.39	5
	MW-5	1/17/2008	(orig)	0.44	6.4	0.51	6.1
	MW-5	3/19/2008	(orig)	0.37	2.9	0.24	2.57
	MW-5	7/22/2008	(orig)	0.34	6.1	0.55	6.4
	MW-5	10/23/2008	(orig)	0.27	6.2	0.44	6.3
	MW-5	1/21/2009	(orig)	0.25	3.8	0.51	5.2
	MW-5	9/24/2009	(orig)	0.19	4.3	0.47	5.1
	MW-5	9/28/2010	(orig)	0.13	2.4	0.6	5.2
GW-074927-100411-CM-006		10/12/2011	(orig)	0.0652	1.22	0.443	3.21
GW-074927-100411-CM-007		10/12/2011	(Duplicate)	0.0796	1.22	0.488	3.46

TABLE 3

**GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
MW-7	MW-7	1/12/1998	(orig)	0.78	0.246	0.258	3.942
	MW-7	4/14/1998	(orig)	0.82	0.34	0.19	2.45
	MW-7	7/1/1998	(orig)	0.95	0.44	0.2	3.02
	MW-7	10/5/1998	(orig)	1.6	0.93	0.18	1.53
	MW-7	11/9/1998	(orig)	1.8	1	0.16	1.24
	MW-7	1/27/1999	(orig)	2.1	1	0.16	1.05
	MW-7	5/5/1999	(orig)	0.21	0.0029	0.03	0.147
	MW-7	5/26/1999	(orig)	0.19	0.0074	0.032	0.15
	MW-7	7/12/1999	(orig)	0.13	0.0072	0.022	0.1013
	MW-7	10/21/1999	(orig)	0.26	0.011	0.015	0.089
	MW-7	1/27/2000	(orig)	0.67	0.58	0.054	0.68
	MW-7	6/17/2000	(orig)	0.42	1.1	0.075	1.4
	MW-7	3/29/2001	(orig)	0.83	0.15	0.32	1.79
	MW-7	6/26/2001	(orig)	0.54	0.33	0.25	1.41
	MW-7	9/18/2001	(orig)	0.87	0.56	0.32	2.02
	MW-7	12/18/2001	(orig)	0.4	0.03	0.16	0.885
	MW-7	3/22/2002	(orig)	0.18	<	0.078	0.26
	MW-7	6/28/2002	(orig)	0.089	0.001	0.041	0.079
	MW-7	9/23/2002	(orig)	0.08	0.003	0.031	0.01889
	MW-7	12/31/2002	(orig)	0.16	0.0022	0.074	0.0315
	MW-7	3/27/2003	(orig)	0.195	0.0004	0.0442	0.109
	MW-7	6/27/2003	(orig)	0.3	0.0014 J	0.117	0.4616
	MW-7	9/24/2003	(orig)	0.09	0.012	0.002	0.694
	MW-7	3/15/2004	(orig)	0.056	0.001 J	0.006	0.003
	MW-7	6/21/2004	(orig)	0.18	<	0.055	0.058 J
	MW-7	9/29/2004	(orig)	0.163	0.0009 J	0.0545	0.0698
	MW-7	12/15/2004	(orig)	0.15	0.004 J	0.115	0.549
	MW-7	12/31/2004	(orig)	0.094	0.003 J	0.01	0.024 J
	MW-7	3/22/2005	(orig)	0.0208	<	0.0024	0.0048
	MW-7	10/24/2005	(orig)	0.0652	0.0007 J	0.002	0.0027 J
	MW-7	12/12/2005	(orig)	0.0662	0.001 J	0.0087	0.0085 J
	MW-7	3/20/2006	(orig)	0.072	<	0.0126	0.0169
	MW-7	6/21/2006	(orig)	0.0899	0.0106	0.0048	0.0145
	MW-7	10/18/2006	(orig)	0.0319	0.0004 J	0.0018	0.0041
	MW-7	12/12/2006	(orig)	0.0294	0.0015	0.0031	0.0057
	MW-7	3/26/2007	(orig)	0.0115	0.001	0.0006 J	0.0008 J
	MW-7	6/26/2007	(orig)	0.056	0.0004 J	0.0177	0.0013
	MW-7	11/8/2007	(orig)	0.044	< 0.0007	0.002	< 0.0008
	MW-7	1/17/2008	(orig)	0.017	< 0.0007	0.003	< 0.0008
	MW-7	3/19/2008	(orig)	0.005	< 0.005	< 0.005	< 0.005
	MW-7	7/22/2008	(orig)	0.032	< 0.005	0.012	0.007
	MW-7	10/23/2008	(orig)	0.017	< 0.005	< 0.005	< 0.005
	MW-7	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-7	9/24/2009	(orig)	0.0037	< 0.001	< 0.001	< 0.001
	MW-7	9/28/2010	(orig)	0.0013	< 0.001	0.0023	< 0.001
	MW-7	10/11/11				No sample collected; well dry.	

TABLE 3

**GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
MW-9	MW-9	7/1/1998	(orig)	0.012	< 0.001	< 0.001	< 0.003
	MW-9	10/5/1998	(orig)	0.0008	< 0.0005	< 0.0005	0.0022
	MW-9	11/9/1998	(orig)	0.073	< 0.0005	0.0022	0.0016
	MW-9	1/27/1999	(orig)	0.12	< 0.0005	0.0025	0.0018
	MW-9	5/5/1999	(orig)	0.12	< 0.0005	0.0016	0.0008
	MW-9	5/26/1999	(orig)	0.14	< 0.0005	0.0015	< 0.0005
	MW-9	5/26/1999	(Duplicate)	0.29	< 0.0005	0.0006	< 0.0015
	MW-9	7/12/1999	(orig)	0.32	< 0.0005	0.0006	< 0.0015
	MW-9	8/17/1999	(orig)	0.13	<	<	<
	MW-9	10/21/1999	(orig)	< 0.0005	0.0019	< 0.0005	0.0025
	MW-9	1/27/2000	(orig)	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	MW-9	6/13/2000	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-9	3/29/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-9	6/26/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-9	9/18/2001	(orig)	<	<	<	<
	MW-9	12/18/2001	(orig)	<	<	<	<
	MW-9	3/22/2002	(orig)	<	<	<	<
	MW-9	6/28/2002	(orig)	<	<	<	<
	MW-9	9/23/2002	(orig)	0.0004 J	<	<	<
	MW-9	3/27/2003	(orig)	<	<	<	<
	MW-9	6/27/2003	(orig)	0.0005 J	<	<	<
	MW-9	9/24/2003	(orig)	<	<	<	<
	MW-9	12/15/2003	(orig)	<	<	<	<
	MW-9	3/15/2004	(orig)	<	<	<	<
	MW-9	6/21/2004	(orig)	<	0.0004 J	<	0.0007 J
	MW-9	9/29/2004	(orig)	<	<	<	<
	MW-9	3/22/2005	(orig)	<	<	<	<
	MW-9	6/23/2005	(orig)	<	0.0003 J	<	<
	MW-9	3/20/2006	(orig)	<	<	<	<
	MW-9	6/21/2006	(orig)	<	<	<	<
	MW-9	10/18/2006	(orig)	<	<	<	0.0003 J
	MW-9	12/12/2006	(orig)	0.0003 J	0.0007 J	0.0003 J	0.0012 J
	MW-9	3/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-9	6/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-9	11/8/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-9	1/17/2008	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-9	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-9	7/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-9	10/23/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-9	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-9	9/24/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	MW-9	9/28/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
GW-074927-100411-CM-004		10/4/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003

TABLE 3

**GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
MW-11	MW-11	1/27/1999	(orig)	< 0.0005	0.0025	0.0007	0.0131
	MW-11	5/5/1999	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0015
	MW-11	5/26/1999	(orig)	0.0008	0.0017	< 0.0005	0.0011
	MW-11	10/21/1999	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0015
	MW-11	1/27/2000	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-11	6/13/2000	(orig)	< 0.0005	< 0.0005	< 0.0005	0.0009
	MW-11	3/29/2001	(orig)	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	MW-11	6/26/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-11	9/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-11	12/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	MW-11	12/19/2001	(orig)	<	<	<	<
	MW-11	12/20/2001	(orig)	<	<	<	<
	MW-11	12/21/2001	(orig)	<	<	<	<
	MW-11	12/22/2001	(orig)	<	<	<	<
	MW-11	5/24/2003	(orig)	<	<	<	<
	MW-11	6/27/2003	(orig)	0.0004 J	0.0003 J	<	0.0004 J
	MW-11	9/24/2003	(orig)	<	<	<	<
	MW-11	12/15/2003	(orig)	0.0005 J	<	<	<
	MW-11	3/15/2004	(orig)	<	<	<	<
	MW-11	6/21/2004	(orig)	<	<	<	0.0005 J
	MW-11	9/29/2004	(orig)	<	<	<	<
	MW-11	12/31/2004	(orig)	<	<	<	<
	MW-11	3/22/2005	(orig)	<	<	<	<
	MW-11	10/24/2005	(orig)	<	<	<	<
	MW-11	12/12/2005	(orig)	<	0.0003 J	<	<
	MW-11	3/20/2006	(orig)	<	<	<	<
	MW-11	6/21/2006	(orig)	<	0.0003 J	<	0.0008 J
	MW-11	10/18/2006	(orig)	<	0.0003 J	0.0004 J	0.0012 J
	MW-11	12/12/2006	(orig)	<	<	<	0.0003 J
	MW-11	3/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-11	6/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-11	11/8/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-11	1/17/2008	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-11	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-11	7/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-11	10/23/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-11	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-11	9/24/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	MW-11	9/28/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	GW-074927-100411-CM-005	10/11/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003

TABLE 3

**GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
MW-12	MW-12	5/5/1999	(orig)	0.79	0.84	0.26	2.88
	MW-12	5/5/1999	(Duplicate)	1.2	13	5.1	68
	MW-12	5/26/1999	(orig)	1.9	0.82	0.2	1.72
	MW-12	5/26/1999	(Duplicate)	1.8	0.64	0.16	1.6
	MW-12	7/12/1999	(orig)	4.5	0.76	0.4	3.1
	MW-12	7/12/1999	(Duplicate)	4.6	0.73	0.39	3.08
	MW-12	8/17/1999	(orig)	4.8	5	0.32	3.39
	MW-12	8/17/1999	(Duplicate)	5.9	6.1	0.39	4.1
	MW-12	10/21/1999	(orig)	5.6	0.65	0.54	2.89
	MW-12	1/27/2000	(orig)	4.1	0.55	0.43	2.379
	MW-12	6/13/2000	(orig)	5	1.3	0.49	2.7
	MW-12	3/29/2001	(orig)	5.17	1.79	0.366	2.62
	MW-12	6/26/2001	(orig)	4.8	1.9	0.39	2.56
	MW-12	9/18/2001	(orig)	5.1	2.4	0.43	2.82
	MW-12	12/18/2001	(orig)	4	1.5	0.32	1.88
	MW-12	3/22/2002	(orig)	3.3	0.93	0.29	1.27
	MW-12	6/28/2002	(orig)	4.2	1.8	0.41	1.94
	MW-12	9/23/2002	(orig)	3.8	1.5	0.31	1.51
	MW-12	12/31/2002	(orig)	3.6	0.84	0.28	1.01
	MW-12	5/24/2003	(orig)	3.99	2.23	0.299	1.47
	MW-12	6/27/2003	(orig)	5.29	2.75	0.36	1.6
	MW-12	9/24/2003	(orig)	4.6	1.69	0.29	1.15
	MW-12	12/15/2003	(orig)	4.2	1.36	0.24	1.15
	MW-12	3/15/2004	(orig)	2.09	1.12	0.3	1.25
	MW-12	6/21/2004	(orig)	3.87	1.82	0.28	1.5
	MW-12	6/29/2004	(orig)	5.14	2.22	0.24	1.28
	MW-12	12/31/2004	(orig)	4.16	1.22	0.25	1.15
	MW-12	3/22/2005	(orig)	2.38	1.1	0.13	0.71
	MW-12	10/24/2005	(orig)	1.35	0.15	0.08	0.33
	MW-12	12/16/2005	(orig)	2.38	0.422	0.111	0.341
	MW-12	3/20/2006	(orig)	2.1	0.21	0.071	0.225
	MW-12	6/21/2006	(orig)	2.27	0.385	0.085	0.355
	MW-12	10/18/2006	(orig)	1.74	0.477	0.112	0.399
	MW-12	12/12/2006	(orig)	2.4	1.11	0.142	0.668
	MW-12	3/26/2007	(orig)	4.13	1.68	0.34	1.18
	MW-12	6/26/2007	(orig)	1.52	0.432	0.118	0.34
	MW-12	11/8/2007	(orig)	0.78	0.31	0.043	0.17
	MW-12	1/17/2008	(orig)	2	1.4	0.18	0.79
	MW-12	3/19/2008	(orig)	1.6	0.56	0.16	0.53
	MW-12	7/22/2008	(orig)	0.73	0.022	0.014	0.021
	MW-12	10/23/2008	(orig)	0.5	0.03	0.022	0.04
	MW-12	1/21/2009	(orig)	1.1	0.43	0.11	0.41
	MW-12	9/24/2009	(orig)	0.61	0.0083	0.01	0.0195
	MW-12	9/28/2010	(orig)	0.55	< 0.001	0.015	0.016
	GW-074927-100411-CM-003	10/4/2011	(orig)	0.494	< 0.01	0.0235	< 0.03

TABLE 3

**GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
MW-15	MW-15	10/21/1999	(orig)	< 0.0005	0.0012	< 0.0005	0.0015
	MW-15	1/27/2000	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-15	6/13/2000	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-15	3/29/2001	(orig)	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	MW-15	6/26/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-15	9/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-15	12/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	MW-15	3/22/2002	(orig)	<	<	<	<
	MW-15	6/28/2002	(orig)	<	<	<	<
	MW-15	9/23/2002	(orig)	<	<	<	<
	MW-15	12/31/2002	(orig)	<	<	<	<
	MW-15	3/27/2003	(orig)	<	0.0003 J	<	0.0009 J
	MW-15	6/27/2003	(orig)	0.0004 J	<	<	<
	MW-15	9/24/2003	(orig)	<	<	<	<
	MW-15	3/15/2004	(orig)	<	0.0003 J	<	<
	MW-15	6/21/2004	(orig)	<	<	<	<
	MW-15	9/29/2004	(orig)	<	<	<	<
	MW-15	12/15/2004	(orig)	0.0007 J	<	<	<
	MW-15	12/31/2004	(orig)	<	0.0009 J	0.0003 J	0.0014 J
	MW-15	3/22/2005	(orig)	<	<	<	<
	MW-15	10/24/2005	(orig)	<	<	<	<
	MW-15	12/12/2005	(orig)	<	0.0003 J	<	0.0004 J
	MW-15	3/20/2006	(orig)	<	<	<	<
	MW-15	6/21/2006	(orig)	0.0007 J	<	0.0003 J	<
	MW-15	10/18/2006	(orig)	<	0.0003 J	<	0.0002 J
	MW-15	12/12/2006	(orig)	<	<	<	<
	MW-15	3/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	MW-15	6/26/2007	(orig)	< 0.0003	0.0005 J	< 0.0002	< 0.0006
	MW-15	11/8/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-15	1/17/2008	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	MW-15	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-15	7/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-15	10/23/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-15	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	MW-15	9/24/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	MW-15	9/28/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
GW-074927-100411-CM-001		10/4/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003

TABLE 3

**GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
MW-16	MW-16	10/21/1999	(orig)	0.22	0.3	0.0054	0.142
	MW-16	10/21/1999	(Duplicate)	0.214	0.268	0.004	0.151
	MW-16	1/27/2000	(orig)	1.6	0.17	0.056	0.225
	MW-16	6/13/2000	(orig)	8.7	0.43	0.68	2.2
	MW-16	6/26/2001	(orig)	9.3	1.1	0.81	3.41
	MW-16	9/18/2001	(orig)	11	6.4	0.59	6.4
	MW-16	12/18/2001	(orig)	9.9	6.9	0.57	7.4
	MW-16	6/28/2002	(orig)	11	7	0.77	5.7
	MW-16	9/23/2002	(orig)	8.9	9.9	0.61	8.5
	MW-16	12/31/2002	(orig)	8.8	7.9	0.77	7.4
	MW-16	3/22/2003	(orig)	10	6.6	1.1	7.4
	MW-16	3/27/2003	(orig)	10.4	11.2	0.84	8.67
	MW-16	9/24/2003	(orig)	10.3	15.4	0.87	10.59
	MW-16	3/15/2004	(orig)	9.2	16	1.31	12
	MW-16	6/21/2004	(orig)	8.04	18.1	2.45	18.58
	MW-16	9/29/2004	(orig)	8.33	14	0.76	8.23
	MW-16	12/15/2004	(orig)	9.64	12.6	0.72	1.55
	MW-16	12/31/2004	(orig)	8.34	17.1	1.55	18.83
	MW-16	3/28/2005	(orig)	4.14	5.81	0.76	10.48
	MW-16	10/24/2005	(orig)	6.28	9.8	0.67	6.91
	MW-16	12/12/2005	(orig)	6.94	11.5	0.75	8.06
	MW-16	3/20/2006	(orig)	6.82	11.5	0.83	8.55
	MW-16	6/21/2006	(orig)	6.64	11.2	0.69	7.57
	MW-16	10/18/2006	(orig)	5.7	10.2	0.62	6.52
	MW-16	12/12/2006	(orig)	4.6	10	0.55	6.83
	MW-16	3/26/2007	(orig)	2.97	2.82	0.26	5.22
	MW-16	6/26/2007	(orig)	5.23	9.11	0.77	7.76
	MW-16	11/8/2007	(orig)	5.5	12	0.57	6.2
	MW-16	1/17/2008	(orig)	4.6	9.1	0.55	5.6
	MW-16	3/19/2008	(orig)	5.5	9.6	0.51	6.9
	MW-16	7/22/2008	(orig)	3.6	6.1	0.43	4.5
	MW-16	10/23/2008	(orig)	4.7	9.1	0.48	6.6
	MW-16	1/21/2009	(orig)	4.2	7.5	0.48	6.9
	MW-16	9/24/2009	(orig)	3.2	4.6	0.34	3.5
	MW-16	9/29/2010	(orig)	3	4.6	3.4	23.6
	MW-16	12/15/2010	(orig)	5.2	13	1.1	14.5
	MW-16	10/11/2011		No sample collected due to presence of LNAPL.			

TABLE 3

**GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
Seep	Seep	7/1/1998	(orig)	0.0016	0.0007	0.0006	0.00036
	Seep	4/14/1999	(orig)	<b>0.04</b>	0.0022	0.0021	0.019
	Seep	10/21/1999	(orig)	<b>0.065</b>	0.23	0.011	0.434
	Seep	3/29/2001	(orig)	<b>0.0116</b>	< 0.0002	0.0007 J	0.0254
	Seep	6/26/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	Seep	9/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	Seep	12/18/2001	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001
	Seep	3/22/2002	(orig)	0.0059	<	0.0008	0.0034
	Seep	6/28/2002	(orig)	<	<	<	<
	Seep	9/23/2002	(orig)	<	<	<	<
	Seep	12/31/2002	(orig)	0.0007	<	<	<
	Seep	3/27/2003	(orig)	0.0063	0.0002 J	0.0018	0.0101
	Seep	9/24/2003	(orig)	<	0.0003 J	<	<
	Seep	12/15/2003	(orig)	0.0004 J	0.0003 J	<	<
	Seep	3/15/2004	(orig)	<	<	<	<
	Seep	6/21/2004	(orig)	<	<	<	<
	Seep	9/29/2004	(orig)	<	<	<	<
	Seep	12/31/2004	(orig)	<	0.0002 J	<	0.0004 J
	Seep	3/28/2005	(orig)	<	<	<	<
	Seep	10/24/2005	(orig)	<	J	<	<
	Seep	12/12/2005	(orig)	<	0.0005 J	0.0003 J	0.0009 J
	Seep	3/20/2006	(orig)	<	<	<	<
	Seep	6/21/2006	(orig)	0.004	0.0129	0.0008 J	0.015
	Seep	10/18/2006	(orig)	<	0.0005 J	0.0003 J	0.0014 J
	Seep	12/12/2006	(orig)	<	<	<	<
	Seep	3/26/2007	(orig)	< 0.0003	0.0003 J	< 0.0002	< 0.0006
	Seep	6/26/2007	(orig)	< 0.0003	< 0.0002	< 0.0002	< 0.0006
	Seep	11/8/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008
	Seep	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	Seep	10/23/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	Seep	1/21/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	Seep	9/24/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	Seep	9/28/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001
	Seep	10/11/2011		No sample collected; seep dry.			

TABLE 3

**GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY**  
**CONOCOPHILLIPS COMPANY**  
**HAMPTON No. 4M**  
**SAN JUAN COUNTY**

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)
TMW-1	TMW-1	1/27/2000	(orig)	<b>0.93</b>	<b>1.4</b>	0.35	<b>6.7</b>
	TMW-1	6/13/2000	(orig)	<b>2.4</b>	<b>3.4</b>	0.55	<b>9.1</b>
	TMW-1	6/26/2001	(orig)	<b>1.1</b>	<b>3.5</b>	0.33	<b>5.5</b>
	TMW-1	5/23/2003	(orig)	<b>0.83</b>	0.123	0.107	<b>1.0047</b>
	TMW-1	6/27/2003	(orig)	<b>0.474</b>	0.0366	0.0596	0.4907
	TMW-1	9/24/2003	(orig)	<b>0.292</b>	0.139	0.017	0.221
	TMW-1	12/15/2003	(orig)	<b>0.0559</b>	0.0013	0.0039	0.0425
	TMW-1	6/21/2004	(orig)	<b>0.0406</b>	<	0.0141	0.0147
	TMW-1	9/29/2004	(orig)	<b>0.41</b>	0.0087	0.0596	0.4585
	TMW-1	12/31/2004	(orig)	0.003 J	0.005 J	0.001 J	0.011 J
	TMW-1	3/22/2005	(orig)	<b>0.0678</b>	0.0133	0.0081	0.1017
	TMW-1	10/24/2005	(orig)	<b>0.483</b>	0.705	0.045	0.328
	TMW-1	12/12/2005	(orig)	<b>0.122</b>	0.317	0.019	0.16
	TMW-1	3/20/2006	(orig)	<b>0.071</b>	0.082	0.016	0.151
	TMW-1	6/21/2006	(orig)	<b>0.159</b>	0.0657	0.0569	0.36
	TMW-1	10/18/2006	(orig)	0.0064	0.0016	0.0021	0.0138
	TMW-1	6/26/2007	(orig)	<b>0.269</b>	0.0026	0.0049	0.0157
	TMW-1	11/8/2007	(orig)	<b>0.3</b>	0.012	0.006	0.038
	TMW-1	1/17/2008	(orig)	0.0008	< 0.0007	< 0.0008	0.001
	TMW-1	3/19/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005
	TMW-1	7/22/2008	(orig)	<b>0.13</b>	0.029	0.011	0.022
	TMW-1	1/21/2009	(orig)	<b>0.013</b>	< 0.005	< 0.005	< 0.005
	TMW-1	9/28/2010	(orig)	<b>0.013</b>	< 0.001	< 0.001	0.0032
	TMW-1	10/11/11		No sample collected; insufficient water present in well.			
NMWQCC Groundwater Quality Standards				0.01	0.75	0.75	0.62

**Notes:**

J = Analyte concentration detected at a value between MDL and PQL

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

NS = Not Sampled

NMWQCC = New Mexico Water Quality Control Commission

mg/L = milligrams per liter (parts per million)

&lt; 0.001 = Below Laboratory Detection Limit of 0.001 mg/L

&lt; = Below Laboratory Detection Limit

BOLD = Concentrations that exceed the NMWQCC groundwater quality standard

**APPENDIX A**

**OCTOBER 2011 ANNUAL GROUNDWATER SAMPLING FIELD FORMS**

# WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME:

Hampton

JOB#

074927

SAMPLE ID:

GW-074927-100411-CM-002

WELL#

MW-1

WELL PURGING INFORMATION					
<u>10.4.11</u>	<u>10.4.11</u>	<u>1025</u>	<u>0.624</u>	<u>2.00</u>	
PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)	
PURGING AND SAMPLING EQUIPMENT					
PURGING EQUIPMENT.....DEDICATED <input checked="" type="checkbox"/> Y <input type="checkbox"/> N (CIRCLE ONE)			SAMPLING EQUIPMENT.....DEDICATED <input checked="" type="checkbox"/> Y <input type="checkbox"/> N (CIRCLE ONE)		
PURGING DEVICE <input checked="" type="checkbox"/> G    A - SUBMERSIBLE PUMP    D - GAS LIFT PUMP    G - BAILER <input type="checkbox"/> B - PERISTALTIC PUMP    E - PURGE PUMP    H - WATERRA® <input checked="" type="checkbox"/> G    C - BLADDER PUMP    F - DIPPER BOTTLE    X - OTHER			X= _____ PURGING DEVICE OTHER (SPECIFY)		
SAMPLING DEVICE <input checked="" type="checkbox"/> G    A - TEFILON    D - PVC <input type="checkbox"/> B - STAINLESS STEEL    E - POLYETHYLENE <input checked="" type="checkbox"/> C - POLYPROPYLENE    X - OTHER			X= _____ SAMPLING DEVICE OTHER (SPECIFY)		
PURGING MATERIAL <input checked="" type="checkbox"/> E    A - TEFILON    D - POLYPROPYLENE    G - COMBINATION B - TYGON    E - POLYETHYLENE    TEFILON/POLYPROPYLENE <input type="checkbox"/> F - SILICONE    X - OTHER			X= _____ PURGING MATERIAL OTHER (SPECIFY)		
SAMPLING MATERIAL <input checked="" type="checkbox"/> E    A - IN-LINE DISPOSABLE    B - PRESSURE    C - VACUUM			X= _____ SAMPLING MATERIAL OTHER (SPECIFY)		
FIELD MEASUREMENTS					
DEPTH TO WATER	<u>43.55</u>	(feet)	WELL ELEVATION	<u>6149.42</u>	(feet)
WELL DEPTH	<u>47.45</u>	(feet)	GROUNDWATER ELEVATION	<u>6105.87</u>	(feet)
TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
<u>12.48</u> (°C)	<u>4.26</u> (std)	<u>1,658</u> (g/L)	<u>1941</u> (µS/cm)	<u>311.4</u> (mV)	<u>1.25</u> (gal)
<u>12.61</u> (°C)	<u>4.28</u> (std)	<u>1,664</u> (g/L)	<u>1953</u> (µS/cm)	<u>306.6</u> (mV)	<u>1.5</u> (gal)
<u>12.67</u> (°C)	<u>4.28</u> (std)	<u>1,668</u> (g/L)	<u>1962</u> (µS/cm)	<u>296.2</u> (mV)	<u>2.0</u> (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS					
SAMPLE APPEARANCE:	<u>cloudy</u>		ODOR:	<u>none</u>	
WEATHER CONDITIONS:	<u>65°</u>		WINDY Y <input checked="" type="checkbox"/>	COLOR: <u>very lt. brown</u> SHEEN Y <input checked="" type="checkbox"/>	
SPECIFIC COMMENTS:	<u>PRECIPITATION Y/N (IF Y TYPE) rain</u>				

$$3.9 \times 0.16 = 0.624 \times 3 = 1.872$$

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS	
DATE	PRINT
Signature	

# WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME:

Hampton No 44

JOB#

074927

SAMPLE ID:

GW-074928-100411-CM-006

WELL#

MW-5

## WELL PURGING INFORMATION

10-11-11

10-12-11

920

0.45

0.75

PURGE DATE  
(MM DD YY)

SAMPLE DATE  
(MM DD YY)

SAMPLE TIME  
(24 HOUR)

WATER VOL. IN CASTING  
(GALLONS)

ACTUAL VOL. PURGED  
(GALLONS)

## PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

PURGING DEVICE

A - SUBMERSIBLE PUMP

D - GAS LIFT PUMP

G - BAILER

X=

PURGING DEVICE OTHER (SPECIFY)

SAMPLING DEVICE

C - BLADDER PUMP

E - PURGE PUMP

H - WATERRA®

X=

SAMPLING DEVICE OTHER (SPECIFY)

PURGING MATERIAL

A - TEFLON

D - PVC

X=

PURGING MATERIAL OTHER (SPECIFY)

SAMPLING MATERIAL

C - POLYPROPYLENE

X - OTHER

X=

SAMPLING MATERIAL OTHER (SPECIFY)

PURGE TUBING

A - TEFLON

D - POLYPROPYLENE

G - COMBINATION

X=

TEFLON/POLYPROPYLENE

SAMPLING TUBING

C - ROPE

E - POLYETHYLENE

F - SILICONE

X=

PURGE TUBING OTHER (SPECIFY)

FILTERING DEVICES 0.45

A - IN-LINE DISPOSABLE

B - PRESSURE

C - VACUUM

X=

SAMPLING TUBING OTHER (SPECIFY)

## FIELD MEASUREMENTS

DEPTH TO WATER

17.39

(feet)

WELL ELEVATION

6890.83

(feet)

WELL DEPTH

20.19

(feet)

GROUNDWATER ELEVATION

6073.44

(feet)

TEMPERATURE

pH

TDS

CONDUCTIVITY

ORP

VOLUME

           (°C)

           (std)

           (g/L)

           (µS/cm)

           (mV)

           (gal)

           (°C)

           (std)

           (g/L)

           (µS/cm)

           (mV)

           (gal)

           (°C)

           (std)

           (g/L)

           (µS/cm)

           (mV)

           (gal)

           (°C)

           (std)

           (g/L)

           (µS/cm)

           (mV)

           (gal)

## FIELD COMMENTS

SAMPLE APPEARANCE:

black

ODOR: hydrocarbon/bio

COLOR:

black

SHEEN

N

slight, discontinuous

WEATHER CONDITIONS:

TEMPERATURE:           

WINDY Y/N           

SPECIFIC COMMENTS:

Volume = 7.8 x 0.16 = 0.448 x 3 = 1.34

Bailed dry at ~ 0.25 gallons on 10-11-11

purge water black w/ slight, discontinuous sheen and hydrocarbon/bio odor.

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

10-12-11

PRINT

SIGNATURE

Dug GW-074928-100411-CM-007 C 925 on 10-12-11

# WELL SAMPLING FIELD INFORMATION FORM

DATE/PROJECT NAME:

Hampton

JOB#

074927

SAMPLE ID:

CW-074928-W0411-CM-004

WELL# MW-9

10.4.11

10.4.11

115

1,3264

4.0

## WELL PURGING INFORMATION

PURGE DATE  
(MM DD YY)

SAMPLE DATE  
(MM DD YY)

SAMPLE TIME  
(24 HOUR)

WATER VOL. IN CASING  
(GALLONS)

ACTUAL VOL. PURGED  
(GALLONS)

PURGING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

PURGING DEVICE

G

A - SUBMERSIBLE PUMP  
B - PERISTALTIC PUMP  
C - BLADDER PUMP

D - GAS LIFT PUMP  
E - PURGE PUMP  
F - DIPPER BOTTLE

G - BAILER  
H - WATERRA®  
X - OTHER

X=

PURGING DEVICE OTHER (SPECIFY)

SAMPLING DEVICE

G

C - POLYPROPYLENE

X - OTHER

X=

SAMPLING DEVICE OTHER (SPECIFY)

PURGING MATERIAL

E

A - TEFLON  
B - STAINLESS STEEL

D - PVC  
E - POLYETHYLENE

X=

PURGING MATERIAL OTHER (SPECIFY)

SAMPLING MATERIAL

E

C - POLYPROPYLENE

X - OTHER

X=

SAMPLING MATERIAL OTHER (SPECIFY)

PURGE TUBING

C

A - TEFLON  
B - TYGON  
C - ROPE

D - POLYPROPYLENE  
E - POLYETHYLENE  
F - SILICONE

G - COMBINATION  
TEFLON/POLYPROPYLENE  
X - OTHER

X=

PURGE TUBING OTHER (SPECIFY)

SAMPLING TUBING

C

C - ROPE

F - SILICONE

X - OTHER

X=

SAMPLING TUBING OTHER (SPECIFY)

FILTERING DEVICES 0.45

N/A

A - IN-LINE DISPOSABLE

B - PRESSURE

C - VACUUM

## FIELD MEASUREMENTS

DEPTH TO WATER

24.08

WELL ELEVATION

6122.52 (feet)

WELL DEPTH

32.50

GROUNDWATER ELEVATION

6098.49 (feet)

TEMPERATURE

pH

TDS

CONDUCTIVITY

ORP

VOLUME

14.00 (°C)

6.75 (std)

1,990 (g/L)

2425 (µS/cm)

39.9 (mV)

3.0 (gal)

14.25 (°C)

6.12 (std)

2,075 (g/L)

2546 (µS/cm)

44.4 (mV)

3.5 (gal)

14.39 (°C)

6.10 (std)

2,116 (g/L)

2587 (µS/cm)

46.1 (mV)

4.0 (gal)

(°C)

(std)

(g/L)

(µS/cm)

(mV)

(gal)

(°C)

(std)

(g/L)

(µS/cm)

(mV)

(gal)

## FIELD COMMENTS

SAMPLE APPEARANCE:

cloudy

ODOR:

None

COLOR: very light brown

SHEEN Y/0

WEATHER CONDITIONS:

TEMPERATURE

26.0 °

WINDY Y/0

PRECIPITATION Y/0 (IF Y TYPE)

rain

SPECIFIC COMMENTS:

$$8.29 \times 0.16 = 1.3264 \times 3 = 3.9792$$

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

10.4.11

PRINT

SIGNATURE

# WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME:

Hampton No. 4M

JOB#

074927

SAMPLE ID:

GW-074928-100411-CM-005

WELL#

MW-11

10-11-11

10-11-11

## WELL PURGING INFORMATION

445

1.99

6.00

PURGE DATE  
(MM DD YY)

SAMPLE DATE  
(MM DD YY)

SAMPLE TIME  
(24 HOUR)

WATER VOL. IN CASING  
(GALLONS)

ACTUAL VOL. PURGED  
(GALLONS)

PURGING AND SAMPLING EQUIPMENT		SAMPLING EQUIPMENT.....DEDICATED <input checked="" type="checkbox"/> N	
PURGING EQUIPMENT.....DEDICATED <input checked="" type="checkbox"/> Y N (CIRCLE ONE)		SAMPLING EQUIPMENT.....DEDICATED <input checked="" type="checkbox"/> N (CIRCLE ONE)	
PURGING DEVICE	<input checked="" type="checkbox"/> G A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER
SAMPLING DEVICE	<input checked="" type="checkbox"/> G B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®
PURGING MATERIAL	<input checked="" type="checkbox"/> E C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER
SAMPLING MATERIAL	<input checked="" type="checkbox"/> E A - TEFLON	D - PVC	X = _____
	B - STAINLESS STEEL	E - POLYETHYLENE	SAMPLING DEVICE OTHER (SPECIFY) _____
	C - POLYPROPYLENE	X - OTHER	X = _____
PURGE TUBING	<input checked="" type="checkbox"/> G A - TEFLON	D - POLYPROPYLENE	G - COMBINATION
SAMPLING TUBING	B - TYGON	E - POLYETHYLENE	TEFLON/POLYPROPYLENE
	C - ROPE	F - SILICONE	X - OTHER
FILTERING DEVICES 0.45	<input checked="" type="checkbox"/> N/A A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM

## FIELD MEASUREMENTS

DEPTH TO WATER	<u>56.21</u>	(feet)	WELL ELEVATION	<u>6015.75</u>	(feet)
WELL DEPTH	<u>68.70</u>	(feet)	GROUNDWATER ELEVATION	<u>5959.54</u>	(feet)
TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
<u>13.90</u> (°C)	<u>6.85</u> (std)	<u>1,517</u> (g/L)	<u>1847</u> (µS/cm)	<u>-84.5</u> (mV)	<u>5.0</u> (gal)
<u>13.95</u> (°C)	<u>6.80</u> (std)	<u>1,518</u> (g/L)	<u>1843</u> (µS/cm)	<u>-87.1</u> (mV)	<u>5.5</u> (gal)
<u>13.98</u> (°C)	<u>6.75</u> (std)	<u>1,517</u> (g/L)	<u>1842</u> (µS/cm)	<u>-86.0</u> (mV)	<u>6.0</u> (gal)

## FIELD COMMENTS

SAMPLE APPEARANCE: ODOR: — COLOR: clear SHEEN Y/N Y  
 WEATHER CONDITIONS: TEMPERATURE — WINDY Y/N N PRECIPITATION Y/N (IF Y TYPE) —  
 SPECIFIC COMMENTS: —

$$12.49 \times 0.16 = 1.99 \times 3 = 5.9952$$

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRÁ PROTOCOLS

10.11.11  
DATE

PRINT

SIGNATURE

Jason Ploss

# WELL SAMPLING FIELD INFORMATION FORM

DATE/PROJECT NAME:

Hampton 4M

JOB#

074927

SAMPLE ID:

GW-074928-100411-CM-003

WELL#

MW-12

10.4.11

10.4.11

WELL PURGING INFORMATION

PURGE DATE  
(MM DD YY)

SAMPLE DATE  
(MM DD YY)

SAMPLE TIME  
(24 HOUR)

WATER VOL. IN CASING  
(GALLONS)

ACTUAL VOL. PURGED  
(GALLONS)

1105

1,344

425

## PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

PURGING DEVICE

A - SUBMERSIBLE PUMP

D - GAS LIFT PUMP

G - BAILER

X=

PURGING DEVICE OTHER (SPECIFY)

SAMPLING DEVICE

C - BLADDER PUMP

E - PURGE PUMP

H - WATERRA®

X=

SAMPLING DEVICE OTHER (SPECIFY)

PURGING MATERIAL

A - TEFLON

D - PVC

X=

PURGING MATERIAL OTHER (SPECIFY)

SAMPLING MATERIAL

C - POLYPROPYLENE

E - POLYETHYLENE

X=

SAMPLING MATERIAL OTHER (SPECIFY)

PURGE TUBING

A - TEFLON

D - POLYPROPYLENE

G - COMBINATION

X=

TEFLON/POLYPROPYLENE

SAMPLING TUBING

C - ROPE

F - SILICONE

X - OTHER

X=

SAMPLING TUBING OTHER (SPECIFY)

FILTERING DEVICES 0.45

N/A

A - IN-LINE DISPOSABLE

B - PRESSURE

C - VACUUM

## FIELD MEASUREMENTS

DEPTH TO WATER

21.76

(feet)

WELL ELEVATION

(feet)

WELL DEPTH

30.16

(feet)

GROUNDWATER ELEVATION

(feet)

TEMPERATURE

14.06

(°C)

pH

5.22

(std)

TDS

1,823

(g/L)

CONDUCTIVITY

2216

(µS/cm)

ORP

16.3

(mV)

VOLUME

3.575

(gal)

14.14

(°C)

6.00

(std)

1,860

(g/L)

2270

(µS/cm)

-51.2

(mV)

4.25

(gal)

(°C)

(std)

(g/L)

(µS/cm)

(mV)

(gal)

(°C)

(std)

(g/L)

(µS/cm)

(mV)

(gal)

(°C)

(std)

(g/L)

(µS/cm)

(mV)

(gal)

SAMPLE APPEARANCE:

cloudy

ODOR: hydrocarbon

COLOR:

gray

SHEEN Y/N

slight, spotty sheen

WEATHER CONDITIONS:

TEMPERATURE ~60°

WINDY Y/N

PRECIPITATION Y/N (IF Y TYPE) rain

SPECIFIC COMMENTS:

$$8.4 \times 0.16 = 1.344 \times 3 = 4.032$$

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

10.4.11

PRINT: Jason Glass

SIGNATURE

## WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME:

Hampton

JOB#

074927

SAMPLE ID:

GW-074928-100411-CM-001

WELL#

MW-15

10.4.11  
PURGE DATE  
(MM DD YY)

10.4.11  
SAMPLE DATE  
(MM DD YY)

WELL PURGING INFORMATION  
0950  
SAMPLE TIME  
(24 HOUR)

1101  
WATER VOL. IN CASING  
(GALLONS)

3.25  
ACTUAL VOL. PURGED  
(GALLONS)

### PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

PURGING DEVICE	<input checked="" type="checkbox"/> G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= _____
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	PURGING DEVICE OTHER (SPECIFY) _____
SAMPLING DEVICE	<input checked="" type="checkbox"/> B	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= _____ SAMPLING DEVICE OTHER (SPECIFY) _____
PURGING MATERIAL	<input checked="" type="checkbox"/> E	A - TEFLON	D - PVC		X= _____ PURGING MATERIAL OTHER (SPECIFY) _____
SAMPLING MATERIAL	<input checked="" type="checkbox"/> C	B - STAINLESS STEEL	E - POLYETHYLENE		X= _____ SAMPLING MATERIAL OTHER (SPECIFY) _____
PURGE TUBING	<input checked="" type="checkbox"/> C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= _____
SAMPLING TUBING	<input checked="" type="checkbox"/> C	B - TYGON	E - POLYETHYLENE		PURGE TUBING OTHER (SPECIFY) _____
		C - ROPE	F - SILICONE	X - OTHER	X= _____ SAMPLING TUBING OTHER (SPECIFY) _____

FILTERING DEVICES 0.45      N/A      A - IN-LINE DISPOSABLE      B - PRESSURE      C - VACUUM

### FIELD MEASUREMENTS

DEPTH TO WATER	<u>18</u> • <u>64</u>	(feet)	WELL ELEVATION	<u> </u> • <u> </u>	(feet)
WELL DEPTH	<u>24</u> • <u>95</u>	(feet)	GROUNDWATER ELEVATION	<u> </u> • <u> </u>	(feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
<u>14.94</u> (°C)	<u>4.15</u> (std)	<u>1,902</u> (g/L)	<u>2364</u> (μS/cm)	<u>278.8</u> (mV)	<u>2.25</u> (gal)
<u>16.49</u> (°C)	<u>3.99</u> (std)	<u>1,893</u> (g/L)	<u>2382</u> (μS/cm)	<u>291.3</u> (mV)	<u>2.75</u> (gal)
<u>15.60</u> (°C)	<u>3.96</u> (std)	<u>1,883</u> (g/L)	<u>2384</u> (μS/cm)	<u>303.6</u> (mV)	<u>3.25</u> (gal)
(°C)	(std)	(g/L)	(μS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(μS/cm)	(mV)	(gal)

### FIELD COMMENTS

SAMPLE APPEARANCE:

Cloudy

ODOR:

None

COLOR: very light brown

SHEEN Y/N

WEATHER CONDITIONS:

TEMPERATURE

-65°

WINDY Y/N

breezy

PRECIPITATION Y/N (IF Y TYPE)

rain

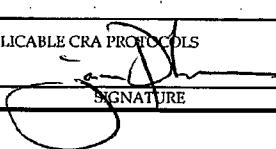
SPECIFIC COMMENTS:

$$6.31 \times 0.16 = 1.0096 \times 3 = 3.03$$

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

10.4.11  
DATE

Jason Glass  
PRINT

  
SIGNATURE

# WELL SAMPLING FIELD INFORMATION FORM

DATE/PROJECT NAME:

Hampton 4N  
No Sample Collected

JOB#

074927

SAMPLE ID:

WELL#

MW-16

## WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
		<u>2.385</u>		

## PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED Y N (CIRCLE ONE)	SAMPLING EQUIPMENT.....DEDICATED Y N (CIRCLE ONE)	
PURGING DEVICE	<input type="checkbox"/> A - SUBMERSIBLE PUMP <input type="checkbox"/> D - GAS LIFT PUMP <input type="checkbox"/> G - BAILER <input type="checkbox"/> B - PERISTALTIC PUMP <input type="checkbox"/> E - PURGE PUMP <input type="checkbox"/> H - WATERRA® <input type="checkbox"/> C - BLADDER PUMP <input type="checkbox"/> F - DIPPER BOTTLE <input type="checkbox"/> X - OTHER	X= _____ PURGING DEVICE OTHER (SPECIFY) _____
SAMPLING DEVICE		X= _____ SAMPLING DEVICE OTHER (SPECIFY) _____
PURGING MATERIAL	<input type="checkbox"/> A - TEFLON <input type="checkbox"/> D - PVC <input type="checkbox"/> B - STAINLESS STEEL <input type="checkbox"/> E - POLYETHYLENE	X= _____ PURGING MATERIAL OTHER (SPECIFY) _____
SAMPLING MATERIAL	<input type="checkbox"/> C - POLYPROPYLENE <input type="checkbox"/> X - OTHER	X= _____ SAMPLING MATERIAL OTHER (SPECIFY) _____
PURGE TUBING	<input type="checkbox"/> A - TEFLON <input type="checkbox"/> D - POLYPROPYLENE <input type="checkbox"/> G - COMBINATION <input type="checkbox"/> B - TYGON <input type="checkbox"/> E - POLYETHYLENE <input type="checkbox"/> TEFLO/POLYPROPYLENE	X= _____ PURGE TUBING OTHER (SPECIFY) _____
SAMPLING TUBING	<input type="checkbox"/> C - ROPE <input type="checkbox"/> F - SILICONE <input type="checkbox"/> X - OTHER	X= _____ SAMPLING TUBING OTHER (SPECIFY) _____
FILTERING DEVICES 0.45	<input type="checkbox"/> A - IN-LINE DISPOSABLE <input type="checkbox"/> B - PRESSURE <input type="checkbox"/> C - VACUUM	

## FIELD MEASUREMENTS

DEPTH TO WATER	(feet)	WELL ELEVATION	(feet)		
WELL DEPTH	(feet)	GROUNDWATER ELEVATION	(feet)		
TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

## FIELD COMMENTS

SAMPLE APPEARANCE:	ODOR:	COLOR:	SHEEN Y/N
WEATHER CONDITIONS:	TEMPERATURE	WINDY Y/N	PRECIPITATION Y/N (IF Y TYPE)
SPECIFIC COMMENTS:			

$$3.67 \times 0.65 = 0.5872 \times 3 = 1.76$$

No sample collected due to LNAPL in well

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

DATE

PRINT

SIGNATURE

10/11/11

# WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME:

Hampton N. 4M

JOB#

074927

SAMPLE ID:

Not Sampled

WELL#

TMW - 1

## WELL PURGING INFORMATION

10.11.11  
PURGE DATE  
(MM DD YY)

   
SAMPLE DATE  
(MM DD YY)

   
SAMPLE TIME  
(24 HOUR)

0.087  
WATER VOL. IN CASING  
(GALLONS)

   
ACTUAL VOL. PURGED  
(GALLONS)

## PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

PURGING DEVICE

G

A - SUBMERSIBLE PUMP  
B - PERISTALTIC PUMP  
C - BLADDER PUMP

D - GAS LIFT PUMP  
E - PURGE PUMP  
F - DIPPER BOTTLE

G - BAILER

H - WATERRA®

X =

PURGING DEVICE OTHER (SPECIFY)

SAMPLING DEVICE

G

C - POLYPROPYLENE

D - PVC  
E - POLYETHYLENE

H - WATERRA®

X =

SAMPLING DEVICE OTHER (SPECIFY)

PURGING MATERIAL

B

A - TEFILON  
B - STAINLESS STEEL

D - PVC  
E - POLYETHYLENE

X =

PURGING MATERIAL OTHER (SPECIFY)

SAMPLING MATERIAL

E

C - POLYPROPYLENE

X - OTHER

X =

SAMPLING MATERIAL OTHER (SPECIFY)

PURGE TUBING

C

A - TEFILON  
B - TYGON  
C - ROPE

D - POLYPROPYLENE  
E - POLYETHYLENE  
F - SILICONE

G - COMBINATION  
TEFLON/POLYPROPYLENE  
X - OTHER

X =

PURGE TUBING OTHER (SPECIFY)

SAMPLING TUBING

C

C - ROPE

F - SILICONE

X - OTHER

X =

SAMPLING TUBING OTHER (SPECIFY)

FILTERING DEVICES 0.45

A - IN-LINE DISPOSABLE

B - PRESSURE

C - VACUUM

## FIELD MEASUREMENTS

DEPTH TO WATER

19.39

(feet) WELL ELEVATION

  (feet)

WELL DEPTH

19.62

(feet) GROUNDWATER ELEVATION

  (feet)

TEMPERATURE

pH

TDS

CONDUCTIVITY

ORP

VOLUME

(°C)

(std)

(g/L)

(μS/cm)

(mV)

## FIELD COMMENTS

SAMPLE APPEARANCE:

ODOR:

COLOR:

SHEEN Y/N

WEATHER CONDITIONS:

TEMPERATURE

WINDY Y/N

PRECIPITATION Y/N (IF Y TYPE)

SPECIFIC COMMENTS:

Volume = 0.23 x 0.16 = 0.0368 x 3 = 0.11

Bailed dry after less than 2oz H2O. Purge water black w/ hydrocarbon / bio odor.

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

10.11.11  
DATE

Jason Ploss  
PRINT

   
SIGNATURE

## **APPENDIX B**

OCTOBER 2011 ANNUAL GROUNDWATER LABORATORY ANALYTICAL REPORT



Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

October 17, 2011

Angela Bown  
COP Conestoga-Rovers & Associa  
6121 Indian School Rd  
#200  
Albuquerque, NM 87110

RE: Project: HAMPTON NO. 4M  
Pace Project No.: 60107485

Dear Angela Bown:

Enclosed are the analytical results for sample(s) received by the laboratory on October 05, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

A handwritten signature in black ink that reads "ANNA CUSTER".

Anna Custer for  
Dianna Meier  
[dianna.meier@pacelabs.com](mailto:dianna.meier@pacelabs.com)  
Project Manager

Enclosures

cc: Kelly Blanchard, COP Conestoga-Rovers & Associa  
Cassie Brown, COP Conestoga-Rovers & Associa



#### REPORT OF LABORATORY ANALYSIS

Page 1 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## CERTIFICATIONS

Project: HAMPTON NO. 4M  
Pace Project No.: 60107485

**Kansas Certification IDs**

9608 Loiret Boulevard, Lenexa, KS 66219  
A2LA Certification #: 2456.01  
Arkansas Certification #: 05-008-0  
Illinois Certification #: 001191  
Iowa Certification #: 118  
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055  
Nevada Certification #: KS000212008A  
Oklahoma Certification #: 9205/9935  
Texas Certification #: T104704407-08-TX  
Utah Certification #: 9135995665

## REPORT OF LABORATORY ANALYSIS

Page 2 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## SAMPLE SUMMARY

Project: HAMPTON NO. 4M

Pace Project No.: 60107485

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60107485001	GW-074928-100411-CM-001	Water	10/04/11 09:50	10/05/11 09:10
60107485002	GW-074928-100411-CM-002	Water	10/04/11 10:25	10/05/11 09:10
60107485003	GW-074928-100411-CM-003	Water	10/04/11 11:05	10/05/11 09:10
60107485004	GW-074928-100411-CM-004	Water	10/04/11 11:15	10/05/11 09:10
60107485005	TB-100411-001	Water	10/04/11 16:30	10/05/11 09:10

## REPORT OF LABORATORY ANALYSIS

Page 3 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

### SAMPLE ANALYTE COUNT

Project: HAMPTON NO. 4M  
Pace Project No.: 60107485

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60107485001	GW-074928-100411-CM-001	EPA 8260	JDM	9
60107485002	GW-074928-100411-CM-002	EPA 8260	JDM	9
60107485003	GW-074928-100411-CM-003	EPA 8260	JDM	9
60107485004	GW-074928-100411-CM-004	EPA 8260	JDM	9
60107485005	TB-100411-001	EPA 8260	JDM	9

### REPORT OF LABORATORY ANALYSIS

Page 4 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## PROJECT NARRATIVE

Project: HAMPTON NO. 4M

Pace Project No.: 60107485

---

**Method:** EPA 8260

**Description:** 8260 MSV UST, Water

**Client:** COP Conestoga-Rovers & Associates, Inc. NM

**Date:** October 17, 2011

**General Information:**

5 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/40815

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

Page 5 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## ANALYTICAL RESULTS

Project: HAMPTON NO. 4M

Pace Project No.: 60107485

Sample: GW-074928-100411-CM-001 Lab ID: 60107485001 Collected: 10/04/11 09:50 Received: 10/05/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST, Water</b> Analytical Method: EPA 8260									
Benzene	ND ug/L		1.0	0.070	1		10/13/11 02:01	71-43-2	
Ethylbenzene	ND ug/L		1.0	0.078	1		10/13/11 02:01	100-41-4	
Toluene	ND ug/L		1.0	0.064	1		10/13/11 02:01	108-88-3	
Xylene (Total)	ND ug/L		3.0	0.15	1		10/13/11 02:01	1330-20-7	
Dibromofluoromethane (S)	95 %		86-112		1		10/13/11 02:01	1868-53-7	
Toluene-d8 (S)	104 %		90-110		1		10/13/11 02:01	2037-26-5	
4-Bromofluorobenzene (S)	100 %		87-113		1		10/13/11 02:01	460-00-4	
1,2-Dichloroethane-d4 (S)	97 %		82-119		1		10/13/11 02:01	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		10/13/11 02:01		



Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

## ANALYTICAL RESULTS

Project: HAMPTON NO. 4M

Pace Project No.: 60107485

Sample: GW-074928-100411-CM-002 Lab ID: 60107485002 Collected: 10/04/11 10:25 Received: 10/05/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST, Water</b> Analytical Method: EPA 8260									
Benzene	ND ug/L		1.0	0.070	1		10/13/11 02:16	71-43-2	
Ethylbenzene	ND ug/L		1.0	0.078	1		10/13/11 02:16	100-41-4	
Toluene	ND ug/L		1.0	0.064	1		10/13/11 02:16	108-88-3	
Xylene (Total)	ND ug/L		3.0	0.15	1		10/13/11 02:16	1330-20-7	
Dibromofluoromethane (S)	96 %		86-112		1		10/13/11 02:16	1868-53-7	
Toluene-d8 (S)	103 %		90-110		1		10/13/11 02:16	2037-26-5	
4-Bromofluorobenzene (S)	102 %		87-113		1		10/13/11 02:16	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %		82-119		1		10/13/11 02:16	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		10/13/11 02:16		

Date: 10/17/2011 04:29 PM

## REPORT OF LABORATORY ANALYSIS

Page 7 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## ANALYTICAL RESULTS

Project: HAMPTON NO. 4M  
 Pace Project No.: 60107485

Sample: GW-074928-100411-CM-003 Lab ID: 60107485003 Collected: 10/04/11 11:05 Received: 10/05/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST, Water</b> Analytical Method: EPA 8260									
Benzene	494 ug/L		10.0	0.70	10		10/13/11 02:32	71-43-2	
Ethylbenzene	23.5 ug/L		10.0	0.78	10		10/13/11 02:32	100-41-4	
Toluene	ND ug/L		10.0	0.64	10		10/13/11 02:32	108-88-3	
Xylene (Total)	ND ug/L		30.0	1.5	10		10/13/11 02:32	1330-20-7	
Dibromofluoromethane (S)	96 %		86-112		10		10/13/11 02:32	1868-53-7	
Toluene-d8 (S)	102 %		90-110		10		10/13/11 02:32	2037-26-5	
4-Bromofluorobenzene (S)	100 %		87-113		10		10/13/11 02:32	460-00-4	
1,2-Dichloroethane-d4 (S)	99 %		82-119		10		10/13/11 02:32	17060-07-0	
Preservation pH	1.0		1.0	0.10	10		10/13/11 02:32		

## ANALYTICAL RESULTS

Project: HAMPTON NO. 4M

Pace Project No.: 60107485

Sample: GW-074928-100411-CM-004 Lab ID: 60107485004 Collected: 10/04/11 11:15 Received: 10/05/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST, Water</b> Analytical Method: EPA 8260									
Benzene	ND	ug/L	1.0	0.070	1		10/13/11 02:47	71-43-2	
Ethylbenzene	ND	ug/L	1.0	0.078	1		10/13/11 02:47	100-41-4	
Toluene	ND	ug/L	1.0	0.064	1		10/13/11 02:47	108-88-3	
Xylene (Total)	ND	ug/L	3.0	0.15	1		10/13/11 02:47	1330-20-7	
Dibromofluoromethane (S)	98 %		86-112		1		10/13/11 02:47	1868-53-7	
Toluene-d8 (S)	96 %		90-110		1		10/13/11 02:47	2037-26-5	
4-Bromofluorobenzene (S)	100 %		87-113		1		10/13/11 02:47	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %		82-119		1		10/13/11 02:47	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		10/13/11 02:47		



Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

## ANALYTICAL RESULTS

Project: HAMPTON NO. 4M  
Pace Project No.: 60107485

Sample: TB-100411-001 Lab ID: 60107485005 Collected: 10/04/11 16:30 Received: 10/05/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST, Water</b> Analytical Method: EPA 8260									
Benzene	ND ug/L		1.0	0.070	1			10/13/11 03:03	71-43-2
Ethylbenzene	ND ug/L		1.0	0.078	1			10/13/11 03:03	100-41-4
Toluene	ND ug/L		1.0	0.064	1			10/13/11 03:03	108-88-3
Xylene (Total)	ND ug/L		3.0	0.15	1			10/13/11 03:03	1330-20-7
Dibromofluoromethane (S)	99 %		86-112		1			10/13/11 03:03	1868-53-7
Toluene-d8 (S)	98 %		90-110		1			10/13/11 03:03	2037-26-5
4-Bromofluorobenzene (S)	107 %		87-113		1			10/13/11 03:03	460-00-4
1,2-Dichloroethane-d4 (S)	103 %		82-119		1			10/13/11 03:03	17060-07-0
Preservation pH	1.0			1.0	0.10	1		10/13/11 03:03	

Date: 10/17/2011 04:29 PM

## REPORT OF LABORATORY ANALYSIS

Page 10 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..



Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

## QUALITY CONTROL DATA

Project: HAMPTON NO. 4M

Pace Project No.: 60107485

QC Batch: MSV/40815 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER  
Associated Lab Samples: 60107485001, 60107485002, 60107485003, 60107485004, 60107485005

METHOD BLANK: 890201 Matrix: Water

Associated Lab Samples: 60107485001, 60107485002, 60107485003, 60107485004, 60107485005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/12/11 23:40	
Ethylbenzene	ug/L	ND	1.0	10/12/11 23:40	
Toluene	ug/L	ND	1.0	10/12/11 23:40	
Xylene (Total)	ug/L	ND	3.0	10/12/11 23:40	
1,2-Dichloroethane-d4 (S)	%	98	82-119	10/12/11 23:40	
4-Bromofluorobenzene (S)	%	101	87-113	10/12/11 23:40	
Dibromofluoromethane (S)	%	91	86-112	10/12/11 23:40	
Toluene-d8 (S)	%	104	90-110	10/12/11 23:40	

LABORATORY CONTROL SAMPLE: 890202

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.6	93	82-117	
Ethylbenzene	ug/L	20	20.1	101	79-121	
Toluene	ug/L	20	19.5	97	80-120	
Xylene (Total)	ug/L	60	59.2	99	79-120	
1,2-Dichloroethane-d4 (S)	%			103	82-119	
4-Bromofluorobenzene (S)	%			102	87-113	
Dibromofluoromethane (S)	%			100	86-112	
Toluene-d8 (S)	%			104	90-110	

## QUALIFIERS

Project: HAMPTON NO. 4M

Pace Project No.: 60107485

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

### BATCH QUALIFIERS

Batch: MSV/40815

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMPTON NO. 4M  
 Pace Project No.: 60107485

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60107485001	GW-074928-100411-CM-001	EPA 8260	MSV/40815		
60107485002	GW-074928-100411-CM-002	EPA 8260	MSV/40815		
60107485003	GW-074928-100411-CM-003	EPA 8260	MSV/40815		
60107485004	GW-074928-100411-CM-004	EPA 8260	MSV/40815		
60107485005	TB-100411-001	EPA 8260	MSV/40815		

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**

Required Client Information:

Company: CRA	Report To: Christine Mathews	Attention: ENFOS	Page: 1 of 1
Address: 6121 Indian School Rd NE, Ste 200	Copy To: Kelly Blanchard, Angela Bown	Company Name:	<b>REGULATORY AGENCY</b>
Albuquerque, NM 87110		Address:	<input type="checkbox"/> NPDES <input checked="" type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER
Email To: cmathews@craworld.com	Purchase Order No.:	Pace Quote Reference:	<input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER
Phone: (505)884-0672	Fax: (505)884-4932	Pace Project Manager: Colleen Koporc	
Requested Due Date/TAT:	Project Number: 074928	Pace Profile #: 5341, 5	Site Location: NM STATE: NM

**Requested Analysis Filtered (Y/N)**

ITEM #	Section D Required Client Information	SAMPLE ID (A-Z, 0-9 / ,.) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Y/N	Analysis Test	8260 BTEX	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					COMPOSITE START	COMPOSITE END/GRAB	DATE	TIME			H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol	Other				
1.		GW-074928-100411-CM-001	WT G		10-4-11	0950				3	X							X	3DG4H		001
2.		GW-074928-100411-CM-002	WT G		10-4-11	1025				3		X						X			002
3.		GW-074928-100411-CM-003	WT G		10-4-11	1105				3		X						X			003
4.		GW-074928-100411-CM-004	WT G		10-4-11	1115				3		X						X			004
5.		TB-100411-001	WT		10-4-11	1630				2		X						X	2DG4H		005
6.																					
7.																					
8.																					
9.																					
10.																					
11.																					
12.																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Need MDLs on report - J-flag		10-4-11	1700		10-5-11	0910	C1 Y Y Y

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Jason Phiss

 SIGNATURE of SAMPLER: 

 DATE Signed  
(MM/DD/YY): 10-4-11

 Temp in °C  
Received on  
ice (Y/N)  
Custody Sealed  
Cooler (Y/N)  
Samples intact  
(Y/N)



### Sample Condition Upon Receipt

Client Name: CRA Project # 60107485

Courier:  FedEx  UPS  USPS  Client  Commercial  Pace  Other  
Tracking #: 876800246750 Pace Shipping Label Used?  Yes  No

Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No

Optional  
Proj. Due Date: 10/17/14  
Proj. Name:

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Other

Thermometer Used: T-191 / T-194 Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

PL10-5-11  
Cooler Temperature: 8.07

Temperature should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: PL 10-5-11

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sample labels match COC: -Includes date/time/ID/analyses Matrix:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <u>WT</u>	13.
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water). Phenolics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed _____ Lot # of added preservative _____
Trip Blank present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Pace Trip Blank lot # (if purchased): <u>Cover</u>		
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	17. List State: <u>NC</u>

Client Notification/ Resolution: Copy COC to Client? Y /  N Field Data Required? Y /  N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_ OKM

Project Manager Review: Abil f. DCM 10/5/14 Date: \_\_\_\_\_

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

October 25, 2011

Cassie Brown  
COP Conestoga-Rovers & Associa

RE: Project: HAMPTON NO. 4M  
Pace Project No.: 60108013

Dear Cassie Brown:

Enclosed are the analytical results for sample(s) received by the laboratory on October 13, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Colleen Koporc'.

Colleen Koporc for  
Dianna Meier  
[dianna.meier@pacelabs.com](mailto:dianna.meier@pacelabs.com)  
Project Manager

Enclosures

cc: Kelly Blanchard, COP Conestoga-Rovers & Associa  
Angela Bown, COP Conestoga-Rovers & Associa  
Christine Matthews, CRA



#### REPORT OF LABORATORY ANALYSIS

Page 1 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..



Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

## CERTIFICATIONS

Project: HAMPTON NO. 4M  
Pace Project No.: 60108013

### Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219  
A2LA Certification #: 2456.01  
Arkansas Certification #: 05-008-0  
Illinois Certification #: 001191  
Iowa Certification #: 118  
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055  
Nevada Certification #: KS000212008A  
Oklahoma Certification #: 9205/9935  
Texas Certification #: T104704407-08-TX  
Utah Certification #: 9135995665

## REPORT OF LABORATORY ANALYSIS

Page 2 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## SAMPLE SUMMARY

Project: HAMPTON NO. 4M  
Pace Project No.: 60108013

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60108013001	GW-07 4928-100411-CM-005	Water	10/11/11 14:45	10/13/11 09:10
60108013002	GW-07 4928-100411-CM-006	Water	10/12/11 09:20	10/13/11 09:10
60108013003	GW-07 4928-100411-CM-007	Water	10/12/11 09:25	10/13/11 09:10
60108013004	TB-101211-001	Water	10/12/11 17:30	10/13/11 09:10

## REPORT OF LABORATORY ANALYSIS

Page 3 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..



Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

## SAMPLE ANALYTE COUNT

Project: HAMPTON NO. 4M  
Pace Project No.: 60108013

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60108013001	GW-07 4928-100411-CM-005	EPA 8260	HMW	9
60108013002	GW-07 4928-100411-CM-006	EPA 8260	HMW	9
60108013003	GW-07 4928-100411-CM-007	EPA 8260	JDM	9
60108013004	TB-101211-001	EPA 8260	JDM	9

## REPORT OF LABORATORY ANALYSIS

Page 4 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## PROJECT NARRATIVE

Project: HAMPTON NO. 4M

Pace Project No.: 60108013

**Method:** EPA 8260

**Description:** 8260 MSV UST, Water

**Client:** COP Conestoga-Rovers & Associates, Inc. NM

**Date:** October 25, 2011

### General Information:

4 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/41017

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/41043

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

Page 5 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## ANALYTICAL RESULTS

Project: HAMPTON NO. 4M

Pace Project No.: 60108013

Sample: GW-07 4928-100411-CM-005      Lab ID: 60108013001      Collected: 10/11/11 14:45      Received: 10/13/11 09:10      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST, Water</b>		Analytical Method: EPA 8260						
Benzene	ND ug/L		1.0	1		10/19/11 18:20	71-43-2	
Ethylbenzene	ND ug/L		1.0	1		10/19/11 18:20	100-41-4	
Toluene	ND ug/L		1.0	1		10/19/11 18:20	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		10/19/11 18:20	1330-20-7	
Dibromofluoromethane (S)	96 %		86-112	1		10/19/11 18:20	1868-53-7	
Toluene-d8 (S)	99 %		90-110	1		10/19/11 18:20	2037-26-5	
4-Bromofluorobenzene (S)	101 %		87-113	1		10/19/11 18:20	460-00-4	
1,2-Dichloroethane-d4 (S)	94 %		82-119	1		10/19/11 18:20	17060-07-0	
Preservation pH	1.0			1.0	1	10/19/11 18:20		

## ANALYTICAL RESULTS

Project: HAMPTON NO. 4M

Pace Project No.: 60108013

Sample: GW-07 4928-100411-CM-006      Lab ID: 60108013002      Collected: 10/12/11 09:20      Received: 10/13/11 09:10      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST, Water</b>	Analytical Method: EPA 8260							
Benzene	<b>65.2</b> ug/L		10.0	10		10/19/11 18:36	71-43-2	
Ethylbenzene	<b>443</b> ug/L		10.0	10		10/19/11 18:36	100-41-4	
Toluene	<b>1220</b> ug/L		10.0	10		10/19/11 18:36	108-88-3	
Xylene (Total)	<b>3210</b> ug/L		30.0	10		10/19/11 18:36	1330-20-7	
Dibromofluoromethane (S)	95 %		86-112	10		10/19/11 18:36	1868-53-7	
Toluene-d8 (S)	100 %		90-110	10		10/19/11 18:36	2037-26-5	
4-Bromofluorobenzene (S)	100 %		87-113	10		10/19/11 18:36	460-00-4	
1,2-Dichloroethane-d4 (S)	85 %		82-119	10		10/19/11 18:36	17060-07-0	
Preservation pH	<b>1.0</b>		1.0	10		10/19/11 18:36		

## ANALYTICAL RESULTS

Project: HAMPTON NO. 4M  
 Pace Project No.: 60108013

Sample: GW-07 4928-100411-CM-007      Lab ID: 60108013003      Collected: 10/12/11 09:25      Received: 10/13/11 09:10      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST, Water</b>	Analytical Method: EPA 8260							
Benzene	79.6 ug/L		10.0	10		10/21/11 03:31	71-43-2	
Ethylbenzene	488 ug/L		10.0	10		10/21/11 03:31	100-41-4	
Toluene	1220 ug/L		10.0	10		10/21/11 03:31	108-88-3	
Xylene (Total)	3460 ug/L		30.0	10		10/21/11 03:31	1330-20-7	
Dibromofluoromethane (S)	99 %		86-112	10		10/21/11 03:31	1868-53-7	
Toluene-d8 (S)	98 %		90-110	10		10/21/11 03:31	2037-26-5	
4-Bromofluorobenzene (S)	94 %		87-113	10		10/21/11 03:31	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %		82-119	10		10/21/11 03:31	17060-07-0	
Preservation pH	1.0			1.0	10			10/21/11 03:31



Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

## ANALYTICAL RESULTS

Project: HAMPTON NO. 4M

Pace Project No.: 60108013

Sample: TB-101211-001	Lab ID: 60108013004	Collected: 10/12/11 17:30	Received: 10/13/11 09:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND ug/L		1.0	1		10/21/11 03:46	71-43-2	
Ethylbenzene	ND ug/L		1.0	1		10/21/11 03:46	100-41-4	
Toluene	ND ug/L		1.0	1		10/21/11 03:46	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		10/21/11 03:46	1330-20-7	
Dibromofluoromethane (S)	101 %		86-112	1		10/21/11 03:46	1868-53-7	
Toluene-d8 (S)	97 %		90-110	1		10/21/11 03:46	2037-26-5	
4-Bromofluorobenzene (S)	97 %		87-113	1		10/21/11 03:46	460-00-4	
1,2-Dichloroethane-d4 (S)	99 %		82-119	1		10/21/11 03:46	17060-07-0	
Preservation pH	1.0		1.0	1		10/21/11 03:46		

Date: 10/25/2011 03:54 PM

## REPORT OF LABORATORY ANALYSIS

Page 9 of 13

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..



Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

## QUALITY CONTROL DATA

Project: HAMPTON NO. 4M

Pace Project No.: 60108013

QC Batch: MSV/41017 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER  
Associated Lab Samples: 60108013001, 60108013002

METHOD BLANK: 894178 Matrix: Water

Associated Lab Samples: 60108013001, 60108013002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/19/11 14:33	
Ethylbenzene	ug/L	ND	1.0	10/19/11 14:33	
Toluene	ug/L	ND	1.0	10/19/11 14:33	
Xylene (Total)	ug/L	ND	3.0	10/19/11 14:33	
1,2-Dichloroethane-d4 (S)	%	88	82-119	10/19/11 14:33	
4-Bromofluorobenzene (S)	%	96	87-113	10/19/11 14:33	
Dibromofluoromethane (S)	%	98	86-112	10/19/11 14:33	
Toluene-d8 (S)	%	90	90-110	10/19/11 14:33	

LABORATORY CONTROL SAMPLE: 894179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.7	94	82-117	
Ethylbenzene	ug/L	20	16.5	83	79-121	
Toluene	ug/L	20	19.4	97	80-120	
Xylene (Total)	ug/L	60	50.7	85	79-120	
1,2-Dichloroethane-d4 (S)	%			108	82-119	
4-Bromofluorobenzene (S)	%			94	87-113	
Dibromofluoromethane (S)	%			103	86-112	
Toluene-d8 (S)	%			101	90-110	

## QUALITY CONTROL DATA

Project: HAMPTON NO. 4M

Pace Project No.: 60108013

QC Batch:	MSV/41043	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV UST-WATER
Associated Lab Samples:	60108013003, 60108013004		

METHOD BLANK:	894834	Matrix: Water
---------------	--------	---------------

Associated Lab Samples: 60108013003, 60108013004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/20/11 22:39	
Ethylbenzene	ug/L	ND	1.0	10/20/11 22:39	
Toluene	ug/L	ND	1.0	10/20/11 22:39	
Xylene (Total)	ug/L	ND	3.0	10/20/11 22:39	
1,2-Dichloroethane-d4 (S)	%	100	82-119	10/20/11 22:39	
4-Bromofluorobenzene (S)	%	99	87-113	10/20/11 22:39	
Dibromofluoromethane (S)	%	98	86-112	10/20/11 22:39	
Toluene-d8 (S)	%	98	90-110	10/20/11 22:39	

LABORATORY CONTROL SAMPLE:	894835
----------------------------	--------

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.8	99	82-117	
Ethylbenzene	ug/L	20	21.0	105	79-121	
Toluene	ug/L	20	20.5	103	80-120	
Xylene (Total)	ug/L	60	60.2	100	79-120	
1,2-Dichloroethane-d4 (S)	%			100	82-119	
4-Bromofluorobenzene (S)	%			96	87-113	
Dibromofluoromethane (S)	%			99	86-112	
Toluene-d8 (S)	%			97	90-110	

## QUALIFIERS

Project: HAMPTON NO. 4M

Pace Project No.: 60108013

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

### BATCH QUALIFIERS

Batch: MSV/41017

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/41043

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMPTON NO. 4M

Pace Project No.: 60108013

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60108013001	GW-07 4928-100411-CM-005	EPA 8260	MSV/41017		
60108013002	GW-07 4928-100411-CM-006	EPA 8260	MSV/41017		
60108013003	GW-07 4928-100411-CM-007	EPA 8260	MSV/41043		
60108013004	TB-101211-001	EPA 8260	MSV/41043		

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**  
 Required Client Information:

**Section B**  
 Required Project Information:

Company: <b>CRA</b>	Report To: <b>Angela Bourn</b>	Attention: <b>ENFOS</b>
Address: <b>6121 Indian School #200</b>	<b>Kelly Blanchard</b>	Company Name:
<b>Albuquerque, NM 87110</b>	<b>Christine Mathews</b>	Address:
Email To: <b>cmathews@crowdwater.com</b>	Purchase Order No.:	Pace Quote Reference:
Phone: <b>505-891-0672</b>	Project Name: <b>Hampton No. 4m</b>	Pace Project Manager: <b>Colleen Koporc</b>
Fax: <b>505-894-4932</b>	Project Number: <b>074927</b>	Pace Profile #:
Requested Due Date/TAT: <b>standard</b>		

**Section C**  
 Invoice Information:

Page: <b>1</b> of <b>1</b>	<b>1373038</b>	
<b>REGULATORY AGENCY</b>		
<input type="checkbox"/> NPDES	<input checked="" type="checkbox"/> GROUND WATER	<input type="checkbox"/> DRINKING WATER
<input type="checkbox"/> UST	<input type="checkbox"/> RCRA	<input type="checkbox"/> OTHER
<b>Site Location</b>	<b>NM</b>	
<b>STATE:</b>		

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	COLLECTED				# OF CONTAINERS	Preservatives	Y/N ↑	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
				DATE	TIME	DATE	TIME				Analysis Test ↑	BTEX	3D6944			
	<b>SAMPLE ID</b> (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Tissue Other	DW WT WW P SL OL WP AR TS OT	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START	COMPOSITE EN/GRAB			Unpreserved	H <sub>2</sub> SO <sub>4</sub> HNO <sub>3</sub> HCl NaOH Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Methanol Other						60108013
1	GW-074928-100411-CM-005				10-11-11	1445		3			X					001
2	GW-074928-100411-CM-006				10-12-11	0920		3			X					002
3	GW-074928-100411-CM-007				10-12-11	0925		3			X					003
4	TB-074928-100411-CM-008															
5	TB-101211-001				10-12-11	1730		2			X		X	2D6944		004
6																
7																
8																
9																
10																
11																
12																
	<b>ADDITIONAL COMMENTS</b>	<b>RELINQUISHED BY / AFFILIATION</b>			DATE	TIME			<b>ACCEPTED BY / AFFILIATION</b>	DATE	TIME				<b>SAMPLE CONDITIONS</b>	
		<i>Christine Mathews</i>			10-12-11	1800			<i>Phenix Van</i>	10-13-11	0910	1.6	Y	Y	Y	

**ORIGINAL**

<b>SAMPLER NAME AND SIGNATURE</b>			Temp in °C	
PRINT Name of SAMPLER: <b>Christine Mathews</b>				Received on Ice (Y/N)
SIGNATURE of SAMPLER: <i>Christine Mathews</i>				
DATE Signed (MM/DD/YY): <b>10-12-11</b>			Custody Sealed Cooler (Y/N)	
Samples Intact (Y/N)				

\*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.



## Sample Condition Upon Receipt

Client Name: CRA Project # 60103013

Courier:  FedEx  UPS  USPS  Client  Commercial  Pace  Other  
Tracking #: 876266213218 Pace Shipping Label Used?  Yes  No

Optional
Proj. Due Date: <u>10/25/11</u>
Proj. Name:

Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Other

Thermometer Used: T-191 / T-194 Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature: 16

Temperature should be above freezing to 6°C Comments: Date and Initials of person examining contents: PR 10-13-11

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
-Includes date/time/ID/analyses Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Exceptions: <u>VOA, coliform, TOC, O&amp;G, WI-DRO (water), Phenolics</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed _____ Lot # of added preservative _____
Trip Blank present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Pace Trip Blank lot # (if purchased): <u>Cover</u>		
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	17. List State: <u>NY</u>

Client Notification/ Resolution:	Copy COC to Client? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	Field Data Required? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N
Person Contacted: _____	Date/Time: _____	<i>OKM</i>
Comments/ Resolution: _____ _____ _____		

Project Manager Review: *M* Date: 10/16/11

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)