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Mr. Jim Griswold
New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

January 30, 2017

Re: NMOCD Case No. 3R-069, 2016 Annual Groundwater Remediation and Monitoring Report

Dear Mr. Griswold:

Enclosed is the 2016 Annual Groundwater Remediation and Monitoring Report for the Hampton No. 4M site. This report, prepared by GHD Services, Inc., contains the results of free product recovery and groundwater monitoring activities in 2016.

Please let me know if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Joseph B. Crouch".

J. Brady Crouch

Enc



2016 Annual Groundwater Monitoring Report

Hampton Number 4M
Unit Letter N, Section 13, Township 30N, Range 11W
San Juan County, New Mexico

ConocoPhillips Company

GHD | 6121 Indian School Rd NE Suite 200 Albuquerque NM 87110 USA
074927| 2016| Report No 8 | December 16, 2016



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1. Introduction

1.1 Introduction

This 2016 Annual Groundwater Monitoring Report presents the results of groundwater monitoring conducted by GHD Services, Inc. (GHD) at the ConocoPhillips Company (ConocoPhillips) Hampton Number 4M natural gas production wellsite (Site). The Site is situated on federal land approximately ¼ mile south of Hampton Arroyo, within Unit Letter N, Section 13, Township 30N, Range 11W of San Juan County, New Mexico (Figure 1). The Site consists of a natural gas production well and associated equipment. General features of the Site are depicted on Figure 2.

1.2 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.

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 in 1996 revealed impacted soil and groundwater. 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 also discovered near the well pad 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 monitor 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 Appendix A.

The existing monitor well network consists of eight wells: MW-1, MW-5, MW-9, MW-11, MW-12, MW-15, MW-16, and TMW-1. A mobile dual phase extraction (MDPE) event took place during August 2013. Monitor well MW-7 was damaged by heavy rains in September 2013, and plugged and abandoned in May 2014. A groundwater seep is also sampled as part of the current Site monitoring program, although the seep has been dry since 2011. A generalized geologic cross section for the Site is provided as Figure 3. Site history is summarized in Table 1.

2. Product Recovery

2.1 Skimmer Installation

On June 1, 2016, GHD installed a QED Environmental Systems two-inch bladder pump with a solar-powered C100M control station for light non-aqueous phase liquid (LNAPL, or free product) recovery. The system consists of the down-well skimmer pump, a pump controller and nitrogen



tank and 55-gallon drum on a containment pallet. All surface equipment is contained within a locked chain-link enclosure.

Prior to installation, plan and process drawings and equipment specifications of remediation system components were submitted for approval to San Juan Asset personnel to ensure compliance with Site-specific Asset, and Operating Integrity Program requirements. In addition, a Sundry Notice describing proposed installation activities was submitted as required by the surface owner, Bureau of Land Management. These documents were submitted under separate cover.

2.2 Product Recovery

Periodic Operations and Maintenance (O&M) visits to the Site to check on the system's performance was recorded on O&M Checklist forms. Copies of the forms are presented in Appendix B of this report. Thickness of the LNAPL layer in MW-16 has averaged approximately 1.4 feet over the last 4 years (refer to Table 2). Immediately prior to the June 1, 2016 installation, the measured thickness was 2.45 feet. It should be noted, however, that LNAPL thickness measured in monitoring wells typically exceeds the thickness of LNAPL in the subsurface by a factor estimated to range between 2 and 10. The thickness measured in the monitoring well is therefore commonly referred to as the "apparent" thickness and is not necessarily an accurate measurement of the thickness of LNAPL in the subsurface formation. Several hydrogeologic properties affect this difference including height of the capillary fringe, physical properties of the LNAPL fluid, grain size of formation material, etc.

At this writing, the skimmer pump in MW-16 has recovered approximately 3 gallons of LNAPL. The recovery realized rapidly diminishing returns and the pump was turned off in September after approximately 3 months of operation. The LNAPL thickness has been slow to recover and, at last measurement, October 27, 2016, was 0.17 foot in thickness. The LNAPL recovery system will remain inactive until a more significant thickness is observed in MW-16.

3. Groundwater Monitoring Summary, Methodology, and Analytical Results

3.1 Groundwater Monitoring Summary

On September 15, 2016, groundwater elevation measurements were recorded from monitoring wells MW-1, MW-5, MW-9, MW-11, MW-12, MW-15, MW-16 and TMW-1 using an oil/water interface probe. Groundwater elevations for the Site are presented in Table 2.

September 2016 groundwater data indicates groundwater flow is to the north and is consistent with historical records. Groundwater gradient was estimated to be 0.006 ft/ft. A groundwater potentiometric surface map is presented as Figure 4.



3.2 Groundwater Monitoring Methodology

Monitoring well TMW -1 was dry and therefore not sampled. TMW-1 has consistently been dry since 2012. The location of the seep appears to have been washed out or buried from previous heavy rainfall events.

Monitoring wells MW-5, MW-9, MW-11, MW-12 and MW-15 were purged of at least three casing volumes of water using a dedicated polyethylene bailer prior to sampling. Groundwater quality parameters including pH, temperature, oxidation reduction potential, total dissolved solids, and conductivity were collected using a calibrated YSI-556 Multi-Parameter Sonde and were recorded on GHD groundwater sampling field forms. Field parameters collected during sampling are included in Table 3.

Groundwater samples were placed in laboratory prepared bottles, packed on ice and shipped under chain-of-custody documentation to Pace Analytical Laboratories (Pace) located in Lenexa, Kansas. Groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260 (all wells) and for dissolved manganese by EPA Method 6010B, sulfate by EPA Method 300.0, and for total dissolved solids (TDS) by SM2540C (wells MW-9 and MW-12 only).

3.3 Groundwater Monitoring Analytical Results

Groundwater collected from monitoring wells MW-1, MW-9, MW-11, and MW-15 were below the laboratory detection limit for BTEX constituents. Groundwater from monitoring wells MW-5 and MW-12 contained concentrations of benzene above the New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standard of 0.01 milligrams per liter (mg/L).

Groundwater collected from all Site wells, including upgradient well MW-1, exceeded the NMWQCC standards for dissolved manganese, sulfate, and TDS. Groundwater concentrations are discussed below.

J Benzene

- The NMWQCC standard for benzene is 0.01 milligrams per liter (mg/L). Groundwater collected from monitoring wells MW-5 and MW-12 contained benzene at concentrations of 0.011 and 0.0568 mg/L, respectively.

J Dissolved Manganese

- The NMWQCC standard for dissolved manganese is 0.2 mg/L. Dissolved manganese was found in excess of the NMWQCC standard in groundwater of MW-9 (5.9 mg/L) and MW-12 (10.6 mg/L).

J TDS

- The NMWQCC standard for TDS is 1,000 mg/L. TDS was found in excess of the NMWQCC standard in MW-9 (4140 mg/L) and MW-12 (3580 mg/L).

J Sulfate

- The NMWQCC standard for sulfate is 600 mg/L. Sulfate was found in excess of the NMWQCC standard in MW-9 (2550 mg/L) and MW-12 (2240 mg/L).



- | A summary of groundwater laboratory analytical results is presented in Table 4. A groundwater concentration map is included as Figure 5. The September 2016 laboratory analytical report is included as Appendix C.

4. Conclusions and Recommendations

4.1 Conclusions

Based on the above referenced information, the following conclusions are presented below:

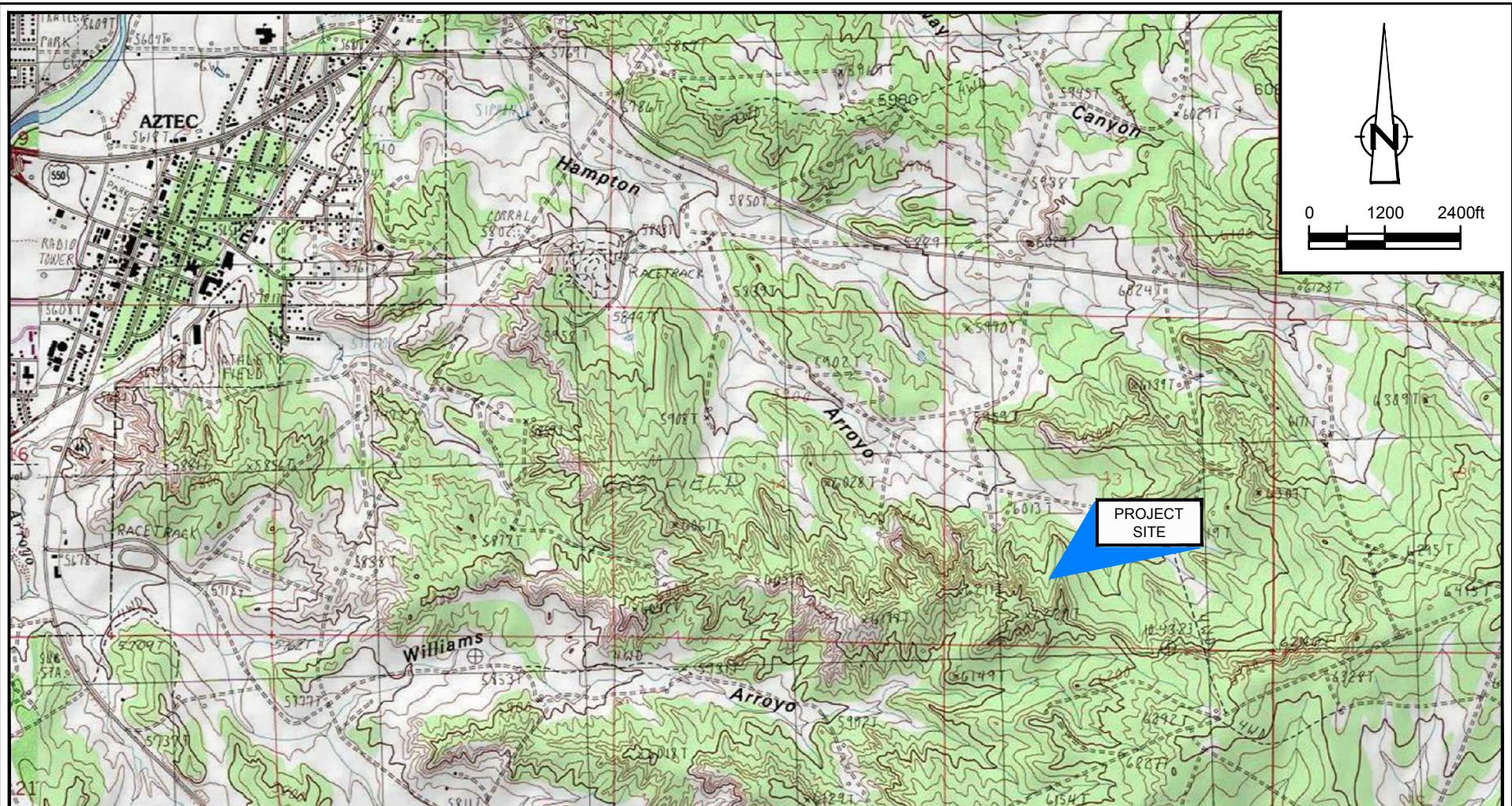
- | Groundwater flow is towards the north and is consistent with historical records.
- | The groundwater seep has been dry since 2011.
- | TMW-1 has consistently been dry since 2012.
- | Monitoring well MW-16 contained approximately 2.45 ft of LNAPL prior to the installation of the powered skimmer pump in June 2016. Approximately 3 gallons of LNAPL have been recovered this year by the system.
- | Groundwater collected from monitoring wells MW-1, MW-9, MW-11 and MW-15 were below the laboratory detection limit for BTEX constituents. Groundwater from MW-5 and MW-12 contained concentrations of benzene above NMWQCC standard.
- | Dissolved manganese, sulfate, and TDS concentrations were above NMWQCC standards in groundwater collected from Site wells MW-9 and MW-12.

4.2 Recommendations

GHD recommends:

- | Plugging and abandonment of TMW-1.
- | Evaluation of LNAPL recovery skimmer in monitoring well MW-16 with potential recommendation to implement a passive system if recovery via active skimmer proves not to be cost effective.
- | Continuation of annual groundwater sampling of monitoring wells MW-5 and MW-12 for BTEX, dissolved manganese, sulfate, and TDS.

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, SAN JUAN COUNTY, NEW MEXICO
*ConocoPhillips Company***



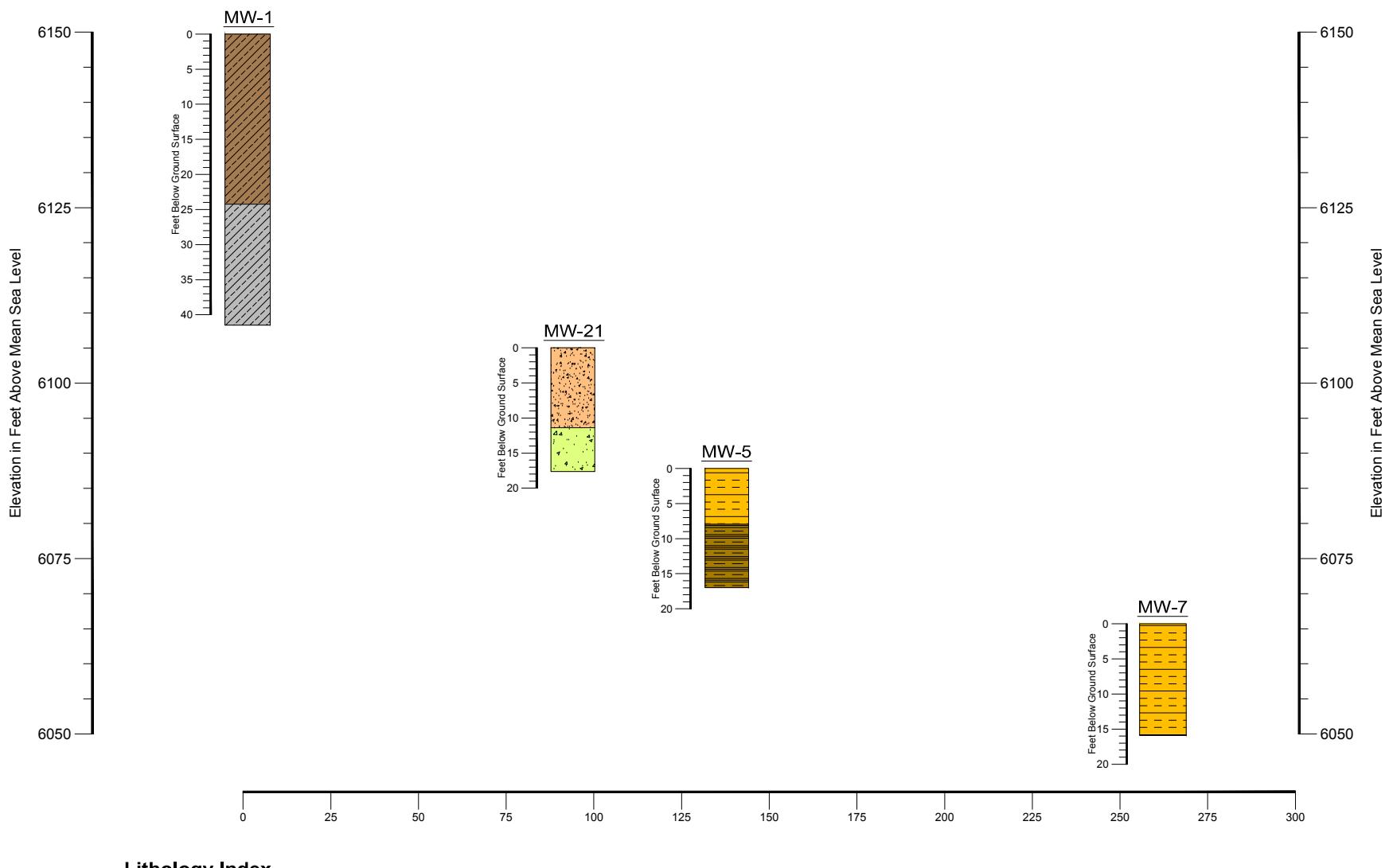


LEGEND

- Monitor Well Location
- Seep
- El Paso Gas Pipeline
- Plugged and Abandoned
- PnA

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, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

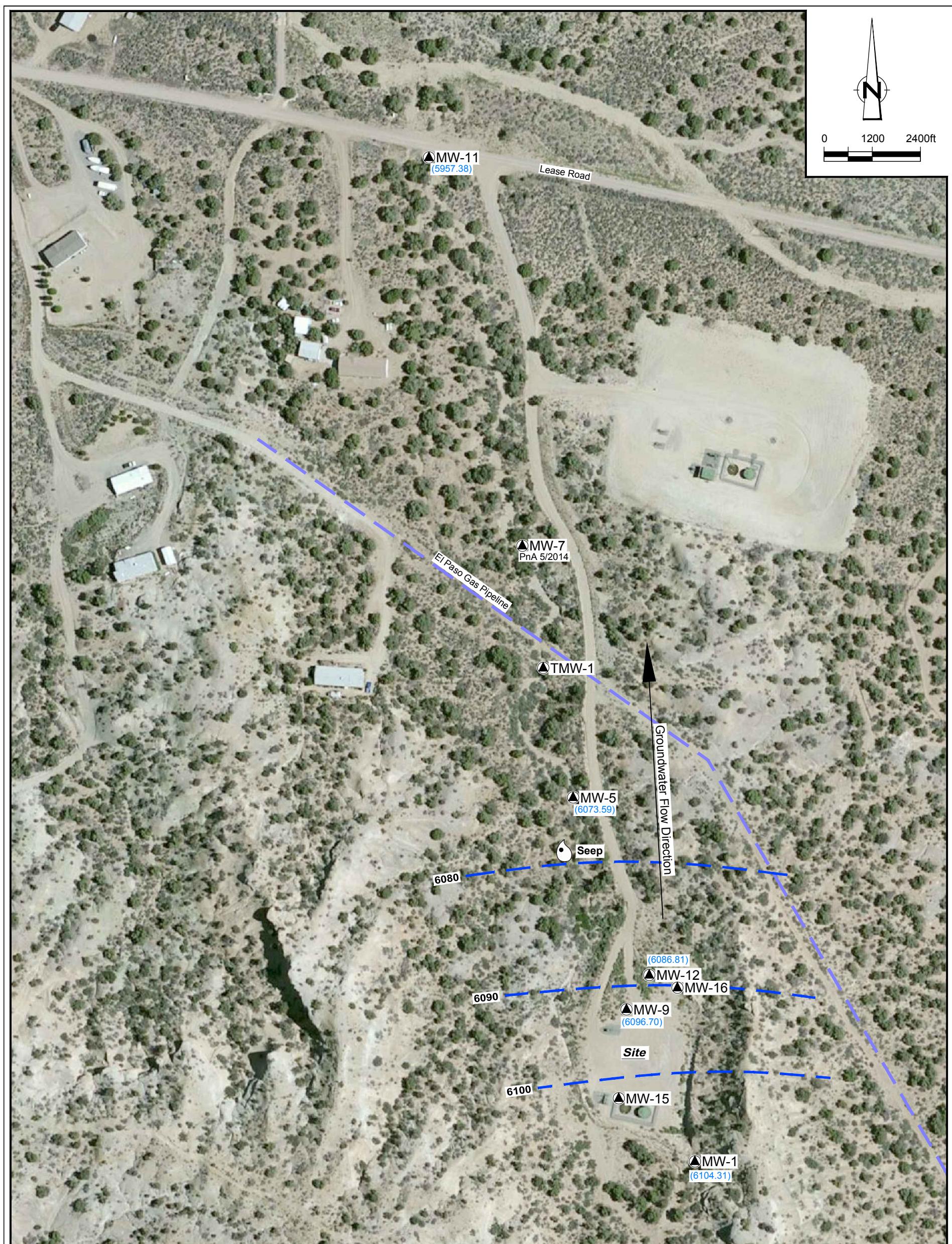


Lithology Index

	Brown Weathered Sandstone
	Gray Weathered Sandstone
	Very Coarse Grained Sand
	Coarse Grained Sand
	Silty Sand
	Clayey Sand

Figure 3
GEOLOGICAL CROSS SECTION
HAMPTON No. 4M SITE
SECTION 13, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company





LEGEND

- ▲ Monitor Well Location
- Seep
- El Paso Gas Pipeline
- (6096.70) Groundwater Elevation, Ft
- 6100 — Groundwater Elevation Contour, Ft
- Groundwater Flow Direction
- PnA Plugged and Abandoned

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

Figure 4
SEPTEMBER 2016 GROUNDWATER POTENTIOMETRIC SURFACE MAP
HAMPTON No. 4M SITE
SECTION 13, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

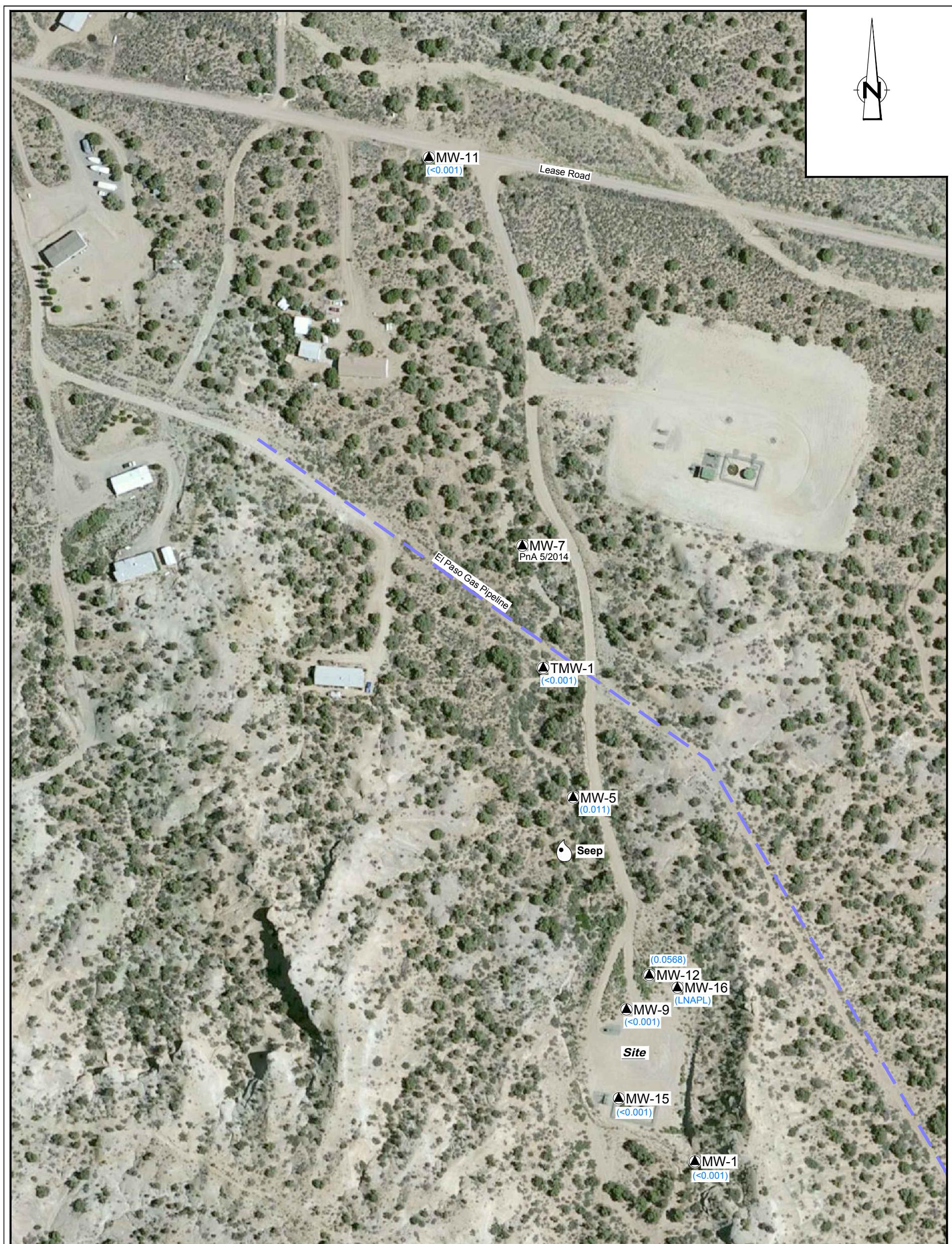


Figure 5
SEPTEMBER 2016 BENZENE CONCENTRATION MAP
HAMPTON No. 4M SITE
SECTION 13, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

Tables

Table 1

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.
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).

Table 1

Site History Timeline
ConocoPhillips Company
Hampton No. 4M
San Juan County, NM

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	NMOCD issued Order No. R-11134-A to Burlington and PNM. The Order: 1) denied the application by PNM for rescinding the prior directive, 2) declared Burlington the responsible party for any contamination south and upgradient to the PNM disposal pit, 3) declared PNM the responsible party for any soil contamination remaining below its former pit, 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, 5) directed PNM and Burlington to submit remediation plans to NMOCD, 6) directed both PNM and Burlington to begin remedial activities within 10 days of NMOCD approval of the plans, 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 8) retained jurisdiction for NMOCD for any further orders as may be necessary.
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.
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.

Table 1

Site History Timeline
ConocoPhillips Company
Hampton No. 4M
San Juan County, NM

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.
10/4/2011 and 10/11/2011	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.
4/25/2012	Assessment of MW-16	CRA recovered approximately one half gallon of product from MW-16 and placed three oil absorbent socks in the well.
6/6/2012	Assessment of MW-16	CRA recovered approximately one quarter gallon of product from MW-16 and replaced oil absorbent socks.
9/25/2012 and 9/26/2012	Groundwater Monitoring	CRA completed annual groundwater monitoring activities. One half gallon of LNAPL was recovered from MW-16 during the sampling event and the oil absorbent socks were replaced.
8/26/2013	Mobile Dual Phase Extraction Event	Mobile dual phase extraction (MDPE) was attempted using Monitor Wells MW-16 and MW-12. Only a minimal amount of LNAPL was recovered; 0.92 gallons from MW-16 and only 0.07 gallons from MW-12. Vapor recovery rates indicated very little LNAPL present in soil surrounding MW-12 and MW-16.
9/18/2013	Groundwater Monitoring	CRA completed annual groundwater monitoring activities. One half gallon of LNAPL was recovered from MW-16 during the sampling event and the oil absorbent socks were replaced.
3/24/2014	Oxidant injection treatment study	CRA completed sampling of MW-1 and MW-12 for full-list VOC's and SVOC's, inorganics, and general chemistry analytes in order to conduct a oxidant injection treatment study.
5/9/2014	Monitor Well Plugging and Abandoning	CRA plugged and abandoned MW-7.
9/24/2014	Groundwater Monitoring	CRA completed annual groundwater monitoring activities. One half gallon of LNAPL was recovered from MW-16 during the sampling event and the oil absorbent socks were replaced.
9/23/2015	Groundwater Monitoring	GHD (formerly CRA) completed annual groundwater monitoring activities. Approximately 2.44 feet of LNAPL was measured in MW-16. Fresh oil absorbent socks were placed in MW-16.
6/1/2016	Skimmer Installation	GHD Install LNAPL Skimmer Pump in MW-16.
9/15/2016	Groundwater Monitoring	GHD completed annual groundwater monitoring activities.

Table 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 LNAPL (ft)	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
		9/25/2012		43.88	6105.54
		9/18/2013		44.32	6105.10
		3/24/2014		44.10	6105.32
		9/24/2014		44.69	6104.73
		9/23/2015		44.95	6104.47
		9/15/2016		45.11	6104.31
MW-5	6090.83	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
		9/25/2012		17.46	6073.37
		9/18/2013		16.78	6074.05
		9/24/2014		17.50	6073.33
		9/23/2015		17.17	6073.66
		9/15/2016		17.24	6073.59
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	--
		9/25/2012		DRY	--
		9/18/2013		DRY	--
		5/9/2014		Well plugged and abandoned	

Table 2

Monitor Well Specifications and Groundwater Elevations
ConocoPhillips Company
Hampton No. 4M
San Juan County

MW-9	6122.52	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
		9/25/2012	24.61	6097.91
		9/18/2013	24.61	6097.91
		9/24/2014	25.18	6097.34
		9/23/2015	25.32	6097.20
		9/15/2016	25.82	6096.70
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
		9/25/2012	56.41	5959.34
		9/18/2013	56.73	5959.02
		9/24/2014	56.91	5958.84
		9/23/2015	57.20	5958.55
		9/15/2016	58.37	5957.38
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
		9/25/2012	22.14	6086.88
		9/18/2013	22.17	6086.85
		3/24/2014	21.64	6087.38
		9/24/2014	22.70	6086.32
		9/23/2015	22.84	6086.18
		9/15/2016	22.21	6086.81

Table 2

Monitor Well Specifications and Groundwater Elevations
ConocoPhillips Company
Hampton No. 4M
San Juan County

MW-15	No survey - DTW only	11/8/2007	18.03	NA
		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
		9/25/2012	18.97	NA
		9/18/2013	19.23	NA
		9/24/2014	19.43	NA
		9/23/2015	19.58	NA
		9/15/2016	19.69	
MW-16	No survey - Theoretical DTW only	11/8/2007	25.03	NA
		1/17/2008	24.88	NA
		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
		9/25/2012	26.57	27.38
		9/18/2013	27.34	28.15
		3/24/2014	25.96	28.20
		9/24/2014	28.00	28.84
		9/23/2015	26.83	29.27
TMW-1	No survey - DTW only	9/15/2016*	33.25	33.34
		10/27/2016*	33.25	33.42
		11/8/2007	19.06	NA
		1/17/2008	19.37	NA
		3/19/2008	18.55	NA
		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

Notes:

ft = feet

AMSL = Above mean sea level

DTW = Depth to water

NA = Not available

LNAPL = light non-aqueous phase liquid

*extension added to top of PVC casing resulting in greater depths to water

Table 3

Field Parameters Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County, New Mexico

Well ID	Sample Date	Temperatur e (°C)	pH	TDS (g/L)	Conductivit y (µS/cm)	DO (mg/L)	ORP (mV)	Volume (gallon s)
MW-1	9/23/2015	12.65	5.20	2.10	3226	2.75	-26.0	1.25
MW-5	9/23/2015	15.63	5.85	2.85	4377	3.10	-114.9	0.50
	9/15/2016	--	--	--	--	--	--	--
MW-9	9/23/2015	15.69	4.98	2.50	3838	2.85	-15.0	2.50
	9/23/2015	14.61	5.13	2.48	3817	2.25	-32.4	3.00
	9/23/2015	14.50	5.19	2.48	3819	2.15	-35.2	3.50
	9/15/2016	13.67	4.97	2.51	3856	1.64	111.6	3.75
MW-11	9/23/2015	14.31	7.02	1.71	2636	11.84	-46.1	4.75
	9/23/2015	13.92	6.54	1.89	2906	2.16	-54.7	5.25
	9/23/2015	13.82	6.37	1.88	2895	1.71	-88.6	5.75
	9/15/2016	13.20	6.43	1.91	2938	1.47	-73.2	5.00
MW-12	9/23/2015	14.34	5.67	2.35	3620	9.92	-14.0	2.75
	9/23/2015	14.34	5.95	2.36	3631	3.13	-33.20	3.25
	9/23/2015	14.31	6.00	2.36	3630	1.65	-44.0	3.75
	9/15/2016	13.65	5.74	2.41	3710	0.73	-148.7	4.00
MW-15	9/23/2015	15.18	3.92	2.28	3503	4.10	-3.5	1.50
	9/23/2015	15.17	3.88	2.28	3505	3.80	0.2	2.00
	9/23/2015	15.05	3.84	2.28	3502	3.59	5.9	2.50
	9/15/2016	14.10	3.88	2.33	3591	3.17	307.9	2.50
MW-16	9/23/2015	Well not sampled - LNAPL Present						
TMW-1	9/23/2015	Well not sampled - Dry						

Notes:

TDS = total dissolved solids

DO = dissolved oxygen

ORP = oxidation-reduction potential

Table 4

Groundwater Laboratory Analytical Results Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County

1 of 10

Well ID	Sample ID	Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Dissolved Manganese	Total Dissolved Solid	Sulfate
				(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NMWQCC Groundwater Quality Standards										
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	ND	0.0004 J	--	--	--
	MW-1	12/15/2003	(orig)	0.0011	0.0009 J	ND	ND	--	--	--
	MW-1	3/15/2004	(orig)	ND	ND	ND	ND	--	--	--
	MW-1	6/21/2004	(orig)	ND	ND	ND	ND	--	--	--
	MW-1	9/29/2004	(orig)	ND	ND	ND	ND	--	--	--
	MW-1	12/31/2004	(orig)	ND	0.0009 J	ND	0.0033 J	--	--	--
	MW-1	3/22/2005	(orig)	ND	0.0003 J	ND	ND	--	--	--
	MW-1	10/24/2005	(orig)	ND	ND	ND	ND	--	--	--
	MW-1	12/12/2005	(orig)	ND	0.0007 J	ND	0.0006 J	--	--	--
	MW-1	3/20/2006	(orig)	0.0011	0.0009 J	ND	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)	ND	0.0002	0.0002	0.0013	--	--	--
	MW-1	12/12/2006	(orig)	ND	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	--	--	--
	GW-074927-092612-CM-MW-1	9/26/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--
	GW-074927-091813-CM-MW-1	9/18/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--
	GW-074927-032414-CM-MW-1	3/24/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	5.86	3060	2450
	GW-074927-092414-CM-MW-1	9/24/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	5.3	3070	2570
	GW-074927-092315-CB-MW-1	9/23/2015	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	4.9	2590	2080

Table 4

Groundwater Laboratory Analytical Results Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County

2 of 10

Well ID	Sample ID	Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Dissolved Manganese	Total Dissolved Solid	Sulfate	
				(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	
	NMWQCC Groundwater Quality Standards				0.01	0.75	0.75	0.62	0.2	1000	600
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	--	--	--	
	GW-074927-092612-CM-MW-5	9/26/2012	(orig)	0.0898	0.626	0.551	3.59	--	--	--	
	GW-074927-091813-CM-MW-5	9/18/2013	(orig)	0.0359	0.154	0.227	1.32	--	--	--	
	GW-074927-092414-CM-MW-5	9/24/2014	(orig)	0.0041	0.0052	0.0338	0.106	3.5	4030	2690	
	GW-074927-092315-CB-MW-5	9/23/2015	(orig)	0.015	0.0072	0.154	0.138	7.8	4340	2480	
	GW-074927-091516-CM-MW-5	9/15/2016	(orig)	0.011	0.0153	0.166	0.0414	--	--	--	

Table 4

Groundwater Laboratory Analytical Results Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County

3 of 10

Well ID	Sample ID	Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Dissolved Manganese	Total Dissolved Solid	Sulfate
				(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
	NMWQCC Groundwater Quality Standards				0.01	0.75	0.75	0.62	0.2	1000
	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	ND	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	ND	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	ND	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	ND	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	5/9/2014					No sample collected; well dry.			
	MW-7	10/11/2011					No sample collected; well dry.			
	MW-7	9/26/2012					No sample collected; well dry.			
	MW-7	9/18/2013					No sample collected; well dry.			
	MW-7	5/9/2014					Well plugged and abandoned.			

Table 4

Groundwater Laboratory Analytical Results Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County

Well ID	Sample ID	Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Dissolved Manganese	Total Dissolved Solid	Sulfate
				(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
	NMWQCC Groundwater Quality Standards				0.01	0.75	0.75	0.62	0.2	1000
	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	ND	ND	ND	--	--	--
	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)	ND	ND	ND	ND	--	--	--
	MW-9	12/18/2001	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	3/22/2002	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	6/28/2002	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	9/23/2002	(orig)	0.0004 J	ND	ND	ND	--	--	--
	MW-9	3/27/2003	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	6/27/2003	(orig)	0.0005 J	ND	ND	ND	--	--	--
	MW-9	9/24/2003	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	12/15/2003	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	3/15/2004	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	6/21/2004	(orig)	ND	0.0004 J	ND	0.0007 J	--	--	--
	MW-9	9/29/2004	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	3/22/2005	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	6/23/2005	(orig)	ND	0.0003 J	ND	ND	--	--	--
	MW-9	3/20/2006	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	6/21/2006	(orig)	ND	ND	ND	ND	--	--	--
	MW-9	10/18/2006	(orig)	ND	ND	ND	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	< 0.001	--	--
	MW-9	9/28/2010	(orig)	< 0.001	< 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	--	--	--
	GW-074927-092612-CM-MW-9	9/26/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--
	GW-074927-091813-CM-MW-9	9/18/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--
	GW-074927-092414-CM-MW-9	9/24/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	6.6	3800	2430
	GW-074927-092315-CB-MW-9	9/23/2015	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	4.5	3880	2510
	GW-074927-091516-CM-MW-9	9/15/2016	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	5.9	4140	2550

Table 4

Groundwater Laboratory Analytical Results Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County

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Well ID	Sample ID	Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Dissolved Manganese	Total Dissolved Solid	Sulfate	
				(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	
	NMWQCC Groundwater Quality Standards				0.01	0.75	0.75	0.62	0.2	1000	600
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)	ND	ND	ND	ND	--	--	--	
	MW-11	12/20/2001	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	12/21/2001	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	12/22/2001	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	5/24/2003	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	6/27/2003	(orig)	0.0004 J	0.0003 J	ND	0.0004 J	--	--	--	
	MW-11	9/24/2003	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	12/15/2003	(orig)	0.0005 J	ND	ND	ND	--	--	--	
	MW-11	3/15/2004	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	6/21/2004	(orig)	ND	ND	ND	0.0005 J	--	--	--	
	MW-11	9/29/2004	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	12/31/2004	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	3/22/2005	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	10/24/2005	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	12/12/2005	(orig)	ND	0.0003 J	ND	ND	--	--	--	
	MW-11	3/20/2006	(orig)	ND	ND	ND	ND	--	--	--	
	MW-11	6/21/2006	(orig)	ND	0.0003 J	ND	0.0008 J	--	--	--	
	MW-11	10/18/2006	(orig)	ND	0.0003 J	0.0004 J	0.0012 J	--	--	--	
	MW-11	12/12/2006	(orig)	ND	ND	ND	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	--	--	--	
	GW-074927-092612-CM-MW-11	9/26/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--	
	GW-074927-091813-CM-MW-11	9/18/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--	
	GW-074927-092414-CM-MW-11	9/24/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	4.2	2760	1810	
	GW-074927-092315-CB-MW-11	9/23/2015	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	4.3	2550	1740	
	GW-074927-091516-CM-MW-11	9/15/2016	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--	

Table 4

Groundwater Laboratory Analytical Results Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County

Well ID	Sample ID	Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Dissolved Manganese	Total Dissolved Solid	Sulfate
				(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
	NMWQCC Groundwater Quality Standards			0.01	0.75	0.75	0.62	0.2	1000	600
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	--	--	--
	-092612-CM-MW-12	9/26/2012	(orig)	0.617	<0.001	0.015	0.0207	--	--	--
	-091813-CM-MW-12	9/18/2013	(orig)	0.202	<0.005	<0.005	<0.015	--	--	--
	-091813-CM-DUP	9/18/2013	(Duplicate)	0.210	<0.005	<0.005	<0.015	--	--	--
	-032414-CM-MW-12	3/24/2014	(orig)	0.0559	0.0067	<0.005	<0.015	14.2	3390	2740
	-032414-CM-DUP	3/24/2014	(Duplicate)	0.0508	0.0056	<0.005	<0.015	--	--	--
	-092414-CM-MW-12	9/24/2014	(orig)	0.830	0.0013	0.011	0.0171	9.7	3460	2330
	-092414-CM-DUP	9/24/2014	(Duplicate)	0.882	0.0015	0.0121	0.0179	--	--	--
GW-074927	-092315-CB-MW-12	9/23/2015	(orig)	0.246	< 0.001	< 0.001	< 0.003	10.2	3330	2310
	-092315-CB-MW-12	9/23/2015	(Duplicate)	0.258	< 0.001	< 0.001	< 0.003	--	--	--
GW-074927	-091516-CM-MW-12	9/15/2016	(orig)	0.0568	< 0.0005	< 0.0005	< 0.015	10.6	3580	2240

Table 4

Groundwater Laboratory Analytical Results Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County

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Well ID	Sample ID	Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Dissolved Manganese	Total Dissolved Solid	Sulfate
				(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NMWQCC Groundwater Quality Standards										
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)	ND	ND	ND	ND	--	--	--
	MW-15	6/28/2002	(orig)	ND	ND	ND	ND	--	--	--
	MW-15	9/23/2002	(orig)	ND	ND	ND	ND	--	--	--
	MW-15	12/31/2002	(orig)	ND	ND	ND	ND	--	--	--
	MW-15	3/27/2003	(orig)	ND	0.0003 J	ND	0.0009 J	--	--	--
	MW-15	6/27/2003	(orig)	0.0004 J	ND	ND	ND	--	--	--
	MW-15	9/24/2003	(orig)	ND	ND	ND	ND	--	--	--
	MW-15	3/15/2004	(orig)	ND	0.0003 J	ND	ND	--	--	--
	MW-15	6/21/2004	(orig)	ND	ND	ND	ND	--	--	--
	MW-15	9/29/2004	(orig)	ND	ND	ND	ND	--	--	--
	MW-15	12/15/2004	(orig)	0.0007 J	ND	ND	ND	--	--	--
	MW-15	12/31/2004	(orig)	ND	0.0009 J	0.0003 J	0.0014 J	--	--	--
	MW-15	3/22/2005	(orig)	ND	ND	ND	ND	--	--	--
	MW-15	10/24/2005	(orig)	ND	ND	ND	ND	--	--	--
	MW-15	12/12/2005	(orig)	ND	0.0003 J	ND	0.0004 J	--	--	--
	MW-15	3/20/2006	(orig)	ND	ND	ND	ND	--	--	--
	MW-15	6/21/2006	(orig)	0.0007 J	ND	0.0003 J	ND	--	--	--
	MW-15	10/18/2006	(orig)	ND	0.0003 J	ND	0.0002 J	--	--	--
	MW-15	12/12/2006	(orig)	ND	ND	ND	ND	--	--	--
	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	< 0.003	--	--
GW-074927-092612-CM-MW-15				9/26/2012	(orig)	< 0.001	< 0.001	< 0.003	--	--
GW-074927-091813-CM-MW-15				9/18/2013	(orig)	< 0.001	< 0.001	< 0.003	--	--
GW-074927-092414-CM-MW-15				9/24/2014	(orig)	< 0.001	< 0.001	< 0.003	8.8	3390
GW-074927-092315-CB-MW-15				9/23/2015	(orig)	< 0.001	< 0.001	< 0.003	8.5	3020
GW074927-091516-CM-MW-15				9/15/2016	(orig)	< 0.001	< 0.001	< 0.003	--	--

Table 4

Groundwater Laboratory Analytical Results Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County

Well ID	Sample ID	Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Dissolved Manganese	Total Dissolved Solid	Sulfate
				(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
	NMWQCC Groundwater Quality Standards				0.01	0.75	0.75	0.62	0.2	1000
	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 J	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.			
	MW-16	9/26/2012					No sample collected due to presence of LNAPL.			
	MW-16	9/18/2013					No sample collected due to presence of LNAPL.			
	MW-16	9/24/2014					No sample collected due to presence of LNAPL.			
	MW-16	9/23/2015					No sample collected due to presence of LNAPL.			

Table 4

Groundwater Laboratory Analytical Results Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County

9 of 10

Well ID	Sample ID	Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Dissolved Manganese	Total Dissolved Solid	Sulfate
				(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NMWQCC Groundwater Quality Standards										
Seep	Seep	7/1/1998	(orig)	0.0016	0.0007	0.0006	0.00036	--	--	--
	Seep	4/14/1999	(orig)	0.04	0.0022	0.0021	0.019	--	--	--
	Seep	10/21/1999	(orig)	0.065	0.23	0.011	0.434	--	--	--
	Seep	3/29/2001	(orig)	0.0116	< 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	ND	0.0008	0.0034	--	--	--
	Seep	6/28/2002	(orig)	ND	ND	ND	ND	--	--	--
	Seep	9/23/2002	(orig)	ND	ND	ND	ND	--	--	--
	Seep	12/31/2002	(orig)	0.0007	ND	ND	ND	--	--	--
	Seep	3/27/2003	(orig)	0.0063	0.0002 J	0.0018	0.0101	--	--	--
	Seep	9/24/2003	(orig)	ND	0.0003 J	ND	ND	--	--	--
	Seep	12/15/2003	(orig)	0.0004 J	0.0003 J	ND	ND	--	--	--
	Seep	3/15/2004	(orig)	ND	ND	ND	ND	--	--	--
	Seep	6/21/2004	(orig)	ND	ND	ND	ND	--	--	--
	Seep	9/29/2004	(orig)	ND	ND	ND	ND	--	--	--
	Seep	12/31/2004	(orig)	ND	0.0002 J	ND	0.0004 J	--	--	--
	Seep	3/28/2005	(orig)	ND	ND	ND	ND	--	--	--
	Seep	10/24/2005	(orig)	ND	J	ND	ND	--	--	--
	Seep	12/12/2005	(orig)	ND	0.0005 J	0.0003 J	0.0009 J	--	--	--
	Seep	3/20/2006	(orig)	ND	ND	ND	ND	--	--	--
	Seep	6/21/2006	(orig)	0.004	0.0129	0.0008 J	0.015	--	--	--
	Seep	10/18/2006	(orig)	ND	0.0005 J	0.0003 J	0.0014 J	--	--	--
	Seep	12/12/2006	(orig)	ND	ND	ND	ND	--	--	--
	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.			
	Seep	9/26/2012					No sample collected; seep dry.			
	Seep	9/18/2013					No sample collected; seep dry.			
	Seep	9/24/2014					No sample collected; seep dry.			
	Seep	9/23/2015					No sample collected; seep dry.			

Table 4

Groundwater Laboratory Analytical Results Summary
ConocoPhillips Company
Hampton No. 4M
San Juan County

10 of 10

Well ID	Sample ID	Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Dissolved Manganese	Total Dissolved Solid	Sulfate
				(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
	NMWQCC Groundwater Quality Standards				0.01	0.75	0.75	0.62	0.2	1000
	TMW-1	1/27/2000	(orig)	0.93	1.4	0.35	6.7	--	--	--
	TMW-1	6/13/2000	(orig)	2.4	3.4	0.55	9.1	--	--	--
	TMW-1	6/26/2001	(orig)	1.1	3.5	0.33	5.5	--	--	--
	TMW-1	5/23/2003	(orig)	0.83	0.123	0.107	1.0047	--	--	--
	TMW-1	6/27/2003	(orig)	0.474	0.0366	0.0596	0.4907	--	--	--
	TMW-1	9/24/2003	(orig)	0.292	0.139	0.017	0.221	--	--	--
	TMW-1	12/15/2003	(orig)	0.0559	0.0013	0.0039	0.0425	--	--	--
	TMW-1	6/21/2004	(orig)	0.0406	ND	0.0141	0.0147	--	--	--
	TMW-1	9/29/2004	(orig)	0.41	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)	0.0678	0.0133	0.0081	0.1017	--	--	--
	TMW-1	10/24/2005	(orig)	0.483	0.705	0.045	0.328	--	--	--
	TMW-1	12/12/2005	(orig)	0.122	0.317	0.019	0.16	--	--	--
	TMW-1	3/20/2006	(orig)	0.071	0.082	0.016	0.151	--	--	--
	TMW-1	6/21/2006	(orig)	0.159	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)	0.269	0.0026	0.0049	0.0157	--	--	--
	TMW-1	11/8/2007	(orig)	0.3	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)	0.13	0.029	0.011	0.022	--	--	--
	TMW-1	1/21/2009	(orig)	0.013	< 0.005	< 0.005	< 0.005	--	--	--
	TMW-1	9/28/2010	(orig)	0.013	< 0.001	< 0.001	0.0032	--	--	--
	TMW-1	10/11/2011					No sample collected; insufficient water present in well.			
	TMW-1	9/26/2012					No sample collected; well dry.			
	TMW-1	9/18/2013					No sample collected; well dry.			
	TMW-1	9/24/2014					No sample collected; well dry.			
	TMW-1	9/23/2015					No sample collected; well dry.			

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)

< 0.001 = Below Laboratory Detection Limit of 0.001 mg/L

ND = Not Detected Above Laboratory Detection Limit

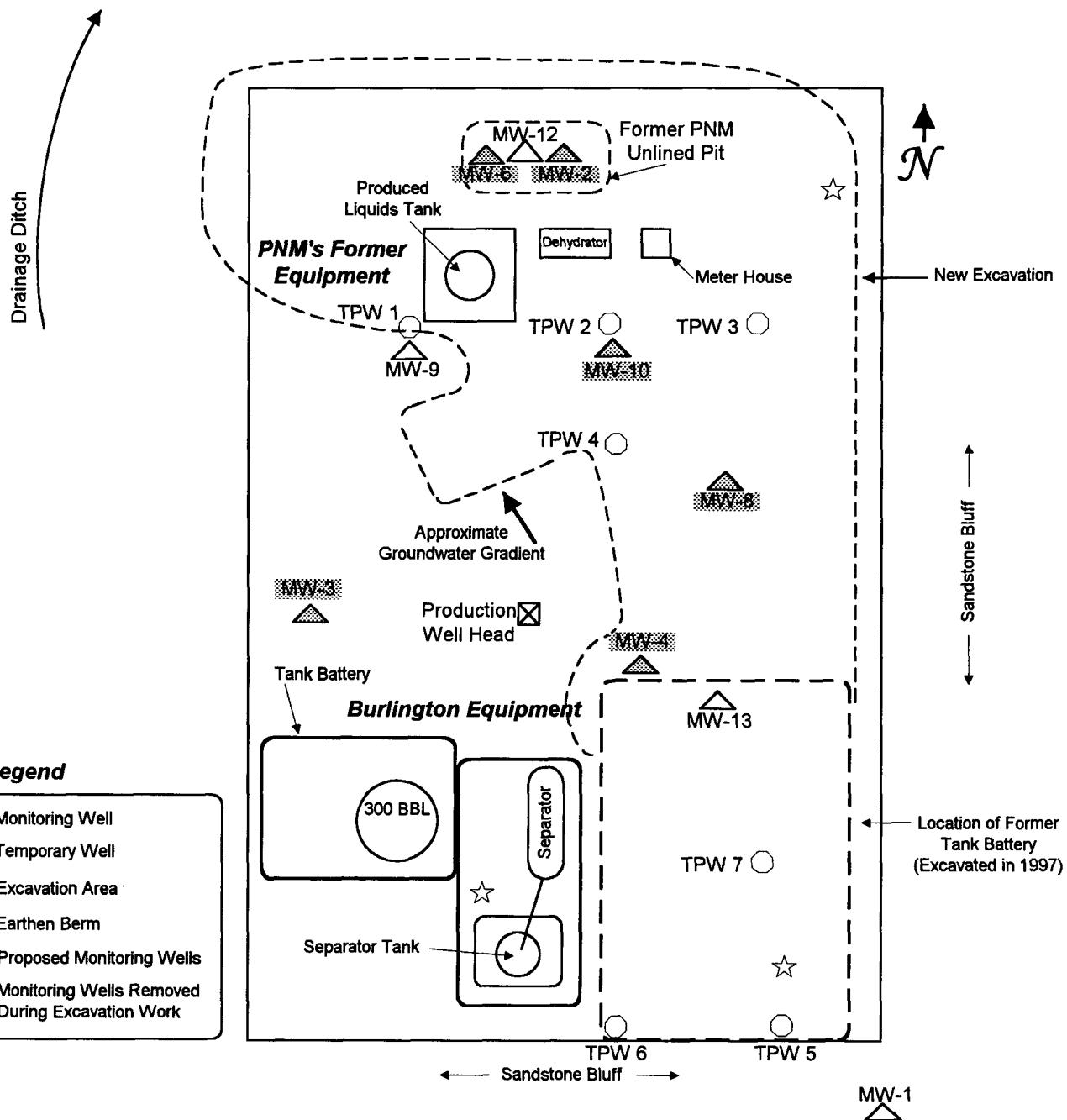
BOLD = Concentrations that exceed the NMWQCC groundwater quality standard

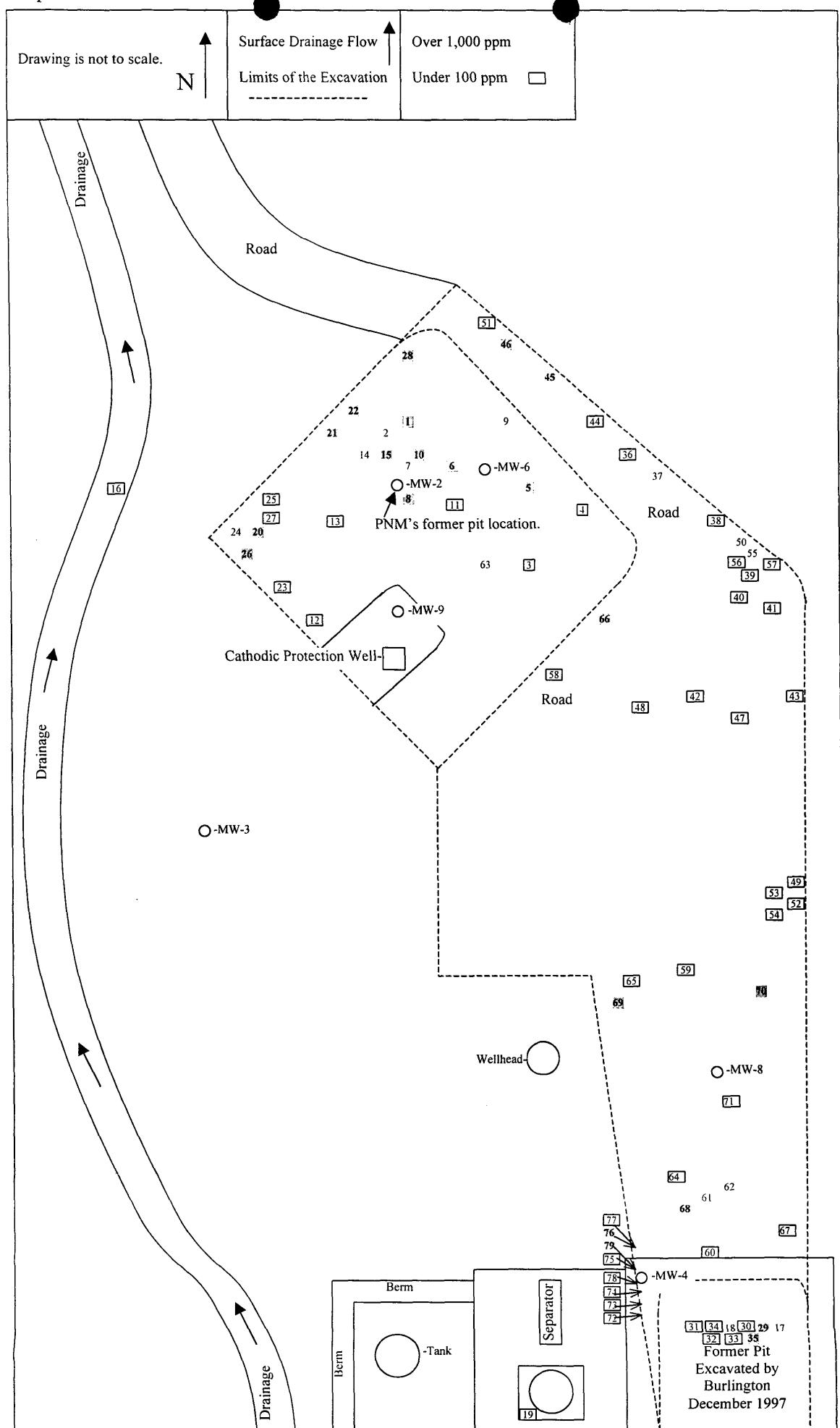
Appendices

Appendix A

Diagram of Former Excavation Area

Hampton #4M Site Diagram





Appendix B

LNAPL Recovery System O&M Sheets

Hampton No. 4M O&M Checklist

Project Number: 074927

Date: 6/1/2016 Startup

Personnel: JWalker/JKirchner

Well Number: MW-16

Controller:

Regulator PSI	Sys Total ON Time	Sys Total OFF Time
20	20 min	1 sec

Controller Run Times:

On	Off	Refill	Discharge
20 min	1 sec	30 sec	20 sec

Nitrogen Tank:

Nitrogen Tank PSI	Regulator PSI
2870	125

Well:

DTP	DTW	LNAPL Thickness	Pump Depth
26.95	29.4		26.45 pulled up 6"

LNAPL Recovery Drum:

DTP	DTW	TD	LNAPL Thickness
-	-	-	

High-level shut off functioning: Yes

Comments:

Hampton No. 4M O&M Checklist

Project Number: 074927

Date: 6/3/2016

Personnel: JKirchner

Well Number: MW-16

Controller:

Regulator PSI	Sys Total ON Time	Sys Total OFF Time
60	0	0

Controller Run Times:

On	Off	Refill	Discharge
45	23m 15 min	30 sec	20 sec

Nitrogen Tank:

Nitrogen Tank PSI	Regulator PSI
2800	100

Well:

DTP	DTW	LNAPL Thickness	Pump Depth

LNAPL Recovery Drum:

DTP	DTW	TD	LNAPL Thickness

High-level shut off functioning: Yes

Comments:

Hampton No. 4M O&M Checklist

Project Number: 074927

Date: 6/8/2016

Personnel: JWalker

Well Number: MW-16

Controller:

Regulator PSI	Sys Total ON Time	Sys Total OFF Time
58-reset to 60		

Controller Run Times:

On	Off	Refill	Discharge
45 min reset to 30	23 hr 15 min reset: 8hr	30 sec reset 3 min	10 reset 20 sec

Nitrogen Tank:

Nitrogen Tank PSI	Regulator PSI
2200	720

Well:

DTP	DTW	LNAPL Thickness	Pump Depth
27.13'	29.33'	2.2'	lowered to rest on bottom

LNAPL Recovery Drum:

DTP	DTW	TD	LNAPL Thickness
2.86	-	2.87	0.01

High-level shut off functioning: Yes

Comments: Product only discharging for 1-3 sec of 10 sec cycle. Increase refill time to 5 min.
Discharge increases to 6 sec, still short of optimal.

Lower pump to rest on bottom of well. Consult QED: reservoir is only ~110 mL so 6 sec discharge could well be all there is.

Hampton No. 4M O&M Checklist

Project Number: 074927

Date: 6/30/2016

Personnel: Jwalker

Well Number: MW-16

Controller:

Regulator PSI	Sys Total ON Time	Sys Total OFF Time
42 (Reset to 60)	47:27:00	489:43:41

Controller Run Times:

On	Off	Refill	Discharge
45 min	8 hrs changed to 4 hrs	3.0 min	10 sec

Nitrogen Tank:

Nitrogen Tank PSI	Regulator PSI
5500	800

Well:

DTP	DTW	LNAPL Thickness	Pump Depth
27.84	29.33	1.49'	on bottom

LNAPL Recovery Drum:

DTP	DTW	TD	LNAPL Thickness
2.86		2.93	0.07'

High-level shut off functioning: Yes

Comments: Regulator PSI too low @ 42. Turn up to 60 then 70 before started discharging.

Hampton No. 4M O&M Checklist

Project Number: 074927

Date: 7/26/2016

Personnel: Jkirchner

Well Number: MW-16

Controller:

Regulator PSI	Sys Total ON Time	Sys Total OFF Time
60	47:39:06	489:43:41

Controller Run Times:

On	Off	Refill	Discharge
45 min 5 min changed	4 hr 1hr changed	3 min 1 min	10 sec 15 sec changed

Nitrogen Tank:

Nitrogen Tank PSI	Regulator PSI
600	800

Well:

DTP	DTW	LNAPL Thickness	Pump Depth
27.9	29.35	1.45	Bottom (.2")

LNAPL Recovery Drum:

DTP	DTW	TD	LNAPL Thickness
2.85		2.91	.06'

High-level shut off functioning: Yes

Comments:

Hampton No. 4M O&M Checklist

Project Number: 074927

Date: 7/29/2016

Personnel: Jkirchner

Well Number: MW-16

Controller:

Regulator PSI	Sys Total ON Time	Sys Total OFF Time
60	53:59:36	559:40:23

Controller Run Times:

On	Off	Refill	Discharge
5:00	1:00:00	0:02:00	15 sec

Nitrogen Tank:

Nitrogen Tank PSI	Regulator PSI
490	800

Well:

DTP	DTW	LNAPL Thickness	Pump Depth
28.16	29.39	1.23	On Bottom (-2")

LNAPL Recovery Drum:

DTP	DTW	TD	LNAPL Thickness
2.74	-	2.91	0.17

High-level shut off functioning: Yes

Comments:

Hampton No. 4M O&M Checklist

Project Number: 074927

Date: 8/10/2016

Personnel:

Well Number: MW-16

Controller:

Regulator PSI	Sys Total ON Time	Sys Total OFF Time
64	67:31:31	689:24:37

Controller Run Times:

On	Off	Refill	Discharge

Nitrogen Tank:

Nitrogen Tank PSI	Regulator PSI
0	125

Well:

DTP	DTW	LNAPL Thickness	Pump Depth
33.46	33.55	0.09'	On bottom

LNAPL Recovery Drum:

DTP	DTW	TD	LNAPL Thickness
2.74		2.91	

High-level shut off functioning: Yes

Comments: Uncertainty whether or not nitrogen tank is empty. Gauge indicates 0 PSI but still appears to have some in it. System disabled and will replace nitrogen tank.

Hampton No. 4M O&M Checklist

Project Number: 074927

Date: 8/24/2016

Personnel: Jwalker

Well Number: MW-16

Controller:

Regulator PSI	Sys Total ON Time	Sys Total OFF Time
60	67:38:24	

Controller Run Times:

On	Off	Refill	Discharge
20 min	48 hrs	5 min	10 sec

Nitrogen Tank:

Nitrogen Tank PSI	Regulator PSI
2800	7.75

Well:

DTP	DTW	LNAPL Thickness	Pump Depth
33.21	33.37	0.18	On bottom

LNAPL Recovery Drum:

DTP	DTW	TD	LNAPL Thickness
2.64	-	2.79	0.15

High-level shut off functioning: Yes

Comments: New nitrogen tank installed.

Hampton No. 4M O&M Checklist

Project Number: 074927

Date: 9/15/2016

CMathews / CNeligh

Well Number: MW-16

Controller:

Regulator PSI	Sys Total ON Time	Sys Total OFF Time
60psi	4:35:00	521:30:55

Controller Run Times:

On	Off	Refill	Discharge
25min	48hrs	5:00min	10sec

Nitrogen Tank:

Nitrogen Tank PSI	Regulator PSI
2400	100

Well:

DTP	DTW	LNAPL Thickness	Pump Depth
33.25	33.34	0.09	On bottom

LNAPL Recovery Drum:

DTP	DTW	TD	LNAPL Thickness
2.65	none	2.8	0.15

High-level shut off functioning: Yes

Comments:

Appendix C

2016 Annual Groundwater Laboratory Reports

October 03, 2016

Christine Mathews
GHD Services, Inc.
6212 Indian School Rd. NE St2
Albuquerque, NM 87110

RE: Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Dear Christine Mathews:

Enclosed are the analytical results for sample(s) received by the laboratory on September 16, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Alice Spiller
alice.spiller@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, GHD Services, Inc,
Jeffrey Walker, GHD Services, Inc



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 074927 COP Hampton No4M

Pace Project No.: 60227942

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60227942001	GW-074927-091516-CM-MW-15	Water	09/15/16 09:45	09/16/16 09:10
60227942002	GW-074927-091516-CM-MW-9	Water	09/15/16 10:10	09/16/16 09:10
60227942003	GW-074927-091516-CM-MW-12	Water	09/15/16 10:20	09/16/16 09:10
60227942004	GW-074927-091516-CM-MW-11	Water	09/15/16 11:00	09/16/16 09:10
60227942005	GW-074927-091516-CM-MW-5	Water	09/15/16 11:15	09/16/16 09:10
60227942006	TB-074927-091516-CM-001	Water	09/15/16 14:30	09/16/16 09:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60227942001	GW-074927-091516-CM-MW-15	EPA 8260	JTK	8
60227942002	GW-074927-091516-CM-MW-9	EPA 6010	JGP	1
		EPA 8260	JTK	8
		SM 2540C	JMC1	1
		EPA 300.0	OL	1
60227942003	GW-074927-091516-CM-MW-12	EPA 6010	JGP	1
		EPA 8260	JTK	8
		SM 2540C	JMC1	1
		EPA 300.0	OL	1
60227942004	GW-074927-091516-CM-MW-11	EPA 8260	JTK	8
60227942005	GW-074927-091516-CM-MW-5	EPA 8260	JTK	8
60227942006	TB-074927-091516-CM-001	EPA 8260	JTK	8

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: GHD Services_COP NM
Date: October 03, 2016

General Information:

2 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3010 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.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, 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.

Additional Comments:

Analyte Comments:

QC Batch: 447699

- 1e: Serial Dilution Failed - 12.9% D
- GW-074927-091516-CM-MW-9 (Lab ID: 60227942002)
 - Manganese, Dissolved

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Method: **EPA 8260**
Description: 8260 MSV UST, Water
Client: GHD Services_COP NM
Date: October 03, 2016

General Information:

6 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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: 447653

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Method: **SM 2540C**

Description: 2540C Total Dissolved Solids

Client: GHD Services_COP NM

Date: October 03, 2016

General Information:

2 samples were analyzed for SM 2540C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

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

Method Blank:

All analytes were below the report limit in the method blank, where applicable, 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.

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Method: **EPA 300.0**

Description: 300.0 IC Anions 28 Days

Client: GHD Services_COP NM

Date: October 03, 2016

General Information:

2 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

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

Method Blank:

All analytes were below the report limit in the method blank, where applicable, 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.

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Sample: GW-074927-091516-CM-MW-15 **Lab ID: 60227942001** Collected: 09/15/16 09:45 Received: 09/16/16 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		09/23/16 03:28	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/23/16 03:28	100-41-4	
Toluene	ND	ug/L	1.0	1		09/23/16 03:28	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/23/16 03:28	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	80-120	1		09/23/16 03:28	2037-26-5	
4-Bromofluorobenzene (S)	104	%	77-130	1		09/23/16 03:28	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127	1		09/23/16 03:28	17060-07-0	
Preservation pH	1.0			1.0	1	09/23/16 03:28		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Sample: GW-074927-091516-CM-MW-9 **Lab ID:** 60227942002 Collected: 09/15/16 10:10 Received: 09/16/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	5.9	mg/L	0.0050	1	09/23/16 11:55	09/26/16 15:16	7439-96-5	1e
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		09/23/16 03:43	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/23/16 03:43	100-41-4	
Toluene	ND	ug/L	1.0	1		09/23/16 03:43	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/23/16 03:43	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	80-120	1		09/23/16 03:43	2037-26-5	
4-Bromofluorobenzene (S)	107	%	77-130	1		09/23/16 03:43	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127	1		09/23/16 03:43	17060-07-0	
Preservation pH	1.0		1.0	1		09/23/16 03:43		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	4140	mg/L	5.0	1		09/22/16 16:59		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	2550	mg/L	200	200		09/30/16 21:05	14808-79-8	

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ANALYTICAL RESULTS

Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Sample: GW-074927-091516-CM-MW-12 Lab ID: **60227942003** Collected: 09/15/16 10:20 Received: 09/16/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	10.6	mg/L	0.0050	1	09/23/16 11:55	09/26/16 15:32	7439-96-5	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	56.8	ug/L	5.0	5		09/23/16 03:58	71-43-2	
Ethylbenzene	ND	ug/L	5.0	5		09/23/16 03:58	100-41-4	
Toluene	ND	ug/L	5.0	5		09/23/16 03:58	108-88-3	
Xylene (Total)	ND	ug/L	15.0	5		09/23/16 03:58	1330-20-7	
Surrogates								
Toluene-d8 (S)	101	%	80-120	5		09/23/16 03:58	2037-26-5	
4-Bromofluorobenzene (S)	104	%	77-130	5		09/23/16 03:58	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127	5		09/23/16 03:58	17060-07-0	
Preservation pH	1.0		1.0	5		09/23/16 03:58		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	3580	mg/L	5.0	1		09/22/16 17:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	2240	mg/L	200	200		09/30/16 22:16	14808-79-8	

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ANALYTICAL RESULTS

Project: 074927 COP Hampton No4M

Pace Project No.: 60227942

Sample: GW-074927-091516-CM-MW-11 Lab ID: 60227942004 Collected: 09/15/16 11:00 Received: 09/16/16 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		09/23/16 04:13	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/23/16 04:13	100-41-4	
Toluene	ND	ug/L	1.0	1		09/23/16 04:13	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/23/16 04:13	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		09/23/16 04:13	2037-26-5	
4-Bromofluorobenzene (S)	102	%	77-130	1		09/23/16 04:13	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127	1		09/23/16 04:13	17060-07-0	
Preservation pH	1.0			1.0	1	09/23/16 04:13		

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ANALYTICAL RESULTS

Project: 074927 COP Hampton No4M
Pace Project No.: 60227942

Sample: GW-074927-091516-CM-MW-5 **Lab ID: 60227942005** Collected: 09/15/16 11:15 Received: 09/16/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	11.0	ug/L	1.0	1		09/23/16 04:28	71-43-2	
Ethylbenzene	166	ug/L	1.0	1		09/23/16 04:28	100-41-4	
Toluene	15.3	ug/L	1.0	1		09/23/16 04:28	108-88-3	
Xylene (Total)	41.4	ug/L	3.0	1		09/23/16 04:28	1330-20-7	
Surrogates								
Toluene-d8 (S)	101	%	80-120	1		09/23/16 04:28	2037-26-5	
4-Bromofluorobenzene (S)	109	%	77-130	1		09/23/16 04:28	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127	1		09/23/16 04:28	17060-07-0	
Preservation pH	1.0		1.0	1		09/23/16 04:28		

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ANALYTICAL RESULTS

Project: 074927 COP Hampton No4M

Pace Project No.: 60227942

Sample: TB-074927-091516-CM-001	Lab ID: 60227942006	Collected: 09/15/16 14:30	Received: 09/16/16 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		09/23/16 04:43	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/23/16 04:43	100-41-4	
Toluene	ND	ug/L	1.0	1		09/23/16 04:43	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/23/16 04:43	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	80-120	1		09/23/16 04:43	2037-26-5	
4-Bromofluorobenzene (S)	106	%	77-130	1		09/23/16 04:43	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127	1		09/23/16 04:43	17060-07-0	
Preservation pH	1.0		1.0	1		09/23/16 04:43		

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QUALITY CONTROL DATA

Project: 074927 COP Hampton No4M

Pace Project No.: 60227942

QC Batch:	447699	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
Associated Lab Samples:	60227942002, 60227942003		

METHOD BLANK: 1831364 Matrix: Water

Associated Lab Samples: 60227942002, 60227942003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	mg/L	ND	0.0050	09/26/16 15:09	

LABORATORY CONTROL SAMPLE: 1831365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	mg/L	1	1.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1831366 1831367

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
Manganese, Dissolved	mg/L	5.9	1	1	6.7	6.7	80	78	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 074927 COP Hampton No4M

Pace Project No.: 60227942

QC Batch: 447653 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60227942001, 60227942002, 60227942003, 60227942004, 60227942005, 60227942006

METHOD BLANK: 1831148 Matrix: Water

Associated Lab Samples: 60227942001, 60227942002, 60227942003, 60227942004, 60227942005, 60227942006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/23/16 00:14	
Ethylbenzene	ug/L	ND	1.0	09/23/16 00:14	
Toluene	ug/L	ND	1.0	09/23/16 00:14	
Xylene (Total)	ug/L	ND	3.0	09/23/16 00:14	
1,2-Dichloroethane-d4 (S)	%	98	81-127	09/23/16 00:14	
4-Bromofluorobenzene (S)	%	105	77-130	09/23/16 00:14	
Toluene-d8 (S)	%	99	80-120	09/23/16 00:14	

LABORATORY CONTROL SAMPLE: 1831149

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.5	102	79-116	
Ethylbenzene	ug/L	20	18.5	93	81-110	
Toluene	ug/L	20	19.2	96	82-111	
Xylene (Total)	ug/L	60	53.4	89	80-111	
1,2-Dichloroethane-d4 (S)	%			98	81-127	
4-Bromofluorobenzene (S)	%			101	77-130	
Toluene-d8 (S)	%			100	80-120	

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QUALITY CONTROL DATA

Project: 074927 COP Hampton No4M

Pace Project No.: 60227942

QC Batch: 447623 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 60227942002, 60227942003

METHOD BLANK: 1831074 Matrix: Water

Associated Lab Samples: 60227942002, 60227942003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	09/22/16 16:57	

LABORATORY CONTROL SAMPLE: 1831075

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1010	101	80-120	

SAMPLE DUPLICATE: 1831076

Parameter	Units	60227881007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	996	1010	1	10	

SAMPLE DUPLICATE: 1831116

Parameter	Units	60227637016 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	824	863	5	10	

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QUALITY CONTROL DATA

Project: 074927 COP Hampton No4M

Pace Project No.: 60227942

QC Batch:	448685	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples:	60227942002, 60227942003		

METHOD BLANK: 1835745	Matrix: Water
-----------------------	---------------

Associated Lab Samples: 60227942002, 60227942003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	09/30/16 20:36	

LABORATORY CONTROL SAMPLE: 1835746

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.7	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1835747 1835748

Parameter	Units	MS Result	MSD Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
Sulfate	mg/L	2550	1000	1000	3620	3590	107	104	80-120	1	15	

MATRIX SPIKE SAMPLE: 1835749

Parameter	Units	MS Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	2240	1000	3250	101	80-120	

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QUALIFIERS

Project: 074927 COP Hampton No4M

Pace Project No.: 60227942

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

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.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 447653

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

ANALYTE QUALIFIERS

1e Serial Dilution Failed - 12.9% D

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 074927 COP Hampton No4M
 Pace Project No.: 60227942

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60227942002	GW-074927-091516-CM-MW-9	EPA 3010	447699	EPA 6010	447798
60227942003	GW-074927-091516-CM-MW-12	EPA 3010	447699	EPA 6010	447798
60227942001	GW-074927-091516-CM-MW-15	EPA 8260	447653		
60227942002	GW-074927-091516-CM-MW-9	EPA 8260	447653		
60227942003	GW-074927-091516-CM-MW-12	EPA 8260	447653		
60227942004	GW-074927-091516-CM-MW-11	EPA 8260	447653		
60227942005	GW-074927-091516-CM-MW-5	EPA 8260	447653		
60227942006	TB-074927-091516-CM-001	EPA 8260	447653		
60227942002	GW-074927-091516-CM-MW-9	SM 2540C	447623		
60227942003	GW-074927-091516-CM-MW-12	SM 2540C	447623		
60227942002	GW-074927-091516-CM-MW-9	EPA 300.0	448685		
60227942003	GW-074927-091516-CM-MW-12	EPA 300.0	448685		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60227942



Client Name: GHD COP

Courier: FedEx UPS VIA Clay PEX ECI Pace Xroads Client Other

Tracking #: 7044 6v52 7915 Pace Shipping Label Used? Yes No

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

Packing Material: Bubble Wrap Bubble Bags Foam None Other

Thermometer Used: CF +1.1 T-266 CF -0.1 T-239 Type of Ice: Wet Blue None

Cooler Temperature (°C): As-read 3.5 Corr. Factor CF +1.1 CF -0.1 Corrected 4.6

Date and initials of person examining contents: 203 9/16

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
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
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Sample labels match COC: Date / time / ID / analyses	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Samples contain multiple phases? Matrix: <u>WT</u>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Cyanide water sample checks: <input checked="" type="checkbox"/> N/A	
Lead acetate strip turns dark? (Record only)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Potassium iodide test strip turns blue/purple? (Preserve)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Samples from USDA Regulated Area: State:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Additional labels attached to 5035A / TX1005 vials in the field?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: 1415 Start:

End: 1420 End:

Temp: Temp:

Project Manager Review: alice

Date: 09/16/16



CHAIN-OF-CUSTODY / Analytical Request Document

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