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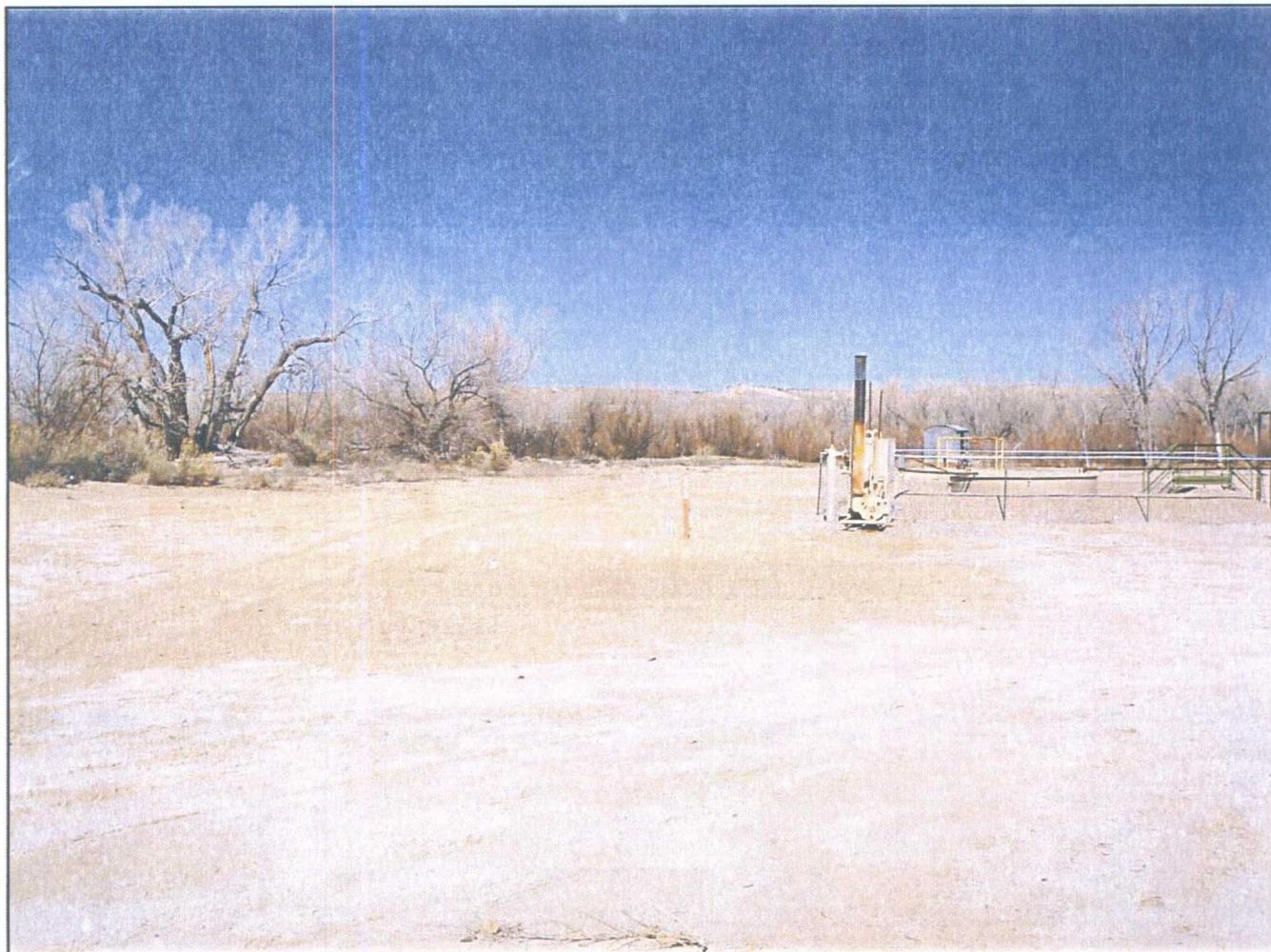
**QUARTERLY
REPORT
(1ST QUARTER)**

4/25/2008

QUARTERLY GROUNDWATER MONITORING REPORT
JANUARY 2008 SAMPLING EVENT

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CONOCOPHILLIPS
SHEPHARD & KELSEY #1
BLOOMFIELD, NM
OCD # 3R0097




ConocoPhillips



TETRA TECH, INC.

APRIL 2008

**QUARTERLY GROUNDWATER
MONITORING REPORT
JANUARY 2008 SAMPLING EVENT**

**CONOCOPHILLIPS
SHEPHARD & KELSEY #1
BLOOMFIELD, NEW MEXICO**

OCD # 3R0097

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April 25, 2008

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QUARTERLY GROUNDWATER MONITORING REPORT CONOCOPHILLIPS SHEPHARD & KELSEY #1 BLOOMFIELD, NEW MEXICO

1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring completed by Tetra Tech, Inc. (Tetra Tech) on January 15, 2008, at the ConocoPhillips Shephard & Kelsey #1 Site in Bloomfield, New Mexico.

The site is located on the southwest side of Bloomfield, New Mexico, south of Highway 64 and the San Juan River. The site consists of an abandoned natural gas production well. All associated equipment and installations at the site have been removed. The location and general layout of the Shephard & Kelsey #1 site are shown on Figures 1 and 2, respectively.

1.1 Site History

The history of the ConocoPhillips Shepard and Kelsey #1 is outlined on Table 1 and discussed in more detail in the following paragraphs.

Preliminary Screening

In response to landowner concerns following a hydrocarbon release, a preliminary screen for hydrocarbon contamination was conducted in the area of a former unlined dehydrator pit and existing production tank used to store separator waste water. On September 30, 1996, two test holes were advanced with a hand auger to the shallow groundwater table located approximately 3.5 to 4 feet below ground surface (bgs). One test hole was advanced adjacent to the production tank and one at a presumed downgradient location. Samples collected from both test holes were below laboratory detection limits for benzene, toluene, ethylbenzene, xylenes (BTEX), and total petroleum hydrocarbons (TPH). On November 11, 1996, two additional test holes were advanced immediately adjacent to the production tank. Impacts were discovered in both the soil and groundwater on the northeast side of the tank.

Assessment and Remediation

Due to the proximity of the site to a residential water supply well, the San Juan River, and shallow depth to groundwater, the New Mexico Oil Conservation Division (NMOCD) directed that ConocoPhillips assess and remediate contaminated soils from the former pit. On February 13, 1997, 30 cubic yards of soil were excavated from the former separator pit area until delineation of contamination was achieved (to a practical extent due to site equipment placement); confirmatory samples were then collected.

Monitor Well Installation and Sampling

Subsequent to the remediation effort described above and at the request of the NMOCD, monitor well MW-1 was installed on February 19, 1997 in the down gradient portion of the excavated area. On March 20, 1997, groundwater samples were collected from MW-1 and analyzed for BTEX. Analytical results indicated benzene contamination above the New Mexico Water Quality Control Commission (NMWQCC)

standards in the area of the former separator pit. Monitor well MW-1 was sampled quarterly from March 1997 to September 1998, when sampling was discontinued.

Monitoring wells MW-NE, DG 1, SB-12, UG 1, UG 2, and DG-MW were subsequently installed at the site; however, the date of installation nor the sampling history during the late 1990s for each well is not known. Per NMOCD direction, groundwater monitoring resumed in June 2001 with the sampling of monitor wells MW-NE, DG 1, SB-12, UG 1, UG 2, and DG-MW. Based on the June 2001 sample results, subsequent quarterly sampling events were limited to the sampling of MW-NE, DG-1 and SB-12. The quarterly sampling of monitor wells MW-NE and DG-1 was discontinued after these wells achieved eight consecutive quarters of results below NMWQCC standards upon completion of the October 2003 sampling event. Monitor wells MW-1, DG-MW, UG-1, UG-2, and DG-1 were sampled in August 2007; results were below NMWQCC standards confirming continued compliance.

Monitor well SB-12 was sampled quarterly until April 2004; the well was sampled in May and November 2005, at which time quarterly sampling resumed. The most recent quarterly sampling results for monitor well SB-12 are summarized below.

- **February 2006 sampling event:** Benzene was detected at a concentration of 7 micrograms per liter ($\mu\text{g/L}$). Ethylbenzene and xylenes were detected at concentrations of 4 $\mu\text{g/L}$ and 12 $\mu\text{g/L}$, respectively.
- **May 2006 sampling event:** Benzene was detected at a concentration of 12 micrograms per liter ($\mu\text{g/L}$), which is slightly above the NMWQCC standard of 10 $\mu\text{g/L}$. Ethylbenzene and xylenes were detected at concentrations of 1 $\mu\text{g/L}$ and 3 $\mu\text{g/L}$, respectively.
- **August and November 2006 sampling events:** No BTEX constituents were detected. All concentrations were lower than laboratory detection limits.
- **February 2007 sampling event:** Ethylbenzene and xylenes were detected at concentrations of 3 $\mu\text{g/L}$ and 1 $\mu\text{g/L}$, respectively. Benzene and toluene were not detected.
- **May 2007 sampling event:** Ethylbenzene was detected at a concentration of 2 $\mu\text{g/L}$. Benzene, toluene, and xylenes were not detected.
- **August and November 2007 sampling events:** No BTEX constituents were detected. All concentrations were lower than laboratory detection limits.

The January 2008 sample collected from SB-12 represents the seventh consecutive quarter of results below the NMWQCC standards for the well.

Geoprobe Investigation

In 2002, ConocoPhillips recognized the unfinished nature of the original pit closure and initiated additional investigation efforts with the intention of bringing the site to regulatory closure. On September 30 and October 1, 2003, a total of 23 Geoprobe borings were advanced to depths of 5-7 feet below ground surface at selected locations of the site. Soil samples were collected from the base of each boring and analyzed for BTEX and TPH. Sample results indicated soil impacts by toluene, ethyl benzene, and TPH in the northern

and western portions of the site. It was determined that the source of the contamination is hydrocarbons that migrated from the original dehydrator pit, and were not excavated during previous closure activities due to the proximity of site equipment. It was recommended that the remaining contaminated soil should be excavated; however, this program has not yet been implemented.

2.0 METHODOLOGY AND RESULTS

The following subsections describe the groundwater monitoring methodology and sampling analytical results.

2.1 Groundwater Monitoring Methodology

Groundwater Elevation Measurements

On January 15, 2008, groundwater elevation measurements were recorded in monitor wells DG-1, SB-12, UG-1, UG-2, DG-MW, and MW-1. A groundwater elevation measurement could not be taken from monitor well MW-NE due to damage to the casing. Groundwater elevation measurements for monitor wells UG-1 and DG-1 were not used in the formation of the contour map due to possible errors associated with broken casings. Table 2 presents the monitor well specifications and groundwater level data. A groundwater elevation contour map is presented in Figure 3.

Groundwater sampling

Groundwater samples were collected from monitor well SB-12 during this sampling event. Approximately 2 gallons of water, or three well volumes, were purged from the well before sampling. A 1.5-inch dedicated, clear, poly-vinyl, disposable bailer was used to collect the groundwater samples. The groundwater samples were contained in laboratory prepared bottles, packed on ice, and shipped with chain of custody documentation to Lancaster Laboratories located in Lancaster, Pennsylvania. The samples were analyzed for the presence of BTEX using Environmental Protection Agency (EPA) Method 8260B.

2.2 Groundwater Sampling Analytical Results

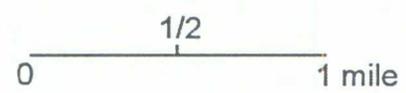
The January 2008 analysis of groundwater collected shows concentrations of BTEX were below laboratory detection limits in monitor well SB-12. Table 3 presents the historical laboratory analytical results. The groundwater sampling field form is presented in Appendix A. The laboratory analytical report is included in Appendix B.

3.0 CONCLUSIONS

The January 15, 2007 sampling event represents the seventh consecutive quarter of results indicating concentrations of BTEX in monitor well SB-12 below NMWQCC standards. Based on the work performed at this site, Tetra Tech recommends continuation of quarterly sampling until eight consecutive quarters of results below NMWQCC standards are attained. If you have any questions or require additional information please contact Kelly Blanchard at Tetra Tech at 505-237-8440 or kelly.blanchard@tetrattech.com.

FIGURES

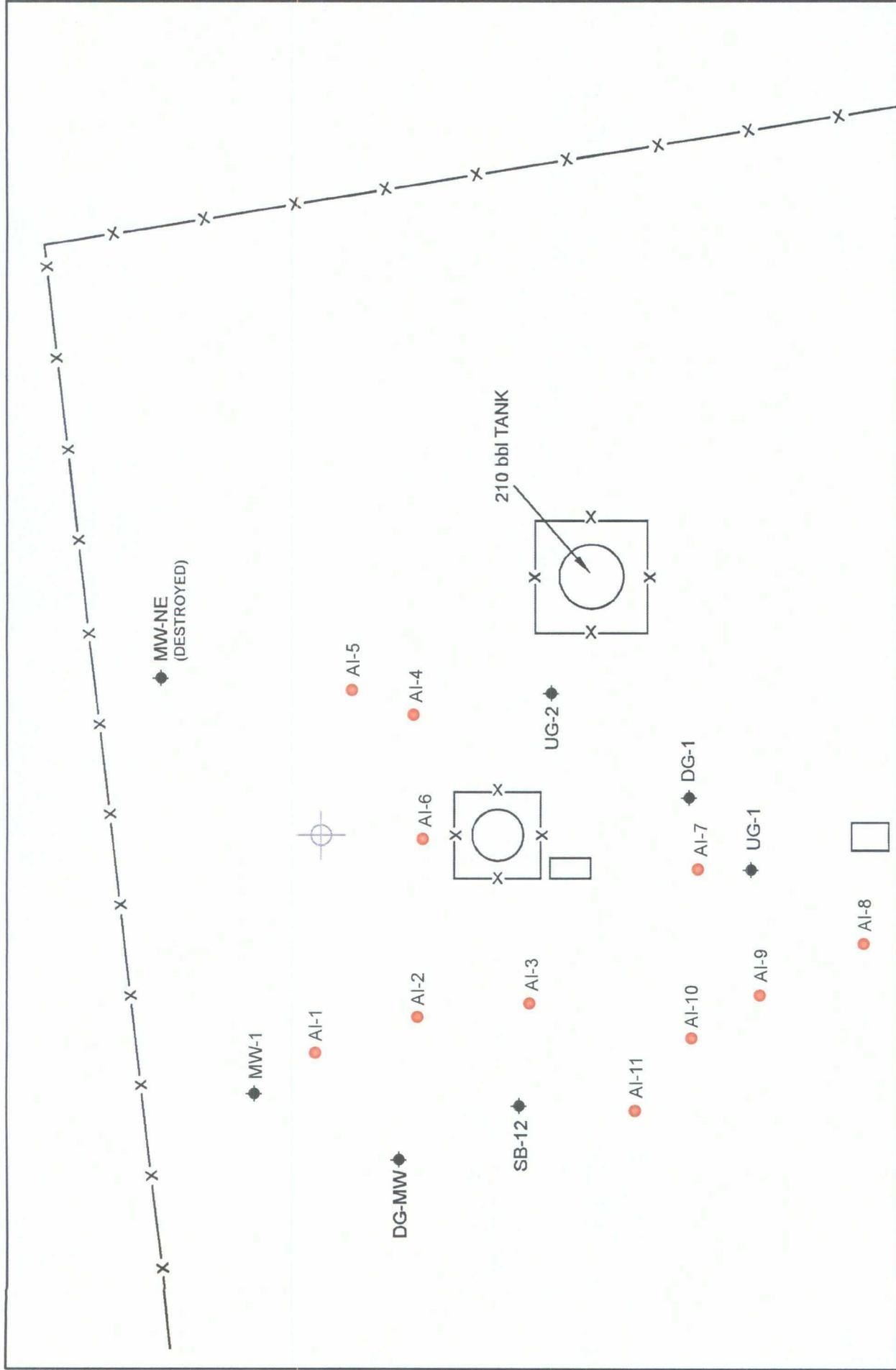
1. Site Location Map
2. Site Layout Map
3. Groundwater Elevation Contour Map



★ = Approximate Site Location



FIGURE 1.
SITE LOCATION MAP
CONOCOPHILLIPS
SHEPARD & KELSEY #1
Bloomfield, New Mexico



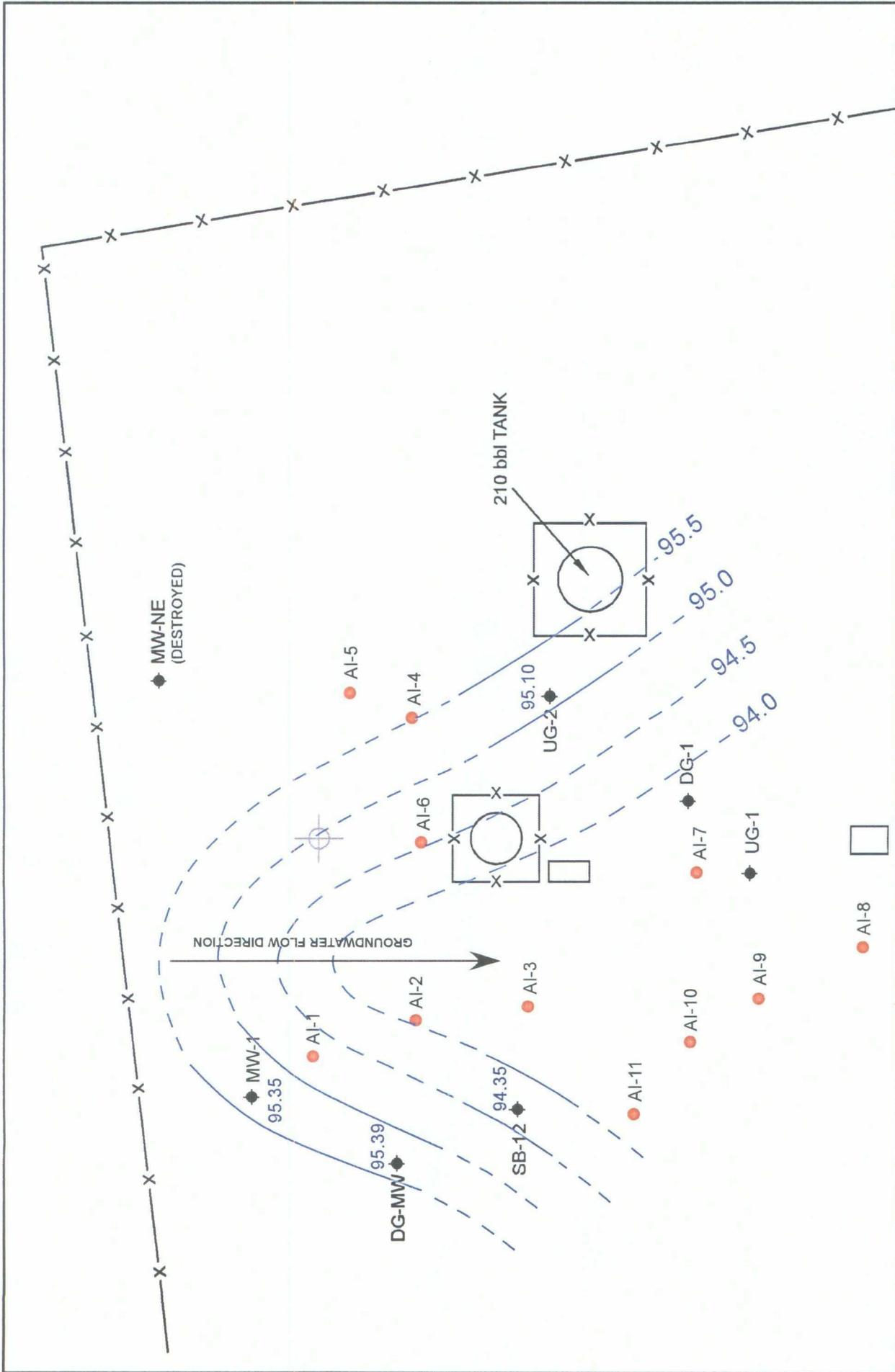
LEGEND

- SHEPARD KELSEY #1 WELLHEAD (plugged and abandoned)
- MONITORING WELL
- AIR INJECTION WELL

0 Feet 50

Tt TETRA TECH, INC.

FIGURE 2:
 SITE LAYOUT MAP
 CONOCOPHILLIPS
 SHEPARD KELSEY #1









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FIGURE 3:
 GROUNDWATER ELEVATION
 CONTOUR MAP (1/15/2008)
 CONOCOPHILLIPS
 SHEPARD KELSEY #1

LEGEND

-  SHEPARD KELSEY #1 WELLHEAD (plugged and abandoned)
-  MONITORING WELL
-  AIR INJECTION WELL
-  MW-NE (DESTROYED)
-  GROUNDWATER ELEVATION CONTOUR (INTERVAL 0.5FT.)
-  (INFERRED)



TABLES

- I. Site History Timeline
2. Groundwater Elevation Summary (June 1996 – January 2008)
3. Laboratory Analytical Data Summary (March 1997 – January 2008)

Table 1. Site History Timeline - ConocoPhillips Shepard and Kelsey #1

Date/Time Period	Event/Action	Description
September 1996	Release Suspected	Hydrocarbon release suspected in the area of a former unlined earthen pit and existing production tank; landowner concerns prompted initiation of a preliminary screen for hydrocarbon contamination
September 30, 1996	Preliminary Screen - Site Investigation	Two test holes advanced to shallow groundwater near production tank and at a downgradient location; samples collected; no hydrocarbon impacts to soil or groundwater detected
November 11, 1996		Two additional test holes advanced to shallow groundwater adjacent to production tank; samples collected; hydrocarbon impacts to soil and groundwater detected near the northeast side of tank
February 13, 1997	Soil Excavation	Approximately 30 cubic yards of soil was excavated from the former pit area until delineation of contamination was achieved; sample collected to confirm effective remediation
February 19, 1997	Monitor Well Installation	Monitor well MW-1 was installed
March 20, 1997 to September 14, 1998	Monitor Well Sampling	Monitor well MW-1 was sampled quarterly for BTEX; benzene detected above NMWQCC standards; subsequent results were below detection limit
1997 to 1998 time period	Monitor Well Installation and Sampling	Monitor wells MW-NE, DG-1, DG-MW, SB-12, UG-1, and UG-2 were installed and sampled; dates of installation and sampling history are unknown at this time
June 14, 2001	Monitor Well Sampling	Monitor wells MW-NE, DG-1, DG-MW, SB-12, UG-1, and UG-2 were sampled for BTEX
June 14, 2001 to October 6, 2003		Monitor wells MW-NE, DG-1, and SB-12 were sampled quarterly for BTEX
October 1, 2003	Geoprobe Investigation	Total of 23 Geoprobe borings advanced to shallow groundwater at selected locations of the site; BTEX and TPH soil contamination detected in the northern and western portions of the site; recommended that remaining contaminated soils be excavated
October 6, 2003	Compliance Achieved	Results for monitor wells MW-NE and DG-1 below NMWQCC standards for 8 consecutive quarters; quarterly sampling discontinued
January 30, 2004 to April 26, 2004	Monitor Well Sampling	Monitor well SB-12 sampled quarterly for BTEX
May 10, 2005 and November 21, 2005		Monitor well SB-12 sampled for BTEX
August 20, 2007		Monitor wells MW-1, DG-MW, UG-1, UG-2, and DG-1 were sampled for BTEX; results were below NMWQCC standards confirming continued compliance
February 17, 2006 to January 15, 2008		Monitor well SB-12 sampled quarterly for BTEX; 7 consecutive quarters with results below NMWQCC standards have been achieved

Table 2. Groundwater Elevation Summary (June 1996 - January 2008) - ConocoPhillips Shepard and Kelsey #1

Well ID	Total Depth (ft. bgs)	Screen Interval (ft)	Elevation ⁽¹⁾ (ft.) (TOC)	Date Measured	Groundwater Level (ft TOC)	Relative Groundwater Elevation (ft TOC)
MW-NE	5.42	4	100	6/12/1996	2.54	97.46
				9/16/1997	NM	NC
				12/2/1997	2.31	97.69
				3/13/1998	2.19	97.81
				6/9/1998	2.12	97.88
				9/14/1998	3.28	96.72
				6/14/2001	6.40	93.60
				9/19/2001	7.62	92.38
				12/13/2001	6.86	93.14
				3/12/2002	6.53	93.47
				6/19/2002	7.40	92.60
				9/17/2002	7.01	92.99
				1/2/2003	NM	NC
				3/20/2003	6.01	93.99
				6/11/2003	6.87	93.13
				10/6/2003	6.84	93.16
				1/30/2004	6.27	93.73
4/26/2004	6.01	93.99				
DG-1	9.05	4	100.23	6/15/2001	6.15	94.08
				9/19/2001	6.57	93.66
				12/13/2001	6.49	93.74
				3/12/2002	6.23	94.00
				6/19/2002	6.88	93.35
				9/17/2002	6.75	93.48
				1/2/2003	NM	NC
				3/20/2003	5.69	94.54
				6/11/2003	6.75	93.48
				10/6/2003	6.54	93.69
				1/30/2004	5.95	94.28
				4/26/2004	4.78	95.45
				5/10/2005	5.55	94.68
				11/21/2005	5.95	94.94
				2/17/2006	5.84	94.39
				5/16/2006	5.90	94.33
				8/1/2006	6.73	93.50
11/16/2006	5.45 ⁽⁴⁾	unknown				
2/21/2007	5.00 ⁽⁴⁾	unknown				
5/14/2007	4.89 ⁽⁴⁾	unknown				
8/20/2007	6.530	93.700				
11/6/2007	5.80 ⁽²⁾	unknown				
1/15/2008	4.94 ⁽²⁾	unknown				

Table 2. Groundwater Elevation Summary (June 1996 - January 2008) - ConocoPhillips Shepard and Kelsey #1

Well ID	Total Depth (ft. bgs)	Screen Interval (ft)	Elevation ⁽¹⁾ (ft.) (TOC)	Date Measured	Groundwater Level (ft TOC)	Relative Groundwater Elevation (ft TOC)
MW-1	10.35	4	100.75	11/6/2007	5.87	94.88
				1/15/2008	5.40	95.35
DG-MW	5.42	4	100.67	6/15/2001	2.25	98.42
				10/6/2003	3.10	97.57
				1/30/2004	2.47	98.20
				4/26/2004	2.21	98.46
				could not locate		unknown
				8/20/2007	6.71	93.96
				11/6/2007	5.80	94.87
				1/15/2008	5.28	95.39
UG-1	9.83	4	100.49	6/14/2001	5.81	94.680
				3/12/2002	5.62	94.870
				6/19/2002	6.02	94.470
				9/17/2002	5.94	94.550
				1/2/2003	NM	NC
				3/20/2003	4.87	95.620
				6/11/2003	5.68	94.810
				10/6/2003	5.74	94.750
				1/30/2004	5.16	95.330
				4/26/2004	5.08	95.410
				5/10/2005	4.02 ⁽²⁾	unknown
				11/21/2005	5.00 ⁽²⁾	unknown
				2/17/2006	4.82 ⁽²⁾	unknown
				5/16/2006	5.15 ⁽²⁾	unknown
				8/1/2006	6.32 ⁽³⁾	unknown
				11/16/2006	5.35 ⁽⁴⁾	unknown
				2/21/2007	4.81 ⁽⁴⁾	unknown
5/14/2007	4.84 ⁽⁴⁾	unknown				
8/20/2007	6.230	94.260				
11/6/2007	5.45 ⁽²⁾	unknown				
1/15/2008	5.50 ⁽²⁾	unknown				
UG-2	9.84	4	100.4	6/14/2001	4.99	95.41
				3/12/2002	6.19	94.21
				6/19/2002	5.14	95.26
				9/17/2002	5.09	95.31
				1/2/2003	NM	NC
				3/20/2003	4.21	96.19
				6/11/2003	4.91	95.49
				10/6/2003	4.91	95.49
				1/30/2004	4.45	95.95
4/26/2004	4.37	96.03				

Table 2. Groundwater Elevation Summary (June 1996 - January 2008) - ConocoPhillips Shepard and Kelsey #1

Well ID	Total Depth (ft. bgs)	Screen Interval (ft)	Elevation ⁽¹⁾ (ft.) (TOC)	Date Measured	Groundwater Level (ft TOC)	Relative Groundwater Elevation (ft TOC)
UG-2 (cont.)	9.84	4	100.4	5/10/2005	5.79	94.61
				11/21/2005	5.42	95.81
				2/17/2006	5.33	95.07
				5/16/2006	5.13	95.27
				8/1/2006	6.41	93.99
				11/16/2006	5.18 ⁽⁴⁾	unknown
				2/21/2007	4.71 ⁽⁴⁾	unknown
				5/14/2007	4.62 ⁽⁴⁾	unknown
				8/20/2007	6.37	94.03
				11/6/2007	5.65	94.75
				1/15/2008	5.30	95.10
SB-12	11.31	4	100	6/14/2001	6.90	93.10
				9/19/2001	7.25	92.75
				12/13/2001	6.39	93.61
				3/12/2002	6.11	93.89
				6/19/2002	6.76	93.24
				9/17/2002	6.66	93.34
				1/2/2003	NM	NC
				3/20/2003	5.53	94.47
				6/11/2003	6.57	93.43
				10/6/2003	6.43	93.57
				1/30/2004	5.80	94.20
				4/26/2004	5.61	94.39
				5/10/2005	5.03	94.97
				11/21/2005	6.01	93.00
				2/17/2006	5.76	94.24
				5/16/2006	5.73	94.27
				8/1/2006	7.08	92.92
				11/16/2006	5.78 ⁽⁴⁾	unknown
				2/21/2007	6.40 ⁽⁴⁾	unknown
				5/14/2007	5.32 ⁽⁴⁾	unknown
8/20/2007	7.06	92.94				
11/6/2007	6.31	93.69				
1/15/2008	5.65	94.35				

Explanation

bgs = below ground surface
 ft = Feet
 NC = Not calculated
 NM = Not measured
 TOC = Top of casing

- ⁽¹⁾ Elevation relative to MW-NE TOC
- ⁽²⁾ Groundwater depth anomolous due to broken casing
- ⁽³⁾ Casing has been repaired and extended
- ⁽⁴⁾ Casing has been repaired and cut down

Table 3. Groundwater Analytical Data Summary (March 1997 - January 2008) - ConocoPhillips Shepard and Kelsey #1

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
MW-1	3/20/1997	50.3	10.2	6.3	43.9
	6/12/1997	BDL	BDL	BDL	BDL
	9/16/1997	BDL	BDL	BDL	BDL
	12/5/1997	BDL	BDL	BDL	BDL
	3/13/1998	BDL	BDL	BDL	BDL
	6/9/1998	BDL	BDL	BDL	BDL
	9/14/1998	BDL	BDL	BDL	BDL
	8/20/2007	<0.5	<0.7	<0.8	<0.8
DG-MW	6/15/2001	BDL	BDL	BDL	BDL
	10/6/2003	BDL	BDL	BDL	BDL
	8/20/2007	<0.5	<0.7	0.9	7
UG-1	6/14/2001	BDL	BDL	BDL	BDL
	8/20/2007	<0.5	<0.7	<0.8	<0.8
UG-2	6/14/2001	BDL	BDL	BDL	BDL
	8/20/2007	<0.5	<0.7	<0.8	<0.8
MW-NE	6/15/2001	9.6	BDL	8.3	1.9
	9/19/2001	24	0.7	18	26.5
	12/13/2001	10	BDL	6	4.7
	3/12/2002	25	BDL	24	32
	6/19/2002	12	BDL	5.9	5.4
	9/17/2002	13	BDL	11	10.8
	3/20/2003	5.8	1.9	12	4.7
	6/11/2003	2.3	0.8	3.1	2.8
	10/6/2003	5	BDL	3.6	2.3
DG-1	6/15/2001	BDL	BDL	54	285
	9/19/2001	BDL	BDL	BDL	BDL
	12/13/2001	BDL	BDL	BDL	BDL
	3/12/2002	BDL	BDL	BDL	BDL
	6/19/2002	BDL	BDL	BDL	BDL
	9/17/2002	BDL	BDL	BDL	BDL
	3/20/2003	BDL	BDL	BDL	BDL
	6/11/2003	BDL	BDL	BDL	BDL
		10/6/2003	BDL	BDL	BDL
	8/20/2007	<0.5	<0.7	<0.8	<0.8

Table 3. Groundwater Analytical Data Summary (March 1997 - January 2008) - ConocoPhillips Shepard and Kelsey #1

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
SB-12	6/14/2001	42	5.5	72	370
	9/19/2001	111	BDL	120	810
	12/13/2001	28	BDL	63	322.9
	3/12/2002	64	BDL	56	211.4
	6/19/2002	130	BDL	76	380
	9/17/2002	40	BDL	51	245.1
	3/20/2003	53	10	41	213
	6/11/2003	370	BDL	19	53.8
	10/6/2003	6.1	BDL	30	182
	1/30/2004	12	BDL	16	74.2
	4/26/2004	45	BDL	21	100
	5/10/2005	24	<0.7	18	140
	11/21/2005	<0.5	<0.7	14	68
	2/17/2006	7	<0.7	4	12
	5/16/2006	12	<0.7	1	3
	8/1/2006	<0.5	<0.7	<0.8	<0.8
	11/16/2006	<0.5	<0.7	<0.8	<0.8
	2/21/2007	<0.5	<0.7	3	1
	5/14/2007	<0.5	<0.7	2	<0.8
	8/20/2007	<0.5	<0.7	<0.8	<0.8
11/6/2007	<0.5	<0.7	<0.8	<0.8	
1/15/2008	<0.5	<0.5	<0.5	<0.5	
NMWQCC Standards		10 (µg/L)	750 (µg/L)	750 (µg/L)	620 (µg/L)

Explanation

BDL = Below laboratory detection limits; detection limit not specified

<0.5 = Below laboratory detection limits

NMWQCC = New Mexico Water Quality Control Commission

µg/L = micrograms per liter (parts per billion)

APPENDIX A

Water Sampling Field Form



WATER SAMPLING FIELD FORM

Project Name Shephard & Kelsey #1

Page 1 of 1

Project No. 1158690041

Site Location Bloomfield, NM

Site/Well No. SB-12 Coded/
Replicate No. _____

Date 1/15/2008

Weather cold Time Sampling
Began 11:30

Time Sampling
Completed 12:10

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface _____ MP Elevation NA

Total Sounded Depth of Well Below MP 12.3 feet Water-Level Elevation NA

Held _____ Depth to Water Below MP 5.65 feet Diameter of Casing 2 inches

Wet _____ Water Column in Well 6.65 feet Gallons Pumped/Bailed
Prior to Sampling 3

Gallons per Foot 0.16

Gallons in Well 1.06 Sampling Pump Intake Setting
(feet below land surface) NA

Purging Equipment Dedicated disposable polyethylene bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (C°)	pH	Conductivity	ORP (mV)	TDS (g/L)	DO %	DO (mg/L)
1145	9.81	6.76	1391	-220.1	0.905	17.8	1.97
1150	10.90	7.09	1421	-204.3	0.924	27.7	2.96
1152	11.04	7.28	1444	-200.4	0.938	28.1	3.07

Sampling Equipment Dedicated disposable polyethylene bailer

Constituents Sampled	Container Description	Preservative
<u>BTEX</u>	<u>3 - 40 mL glass VOAs</u>	<u>HCl</u>
_____	_____	_____
_____	_____	_____

Remarks Duplicate sample collected; well water contained large quantities of black sediment and organic matter

Sampling Personnel Mitchell Crooks and Ana Moreno

Well Casing Volumes				
Gal./ft.	1 ¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1 ½" = 0.10	2 ½" = 0.24	3" ½ = 0.50	6" = 1.46

APPENDIX B

Laboratory Analytical Report



Analysis Report

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

ANALYTICAL RESULTS

Prepared for:

ConocoPhillips
PO Box 2200
Bartlesville OK 74005

Prepared by:

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

SAMPLE GROUP

The sample group for this submittal is 1074021. Samples arrived at the laboratory on Saturday, January 19, 2008. The PO# for this group is 4509350120 and the release number is LAUCKE.

Client Description

SB-12 Grab Water Sample
Trip Blank Water Sample

Lancaster Labs Number

5260852
5260853

ELECTRONIC Tetra Tech
COPY TO

Attn: Kelly Blanchard



Analysis Report

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

Questions? Contact your Client Services Representative
Barbara A Weyandt at (717) 656-2300

Respectfully Submitted,

A handwritten signature in cursive script that reads "Maria S. Lord".

Maria S. Lord
Senior Specialist



Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. 5260852 WW Group No. 1074021

SB-12 Grab Water Sample
Site# 6083
Shephard & Kelsey #1 - Bloomfield, NM

Collected: 01/15/2008 12:00 by MC

Account Number: 11288

Submitted: 01/19/2008 10:40
Reported: 02/12/2008 at 20:07
Discard: 03/14/2008

ConocoPhillips
PO Box 2200
Bartlesville OK 74005

SK-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
02300	GC/MS Volatiles						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	5.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	5.	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	5.	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	5.	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	5.	ug/l	1

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02300	GC/MS Volatiles	SW-846 8260B	1	01/22/2008 21:06	Matthew F Regan	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	01/22/2008 21:06	Matthew F Regan	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5260853 WW Group No. 1074021

 Trip Blank Water Sample
 Site# 6083
 Shephard & Kelsey #1 - Bloomfield, NM

Collected: 01/15/2008 12:15 by MC

Account Number: 11288

 Submitted: 01/19/2008 10:40
 Reported: 02/12/2008 at 20:07
 Discard: 03/14/2008

 ConocoPhillips
 PO Box 2200
 Bartlesville OK 74005

SK1TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
02300	GC/MS Volatiles						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	5.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	5.	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	5.	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	5.	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	5.	ug/l	1

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

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02300	GC/MS Volatiles	SW-846 8260B	1	01/22/2008 19:34	Matthew F Regan	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	01/22/2008 19:34	Matthew F Regan	1

*—This limit was used in the evaluation of the final result

Quality Control Summary

 Client Name: ConocoPhillips
 Reported: 02/12/08 at 08:07 PM

Group Number: 1074021

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: T080221AA	Sample number(s): 5260852-5260853								
Methyl Tertiary Butyl Ether	N.D.	0.5	5.	ug/l	105	104	73-119	1	30
Benzene	N.D.	0.5	5.	ug/l	101	96	78-119	5	30
Toluene	N.D.	0.7	5.	ug/l	106	103	85-115	3	30
Ethylbenzene	N.D.	0.8	5.	ug/l	100	101	82-119	1	30
Xylene (Total)	N.D.	0.8	5.	ug/l	103	101	83-113	1	30

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: T080221AA	Sample number(s): 5260852-5260853 UNSPK: P260403							
Methyl Tertiary Butyl Ether	101		69-127					
Benzene	101		83-128					
Toluene	108		83-127					
Ethylbenzene	102		82-129					
Xylene (Total)	103		82-130					

Surrogate Quality Control

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

 Analysis Name: GC/MS Volatiles
 Batch number: T080221AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5260852	98	95	106	112
5260853	100	97	104	106
Blank	99	97	107	108
LCS	96	96	107	110
LCSD	95	99	108	108
MS	96	97	107	110
Limits:	80-116	77-113	80-113	78-113

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

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

Lancaster Laboratories Explanation of Symbols and Abbreviations

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

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

U.S. EPA data qualifiers:

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

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

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

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