3R - 084

ANNUAL MONITORING REPORT

06/12/2005

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612 East Murray Drive ♦ Farmington, NM 87401-6624 ♦ (505) 325-5667 ♦ fax (505) 327-1496

February 21, 2005

3R0084

ConocoPhilips
Attn.: Mr. Neal Goates, RM&R Site Manager
Threadneedle Office.
PO Box 2197
Houston, TX 77252-2197

Project: 5114135

RE: 2004 Annual Ground water Monitoring Report
ConocoPhillips Location: Farmington B Com #1E
Unit 0, Sec. 15, T29N, R13W, NMPM, San Juan Co., NM

Dear Mr. Goates,

The following report summarizes the ground water remediation and monitoring activities conducted by Souder Miller and Associates (SMA) on behalf of ConocoPhillips, at the B Com 1E well location in Farmington, NM. See Figure 1-Site Vicinity Map and Figure 2-Site sketch. This report covers the calendar year of 2004, and follows the format outlined in the *Comprehensive Ground Water Remediation and Long-Term Monitoring Plan for Conoco Locations in the San Juan Basin, New Mexico* (hereafter known as the monitoring plan), submitted to the New Mexico Oil Conservation Division on October 15, 1997.

SUMMARY OF 2004 ACTIVITIES:

A Free Product Recovery event was conducted on January 22, 2004. Free product was still present in Monitoring Well 1 (MW #1) and approximately 0.029 g was recovered. This data is presented in Table 4-Free Product Recovery Log.

On January 22, 2004, in preparation for a pilot study discussed below, SMA collected ground water samples from monitoring wells MW-2 through MW-6. MW-1 was not sampled as it contained free product. The ground water depths are presented in Table 1-Ground water Level Summary, and the analytical results are presented in Table 2-BTEX Ground water Analytical Summary and Table 3- Added Parameters Ground Water Analytical Summary. Copies of the analytical results are included as an attachment to this report. Also included is Figure 3, the potentiometric surface map calculated from the measured ground water depths.

Free product was measured in MW-1 in February, March, and April of 2004. The measured thicknesses are presented in Table 4.

SMA conducted a free product recovery pilot test during May of 2004 to test the difference between the efficiencies of a passive vs. an active skimmer. The results of that test are discussed in *Free Product Recovery Pilot Study Report* dated June 3, 2004. A copy of this report is included as an attachment to this report. Also included is Figure 4, the potentiometric surface map calculated from the May 19, 2004, ground water depths.

Free product was measured in August 2004. The measured depth is presented in Table 4.

In October, November, and December SMA performed two total fluid removal events. During these events a down-hole pump was used to remove ground water and product from the well. The water was pumped into a trailer mounted poly tank and properly disposed at the Key Energy injection well located in the Crouch Mesa area, east of Farmington. Approximately 350 gallons of water and product was removed and disposed during the two events. The amount removed is presented in Table 4 and the disposal tickets are included as an attachment to this report

SAMPLING:

In accordance with the monitoring plan, water levels were measured in the monitoring wells prior to purging and sampling. Samples were collected, preserved, and transported in accordance with Environmental Protection Agency prescribed procedures and proper chain-of-custody protocol was followed. The laboratory analyses ordered followed the approved Conoco Ground Water Plan. The ground water samples collected on January 22, 2004, were also analyzed for Nitrogen as Nitrate and Nitrite, Phosphate as Phosphorous, Soluble Iron, Sulfates and Biological Oxygen Demand and Chemical Oxygen Demand in addition to BTEX. Copies of all laboratory reports for the calendar year 2004 along with all laboratory QA/QC documentation and chains-of-custody, are attached with this report.

Table 1 summarizes the monitoring well data and water levels measured during previous and current sampling events. Table 2 summarizes the laboratory results for BTEX compounds from ground water samples collected at the B Com 1E site. Table 3 summarizes the added parameters included in the analytical suite for samples collected during the January 22, 2004, sampling event. Table 4 summarizes the amount of free product, or free product and water recovered during each sampling event and the cumulative amount to date.

CONCLUSIONS:

The following conclusions are based on the 2004 ground water monitoring results and trends associated with Farmington B Com 1E well location:

1. Free product remains a problem in MW #1.
2. No hydrocarbons were detected above regulatory limits in MW-2 through MW-6.
3. The elevated COD levels detected in MW-6 are most likely a result of the hydrocarbon contamination in and around MW-1.

Recommendations:

1. More aggressive recovery techniques need to be implemented.
2. When the free product recovery has been completed, begin ground water monitoring of MW#1 until four consecutive quarters of water quality results at or below NMWQCC standards are recorded.
3. Perform a final sampling of all monitoring wells at the location prior to closure.
4. When ground water monitoring has been completed, submit a Final Pit Closure form to the NMOCD for approval.
5. Plug and abandon all monitoring wells at this location in accordance with current regulations.

LIMITATIONS AND CLOSURE:

This 2004 ground water report documents the results of ground water monitoring for the referenced ConocoPhillips well location. This report follows the Comprehensive Ground Water Remediation and Long-Term Monitoring Plan for Conoco Locations in the San Juan Basin, New Mexico, dated October 15, 1997, and approved by NMOCD on February 16,1998.

The scope of SMA's services consisted of project management, ground water sampling and analysis, periodic Free Product measurement and recovery, total fluid recovery and disposal, and preparation of this report. All work has been performed in accordance with generally accepted professional practices in petroleum and environmental engineering, and hydrogeology.

Souder, Miller and Associates has prepared this document for the exclusive use of ConocoPhillips Inc. as it pertains to the referenced well location operated by ConocoPhillips.

If there are any questions regarding this status report, please contact John Hagstrom, Walter Gage, or Reid Allan at Souder, Miller and Associates, (505) 325-5667. Thank you for your consideration.

Respectfully submitted,

Walter Gage
Geologist

Reviewed by:

Reid Allan
Senior Geologist

SOUDER MILLER AND ASSOCIATES

Attachments: Table 1: Ground water Level Summary
Table 2: BTEX Ground water Analytical Summary
Table 3: Added Parameters Ground Water Analytical Summary.
Table 4: Free Product Recovery Log
Figure 1: Site Vicinity Map
Figure 2: Site Map
Figure 3: Potentiometric Surface Map-1/22/04
Figure 4: Potentiometric Surface Map-5/19/04
Free Product Recovery Pilot Study Report
January 22, 2004 Analytical Results
Ground water disposal tickets

Acknowledgment:
CONOCOPHILLIPS, Inc.

Neal Scott / Site Manager
(Name/Title)

3/17/05
(Date)

REFERENCE:

On Site Technologies, Ltd., April 16, 1997, Letter to Mr. W. L. Brignon, Senior Council Conoco, Inc. Midland Division, regarding: Remediation Summary, Conoco Location, Farmington B Com #1E, Unit 0, Sec. 15, T29N, R13W, NMPM, San Juan Co., NM.

On Site Technologies, Ltd., February 1, 1998, Report to Ms. Shirley Ebert, Field SHEAR Specialist, Conoco, Inc. Mid-Continent Region, regarding: Annual Ground Water Report for 1997, Conoco Location, Farmington B Com #1E, Unit 0, Sec. 15, T29N, R13W, NMPM, San Juan Co., NM

On Site Technologies, Ltd., February 8, 1999, Report to Ms. Shirley Ebert, Field SHEAR Specialist, Conoco, Inc. Mid-Continent Region, regarding: Annual Ground Water Report for 1998, Conoco Location, Farmington B Com #1E, Unit 0, Sec. 15, T29N, R13W, NMPM, San Juan Co., NM

On Site Technologies, Ltd., January 7, 2000, Report to Ms. Shirley Ebert, Field SHEAR Specialist, Conoco, Inc. Mid-Continent Region, regarding: Annual Ground Water Report for 1999, Conoco Location, Farmington B Com #1E, Unit 0, Sec. 15, T29N, R13W, NMPM, San Juan Co., NM

Souder, Miller and Associates, February 18, 2003, Report to Mr. Neal Goates, Field SHEAR Specialist, Conoco, Inc. Mid-Continent Region, regarding: Annual Ground Water Report for 2002, Conoco Location, Farmington B Com #1E, Unit 0, Sec. 15, T29N, R13W, NMPM, San Juan Co., NM

Table 1
Ground Water Level Summary
Farmington B Com 1E
Unit O, Sec.15, T29N, R13W

Well Number	Top of Casing Elevation (ft)	Total Depth of Well (ft)	Well Type	Screen Interval (ft) (BGS)	Sample Date	Depth to Groundwater (ft) (BTOC)*	Relative Groundwater Elevation (ft)
MW #1	101.37	34.09	2" PVC	19.09 to 34.09	3/18/98	28.51	78.86
					6/12/98	27.07*	74.30
					7/13/98	25.75	75.62
					8/25/98	24.92	76.45
					9/15/98	25.06	76.32
					12/29/98	28.89	72.48
					3/3/99	28.38	72.99
					6/15/99	27.46	73.91
					9/15/9	27.95	73.42
					12/14/99	28.10	73.27
					3/27/00	27.58	73.79
					6/5/00	26.54	74.83
					9/11/00	24.54	76.83
					1/23/00	Not	Measured
					1/22/04	Not	Measured
					5/19/04	29.43	71.94
MW #2	101.57	33.72	2" PVC	18.72 to 33.72	3/18/98	27.81	72.76
					6/12/98	25.84	75.73
					7/13/98	24.49	77.08
					8/25/98	24.03	77.54
					9/15/98	24.18	77.39
					12/29/98	26.82	74.75
					3/3/99	28.57	73.00
					6/15/99	26.61	74.96
					9/15/99	26.27	75.30
					12/14/99	28.11	73.46
					3/27/00	27.66	73.91
					6/5/00	25.72	75.85
					9/11/00	23.57	78.00
					1/23/00	Not	Measured
					1/22/04	28.12	73.45
					5/19/04	27.54	74.03

BGS - approximate measurements taken as Below Ground Surface
BTOC - Below Top of Casing
NM - Not Measured

Table 1
Ground Water Level Summary
Farmington B Com 1E
Unit O, Sec.15, T29N, R13W

Well Number	Top of Casing Elevation (ft)	Total Depth of Well (ft)	Well Type	Screen Interval (ft) (BGS)	Sample Date	Depth to Groundwater (ft) (BTOC)*	Relative Groundwater Elevation (ft)
MW #3	102.1	32.44	2" PVC	17.44 to 32.44	3/19/98	28.84	73.26
					6/12/98	26.27	75.83
					7/13/98	25.09	77.01
					8/25/98	24.56	77.54
					9/15/98	24.85	77.25
					12/29/98	28.02	74.08
					3/3/99	29.89	72.21
					6/15/99	27.28	74.82
					9/15/99	27.22	74.88
					12/14/99	28.21	73.89
					3273/00	27.89	74.21
					6/5/00	26.32	75.78
					9/11/00	24.03	78.07
					1/23/00	Not	Measured
					1/22/04	29.36	72.74
					5/19/04	28.27	73.83
MW #4	101.4	32.72	2" PVC	17.72 to 32.72	8/25/98	24.99	76.41
					9/15/98	25.28	76.12
					12/29/98	29.01	72.39
					3/3/99	29.97	71.43
					6/15/99	27.89	73.51
					9/15/99	27.54	73.86
					12/14/99	28.46	72.94
					3/27/00	29.06	74.21
					6/5/00	26.92	74.48
					9/11/00	24.63	76.77
					1/23/00	Not	Measured
					1/22/04	29.16	72.24
					5/19/04	28.86	72.54

BGS - approximate measurements taken as Below Ground Surface
BTOC - Below Top of Casing
NM - Not Measured

Table 1
Ground Water Level Summary
Farmington B Com 1E
Unit O, Sec.15, T29N, R13W

Well Number	Top of Casing Elevation (ft)	Total Depth of Well (ft)	Well Type	Screen Interval (ft) (BGS)	Sample Date	Depth to Groundwater (ft) (BTOC)*	Relative Groundwater Elevation (ft)
MW #5	100.52	34.09	2" PVC	19.09 to 34.09	8/25/98	24.49	76.03
					9/15/98	24.83	75.96
					12/29/98	28.27	72.25
					3/3/99	29.71	70.81
					6/15/99	27.58	72.94
					9/15/99	27.17	73.35
					12/14/99	28.15	72.37
					3/27/00	28.96	71.56
					6/5/00	26.62	73.90
					9/11/00	24.29	76.23
					1/23/00	Not	Measured
					1/22/04	29.13	71.44
					5/19/04	28.57	71.95
MW #6	102.14	34.02	2" PVC	19.02 to 34.02	8/25/98	26.00	76.14
					9/15/98	26.19	75.95
					12/29/98	28.98	73.16
					3/3/99	30.71	71.43
					6/15/99	28.92	73.22
					9/15/99	28.36	73.78
					12/14/99	29.22	72.92
					3/27/00	33.37	68.77
					6/5/00	27.97	74.17
					9/11/00	25.72	76.42
					1/23/00	Not	Measured
					1/22/04	30.32	71.82
					5/19/04	29.95	72.19

BGS - approximate measurements taken as Below Ground Surface
BTOC - Below Top of Casing
NM - Not Measured

Table 2
BTEX Ground Water Analytical Summary
Farmington B Com 1E
Unit O, Sec. 15 T29N, R13W

Sample Date	Sample ID#	Monitor Well	Remarks	BTEX per EPA 8020 (ppb)			
				Benzene	Toluene	Ethylbenzene	Total-Xylene
2/19/98	9802020-01A	MW#1	On Site Lab.	210.0	34.0	370.0	2044.0
6/12/98	3" of free product	in the bailer					
9/15/98	Not Sampled	free product	in well				
12/29/98	9812053-04A			350.0	BDL	420	2800.0
No	Water	Samples	Taken	in	1999		
1/22/04	Not Sampled	free product	in well				
2/19/98	9802020-02A	MW#2	On Site Lab.	2.4	5.3	16.0	470.0
6/12/98	9806055-02A			0.8	2.7	32.0	171.0
9/15/98	9809035-01A			1.3	2.5	39.0	33.3
12/29/98	9812053-05A			BDL	0.6	2.1	35.0
3/3/99	9903012-05A			BDL	BDL	64	119.0
6/15/99	9906055-05A			BDL	BDL	BDL	BDL
9/15/99	9909054-05A			BDL	BDL	4.1	68.1
12/14/99	9912018-05A			BDL	BDL	1.8	36.4
1/22/04	0401011-004A		lina ba Lab	BDL	BDL	BDL	BDL
2/19/98	9802020-03A	MW#3	On Site Lab.	0.9	1.2	1.6	5.3
06/12/98	9806055-01A			BDL	BDL	0.5	2.0
9/15/98	9809035-02A			BDL	BDL	BDL	BDL
12/29/98	9812053-06A			BDL	BDL	BDL	BDL
3/3/99	9903012-04A			BDL	BDL	BDL	BDL
6/15/99	9906055-04A			BDL	0.9	3.1	56.0
9/15/99	9909054-04A			BDL	0.6	BDL	BDL
12/14/99	9912018-04A			BDL	BDL	BDL	BDL
1/22/04	0401011-002A		lina ba Lab	BDL	BDL	BDL	BDL
WQCC	Action	Levels		10.0	750.0	750.0	620.0

Table 2
BTEX Ground Water Analytical Summary
Farmington B Com 1E
Unit O, Sec. 15 T29N, R13W

Sample Date	Sample ID#	Monitor Well	Remarks	BTEX per EPA 8020 (ppb)			
9/15/98	9809035-03A	MW#4	On Site Lab.	BDL	BDL	BDL	BDL
12/29/98	9812053-03A			BDL	BDL	0.6	BDL
3/3/99	9903012-03A			BDL	BDL	BDL	BDL
6/15/99	9906055-03A			BDL	BDL	BDL	BDL
9/15/99	9909054-03A			BDL	BDL	BDL	BDL
12/14/99	9912018-03A			BDL	0.7	BDL	BDL
3/27/00	0003041-01A			BDL	BDL	BDL	BDL
6/5/00	0006009-02A			BDL	BDL	BDL	BDL
9/11/00	0009020*01A			BDL	BDL	BDL	BDL
1/22/04	0401011-003A		Iina ba Lab	BDL	BDL	BDL	BDL
9/15/98	9809035-04A	MW#5	On Site Lab.	BDL	BDL	BDL	BDL
12/29/98	9812053-02A			BDL	BDL	BDL	BDL
3/3/99	9903012-02A			BDL	BDL	BDL	BDL
6/15/99	9906055-02A			BDL	BDL	BDL	BDL
9/15/99	9909054-02A			BDL	BDL	BDL	BDL
12/14/99	9912018-02A			BDL	0.8	BDL	BDL
3/27/00	0003041-02A			BDL	BDL	BDL	BDL
6/5/00	0006009-01A			BDL	BDL	BDL	BDL
12/14/99	9912018-05A			BDL	BDL	1.8	36.4
1/22/04	0401011-005A		Iina ba Lab	BDL	BDL	BDL	BDL
9/15/98	9809035-05A	MW#6	On Site Lab.	BDL	BDL	BDL	BDL
12/29/98	9812053-01A			BDL	BDL	BDL	BDL
3/3/99	9903012-01A			BDL	BDL	BDL	BDL
6/15/99	9906055-01A			BDL	BDL	BDL	BDL
9/15/99	9909054-01A			BDL	0.7	1.1	BDL
12/14/99	9912018-01A			BDL	1.8	0.7	1.9
1/22/04	0401011-006A		Iina ba Lab	BDL	BDL	BDL	BDL
WQCC	Action	Levels		10.0	750.0	750.0	620.0

Table 2
BTEX Ground Water Analytical Summary
Farmington B Com 1E
Unit O, Sec. 15 T29N, R13W

Sample Date	Sample ID#	Monitor Well	Remarks	Anions ppm	Iron ppm	BOD	COD
1/22/04		MW#1	lina ba Lab	Not Sampled			
1/22/04	0401011-004	MW#2		65.1	BDL		
1/22/04	0401011-002	MW#3		73.3	BDL		
1/22/04	0401011-003	MW#4		67.7	BDL		
1/22/04	0401011-005	MW#5		86.8	BDL		
1/22/04	0401011-006	MW#6		28.2	0.194		

Table 3
Added Parameters Ground Water Analytical Summary
Farmington B Com 1E
Unit O, Sec. 15 T29N, R13W

Sample Date	Sample ID#	Monitor Well	Additional Sampling Parameters (ppm)						
			Iron	Nitrogen/ Nitrite	Nitrogen/ Nitrate	Sulfate	Phosphorus	BOD	COD
1/22/04	Not Sampled	MW-1	NS	NS	NS	NS	NS	NS	NS
1/22/04	0401011-004	MW-2	BDL	BDL	2.10	65.1	0.036	BDL	BDL
1/22/04	0401011-002	MW-3	BDL	BDL	0.384	73.3	BDL	BDL	3.00
1/22/04	0401011-003	MW-4	BDL	BDL	3.19	67.7	BDL	BDL	BDL
1/22/04	0401011-005	MW-5	BDL	BDL	4.02	86.8	BDL	BDL	BDL
1/22/04	0401011-006	MW-6	0.194	BDL	BDL	28.2	BDL	2.85	39.0

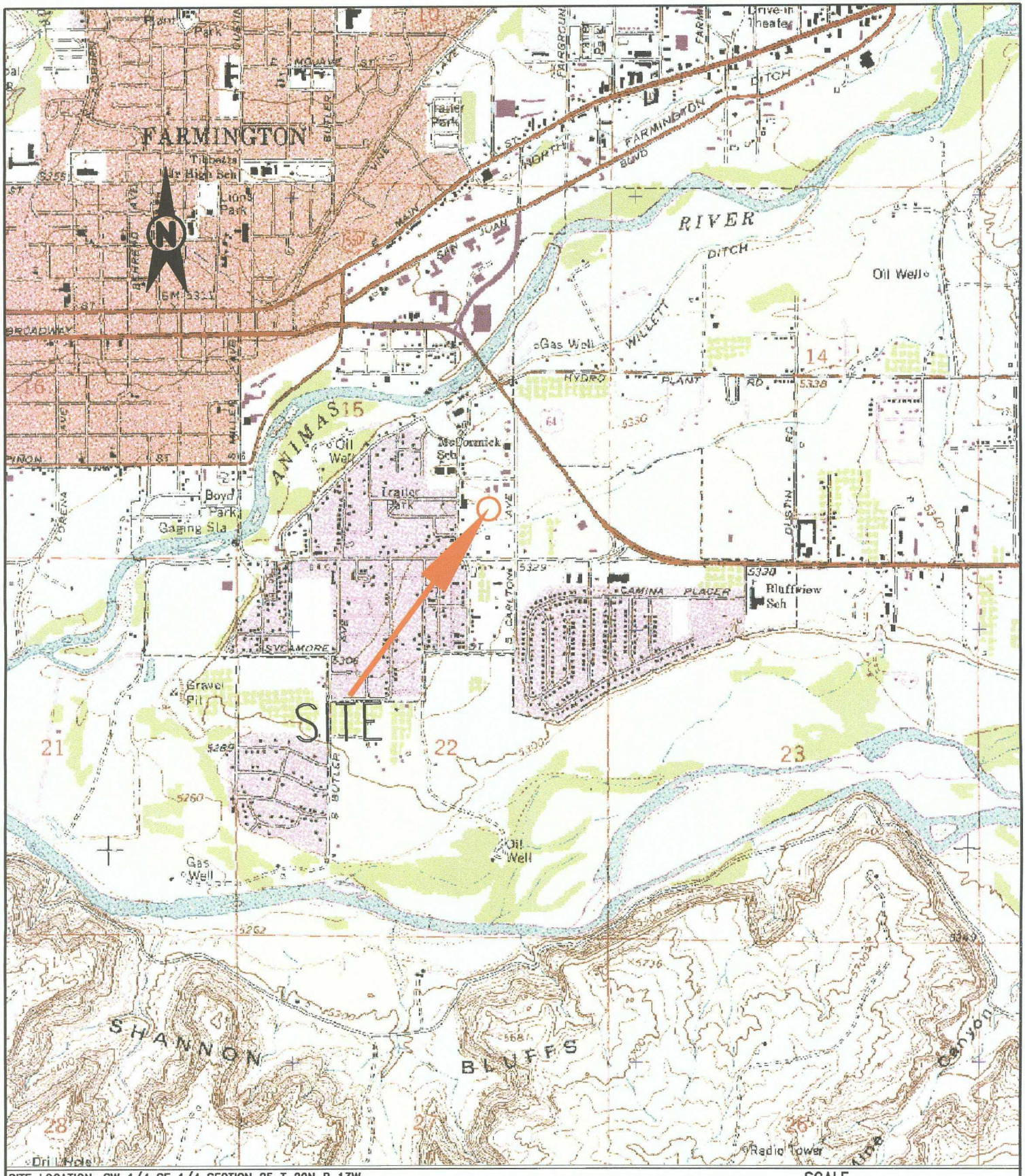
BDL: Below Detection Limits
NS: Not Sampled
BOD: Biological Oxygen Demand
COD: Chemical Oxygen Demand

Farmington B Com 1E
Unit O, Sec. 30, T29N, R11W
Free Product Recovery Log
Table 4

Date	Time	Amount Recorded		Name
		Removed	Cumulative	
4/19/00	1230	0.34 Gallons	0.34 Gallons	Larry Trujillo
4/27/00	0900	0.08 Gallons	0.42 Gallons	Larry Trujillo
5/30/00	1230	0.033 Gallons	0.453 Gallons	Larry Trujillo
12/6/00	1300	0.098 Gallons	0.551 Gallons	Larry Trujillo
3/20/01	1230	0.13 Gallons	0.681 Gallons	John Hagstrom
6/15/01	1120	0.024 Gallons	0.705 Gallons	John Hagstrom
9/18/01	1215	0.024 Gallons	0.729 Gallons	John Hagstrom
12/13/01	0930	0.12 Gallons	0.849 Gallons	John Hagstrom
3/12/02	1315	0.04 Gallons	0.889 Gallons	John Hagstrom
6/19/02	1310	NMP	0.889 Gallons	John Hagstrom
9/17/02	1100	NMP	0.889 Gallons	John Hagstrom
1/2/03	1110	NMP	0.889 Gallons	John Hagstrom
3/20/03	1325	0.01 Gallons	0.899 Gallons	John Hagstrom
1/22/04 *	1215	0.029 Gallons	0.928 Gallons	Walter Gage
2/11/04	1330	0.05 inches of free product in well		John Hagstrom
3/11/04	1230	0.02 inches of free product in well		John Hagstrom
4/6/04	1330	0.06 inches of free product in well		John Hagstrom
5/3/04	1030	0.05 inches of free product in well		John Hagstrom
5/10/04	1300	NMP in well 75ml collected		John Hagstrom
5/17/04	1300	NMP		John Hagstrom
5/19/04	1400	NMP		John Hagstrom
5/24/04	1430	NMP		John Hagstrom
8/4/04	1200	NMP		John Hagstrom
10/29/04	1615	160 gallons water and product removed		Walter Gage
11/1/04	1540	40 gallons water and product removed		Walter Gage
11/12/04	1200	NMP		Walter Gage
11/29/04	1200	0.01 inches of free product in well		Walter Gage
12/3/04	1554	150 gallons water and product removed		Walter Gage
12/27/04	1200	0.04 inches of free product in well		John Hagstrom

NMP: No Measurable Product

*: Skimmer removed from service for bail down test



SITE LOCATION: SW 1/4 SE 1/4 SECTION 25 T 29N R 13W
SOURCE MAP: FARMINGTON SOUTH USGS QUADRANGLE

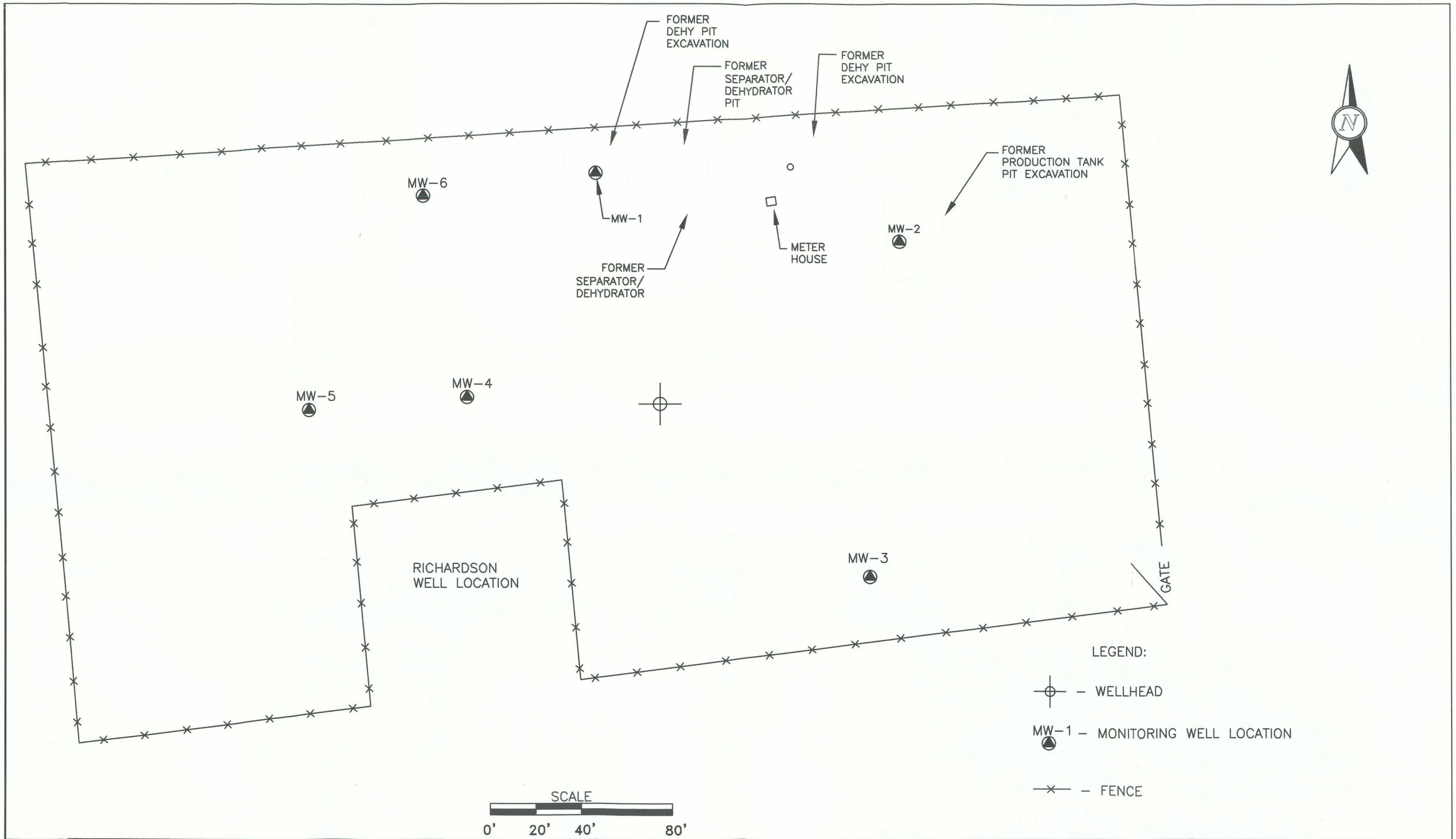
SCALE
0' 1000' 2000' 4000'

SMA
Civil / Environmental Scientists & Engineers
612 E. MURRAY DR. PH. (505) 325-5667
FARMINGTON, NM 87401 FAX (505) 327-1496

APPROVED: WG	DATE: 2/10/05
DRAWN BY: TLONG	DATE: 2/10/05
REVISIONS BY:	DATE:
PROJECT # 5114135	FIGURE: 1

VICINITY MAP
CONCOPHILLIPS
B COM 1 E
FARMINGTON, NEW MEXICO

5114135CONOCPHILLIPS/BCOM1E/DWG/SITEMAP



SMA
Civil / Environmental Scientists & Engineers
612 E. MURRAY DR.
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PH. (505) 325-5667
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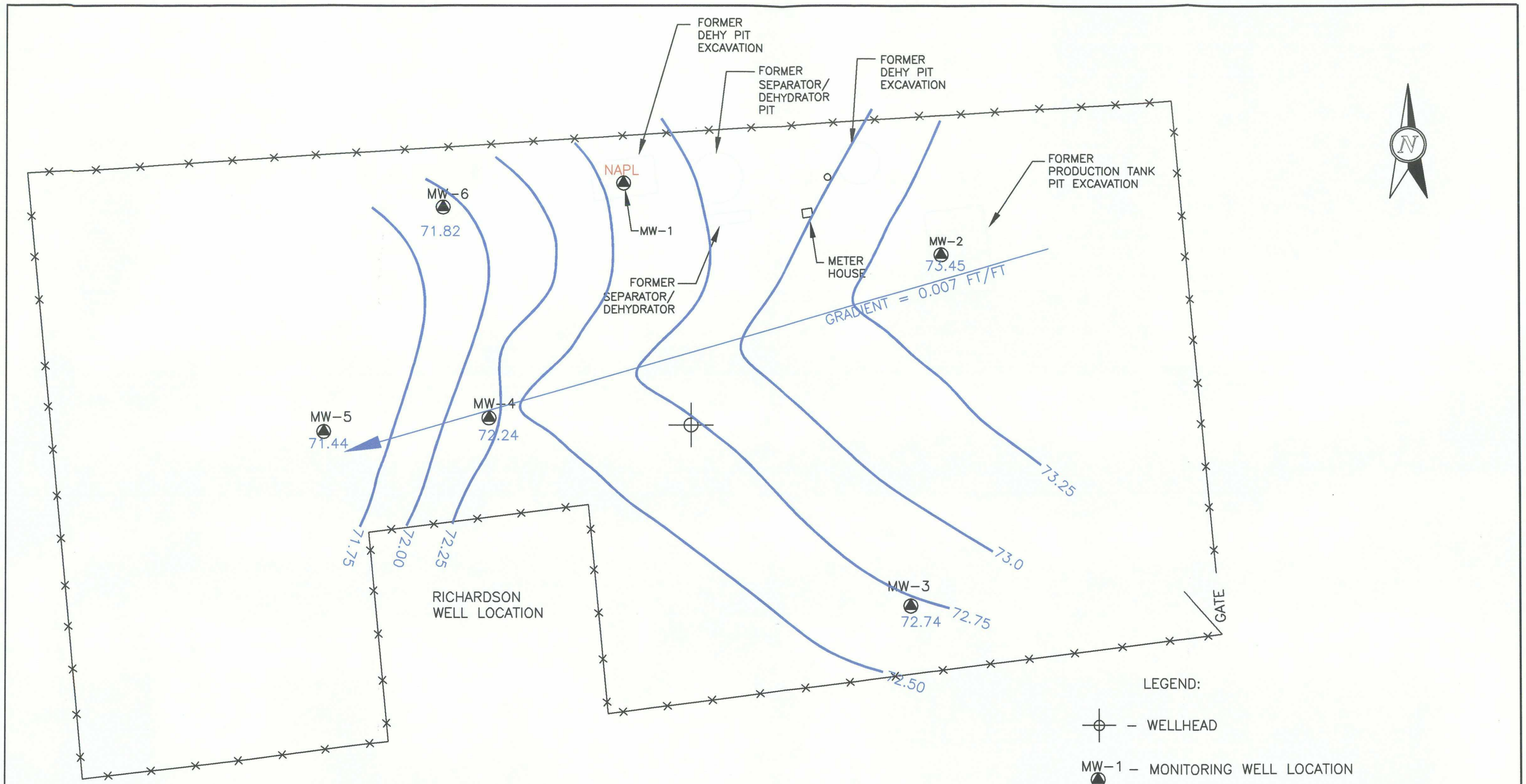
DRAWN BY: JNAKAI	DATE: 1/23/04
REVISIONS BY: TLONG	DATE: 2/10/05
APPROVED: WG	DATE: 2/10/05

CONOCOPHILLIPS
B COM 1E
FARMINGTON, NM

SITE MAP

PROJECT # 5114135 | FIGURE: 2



SMA
Civil / Environmental Scientists & Engineers
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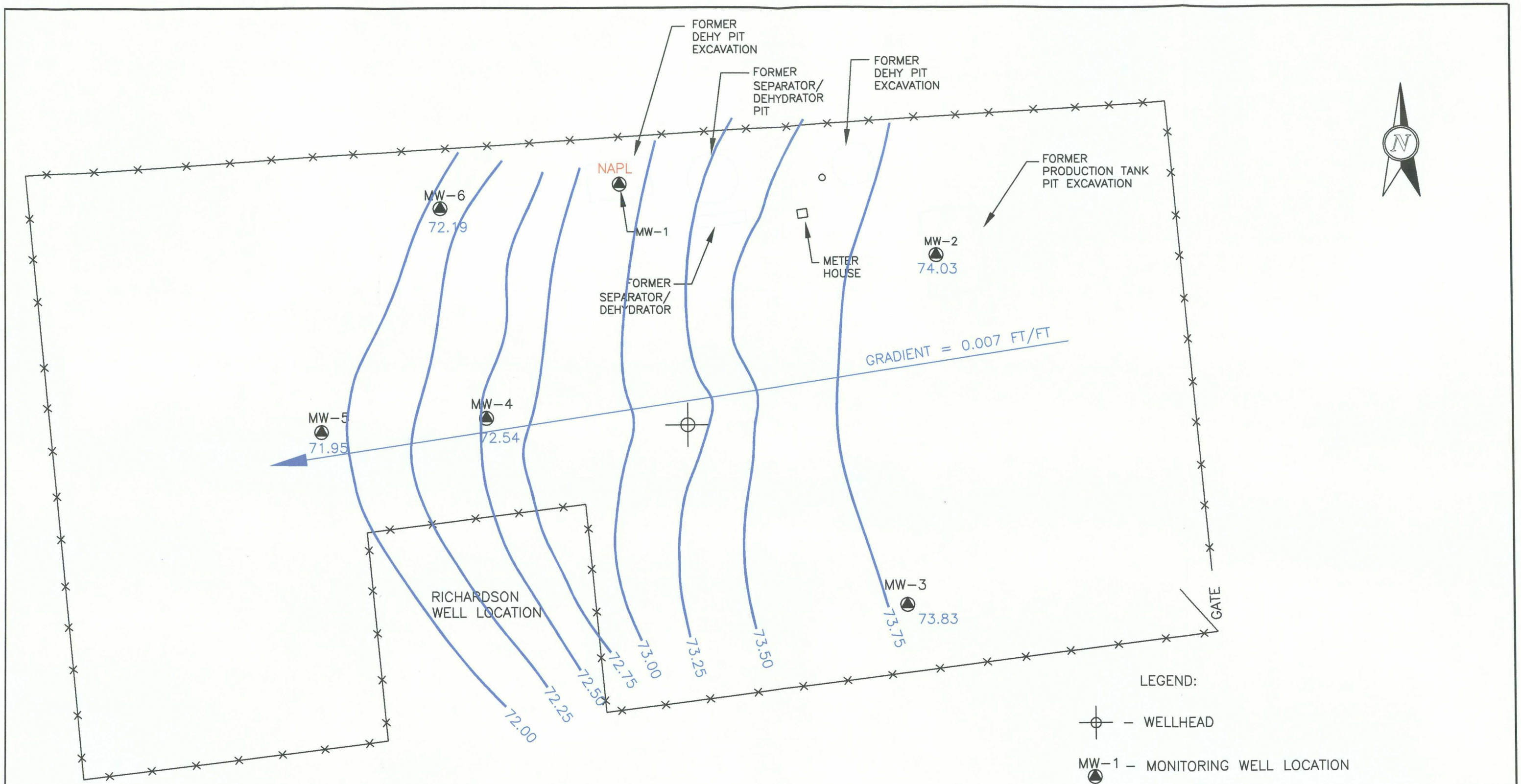
DRAWN BY: JNAKAI	DATE: 1/23/04
REVISIONS BY: TLONG	DATE: 2/10/05
APPROVED: WG	DATE: 2/10/05

CONOCOPHILLIPS
B COM 1E
FARMINGTON, NM

POTENTIOMETRIC SURFACE MAP
1/22/04

PROJECT NO: 5114135

FIGURE: 3



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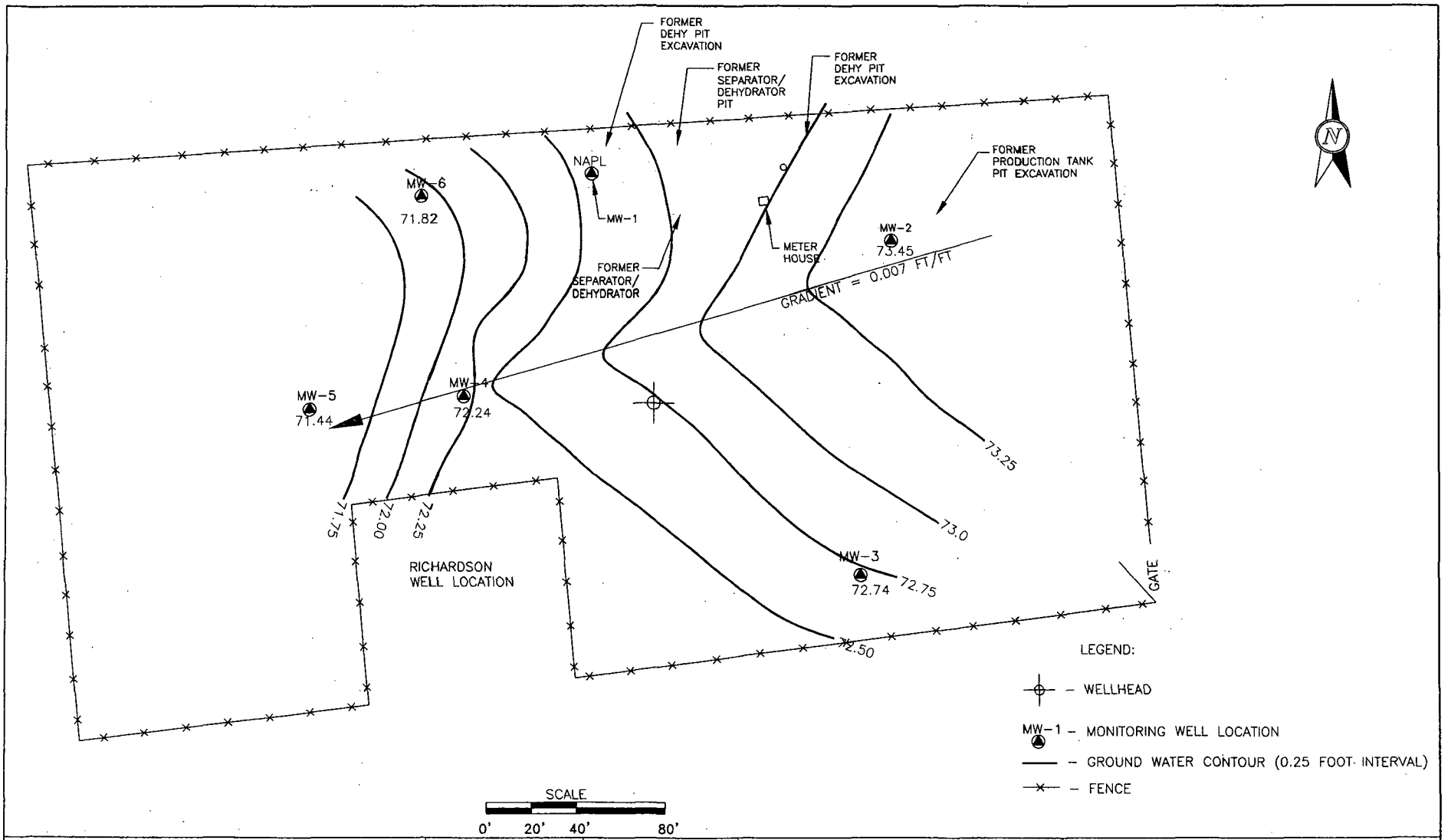
DRAWN BY: JNAKAI	DATE: 1/23/04
REVISIONS BY: TLONG	DATE: 2/10/05
APPROVED: WG	DATE: 2/10/05

CONOCOPHILLIPS
B COM 1E
FARMINGTON, NM

POTENTIOMETRIC SURFACE MAP
5/19/04

PROJECT NO: 5114135

FIGURE: 4



SMA
Civil / Environmental Scientists & Engineers
612 E. MURRAY DR.
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DRAWN BY: JNAKAI	DATE: 1/23/04
REVISIONS BY: TLONG	DATE: 2/10/05
APPROVED: WG	DATE: 2/10/05

CONOCOPHILLIPS
B COM 1E
FARMINGTON, NM

POTENTIOMETRIC SURFACE MAP
1/22/04

PROJECT NO: 5114135 | FIGURE: 3

Souder, Miller & Associates • P.O. Box 2606 • Farmington, NM 87499-2606
612 East Murray Drive • Farmington, NM 87401-6624 • (505) 325-5667 • fax (505) 327-1496

June 3, 2004

Attn.: Mr. Neal Goates, RM&R Site Manager
Threadneedle Office.
PO Box 2197
Houston, TX 77252-2197

RE: Free Product Recovery Pilot Study Report SMA Project: 5114135
ConocoPhillips Location: Farmington B Com #1E COP Site: 6079
Unit 0, Sec. 15, T29N, R13W, NMPM, San Juan Co., NM

Dear Mr. Goates,

The following report summarizes the activities associated with the Free Product Recovery Pilot Study conducted by Souder Miller and Associates (SMA) on behalf of ConocoPhillips, at the B Com 1E location in Farmington, NM.

SUMMARY OF ACTIVITIES:

Free product is still present in Monitoring Well 1 (MW #1). Historically a passive skimmer has been used for recovery efforts in MW-1. This pilot study compared free product recovery using a passive skimmer versus a gas operated Xytek active skimmer. Each skimmer was installed in MW-1 for a period of 7 days.

To assess the current conditions at the site, Monitoring Wells 2, 3, 4, 5, and 6 were sampled on January 22, 2004. The data obtained from this sampling event will be used to propose a more aggressive remediation effort at this location to ConocoPhillips. During the January 2004 sampling event, the passive skimmer was removed from MW-1 to assess the amount of free product migrating into the well. The skimmer was put back in service May 3, 2004, for the pilot study. The free product level in MW-1 was measured before installing the skimmer. There were approximately 0.07 inches of free product on the ground water in MW-1. The passive skimmer was taken out of service on May 10, 2004. 75 milliliters of free product was recovered during this 7-day period. No measurable free product was found in MW-1 after removing the skimmer.

The gas operated Xytek skimmer was installed in MW-1 on May 17, 2004, after letting the well recover for 7 days. No measurable free product was found in MW-1 before installing the active skimmer. The skimmer was programmed to run once a day, for 20 minutes per event. On May 19, 2004, the active skimmer was inspected. The skimmer had collected no free product up to this time. The skimmer was removed from MW-1 for inspection, a coating of free product was noted on the skimmer. Well MW-1 showed no measurable free product at this time; the active skimmer was re- installed in MW-1. The active skimmer was removed from service on May 24, 2004. No free product was measured in MW-1 after removing the skimmer. No free product was recovered by the active skimmer during this 7-day study.

SUMMARY AND CONCLUSIONS:

The following conclusions are based on the Free Product Recovery Pilot Study results and trends associated with Farmington B Com 1E well location:

1. The presence of low levels of free product remains a problem in MW #1.
2. Phase separation of free product on the ground water is occurring at a rate too slow for active skimming to be a viable means of recovery.

Recommendations:

1. More aggressive recovery techniques may be appropriate.
2. SMA recommends a pilot study to determine the value of a vacuum enhanced free product recovery using an active skimmer in MW-1. SMA has at its disposal a self contained, mobile vacuum pump, which could be used to implement the pilot study.

LIMITATIONS AND CLOSURE:

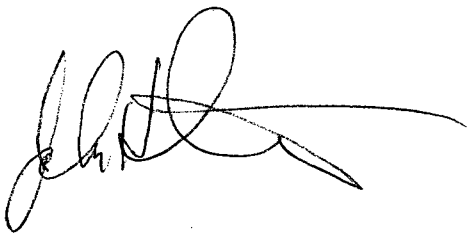
This Free Product Recovery Pilot Study Report documents the results of the pilot study for the Farmington B Com 1E well location.

This document has been prepared by Souder Miller and Associates for the exclusive use of ConocoPhillips Inc. as it pertains to the referenced well location.

If there are any questions regarding this status report, please contact either John Hagstrom or Cynthia Gray at Souder Miller and Associates, (505) 325-5667. Thank you for your consideration.

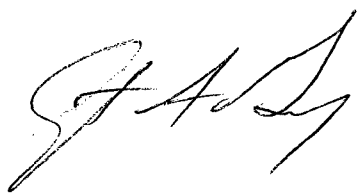
Souder Miller and Associates

Respectfully submitted,



John Hagstrom
Environmental technician

Reviewed by:



Cynthia A. Gray, CHMM
Project Manager

Attachments: Table 4: Free Product Recovery

Farmington B Com 1E
Unit O, Sec. 30, T29N, R11W
Free Product Recovery Log
Table 4

Date	Time	Amount Recorded		Name
		Removed	Cumulative	
4/19/00	1230	0.34 Gallons	0.34 Gallons	Larry Trujillo
4/27/00	0900	0.08 Gallons	0.42 Gallons	Larry Trujillo
5/30/00	1230	0.033 Gallons	0.453 Gallons	Larry Trujillo
12/6/00	1300	0.098 Gallons	0.551 Gallons	Larry Trujillo
3/20/01	1230	0.13 Gallons	0.681 Gallons	John Hagstrom
6/15/01	1120	0.024 Gallons	0.705 Gallons	John Hagstrom
9/18/01	1215	0.024 Gallons	0.729 Gallons	John Hagstrom
12/13/01	0930	0.12 Gallons	0.849 Gallons	John Hagstrom
3/12/02	1315	0.04 Gallons	0.889 Gallons	John Hagstrom
6/19/02	1310	NMP	0.889 Gallons	John Hagstrom
9/17/02	1100	NMP	0.889 Gallons	John Hagstrom
1/2/03	1110	NMP	0.889 Gallons	John Hagstrom
3/20/03	1325	0.01 Gallons	0.899 Gallons	John Hagstrom
1/22/04 *	1215	0.029 Gallons	0.928 Gallons	Walter Gage
2/11/04	1330	0.05 inches of free product in well		John Hagstrom
3/11/04	1230	0.02 inches of free product in well		John Hagstrom
4/6/04	1330	0.06 inches of free product in well		John Hagstrom
5/3/04	1030	0.05 inches of free product in well		John Hagstrom
5/10/04	1300	NMP in well 75ml collected		John Hagstrom
5/17/04	1300	NMP		John Hagstrom
5/19/04	1400	NMP		John Hagstrom
5/24/04	1430	NMP		John Hagstrom

NMP: No Measurable Product

*: Skimmer removed from service for bail down test

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January 30, 2004

John Hagstrom
Souder, Miller & Associates
612 E. Murray Drive
P.O. Box 2606
Farmington, NM 87401

TEL: 505-325-1556
FAX 505-327-1496

RE: 5114135; Conoco Phillips

Order No.: 0401011

Dear John Hagstrom:

iiná bá, Ltd. received 6 samples on 1/22/2004 for the analyses presented in the following report.

This certificate of analysis includes the Analytical Report(s) for the sample(s) received by the laboratory. A Quality Control Summary Report, the Sample Receipt Checklist and an executed Chain of Custody are included as an addendum to this report.

Should you have any questions regarding this certificate of analysis, please contact the laboratory at your convenience.

Report Approved By: _____

David Cox
Laboratory Manager

Heidi Reese
Quality Assurance Officer

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iiná bá, Ltd.

Date: *30-Jan-04*

CLIENT: Souder, Miller & Associates
Project: 5114135; Conoco Phillips
Lab Order: 0401011

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s), the quality control summary report(s) or the sample receipt checklist.

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ANALYTICAL REPORT

Date: *30-Jan-04*

CLIENT:	Souder, Miller & Associates	**Client Sample Info:**	B COM 1E
Work Order:	0401011	**Client Sample ID:**	Trip Blank
Project:	5114135; Conoco Phillips	**Collection Date:**	1/22/2004 9:00:00 AM
Lab ID:	0401011-001	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **JEM**
Benzene	ND	0.5		µg/L	1	1/26/2004
Ethylbenzene	ND	0.5		µg/L	1	1/26/2004
m,p-Xylene	ND	1.0		µg/L	1	1/26/2004
o-Xylene	ND	0.5		µg/L	1	1/26/2004
Toluene	ND	0.5		µg/L	1	1/26/2004

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit (PQL)
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

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ANALYTICAL REPORT

Date: *30-Jan-04*

CLIENT:	Souder, Miller & Associates	**Client Sample Info:**	B COM 1E
Work Order:	0401011	**Client Sample ID:**	MW3
Project:	5114135; Conoco Phillips	**Collection Date:**	1/22/2004 12:00:00 PM
Lab ID:	0401011-002	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **JEM**
Benzene	ND	0.5		µg/L	1	1/26/2004
Ethylbenzene	ND	0.5		µg/L	1	1/26/2004
m,p-Xylene	ND	1.0		µg/L	1	1/26/2004
o-Xylene	ND	0.5		µg/L	1	1/26/2004
Toluene	ND	0.5		µg/L	1	1/26/2004
ICP METALS, DISSOLVED		**E200.7**		**(E200.7)**		Analyst: **DWC**
Iron	ND	0.180		mg/L	1	1/23/2004
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **HNR**
Nitrogen, Nitrite (as N)	ND	0.030		mg/L	1	1/23/2004
Nitrogen, Nitrate (as N)	0.384	0.023		mg/L	1	1/23/2004
Nitrogen, Nitrate-Nitrite (as N)	0.384	0.023		mg/L	1	1/23/2004
Sulfate	73.3	2.00		mg/L	20	1/26/2004
Phosphorus, Dissolved Orthophosphate (as P)	ND	0.033		mg/L	1	1/23/2004

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit (PQL)
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

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ANALYTICAL REPORT

Date: *30-Jan-04*

CLIENT:	Souder, Miller & Associates	**Client Sample Info:**	B COM 1E
Work Order:	0401011	**Client Sample ID:**	MW4
Project:	5114135; Conoco Phillips	**Collection Date:**	1/22/2004 12:35:00 PM
Lab ID:	0401011-003	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **JEM**
Benzene	ND	0.5		µg/L	1	1/26/2004
Ethylbenzene	ND	0.5		µg/L	1	1/26/2004
m,p-Xylene	ND	1.0		µg/L	1	1/26/2004
o-Xylene	ND	0.5		µg/L	1	1/26/2004
Toluene	ND	0.5		µg/L	1	1/26/2004
ICP METALS, DISSOLVED		**E200.7**		**(E200.7)**		Analyst: **DWC**
Iron	ND	0.180		mg/L	1	1/23/2004
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **HNR**
Nitrogen, Nitrite (as N)	ND	0.150		mg/L	5	1/23/2004
Nitrogen, Nitrate (as N)	3.19	0.115		mg/L	5	1/23/2004
Nitrogen, Nitrate-Nitrite (as N)	3.19	0.115		mg/L	5	1/23/2004
Sulfate	67.7	2.00		mg/L	20	1/26/2004
Phosphorus, Dissolved Orthophosphate (as P)	ND	0.033		mg/L	1	1/23/2004

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit (PQL)
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

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ANALYTICAL REPORT

Date: *30-Jan-04*

CLIENT:	Souder, Miller & Associates	**Client Sample Info:**	B COM 1E
Work Order:	0401011	**Client Sample ID:**	MW2
Project:	5114135; Conoco Phillips	**Collection Date:**	1/22/2004 2:05:00 PM
Lab ID:	0401011-004	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **JEM**
Benzene	ND	0.5		µg/L	1	1/26/2004
Ethylbenzene	ND	0.5		µg/L	1	1/26/2004
m,p-Xylene	ND	1.0		µg/L	1	1/26/2004
o-Xylene	ND	0.5		µg/L	1	1/26/2004
Toluene	ND	0.5		µg/L	1	1/26/2004
ICP METALS, DISSOLVED		**E200.7**		**(E200.7)**		Analyst: **DWC**
Iron	ND	0.180		mg/L	1	1/23/2004
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **HNR**
Nitrogen, Nitrite (as N)	ND	0.030		mg/L	1	1/23/2004
Nitrogen, Nitrate (as N)	2.10	0.023		mg/L	1	1/23/2004
Nitrogen, Nitrate-Nitrite (as N)	2.10	0.023		mg/L	1	1/23/2004
Sulfate	65.1	2.00		mg/L	20	1/26/2004
Phosphorus, Dissolved Orthophosphate (as P)	0.036	0.033		mg/L	1	1/23/2004

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit (PQL)
J - Analyte detected below Practical Quantitation Limit
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* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

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ANALYTICAL REPORT

Date: *30-Jan-04*

CLIENT:	Souder, Miller & Associates	**Client Sample Info:**	B COM 1E
Work Order:	0401011	**Client Sample ID:**	MW5
Project:	5114135; Conoco Phillips	**Collection Date:**	1/22/2004 1:10:00 PM
Lab ID:	0401011-005	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **JEM**
Benzene	ND	0.5		µg/L	1	1/26/2004
Ethylbenzene	ND	0.5		µg/L	1	1/26/2004
m,p-Xylene	ND	1.0		µg/L	1	1/26/2004
o-Xylene	ND	0.5		µg/L	1	1/26/2004
Toluene	ND	0.5		µg/L	1	1/26/2004
ICP METALS, DISSOLVED		**E200.7**		**(E200.7)**		Analyst: **DWC**
Iron	ND	0.180		mg/L	1	1/23/2004
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **HNR**
Nitrogen, Nitrite (as N)	ND	0.150		mg/L	5	1/23/2004
Nitrogen, Nitrate (as N)	4.02	0.115		mg/L	5	1/23/2004
Nitrogen, Nitrate-Nitrite (as N)	4.02	0.115		mg/L	5	1/23/2004
Sulfate	86.8	2.50		mg/L	25	1/26/2004
Phosphorus, Dissolved Orthophosphate (as P)	ND	0.033		mg/L	1	1/23/2004

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit (PQL)
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

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ANALYTICAL REPORT

Date: *30-Jan-04*

CLIENT:	Souder, Miller & Associates	**Client Sample Info:**	B COM 1E
Work Order:	0401011	**Client Sample ID:**	MW 6
Project:	5114135; Conoco Phillips	**Collection Date:**	1/22/2004 1:30:00 PM
Lab ID:	0401011-006	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **JEM**
Benzene	ND	0.5		µg/L	1	1/26/2004
Ethylbenzene	ND	0.5		µg/L	1	1/26/2004
m,p-Xylene	ND	1.0		µg/L	1	1/26/2004
o-Xylene	ND	0.5		µg/L	1	1/26/2004
Toluene	ND	0.5		µg/L	1	1/26/2004
ICP METALS, DISSOLVED		**E200.7**		**(E200.7)**		Analyst: **DWC**
Iron	0.194	0.180		mg/L	1	1/23/2004
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **HNR**
Nitrogen, Nitrite (as N)	ND	0.030		mg/L	1	1/23/2004
Nitrogen, Nitrate (as N)	ND	0.023		mg/L	1	1/23/2004
Nitrogen, Nitrate-Nitrite (as N)	ND	0.023		mg/L	1	1/23/2004
Sulfate	28.2	0.500		mg/L	5	1/26/2004
Phosphorus, Dissolved Orthophosphate (as P)	ND	0.033		mg/L	1	1/23/2004

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit (PQL)
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

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Date: *10-Feb-05*

CLIENT: Souder, Miller & Associates
Work Order: 0401011
Project: 5114135; Conoco Phillips

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.7_DW

Sample ID	MB_577	SampType:	MBLK	TestCode:	200.7_DW	Units:	mg/L	Prep Date:	1/23/2004	Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	577	TestNo:	E200.7		(E200.7)	Analysis Date:	1/23/2004	SeqNo:	76700

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	0.180									

Sample ID	LCS_577	SampType:	LCS	TestCode:	200.7_DW	Units:	mg/L	Prep Date:	1/23/2004	Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	577	TestNo:	E200.7		(E200.7)	Analysis Date:	1/23/2004	SeqNo:	76701

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.5035	0.180	0.5	0	101	85	115	0	0		

Sample ID	LCSD_577	SampType:	LCSD	TestCode:	200.7_DW	Units:	mg/L	Prep Date:	1/23/2004	Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	577	TestNo:	E200.7		(E200.7)	Analysis Date:	1/23/2004	SeqNo:	76702

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.5063	0.180	0.5	0	101	85	115	0.5035	0.567	20	

Sample ID	0401005-001BMS	SampType:	MS	TestCode:	200.7_DW	Units:	mg/L	Prep Date:	1/23/2004	Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	577	TestNo:	E200.7		(E200.7)	Analysis Date:	1/23/2004	SeqNo:	76704

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.4928	0.180	0.5	0	98.6	80	120	0	0		

Sample ID	0401005-001BMSD	SampType:	MSD	TestCode:	200.7_DW	Units:	mg/L	Prep Date:	1/23/2004	Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	577	TestNo:	E200.7		(E200.7)	Analysis Date:	1/23/2004	SeqNo:	76705

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.4923	0.180	0.5	0	98.5	80	120	0.4928	0.0965	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0401011
Project: 5114135; Conoco Phillips

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.7_DW

Sample ID	CCB1_040123	SampType:	CCB	TestCode:	200.7_DW	Units:	mg/L	Prep Date:		Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	R5316	TestNo:	E200.7			Analysis Date:	1/23/2004	SeqNo:	76719

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	0.180	0	0	0	0	0	0	0		

Sample ID	CCB2_040123	SampType:	CCB	TestCode:	200.7_DW	Units:	mg/L	Prep Date:		Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	R5316	TestNo:	E200.7			Analysis Date:	1/23/2004	SeqNo:	76722

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	0.180	0	0	0	0	0	0	0		

Sample ID	CCB3_040123	SampType:	CCB	TestCode:	200.7_DW	Units:	mg/L	Prep Date:		Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	R5316	TestNo:	E200.7			Analysis Date:	1/23/2004	SeqNo:	76724

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.0001	0.180	0	0	0	0	0	0	0		

Sample ID	CCV1_040123	SampType:	CCV	TestCode:	200.7_DW	Units:	mg/L	Prep Date:		Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	R5316	TestNo:	E200.7			Analysis Date:	1/23/2004	SeqNo:	76720

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.1966	0.180	0.2	0	98.3	90	110	0	0		

Sample ID	CCV3_040123	SampType:	CCV	TestCode:	200.7_DW	Units:	mg/L	Prep Date:		Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	R5316	TestNo:	E200.7			Analysis Date:	1/23/2004	SeqNo:	76725

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.1933	0.180	0.2	0	96.7	95	105	0	0		

Sample ID	ICV_040123	SampType:	ICV	TestCode:	200.7_DW	Units:	mg/L	Prep Date:		Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	R5316	TestNo:	E200.7			Analysis Date:	1/23/2004	SeqNo:	76721

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0401011
Project: 5114135; Conoco Phillips

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.7_DW

Sample ID	ICV_040123	SampType:	ICV	TestCode:	200.7_DW	Units:	mg/L	Prep Date:		Run ID:	ICP_1_040123A
Client ID:	ZZZZZ	Batch ID:	R5316	TestNo:	E200.7			Analysis Date:	1/23/2004	SeqNo:	76721

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1.009	0.180	1	0	101	95	105	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0401011
Project: 5114135; Conoco Phillips

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W

Sample ID **MBLK_040123** SampType: **MBLK** TestCode: **300_W** Units: **mg/L** Prep Date: Run ID: **IC-761_040123A**
Client ID: **ZZZZZ** Batch ID: **R5315** TestNo: **E300** Analysis Date: **1/23/2004** SeqNo: **76685**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	ND	0.0230									
Nitrogen, Nitrate-Nitrite (as N)	ND	0.0230									
Nitrogen, Nitrite (as N)	ND	0.0300									
Phosphorus, Dissolved Orthophosphat	ND	0.0330									

Sample ID **MBLK_040126** SampType: **MBLK** TestCode: **300_W** Units: **mg/L** Prep Date: Run ID: **IC-761_040126A**
Client ID: **ZZZZZ** Batch ID: **R5319** TestNo: **E300** Analysis Date: **1/26/2004** SeqNo: **76756**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	0.02	0.100									J

Sample ID **LCS_040123** SampType: **LCS** TestCode: **300_W** Units: **mg/L** Prep Date: Run ID: **IC-761_040123A**
Client ID: **ZZZZZ** Batch ID: **R5315** TestNo: **E300** Analysis Date: **1/23/2004** SeqNo: **76687**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	0.534	0.0230	0.565	0	94.5	90	110	0	0		
Nitrogen, Nitrate-Nitrite (as N)	1.277	0.0230	1.326	0	96.3	90	110	0	0		
Nitrogen, Nitrite (as N)	0.743	0.0300	0.761	0	97.6	90	110	0	0		
Phosphorus, Dissolved Orthophosphat	0.8	0.0330	0.815	0	98.2	90	110	0	0		

Sample ID **LCS_040126** SampType: **LCS** TestCode: **300_W** Units: **mg/L** Prep Date: Run ID: **IC-761_040126A**
Client ID: **ZZZZZ** Batch ID: **R5319** TestNo: **E300** Analysis Date: **1/26/2004** SeqNo: **76758**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	0.535	0.0230	0.565	0	94.7	90	110	0	0		
Nitrogen, Nitrite (as N)	0.74	0.0300	0.761	0	97.2	90	110	0	0		
Sulfate	2.612	0.100	2.5	0.02	104	94	108	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0401011
Project: 5114135; Conoco Phillips

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W

Sample ID 0401011-003BMS	SampType: MS	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_040123A
Client ID: MW4	Batch ID: R5315	TestNo: E300		Analysis Date: 1/23/2004	SeqNo: 76692

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	5.885	0.115	2.825	3.19	95.4	80	120	0	0		
Nitrogen, Nitrate-Nitrite (as N)	9.515	0.115	6.63	3.19	95.4	80	120	0	0		
Nitrogen, Nitrite (as N)	3.63	0.150	3.805	0	95.4	80	120	0	0		
Phosphorus, Dissolved Orthophosphat	3.84	0.165	4.075	0	94.2	80	120	0	0		

Sample ID 0401011-003BMS	SampType: MS	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_040126A
Client ID: MW4	Batch ID: R5319	TestNo: E300		Analysis Date: 1/26/2004	SeqNo: 76762

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	117.9	2.00	50	67.68	100	87	110	0	0		

Sample ID 0401011-002BD	SampType: DUP	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_040123A
Client ID: MW3	Batch ID: R5315	TestNo: E300		Analysis Date: 1/23/2004	SeqNo: 76689

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	0.383	0.0230	0	0	0	0	0	0.384	0.261	15	
Nitrogen, Nitrate-Nitrite (as N)	0.383	0.0230	0	0	0	0	0	0.384	0.261	15	
Nitrogen, Nitrite (as N)	ND	0.0300	0	0	0	0	0	0	0	15	
Phosphorus, Dissolved Orthophosphat	0.012	0.0330	0	0	0	0	0	0.011	0	15	J

Sample ID 0401011-002BD	SampType: DUP	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_040126A
Client ID: MW3	Batch ID: R5319	TestNo: E300		Analysis Date: 1/26/2004	SeqNo: 76760

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	73.1	2.00	0	0	0	0	0	73.26	0.219	6.7	

Sample ID CCV1_040123	SampType: CCV	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_040123A
Client ID: ZZZZZ	Batch ID: R5315	TestNo: E300		Analysis Date: 1/23/2004	SeqNo: 76686

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0401011
Project: 5114135; Conoco Phillips

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W

Sample ID	SampType	TestCode	Units	Prep Date	Run ID
CCV1_040123	CCV	300_W	mg/L		IC-761_040123A
Client ID: ZZZZZ	Batch ID: R5315	TestNo: E300		Analysis Date: 1/23/2004	SeqNo: 76686

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	1.064	0.0230	1.129	0	94.2	90	110	0	0		
Nitrogen, Nitrate-Nitrite (as N)	2.556	0.0230	2.652	0	96.4	90	110	0	0		
Nitrogen, Nitrite (as N)	1.492	0.0300	1.523	0	98	90	110	0	0		
Phosphorus, Dissolved Orthophosphat	1.59	0.0330	1.631	0	97.5	90	110	0	0		

Sample ID	SampType	TestCode	Units	Prep Date	Run ID
CCV2_040123	CCV	300_W	mg/L		IC-761_040123A
Client ID: ZZZZZ	Batch ID: R5315	TestNo: E300		Analysis Date: 1/23/2004	SeqNo: 76699

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (as N)	0.529	0.0230	0.565	0	93.6	90	110	0	0		
Nitrogen, Nitrate-Nitrite (as N)	1.276	0.0230	1.326	0	96.2	90	110	0	0		
Nitrogen, Nitrite (as N)	0.747	0.0300	0.761	0	98.2	90	110	0	0		
Phosphorus, Dissolved Orthophosphat	0.781	0.0330	0.815	0	95.8	90	110	0	0		

Sample ID	SampType	TestCode	Units	Prep Date	Run ID
CCV1_040126	CCV	300_W	mg/L		IC-761_040126A
Client ID: ZZZZZ	Batch ID: R5319	TestNo: E300		Analysis Date: 1/26/2004	SeqNo: 76757

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	4.926	0.100	5	0	98.5	90	110	0	0		

Sample ID	SampType	TestCode	Units	Prep Date	Run ID
CCV2_040126	CCV	300_W	mg/L		IC-761_040126A
Client ID: ZZZZZ	Batch ID: R5319	TestNo: E300		Analysis Date: 1/26/2004	SeqNo: 76768

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	2.604	0.100	2.5	0	104	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0401011
Project: 5114135; Conoco Phillips

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEX_W

Sample ID MB_040126	SampType: MBLK	TestCode: BTEX_W	Units: µg/L	Prep Date:	Run ID: GC-1_040126A
Client ID: ZZZZZ	Batch ID: R5320	TestNo: SW8021B		Analysis Date: 1/26/2004	SeqNo: 76779

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.1535	0.50									J
Ethylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
o-Xylene	0.1731	0.50									J
Toluene	0.411	0.50									J
Surr: 1,4-Difluorobenzene	104.6	0	100	0	105	87	124	0	0		
Surr: 4-Bromochlorobenzene	102.5	0	100	0	102	75	139	0	0		
Surr: Fluorobenzene	102.3	0	100	0	102	86	119	0	0		

Sample ID LCS1_040126	SampType: LCS	TestCode: BTEX_W	Units: µg/L	Prep Date:	Run ID: GC-1_040126A
Client ID: ZZZZZ	Batch ID: R5320	TestNo: SW8021B		Analysis Date: 1/26/2004	SeqNo: 76778

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.86	0.50	40	0.1535	96.8	86	114	0	0		
Ethylbenzene	40.51	0.50	40	0	101	85	116	0	0		
m,p-Xylene	82.01	1.0	80	0	103	89	114	0	0		
o-Xylene	40.85	0.50	40	0.1731	102	86	114	0	0		
Toluene	40.74	0.50	40	0.411	101	87	112	0	0		
Surr: 1,4-Difluorobenzene	103.8	0	100	0	104	87	124	0	0		
Surr: 4-Bromochlorobenzene	106.3	0	100	0	106	75	139	0	0		
Surr: Fluorobenzene	101.9	0	100	0	102	86	119	0	0		

Sample ID 0401011-004AMS	SampType: MS	TestCode: BTEX_W	Units: µg/L	Prep Date:	Run ID: GC-1_040126A
Client ID: MW2	Batch ID: R5320	TestNo: SW8021B		Analysis Date: 1/26/2004	SeqNo: 76780

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	193.8	2.5	200	0.5875	96.6	81	116	0	0		
Ethylbenzene	201.7	2.5	200	0.4495	101	85	115	0	0		
m,p-Xylene	409.3	5.0	400	0	102	84	117	0	0		
o-Xylene	203.3	2.5	200	0.429	101	84	113	0	0		
Toluene	202.7	2.5	200	1.297	101	88	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0401011
Project: 5114135; Conoco Phillips

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEX_W

Sample ID 0401011-004AMS	SampType: MS	TestCode: BTEX_W	Units: µg/L	Prep Date:	Run ID: GC-1_040126A
Client ID: MW2	Batch ID: R5320	TestNo: SW8021B		Analysis Date: 1/26/2004	SeqNo: 76780

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,4-Difluorobenzene	523.5	0	500	0	105	87	124	0	0		
Surr: 4-Bromochlorobenzene	535.5	0	500	0	107	75	139	0	0		
Surr: Fluorobenzene	511.3	0	500	0	102	86	119	0	0		

Sample ID 0401011-004AMSD	SampType: MSD	TestCode: BTEX_W	Units: µg/L	Prep Date:	Run ID: GC-1_040126A
Client ID: MW2	Batch ID: R5320	TestNo: SW8021B		Analysis Date: 1/26/2004	SeqNo: 76781

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	202.3	2.5	200	0.5875	101	78	111	193.8	4.30	7	
Ethylbenzene	210.9	2.5	200	0.4495	105	82	111	201.7	4.43	6.9	
m,p-Xylene	427.7	5.0	400	0	107	80	113	409.3	4.40	6.8	
o-Xylene	210.9	2.5	200	0.429	105	83	110	203.3	3.68	6.4	
Toluene	211.8	2.5	200	1.297	105	84	110	202.7	4.40	6.3	
Surr: 1,4-Difluorobenzene	520.5	0	500	0	104	87	124	0	0	0	
Surr: 4-Bromochlorobenzene	540.7	0	500	0	108	75	139	0	0	0	
Surr: Fluorobenzene	509.5	0	500	0	102	86	119	0	0	0	

Sample ID CCV1_040126	SampType: CCV	TestCode: BTEX_W	Units: µg/L	Prep Date:	Run ID: GC-1_040126A
Client ID: ZZZZZ	Batch ID: R5320	TestNo: SW8021B		Analysis Date: 1/26/2004	SeqNo: 76776

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.36	0.50	20	0	102	85	115	0	0		
Ethylbenzene	21.21	0.50	20	0	106	85	115	0	0		
m,p-Xylene	42.45	1.0	40	0	106	85	115	0	0		
o-Xylene	21.18	0.50	20	0	106	85	115	0	0		
Toluene	21.37	0.50	20	0	107	85	115	0	0		
Surr: 1,4-Difluorobenzene	104.1	0	100	0	104	87	124	0	0		
Surr: 4-Bromochlorobenzene	104.7	0	100	0	105	75	139	0	0		
Surr: Fluorobenzene	102.3	0	100	0	102	86	119	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Souder, Miller & Associates
Work Order: 0401011
Project: 5114135; Conoco Phillips

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEX_W

Sample ID	CCV2_040126	SampType:	CCV	TestCode:	BTEX_W	Units:	µg/L	Prep Date:		Run ID:	GC-1_040126A
Client ID:	ZZZZZ	Batch ID:	R5320	TestNo:	SW8021B			Analysis Date:	1/26/2004	SeqNo:	76777

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.63	0.50	40	0	102	85	115	0	0		
Ethylbenzene	42.1	0.50	40	0	105	85	115	0	0		
m,p-Xylene	85.28	1.0	80	0	107	85	115	0	0		
o-Xylene	42.31	0.50	40	0	106	85	115	0	0		
Toluene	42.45	0.50	40	0	106	85	115	0	0		
Surr: 1,4-Difluorobenzene	104	0	100	0	104	87	124	0	0		
Surr: 4-Bromochlorobenzene	105.8	0	100	0	106	75	139	0	0		
Surr: Fluorobenzene	102.2	0	100	0	102	86	119	0	0		

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

iiná bá, Ltd.

Sample Receipt Checklist

Client Name: **SMA1005**

Date and Time Received: **1/22/2004**

Work Order Number: **0401011**

Received by: JEM

Checklist completed by: D. Moore 1/23/04 (Signature / Date)

Reviewed by: KR 1/23/04 (Initials / Date)

Matrix:

Carrier name: John Hagstrom

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? _____ Checked by: _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

iiná bá, Ltd.
612 E. Murray Drive
Farmington, NM 87401
(505) 327-1072

CHAIN-OF-CUSTODY RECORD

Subcontractor:

Test America, Inc.
2960 Foster Creighton Drive
Nashville, TN 372040566

TEL: (800) 765-0980
FAX: (615) 726-3404

Acct #: 3130

22-Jan-04

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests						
				E405.1	E410.4					
0401011-002D	Aqueous	1/22/2004 12:00:00 PM	125HDPEH2SO4		1					
0401011-002E	Aqueous	1/22/2004 12:00:00 PM	1LHDPE	1						
0401011-003D	Aqueous	1/22/2004 12:35:00 PM	125HDPEH2SO4		1					
0401011-003E	Aqueous	1/22/2004 12:35:00 PM	1LHDPE	1						
0401011-004D	Aqueous	1/22/2004 2:05:00 PM	125HDPEH2SO4		1					
0401011-004E	Aqueous	1/22/2004 2:05:00 PM	1LHDPE	1						
0401011-005D	Aqueous	1/22/2004 1:10:00 PM	125HDPEH2SO4		1					
0401011-005E	Aqueous	1/22/2004 1:10:00 PM	1LHDPE	1						
0401011-006D	Aqueous	1/22/2004 1:30:00 PM	125HDPEH2SO4		1					
0401011-006E	Aqueous	1/22/2004 1:30:00 PM	1LHDPE	1						

Comments: Please analyze 5 (five) samples for chemical oxygen demand (COD) and bichemical oxygen demand (COD) using tests E405.1 and E410.4.

		Date/Time		Date/Time
Relinquished by:	J. Moore	1/22/04 15:45	**Received by:**	
Relinquished by:			**Received by:**	

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

1/29/04 CASE NARRATIVE

IINA BA, LTD 3130
DAVE COX
612 E. MURRAY DRIVE
FARMINGTON, NM 87401

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name:
Project Number: .
Laboratory Project Number: 361646.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
0401011-002DE	04-A9270	1/22/04
0401011-003DE	04-A9271	1/22/04
0401011-004DE	04-A9272	1/22/04
0401011-005DE	04-A9273	1/22/04
0401011-006DE	04-A9274	1/22/04

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: E L Smith Report Date: 1/29/04

Ashley Morris, Lab Director
Michael H. Dunn, M.S., QA/QC Director
Johnny A. Mitchell, Operations Manager Organics
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

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ANALYTICAL REPORT

IINA BA, LTD 3130
DAVE COX
612 E. MURRAY DRIVE
FARMINGTON, NM 87401

Project:
Project Name:
Sampler:

Lab Number: 04-A9272
Sample ID: 0401011-004DE
Sample Type: Water
Site ID:

Date Collected: 1/22/04
Time Collected: 14:05
Date Received: 1/23/04
Time Received: 8:05
Page: 1

B COM 1E; MW2 1/30/04

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
BOD Set Up					1/23/04	23:55			
BOD 5 Day	ND	mg/l	2.00	1	1/28/04	22:00	J. Hill	405.1	5604
MISCELLANEOUS CHEMISTRY									
Chemical Oxygen Demand	ND	mg/l	3.00	1	1/23/04	12:03	S. Duncan	410.4 Mod	5363

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = COD method modified for HACH Method 8000.
BOD: Both unseeded blanks are elevated.

End of Sample Report.

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ANALYTICAL REPORT

IINA BA, LTD 3130
DAVE COX
612 E. MURRAY DRIVE
FARMINGTON, NM 87401

Project:
Project Name:
Sampler:

Lab Number: 04-A9270
Sample ID: 0401011-002DE
Sample Type: Water
Site ID:

Date Collected: 1/22/04
Time Collected: 12:00
Date Received: 1/23/04
Time Received: 8:05
Page: 1

B COM 1E; MW3 1/30/04

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
BOD Set Up					1/23/04	23:55			
BOD 5 Day	ND	mg/l	2.00	1	1/28/04	22:00	J. Hill	405.1	5604
MISCELLANEOUS CHEMISTRY									
Chemical Oxygen Demand	3.00	mg/l	3.00	1	1/23/04	12:03	S. Duncan	410.4 Mod	5363

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = COD method modified for HACH Method 8000.
BOD: Both unseeded blanks are elevated.

End of Sample Report.

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ANALYTICAL REPORT

IINA BA, LTD 3130
DAVE COX
612 E. MURRAY DRIVE
FARMINGTON, NM 87401

Project:
Project Name:
Sampler:

Lab Number: 04-A9271
Sample ID: 0401011-003DE
Sample Type: Water
Site ID:

Date Collected: 1/22/04
Time Collected: 12:35
Date Received: 1/23/04
Time Received: 8:05
Page: 1

B COM 1E; MW4 1/30/04

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
BOD Set Up					1/23/04	23:55			
BOD 5 Day	ND	mg/l	2.00	1	1/28/04	22:00	J. Hill	405.1	5604
MISCELLANEOUS CHEMISTRY									
Chemical Oxygen Demand	ND	mg/l	3.00	1	1/23/04	12:03	S. Duncan	410.4 Mod	5363

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = COD method modified for HACH Method 8000.
BOD: Both unseeded blanks are elevated.

End of Sample Report.

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ANALYTICAL REPORT

IINA BA, LTD 3130
DAVE COX
612 E. MURRAY DRIVE
FARMINGTON, NM 87401

Project:
Project Name:
Sampler:

Lab Number: 04-A9273
Sample ID: 0401011-005DE
Sample Type: Water
Site ID:

Date Collected: 1/22/04
Time Collected: 13:10
Date Received: 1/23/04
Time Received: 8:05
Page: 1

B COM 1E; MW5 #8 1/30/04

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
BOD Set Up					1/23/04	23:55			
BOD 5 Day	ND	mg/l	2.00	1	1/28/04	22:00	J. Hill	405.1	5604
MISCELLANEOUS CHEMISTRY									
Chemical Oxygen Demand	ND	mg/l	3.00	1	1/23/04	12:03	S. Duncan	410.4 Mod	5363

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = COD method modified for HACH Method 8000.
BOD: Both unseeded blanks are elevated.

End of Sample Report.

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ANALYTICAL REPORT

IINA BA, LTD 3130
DAVE COX
612 E. MURRAY DRIVE
FARMINGTON, NM 87401

Project:
Project Name:
Sampler:

Lab Number: 04-A9274
Sample ID: 0401011-0062DE
Sample Type: Water
Site ID:

Date Collected: 1/22/04
Time Collected: 13:30
Date Received: 1/23/04
Time Received: 8:05
Page: 1

B COM 1E; MW6 1/30/04

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
BOD Set Up					1/23/04	23:55			
BOD 5 Day	2.85	mg/l	2.00	1	1/28/04	22:00	J. Hill	405.1	5604
MISCELLANEOUS CHEMISTRY									
Chemical Oxygen Demand	39.0	mg/l	3.00	1	1/23/04	12:03	S. Duncan	410.4 Mod	5363

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = COD method modified for HACH Method 8000.
BOD: Both unseeded blanks are elevated.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number:
Project Name:
Page: 1
Laboratory Receipt Date: 1/23/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
MISC PARAMETERS						
Chemical Oxygen Demand	mg/l	20.0	20.0	100	90 - 110	5363
BOD 5 Day	mg/l	198.	219.	111	85 - 115	5604

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Project QC continued . . .

TestAmerica
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PROJECT QUALITY CONTROL DATA
Project Number:
Project Name:
Page: 2
Laboratory Receipt Date: 1/23/04

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Chemical Oxygen Demand	mg/l	45700	46300	1.30	15.	5363	04-A9300
BOD 5 Day	mg/l	4.11	3.62	12.68	15.	5604	04-A9256
BOD 5 Day	mg/l	2.85	2.12	29.38 #	15.	5604	04-A9274

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
MISC PARAMETERS					
Chemical Oxygen Demand	< 3.00	mg/l	5363	1/23/04	12:03
BOD 5 Day	< 2.00	mg/l	5604	1/28/04	22:00

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 361646

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM BC# 361646

Client: IJ&A BA, CTO

Cooler Received On: 1-23-04 And Opened On: 1-23-04 By: MARVIN BLUMHOEFER

(Signature)

1. Temperature of Cooler when opened 3.0 **Degrees Celsius** 8105
2. Were custody seals on outside of cooler?.....YES...NO....NA
   a. If yes, how many, what kind and where: 1 Back
3. Were custody seals on containers and intact?.....NO...YES...NA
4. Were the seals intact, signed, and dated correctly?.....YES...NO...NA
5. Were custody papers inside cooler?.....YES...NO...NA
6. Were custody papers properly filled out (ink,signed,etc)?.....YES...NO...NA
7. Did you sign the custody papers in the appropriate place?.....YES...NO...NA
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Cooling process: Ice Ice pack Ice(direct contact) Dry ice Other None
10. Did all containers arrive in good condition(unbroken)?.....YES...NO...NA
11. Were all container labels complete (#,date,signed,pres,etc)?.....YES...NO...NA
12. Did all container labels and tags agree with custody papers?.....YES...NO...NA
13. Were correct containers used for the analysis requested?.....YES...NO...NA
14. a. Were VOA vials received?.....YES...NO...NA
    b. Was there any observable head space present in any VOA vial?.....NO...YES...NA
15. Was sufficient amount of sample sent in each container?.....YES...NO...NA
16. Were correct preservatives used?.....YES...NO...NA
    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?.....NO...YES...NA
18. See attached for resolution of non-conformance:

Fed-Ex UPS Velocity Airborne Route Off-street Misc.

iiná bá, Ltd.
612 E. Murray Drive
Farmington, NM 87401
(505) 327-1072

361646

CHAIN-OF-CUSTODY RECORD

Subcontractor:

Test America, Inc.
2960 Foster Creighton Drive
Nashville, TN 372040566

TEL: (800) 765-0980
FAX: (615) 726-3404

Acct #: 3130

22-Jan-04

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests E405.1	E410.4	
0401011-002D	Aqueous	1/22/2004 12:00:00 PM	125HDPEH2SO4		1	9270
0401011-002E	Aqueous	1/22/2004 12:00:00 PM	1LHDPE	1		
0401011-003D	Aqueous	1/22/2004 12:35:00 PM	125HDPEH2SO4		1	9271
0401011-003E	Aqueous	1/22/2004 12:35:00 PM	1LHDPE	1		
0401011-004D	Aqueous	1/22/2004 2:05:00 PM	125HDPEH2SO4		1	9272
0401011-004E	Aqueous	1/22/2004 2:05:00 PM	1LHDPE	1		
0401011-005D	Aqueous	1/22/2004 1:10:00 PM	125HDPEH2SO4		1	9273
0401011-005E	Aqueous	1/22/2004 1:10:00 PM	1LHDPE	1		
0401011-006D	Aqueous	1/22/2004 1:30:00 PM	125HDPEH2SO4		1	9274
0401011-006E	Aqueous	1/22/2004 1:30:00 PM	1LHDPE	1		

Comments: Please analyze 5 (five) samples for chemical oxygen demand (COD) and bichemical oxygen demand (COD) using tests E405.1 and E410.4.

	Date/Time		Date/Time
Relinquished by: J. Moore	1/22/04 15:45	Received by:	1-23-4 8105
Relinquished by:		Received by:	

iiná bá (for life's sake)
612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
Phone: (505) 327-1072 • Fax: (505) 327-1496

CHAIN OF CUSTODY RECORD

3580

Date 1/22/04

Page 1 of 1

REPORT RESULTS TO:
Report to: W. GAGE / J HAGSTROM
Company:
Address:
City:
Phone:
Fax:
Email:

SEND INVOICE TO:
PO No.:
Job No.: 5114135
Name:
Company:
Address:
City:

Turnaround Time:
10 days (normal) ✓
24-48 hours (100%) ____
3-5 days (50%) ____

Sample Integrity
Intact ____
On Ice ____

Subcontract
Yes ____
No ____

Sampling Location: B COM 1E CONOCOPHILLIPS

Analysis Requested

Sample Identification	Sample Date	Sample Time	Matrix	Pres.	Number of Containers	COD	BOD	TDS DISSOLVED FE	BTEX	NO2/NO3 PO4/SO4				Lab ID
MW3	1/22/04	1200	H2O	H2SO4 HCL	7	X	X	X	X	X				0401011-002
MW4	↓	1235	↓	↓	7	X	X	X	X	X				-003
MW2	↓	1405	↓	↓	7	X	X	X	X	X				-004
MW5	↓	1310	↓	↓	7	X	X	X	X	X				-005
MW6	↓	1330	↓	↓	7	X	X	X	X	X				-006
TRIP BLANK	↓	0900	↓	↓	2				X					0401011-001

Relinquished by: [signature]	Date/Time: 1/22/04 1500	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

Comments:

92675

Key Energy Services, Inc.

Four Corners

WATER DISPOSAL (505) 334-6186

County Road 3500
Crouch Mesa Bypass

P.O. Box 900
Farmington, NM 87499

KEY ENERGY SERVICES, INC. Reserves the right to refuse any material being hauled into this disposal.

DATE

CUSTOMER

WELL NAME/NUMBER

TRUCKING COMPANY

DRIVER UNIT NO.

DELIVERY TICKET #

LOAD	WATER	TIME	AM	PM	DRIVER SIGNATURE
1					
2					
3					

☐ H_2S ___ ppm

☐ No H_2S

☐ Black

☐ Non Exempt

☐ Waste Oil ___ bbls

☐ White Water Light Med Heavy

Load Description:

Key Energy Services, Inc.

Four Corners

WATER DISPOSAL **(505) 334-6186**

County Road 3500
Crouch Mesa Bypass

P O Box 900
Farmington, NM 87499

DATE

CUSTOMER

WELL NAME/NUMBER

TRUCKING COMPANY

DRIVER UNIT NO.

DELIVERY TICKET #

KEY ENERGY SERVICES, INC. Reserves the right to refuse any material being hauled into this disposal.

LOAD	WATER	TIME	AM	PM	DRIVER SIGNATURE
1					
2					
3					

☐ H_2S ___ ppm

☐ No H_2S

☐ Black

☐ Non Exempt

☐ Waste Oil ___ bbls

☐ White Water Light Med Heavy

Load Description: