May 17, 2007
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Mr. Ed Hance
Pioneer Natural Resources USA, Inc.
5205 N. O'Connor Blvd.
Irving, TX 75039-3746

RE: March 2007 Groundwater Monitoring Data Report
Pioneer Natural Resources USA, Inc.
Biere 1-22 Well Site
East Poplar Oil Well Field
Poplar, Montana

Dear Mr. Hance:

Pursuant to the United States Environmental Protection Agency, Emergency Administrative Order Upon Consent (EAOC), Pioneer Natural Resources USA, Inc. conducted quarterly groundwater monitoring and sampling in the vicinity of the Biere 1-22 oil well. The investigation was performed during March 2007 and included groundwater monitoring and sampling. This letter serves as a quarterly groundwater monitoring and sampling report under the EAOC.

During March 12 through 15, 2007, monitor wells and selected available existing domestic wells were sampled. The locations of the monitor and domestic wells are shown on the figure provided in Appendix A. Wells were gauged using an electronic interface probe capable of detecting water and light non-aqueous phase liquid (LNAPL) with a precision of 0.01 feet. Prior to sample collection, wells were purged by use of a decontaminated submersible electric pump or disposable bailers.

To ensure representative groundwater samples were collected from the aquifer, water quality parameters were monitored and allowed to stabilize during the purging process prior to sample collection. Conductivity, temperature, and pH of the purged groundwater were monitored. Once the parameters stabilized, samples were collected in the appropriate laboratory containers and preserved as directed by the laboratory. Samples were labeled and packaged on ice to maintain a temperature near 4 degrees celsius. Tabulated water level elevations and depth to fluid data, water quality parameter readings, and inorganic and organic water chemistry results are presented in Tables 1, 2, and 3, respectively.

All groundwater samples were hand delivered to Energy Laboratories, Inc., in Billings, Montana for laboratory analysis. Appendix B contains chain of custody information, laboratory analytical reports, and laboratory quality assurance/quality control (QA/QC) data for these samples.

Please do not hesitate to call us if you have any questions regarding this report or the data contained herein.

Sincerely,

HKM Engineering Inc.
Katie Bullock
FOR Charles Peterson, P.G.

Feast Geosciences, LLC
Katie Bullock
FOR Charles F. Feast, P.G.

Table 1 Depth to Water and LNAPL in Monitor Wells and Domestic Wells
Table 2A Inorganic Analytical Results: Field-Monitored Parameters and Metals
Table 2B Inorganic Analytical Results: Additional Analyses
Table 3 BTEX and TPH Analytical Results

Appendix A: Well Location Map
Appendix B: Laboratory Analytical Reports

cc: Mr. Michael Jacobs, P.G., Pioneer Natural Resources USA, Inc., 303 W. Wall St., Suite 101, Midland, TX 79701
Mr. Charles F. Feast, P.G., Feast Geosciences, LLC, 9730 Tanner Lane, Boise, ID 83709

Table 1

Depth to Water and Produce in Monitor Wells and Domestic Wells

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
LAW-M01	° ' "	° ' "			12/5/2006		57.63		
LAW-M03	° ' "	° ' "		1988.63	12/15/2006		31.47		1957.16
LAW-M03	° ' "	° ' "		1988.63	3/13/2007		39.99		1948.64
LAW-M04	° ' "	° ' "		1976.85	12/15/2006		23.14		1953.71
LAW-M05	° ' "	° ' "		2048.90	12/15/2006		98.58		1950.32
LAW-M06	° ' "	° ' "		2023.68	12/15/2006		76.18		1947.50
LAW-M08	° ' "	° ' "		2010.58	12/15/2006		62.40		1948.18
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	11/6/2001		80.80		1967.33
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	2/19/2002		80.25		1967.88
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	5/20/2002		80.60		1967.53
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	8/19/2002		80.60		1967.53
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	3/5/2003		79.60		1968.53
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	5/12/2003		79.00		1969.13
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	8/12/2003		80.46		1967.67
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	3/18/2004		80.47		1967.66
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	6/13/2004		80.30		1967.83
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	3/2/2005		80.70		1967.43
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	8/18/2005		80.60		1967.53
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	8/22/2006		80.76		1967.37
M-18	48 ° 10 ' 35.9426 " N	105 ° 8 ' 21.0701 " W	2047.10	2048.13	12/5/2006		80.57		1967.56
M-25	48 ° 10 ' 37.6615 " N	105 ° 9 ' 5.4882 " W	2031.70	2033.33	11/9/2001		67.30		1966.03
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	8/13/2001		67.15		1964.04
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	9/5/2001		67.28		1963.91
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	11/6/2001		67.61		1963.58
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	2/19/2002		67.07		1964.12
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	5/20/2002		67.04		1964.15
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	8/19/2002		67.74		1963.45
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	11/4/2002		67.70		1963.49
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	3/5/2003		68.88		1962.31
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	5/12/2003		66.60		1964.59
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	8/12/2003		67.30		1963.89
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	11/9/2003		68.00		1963.19
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	3/18/2004		67.39		1963.80
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	6/7/2004		66.05		1965.14
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	9/13/2004		67.12		1964.07
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	11/18/2004		67.42		1963.77
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	3/1/2005		67.19		1964.00
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	5/24/2005		67.24		1963.95
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	8/16/2005		67.50		1963.69

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	11/15/2005		67.66		1963.53
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	2/7/2006		67.42		1963.77
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	5/23/2006		66.88		1964.31
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	8/22/2006		67.81		1963.38
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	12/5/2006		67.66		1963.53
M-27	48 ° 10 ' 8.0957 " N	105 ° 8 ' 41.8251 " W	2029.92	2031.19	3/12/2007		67.29		1963.90
M-28	° ' "	° ' "	2102.82	2096.63	5/31/2001		49.23		2047.40
M-28	° ' "	° ' "	2102.82	2096.63	8/13/2001		48.85		2047.78
M-28	° ' "	° ' "	2102.82	2096.63	9/5/2001		48.61		2048.02
M-28	° ' "	° ' "	2102.82	2096.63	11/6/2001		49.06		2047.57
M-28	° ' "	° ' "	2102.82	2096.63	2/19/2002		49.00		2047.63
M-28	° ' "	° ' "	2102.82	2096.63	5/20/2002		49.10		2047.53
M-28	° ' "	° ' "	2102.82	2096.63	8/19/2002		49.62		2047.01
M-28	° ' "	° ' "	2102.82	2096.63	11/6/2002		49.73		2046.90
M-28	° ' "	° ' "	2102.82	2096.63	3/5/2003		49.39		2047.24
M-28	° ' "	° ' "	2102.82	2096.63	5/12/2003		50.50		2046.13
M-28	° ' "	° ' "	2102.82	2096.63	8/12/2003		49.92		2046.71
M-28	° ' "	° ' "	2102.82	2096.63	11/5/2003		50.28		2046.35
M-28	° ' "	° ' "	2102.82	2096.63	3/16/2004		50.01		2046.62
M-28	° ' "	° ' "	2102.82	2096.63	6/7/2004		50.04		2046.59
M-28	° ' "	° ' "	2102.82	2096.63	9/15/2004		49.85		2046.78
M-28	° ' "	° ' "	2102.82	2096.63	11/19/2004		49.73		2046.90
M-28	° ' "	° ' "	2102.82	2096.63	3/1/2005		49.78		2046.85
M-28	° ' "	° ' "	2102.82	2096.63	5/24/2005		50.31		2046.32
M-28	° ' "	° ' "	2102.82	2096.63	8/16/2005		50.11		2046.52
M-28	° ' "	° ' "	2102.82	2096.63	11/15/2005		50.66		2045.97
M-28	° ' "	° ' "	2102.82	2096.63	2/7/2006		50.58		2046.05
M-28	° ' "	° ' "	2102.82	2096.63	5/23/2006		49.88		2046.75
M-28	° ' "	° ' "	2102.82	2096.63	8/22/2006		50.28		2046.35
M-28	° ' "	° ' "	2102.82	2096.63	12/5/2006		50.33		2046.30
M-28	° ' "	° ' "	2102.82	2096.63	3/12/2007		50.25		2046.38
M-31	° ' "	° ' "	2085.00	2087.17	5/31/2001		40.37		2046.80
M-31	° ' "	° ' "	2085.00	2087.17	8/13/2001		40.26		2046.91
M-31	° ' "	° ' "	2085.00	2087.17	9/5/2001		40.15		2047.02
M-31	° ' "	° ' "	2085.00	2087.17	11/6/2001		40.33		2046.84
M-31	° ' "	° ' "	2085.00	2087.17	2/19/2002		40.42		2046.75
M-31	° ' "	° ' "	2085.00	2087.17	5/20/2002		40.77		2046.40
M-31	° ' "	° ' "	2085.00	2087.17	8/19/2002		41.22		2045.95
M-31	° ' "	° ' "	2085.00	2087.17	11/4/2002		41.18		2045.99
M-31	° ' "	° ' "	2085.00	2087.17	3/5/2003		41.30		2045.87
M-31	° ' "	° ' "	2085.00	2087.17	5/12/2003		40.87		2046.30
M-31	° ' "	° ' "	2085.00	2087.17	8/12/2003		41.62		2045.55

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Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
M-31	° ' "	° ' "	2085.00	2087.17	11/5/2003		41.86		2045.31
M-31	° ' "	° ' "	2085.00	2087.17	3/16/2004		41.65		2045.52
M-31	° ' "	° ' "	2085.00	2087.17	6/7/2004		41.85		2045.32
M-31	° ' "	° ' "	2085.00	2087.17	9/13/2004		41.65		2045.52
M-31	° ' "	° ' "	2085.00	2087.17	11/18/2004		41.52		2045.65
M-31	° ' "	° ' "	2085.00	2087.17	3/1/2005		41.65		2045.52
M-31	° ' "	° ' "	2085.00	2087.17	5/24/2005		41.91		2045.26
M-31	° ' "	° ' "	2085.00	2087.17	8/16/2005		41.07		2046.10
M-31	° ' "	° ' "	2085.00	2087.17	11/15/2005		41.27		2045.90
M-31	° ' "	° ' "	2085.00	2087.17	2/7/2006		41.34		2045.83
M-31	° ' "	° ' "	2085.00	2087.17	5/23/2006		41.20		2045.97
M-31	° ' "	° ' "	2085.00	2087.17	8/22/2006		41.36		2045.81
M-31	° ' "	° ' "	2085.00	2087.17	12/5/2006		41.71		2045.46
M-31	° ' "	° ' "	2085.00	2087.17	3/12/2007		41.80		2045.37
M-39	48 ° 8 ' 8.9110 " N	105 ° 8 ' 45.9626 " W	2049.10	2050.63	11/6/2001		100.68		1949.95
M-39	48 ° 8 ' 8.9110 " N	105 ° 8 ' 45.9626 " W	2049.10	2050.63	12/5/2006		100.60		1950.03
M-41	° ' "	° ' "			12/5/2006		42.24		
MOC- 1B	48 ° 10 ' 4.0506 " N	105 ° 7 ' 45.0050 " W	2077.05	2079.51	11/6/2001		28.25		2051.26
MOC- 1B	48 ° 10 ' 4.0506 " N	105 ° 7 ' 45.0050 " W	2077.05	2079.51	11/4/2002		28.66		2050.85
MOC- 1B	48 ° 10 ' 4.0506 " N	105 ° 7 ' 45.0050 " W	2077.05	2079.51	6/7/2004		28.48		2051.03
MOC- 1B	48 ° 10 ' 4.0506 " N	105 ° 7 ' 45.0050 " W	2077.05	2079.51	12/5/2006		30.40		2049.11
MOC- 1B	48 ° 10 ' 4.0506 " N	105 ° 7 ' 45.0050 " W	2077.05	2079.51	3/12/2007		30.41		2049.10
MOC- 2	48 ° 10 ' 19.9553 " N	105 ° 8 ' 24.1349 " W	2036.10	2038.91	11/9/2001		73.50		1965.41
MOC- 2	48 ° 10 ' 19.9553 " N	105 ° 8 ' 24.1349 " W	2036.10	2038.91	12/5/2006		73.60		1965.31
MOC- 2	48 ° 10 ' 19.9553 " N	105 ° 8 ' 24.1349 " W	2036.10	2038.91	3/12/2007		73.01		1965.90
MOC- 3	° ' "	° ' "		2010.56	12/5/2006		53.01		1957.55
MOC- 3	° ' "	° ' "		2010.56	3/12/2007		53.93		1956.63
MOC- 4	° ' "	° ' "		1966.63	12/5/2006		76.15		1890.48
MOC- 4	° ' "	° ' "		1966.63	3/13/2007		75.62		1891.01
MOC- 5	° ' "	° ' "		2055.86	12/5/2006		17.74		2038.12
MOC- 7	° ' "	° ' "		2051.96	12/5/2006		34.74		2017.22
MOC- 8	° ' "	° ' "		1969.92	12/5/2006		75.17		1894.75
MOC- 9	° ' "	° ' "		2051.83	12/5/2006		27.45		2024.38
MOC-10	° ' "	° ' "		2052.66	12/5/2006		31.54		2021.12
MOC-11	° ' "	° ' "		1974.04	12/5/2006		76.20		1897.84
MOC-12	° ' "	° ' "		2053.25	12/5/2006		55.39		1997.86
MOC-13	° ' "	° ' "			12/5/2006		35.59		

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Pioneer Natural Resources, USA, Inc.
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	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
MOC-14	° ' "	° ' "		2052.26	12/5/2006		35.13		2017.13
MOC-16	° ' "	° ' "		2049.02	12/5/2006		30.40		2018.62
MOC-17	° ' "	° ' "		2063.19	12/5/2006		31.92		2031.27
MOC-18	° ' "	° ' "		2055.13	12/5/2006		33.03		2022.10
MOC-19	° ' "	° ' "		1971.24	12/5/2006		75.29		1895.95
MOC-20A	° ' "	° ' "		1991.89	12/5/2006		17.73		1974.16
MOC-20A	° ' "	° ' "		1991.89	3/12/2007		19.66		1972.23
MOC-20B	° ' "	° ' "		1926.46	12/5/2006		73.18		1853.28
MOC-20B	° ' "	° ' "		1926.46	3/12/2007		72.60		1853.86
MOC-23	° ' "	° ' "		2042.56	12/5/2006		25.78		2016.78
PNR- 4	48 ° 9 ' 47.5132 " N	105 ° 7 ' 36.5200 " W	2080.86	2084.21	8/13/2001	27.38	56.31	28.93	2048.15
PNR- 4	48 ° 9 ' 47.5132 " N	105 ° 7 ' 36.5200 " W	2080.86	2084.21	9/4/2001	27.08	69.88	42.80	2044.28
PNR- 4	48 ° 9 ' 47.5132 " N	105 ° 7 ' 36.5200 " W	2080.86	2084.21	11/6/2001	29.01	69.88	40.87	2042.93
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	5/31/2000		37.17		2048.39
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	8/13/2001		37.04		2048.52
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	9/5/2001		36.99		2048.57
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	11/6/2001		37.05		2048.51
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	2/19/2002		37.22		2048.34
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	5/20/2002		38.25		2047.31
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	8/19/2002		38.76		2046.80
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	11/4/2002		38.81		2046.75
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	3/5/2003		38.70		2046.86
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	5/12/2003		38.53		2047.03
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	8/12/2003		39.15		2046.41
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	11/4/2003		39.39		2046.17
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	3/16/2004		39.58		2045.98
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	6/7/2004		39.54		2046.02
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	9/13/2004		39.18		2046.38
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	11/17/2004		39.27		2046.29
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	3/2/2005		39.50		2046.06
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	5/25/2005		39.53		2046.03
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	8/17/2005		39.35		2046.21
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	11/16/2005		39.24		2046.32
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	2/9/2006		39.67		2045.89
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	5/25/2006		39.67		2045.89
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	8/22/2006		39.78		2045.78
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	12/5/2006		39.91		2045.65
PNR- 5	48 ° 9 ' 45.0708 " N	105 ° 7 ' 43.0810 " W	2082.64	2085.56	3/12/2007		39.83		2045.73
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	5/31/2000		20.33		2098.74

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	8/13/2001		20.55		2098.52
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	9/5/2001		20.51		2098.55
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	11/6/2001		21.02		2098.04
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	2/19/2002		21.39		2097.68
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	5/20/2002		21.65		2097.42
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	8/19/2002		21.06		2098.01
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	11/4/2002		21.23		2097.84
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	3/4/2003		20.50		2098.57
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	5/12/2003		22.12		2096.94
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	8/12/2003		21.04		2098.02
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	11/4/2003		21.60		2097.46
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	3/16/2004		22.16		2096.91
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	6/7/2004		20.32		2098.75
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	9/13/2004		20.05		2099.02
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	11/17/2004		20.78		2098.28
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	2/28/2005		21.55		2097.52
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	5/23/2005		21.88		2097.19
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	8/16/2005		21.93		2097.13
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	11/15/2005		22.47		2096.60
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	2/7/2006		22.66		2096.41
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	5/23/2006		22.35		2096.71
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	8/22/2006		21.61		2097.45
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	12/5/2006		20.96		2098.11
PNR- 6	48 ° 9 ' 40.7624 " N	105 ° 7 ' 6.2181 " W	2116.53	2119.07	3/12/2007		21.13		2097.94
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	5/31/2000		25.50		2046.72
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	8/13/2001		25.19		2047.03
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	9/5/2001		25.08		2047.14
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	11/6/2001		25.47		2046.75
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	2/19/2002		25.72		2046.50
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	5/20/2002		26.20		2046.02
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	8/19/2002		26.17		2046.05
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	11/4/2002		26.54		2045.68
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	3/4/2003		27.50		2044.72
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	5/12/2003		27.39		2044.83
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	8/12/2003		27.05		2045.17
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	11/4/2003		27.40		2044.82
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	3/16/2004		27.55		2044.67
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	6/7/2004		27.32		2044.90
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	9/13/2004		26.98		2045.24
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	11/17/2004		27.35		2044.87
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	3/1/2005		27.15		2045.07
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	5/25/2005		27.90		2044.32
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	8/17/2005		27.28		2044.94

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	11/16/2005		27.78		2044.44
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	2/9/2006		27.88		2044.34
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	5/24/2006		28.09		2044.13
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	8/22/2006		28.02		2044.20
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	12/5/2006		27.92		2044.30
PNR- 7	48 ° 9 ' 53.7912 " N	105 ° 8 ' 4.4794 " W	2069.59	2072.22	3/12/2007		27.97		2044.25
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	5/31/2000		63.64		1999.35
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	8/13/2001		63.53		1999.46
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	9/5/2001		63.84		1999.15
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	11/6/2001		64.54		1998.45
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	2/19/2002		64.21		1998.78
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	5/20/2002		64.40		1998.59
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	8/19/2002		64.61		1998.38
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	11/4/2002		64.56		1998.43
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	3/4/2003		64.00		1998.99
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	5/12/2003		64.84		1998.15
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	8/12/2003		64.94		1998.05
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	11/4/2003		68.50		1994.49
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	3/16/2004		65.41		1997.58
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	6/7/2004		64.98		1998.01
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	9/13/2004		65.16		1997.83
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	11/16/2004		65.61		1997.38
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	3/2/2005		65.64		1997.35
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	5/26/2005		65.94		1997.05
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	8/18/2005		65.75		1997.24
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	11/17/2005		66.26		1996.73
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	2/9/2006		66.09		1996.90
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	5/24/2006		65.77		1997.22
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	8/22/2006		66.11		1996.88
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	12/5/2006		66.09		1996.90
PNR- 8	48 ° 9 ' 27.3182 " N	105 ° 8 ' 11.0837 " W	2060.21	2062.99	3/12/2007		66.13		1996.86
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	5/31/2000		56.46		1960.80
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	8/13/2001		57.29		1959.97
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	9/5/2001		57.28		1959.98
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	11/6/2001		57.61		1959.65
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	2/19/2002		57.12		1960.14
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	5/20/2002		57.08		1960.18
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	8/19/2002		57.90		1959.36
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	11/4/2002		57.29		1959.97
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	3/4/2003		57.11		1960.15
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	5/12/2003		56.47		1960.79
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	8/12/2003		57.33		1959.93

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	11/4/2003		57.40		1959.86
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	3/18/2004		57.31		1959.95
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	6/7/2004		56.04		1961.22
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	9/13/2004		57.12		1960.14
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	11/16/2004		57.26		1960.00
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	3/1/2005		57.12		1960.14
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	5/24/2005		57.19		1960.07
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	8/16/2005		57.38		1959.88
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	11/15/2005		57.74		1959.52
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	2/9/2006		57.24		1960.02
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	5/23/2006		56.69		1960.57
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	8/22/2006		57.67		1959.59
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	12/5/2006		57.39		1959.87
PNR- 9	48 ° 9 ' 39.7327 " N	105 ° 9 ' 2.3243 " W	2014.11	2017.26	3/12/2007		59.96		1957.30
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	5/31/2000		53.93		1957.76
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	8/13/2001		53.93		1957.76
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	9/5/2001		54.03		1957.66
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	11/6/2001		54.37		1957.32
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	2/19/2002		53.88		1957.81
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	5/20/2002		53.79		1957.90
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	8/19/2002		54.27		1957.42
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	11/4/2002		54.04		1957.65
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	3/4/2003		53.84		1957.85
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	5/12/2003		53.17		1958.52
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	8/12/2003		54.11		1957.58
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	11/4/2003		54.30		1957.39
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	3/18/2004		53.99		1957.70
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	6/7/2004		52.74		1958.95
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	9/13/2004		53.85		1957.84
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	11/16/2004		53.99		1957.70
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	3/1/2005		53.80		1957.89
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	5/24/2005		53.94		1957.75
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	8/16/2005		54.11		1957.58
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	11/15/2005		54.48		1957.21
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	2/7/2006		54.03		1957.66
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	5/23/2006		53.38		1958.31
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	8/22/2006		54.42		1957.27
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	12/5/2006		54.11		1957.58
PNR-10	48 ° 9 ' 17.4112 " N	105 ° 9 ' 2.4377 " W	2009.17	2011.69	3/12/2007		53.55		1958.14
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	5/31/2000		51.10		2050.13
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	8/13/2001		49.90		2051.33
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	9/5/2001		49.67		2051.56

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Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	11/6/2001		50.52		2050.71
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	2/19/2002		50.80		2050.43
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	5/20/2002		51.40		2049.83
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	8/19/2002		51.20		2050.03
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	11/4/2002		50.86		2050.37
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	3/4/2003		51.79		2049.44
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	5/12/2003		51.95		2049.28
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	8/12/2003		50.80		2050.43
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	11/4/2003		54.10		2047.13
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	3/16/2004		51.75		2049.48
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	6/7/2004		51.01		2050.22
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	9/13/2004		50.51		2050.72
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	11/16/2004		51.05		2050.18
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	2/28/2005		51.52		2049.71
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	5/23/2005		51.74		2049.49
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	8/15/2005		51.05		2050.18
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	11/15/2005		51.98		2049.25
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	2/7/2006		52.12		2049.11
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	5/23/2006		51.54		2049.69
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	8/22/2006		52.00		2049.23
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	12/5/2006		52.00		2049.23
PNR-12	48 ° 9 ' 53.9979 " N	105 ° 7 ' 6.5430 " W	2098.44	2101.23	3/12/2007		51.92		2049.31
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	8/13/2001		30.44		2050.68
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	9/5/2001		30.19		2050.93
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	11/6/2001		30.46		2050.66
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	2/19/2002		31.48		2049.64
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	5/20/2002		32.05		2049.07
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	8/19/2002		32.32		2048.80
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	11/4/2002		32.34		2048.78
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	3/4/2003		32.96		2048.16
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	5/12/2003		33.01		2048.11
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	8/12/2003		32.50		2048.62
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	11/4/2003		32.87		2048.25
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	3/16/2004		33.20		2047.92
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	6/7/2004		32.93		2048.19
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	9/13/2004		32.48		2048.64
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	11/16/2004		32.27		2048.85
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	3/1/2005		32.92		2048.20
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	5/24/2005		33.26		2047.86
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	8/17/2005		36.33		2044.79
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	11/16/2005		34.33		2046.79
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	2/8/2006		33.29		2047.83
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	5/24/2006		33.49		2047.63

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	8/22/2006		33.58		2047.54
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	12/5/2006		33.63		2047.49
PNR-13	48 ° 9 ' 54.2169 " N	105 ° 7 ' 37.9344 " W	2079.38	2081.12	3/12/2007		33.62		2047.50
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	8/13/2001		32.50		2049.61
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	9/4/2001		32.27		2049.84
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	11/6/2001		32.30		2049.81
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	2/19/2002		33.42		2048.69
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	5/20/2002		33.77		2048.34
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	8/19/2002		34.33		2047.78
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	11/4/2002		34.27		2047.84
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	3/4/2003		34.67		2047.44
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	5/12/2003		34.71		2047.40
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	8/12/2003		34.48		2047.63
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	11/5/2003		34.75		2047.36
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	3/16/2004		34.80		2047.31
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	6/7/2004		34.71		2047.40
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	9/13/2004		34.23		2047.88
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	11/17/2004		34.43		2047.68
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	3/2/2005		34.55		2047.56
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	5/25/2005		34.78		2047.33
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	8/17/2005		34.41		2047.70
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	11/16/2005		34.64		2047.47
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	2/9/2006		34.90		2047.21
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	5/24/2006		34.96		2047.15
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	8/22/2006		34.94		2047.17
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	12/5/2006		35.10		2047.01
PNR-14	48 ° 9 ' 48.9345 " N	105 ° 7 ' 37.9795 " W	2079.82	2082.11	3/12/2007		35.05		2047.06
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	8/13/2001		33.86		2050.24
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	9/4/2001		33.84		2050.26
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	11/6/2001		34.30		2049.80
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	2/19/2002		35.36		2048.74
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	5/20/2002		35.87		2048.23
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	8/19/2002		36.20		2047.90
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	11/4/2002		36.22		2047.88
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	3/5/2003	36.20	36.22	0.02	2047.89
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	5/12/2003		36.81		2047.29
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	8/12/2003		36.20		2047.90
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	11/5/2003		36.26		2047.84
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	3/16/2004		36.44		2047.66
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	6/7/2004		36.31		2047.79
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	9/15/2004		35.72		2048.38
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	11/17/2004		36.00		2048.10

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Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	3/2/2005		36.12		2047.98
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	5/25/2005		36.39		2047.71
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	8/17/2005		35.88		2048.22
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	11/16/2005		36.17		2047.93
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	2/8/2006		36.25		2047.85
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	5/24/2006		36.48		2047.62
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	8/22/2006		36.49		2047.61
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	12/5/2006		36.65		2047.45
PNR-15	48 ° 9 ' 48.9234 " N	105 ° 7 ' 33.6724 " W	2081.92	2084.10	3/12/2007		36.55		2047.55
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	8/13/2001		13.83		2042.97
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	9/5/2001		12.70		2044.10
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	11/6/2001		14.50		2042.30
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	2/19/2002		14.76		2042.04
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	5/20/2002		13.76		2043.04
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	8/19/2002		9.47		2047.33
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	11/4/2002		11.69		2045.11
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	3/4/2003		15.20		2041.60
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	5/12/2003		10.21		2046.59
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	8/12/2003		13.41		2043.39
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	11/4/2003		15.42		2041.38
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	3/16/2004		17.25		2039.55
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	6/7/2004		7.49		2049.31
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	9/13/2004		10.07		2046.73
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	11/16/2004		11.90		2044.90
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	3/1/2005		14.08		2042.72
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	5/24/2005		12.67		2044.13
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	8/17/2005		13.24		2043.56
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	11/15/2005		15.89		2040.91
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	2/7/2006		17.04		2039.76
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	5/24/2006		13.54		2043.26
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	8/22/2006		14.67		2042.13
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	12/5/2006		14.36		2042.44
PNR-16	48 ° 9 ' 41.8339 " N	105 ° 8 ' 18.2836 " W	2053.88	2056.80	3/12/2007		15.67		2041.13
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	8/13/2001	30.40	55.62	25.22	2048.17
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	9/4/2001	30.42	55.86	25.44	2048.09
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	11/6/2001	30.98	55.86	24.88	2047.70
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	2/19/2002	32.04	55.77	23.73	2046.98
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	5/20/2002	32.75			
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	8/19/2002	33.62			
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	11/4/2002	37.68	40.43	2.75	2047.63
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	3/4/2003	38.37	40.31	1.94	2047.19
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	5/12/2003	38.55	40.42	1.87	2047.03

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Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	8/12/2003	38.22	40.04	1.82	2047.37
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	11/6/2003	38.28	41.11	2.83	2047.01
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	3/16/2004	37.95	43.46	5.51	2046.54
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	6/7/2004	37.83	43.33	5.50	2046.66
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	9/16/2004	37.38	42.71	5.33	2047.16
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	11/17/2004	38.19	40.65	2.46	2047.21
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	3/2/2005	38.47	39.28	0.81	2047.43
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	5/25/2005	38.55	40.15	1.60	2047.11
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	8/17/2005	38.23	39.12	0.89	2047.64
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	11/16/2005	38.54	38.64	0.10	2047.57
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	2/8/2006	38.50	38.59	0.09	2047.61
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	5/24/2006	38.78	39.02	0.24	2047.29
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	8/22/2006	38.69	38.82	0.13	2047.41
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	12/5/2006	39.87	39.96	0.09	2046.24
PNR-17	48 ° 9 ' 46.0748 " N	105 ° 7 ' 33.8119 " W	2084.06	2086.14	3/12/2007	38.83	38.86	0.03	2047.30
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	8/13/2001		68.90		2049.26
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	9/5/2001		68.58		2049.58
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	11/6/2001		69.08		2049.08
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	2/19/2002		69.11		2049.05
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	5/20/2002		70.10		2048.06
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	8/19/2002		69.71		2048.45
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	11/4/2002		69.36		2048.80
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	3/4/2003		70.02		2048.14
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	5/12/2003		70.38		2047.78
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	8/12/2003		69.65		2048.51
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	11/4/2003		70.30		2047.86
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	3/16/2004		70.10		2048.06
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	6/7/2004		69.44		2048.72
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	9/13/2004		69.39		2048.77
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	11/16/2004		69.71		2048.45
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	2/28/2005		69.96		2048.20
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	5/23/2005		70.13		2048.03
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	8/15/2005		69.92		2048.24
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	11/15/2005		70.61		2047.55
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	2/7/2006		70.63		2047.53
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	5/23/2006		69.96		2048.20
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	8/22/2006		70.40		2047.76
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	12/5/2006		70.44		2047.72
PNR-18	48 ° 9 ' 40.7445 " N	105 ° 7 ' 6.2881 " W	2116.21	2118.16	3/12/2007		70.24		2047.92
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	8/13/2001		25.75		2047.48
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	9/5/2001		25.68		2047.55
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	11/6/2001		25.98		2047.25

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	2/19/2002		26.00		2047.23
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	5/20/2002		26.37		2046.86
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	8/19/2002		26.75		2046.48
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	11/4/2002		26.86		2046.37
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	3/4/2003		27.30		2045.93
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	5/12/2003		27.52		2045.71
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	8/12/2003		27.44		2045.79
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	11/4/2003		27.58		2045.65
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	3/16/2004		27.77		2045.46
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	6/7/2004		27.67		2045.56
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	9/13/2004		27.38		2045.85
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	11/16/2004		27.46		2045.77
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	3/1/2005		27.51		2045.72
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	5/25/2005		27.90		2045.33
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	8/17/2005		27.69		2045.54
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	11/16/2005		27.85		2045.38
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	2/8/2006		27.87		2045.36
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	5/24/2006		28.13		2045.10
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	8/22/2006		28.14		2045.09
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	12/5/2006		28.29		2044.94
PNR-19	48 ° 9 ' 33.7194 " N	105 ° 8 ' 4.6936 " W	2071.26	2073.23	3/13/2007		28.47		2044.76
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	8/18/2001		41.20		2045.96
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	9/5/2001		41.05		2046.11
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	11/6/2001		41.58		2045.58
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	2/19/2002		41.41		2045.75
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	5/20/2002		41.60		2045.56
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	8/19/2002		41.91		2045.25
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	11/4/2002		41.78		2045.38
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	3/4/2003		42.30		2044.86
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	5/12/2003		42.41		2044.75
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	8/12/2003		42.39		2044.77
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	11/4/2003		45.20		2041.96
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	3/16/2004		42.56		2044.60
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	6/7/2004		42.57		2044.59
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	9/13/2004		42.37		2044.79
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	11/17/2004		42.61		2044.55
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	3/1/2005		42.37		2044.79
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	5/24/2005		42.71		2044.45
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	8/16/2005		42.56		2044.60
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	11/15/2005		43.59		2043.57
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	2/9/2006		42.72		2044.44
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	5/23/2006		42.57		2044.59
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	8/22/2006		42.82		2044.34

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	12/5/2006		42.81		2044.35
PNR-20	48 ° 9 ' 18.2758 " N	105 ° 7 ' 45.9656 " W	2084.55	2087.16	3/12/2007		42.80		2044.36
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	8/13/2001		58.80		2042.79
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	9/5/2001		58.68		2042.91
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	11/6/2001		59.12		2042.47
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	2/19/2002		58.81		2042.78
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	5/20/2002		58.80		2042.79
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	8/19/2002		59.02		2042.57
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	11/4/2002		58.89		2042.70
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	3/5/2003		58.78		2042.81
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	5/12/2003		58.80		2042.79
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	8/12/2003		59.32		2042.27
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	11/5/2003		59.70		2041.89
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	3/16/2004		59.46		2042.13
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	6/7/2004		59.43		2042.16
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	9/13/2004		59.31		2042.28
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	11/17/2004		59.46		2042.13
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	3/1/2005		59.23		2042.36
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	5/24/2005		59.43		2042.16
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	8/16/2005		59.35		2042.24
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	11/15/2005		59.82		2041.77
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	2/9/2006		59.64		2041.95
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	5/23/2006		59.60		2041.99
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	8/22/2006		59.53		2042.06
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	12/5/2006		59.57		2042.02
PNR-21	48 ° 9 ' 12.7419 " N	105 ° 7 ' 34.1438 " W	2099.04	2101.59	3/12/2007		59.46		2042.13
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	8/13/2001		81.50		2047.93
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	9/5/2001		81.21		2048.22
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	11/6/2001		81.66		2047.77
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	2/19/2002		81.48		2047.95
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	5/20/2002		81.90		2047.53
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	8/19/2002		82.11		2047.32
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	11/4/2002		81.75		2047.68
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	3/4/2003		82.41		2047.02
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	5/12/2003		82.62		2046.81
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	8/12/2003		82.22		2047.21
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	11/5/2003		82.60		2046.83
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	3/16/2004		82.47		2046.96
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	6/7/2004		82.24		2047.19
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	9/13/2004		81.98		2047.45
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	11/18/2004		82.15		2047.28
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	3/1/2005		82.22		2047.21

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Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	5/24/2005		82.65		2046.78
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	8/16/2005		82.52		2046.91
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	11/15/2005		83.07		2046.36
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	2/7/2006		83.08		2046.35
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	5/25/2006		82.58		2046.85
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	8/22/2006		82.78		2046.65
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	12/5/2006		82.80		2046.63
PNR-22	48 ° 9 ' 28.8970 " N	105 ° 7 ' 6.2344 " W	2127.38	2129.43	3/12/2007		82.60		2046.83
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	8/13/2001		35.85		2049.42
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	9/4/2001		35.90		2049.37
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	11/6/2001		36.03		2049.24
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	2/19/2002		36.88		2048.39
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	5/20/2002		37.35		2047.92
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	8/19/2002		37.78		2047.49
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	11/4/2002		37.81		2047.46
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	3/4/2003		38.26		2047.01
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	5/12/2003		38.34		2046.93
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	8/12/2003		38.13		2047.14
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	11/6/2003		38.36		2046.91
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	3/16/2004		38.62		2046.65
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	6/7/2004		38.51		2046.76
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	9/15/2004		38.10		2047.17
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	11/17/2004		38.35		2046.92
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	3/2/2005		38.51		2046.76
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	5/25/2005		38.78		2046.49
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	8/17/2005		38.44		2046.83
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	11/16/2005		38.57		2046.70
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	2/9/2006		38.79		2046.48
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	5/25/2006		38.67		2046.60
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	8/22/2006		38.75		2046.52
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	12/5/2006		38.90		2046.37
PNR-23	48 ° 9 ' 46.0372 " N	105 ° 7 ' 38.0074 " W	2083.00	2085.27	3/12/2007		38.85		2046.42
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	8/13/2001		36.30		2049.38
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	9/4/2001		36.31		2049.37
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	11/6/2001		36.45		2049.23
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	2/19/2002		37.17		2048.51
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	5/20/2002		37.52		2048.16
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	8/19/2002		37.88		2047.80
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	11/4/2002	37.90	39.68	1.78	2047.25
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	3/4/2003	38.38	40.05	1.67	2046.80
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	5/12/2003	38.48	38.48	0.00	2047.20
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	8/12/2003	38.39	39.35	0.96	2047.00

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	11/6/2003	38.53	39.90	1.37	2046.74
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	3/16/2004	38.70	44.30	5.60	2045.30
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	6/7/2004	38.65	39.98	1.33	2046.63
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	9/15/2004	38.33	38.51	0.18	2047.30
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	11/17/2004	38.51	39.21	0.70	2046.96
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	3/2/2005	38.61	39.50	0.89	2046.80
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	5/25/2005	38.74	39.91	1.17	2046.59
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	8/17/2005	38.54	38.89	0.35	2047.03
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	11/16/2005	38.65	39.09	0.44	2046.90
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	2/8/2006	38.63	39.24	0.61	2046.87
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	5/24/2006	38.90	39.87	0.97	2046.49
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	8/22/2006	38.86	39.85	0.99	2046.52
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	12/5/2006	39.12	39.75	0.63	2046.37
PNR-24	48 ° 9 ' 46.0656 " N	105 ° 7 ' 37.9814 " W	2083.00	2085.68	3/12/2007	39.06	39.26	0.20	2046.56
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	8/13/2001	33.78	34.08	0.30	2050.16
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	9/4/2001		33.73		2050.30
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	11/6/2001		34.09		2049.94
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	2/19/2002	34.98	36.63	1.65	2048.56
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	5/20/2002	35.36			
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	8/19/2002	35.64			
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	11/4/2002	35.55	37.48	1.93	2047.90
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	3/4/2003	35.91	38.04	2.13	2047.48
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	5/12/2003	36.02	38.04	2.02	2047.40
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	8/12/2003	35.62	37.03	1.41	2047.99
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	11/5/2003	35.15	37.50	2.35	2048.17
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	3/16/2004	35.93	38.00	2.07	2047.48
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	6/7/2004	35.86	37.53	1.67	2047.67
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	9/15/2004	35.37	36.58	1.21	2048.30
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	11/17/2004	35.60	37.08	1.48	2047.99
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	3/2/2005	35.66	37.35	1.69	2047.86
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	5/25/2005	35.90	37.86	1.96	2047.54
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	8/17/2005	35.55	37.03	1.48	2048.04
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	11/16/2005	35.77	37.51	1.74	2047.74
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	2/8/2006	35.82	37.88	2.06	2047.59
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	5/24/2006	36.01	38.12	2.11	2047.39
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	8/22/2006	36.04	38.19	2.15	2047.34
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	12/5/2006	36.15	38.30	2.15	2047.23
PNR-25	48 ° 9 ' 48.8646 " N	105 ° 7 ' 33.7628 " W	2081.92	2084.03	3/12/2007	36.12	38.23	2.11	2047.28
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	8/13/2001	34.65	36.85	2.20	2050.84
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	9/4/2001	35.96	37.12	1.16	2049.84
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	11/6/2001	36.24	37.12	0.88	2049.65
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	2/19/2002	36.98	39.30	2.32	2048.47

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	5/20/2002	37.43			
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	8/19/2002	37.78			
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	11/4/2002	37.76	40.15	2.39	2047.67
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	3/4/2003	38.11	40.07	1.96	2047.45
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	5/12/2003	38.20	40.09	1.89	2047.38
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	8/12/2003	37.82	39.98	2.16	2047.68
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	11/6/2003	37.93	39.99	2.06	2047.60
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	3/16/2004	38.80	40.01	1.21	2046.99
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	6/7/2004	38.02	40.02	2.00	2047.53
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	9/16/2004	37.60	39.73	2.13	2047.91
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	11/17/2004	37.79	39.98	2.19	2047.70
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	3/2/2005	37.87	40.00	2.13	2047.64
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	5/25/2005	38.01	39.92	1.91	2047.57
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	8/17/2005	37.78	40.00	2.22	2047.70
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	11/16/2005	37.92	40.00	2.08	2047.61
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	2/8/2006	37.90	40.01	2.11	2047.62
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	5/24/2006	38.23	40.05	1.82	2047.37
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	8/22/2006	38.18	40.04	1.86	2047.41
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	12/5/2006	38.35	40.05	1.70	2047.29
PNR-26	48 ° 9 ' 46.1068 " N	105 ° 7 ' 33.8677 " W	2084.06	2086.15	3/12/2007	38.34	40.03	1.69	2047.30
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	9/5/2001		67.28		2028.02
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	11/6/2001		55.68		2039.62
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	2/19/2002		55.32		2039.98
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	5/20/2002		55.25		2040.05
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	8/19/2002		55.34		2039.96
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	11/4/2002		55.25		2040.05
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	3/5/2003		55.17		2040.13
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	5/12/2003		55.62		2039.68
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	8/12/2003		55.67		2039.63
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	11/5/2003		56.20		2039.10
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	6/7/2004		56.80		2038.50
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	9/13/2004		55.73		2039.57
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	11/17/2004		55.91		2039.39
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	3/2/2005		55.63		2039.67
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	5/24/2005		55.79		2039.51
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	8/16/2005		55.64		2039.66
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	11/15/2005		56.04		2039.26
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	2/8/2006		55.65		2039.65
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	5/23/2006		55.66		2039.64
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	8/22/2006		55.85		2039.45
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	12/5/2006		55.92		2039.38
PNR-27	48 ° 9 ' 1.8926 " N	105 ° 7 ' 45.8706 " W	2092.86	2095.30	3/12/2007		55.79		2039.51

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Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	9/5/2001		46.38		2032.06
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	11/6/2001		44.85		2033.59
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	2/19/2002		44.67		2033.77
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	5/20/2002		44.45		2033.99
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	8/19/2002		44.59		2033.85
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	11/4/2002		44.55		2033.89
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	3/5/2003		44.49		2033.95
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	5/12/2003		44.40		2034.04
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	8/12/2003		44.89		2033.55
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	11/5/2003		46.20		2032.24
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	6/7/2004		45.24		2033.20
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	9/15/2004		45.19		2033.25
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	11/17/2004		45.28		2033.16
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	3/1/2005		45.06		2033.38
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	5/25/2005		45.23		2033.21
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	8/16/2005		45.02		2033.42
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	11/15/2005		45.61		2032.83
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	2/8/2006		45.17		2033.27
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	5/23/2006		45.17		2033.27
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	8/22/2006		45.21		2033.23
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	12/5/2006		45.37		2033.07
PNR-28	48 ° 8 ' 59.6711 " N	105 ° 8 ' 15.3970 " W	2079.64	2078.44	3/12/2007		45.24		2033.20
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	9/5/2001		41.86		2030.78
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	11/6/2001		40.28		2032.36
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	2/19/2002		40.03		2032.61
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	5/20/2002		39.80		2032.84
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	8/19/2002		39.96		2032.68
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	11/4/2002		39.82		2032.82
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	3/5/2003		39.70		2032.94
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	5/12/2003		40.17		2032.47
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	8/12/2003		40.21		2032.43
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	11/4/2003		40.70		2031.94
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	6/15/2004		40.54		2032.10
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	9/15/2004		40.54		2032.10
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	11/17/2004		40.64		2032.00
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	3/1/2005		40.39		2032.25
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	5/25/2005		40.68		2031.96
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	8/16/2005		40.42		2032.22
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	11/15/2005		41.03		2031.61
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	2/8/2006		40.45		2032.19
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	5/23/2006		40.47		2032.17
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	8/22/2006		40.60		2032.04
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	12/5/2006		40.63		2032.01

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
PNR-29	48 ° 8 ' 45.4062 " N	105 ° 8 ' 14.9304 " W	2073.76	2072.64	3/12/2007		40.68		2031.96
PNR-30-06	48 ° 9 ' 44.0900 " N	105 ° 7 ' 44.9628 " W		2083.55	10/19/2006		37.91		2045.64
PNR-30-06	48 ° 9 ' 44.0900 " N	105 ° 7 ' 44.9628 " W		2083.55	12/5/2006	37.50	40.70	3.20	2045.09
PNR-30-06	48 ° 9 ' 44.0900 " N	105 ° 7 ' 44.9628 " W		2083.55	3/12/2007	37.39	40.86	3.47	2045.12
PNR-31-06	48 ° 9 ' 12.9416 " N	105 ° 7 ' 34.0807 " W		2100.98	10/19/2006		58.69		2042.29
PNR-31-06	48 ° 9 ' 12.9416 " N	105 ° 7 ' 34.0807 " W		2100.98	12/5/2006		58.85		2042.13
PNR-31-06	48 ° 9 ' 12.9416 " N	105 ° 7 ' 34.0807 " W		2100.98	3/12/2007		58.59		2042.39
PNR-32-06	48 ° 9 ' 12.3206 " N	105 ° 7 ' 34.3113 " W		2100.01	10/19/2006		57.87		2042.14
PNR-32-06	48 ° 9 ' 12.3206 " N	105 ° 7 ' 34.3113 " W		2100.01	12/5/2006		58.00		2042.01
PNR-32-06	48 ° 9 ' 12.3206 " N	105 ° 7 ' 34.3113 " W		2100.01	3/12/2007		57.80		2042.21
PNR-33-06	48 ° 9 ' 1.9732 " N	105 ° 7 ' 12.3532 " W		2144.53	10/19/2006		102.50		2042.03
PNR-33-06	48 ° 9 ' 1.9732 " N	105 ° 7 ' 12.3532 " W		2144.53	12/5/2006		100.76		2043.77
PNR-33-06	48 ° 9 ' 1.9732 " N	105 ° 7 ' 12.3532 " W		2144.53	3/12/2007		102.35		2042.18
PNR-34-07	48 ° 9 ' 3.7010 " N	105 ° 8 ' 37.0258 " W		2052.14	3/12/2007		93.84		1958.30
PNR-35-07	48 ° 9 ' 14.1695 " N	105 ° 8 ' 24.4520 " W		2059.75	3/12/2007		71.15		1988.60
PNR-36-07	48 ° 10 ' 20.0164 " N	105 ° 6 ' 47.5314 " W		2107.00	3/12/2007		54.74		2052.26
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	5/31/2001		15.10		2050.82
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	8/13/2001		10.70		2055.22
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	9/5/2001		12.12		2053.80
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	11/6/2001		13.11		2052.81
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	2/19/2002		13.85		2052.07
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	5/20/2002		13.65		2052.27
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	8/19/2002		12.68		2053.24
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	11/4/2002		12.77		2053.15
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	3/4/2003		14.20		2051.72
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	5/12/2003		12.58		2053.34
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	8/12/2003		11.99		2053.93
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	11/5/2003		17.10		2048.82
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	6/7/2004		10.75		2055.17
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	9/14/2004		10.70		2055.22
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	11/16/2004		12.35		2053.57
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	3/1/2005		13.28		2052.64
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	5/25/2005		12.02		2053.90
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	8/17/2005		11.00		2054.92
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	11/15/2005		12.50		2053.42
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	2/7/2006		13.08		2052.84
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	5/24/2006		12.22		2053.70
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	8/22/2006		14.04		2051.88
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	12/5/2006		14.90		2051.02
USGS 92-12	48 ° 10 ' 19.2182 " N	105 ° 7 ' 44.9439 " W	2063.92	2065.92	3/12/2007		14.97		2050.95

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	5/31/2001		35.07		2048.39
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	11/6/2001		35.22		2048.24
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	2/19/2002		35.72		2047.74
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	5/20/2002		36.30		2047.16
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	8/19/2002		36.75		2046.71
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	11/4/2002		36.81		2046.65
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	3/4/2003		37.20		2046.26
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	5/12/2003		37.23		2046.23
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	8/12/2003		37.16		2046.30
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	11/4/2003		37.32		2046.14
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	3/16/2004		39.58		2043.88
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	6/7/2004		37.47		2045.99
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	9/14/2004		37.07		2046.39
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	11/17/2004		37.25		2046.21
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	3/1/2005		37.26		2046.20
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	5/25/2005		37.52		2045.94
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	8/17/2005		37.35		2046.11
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	11/16/2005		37.41		2046.05
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	2/9/2006		37.75		2045.71
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	5/24/2006		37.90		2045.56
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	8/22/2006		37.92		2045.54
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	12/5/2006		38.00		2045.46
USGS 93-3	48 ° 9 ' 43.9449 " N	105 ° 7 ' 45.2488 " W	2082.10	2083.46	3/12/2007		38.02		2045.44
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	8/13/2001		35.15		2048.08
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	9/5/2001		35.11		2048.12
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	11/6/2001		34.96		2048.27
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	5/20/2002		36.05		2047.18
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	8/19/2002		36.62		2046.61
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	11/4/2002		36.59		2046.64
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	8/12/2003		36.94		2046.29
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	11/5/2003		37.89		2045.34
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	6/7/2004		37.28		2045.95
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	11/17/2004		37.25		2045.98
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	3/1/2005		37.26		2045.97
USGS 93-3a	48 ° 9 ' 44.0036 " N	105 ° 7 ' 45.1255 " W	2081.97	2083.23	5/25/2005		37.52		2045.71
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	5/31/2001		23.82		1957.62
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	11/6/2001		24.30		1957.14
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	2/19/2002		24.30		1957.14
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	5/20/2002		24.10		1957.34
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	8/19/2002		24.20		1957.24
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	11/4/2002		24.30		1957.14
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	3/4/2003		24.30		1957.14

Table 1 - Depth to Water and LNAPL in Monitor Wells and Domestic Wells

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

	LOCATION AND ELEVATIONS				FLUID LEVELS				
Well Name	Latitude	Longitude	Ground Surf. El.	Measure Pt Elev.	Guaging Date	Depth to LNAPL (ft)	Depth to Water (ft)	*Accum. LNAPL(ft)	*GW Elev(ft)
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	5/12/2003		24.20		1957.24
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	8/12/2003		25.00		1956.44
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	3/18/2004		24.10		1957.34
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	6/7/2004		22.09		1959.35
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	9/16/2004		23.90		1957.54
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	11/18/2004		24.20		1957.24
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	3/2/2005		24.10		1957.34
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	5/24/2005		24.20		1957.24
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	8/16/2005		24.03		1957.41
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	11/17/2005		24.22		1957.22
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	2/9/2006		23.84		1957.60
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	5/25/2006		23.58		1957.86
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	8/22/2006		24.40		1957.04
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	12/5/2006		24.07		1957.37
Whitmer	48 ° 9 ' 13.9578 " N	105 ° 9 ' 10.9110 " W	1980.41	1981.44	3/12/2007		23.51		1957.93

NOTES:
* = Groundwater elevation corrected for LNAPL thickness; Corrected Depth to Water = Depth to Water - .7 x Accum. LNAPL.
All elevations are provided in feet above mean sea level (MSL).
Ground Surf. EL = Ground Surface Elevation
Measure Pt Elev. = Measuring Point Elevation
LNAPL = light non-aqueous phase liquid
Accum. LNAPL = Accumulated LNAPL
GW Elev = Groundwater Elevation

Table 2A

Inorganic Analytical Results: Field-Monitored Parameters and Metals

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
LAW-M03	3/13/2007 5:40:00 PM	7.25	0.24	6.11	9.70	49.46	7.1	6.4					
Lockman	5/26/2005 11:05:00 AM	7.58		2.40	9.30	48.74	7.6	1.84	58		31	5	312
M-18	11/8/2001 3:30:00 PM				17.22	63.00	5.9	13.5	669		303	32	1630
M-18	8/23/2006 10:30:00 AM	7.38		17.50	10.37	50.67	6.8	18	730		426	25	2790
M-18	12/6/2006 12:25:00 PM	6.96		16.80	9.20	48.56	7.1	17.4	435		418	28	2740
M-27	8/16/2001 2:35:00 PM	9.30		13.50	11.30	52.34	8.8	13.1	687		540	19	1640
M-27	8/16/2001 2:45:00 PM	9.30		13.50	11.30	52.34	7.7	13.2	681		538	19	1610
M-27	11/8/2001 8:50:00 AM	8.30		11.40	10.00	50.00	6.7	14.2	710		553	23	1670
M-27	2/20/2002 3:42:00 PM	7.88		10.90	10.60	51.08	6.7	16.6	917		524	42	1700
M-27	5/21/2002 3:05:00 PM	7.28		17.20	13.10	55.58	6.9	16.8	839		494	20	1620
M-27	8/20/2002 5:45:00 PM	8.10		14.90	12.80	55.04	5.7	16	707		479	19	1560
M-27	11/6/2002 9:00:00 AM	8.55		16.40	11.60	52.88	6	17	732		526	23	1730
M-27	3/5/2003 1:20:00 PM	7.78		14.90	10.30	50.54	6.5	16.7	790		547	24	1830
M-27	5/13/2003 10:30:00 AM	7.96		14.40	11.60	52.88	5.9	15.6	771		565	25	1730
M-27	8/13/2003 11:10:00 AM	8.02		15.60	13.50	56.30	6.1	13.3	746		536	25	1690
M-27	11/6/2003 10:00:00 AM	8.01		16.28	8.70	47.66	6.5	14.9	732		545	27	1800
M-27	6/8/2004 3:15:00 PM	7.91			12.70	54.86	6.7	14.4	725		544	24	1890
M-27	9/15/2004 12:25:00 PM	7.16		16.40	14.90	58.82	6.7	17.5	1000		576	24	1870
M-27	11/18/2004 3:35:00 PM	7.19		16.70	12.30	54.14	6.2	17.5	812		571	24	2090
M-27	3/1/2005 12:05:00 PM	6.81		18.10	13.40	56.12	5.8	17	767		565	30	2100
M-27	5/24/2005 11:20:00 AM	7.00		17.50	13.10	55.58	5.8	16.6	797		528	19	2310
M-27	8/16/2005 9:30:00 AM	6.90		5.20	15.20	59.36	5.7	17.4	776		553	18	1980
M-27	11/15/2005 2:28:00 PM	6.42		12.68	9.80	49.64	5.8	15.6	758		525	21	2150
M-27	2/7/2006 1:10:00 PM	7.19		13.90	9.90	49.82	6.2	15.9	800		500	26	2120
M-27	5/23/2006 2:00:00 PM	7.65		16.50	16.60	61.88	5.5	17.9	865		608	27	2400
M-27	8/22/2006 2:30:00 PM	7.33		18.35	9.83	49.69	6.2	18.3	884		581	26	2420
M-27	12/6/2006 1:40:00 PM	7.09		18.10	9.40	48.92	5.3	18.7	844		582	27	2400
M-27	3/14/2007 5:30:00 PM	6.88	0.51	16.59	9.79	49.62	4.4	18.5					
M-28	6/1/2000 12:00:00 AM	9.20		2.60	9.80	49.64	7.1	58.9	1530	8.6	749	62	14200
M-28	8/9/2001 12:15:00 PM	6.90		57.70	11.50	52.70	6.9	53.5	1210		628	57	11300
M-28	8/16/2001 5:00:00 PM	7.10		54.90	11.10	51.98	7	48.8	1340		677	62	12800

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
M-28	11/8/2001 12:00:00 PM				17.78	64.00	7.3	60.9	217		169	13	873
M-28	2/21/2002 8:40:00 AM	6.63		59.30	10.20	50.36	7	47.4	1250		607	77	13300
M-28	5/23/2002 9:30:00 AM	5.20		66.10	12.00	53.60	6.8	57.7	1220		491	87	15600
M-28	8/21/2002 10:00:00 AM	6.50		61.10	12.60	54.68	6.8	51.8	1240		614	51	9540
M-28	11/6/2002 11:20:00 AM	6.90		62.60	11.30	52.34	6.9	44	1210		562	71	12600
M-28	3/5/2003 3:30:00 PM	6.80		54.60	10.70	51.26	6.8	32.9	1190		528	62	11200
M-28	5/13/2003 4:45:00 PM	7.27		52.40	12.00	53.60	6.7	65	1180		551	93	13800
M-28	8/13/2003 3:35:00 PM	7.61		55.20	13.00	55.40	6.7	51.5	1130		564	113	11400
M-28	11/5/2003 10:30:00 AM	5.15		51.80	11.50	52.70	6.8	32.8	978		484	76	10300
M-28	3/16/2004 5:34:00 PM	6.30		48.80	8.80	47.84	6.9	37.5	1030		645	61	7520
M-28	6/8/2004 5:18:00 PM	7.02			11.90	53.42	6.9	34.3	1030		551	77	9940
M-28	9/15/2004 2:00:00 PM	6.66		49.90	13.70	56.66	7	52.1	1040		549	94	10800
M-28	11/19/2004 8:36:00 AM	7.06		51.30	10.80	51.44	6.8	47.8	1070		576	82	9280
M-28	3/1/2005 3:45:00 PM	6.63		55.10	13.00	55.40	6.9	47.9	1040		579	94	10900
M-28	5/24/2005 1:10:00 PM	6.95			11.90	53.42	7	42	936		552	68	8890
M-28	8/16/2005 1:15:00 PM	6.74		48.50	15.80	60.44	7.3	45.8	899		504	62	9980
M-28	11/15/2005 4:35:00 PM	6.61		41.60	10.00	50.00	7	42.8	990		584	79	9880
M-28	2/7/2006 4:30:00 PM	7.01		45.20	9.80	49.64	6.9	44.6	972		534	73	9450
M-28	5/23/2006 4:20:00 PM	6.69		39.10	11.75	53.15	7.5	42.7	954		522	65	9010
M-28	8/22/2006 4:45:00 PM	7.30		41.00	10.50	50.90	6.8	40.4	872		505	56	8080
M-28	12/6/2006 2:40:00 PM	6.80		37.18	9.90	49.82	6.9	42	877		503	67	8480
M-28	3/15/2007 10:15:00 AM	6.48	0.11	29.08	9.86	49.75	6.9	32.5					
M-30	6/1/2000 12:00:00 AM	9.20		2.60	9.80	49.64	8	2.38	126	5.63	118	7	325
M-30	2/22/2002 1:00:00 PM	7.64		2.90	5.60	42.08	7.5	2.56	113		110	7	325
M-30	5/22/2002 5:10:00 PM	7.53		2.58	7.00	44.60	7.6	2.6	111		103	6	291
M-30	8/21/2002 10:40:00 AM	7.30		2.10	14.20	57.56	7.7	2.48	114		109	6	257
M-31	6/1/2000 12:00:00 AM	9.20		2.60	9.80	49.64	7.1	80.5	1760	9.5	783	122	20200
M-31	8/9/2001 11:05:00 AM	6.90		88.50	10.70	51.26	6.9	74.2	1540		649	150	19800
M-31	8/16/2001 5:30:00 PM	7.00		84.30	11.20	52.16	6.9	68.3	1640		659	150	21900
M-31	11/8/2001 4:00:00 PM	6.80		51.40	11.67	53.01	6	39.8	1170		1070	110	15700
M-31	2/21/2002 9:45:00 AM	6.58		81.40	10.30	50.54	7	58.4	1570		630	207	20800
M-31	5/22/2002 3:45:00 PM	6.75		94.40	11.80	53.24	6.8	64.7	1440		571	162	20000
M-31	8/21/2002 10:45:00 AM	6.50		83.50	12.10	53.78	6.8	67.5	1530		626	136	16600

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
M-31	11/6/2002 10:35:00 AM	6.84		89.20	10.80	51.44	6.8	55	1520		601	177	19100
M-31	3/5/2003 2:10:00 PM	6.72		81.90	10.20	50.36	6.7	43.2	1540		574	169	19300
M-31	5/13/2003 4:00:00 PM	7.21		79.10	11.30	52.34	6.7	85	1500		588	238	22200
M-31	8/13/2003 2:40:00 PM	7.49		88.10	12.70	54.86	6.6	81.9	1480		577	229	20400
M-31	11/5/2003 11:35:00 AM			83.00	11.10	51.98	6.7	42.1	1020		450	206	16900
M-31	3/16/2004 4:00:00 PM	6.10		68.80	9.30	48.74	6.7	87.1	1570		604	214	20200
M-31	6/8/2004 4:40:00 PM	6.94			11.40	52.52	6.8	89.1	1450		559	182	18800
M-31	9/15/2004 3:00:00 PM	6.58		88.50	14.50	58.10	6.9	90.5	1510		577	227	20900
M-31	11/18/2004 5:00:00 PM	6.84		86.10	10.70	51.26	6.7	91.4	1590		590	274	20700
M-31	3/1/2005 1:45:00 PM	6.48		98.00	12.50	54.50	6.8	89.9	1560		603	264	23000
M-31	5/24/2005 3:05:00 PM	6.82			11.00	51.80	6.7	89.6	1420		540	251	22800
M-31	8/16/2005 11:30:00 AM	6.49		95.50	17.50	63.50	6.9	90	1530		592	185	20700
M-31	11/15/2005 3:30:00 PM	6.40		89.00	9.10	48.38	7	91.9	1630		637	218	23600
M-31	2/7/2006 2:00:00 PM	7.22		4.60	10.20	50.36	7.1	90.4	1560		558	262	22400
M-31	5/23/2006 5:20:00 PM	6.53		86.02	11.25	52.25	7.4	91.3	1560		523	305	22500
M-31	8/23/2006 1:30:00 PM	6.70		93.60	10.30	50.54	6.6	94.3	1550		542	220	23000
M-31	12/6/2006 3:45:00 PM	6.44		92.20	9.20	48.56	6.8	95.2	1450		527	239	22700
M-31	3/15/2007 11:30:00 AM	6.31	0.06	88.86	9.40	48.92	6.7	93.6					
M-36	9/5/2001 3:55:00 PM	7.60		3.80	10.90	51.62	6.6	3.49	206		156	7	458
M-36	11/9/2001 11:05:00 AM	7.40		2.70	9.60	49.28	7.2	3.77	215		163	8	478
M-39	11/7/2001 3:45:00 PM				9.44	48.99	8.9	2.64	10		241	8	269
MOC- 1B	3/14/2007 12:55:00 PM	7.22	0.29	4.06	9.68	49.42	7.2	4.5					
MOC- 2	3/13/2007 5:00:00 PM	6.46	0.12	20.26	9.70	49.46	6.8	20.6					
MOC- 3	3/14/2007 11:50:00 AM	7.19	0.37	3.60	9.69	49.44	7.3	4					
MOC- 4	3/12/2007 4:00:00 PM	6.83	0.09	8.98	9.68	49.42	7.2	9.37					
MOC-20A	3/13/2007 1:40:00 PM	6.63	0.73	5.44	9.23	48.61	7.2	5.78					
MOC-20B	3/13/2007 3:00:00 PM	6.52	0.10	4.27	9.65	49.37	7.1	4.46					
PNR- 4	6/1/2000 12:00:00 AM	9.20		2.60	9.80	49.64							
PNR- 4	8/10/2001 1:15:00 PM	6.80		102.60	67.70	153.86	7	75.1	839		125	534	24800

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR- 4	11/8/2001 3:00:00 PM				94.44	201.99	7.9	49.2	1210		43	453	20700
PNR- 5	6/1/2000 12:00:00 AM	9.20		2.60	9.80	49.64	7.4	85.1	1170	0.2	213	396	22600
PNR- 5	8/8/2001 11:00:00 AM	6.60		96.00	40.80	105.44	6.7	79.5	1100		264	436	23400
PNR- 5	8/15/2001 11:00:00 AM	6.80			38.60	101.48	6.9	72.8	1210		271	460	23800
PNR- 5	11/7/2001 11:10:00 AM	5.80			43.33	109.99	6.5	52.7	1030		234	368	21500
PNR- 5	2/20/2002 10:02:00 AM	6.27		92.20	41.70	107.06	6.7	61.3	1100		248	432	23500
PNR- 5	5/22/2002 10:40:00 AM	6.42		93.60	41.10	105.98	6.7	68.4	975		212	377	21800
PNR- 5	8/20/2002 5:10:00 PM	6.30		93.30	39.20	102.56	6.6	71.9	1040		241	297	23700
PNR- 5	11/6/2002 11:10:00 AM	6.37		102.10	40.00	104.00	6.7	61.3	1140		250	446	22800
PNR- 5	3/4/2003 4:30:00 PM	6.60		103.20	35.10	95.18	6.6	50.5	1070		218	413	22100
PNR- 5	5/28/2003 12:35:00 PM	6.39		97.00	41.60	106.88	6.5	95.2	1020		228	473	23000
PNR- 5	8/13/2003 2:59:00 PM	6.64		89.30	40.60	105.08	6.7	90.2	1110		256	450	23100
PNR- 5	11/4/2003 3:30:00 PM	6.29			37.40	99.32	6.6	48.9	654		186	359	19300
PNR- 5	3/17/2004 10:15:00 AM	6.42		102.00	40.30	104.54	6.8	94.8	1170		256	507	25000
PNR- 5	6/9/2004 9:40:00 AM	6.59		94.80	39.10	102.38	6.6	97.1	1030		228	400	22400
PNR- 5	9/14/2004 4:20:00 PM	7.68		100.30	38.10	100.58	6.8	98.1	1140		253	446	24000
PNR- 5	11/17/2004 1:50:00 PM	6.58		107.50	35.80	96.44	6.6	94.9	1070		233	445	24300
PNR- 5	3/2/2005 12:15:00 PM	6.41		97.20	38.10	100.58	6.7	96.7	1150		259	501	27200
PNR- 5	5/25/2005 5:20:00 PM	6.26		100.00	36.20	97.16	6.6	95.6	1190		279	446	26400
PNR- 5	8/17/2005 11:00:00 AM	6.26		99.70	48.40	119.12	6.8	94.8	1090		261	464	23300
PNR- 5	11/16/2005 1:00:00 PM	6.81		104.80	34.20	93.56	6.7	95.8	1170		286	420	25500
PNR- 5	2/9/2006 3:20:00 PM	6.81		98.90	20.00	68.00	6.8	91.6	1010		217	430	23000
PNR- 5	5/25/2006 10:30:00 AM	6.53		85.52	35.47	95.85	7.4	89	990		220	382	23000
PNR- 5	8/23/2006 3:40:00 PM	6.31		87.20	36.10	96.98	6.6	87.6	837		185	310	19900
PNR- 5	12/7/2006 1:25:00 PM	6.27		84.70	33.80	92.84	6.8	83.8	796		182	332	19800
PNR- 5	3/14/2007 2:14:00 PM	6.51		92.90	33.20	91.76	6.8	79.8					
PNR- 6	5/31/2000 12:00:00 AM	9.20		3.26	10.10	50.18	8	1.21	109	0.09	77	6	75
PNR- 6	8/7/2001 9:55:00 AM	6.70		1.70	10.40	50.72	7.1	1.75	111		108	6	124
PNR- 6	8/15/2001 3:30:00 PM	7.60			9.20	48.56	7.3	1.71	126		126	7	143
PNR- 6	11/7/2001 8:55:00 AM	7.50		0.80	7.78	46.00	7.3	1.62	109		101	6	117
PNR- 6	2/19/2002 1:30:00 PM	7.22		2.06	10.30	50.54	7	2.25	151		143	7	121
PNR- 6	5/21/2002 12:15:00 PM	7.43		2.40	11.70	53.06	7.5	1.86	142		117	7	123
PNR- 6	8/19/2002 4:35:00 PM	7.10		1.40	10.30	50.54	7.4	1.7	112		104	5	91

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature		Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
					(°C)	(°F)							
PNR- 6	11/5/2002 11:25:00 AM	7.27		1.30	9.30	48.74	7.5	1.5	100		82	6	97
PNR- 6	3/4/2003 10:40:00 AM	6.79		1.20	8.30	46.94	7.6	1.33	94		81	6	120
PNR- 6	5/13/2003 11:30:00 AM	7.78		0.80	11.50	52.70	7.2	1.36	94		82	7	99
PNR- 6	8/13/2003 8:16:00 AM	7.99		1.10	9.60	49.28	7.4	1.44	95		86	6	95
PNR- 6	11/4/2003 1:30:00 PM	7.13		1.10	8.30	46.94	7.6	1.53	100		95	7	114
PNR- 6	6/8/2004 10:20:00 AM	7.57			10.30	50.54	7.4	3.84	241		337	10	283
PNR- 6	9/14/2004 9:15:00 AM	7.55		2.60	9.80	49.64	7.6	2.65	155		205	7	183
PNR- 6	11/16/2004 10:17:00 AM	7.42		2.30	9.60	49.28	7.4	1.92	123		144	7	124
PNR- 6	2/28/2005 5:30:00 PM	7.08		1.90	9.50	49.10	7.3	1.77	136		128	7	96
PNR- 6	5/23/2005 6:00:00 PM	7.40		1.40	9.90	49.82	7.2	1.73	140		122	7	92
PNR- 6	8/16/2005 9:35:00 AM	7.19		1.59	10.10	50.18	7.5	1.73	139		124	6	94
PNR- 6	11/15/2005 10:00:00 AM	7.19		1.59	7.60	45.68	7.5	1.7	118		112	8	95
PNR- 6	2/7/2006 10:47:00 AM	7.23		1.20	7.90	46.22	7.1	1.5	104		95	7	97
PNR- 6	5/23/2006 10:30:00 AM	7.29		1.38	12.80	55.04	8	1.48	108		93	7	103
PNR- 6	8/22/2006 10:45:00 AM	7.26		1.40	9.40	48.92	7.2	1.3	88		82	7	93
PNR- 6	12/5/2006 1:40:00 PM	7.11		1.40	8.80	47.84	7.2	1.5	91		89	6	99
PNR- 6	3/14/2007 10:15:00 AM	6.96	1.54	1.21	9.39	48.90	7.5	1.44					
PNR- 7	5/31/2000 12:00:00 AM	9.20		3.26	10.10	50.18	7.2	48.2	2770	2.6	2130	55	6800
PNR- 7	8/7/2001 5:20:00 PM	6.90		53.10	9.60	49.28	6.7	49.4	2480		1850	52	6740
PNR- 7	8/15/2001 5:55:00 PM	7.00		33.42	9.60	49.28	6.9	44.9	2600		2220	57	7910
PNR- 7	11/7/2001 11:50:00 AM	6.60			8.89	48.00	6.6	34.7	2630		1960	52	7060
PNR- 7	2/19/2002 5:05:00 PM	6.49		50.40	9.40	48.92	6.7	41	2700		1960	57	7550
PNR- 7	5/22/2002 1:10:00 PM	6.66		57.70	9.50	49.10	6.6	45.1	2490		1860	60	7450
PNR- 7	8/20/2002 3:07:00 PM	6.60		49.80	10.90	51.62	6.7	45.9	2510		1990	47	8200
PNR- 7	11/5/2002 2:50:00 PM	6.72		55.00	10.10	50.18	6.8	37.4	2660		1900	57	7690
PNR- 7	3/4/2003 3:05:00 PM	6.57		51.60	9.10	48.38	6.6	29	2600		1880	72	8650
PNR- 7	8/12/2003 12:20:00 PM	6.35		59.50	11.60	52.88	6.5	56	2730		1950	69	8460
PNR- 7	11/4/2003 2:30:00 PM	6.31		49.70	8.10	46.58	6.8	23.7	2090		1490	55	6880
PNR- 7	3/17/2004 5:10:00 PM	6.75		48.50	12.70	54.86	6.6	56.9	2870		2010	68	9040
PNR- 7	6/8/2004 6:40:00 PM	7.35		5.20	10.50	50.90	6.6	60	2530		1770	69	8850
PNR- 7	9/14/2004 6:00:00 PM	7.13		57.20	10.20	50.36	6.8	60.8	2630		1840	88	9390
PNR- 7	11/17/2004 1:40:00 PM	6.91		66.20	10.20	50.36	6.6	61.3	2670		1830	71	9700
PNR- 7	3/1/2005 5:30:00 PM	6.49		53.80	9.60	49.28	6.6	60.6	2560		1780	72	9940

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR- 7	5/25/2005 1:47:00 PM	6.42		63.50	10.20	50.36	6.6	59.7	2640		1800	49	10600
PNR- 7	8/17/2005 10:52:00 AM	6.51		62.70	10.60	51.08	6.7	61.9	2840		1940	71	10500
PNR- 7	11/16/2005 2:00:00 PM	6.77		66.70	8.40	47.12	6.8	63	2800		1920	66	10700
PNR- 7	2/9/2006 2:15:00 PM	6.83		60.20	8.00	46.40	6.8	61.9	2840		1820	98	11000
PNR- 7	5/24/2006 4:10:00 PM	6.56		50.20	10.20	50.36	7.3	62.9	2560		1750	76	11500
PNR- 7	8/24/2006 10:24:00 AM	6.59		52.40	9.20	48.56	6.5	66.1	2520		1660	67	10800
PNR- 7	12/8/2006 10:15:00 AM	6.71		64.10	8.60	47.48	6.7	66.7	2460		1580	57	10400
PNR- 7	3/15/2007 12:15:00 PM	6.65	0.44	60.54	8.70	47.66	6.5	66.3					
PNR- 8	5/31/2000 12:00:00 AM	9.20		3.26	10.10	50.18	7.8	4.08	272	25.2	200	12	420
PNR- 8	8/7/2001 1:50:00 PM	7.50		4.30	9.90	49.82	7.1	4.38	266		196	10	406
PNR- 8	8/16/2001 6:10:00 PM	7.50		4.60	10.00	50.00	2.3	12.8	254		191	8	406
PNR- 8	11/6/2001 4:30:00 PM	7.10			7.78	46.00	7.2	5.04	327		243	14	480
PNR- 8	2/22/2002 4:00:00 PM	7.58		5.93	11.50	52.70	7.2	4.86	307		222	15	481
PNR- 8	5/21/2002 5:45:00 PM	7.34		5.81	9.00	48.20	7.4	5.57	290		215	12	463
PNR- 8	8/21/2002 10:10:00 AM	7.30		4.20	10.30	50.54	7.3	5.77	320		246	11	435
PNR- 8	11/5/2002 3:25:00 PM	7.15		5.40	10.30	50.54	7.2	5.61	340		242	12	485
PNR- 8	3/4/2003 12:10:00 PM	7.58		5.00	9.90	49.82	7.1	5.46	336		247	13	528
PNR- 8	5/13/2003 5:00:00 PM	7.48		5.00	11.00	51.80	7.2	5.24	350		254	13	552
PNR- 8	8/12/2003 9:46:00 AM	7.18		4.20	10.60	51.08	7.1	5.68	367		268	12	584
PNR- 8	11/4/2003 12:00:00 PM	5.62		3.90	8.00	46.40	7.4	4.7	321		234	12	452
PNR- 8	3/18/2004 11:30:00 AM	7.25		7.80	9.90	49.82	7.2	5.03	348		258	12	491
PNR- 8	6/8/2004 6:40:00 PM	7.35		5.20	10.50	50.90	7.3	5.74	352		256	13	530
PNR- 8	9/14/2004 5:05:00 PM	7.70		4.50	12.10	53.78	7.3	5.67	360		256	13	514
PNR- 8	11/16/2004 4:15:00 PM	7.15		6.30	12.60	54.68	7.2	5.85	375		264	14	527
PNR- 8	3/2/2005 3:30:00 PM	7.27		5.62	9.20	48.56	7.3	6.2	383		290	17	650
PNR- 8	5/26/2005 10:46:00 AM	7.19		5.90	10.50	50.90	7.2	6.51	433		319	11	681
PNR- 8	8/18/2005 11:50:00 AM	7.45		6.30	12.40	54.32	7.3	6.44	400		299	12	594
PNR- 8	11/17/2005 9:45:00 AM	6.96		7.30	9.50	49.10	7.2	6.8	449		337	12	703
PNR- 8	2/9/2006 9:45:00 AM	7.68		6.80	9.90	49.82	7.3	7	417		309	16	707
PNR- 8	5/24/2006 5:50:00 PM	7.11		5.30	9.80	49.64	7.9	6.91	424		312	16	664
PNR- 8	8/24/2006 12:30:00 PM	7.22		7.80	10.10	50.18	7	7.25	434		322	16	724
PNR- 8	12/7/2006 11:30:00 AM	7.31		7.00	8.50	47.30	7.2	7.9	435		331	15	763
PNR- 8	3/14/2007 1:25:00 PM	7.23	4.79	7.77	9.37	48.87	7.1	8.34					

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR- 9	6/1/2000 12:00:00 AM	9.20		2.60	9.80	49.64	7.3	9.31	583	35.4	355	16	887
PNR- 9	8/9/2001 9:35:00 AM	7.40		10.11	10.50	50.90	7.1	9.66	637		378	18	985
PNR- 9	8/16/2001 1:45:00 PM	7.60			10.90	51.62	7.2	9.9	663		412	17	1050
PNR- 9	11/7/2001 2:30:00 PM	7.70		4.50	9.44	48.99	7	10.3	691		420	20	1060
PNR- 9	2/20/2002 2:50:00 PM	7.24		10.20	10.70	51.26	6.8	11.7	689		413	30	1110
PNR- 9	5/22/2002 10:15:00 AM	7.32		11.90	12.60	54.68	7	11.3	607		375	18	1030
PNR- 9	8/20/2002 4:20:00 PM	7.20		11.10	12.70	54.86	7	11.9	670		434	16	1000
PNR- 9	11/5/2002 2:05:00 PM	7.50		11.47	10.90	51.62	7.1	12.1	704		417	18	1030
PNR- 9	3/4/2003 4:00:00 PM	7.37		11.16	9.30	48.74	6.8	12.8	756		421	20	1110
PNR- 9	5/27/2003 6:15:00 PM	7.16		10.50	12.70	54.86	6.9	13	735		434	19	1070
PNR- 9	8/13/2003 10:35:00 AM	7.82		11.74	14.90	58.82	6.8	10.9	718		421	19	1110
PNR- 9	11/4/2003 2:35:00 PM	6.93		10.06	10.00	50.00	7	11.6	696		480	21	1210
PNR- 9	6/8/2004 1:35:00 PM	7.56			11.50	52.70	7.1	12.2	783		467	20	1350
PNR- 9	9/14/2004 11:00:00 AM	7.67		12.00	11.30	52.34	7	13.3	835		483	20	1220
PNR- 9	11/16/2004 4:12:00 PM	7.36		17.30	10.00	50.00	6.9	13.6	848		485	23	1270
PNR- 9	3/1/2005 12:10:00 PM	7.33		13.00	9.30	48.74	7.1	13.4	827		490	24	1430
PNR- 9	5/24/2005 5:25:00 PM	7.23		13.81	10.20	50.36	7	13.6	886		528	19	1490
PNR- 9	8/16/2005 12:00:00 PM	7.27		13.55	9.90	49.82	7.1	13.9	852		502	16	1300
PNR- 9	11/15/2005 3:55:00 PM	7.28		14.50	10.10	50.18	7.2	14.2	930		557	20	1550
PNR- 9	2/8/2006 12:00:00 PM	7.54		14.20	8.20	46.76	7.1	14.2	925		542	25	1550
PNR- 9	5/23/2006 1:15:00 PM	7.32		12.00	10.00	50.00	7.4	14.5	863		511	24	1520
PNR- 9	8/23/2006 9:40:00 AM	7.29		16.10	10.20	50.36	6.8	15.1	904		539	22	1550
PNR- 9	12/6/2006 3:00:00 PM	7.47		14.08	9.12	48.42	7	15.2	895		530	23	1600
PNR- 9	3/13/2007 4:35:00 PM	7.24	0.26	14.45	9.53	49.15	6.9	15.3					
PNR-10	6/1/2000 12:00:00 AM	9.20		2.60	9.80	49.64	7.6	3.12	208	12.1	111	8	435
PNR-10	8/8/2001 6:50:00 PM	7.40		3.70	11.40	52.52	7.2	3.49	230		127	8	449
PNR-10	8/16/2001 1:15:00 PM	7.70			11.30	52.34	7.2	3.45	229		128	8	482
PNR-10	11/7/2001 12:30:00 PM				9.44	48.99	7.4	3.19	217		121	10	443
PNR-10	2/20/2002 1:38:00 PM	7.27		2.40	10.30	50.54	7	3.85	230		131	8	448
PNR-10	5/21/2002 1:35:00 PM	7.31		3.82	11.60	52.88	7.2	3.79	214		124	8	430
PNR-10	8/20/2002 12:20:00 PM	7.20		3.40	13.10	55.58	7.2	4.02	230		139	7	407
PNR-10	11/5/2002 1:30:00 PM	7.47		3.90	11.00	51.80	7.2	4.11	263		145	11	581
PNR-10	3/4/2003 4:50:00 PM	7.34		3.84	9.20	48.56	7	4.33	268		150	9	470

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-10	5/27/2003 5:45:00 PM	7.30		3.60	12.40	54.32	7.1	4.39	268		155	9	476
PNR-10	8/13/2003 10:00:00 AM	7.97		3.91	13.30	55.94	6.9	4.16	263		149	9	444
PNR-10	11/4/2003 1:45:00 PM	7.87		3.60	10.20	50.36	7.2	3.85	240		162	9	468
PNR-10	6/8/2004 2:10:00 PM	7.51			11.50	52.70	7.2	4.18	284		170	9	524
PNR-10	9/14/2004 11:40:00 AM	7.51		4.00	11.50	52.70	7.2	4.62	300		180	10	508
PNR-10	11/16/2004 11:28:00 AM	7.30		5.70	10.60	51.08	7.2	4.63	316		181	10	502
PNR-10	3/1/2005 11:06:00 AM	7.28		4.46	9.60	49.28	7.1	4.67	315		191	12	571
PNR-10	5/24/2005 3:50:00 PM	7.16		4.76	10.80	51.44	7.2	4.75	300		181	11	558
PNR-10	8/16/2005 10:48:00 AM	7.17		4.63	9.90	49.82	7.2	4.87	327		197	7	495
PNR-10	11/15/2005 11:45:00 AM	6.35		4.89	8.90	48.02	7.2	5.1	356		220	8	585
PNR-10	2/7/2006 2:00:00 PM	7.22		4.60	10.20	50.36	7.1	5.1	355		208	11	582
PNR-10	5/23/2006 12:15:00 PM	7.23		4.20	10.00	50.00	7.8	5.14	352		209	11	597
PNR-10	8/23/2006 10:35:00 AM	7.20		5.62	10.10	50.18	7	5.46	354		208	11	598
PNR-10	12/6/2006 2:30:00 PM	7.40		5.25	9.20	48.56	7	14.9	366		208	12	633
PNR-10	3/13/2007 3:20:00 PM	7.26	0.33	5.35	9.82	49.68	7.1	5.63					
PNR-12	5/31/2000 12:00:00 AM	9.20		3.26	10.10	50.18	7.6	4.58	425	39.3	328	17	362
PNR-12	8/8/2001 3:00:00 PM	7.30		4.90	12.80	55.04	7.3	4.76	421		325	15	397
PNR-12	8/15/2001 4:00:00 PM	7.40			13.40	56.12	7.3	4.6	444		356	16	381
PNR-12	11/6/2001 4:20:00 PM	7.70		4.10	10.00	50.00	7.2	4.65	425		333	15	336
PNR-12	2/20/2002 11:55:00 AM	7.14		4.60	10.80	51.44	7.2	5.11	375		349	14	373
PNR-12	5/21/2002 11:00:00 AM	7.22		4.90	14.00	57.20	7.3	5.12	409		324	12	342
PNR-12	8/19/2002 4:05:00 PM	8.80		4.60	12.30	54.14	7.4	4.54	328		304	11	298
PNR-12	11/5/2002 11:15:00 AM	7.31		4.84	11.00	51.80	7.2	5.11	442		331	12	328
PNR-12	3/4/2003 1:10:00 PM	7.53		4.60	9.60	49.28	7.2	4.81	407		340	15	361
PNR-12	5/27/2003 5:00:00 PM	7.46		4.30	13.50	56.30	7.2	5.25	393		316	13	323
PNR-12	8/13/2003 8:05:00 AM	8.21		4.00	15.60	60.08	7.1	4.85	415		341	11	314
PNR-12	11/4/2003 12:35:00 PM	5.38		3.30	10.20	50.36	7.2	4.37	370		354	12	331
PNR-12	6/8/2004 9:15:00 AM	7.60		2.30	9.70	49.46	7.2	4.59	402		342	11	389
PNR-12	9/14/2004 10:00:00 AM	7.67		3.60	11.10	51.98	7.1	4.9	424		359	12	345
PNR-12	11/16/2004 9:35:00 AM	7.12		6.10	10.20	50.36	7.4	4.97	453		366	12	340
PNR-12	2/28/2005 5:10:00 PM	7.09		4.48	9.50	49.10	7.1	4.85	416		363	12	361
PNR-12	5/23/2005 6:50:00 PM	6.94		4.77	10.30	50.54	6.9	4.8	404		342	11	354
PNR-12	8/15/2005 6:00:00 AM	6.95		4.71	10.30	50.54	7.2	4.93	440		372	9	335

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-12	11/15/2005 9:45:00 AM	7.08		4.80	9.70	49.46	7.1	5	444		384	9	376
PNR-12	2/7/2006 1:00:00 PM	6.97		4.70	10.30	50.54	7	5	435		385	11	374
PNR-12	5/23/2006 10:50:00 AM	7.00		4.30	10.40	50.72	7.9	5.02	445		388	11	376
PNR-12	12/5/2006 3:45:00 PM	6.92		5.00	9.50	49.10	7	5.3	450		370	11	361
PNR-12	3/14/2007 12:15:00 PM	6.74	1.97	4.64	9.86	49.75	7.2	5.23					
PNR-13	8/15/2001 6:15:00 PM	7.50		21.25	14.50	58.10	7.3	27.3	1050		546	31	6050
PNR-13	8/15/2001 7:00:00 PM	7.50		21.25	14.50	58.10	7.2	25.6	984		492	42	5710
PNR-13	11/7/2001 1:35:00 PM	7.40			9.44	48.99	7.1	10.9	529		296	26	1610
PNR-13	2/19/2002 4:30:00 PM	7.09		7.70	9.50	49.10	7	9.42	474		273	17	1250
PNR-13	5/22/2002 2:00:00 PM	7.20		6.82	11.00	51.80	7.4	6.25	418		249	14	680
PNR-13	8/20/2002 3:45:00 PM	6.90		4.40	13.30	55.94	7.2	5.57	408		257	12	588
PNR-13	11/5/2002 3:30:00 PM	7.09		4.90	9.90	49.82	7.2	5.27	386		227	14	493
PNR-13	3/4/2003 11:15:00 AM	7.48		4.40	9.30	48.74	7.1	4.74	384		224	11	437
PNR-13	5/28/2003 10:05:00 AM	7.10		4.64	12.20	53.96	7.2	5.13	386		230	14	471
PNR-13	8/13/2003 10:20:00 AM	7.37		3.40	11.10	51.98	7.1	4.29	305		193	11	374
PNR-13	11/4/2003 2:15:00 PM	7.27		6.80	10.10	50.18	7.2	5.61	322		223	14	772
PNR-13	6/8/2004 3:30:00 PM	7.37		3.67	11.00	51.80	7.1	5.64	316		201	11	667
PNR-13	9/14/2004 10:00:00 AM	7.67		3.60	11.10	51.98	7.2	4.13	307		190	11	350
PNR-13	11/16/2004 3:30:00 PM	7.13		4.90	12.90	55.22	7.2	4.65	326		202	13	520
PNR-13	3/1/2005 1:25:00 PM	7.16		3.80	10.00	50.00	7.1	3.92	308		196	12	370
PNR-13	5/24/2005 12:00:00 PM	7.08		4.60	11.40	52.52	7.1	4.47	292		189	12	488
PNR-13	8/17/2005 9:40:00 AM	7.01		4.10	14.40	57.92	7.3	4.49	303		193	9	383
PNR-13	11/16/2005 10:50:00 AM	6.68		4.80	9.70	49.46	7.3	4.7	337		227	10	565
PNR-13	2/8/2006 10:40:00 AM	7.32		5.00	9.30	48.74	7.3	4.6	321		216	11	535
PNR-13	5/24/2006 1:15:00 PM	7.08		3.10	16.50	61.70	7.9	4.33	318		215	11	480
PNR-13	8/22/2006 2:25:00 PM	7.15		4.30	11.80	53.24	7	5.1	325		231	11	620
PNR-13	12/6/2006 11:30:00 AM	7.40		5.00	7.00	44.60	7.3	6.1	334		235	11	723
PNR-13	3/14/2007 4:20:00 PM	7.37		3.80	9.40	48.92	7.2	4.82					
PNR-14	8/9/2001 4:00:00 PM	6.40		96.60	42.60	108.68	6.5	80.5	1390		397	327	23100
PNR-14	8/14/2001 9:45:00 AM	6.60		96.90	39.70	103.46	6.6	74.3	1430		394	310	23200
PNR-14	11/7/2001 2:35:00 PM	6.40			45.56	114.01	6.3	51.1	1690		519	170	22200
PNR-14	2/21/2002 11:30:00 AM	6.09		91.40	41.20	106.16	6.6	60.4	1570		483	249	22700
PNR-14	5/22/2002 12:05:00 PM	6.26		90.20	42.50	108.50	6.4	66.7	1260		358	282	22000

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature		Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
					(°C)	(°F)							
PNR-14	8/20/2002 5:45:00 PM	8.10		14.90	12.80	55.04	6.5	68.5	1250		407	133	21200
PNR-14	11/6/2002 11:28:00 AM	6.30		105.50	40.90	105.62	6.6	57.5	1410		412	368	21500
PNR-14	3/4/2003 5:15:00 PM	6.42		91.80	35.70	96.26	6.4	47.4	1390		384	355	20800
PNR-14	5/28/2003 11:45:00 AM	6.44		64.70	40.20	104.36	6.5	84.1	1280		426	343	19300
PNR-14	8/13/2003 3:43:00 PM	6.36		78.20	39.70	103.46	6.4	82.2	1300		394	370	20700
PNR-14	11/5/2003 11:45:00 AM	7.43		41.70	9.10	48.38	6.5	31	1170		596	214	12400
PNR-14	3/17/2004 10:45:00 AM	6.05		96.80	38.80	101.84	6.7	70.4	1110		397	314	16800
PNR-14	6/9/2004 10:40:00 AM	6.62		66.40	38.20	100.76	6.6	68.5	827		283	241	14500
PNR-14	9/14/2004 3:35:00 PM	7.80		62.50	36.40	97.52	6.8	60	748		275	263	13800
PNR-14	11/17/2004 3:30:00 PM	6.88		65.50	36.00	96.80	6.7	55.6	741		271	242	11700
PNR-14	3/2/2005 10:50:00 AM	6.59		42.50	40.70	105.26	6.8	45.5	617		257	175	10400
PNR-14	5/25/2005 9:46:00 AM	6.90		5.20	9.80	49.64	6.9	38.1	568		248	178	8840
PNR-14	8/17/2005 3:18:00 PM	6.72		34.90	33.50	92.30	7	33	528		260	125	6900
PNR-14	11/16/2005 11:05:00 AM	6.66		43.10	31.90	89.42	7.1	31.7	663		368	173	6850
PNR-14	2/9/2006 2:35:00 PM	6.73		31.60	30.80	87.44	7	28.6	566		321	145	5650
PNR-14	5/24/2006 5:00:00 PM	6.49		25.74	32.01	89.62	7.6	27.4	570		331	121	5530
PNR-14	8/23/2006 4:20:00 PM	6.44		26.07	32.03	89.65	6.9	26.9	525		322	105	4930
PNR-14	12/7/2006 3:30:00 PM	7.08		19.20	27.90	82.22	6.9	24.5	523		324	91	4530
PNR-14	3/14/2007 10:45:00 AM	6.59		26.10	28.40	83.12	6.8	23.2					
PNR-15	8/10/2001 8:15:00 AM	7.40		94.60	80.10	176.18	7.4	79.3	950		243	440	22700
PNR-15	8/14/2001 1:00:00 PM	7.10		97.20	80.10	176.18	7	72.9	1170		277	480	25200
PNR-15	11/8/2001 9:10:00 AM	6.20		102.00	81.67	179.01	6.7	49.4	950		237	382	21300
PNR-15	2/21/2002 2:54:00 PM	6.24		104.50	64.70	148.46	6.8	62.4	991		232	462	22700
PNR-15	5/22/2002 2:55:00 PM	7.01		16.20	10.00	50.00	6.6	69.1	951		226	398	21900
PNR-15	8/21/2002 2:00:00 PM	6.40		101.70	60.50	140.90	6.8	72.7	1110		250	385	22100
PNR-15	11/6/2002 2:35:00 PM	6.43		112.60	56.50	133.70	6.8	60.4	1010		235	420	21700
PNR-15	3/5/2003 12:30:00 PM	7.17		107.00	55.50	131.90	6.6	46.8	1090		278	403	24800
PNR-15	5/28/2003 3:35:00 PM	6.42		90.90	52.70	126.86	6.7	90.1	1060		282	432	22200
PNR-15	8/14/2003 9:58:00 AM	6.50		78.90	53.20	127.76	6.6	78.3	1030		278	378	19800
PNR-15	11/5/2003 2:30:00 PM	7.30		4.62	9.20	48.56	6.7	37.8	914		267	386	18700
PNR-15	3/17/2004 1:35:00 PM	6.42		84.00	45.90	114.62	6.1	66.3	827		253	286	15800
PNR-15	6/8/2004 12:45:00 PM	7.01		56.30	37.80	100.04	7	60.5	652		209	241	13900
PNR-15	9/15/2004 4:30:00 PM	6.74		62.20	43.10	109.58	7	58.9	753		252	235	13200

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-15	11/18/2004 9:05:00 AM	6.88		58.90	40.40	104.72	6.8	54.7	668		239	253	12000
PNR-15	3/2/2005 12:20:00 PM	6.72		47.60	38.20	100.76	7	50.2	660		242	191	11800
PNR-15	5/25/2005 10:40:00 AM	6.95		44.00	35.30	95.54	7.2	40	498		194	175	9080
PNR-15	8/17/2005 4:45:00 PM	6.93		43.70	36.60	97.88	7.2	42.2	510		199	128	8400
PNR-15	11/16/2005 11:35:00 AM	7.02		44.20	33.40	92.12	7.1	37.7	555		214	177	8830
PNR-15	2/8/2006 10:45:00 AM	7.17		33.10	31.70	89.06	7.2	31.6	392		146	115	6920
PNR-15	5/24/2006 11:15:00 AM	7.25		19.20	30.30	86.54	7.9	24.3	255		91	90	5310
PNR-15	8/23/2006 5:15:00 PM	6.80		28.20	31.80	89.24	7.2	28.2	312		111	93	5950
PNR-15	12/7/2006 4:30:00 PM	7.08		22.00	28.50	83.30	7.3	28.1	310		115	85	5720
PNR-15	3/14/2007 11:40:00 AM	7.00		31.80	26.10	78.98	7.3	28.7					
PNR-16	8/10/2001 3:15:00 PM	7.80		4.30	10.10	50.18	7.4	4.24	359		340	19	282
PNR-16	8/16/2001 6:35:00 PM	7.80		4.60	11.10	51.98	7.2	4.14	396		357	20	299
PNR-16	11/6/2001 4:05:00 PM	6.90		1.90	11.11	52.00	7.1	4.62	458		347	21	337
PNR-16	2/21/2002 10:20:00 AM	7.04		4.60	9.10	48.38	7.1	5.08	469		408	26	427
PNR-16	5/21/2002 3:50:00 PM	7.50		4.90	11.60	52.88	7.3	5	390		407	20	289
PNR-16	8/20/2002 11:40:00 AM	6.80		4.20	11.20	52.16	7.3	5.03	399		452	14	371
PNR-16	11/5/2002 2:04:00 PM	7.10		4.90	10.40	50.72	7.2	5.16	422		428	21	286
PNR-16	3/4/2003 1:00:00 PM	7.30		4.50	8.10	46.58	7.1	4.93	426		460	20	361
PNR-16	5/27/2003 6:30:00 PM	7.01		4.78	11.00	51.80	7.1	5.36	416		419	19	285
PNR-16	8/13/2003 9:10:00 AM	7.55		3.70	10.50	50.90	7.1	4.7	405		417	20	302
PNR-16	11/4/2003 12:30:00 PM	7.53		5.40	8.20	46.76	7.3	4.5	384		446	23	312
PNR-16	3/17/2004 4:09:00 PM	8.65		6.60	14.00	57.20	7	4.94	454		457	22	320
PNR-16	6/8/2004 12:30:00 PM	7.24		4.23	9.60	49.28	7.1	4.89	397		425	20	301
PNR-16	9/14/2004 12:40:00 PM	7.35		4.67	13.80	56.84	7.3	4.93	436		454	22	294
PNR-16	11/16/2004 12:30:00 PM	7.26		5.40	13.30	55.94	7.3	4.92	422		412	21	282
PNR-16	3/1/2005 2:30:00 PM	6.97		4.50	9.50	49.10	7.1	4.92	440		458	22	339
PNR-16	5/24/2005 1:58:00 PM	6.99		4.90	11.40	52.52	7	4.94	423		411	24	342
PNR-16	8/17/2005 9:30:00 AM	7.04		4.75	10.60	51.08	7.4	4.95	427		450	22	291
PNR-16	11/15/2005 3:15:00 PM	7.05		5.00	8.40	47.12	7.2	5	466		480	19	341
PNR-16	2/7/2006 4:47:00 PM	7.16		4.60	4.90	40.82	7	5.1	456		440	21	341
PNR-16	5/24/2006 12:25:00 PM	7.00		3.90	10.40	50.72	7.9	5.13	432		486	22	349
PNR-16	8/22/2006 1:20:00 PM	6.97		5.32	11.20	52.16	6.9	5.2	437		456	22	348
PNR-16	12/6/2006 1:00:00 PM	7.28		4.90	5.40	41.72	7.4	5.3	450		454	22	324

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-16	3/13/2007 12:45:00 PM	6.52	4.62	4.99	8.76	47.77	7.2	5.25					
PNR-17	8/22/2001 12:35:00 PM			98.70	75.00	167.00	7.4	65.4	1440		449	372	22900
PNR-17	8/22/2001 1:30:00 PM			97.40	76.00	168.80	7.3	66.4	1420		468	367	22900
PNR-17	11/8/2001 11:30:00 AM				88.89	192.00	7.1	47.8	2380		1070	289	20800
PNR-17	2/21/2002 5:00:00 PM	6.26		94.60	83.10	181.58	6.8	59.1	1850		608	291	21200
PNR-17	5/23/2002 10:50:00 AM	6.62		106.80	82.20	179.96	6.8	67	1360		386	289	21000
PNR-17	8/21/2002 3:15:00 PM	6.50		103.70	71.50	160.70	6.8	53.1	1220		334	316	15400
PNR-17	11/6/2002 3:40:00 PM	6.59		114.80	68.70	155.66	6.8	58.3	1360		358	405	23500
PNR-17	3/5/2003 1:30:00 PM	7.08		113.50	71.30	160.34	6.8	46.2	1190		303	342	24000
PNR-17	5/28/2003 10:00:00 AM	6.87		4.40	12.10	53.78	6.7	91.6	1100		288	383	22000
PNR-17	8/14/2003 11:05:00 AM	6.41		106.50	60.00	140.00	6.7	85.9	942		248	288	17600
PNR-17	11/6/2003 11:30:00 AM	6.54		104.90	53.50	128.30	6.8	41.8	914		262	378	20500
PNR-17	3/17/2004 3:10:00 PM	6.00		70.00	58.80	137.84	6.7	83.2	900		302	326	20200
PNR-17	6/9/2004 3:45:00 PM	6.85		81.70	48.60	119.48	6.7	81.4	770		277	274	18700
PNR-17	9/16/2004 9:35:00 AM	6.65		76.80	52.90	127.22	6.9	74.5	689		268	271	17500
PNR-17	11/18/2004 12:20:00 PM	6.92		70.80	48.00	118.40	7.1	66.6	498		224	269	15000
PNR-17	3/2/2005 3:30:00 PM	7.27		5.62	9.20	48.56	7.2	54.9	366		179	209	13400
PNR-17	5/25/2005 2:25:00 PM	6.49		46.00	44.90	112.82	7.2	47.2	252		151	176	11200
PNR-17	8/17/2005 5:25:00 PM	6.79		36.60	41.80	107.24	7.4	41.3	166		112	100	8330
PNR-17	11/16/2005 2:01:00 PM	7.43		37.30	44.10	111.38	7.6	31.5	113		88	74	7670
PNR-17	2/8/2006 2:05:00 PM	7.61		26.20	41.00	105.80	7.9	25.9	80		48	93	5970
PNR-17	5/24/2006 1:50:00 PM	7.36		22.00	37.20	98.96	8	22.6	60		39	69	5240
PNR-17	8/24/2006 12:45:00 PM	8.56		18.70	39.60	103.28	7.9	19.6	48		32	59	4710
PNR-17	12/8/2006 12:30:00 PM	7.56		13.50	37.90	100.22	8.1	17.4	43		28	51	3990
PNR-17	3/15/2007 11:49:00 AM	7.86		14.70	38.10	100.58	8.1	15.5					
PNR-18	8/8/2001 4:00:00 PM	7.40		3.00	11.40	52.52	7.3	2.94	276		215	12	193
PNR-18	8/16/2001 11:00:00 AM	7.50			12.20	53.96	7.3	3.04	264		235	11	203
PNR-18	11/7/2001 10:20:00 AM				12.22	54.00	7.5	2.91	256		200	10	184
PNR-18	2/20/2002 11:24:00 AM	7.30			10.50	50.90	7.3	3.45	310		238	10	241
PNR-18	5/21/2002 10:30:00 AM	7.22		3.52	13.10	55.58	7.4	3.41	283		217	7	172
PNR-18	8/19/2002 4:50:00 PM	7.00		3.20	12.30	54.14	7.1	3.48	299		256	7	152
PNR-18	11/5/2002 11:55:00 AM	7.41		3.47	12.00	53.60	7.2	3.63	328		240	8	184
PNR-18	3/4/2003 2:35:00 PM	7.23		3.23	10.80	51.44	7	3.61	332		241	8	180

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-18	5/13/2003 11:45:00 AM	7.97		3.20	12.30	54.14	7	3.36	325		254	8	200
PNR-18	8/14/2003 8:40:00 AM	7.97		2.90	14.20	57.56	6.9	3.5	312		235	7	196
PNR-18	11/4/2003 4:00:00 PM	7.60		3.10	10.30	50.54	7.2	3.22	284		264	8	234
PNR-18	6/8/2004 9:55:00 AM	7.41			12.40	54.32	7.2	3.39	353		280	8	261
PNR-18	9/14/2004 8:55:00 AM	7.45		3.30	10.60	51.08	7.2	3.72	327		254	8	263
PNR-18	11/18/2004 2:25:00 PM	7.07		3.80	10.90	51.62	7.1	3.77	332		254	8	272
PNR-18	2/28/2005 5:50:00 PM	6.75		3.50	10.90	51.62	7	3.58	318		262	8	247
PNR-18	5/25/2005 5:30:00 PM	7.11		2.80	12.20	53.96	7	3.5	314		256	8	236
PNR-18	8/15/2005 6:00:00 PM	7.05		3.40	21.90	71.42	7.2	3.59	332		270	7	274
PNR-18	11/15/2005 10:30:00 AM	7.07		3.52	8.80	47.84	7.2	3.8	330		278	6	298
PNR-18	2/7/2006 11:30:00 AM	7.08		3.50	7.90	46.22	7	3.8	307		262	8	300
PNR-18	5/23/2006 11:15:00 AM	7.02		3.49	12.55	54.59	7.8	3.8	310		259	9	326
PNR-18	8/22/2006 5:17:00 PM	7.11		3.29	10.40	50.72	7	4	317		261	9	346
PNR-18	12/5/2006 2:45:00 PM	6.97		3.90	9.60	49.28	7	4	312		256	8	310
PNR-18	3/14/2007 11:10:00 AM	6.83	0.12	3.63	9.72	49.50	7.2	4.08					
PNR-19	8/7/2001 2:50:00 PM	7.30		11.25	9.90	49.82	7	10.6	724		631	19	819
PNR-19	8/15/2001 4:40:00 PM	7.40			13.50	56.30	7.2	9.47	702		610	20	745
PNR-19	11/6/2001 3:20:00 PM	6.80			8.33	46.99	7.1	11.4	792		675	20	861
PNR-19	2/19/2002 3:05:00 PM	6.96		12.30	10.50	50.90	7	14.1	971		799	26	1130
PNR-19	5/22/2002 2:55:00 PM	7.01		16.20	10.00	50.00	7.1	15.6	927		791	25	1300
PNR-19	8/20/2002 12:30:00 PM	6.90		11.50	12.90	55.22	7	15.1	908		787	20	1210
PNR-19	11/5/2002 1:17:00 PM	7.02		15.90	10.00	50.00	7.1	16.2	943		755	22	1220
PNR-19	3/4/2003 12:20:00 PM	6.88		16.00	8.80	47.84	7	16.6	1020		818	25	1450
PNR-19	5/27/2003 5:20:00 PM	6.94		17.12	12.20	53.96	6.9	18.9	1020		813	26	1470
PNR-19	8/13/2003 8:55:00 AM	7.36		13.80	10.10	50.18	7	12.4	1020		810	24	1570
PNR-19	11/4/2003 10:50:00 AM	6.91		13.10	9.10	48.38	7	15.8	946		834	30	1680
PNR-19	3/17/2004 4:40:00 PM	8.75		10.80	13.00	55.40	7	20	1280		976	33	2140
PNR-19	6/8/2004 1:55:00 PM	7.13		16.90	10.40	50.72	7	19.3	1070		825	30	2110
PNR-19	9/14/2004 2:15:00 PM	7.60		63.00	12.00	53.60	7.1	17.1	912		691	34	1870
PNR-19	11/16/2004 1:45:00 PM	7.23		21.00	10.60	51.08	7	18.6	1010		745	30	1990
PNR-19	3/1/2005 3:35:00 PM	6.89		18.60	10.10	50.18	7	21.8	1140		877	34	2680
PNR-19	5/25/2005 12:36:00 PM	6.80		22.20	10.00	50.00	7	22.1	1100		824	35	2570
PNR-19	8/17/2005 12:23:00 PM	6.93		20.30	10.70	51.26	7.1	20.8	1040		782	28	2380

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-19	11/16/2005 12:00:00 PM	6.69		22.20	8.60	47.48	7.1	24.1	1200		888	42	3050
PNR-19	2/8/2006 12:55:00 PM	7.37		24.40	8.80	47.84	7.1	24.9	1320		968	40	3340
PNR-19	5/24/2006 3:20:00 PM	6.85		20.60	11.10	51.98	7.6	26.4	1230		921	45	3660
PNR-19	8/23/2006 2:05:00 PM	6.86		22.90	10.50	50.90	6.8	28.6	1300		905	40	3830
PNR-19	12/7/2006 3:30:00 PM	7.08		19.20	27.90	82.22	7	37.9	1560		1080	40	5220
PNR-19	3/14/2007 3:00:00 PM	6.98		25.50	9.30	48.74	7	30					
PNR-20	8/8/2001 9:50:00 AM	7.20		38.95	11.20	52.16	7.2	38.1	1750		1230	42	5180
PNR-20	8/15/2001 5:15:00 PM	7.30			10.40	50.72	7.1	29.6	1800		1270	46	4800
PNR-20	11/8/2001 10:00:00 AM				11.11	52.00	6.9	26.8	1610		1200	37	3480
PNR-20	2/19/2002 3:40:00 PM	6.70		34.80	10.00	50.00	6.8	32.7	1830		1280	43	5460
PNR-20	5/22/2002 11:00:00 AM	6.78		40.20	11.20	52.16	7	36.4	1580		1110	40	5050
PNR-20	8/20/2002 1:25:00 PM	6.60		37.40	12.30	54.14	6.8	36.8	1800		1350	35	6840
PNR-20	11/5/2002 4:05:00 PM	6.92		43.90	10.30	50.54	6.9	33.3	1930		1260	44	6790
PNR-20	3/4/2003 2:15:00 PM	6.70		37.40	9.20	48.56	6.8	25.6	1790		1180	47	6840
PNR-20	5/28/2003 11:00:00 AM	6.72		42.50	11.80	53.24	6.8	43.8	1950		1270	50	7300
PNR-20	8/13/2003 11:35:00 AM	6.98		34.30	10.60	51.08	6.6	40.4	1740		1150	42	6260
PNR-20	11/5/2003 12:50:00 PM	7.15		26.90	9.50	49.10	6.8	27.5	1980		1260	62	8580
PNR-20	3/18/2004 12:50:00 PM			16.20	9.60	49.28	6.8	39.8	1770		1170	46	6240
PNR-20	6/8/2004 12:15:00 PM	7.00			11.10	51.98	6.8	49.6	1700		1080	57	8600
PNR-20	9/14/2004 1:42:00 PM	7.75		41.00	11.20	52.16	6.9	43.4	1630		1030	58	6970
PNR-20	11/17/2004 10:40:00 AM	6.98		56.10	10.40	50.72	6.8	52.8	1880		1090	91	9100
PNR-20	3/1/2005 4:25:00 PM	6.73		41.70	9.90	49.82	6.8	48.1	1640		998	56	8570
PNR-20	5/24/2005 5:35:00 PM	6.89			10.50	50.90	6.9	40.9	1570		1020	50	7180
PNR-20	8/16/2005 3:45:00 PM	6.56		49.70	19.60	67.28	7.1	47.2	1600		988	36	8140
PNR-20	11/15/2005 12:15:00 PM	6.75		52.70	10.20	50.36	6.9	49.1	1620		975	57	9580
PNR-20	2/9/2006 10:50:00 AM	6.97		39.70	10.20	50.36	6.9	41.2	1580		972	82	7580
PNR-20	5/23/2006 5:55:00 PM	6.76		45.40	9.90	49.82	7.5	53.1	1600		917	61	10500
PNR-20	8/23/2006 3:50:00 PM	6.75		42.10	10.10	50.18	6.7	54.4	1630		891	53	10100
PNR-20	12/7/2006 4:10:00 PM	6.80		44.30	8.90	48.02	6.9	45.7	1360		824	36	7630
PNR-20	3/15/2007 10:18:00 AM	6.68	0.44	52.20	9.23	48.61	6.7	53.8					
PNR-21	8/9/2001 10:15:00 AM	6.80		65.50	11.00	51.80	6.8	58.5	2060		1100	63	12500
PNR-21	8/16/2001 4:40:00 PM	7.00		62.00	11.40	52.52	6.9	53.4	2140		1170	61	13200
PNR-21	11/8/2001 11:00:00 AM	7.10		60.30	14.44	57.99	6.7	40.4	2090		1140	68	13100

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-21	2/21/2002 9:15:00 AM	6.53		60.30	10.40	50.72	6.9	48.1	1970		1060	66	12900
PNR-21	5/22/2002 11:55:00 AM	6.67		70.50	11.80	53.24	6.8	53.2	1800		959	60	12600
PNR-21	8/21/2002 9:00:00 AM	6.60		63.10	12.70	54.86	6.8	54.2	1820		980	74	12900
PNR-21	11/5/2002 3:30:00 PM	7.09		4.90	9.90	49.82	6.8	44.6	2000		1020	61	13000
PNR-21	3/5/2003 2:50:00 PM	6.69		62.20	10.70	51.26	6.7	33.6	1900		897	56	12200
PNR-21	5/28/2003 11:50:00 AM	6.63		49.10	14.50	58.10	6.7	67.1	1940		978	73	13200
PNR-21	8/13/2003 2:05:00 PM	7.40		62.80	14.10	57.38	6.6	68.6	1800		928	70	13000
PNR-21	11/5/2003 3:30:00 PM	7.23		28.10	9.60	49.28	6.8	34	1450		738	57	10600
PNR-21	6/8/2004 12:55:00 PM	6.87			11.90	53.42	6.8	66.7	1700		881	67	13200
PNR-21	9/14/2004 2:15:00 PM	7.60		63.00	12.00	53.60	6.8	66.8	1860		942	74	13600
PNR-21	11/17/2004 12:40:00 PM	6.89		74.40	11.50	52.70	6.7	68.4	1940		942	76	13400
PNR-21	3/1/2005 4:32:00 PM	6.64		65.30	9.60	49.28	6.7	66	1870		939	78	14600
PNR-21	5/24/2005 6:25:00 PM	6.88		68.10	10.30	50.54	6.7	65.2	1770		876	70	13800
PNR-21	8/16/2005 4:20:00 PM	6.45		67.90	17.30	63.14	7	65.2	1770		899	50	12600
PNR-21	11/15/2005 1:21:00 PM	6.64		69.40	10.70	51.26	6.8	66.9	1740		869	68	14200
PNR-21	2/9/2006 11:45:00 AM	6.88		62.80	9.20	48.56	6.9	64.7	1880		889	107	14100
PNR-21	5/24/2006 5:20:00 PM	6.63		51.60	11.10	51.98	7.5	64.2	1690		820	82	13600
PNR-21	8/23/2006 5:00:00 PM	6.62		54.20	10.30	50.54	6.6	67.4	1710		816	66	13900
PNR-21	12/7/2006 2:45:00 PM	6.77		62.40	9.50	49.10	6.8	65.5	1620		773	59	12800
PNR-21	3/15/2007 11:15:00 AM	6.71	0.39	58.15	9.42	48.96	6.7	63.6					
PNR-22	8/8/2001 5:10:00 PM	7.30		3.90	11.90	53.42	7.2	3.83	205		180	9	434
PNR-22	8/16/2001 11:35:00 AM	7.40		11.20	11.30	52.34	7.2	3.78	218		193	9	464
PNR-22	11/7/2001 9:10:00 AM	7.60		3.60	12.22	54.00	7.4	3.86	207		188	8	421
PNR-22	2/20/2002 2:10:00 PM	7.11		3.40	11.30	52.34	6.9	4.32	205		195	9	467
PNR-22	5/21/2002 12:15:00 PM	7.43		2.40	11.70	53.06	7.4	4.34	203		182	9	542
PNR-22	8/20/2002 3:35:00 PM	7.20		3.40	11.30	52.34	7.2	4.57	217		213	7	407
PNR-22	11/5/2002 12:50:00 PM	7.28		4.59	12.20	53.96	7.2	4.8	248		213	9	462
PNR-22	3/4/2003 3:10:00 PM	7.14		4.57	11.20	52.16	7	5.14	258		218	10	487
PNR-22	5/13/2003 12:45:00 PM	7.78		4.40	12.50	54.50	7	4.92	250		225	9	474
PNR-22	8/13/2003 9:15:00 AM	7.86		4.60	14.10	57.38	6.8	5.08	262		228	9	487
PNR-22	11/5/2003 12:25:00 PM			4.70	12.00	53.60	7.2	4.7	244		252	10	510
PNR-22	6/8/2004 4:10:00 PM	7.31			13.00	55.40	7.1	5.24	292		259	10	489
PNR-22	9/15/2004 8:50:00 AM	7.03		5.26	15.20	59.36	7.2	5.56	306		270	10	525

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature		Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
					(°C)	(°F)							
PNR-22	11/18/2004 2:35:00 PM	7.31		5.20	12.10	53.78	7	5.69	319		274	11	524
PNR-22	3/1/2005 11:00:00 AM	7.01		5.90	13.20	55.76	7	5.69	313		290	11	586
PNR-22	5/24/2005 10:07:00 AM	6.99		8.00	13.00	55.40	6.9	5.57	303		274	11	557
PNR-22	8/16/2005 9:30:00 AM	6.90		5.20	15.20	59.36	7.2	5.72	327		294	8	547
PNR-22	11/15/2005 1:40:00 PM	6.38		5.60	10.40	50.72	7.2	5.7	340		310	7	588
PNR-22	2/7/2006 10:30:00 AM	7.13		5.50	11.90	53.42	7	5.6	323		290	10	565
PNR-22	5/23/2006 1:05:00 PM	6.96		5.42	13.26	55.87	7.8	5.71	312		287	11	576
PNR-22	8/22/2006 6:00:00 PM	7.31		5.80	10.70	51.26	7	5.9	333		295	11	580
PNR-22	12/6/2006 9:55:00 AM	7.07		5.64	9.90	49.82	7	5.9	324		280	10	546
PNR-22	3/13/2007 3:25:00 PM	6.86		4.90	10.30	50.54	7.1	5.74					
PNR-23	8/9/2001 5:30:00 PM	7.30		90.50	80.10	176.18	3.7	77.3	850		275	411	20300
PNR-23	8/14/2001 10:30:00 AM	6.50		98.60	80.40	176.72	6.5	74.2	1030		282	480	23800
PNR-23	11/8/2001 1:15:00 PM			88.70	85.56	186.01	6.4	47	2110		789	312	18200
PNR-23	2/21/2002 12:25:00 PM	5.86		100.10	72.10	161.78	6.6	58.7	1770		572	313	20400
PNR-23	5/23/2002 11:15:00 AM	6.68		105.70	75.60	168.08	6.4	68.3	1210		376	348	21100
PNR-23	8/21/2002 12:55:00 PM	6.10		102.90	70.20	158.36	6.6	68.5	1220		392	293	18000
PNR-23	11/6/2002 12:15:00 PM	6.10		115.50	71.20	160.16	6.5	60.2	1180		324	410	22100
PNR-23	3/5/2003 11:20:00 AM	6.94		115.00	72.50	162.50	6.6	48.5	1120		276	373	21700
PNR-23	5/28/2003 2:40:00 PM	6.28		102.40	72.00	161.60	6.4	93.8	1080		296	474	23800
PNR-23	8/14/2003 8:43:00 AM	6.14		98.30	70.10	158.18	6.6	87.6	1130		314	433	22100
PNR-23	11/6/2003 10:10:00 AM	5.60		107.00	73.20	163.76	6.5	42.2	938		270	408	19500
PNR-23	3/17/2004 11:40:00 AM	5.57		143.00	67.80	154.04	6.6	91.7	1260		364	460	23700
PNR-23	6/9/2004 2:10:00 PM	6.40		99.90	58.30	136.94	6.7	93.3	1170		344	446	23900
PNR-23	9/15/2004 5:40:00 PM	6.34		110.30	60.90	141.62	6.8	92.6	1250		386	403	21900
PNR-23	11/18/2004 11:00:00 AM	6.47		99.00	59.60	139.28	6.5	92.2	1150		368	451	21800
PNR-23	3/2/2005 11:35:00 AM	6.18		90.00	64.80	148.64	6.5	92.4	1240		392	399	23800
PNR-23	5/25/2005 1:00:00 PM	6.09		93.50	61.00	141.80	6.5	91.1	1220		377	444	23800
PNR-23	8/17/2005 3:20:00 PM	6.04		100.10	60.40	140.72	6.6	91.1	1140		368	313	20200
PNR-23	11/16/2005 12:15:00 PM	6.29		89.70	59.20	138.56	6.7	31.5	1230		385	478	24900
PNR-23	2/9/2006 4:00:00 PM	6.43		102.20	55.60	132.08	6.7	85.3	978		285	346	21300
PNR-23	5/25/2006 11:15:00 AM	6.40		79.87	56.62	133.92	7.4	83.8	1050		320	326	21800
PNR-23	8/24/2006 10:18:00 AM	6.82		97.80	54.20	129.56	6.6	85.2	914		276	298	20200
PNR-23	12/8/2006 10:10:00 AM	6.55		65.50	53.70	128.66	6.7	80	816		266	274	18800

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-23	3/14/2007 3:00:00 PM	6.98		25.50	9.30	48.74	6.6	73.4					
PNR-24	8/14/2001 12:00:00 PM	6.50		97.50	73.40	164.12	6.8	73.8	997		180	470	24900
PNR-24	8/14/2001 6:20:00 PM	6.60		101.80	80.30	176.54	6.8	51.3	1040		206	500	23900
PNR-24	11/8/2001 1:40:00 PM			84.50	84.44	183.99	6.5	49.2	1090		248	379	19400
PNR-24	2/21/2002 1:55:00 PM	6.24		120.40	67.10	152.78	6.8	62.6	1020		150	498	23500
PNR-24	5/23/2002 11:50:00 AM	6.43		113.30	78.30	172.94	6.7	71.2	842		159	404	21300
PNR-24	8/21/2002 1:10:00 PM	6.30		104.60	70.00	158.00	6.7	73.9	1070		170	435	21600
PNR-24	11/6/2002 12:32:00 PM	6.55		113.50	69.00	156.20	6.7	61.1	1120		219	452	22100
PNR-24	3/5/2003 11:40:00 AM	7.03		114.00	68.50	155.30	6.6	47.3	1210		283	401	22500
PNR-24	5/28/2003 2:50:00 PM	6.58		103.50	69.40	156.92	6.9	94	1170		306	438	23300
PNR-24	8/14/2003 1:08:00 PM	6.49		96.20	65.20	149.36	6.8	88.6	1180		313	402	22000
PNR-24	11/6/2003 11:00:00 AM	5.85		108.60	69.50	157.10	6.8	41.9	948		254	385	19500
PNR-24	3/17/2004 12:10:00 PM	5.67		130.00	63.30	145.94	6.8	80.1	995		256	371	20000
PNR-24	6/9/2004 2:20:00 PM	6.69			56.90	134.42	6.9	75.8	751		213	311	18000
PNR-24	9/15/2004 6:05:00 PM	6.48		68.50	55.00	131.00	7	61.4	476		171	235	14200
PNR-24	11/18/2004 11:05:00 AM	6.88		54.50	59.60	139.28	6.9	55	332		129	254	12400
PNR-24	3/2/2005 1:25:00 PM	6.65		40.20	60.00	140.00	7.1	46.5	248		117	174	11800
PNR-24	5/25/2005 1:45:00 PM	6.38		38.40	56.60	133.88	7	41	181		94	164	9980
PNR-24	8/17/2005 4:05:00 PM	6.59		37.70	55.60	132.08	7.2	36.2	121		68	93	7910
PNR-24	11/16/2005 4:15:00 PM	7.02		34.40	52.70	126.86	7.2	29.7	90		55	120	7410
PNR-24	2/8/2006 1:30:00 PM	7.10		27.20	50.00	122.00	7.1	26.1	72		32	109	6220
PNR-24	5/24/2006 12:55:00 PM	7.08		26.00	49.80	121.64	7.9	22.8	41		22	67	5330
PNR-24	8/24/2006 11:22:00 AM	7.95		21.70	51.10	123.98	7.4	21.5	29		15	61	4850
PNR-24	12/8/2006 10:50:00 AM	7.32		15.50	49.40	120.92	7.6	19	24		12	52	4350
PNR-24	3/14/2007 3:40:00 PM	7.23		21.80	47.90	118.22	7.8	17.1					
PNR-25	8/14/2001 1:15:00 PM	6.60		102.90	76.70	170.06	6.8	75.6	924		140	510	24000
PNR-25	8/14/2001 7:05:00 PM	6.80		99.20	81.10	177.98	6.8	76.8	1020		160	560	26600
PNR-25	11/8/2001 10:15:00 AM				84.44	183.99	6.5	48.5	1560		448	433	21200
PNR-25	2/21/2002 3:30:00 PM	6.05		103.10	72.60	162.68	6.7	57.9	2430		797	278	18700
PNR-25	5/22/2002 4:50:00 PM	6.80		34.80	71.10	159.98	7	28.9	452		156	78	5600
PNR-25	8/21/2002 2:40:00 PM	7.10		11.80	61.40	142.52	7.4	11.9	70		51	31	2040
PNR-25	11/6/2002 2:55:00 PM	7.14		14.50	56.70	134.06	7.5	13	48		43	33	2140
PNR-25	3/5/2003 12:45:00 PM	7.91		13.10	55.00	131.00	7.4	12.2	47		31	32	2340

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature		Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
					(°C)	(°F)							
PNR-25	5/28/2003 3:25:00 PM	7.19		11.70	53.60	128.48	7.5	11.8	39		31	32	2200
PNR-25	8/14/2003 10:00:00 AM	7.32		11.00	50.60	123.08	7.6	10.4	36		31	26	2140
PNR-25	11/5/2003 3:15:00 PM	6.72		12.50	52.20	125.96	7.5	11.6	42		37	35	2360
PNR-25	3/17/2004 2:15:00 PM	6.90		40.00	49.10	120.38	7.4	12.2	49		34	33	2480
PNR-25	6/8/2004 1:00:00 PM	7.53		11.70	38.90	102.02	7.7	12.4	45		34	36	3040
PNR-25	9/15/2004 4:45:00 PM	7.55		13.00	40.40	104.72	7.7	12	52		47	34	2440
PNR-25	11/18/2004 9:00:00 AM	7.69		12.30	37.30	99.14	7.7	12	49		48	37	2360
PNR-25	3/2/2005 1:00:00 PM	7.53		9.70	37.10	98.78	7.9	11.5	39		40	29	2510
PNR-25	5/25/2005 11:15:00 AM	7.50		9.70	34.70	94.46	7.9	10.8	44		49	22	2400
PNR-25	8/17/2005 6:20:00 PM	7.71		10.40	33.30	91.94	7.8	10	40		46	23	1980
PNR-25	11/16/2005 1:25:00 PM	7.96		11.60	32.50	90.50	7.9	9.2	36		48	21	2010
PNR-25	2/8/2006 11:15:00 AM	7.85		8.00	29.90	85.82	7.7	8.5	36		36	25	1860
PNR-25	5/24/2006 11:45:00 AM	7.88		8.30	29.90	85.82	8.2	8.26	28		27	22	1790
PNR-25	8/24/2006 12:00:00 PM	8.33		6.80	29.70	85.46	8	7.9	26		30	23	1600
PNR-25	12/8/2006 11:30:00 AM	7.36		5.30	29.20	84.56	8	7.7	34		38	23	1500
PNR-25	3/15/2007 10:53:00 AM	7.81		6.10	29.20	84.56	7.7	7.07					
PNR-26	8/14/2001 6:00:00 PM				79.20	174.56	7.2	74.7	910		133	517	23800
PNR-26	8/22/2001 10:00:00 AM			98.00	75.00	167.00	7.5	65.8	803		118	499	23400
PNR-26	11/8/2001 2:15:00 PM				83.33	181.99	7.5	51.6	1070		259	437	22800
PNR-26	2/21/2002 4:00:00 PM	6.42		125.00	65.00	149.00	6.9	61.2	1310		269	453	22300
PNR-26	5/23/2002 11:15:00 AM	6.68		105.70	75.60	168.08	6.9	67.2	1220		284	392	20800
PNR-26	8/21/2002 4:00:00 PM	6.40		100.30	67.40	153.32	6.7	50.7	1360		361	403	15300
PNR-26	11/6/2002 4:20:00 PM	6.35		107.20	62.70	144.86	6.7	57.5	1450		356	509	22900
PNR-26	3/5/2003 2:00:00 PM	7.60		33.00	64.00	147.20	7.4	27.4	108		67	72	5290
PNR-26	5/28/2003 4:35:00 PM	7.09		27.60	61.20	142.16	7.4	25.6	62		75	74	4990
PNR-26	8/14/2003 10:45:00 AM	6.86		27.20	56.80	134.24	7.4	18.9	36		51	49	4650
PNR-26	11/6/2003 12:30:00 PM	7.33		37.50	63.70	146.66	7.8	18.5	17		26	48	4450
PNR-26	3/17/2004 2:15:00 PM	6.90		40.00	49.10	120.38	7.7	16	11		13	32	3620
PNR-26	6/9/2004 4:00:00 PM	7.76			44.30	111.74	7.9	14.2	12		9	34	3750
PNR-26	9/16/2004 9:50:00 AM	7.52		13.50	45.70	114.26	8	13.4	7		6	27	3020
PNR-26	11/18/2004 12:25:00 PM	7.99		12.90	43.20	109.76	8	12.6	8		7	29	2730
PNR-26	3/2/2005 4:10:00 PM	7.89		12.10	42.50	108.50	8	11.3	5		5	22	2660
PNR-26	5/25/2005 3:15:00 PM	7.38		6.30	38.70	101.66	8.2	10.2	12		5	19	2230

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-26	8/17/2005 6:00:00 PM	7.25		9.30	40.10	104.18	8	10.3	13		5	18	2200
PNR-26	11/16/2005 2:55:00 PM	7.71		5.50	34.70	94.46	7.6	10.4	10		7	14	2270
PNR-26	2/8/2006 3:10:00 PM	7.47		4.00	31.80	89.24	7.1	9.4	14		6	17	2070
PNR-26	8/24/2006 1:30:00 PM	7.87			32.20	89.96							
PNR-27	8/21/2001 3:35:00 PM			27.60	10.70	51.26	7.1	23.1	1790		1290	37	2440
PNR-27	9/5/2001 3:15:00 PM	7.00		25.90	12.30	54.14	6.8	25	1990		1370	39	2700
PNR-27	11/6/2001 3:30:00 PM	7.10		28.10	10.00	50.00	6.7	27.1	1960		1400	40	2840
PNR-27	2/20/2002 5:02:00 PM	6.66		27.50	10.50	50.90	6.8	27.1	1970		1390	54	3130
PNR-27	5/21/2002 6:12:00 PM	6.65		32.10	13.70	56.66	6.8	29.9	1790		1260	40	2990
PNR-27	8/20/2002 7:20:00 PM	6.90		29.80	14.50	58.10	6.9	28.2	1900		1210	32	2850
PNR-27	11/6/2002 9:55:00 AM	6.84		32.70	11.30	52.34	6.8	26	2090		1400	42	3450
PNR-27	3/5/2003 11:15:00 AM	6.73		30.30	10.10	50.18	6.6	19.5	2060		1370	43	3740
PNR-27	5/28/2003 11:00:00 AM	6.72		42.50	11.80	53.24	6.7	34.1	1990		1330	57	3640
PNR-27	8/13/2003 1:35:00 PM	7.50		32.70	15.10	59.18	6.6	31.7	1900		1320	54	3660
PNR-27	11/5/2003 11:45:00 AM	7.43		41.70	9.10	48.38	6.8	19.6	1760		1370	53	3760
PNR-27	6/8/2004 11:50:00 AM	6.91			11.50	52.70	6.7	36.7	1930		1340	46	4480
PNR-27	9/14/2004 1:05:00 PM	7.65		33.90	11.70	53.06	6.8	36.5	1990		1340	58	4320
PNR-27	11/17/2004 10:38:00 AM	6.80		39.50	10.60	51.08	6.6	37.3	2010		1360	56	4630
PNR-27	3/1/2005 3:33:00 PM	6.67		36.70	9.50	49.10	6.8	36.7	2090		1420	48	5060
PNR-27	5/24/2005 3:33:00 PM	6.75		24.10	10.40	50.72	6.7	37.6	1980		1280	50	4920
PNR-27	8/16/2005 5:08:00 PM	6.62		38.30	10.70	51.26	6.7	37.9	2080		1400	39	4850
PNR-27	11/15/2005 4:35:00 PM	6.61		41.60	10.00	50.00	6.8	39	2290		1550	67	6000
PNR-27	2/8/2006 5:10:00 PM	7.19		38.00	9.00	48.20	6.9	47	2160		1440	64	5460
PNR-27	5/23/2006 4:57:00 PM	6.68		36.20	9.80	49.64	7.4	39.1	2030		1400	70	5580
PNR-27	8/23/2006 3:01:00 PM	6.63		24.70	11.00	51.80	6.6	41.2	2070		1370	47	5390
PNR-27	12/7/2006 2:15:00 PM	6.89		39.10	9.40	48.92	6.8	41.6	2100		1350	47	5490
PNR-27	3/14/2007 4:50:00 PM	6.75		39.00	9.20	48.56	6.6	40.1					
PNR-28	8/21/2001 4:45:00 PM			31.40	10.30	50.54	7.2	26.2	1910		1460	39	3090
PNR-28	9/5/2001 2:35:00 PM	7.00		28.40	13.00	55.40	6.9	27	2020		1470	36	3200
PNR-28	11/6/2001 2:40:00 PM	7.10		29.70	12.22	54.00	6.7	24.4	1880		1380	34	3070
PNR-28	2/20/2002 4:30:00 PM	6.88		31.90	10.60	51.08	6.8	30.6	2060		1490	82	3850
PNR-28	5/21/2002 5:15:00 PM	6.67		38.80	12.40	54.32	6.8	33.9	1990		1430	43	3910
PNR-28	8/20/2002 6:30:00 PM	6.80		34.20	14.40	57.92	6.8	32.8	2090		1340	39	3510

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-28	11/5/2002 1:20:00 PM	6.53		36.40	10.20	50.36	6.8	28.9	2340		1640	46	4850
PNR-28	3/5/2003 10:25:00 AM	6.71		36.40	10.20	50.36	6.6	22.4	2260		1480	45	4930
PNR-28	5/28/2003 10:30:00 AM	6.53		32.80	13.10	55.58	6.7	40.8	2130		1450	63	4900
PNR-28	8/13/2003 1:00:00 PM	7.56		40.30	14.40	57.92	6.5	38.8	2140		1440	53	5200
PNR-28	11/5/2003 2:30:00 PM	7.30		4.62	9.20	48.56	6.9	23	2180		1520	58	6010
PNR-28	6/8/2004 11:15:00 AM	6.90			11.40	52.52	6.7	44.5	2090		1400	51	5720
PNR-28	9/15/2004 10:30:00 AM	6.61		42.90	13.50	56.30	6.8	45.3	2230		1490	62	6490
PNR-28	11/17/2004 9:30:00 AM	6.92		49.70	10.10	50.18	6.8	45.8	2310		1470	68	6480
PNR-28	3/1/2005 2:39:00 PM	6.65		45.20	9.50	49.10	6.7	45.5	2170		1440	58	7370
PNR-28	5/25/2005 11:07:00 AM	6.49		48.20	9.90	49.82	6.7	45.7	2150		1400	59	7440
PNR-28	8/16/2005 4:00:00 PM	6.60		46.50	10.80	51.44	6.9	46.3	2190		1430	43	7050
PNR-28	11/15/2005 11:35:00 AM	6.63		51.20	10.10	50.18	6.9	47.5	2240		1470	42	7700
PNR-28	2/8/2006 2:40:00 PM	7.22		46.90	9.10	48.38	6.9	47	2200		1420	66	7970
PNR-28	5/23/2006 1:55:00 PM	6.69		43.70	9.80	49.64	7.4	47.7	2080		1350	60	7970
PNR-28	8/23/2006 12:35:00 PM	6.66		39.80	10.50	50.90	6.6	49.8	2140		1310	55	7930
PNR-28	12/6/2006 4:30:00 PM	6.93		47.40	8.80	47.84	6.8	49.5	1990		1250	44	7690
PNR-28	3/13/2007 6:00:00 PM	6.14	0.65	47.74	9.38	48.88	6.7	49.3					
PNR-29	8/21/2001 5:45:00 PM			5.10	10.10	50.18	7.2	5	390		290	14	480
PNR-29	9/5/2001 2:00:00 PM	7.40		4.90	12.80	55.04	6.5	4.82	393		291	11	483
PNR-29	11/6/2001 12:50:00 PM	7.50		4.90	11.67	53.01	7.1	4.98	400		286	11	469
PNR-29	2/20/2002 1:03:00 PM	7.01		4.80	10.10	50.18	6.9	5.4	399		292	13	501
PNR-29	5/21/2002 4:30:00 PM	7.00		5.38	11.90	53.42	7.3	5.27	359		262	11	449
PNR-29	8/20/2002 11:20:00 AM	7.00		4.30	13.30	55.94	7.2	5.4	376		290	10	431
PNR-29	11/5/2002 12:42:00 PM	6.93		4.90	9.90	49.82	7.1	5.45	403		290	12	469
PNR-29	3/5/2003 10:30:00 AM	6.66		4.80	9.20	48.56	7.2	5.52	410		292	13	550
PNR-29	5/28/2003 10:00:00 AM	6.87		4.40	12.10	53.78	7.1	5.55	418		292	13	489
PNR-29	8/13/2003 1:08:00 PM	7.48		4.00	11.50	52.70	7	5.33	404		288	11	460
PNR-29	11/4/2003 4:45:00 PM	7.11		4.60	9.80	49.64	7.1	4.68	362		305	13	482
PNR-29	6/8/2004 10:45:00 AM	7.26			11.20	52.16	7.1	4.91	403		304	12	492
PNR-29	9/15/2004 9:40:00 AM	7.00		5.01	12.70	54.86	7.2	5.33	441		303	12	468
PNR-29	11/17/2004 9:31:00 AM	7.15		5.40	9.60	49.28	6.9	5.34	416		299	13	505
PNR-29	3/1/2005 1:36:00 PM	7.08		5.00	9.40	48.92	7.1	5.26	428		309	14	549
PNR-29	5/25/2005 9:46:00 AM	6.90		5.20	9.80	49.64	7.2	5.26	419		301	14	524

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
PNR-29	8/16/2005 2:48:00 PM	6.98		5.07	10.60	51.08	7.3	5.3	437		317	11	498
PNR-29	11/15/2005 10:50:00 AM	7.01		5.50	9.70	49.46	7.1	5.4	461		332	10	536
PNR-29	2/8/2006 4:15:00 PM	7.43		5.10	8.70	47.66	7.2	5.4	468		332	13	564
PNR-29	5/23/2006 2:35:00 PM	7.02		4.80	10.20	50.36	7.9	5.37	421		316	13	555
PNR-29	8/23/2006 11:37:00 AM	7.00		4.12	9.90	49.82	7	5.6	445		315	14	545
PNR-29	12/6/2006 4:00:00 PM	7.22		5.30	8.70	47.66	7.2	5.7	426		313	15	544
PNR-29	3/13/2007 5:50:00 PM	6.83		5.50	9.10	48.38	7.1	5.54					
PNR-33-06	12/6/2006 11:00:00 AM	7.03		4.60	9.40	48.92	7	4.9	467		381	16	264
PNR-33-06	3/13/2007 1:45:00 PM	6.89		4.70	10.00	50.00	7.2	4.57					
PNR-34-07	3/14/2007 1:15:00 PM	6.51	0.27	34.47	9.92	49.86	6.8	40.3					
PNR-35-07	3/13/2007 11:15:00 AM	6.54	0.52	3.82	9.87	49.77	7.2	4					
PNR-36-07	3/13/2007 11:40:00 AM	7.07	0.41	3.20	9.51	49.12	7.1	3.51					
USGS 92-12	6/1/2000 12:00:00 AM	9.20		2.60	9.80	49.64	7.9	2.58	240	12.1	260	14	95
USGS 92-12	8/7/2001 11:35:00 AM	6.70		2.20	9.80	49.64	7.2	2.61	203		222	12	92
USGS 92-12	8/15/2001 2:40:00 PM	7.70			9.30	48.74	7.4	2.43	220		235	13	94
USGS 92-12	11/6/2001 2:30:00 PM	7.10		1.70	10.00	50.00	7.4	2.33	197		212	13	83
USGS 92-12	2/20/2002 2:25:00 PM	7.38		2.30	10.00	50.00	7.3	2.49	171		205	11	84
USGS 92-12	5/21/2002 2:05:00 PM	7.57		2.60	12.70	54.86	7.6	2.32	174		191	11	85
USGS 92-12	8/19/2002 4:00:00 PM	7.20		2.35	9.70	49.46	7.4	2.74	197		249	12	90
USGS 92-12	11/5/2002 12:00:00 PM	7.31		2.60	9.80	49.64	7.4	2.9	226		237	14	97
USGS 92-12	3/4/2003 11:30:00 AM	7.22		2.30	8.40	47.12	7.5	2.44	190		216	13	97
USGS 92-12	5/13/2003 2:15:00 PM	8.04		2.00	8.80	47.84	7.4	2.3	187		211	13	89
USGS 92-12	8/13/2003 7:48:00 AM	8.10		2.00	10.10	50.18	7.4	2.64	203		226	13	101
USGS 92-12	11/5/2003 10:00:00 AM	7.97		3.10	9.20	48.56	7.6	1.98	152		184	15	79
USGS 92-12	6/8/2004 9:15:00 AM	7.60		2.30	9.70	49.46	7.4	2.83	203		230	13	117
USGS 92-12	9/14/2004 11:08:00 AM	7.76		3.00	11.50	52.70	7.5	3.34	280		314	19	133
USGS 92-12	11/16/2004 9:20:00 AM	7.18		3.10	10.30	50.54	7.4	3.07	256		282	19	129
USGS 92-12	3/1/2005 12:40:00 PM	7.37		2.50	9.30	48.74	7.4	2.53	191		226	15	117
USGS 92-12	5/24/2005 10:43:00 AM	7.39		2.30	9.00	48.20	7.5	2.62	177		203	15	110
USGS 92-12	8/17/2005 9:10:00 AM	7.26		2.90	11.30	52.34	7.5	3.15	250		282	18	136
USGS 92-12	11/15/2005 2:41:00 PM	7.50		2.70	9.40	48.92	7.6	2.8	226		263	16	125

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature (°C)	Field Temperature (°F)	Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
USGS 92-12	2/7/2006 3:32:00 PM	7.43		2.20	9.10	48.38	7.5	2.5	193		227	15	117
USGS 92-12	5/24/2006 10:55:00 AM	7.41		1.80	9.30	48.74	8.2	2.33	169		205	14	109
USGS 92-12	8/22/2006 11:45:00 AM	7.47		1.62	8.80	47.84	7.4	2.3	154		187	14	102
USGS 92-12	12/6/2006 10:30:00 AM	7.60		1.90	7.00	44.60	7.6	2.1	136		162	13	94
USGS 92-12	3/13/2007 12:55:00 PM	7.12	8.23	1.84	9.73	49.51	7.8	1.99					
USGS 93-3	6/1/2000 12:00:00 AM	9.20		2.60	9.80	49.64	7.1	87	1080	).1 ND	257	403	23400
USGS 93-3	8/7/2001 6:55:00 PM	6.80		94.90	25.20	77.36	6.9	79.2	960		241	425	22600
USGS 93-3	8/15/2001 7:10:00 PM	6.90		79.30	24.70	76.46	7	73.9	960		257	430	25300
USGS 93-3	11/7/2001 10:05:00 AM	6.10			24.44	75.99	6.7	52.3	930		236	383	23600
USGS 93-3	2/20/2002 9:00:00 AM	6.46		92.00	24.80	76.64	6.8	61.2	929		241	422	22500
USGS 93-3	5/22/2002 9:30:00 AM	6.62		92.10	23.90	75.02	6.8	69.3	916		210	386	22800
USGS 93-3	8/20/2002 4:25:00 PM	6.40		90.00	24.50	76.10	6.8	71.7	897		242	284	22800
USGS 93-3	11/5/2002 4:10:00 PM	6.56		99.40	24.00	75.20	6.8	61.7	981		236	439	22800
USGS 93-3	3/4/2003 3:45:00 PM	6.50		95.00	23.50	74.30	6.8	51.5	900		215	416	23900
USGS 93-3	5/28/2003 1:15:00 PM	6.62		90.80	24.60	76.28	6.7	93.5	886		222	486	24100
USGS 93-3	8/14/2003 2:08:00 PM	6.81		81.30	25.00	77.00	6.7	88.6	867		216	446	22900
USGS 93-3	11/4/2003 4:45:00 PM	7.11		4.60	9.80	49.64	6.8	50.4	606		168	427	19600
USGS 93-3	6/8/2004 7:05:00 PM	6.76		90.60	23.90	75.02	6.8	96.7	911		208	416	22400
USGS 93-3	9/14/2004 4:25:00 PM	7.12		99.60	24.50	76.10	6.9	98.6	991		234	467	24700
USGS 93-3	11/17/2004 12:15:00 PM	6.75		107.60	22.90	73.22	6.7	98.6	922		220	538	23700
USGS 93-3	3/2/2005 11:05:00 AM	6.55		96.10	23.00	73.40	6.8	97.6	1010		230	500	27100
USGS 93-3	5/25/2005 3:52:00 PM	6.43		101.50	23.30	73.94	6.7	95.5	1040		241	569	27200
USGS 93-3	8/17/2005 12:55:00 PM	6.45		101.20	25.70	78.26	6.9	97.3	990		224	421	24700
USGS 93-3	11/16/2005 4:40:00 PM	6.75		106.20	22.00	71.60	6.8	98.5	1130		263	472	27600
USGS 93-3	2/9/2006 3:20:00 PM	6.81		98.90	20.00	68.00	6.9	96.7	977		188	521	24700
USGS 93-3	5/24/2006 6:20:00 PM	6.53		89.88	23.01	73.42	7.4	97.1	1020		200	470	25100
USGS 93-3	8/23/2006 2:50:00 PM	6.49		97.90	23.20	73.76	6.7	99.8	964		186	403	24200
USGS 93-3	12/7/2006 12:05:00 PM	6.45		95.20	21.60	70.88	6.9	99.5	947		199	445	23800
USGS 93-3	3/15/2007 1:30:00 PM	6.41	0.07	90.79	22.42	72.36	6.8	96.7					
Whitmer	5/31/2000 12:00:00 AM	9.20		3.26	10.10	50.18	8.2	3.22	133	4.82	88	8	432
Whitmer	8/10/2001 10:00:00 AM	7.70		3.90	10.80	51.44	7.4	3.89	168		115	10	524
Whitmer	8/22/2001 3:30:00 PM			3.40	11.10	51.98	7.5	3.81	155		105	8	445
Whitmer	11/9/2001 10:20:00 AM	7.60		3.50	9.70	49.46	7.5	4.04	168		111	9	484

Table 2A - Inorganic Analytical Results: Field-Monitored Parameters and Metals

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Field pH (su)	Field Diss. Oxygen (mg/L)	Field Conductivity (mS/cm)	Field Temperature		Lab pH (su)	Lab Conductivity (mS/cm)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
					(°C)	(°F)							
Whitmer	2/22/2002 2:45:00 PM	7.76		4.70	10.70	51.26	7.6	4.17	165		110	8	472
Whitmer	5/22/2002 4:35:00 PM	7.63		4.42	10.20	50.36	7.6	4.33	164		112	9	457
Whitmer	8/21/2002 9:35:00 AM	7.50		3.80	10.80	51.44	7.6	4.43	187		110	9	512
Whitmer	11/5/2002 2:20:00 PM	7.66		4.30	10.30	50.54	7.5	4.65	197		129	10	509
Whitmer	3/4/2003 2:10:00 PM	8.10		4.20	9.90	49.82	7.3	4.98	215		151	10	619
Whitmer	5/13/2003 5:00:00 PM	7.48		5.00	11.00	51.80	7.4	4.54	216		144	12	531
Whitmer	8/14/2003 12:10:00 PM	7.45		4.00	11.20	52.16	7.5	4.6	221		141	11	536
Whitmer	11/4/2003 4:00:00 PM	7.60		3.10	10.30	50.54	7.5	4.67	224		148	12	548
Whitmer	3/18/2004 1:05:00 PM	7.95		6.70	14.60	58.28	7.4	4.86	246		161	11	547
Whitmer	6/9/2004 8:45:00 AM	7.74		5.20	10.80	51.44	7.5	5.45	239		156	13	634
Whitmer	9/16/2004 11:20:00 AM	7.92		4.60	12.50	54.50	7.6	5.5	262		168	12	593
Whitmer	11/18/2004 4:00:00 PM	7.35		5.90	10.60	51.08	7.3	5.69	269		177	11	608
Whitmer	3/2/2005 4:44:00 PM	7.54		5.38	9.20	48.56	7.5	5.73	277		188	13	676
Whitmer	5/26/2005 10:20:00 AM	7.48		1.73	8.50	47.30	7.7	1.77	55		29	6	302
Whitmer	8/16/2005 3:00:00 PM	7.40		5.80	15.70	60.26	7.7	5.84	283		192	11	636
Whitmer	11/17/2005 10:25:00 AM	7.48		6.50	10.50	50.90	7.5	6	315		214	11	687
Whitmer	2/9/2006 11:15:00 AM	8.10		6.20	9.80	49.64	7.4	6	278		182	15	650
Whitmer	5/25/2006 11:21:00 AM	7.50		5.00	10.60	51.08	7.9	6.21	307		204	14	708
Whitmer	8/24/2006 11:45:00 AM	7.52		5.50	10.10	50.18	7.2	6.6	316		204	14	687
Whitmer	12/7/2006 1:30:00 PM	7.66		6.40	9.00	48.20	7.3	6.8	321		203	12	684
Whitmer	3/14/2007 4:55:00 PM	7.53	0.14	6.23	9.34	48.81	7.4	6.86					

Notes:
If field left blank: not measured or tested.
ND = Analyte not detected, number shown is reporting limit.
D = Reporting limit increased due to sample matrix interference.
H = Analysis performed past recommended holding time.
J = Estimated value. Present but less than the limit of quantitation.
T = This target analyte was found in the associated trip blank as well as the sample.
Field Diss. Oxygen - Field-Measured Dissolved Oxygen

Table 2B

Inorganic Analytical Results: Additional Analyses

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
LAW-M03	3/13/2007 5:40:00 PM	429	524	4 ND	1370			2	0.05 ND			1100	4270
Lockman	5/26/2005 11:05:00 AM	432	521	4 ND	173	0.45	273	0.1 ND	0.05 ND	19.1	17.2	235	1170
M-18	11/8/2001 3:30:00 PM	111	135	1 ND	5190		2920	37.5	0.05 ND		3 ND	25	8600
M-18	8/23/2006 10:30:00 AM	258	315	4 ND	5620	0.2	3580	9.7	0.05 ND	15.1	18.4	1000	11800
M-18	12/6/2006 12:25:00 PM	141	172	4 ND	5470	0.1 ND	2810	29.1	0.05 ND	5.9	8	621	10300
M-27	8/16/2001 2:35:00 PM	14	17	1 ND	5280		3940	1.8	0.05 ND	1 ND		160	10400
M-27	8/16/2001 2:45:00 PM	12	15	1 ND	5380		3920	4	0.05 ND	1 ND		156	10900
M-27	11/8/2001 8:50:00 AM	4	5	1 ND	5650		4050	4.3	0.05 ND		3 ND	433	9920
M-27	2/20/2002 3:42:00 PM	389	475	4 ND	5710		4450	2.7	0.05 ND	17		814	10500
M-27	5/21/2002 3:05:00 PM	211	258	4 ND	7110	0.15	4130	2.7	0.05 ND	20		1160	12000
M-27	8/20/2002 5:45:00 PM	4	5	4 ND	5750	0.1 ND	3740	4.2	0.05 ND	2 ND	2 ND	664	12200
M-27	11/6/2002 9:00:00 AM	4 ND	4	4 ND	5100	0.1 ND	3990	2.6	0.05 ND	2 ND	2 ND	619	10500
M-27	3/5/2003 1:20:00 PM	14	17	4 ND	5640	0.1 ND	4230	2.6	0.05 ND	2	2 ND	649	10300
M-27	5/13/2003 10:30:00 AM	5	6	4 ND	5590	0.1 ND	4250	2.6	0.05 ND	2 ND	2 ND	525	10300
M-27	8/13/2003 11:10:00 AM	11	14	1 ND	6460	0.1 ND	4070	3.8	0.05 ND	2 ND	2	481	11000
M-27	11/6/2003 10:00:00 AM	5	6	4 ND	6390	0.1 ND	4070	5.6	0.05 ND	2 ND	4 ND	418	10300
M-27	6/8/2004 3:15:00 PM	30	36	4 ND	5970	0.11	4050	7.2	0.05 ND	2.7	2.7	564	11600
M-27	9/15/2004 12:25:00 PM	214	261	4 ND	5920	0.14	4870	3	0.05 ND	17.8	19	919	13900
M-27	11/18/2004 3:35:00 PM	4 ND	4 ND	4 ND	6050	0.1 ND	4380	3	0.05 ND	3.1	3.3	981	11700
M-27	3/1/2005 12:05:00 PM	4 ND	4 ND	4 ND	5980	0.1 ND	4240	2.7	0.05 ND	3	2	835	11700
M-27	5/24/2005 11:20:00 AM	4 ND	4 ND	4 ND	5790	0.1 ND	4160	3.8	0.05 ND	0.4 ND	1.9	737	11300
M-27	8/16/2005 9:30:00 AM	4 ND	4 ND	4 ND	5790	0.1 ND	4210	2.8	0.05 ND	1	0.9 ND	801	12200
M-27	11/15/2005 2:28:00 PM	4 ND	4 ND	4 ND	5270	0.1 ND	4050	3.4	0.05 ND	1.1	1.1	721	10000
M-27	2/7/2006 1:10:00 PM	4 ND	4 ND	4 ND	5250	0.1 ND	4060	3.4	0.05 ND	5.6	6.3	712	9820
M-27	5/23/2006 2:00:00 PM	4 ND	4 ND	4 ND	6520	0.1 ND	4670	2.6	0.05 ND	1.8	2	853	11200
M-27	8/22/2006 2:30:00 PM	4 ND	4 ND	4 ND	6040	0.1 ND	4600	3	0.05 ND	3.5	6.9	793	12400
M-27	12/6/2006 1:40:00 PM	4 ND	4 ND	4 ND	6170	0.1 ND	4500	3.2	0.05 ND	1.2	0.9 ND	868	11600
M-27	3/14/2007 5:30:00 PM	4 ND	4 ND	4 ND	6200 D			2.8	0.05 ND			806 D	12300
M-28	6/1/2000 12:00:00 AM	600	732	1 ND	25800		6920		20.9			1910	44700
M-28	8/9/2001 12:15:00 PM	676	825	1 ND	23800		5600	4	27.9	17.3		1880	40500

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Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
M-28	8/16/2001 5:00:00 PM	616	751	1 ND	22600		6130	5.4	24.6	19.3		2260	41000
M-28	11/8/2001 12:00:00 PM	761	929	1 ND	1410		1240	0.4	31.3		29	687	3950
M-28	2/21/2002 8:40:00 AM	633	772	4 ND	25900		5620	6.9	15	17		1400	43800
M-28	5/23/2002 9:30:00 AM	598	730	4 ND	31000	0.13	5080	8.8	8.35	20		1920	50700
M-28	8/21/2002 10:00:00 AM	609	742	4 ND	25500	0.15	5620	8	12.9	18	18	1700	45900
M-28	11/6/2002 11:20:00 AM	612	746	4 ND	22400	0.15	5330	6.7	17	20 ND	10 ND	1840	43100
M-28	3/5/2003 3:30:00 PM	606	739	4 ND	22400	0.2	5140	6.6	19.7	18	22	2330	40500
M-28	5/13/2003 4:45:00 PM	603	736	4 ND	24300	0.16	5220	6.7	16.9	16	19	1700	43800
M-28	8/13/2003 3:35:00 PM	627	765	1 ND	21900	0.2	5150	6	22.7	21	22	1220	38600
M-28	11/5/2003 10:30:00 AM	635	775	4 ND	23000	0.26	4440	6.5	23.7	17	20 ND	1370	38700
M-28	3/16/2004 5:34:00 PM	695	848	1 ND	13800	0.15	5240	3.3	37.6	24	24	1590	25800
M-28	6/8/2004 5:18:00 PM	667	814	4 ND	19200	0.21	4850	5.6	23.3	20	21	2020	16900
M-28	9/15/2004 2:00:00 PM	669	816	4 ND	20500	0.28	4860	6.7	23.3	19	25	1820	35600
M-28	11/19/2004 8:36:00 AM	662	808	4 ND	16000	0.18	5040	4.5	27.2	23	24	1730	32000
M-28	3/1/2005 3:45:00 PM	703	857	4 ND	17600	0.18	4980	5.3	22.5	21	23	1700	32800
M-28	5/24/2005 1:10:00 PM	605	738	4 ND	14900	0.19	4610	4.6	27.9	16	22	1940	28400
M-28	8/16/2005 1:15:00 PM	703	858	4 ND	17700	0.23	4320	5.3	22.3	22	21	1570	30200
M-28	11/15/2005 4:35:00 PM	630	769	4 ND	16200	0.18	4870	5.1	20.1	23	22	1740	26600
M-28	2/7/2006 4:30:00 PM	679	829	4 ND	16000	0.17	4630	5.1	19.8	21	19	1730	28600
M-28	5/23/2006 4:20:00 PM	656	800	4 ND	16300	0.17	4530	4.5	19.4	22	22	1850	24500
M-28	8/22/2006 4:45:00 PM	627	765	4 ND	14200	0.2	4260	4.1	9.84	23	22	1780	25600
M-28	12/6/2006 2:40:00 PM	634	774	4 ND	14300	0.2	4260	4.2	22.6	23	53	1800	26600
M-28	3/15/2007 10:15:00 AM	662	808	4 ND	11200 D			3.5	23.6			1770 D	21200
M-30	6/1/2000 12:00:00 AM	1020	1240	1 ND	36		801		0.05 ND			501	1740
M-30	2/22/2002 1:00:00 PM	905	1100	4 ND	43		735	4	0.05 ND	27.5		549	1790
M-30	5/22/2002 5:10:00 PM	916	1120	1 ND	34	0.29	700	5.6	0.05 ND	31.5		539	1730
M-30	8/21/2002 10:40:00 AM	931	1140	4 ND	42	0.33	733	5.8	0.05 ND	26.7	23.5	528	1650
M-31	6/1/2000 12:00:00 AM	461	562	1 ND	36000		7610		0.17			1690	60800
M-31	8/9/2001 11:05:00 AM	515	628	1 ND	35900		6530	6.6	0.05 ND	15.6		1220	63800
M-31	8/16/2001 5:30:00 PM	516	630	1 ND	37200		6820	6.9	0.05 ND	15.8		2120	63300
M-31	11/8/2001 4:00:00 PM	6	8	1 ND	28300		7350	11.3	0.06		5 ND	840	50200

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M-31	2/21/2002 9:45:00 AM	464	566	4 ND	38600		6510	7.5	0.05 ND	17		1690	63000
M-31	5/22/2002 3:45:00 PM	513	626	4 ND	39700	0.12	5950	7.7	0.05 ND	24		2210	63700
M-31	8/21/2002 10:45:00 AM	504	615	4 ND	39200	0.12	6390	8.4	0.05 ND	16	14	1780	67100
M-31	11/6/2002 10:35:00 AM	510	622	4 ND	33600	0.13	6280	8.1	0.05 ND	17	10 ND	1650	62800
M-31	3/5/2003 2:10:00 PM	353	430	4 ND	39200	0.1	6210	7.6	0.05 ND	16	15	1740	62600
M-31	5/13/2003 4:00:00 PM	505	616	4 ND	36100	0.13	6180	8.1	0.05 ND	13	15	1530	63500
M-31	8/13/2003 2:40:00 PM	503	613	1 ND	37300	0.13	6070	8	0.05 ND	16	18	1050	63900
M-31	11/5/2003 11:35:00 AM	502	612	4 ND	37700	0.15	4400	8.4	0.05 ND	16	20 ND	1140	62100
M-31	3/16/2004 4:00:00 PM	503	614	1 ND	42000	0.11	6110	9.5	0.05 ND	16.8	17.3	1330	62900
M-31	6/8/2004 4:40:00 PM	506	618	4 ND	39400	0.17	5930	9.2	0.05 ND	15	16	1700	62100
M-31	9/15/2004 3:00:00 PM	518	632	4 ND	39500	0.2	6150	9.9	0.05 ND	17	17	1560	64800
M-31	11/18/2004 5:00:00 PM	503	613	4 ND	37000	0.14	6390	8.8	0.05 ND	18	18	1510	62700
M-31	3/1/2005 1:45:00 PM	550	671	4 ND	40300	0.13	6380	8.8	0.05 ND	21	31	1560	62800
M-31	5/24/2005 3:05:00 PM	465	568	4 ND	37700	0.17	5770	9.1	0.08	7	14	1620	61800
M-31	8/16/2005 11:30:00 AM	550	671	4 ND	35300	0.14	6260	10.1	0.05 ND	17	20	1310	61400
M-31	11/15/2005 3:30:00 PM	461	562	4 ND	39700	0.12	6700	9.1	0.05 ND	28	44	12	57700
M-31	2/7/2006 2:00:00 PM	528	645	4 ND	37300	0.11	6180	10	0.05 ND	17	17	1460	61200
M-31	5/23/2006 5:20:00 PM	510	622	4 ND	39700	0.12	6040	10.1	0.05 ND	19	22	1510	57200
M-31	8/23/2006 1:30:00 PM	483	589	4 ND	37600	0.1	6090	4.3	0.05 ND	23	23	1500	59800
M-31	12/6/2006 3:45:00 PM	499	609	4 ND	39400	0.1	5780	11.5	0.05 ND	19	19	1550	62900
M-31	3/15/2007 11:30:00 AM	497	607	4 ND	40800 D			11.9	0.05 ND			1490 D	64000
M-36	9/5/2001 3:55:00 PM	661	807	1 ND	259		1160	1.1	0.05 ND	21.3		1230	2920
M-36	11/9/2001 11:05:00 AM	649	792	1 ND	313		1210	1	0.05		27.9	1220	2960
M-39	11/7/2001 3:45:00 PM	401	413	38	34		1020	8.8	0.05 ND		1.7	1260	2150
MOC- 1B	3/14/2007 12:55:00 PM	433	528	4 ND	75			0.1 ND	30.6			2220	4070
MOC- 2	3/13/2007 5:00:00 PM	321	391	4 ND	7050 D			3.6	0.05 ND			1730	13800
MOC- 3	3/14/2007 11:50:00 AM	360	439	4 ND	74			0.1 ND	13.4			1890	3500
MOC- 4	3/12/2007 4:00:00 PM	330	402	4 ND	2640 D			1.3	0.05 ND			726 D	5560
MOC-20A	3/13/2007 1:40:00 PM	343	419	4 ND	128			0.9	41.7 D			3220	5480

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MOC-20B	3/13/2007 3:00:00 PM	400	488	4 ND	163			1.3	0.05 ND			2020	3790
PNR- 4	6/1/2000 12:00:00 AM												
PNR- 4	8/10/2001 1:15:00 PM	176	215	1 ND	44700		2610	14.1	0.05 ND	55.7		1800	71200
PNR- 4	11/8/2001 3:00:00 PM	122	149	1 ND	31800		3210	15.1	0.08		237	1310	61400
PNR- 5	6/1/2000 12:00:00 AM	267	325	1 ND	38900		3810		0.05 ND			1690	65200
PNR- 5	8/8/2001 11:00:00 AM	319	390	1 ND	40700		3850	16.8	0.05 ND	36.6		1400	68600
PNR- 5	8/15/2001 11:00:00 AM	299	365	1 ND	41200		4140	17.9	0.05 ND	40.6		1520	68000
PNR- 5	11/7/2001 11:10:00 AM	335	409	1 ND	33700		3540	17.9	0.05 ND		36.7	1290	67200
PNR- 5	2/20/2002 10:02:00 AM	449	548	4 ND	44500		3770	17.3	0.05 ND	30		1270	67700
PNR- 5	5/22/2002 10:40:00 AM	335	409	4 ND	43500	0.35	3310	16.4	0.05 ND	39		1870	68800
PNR- 5	8/20/2002 5:10:00 PM	323	394	4 ND	42600	0.33	3590	15.9	0.05 ND	36	37	1570	69700
PNR- 5	11/6/2002 11:10:00 AM	325	397	4 ND	42800	0.33	3870	16.3	0.05 ND	29	46	1730	68100
PNR- 5	3/4/2003 4:30:00 PM	320	391	4 ND	42100	0.3	3570	16.1	0.05 ND	34	52	1880	67800
PNR- 5	5/28/2003 12:35:00 PM	329	401	1 ND	39600	0.36	3490	15.6	0.05 ND	32	41	1480	69300
PNR- 5	8/13/2003 2:59:00 PM	328	400	1 ND	42000	0.36	3530	17	0.05 ND	38	40	1170	69700
PNR- 5	11/4/2003 3:30:00 PM	324	395	4 ND	42200	0.36	2400	16.7	0.05 ND	27	27	1200	68400
PNR- 5	3/17/2004 10:15:00 AM	327	399	1 ND	44300	0.32	3960	16.7	0.05 ND	38	35	1170	68500
PNR- 5	6/9/2004 9:40:00 AM	311	379	4 ND	42900	0.35	3520	16.4	0.05 ND	36	35	1720	65800
PNR- 5	9/14/2004 4:20:00 PM	330	403	4 ND	43400	0.34	3890	17.8	0.05 ND	39	44	1590	69700
PNR- 5	11/17/2004 1:50:00 PM	300	366	4 ND	42800	0.34	3640	15.5	0.05 ND	30	43	1560	67600
PNR- 5	3/2/2005 12:15:00 PM	326	398	4 ND	43700	0.37	3950	17.3	0.05 ND	39	34	1590	67200
PNR- 5	5/25/2005 5:20:00 PM	278	339	4 ND	43100	0.43	4130	16.2	0.05 ND	34	31	1910	68400
PNR- 5	8/17/2005 11:00:00 AM	315	385	4 ND	35400	0.35	3800	16.8	0.05 ND	31	42	1300	65300
PNR- 5	11/16/2005 1:00:00 PM	273	334	4 ND	40900	0.32	4110	14.9	0.05 ND	32	33	1330	58700
PNR- 5	2/9/2006 3:20:00 PM	317	387	4 ND	38500	0.34	3410	15.4	0.05 ND	35	35	1400	59400
PNR- 5	5/25/2006 10:30:00 AM	321	392	4 ND	37700	0.35	3380	18	0.05 ND	37	34	1270	49400
PNR- 5	8/23/2006 3:40:00 PM	326	398	4 ND	32900	0.4	2850	14	0.05 ND	41	37	1090	56400
PNR- 5	12/7/2006 1:25:00 PM	380	464	4 ND	32400	0.4	2740	15.2	0.05 ND	37	37	1040	53100
PNR- 5	3/14/2007 2:14:00 PM	416	507	4 ND	32800 D			13	0.05 ND			892 D	50800
PNR- 6	5/31/2000 12:00:00 AM	511	624	1 ND	14		587		0.06			229	849

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PNR- 6	8/7/2001 9:55:00 AM	555	677	1 ND	31		724	0.3	0.28	21.2		559	1350
PNR- 6	8/15/2001 3:30:00 PM	534	652	1 ND	30		835	0.2	0.25	23		530	1280
PNR- 6	11/7/2001 8:55:00 AM	534	651	1 ND	30		690	0.2	0.31		35.8	437	1210
PNR- 6	2/19/2002 1:30:00 PM	481	587	4 ND	49		966	0.3	0.49	40.6		869	1740
PNR- 6	5/21/2002 12:15:00 PM	513	626	4 ND	35	0.48	837	0.3	0.42	30.9		831	1370
PNR- 6	8/19/2002 4:35:00 PM	514	627	4 ND	23	0.44	710	0.5	0.3	22.5	43.5	450	1180
PNR- 6	11/5/2002 11:25:00 AM	530	647	4 ND	19	0.47	589	0.4	0.19	21.2	27	341	1000
PNR- 6	3/4/2003 10:40:00 AM	530	646	4 ND	31	0.5	567	0.3	0.12	21.9	30.3	276	897
PNR- 6	5/13/2003 11:30:00 AM	545	665	4 ND	16	0.58	573	0.2	0.16	21.3	51.8	265	918
PNR- 6	8/13/2003 8:16:00 AM	521	635	1 ND	16	0.48	594	0.3	0.26	22	42.8	323	955
PNR- 6	11/4/2003 1:30:00 PM	535	652	4 ND	26	0.53	643	0.2	0.27	23.1	40.1	460	1140
PNR- 6	6/8/2004 10:20:00 AM	478	583	4 ND	126	0.47	1990	0.1 ND	2.47	22.2	32.2	2180	3740
PNR- 6	9/14/2004 9:15:00 AM	535	653	4 ND	56	0.48	1230	0.1 ND	1.18	23.6	26.9	1120	2240
PNR- 6	11/16/2004 10:17:00 A	526	642	4 ND	34	0.5	901	0.1 ND	0.62	25.1	26.1	605	1370
PNR- 6	2/28/2005 5:30:00 PM	541	660	4 ND	31	0.48	865	0.2	0.39	23.8	26.6	541	1340
PNR- 6	5/23/2005 6:00:00 PM	454	553	4 ND	28	0.49	852	0.5	0.37	23.2	26.4	501	1320
PNR- 6	8/16/2005 9:35:00 AM	535	653	4 ND	27	0.49	856	0.3	0.34	21.7	1.1	482	1270
PNR- 6	11/15/2005 10:00:00 A	497	606	4 ND	25	0.96	755	0.2	0.21	23.8	33.3	487	1190
PNR- 6	2/7/2006 10:47:00 AM	558	681	4 ND	17	0.5	651	0.3	0.11	40.3	215	332	993
PNR- 6	5/23/2006 10:30:00 AM	520	635	4 ND	20	0.52	655	0.3	0.16	44.7	115	330	924
PNR- 6	8/22/2006 10:45:00 AM	506	618	4 ND	12	0.49	557	0.3	0.09	22.9	27.4	214	820
PNR- 6	12/5/2006 1:40:00 PM	509	621	4 ND	16	0.5	594	0.2	0.11	22.7	30.5	274	914
PNR- 6	3/14/2007 10:15:00 AM	503	613	4 ND	14			0.4	0.17			262	919
PNR- 7	5/31/2000 12:00:00 AM	343	418	1 ND	21700		15700		4.11			1540	35300
PNR- 7	8/7/2001 5:20:00 PM	368	449	1 ND	23300		13800	0.3	4.78	17		1370	39300
PNR- 7	8/15/2001 5:55:00 PM	347	423	1 ND	23000		15700	0.4	3.86	19.9		1590	40600
PNR- 7	11/7/2001 11:50:00 AM	351	428	1 ND	22100		14600	0.4	4.06		20.2	1440	40600
PNR- 7	2/19/2002 5:05:00 PM	351	429	4 ND	23700		14800	0.3	4.19	17		1390	36200
PNR- 7	5/22/2002 1:10:00 PM	356	435	4 ND	23500	0.25	13900	0.3	3.91	29		1650	39800
PNR- 7	8/20/2002 3:07:00 PM	353	431	4 ND	23900	0.25	14400	0.4	3.58	17	26	1460	42100
PNR- 7	11/5/2002 2:50:00 PM	356	434	4 ND	24100	0.24	14500	0.4	3.87	14	19	1580	44500
PNR- 7	3/4/2003 3:05:00 PM	346	422	4 ND	22900	0.3	14200	0.4	3.85	17	17	1500	39800

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR- 7	8/12/2003 12:20:00 PM	354	432	1 ND	24300	0.1 ND	3050	0.3	3.23	20	18	964	45100
PNR- 7	11/4/2003 2:30:00 PM	359	438	4 ND	24900	0.73 ND	11400	0.4	3.58	14	22	1110	40200
PNR- 7	3/17/2004 5:10:00 PM	367	447	1 ND	25300	0.23	15400	0.4	3.71	20	18	1100	41200
PNR- 7	6/8/2004 6:40:00 PM	367	448	4 ND	25800	0.28	13600	0.4	3.73	18	23	1570	46400
PNR- 7	9/14/2004 6:00:00 PM	382	466	4 ND	25000	0.25	14100	0.4	3.65	22	23	1350	46100
PNR- 7	11/17/2004 1:40:00 PM	365	446	1 ND	25500	0.26	14200	0.4	3.85	21	20	1580	43000
PNR- 7	3/1/2005 5:30:00 PM	370	452	4 ND	25400	0.27	13700	0.4	3.56	22	23	1450	42100
PNR- 7	5/25/2005 1:47:00 PM	345	421	4 ND	25300	0.3	14000	0.4	3.77	17	16	1700	44100
PNR- 7	8/17/2005 10:52:00 AM	399	487	4 ND	26100	0.24	15100	0.4	3.59	18	22	1590	45400
PNR- 7	11/16/2005 2:00:00 PM	350	427	4 ND	26800	0.25	14900	0.4	3.57	25	25	1480	43300
PNR- 7	2/9/2006 2:15:00 PM	395	482	4 ND	25100	0.22	14600	0.5	3.7	18	19	1450	41200
PNR- 7	5/24/2006 4:10:00 PM	384	468	4 ND	26200	0.24	13600	0.5	3.61	18	20	1470	42300
PNR- 7	8/24/2006 10:24:00 AM	363	442	4 ND	26600	0.2	13200	0.4	3.69	22	22	1450	44400
PNR- 7	12/8/2006 10:15:00 AM	369	450	4 ND	23800	0.2	12600	0.5	3.44	19	21	1410	43100
PNR- 7	3/15/2007 12:15:00 PM	371	452	4 ND	27600 D			0.5	3.39			1350 D	45400
PNR- 8	5/31/2000 12:00:00 AM	464	566	1 ND	380		1500		0.05 ND			738	2350
PNR- 8	8/7/2001 1:50:00 PM	459	560	1 ND	764		1470	0.4	0.05 ND	20.7		1210	3460
PNR- 8	8/16/2001 6:10:00 PM	1 ND	1 ND	1 ND	647		1420	0.3	0.05 ND	26.1		2990	4460
PNR- 8	11/6/2001 4:30:00 PM	457	557	1 ND	1020		1820	0.4	0.18		31.3	1150	3940
PNR- 8	2/22/2002 4:00:00 PM	489	596	4 ND	888		1680	0.3	0.05 ND	462		1180	3640
PNR- 8	5/21/2002 5:45:00 PM	424	517	4 ND	1310	0.38	1610	0.3	0.08	159		1190	4020
PNR- 8	8/21/2002 10:10:00 AM	404	492	4 ND	1180	0.35	1810	0.5	0.08	20	140	1290	4240
PNR- 8	11/5/2002 3:25:00 PM	445	543	4 ND	1140	0.3	1850	0.4	0.05 ND	21	294	1260	3880
PNR- 8	3/4/2003 12:10:00 PM	433	529	4 ND	1170	0.3	1860	0.3	0.05 ND	22	95	1280	3960
PNR- 8	5/13/2003 5:00:00 PM	445	543	4 ND	1090	0.33	1920	0.4	0.14	21	181	1150	3910
PNR- 8	8/12/2003 9:46:00 AM	445	543	1 ND	1170	0.31	2020	0.3	0.05 ND	23	80	1090	4640
PNR- 8	11/4/2003 12:00:00 PM	462	564	4 ND	1060	0.33	1770	0.4	0.05 ND	23.5	31.8	1190	3700
PNR- 8	3/18/2004 11:30:00 AM	465	567	1 ND	1120	0.34	1930	0.3	0.06	25.7	64.3	1060	3890
PNR- 8	6/8/2004 6:40:00 PM	469	572	4 ND	1240	0.37	1940	0.5	0.06	18.8	25.8	1240	4250
PNR- 8	9/14/2004 5:05:00 PM	440	537	4 ND	1070	0.34	1960	0.5	0.06	23.7	38.1	1080	4120
PNR- 8	11/16/2004 4:15:00 PM	448	547	4 ND	1230	0.34	2020	0.4	0.08	25.2	48.8	1180	4130
PNR- 8	3/2/2005 3:30:00 PM	474	579	4 ND	1400	0.36	2150	0.5	0.05 ND	25.5	35.1	1210	4390

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR- 8	5/26/2005 10:46:00 AM	391	477	4 ND	1540	0.39	2390	0.5	0.05 ND	25.7	67.5	1150	4820
PNR- 8	8/18/2005 11:50:00 AM	287	350	4 ND	1420	0.35	2230	0.4	0.05 ND	20.1	47.8	1170	4600
PNR- 8	11/17/2005 9:45:00 AM	412	503	4 ND	1610	0.3	2510	0.4	0.05 ND	24.2	70.1	1180	4530
PNR- 8	2/9/2006 9:45:00 AM	465	568	4 ND	1590	0.29	2310	0.5	0.05 ND	24.7	63.3	1180	4780
PNR- 8	5/24/2006 5:50:00 PM	451	551	4 ND	1630	0.32	2340	0.5	0.05 ND	23.4	40.8	1200	4230
PNR- 8	8/24/2006 12:30:00 PM	422	515	4 ND	1620	0.3	2410	0.5	0.14	21.8	61.7	1170	4960
PNR- 8	12/7/2006 11:30:00 AM	419	512	4 ND	1810	0.3	2450	0.4	0.05 ND	23.6	89	1170	5130
PNR- 8	3/14/2007 1:25:00 PM	427	520	4 ND	2210 D			0.5	0.2			1070 D	5430
PNR- 9	6/1/2000 12:00:00 AM	263	321	1 ND	3060		2920		0.05 ND			609	5700
PNR- 9	8/9/2001 9:35:00 AM	305	372	1 ND	3360		3150	1.6	0.05 ND	17.3		760	7940
PNR- 9	8/16/2001 1:45:00 PM	274	334	1 ND	3620		3350	1.2	0.05 ND	15.8		639	8020
PNR- 9	11/7/2001 2:30:00 PM	263	321	1 ND	3640		3450	1.7	0.05 ND		29.2	740	7630
PNR- 9	2/20/2002 2:50:00 PM	281	343	4 ND	3700		3420	1.8	0.05 ND	32		629	7300
PNR- 9	5/22/2002 10:15:00 AM	274	334	4 ND	4330	0.17	3060	1.8	0.05 ND	25		510	8580
PNR- 9	8/20/2002 4:20:00 PM	251	306	4 ND	4060	0.18	3460	1.8	0.05 ND	15	24	690	9120
PNR- 9	11/5/2002 2:05:00 PM	270	330	4 ND	4000	0.19	3470	1.9	0.05 ND	14	25	757	8340
PNR- 9	3/4/2003 4:00:00 PM	252	308	4 ND	3920	0.2	3620	1.9	0.05 ND	16	36	720	7880
PNR- 9	5/27/2003 6:15:00 PM	271	330	1 ND	3790	0.22	3620	1.8	0.05 ND	16	54	711	8530
PNR- 9	8/13/2003 10:35:00 AM	257	314	1 ND	4580	0.17	3530	1.9	0.05 ND	16	22	571	8850
PNR- 9	11/4/2003 2:35:00 PM	262	319	4 ND	4700	0.22	3720	1.9	0.05 ND	15	22	663	8280
PNR- 9	6/8/2004 1:35:00 PM	1030	1260	4 ND	4340	0.21	3880	2.1	0.05 ND	16.3	19.1	842	9660
PNR- 9	9/14/2004 11:00:00 AM	276	337	4 ND	4210	0.26	4070	2.3	0.05 ND	17.5	21.4	752	10600
PNR- 9	11/16/2004 4:12:00 PM	254	310	4 ND	4480	0.28	4110	2.1	0.05 ND	18.8	19.9	769	9140
PNR- 9	3/1/2005 12:10:00 PM	280	341	4 ND	4450	0.22	4080	2.1	0.05 ND	19	19	767	9590
PNR- 9	5/24/2005 5:25:00 PM	237	289	4 ND	4580	0.32	4390	2.2	0.05 ND	21.6	21.7	908	10200
PNR- 9	8/16/2005 12:00:00 PM	274	334	4 ND	4540	0.26	4190	2.1	0.05 ND	17.4	17.4	779	10300
PNR- 9	11/15/2005 3:55:00 PM	250	305	4 ND	4600	0.12	4620	2.1	0.05 ND	18.1	21.2	766	9990
PNR- 9	2/8/2006 12:00:00 PM	263	320	4 ND	4490	0.24	4540	2.2	0.05 ND	19.5	20.7	761	8850
PNR- 9	5/23/2006 1:15:00 PM	252	307	4 ND	4990	0.17	4260	2.3	0.05 ND	18	22	831	9800
PNR- 9	8/23/2006 9:40:00 AM	246	300	4 ND	4760	0.15	4480	2.2	0.05 ND	19	20.4	823	10800
PNR- 9	12/6/2006 3:00:00 PM	253	308	4 ND	4620	0.2	4420	2.5	0.05 ND	17.3	23.2	855	10000
PNR- 9	3/13/2007 4:35:00 PM	247	302	4 ND	4570 D			2.5	0.05 ND			699 D	10700

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-10	6/1/2000 12:00:00 AM	528	645	1 ND	147		978		0.05 ND			1210	2480
PNR-10	8/8/2001 6:50:00 PM	571	697	1 ND	245		1090	1.2	0.05 ND	24.3		1260	2890
PNR-10	8/16/2001 1:15:00 PM	550	672	1 ND	263		1100	1.2	0.05 ND	28.3		1320	2900
PNR-10	11/7/2001 12:30:00 PM	528	644	1 ND	196		1040	1.2	0.08		38.9	1220	2690
PNR-10	2/20/2002 1:38:00 PM	578	705	4 ND	304		1110	1.2	0.05 ND	30.1		1340	2920
PNR-10	5/21/2002 1:35:00 PM	535	653	4 ND	415	0.22	1040	1.3	0.05 ND	30.6		1680	2810
PNR-10	8/20/2002 12:20:00 PM	512	624	4 ND	351	0.25	1150	1.3	0.07	23.4	31.2	1350	3090
PNR-10	11/5/2002 1:30:00 PM	524	639	4 ND	384	0.25	1250	1.4	0.05 ND	24	30.7	1380	3130
PNR-10	3/4/2003 4:50:00 PM	540	658	4 ND	426	0.3	1270	1.3	0.05 ND	23.8	51.9	1340	3180
PNR-10	5/27/2003 5:45:00 PM	516	630	1 ND	434	0.28	1310	1.2	0.05 ND	24.8	29.2	1350	3230
PNR-10	8/13/2003 10:00:00 AM	512	624	1 ND	457	0.25	1270	1.2	0.05 ND	24.1	45	1340	3270
PNR-10	11/4/2003 1:45:00 PM	512	624	4 ND	512	0.28	1270	1.4	0.05 ND	24.5	28.3	1420	3310
PNR-10	6/8/2004 2:10:00 PM	493	602	4 ND	561	0.27	1410	1.4	0.05 ND	23.9	56	1410	3390
PNR-10	9/14/2004 11:40:00 AM	519	633	4 ND	607	0.27	1490	1.8	0.05 ND	25.6	31	1350	3510
PNR-10	11/16/2004 11:28:00 A	504	615	4 ND	602	0.28	1540	1.5	0.05 ND	26.2	29.1	1360	3430
PNR-10	3/1/2005 11:06:00 AM	524	640	4 ND	653	0.27	1570	1.4	0.05 ND	26.7	28.3	1370	3560
PNR-10	5/24/2005 3:50:00 PM	442	540	4 ND	645	0.31	1500	1.6	0.05 ND	25.4	25.3	1260	3610
PNR-10	8/16/2005 10:48:00 AM	522	637	4 ND	688	0.26	1630	1.4	0.05 ND	25.2	26.4	1360	3660
PNR-10	11/15/2005 11:45:00 A	460	561	4 ND	758	0.24	1800	1.4	0.05 ND	25.9	28	1400	3730
PNR-10	2/7/2006 2:00:00 PM	498	607	4 ND	708	0.25	1740	1.5	0.05 ND	27.9	29.4	1300	3730
PNR-10	5/23/2006 12:15:00 PM	480	585	4 ND	834	0.24	1740	1.7	0.05 ND	26.7	32.2	1430	3790
PNR-10	8/23/2006 10:35:00 AM	452	551	4 ND	811	0.2	1740	1.5	0.05 ND	26.8	29.6	1370	3820
PNR-10	12/6/2006 2:30:00 PM	458	559	4 ND	790	0.2	1770	1.8	0.05 ND	27.2	29.6	1340	3890
PNR-10	3/13/2007 3:20:00 PM	450	550	4 ND	922			1.9	0.05 ND			1390	4050
PNR-12	5/31/2000 12:00:00 AM	699	853	1 ND	78		2410		95.7			2030	1020
PNR-12	8/8/2001 3:00:00 PM	537	655	1 ND	74		2390	0.3	139	19.1		2130	4720
PNR-12	8/15/2001 4:00:00 PM	738	900	1 ND	72		2570	0.3	138	21.1		2050	4610
PNR-12	11/6/2001 4:20:00 PM	739	901	1 ND	72		2430	0.4	105		64.5	2040	4590
PNR-12	2/20/2002 11:55:00 AM	735	897	4 ND	67		2370	0.2	145	36		2170	4700
PNR-12	5/21/2002 11:00:00 AM	666	812	4 ND	56	0.23	2360	0.1 ND	142	22		2250	4630
PNR-12	8/19/2002 4:05:00 PM	744	908	4 ND	68	0.3	2070	1.1	82.9	20.5	88.4	1830	3990

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-12	11/5/2002 11:15:00 AM	700	854	4 ND	76	0.21	2470	0.1 ND	130	19	69	2200	4660
PNR-12	3/4/2003 1:10:00 PM	684	834	4 ND	148	0.2	2420	0.1 ND	128	19	139	2200	4590
PNR-12	5/27/2003 5:00:00 PM	656	801	1 ND	80	0.28	2280	0.1 ND	112	17	181	2200	4540
PNR-12	8/13/2003 8:05:00 AM	685	835	1 ND	58	0.22	2440	0.1 ND	133	19.9	33.1	2180	4600
PNR-12	11/4/2003 12:35:00 PM	681	831	4 ND	64	0.22	2380	0.1 ND	135	20.6	46.8	2240	4590
PNR-12	6/8/2004 9:15:00 AM	691	843	4 ND	72	0.27	2410	0.1 ND	337	19.4	33.8	2120	4540
PNR-12	9/14/2004 10:00:00 AM	695	847	4 ND	75	0.24	2540	0.1 ND	104	21	17.1	2080	4580
PNR-12	11/16/2004 9:35:00 AM	649	792	4 ND	70	0.25	2640	0.1 ND	135	21.8	33.8	2100	4550
PNR-12	2/28/2005 5:10:00 PM	697	850	4 ND	66	0.25	2530	0.1 ND	126	21.8	25.4	2100	4620
PNR-12	5/23/2005 6:50:00 PM	586	716	4 ND	65	0.27	2420	0.1 ND	130	20.4	24.1	1980	4540
PNR-12	8/15/2005 6:00:00 AM	687	838	4 ND	63	0.23	2630	0.1 ND	163	21.7	20.9	2060	4600
PNR-12	11/15/2005 9:45:00 AM	617	752	4 ND	71	0.21	2690	0.1 ND	155	20.3	38.5	2170	4520
PNR-12	2/7/2006 1:00:00 PM	669	816	4 ND	66	0.2	2670	0.1 ND	204	22.8	27.6	2100	4550
PNR-12	5/23/2006 10:50:00 AM	645	787	4 ND	72	0.21	2710	0.1 ND	197	21.9	26.1	2200	4400
PNR-12	12/5/2006 3:45:00 PM	615	750	4 ND	69	0.2	2650	0.1 ND	187	22.1	30.1	2120	4700
PNR-12	3/14/2007 12:15:00 PM	615	751	4 ND	71			0.1 ND	202 D			1970	4710
PNR-13	8/15/2001 6:15:00 PM	372	453	1 ND	12300		4870	6	1.12	18.9		862	22200
PNR-13	8/15/2001 7:00:00 PM	375	457	1 ND	11500		4480	5.1	1.46	20.1		841	21200
PNR-13	11/7/2001 1:35:00 PM	424	517	1 ND	3420		2540	2.1	0.37		26.4	1360	7780
PNR-13	2/19/2002 4:30:00 PM	559	682	4 ND	2220		2310	1.2	0.05 ND	32		1810	6720
PNR-13	5/22/2002 2:00:00 PM	508	619	4 ND	1040	0.32	2070	1.2	0.05 ND	29		2270	5120
PNR-13	8/20/2002 3:45:00 PM	444	541	4 ND	679	0.36	2080	1.4	0.05 ND	24	30	2000	4530
PNR-13	11/5/2002 3:30:00 PM	511	623	4 ND	769	0.37	1900	1.3	0.05 ND	22	30	1730	4110
PNR-13	3/4/2003 11:15:00 AM	485	592	4 ND	592	0.4	1880	1.2	0.05 ND	22.9	37	1810	3950
PNR-13	5/28/2003 10:05:00 AM	501	612	1 ND	517	0.49	1910	1.1	0.05 ND	24	28	1770	3940
PNR-13	8/13/2003 10:20:00 AM	518	632	1 ND	690	0.33	1550	1.1	0.05 ND	23.3	29.3	1180	3570
PNR-13	11/4/2003 2:15:00 PM	541	661	4 ND	1200	0.35	1720	1.5	0.05 ND	23.7	26	1600	4630
PNR-13	6/8/2004 3:30:00 PM	560	683	4 ND	860	0.37	1620	1.6	0.05 ND	23.1	27.4	1580	4190
PNR-13	9/14/2004 10:00:00 AM	542	662	4 ND	565	0.36	1550	1.4	0.05	25.8	25.9	1180	3150
PNR-13	11/16/2004 3:30:00 PM	532	649	4 ND	624	0.35	1650	1.3	0.05 ND	25.2	30.8	1360	3480
PNR-13	3/1/2005 1:25:00 PM	537	655	4 ND	447	0.37	1570	1.1	0.05 ND	27	28.1	1270	3110
PNR-13	5/24/2005 12:00:00 PM	476	581	4 ND	470	0.39	1510	1.3	0.05 ND	24	29.7	1410	3610

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-13	8/17/2005 9:40:00 AM	489	597	4 ND	541	0.36	1550	1.2	0.39	25.5	62.6	1330	3440
PNR-13	11/16/2005 10:50:00 A	507	618	4 ND	500	0.34	1780	1.2	0.05 ND	26.8	55.3	1690	3840
PNR-13	2/8/2006 10:40:00 AM	539	657	4 ND	410	0.33	1690	1.3	0.05 ND	27.9	29	1620	3750
PNR-13	5/24/2006 1:15:00 PM	510	623	4 ND	385	0.34	1680	1.2	0.05 ND	27.7	31.1	1630	3240
PNR-13	8/22/2006 2:25:00 PM	502	612	4 ND	437	0.33	1760	1.3	0.05 ND	24.9	29.1	1770	3880
PNR-13	12/6/2006 11:30:00 AM	508	619	4 ND	769	0.3	1800	1.4	0.05 ND	23.8	29.6	1780	4430
PNR-13	3/14/2007 4:20:00 PM	504	615	4 ND	407			1.5	0.05 ND			1670	3790
PNR-14	8/9/2001 4:00:00 PM	321	391	1 ND	44200		5110	23.8	0.05 ND	30.7		1460	70000
PNR-14	8/14/2001 9:45:00 AM	294	358	1 ND	44300		5190	24	0.05 ND	30.8		1330	69700
PNR-14	11/7/2001 2:35:00 PM	340	415	1 ND	40900		6370	28.1	0.05 ND		37.3	1490	67400
PNR-14	2/21/2002 11:30:00 AM	372	454	4 ND	43100		5910	29.8	0.05 ND	25		1300	64200
PNR-14	5/22/2002 12:05:00 PM	338	412	4 ND	39700	0.35	4630	22.2	0.05 ND	42		1730	67200
PNR-14	8/20/2002 5:45:00 PM	325	397	4 ND	39900	0.32	4800	18.5	0.05 ND	30	29	1510	66300
PNR-14	11/6/2002 11:28:00 AM	295	360	4 ND	35300	0.3	5210	18.4	0.05 ND	22	33	1590	65400
PNR-14	3/4/2003 5:15:00 PM	281	343	4 ND	40200	0.3	5050	17.5	0.05 ND	29	42	1650	65200
PNR-14	5/28/2003 11:45:00 AM	314	383	1 ND	33300	0.34	4940	15.1	0.05 ND	29	30	1460	60600
PNR-14	8/13/2003 3:43:00 PM	306	373	1 ND	37400	0.3	4860	17	0.05 ND	30	31	1030	62800
PNR-14	11/5/2003 11:45:00 AM	331	404	4 ND	26400	0.38	5370	6.3	0.05 ND	39	46	1210	43300
PNR-14	3/17/2004 10:45:00 AM	377	460	1 ND	30300	0.36	4400	12.7	0.05 ND	35	32	1080	49300
PNR-14	6/9/2004 10:40:00 AM	384	469	4 ND	28100	0.41	3230	11.8	0.05 ND	27	30	1400	45500
PNR-14	9/14/2004 3:35:00 PM	412	503	4 ND	25000	0.4	3000	11.1	0.05 ND	34	34	1300	39800
PNR-14	11/17/2004 3:30:00 PM	405	495	4 ND	19300	0.43	2970	9.1	0.05 ND	30	32	1140	36200
PNR-14	3/2/2005 10:50:00 AM	472	576	4 ND	16500	0.45	2600	7.7	0.05 ND	31	30	1480	29700
PNR-14	5/25/2005 9:46:00 AM	453	553	4 ND	13600	0.53	2440	6.8	0.05 ND	30	67	2110	25200
PNR-14	8/17/2005 3:18:00 PM	591	721	4 ND	11100	0.5	2390	6.2	0.05 ND	30	28	2270	21400
PNR-14	11/16/2005 11:05:00 A	541	660	4 ND	10800	0.36	3170	5.6	0.05 ND	37	37	2040	20100
PNR-14	2/9/2006 2:35:00 PM	624	761	4 ND	9060	0.34	2730	5.4	0.05 ND	34	32	2140	18700
PNR-14	5/24/2006 5:00:00 PM	615	751	4 ND	9220	0.42	2790	6.1	0.05 ND	34	35	2080	17600
PNR-14	8/23/2006 4:20:00 PM	605	738	4 ND	8220	0.4	2640	4.3	0.05 ND	34	35	2060	16700
PNR-14	12/7/2006 3:30:00 PM	633	772	4 ND	7230	0.4	2640	4.4	0.05 ND	32	32	2080	15600
PNR-14	3/14/2007 10:45:00 AM	643	785	4 ND	6590 D			4	0.05 ND			1890 D	14600

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-15	8/10/2001 8:15:00 AM	162	197	1 ND	43500		3370	14.4	0.05 ND	41.9		1470	66100
PNR-15	8/14/2001 1:00:00 PM	288	351	1 ND	40800		4060	15.4	0.05 ND	47.6		1650	66000
PNR-15	11/8/2001 9:10:00 AM	369	450	1 ND	37400		3340	15.6	0.08		50.1	1430	62400
PNR-15	2/21/2002 2:54:00 PM	338	412	4 ND	45500		3430	15.7	0.06	70		1420	68100
PNR-15	5/22/2002 2:55:00 PM	330	402	4 ND	43000	0.33	3300	14.9	0.05 ND	61		2300	68800
PNR-15	8/21/2002 2:00:00 PM	346	423	4 ND	46200	0.38	3800	15.4	0.07	38	43	1840	70100
PNR-15	11/6/2002 2:35:00 PM	325	396	4 ND	37400	0.31	3480	15.4	0.05 ND	27	42	1750	67800
PNR-15	3/5/2003 12:30:00 PM	324	395	4 ND	39300	0.4	3680	14.2	0.05 ND	35	34	1730	64600
PNR-15	5/28/2003 3:35:00 PM	331	403	1 ND	38600	0.39	3810	13.1	0.05 ND	32	33	1380	65400
PNR-15	8/14/2003 9:58:00 AM	336	410	1 ND	35900	0.37	3710	12.9	0.05 ND	33	37	1020	59600
PNR-15	11/5/2003 2:30:00 PM	371	453	4 ND	31800	0.38	3380	10.5	0.05 ND	39	39	1100	51800
PNR-15	3/17/2004 1:35:00 PM	402	490	1 ND	27600	0.35	3110	10.1	0.05 ND	35	43	1160	45800
PNR-15	6/8/2004 12:45:00 PM	422	515	4 ND	24700	0.48	2490	9	0.05 ND	30	36	1530	37100
PNR-15	9/15/2004 4:30:00 PM	423	516	4 ND	23300	0.44	2920	9.4	0.05 ND	36	40	1310	39000
PNR-15	11/18/2004 9:05:00 AM	384	469	4 ND	21300	0.49	2660	7.7	0.05 ND	27	30	1310	35200
PNR-15	3/2/2005 12:20:00 PM	467	570	4 ND	19600	0.54	2640	7.4	0.05 ND	31	39	1290	33000
PNR-15	5/25/2005 10:40:00 AM	453	553	4 ND	14700	0.71	2040	5.9	0.05 ND	29	38	1650	26100
PNR-15	8/17/2005 4:45:00 PM	504	615	4 ND	12700	0.59	2090	6.2	0.05 ND	26	29	1200	27300
PNR-15	11/16/2005 11:35:00 A	494	603	4 ND	13800	0.6	2270	5.5	0.05 ND	33	39	1420	22800
PNR-15	2/8/2006 10:45:00 AM	575	701	4 ND	10400	0.68	1580	4.6	0.05 ND	30	35	1560	19500
PNR-15	5/24/2006 11:15:00 AM	604	737	4 ND	7470	0.86	1010	3.5	0.05 ND	29	33	1840	14200
PNR-15	8/23/2006 5:15:00 PM	562	686	4 ND	8720	0.7	1230	3.9	0.05 ND	27	27	1670	16900
PNR-15	12/7/2006 4:30:00 PM	575	701	4 ND	8790	0.8	1250	4.3	0.05 ND	26	28	1650	17100
PNR-15	3/14/2007 11:40:00 AM	572	697	4 ND	9290 D			4.9	0.05 ND			1640 D	17600
PNR-16	8/10/2001 3:15:00 PM	508	620	1 ND	33		2300	0.3	20.2	22.1		2480	4260
PNR-16	8/16/2001 6:35:00 PM	485	592	1 ND	33		2460	0.1	19	22.6		2380	4260
PNR-16	11/6/2001 4:05:00 PM	526	642	1 ND	26		2570	2	8.6		158	2780	4650
PNR-16	2/21/2002 10:20:00 AM	635	774	4 ND	28		2850	1.4	13.3	39		3180	4960
PNR-16	5/21/2002 3:50:00 PM	488	595	4 ND	16	0.45	2650	0.2	16.5	39.9		3460	5090
PNR-16	8/20/2002 11:40:00 AM	494	603	4 ND	26	0.46	2860	0.1 ND	17.7	24.2	42.1	3270	5060
PNR-16	11/5/2002 2:04:00 PM	498	608	4 ND	24	0.47	2810	0.1 ND	18.2	22	30	3210	5110
PNR-16	3/4/2003 1:00:00 PM	474	578	4 ND	22	0.4	2770	0.5	18.4	23.8	103	3190	5050

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-16	5/27/2003 6:30:00 PM	518	632	1 ND	28	0.52	2760	0.1 ND	18.7	24	26	3090	4990
PNR-16	8/13/2003 9:10:00 AM	499	609	1 ND	17	0.44	2730	0.2	18.2	23.7	36.8	3120	5060
PNR-16	11/4/2003 12:30:00 PM	494	603	4 ND	17	0.44	2790	0.5	17.8	25.4	33.2	3260	5030
PNR-16	3/17/2004 4:09:00 PM	509	622	1 ND	19	0.47	3010	0.4	16.3	26.7	35.1	3250	5110
PNR-16	6/8/2004 12:30:00 PM	514	627	4 ND	9	0.58	2740	0.1 ND	19.3	23.9	33	3070	4940
PNR-16	9/14/2004 12:40:00 PM	513	626	4 ND	22	0.53	2960	0.1 ND	18.8	26.6	41.1	2990	4920
PNR-16	11/16/2004 12:30:00 P	486	593	4 ND	24	0.55	2750	0.2	19	24.3	245	2930	4840
PNR-16	3/1/2005 2:30:00 PM	515	628	4 ND	21	0.53	2980	0.1 ND	18.2	27.3	34.5	2890	4960
PNR-16	5/24/2005 1:58:00 PM	425	519	4 ND	19	0.52	2750	1	17.1	25.9	53.5	2950	5000
PNR-16	8/17/2005 9:30:00 AM	506	617	4 ND	18	0.34	2920	0.1 ND	22.1	25	37.4	2940	4960
PNR-16	11/15/2005 3:15:00 PM	460	562	4 ND	20	0.46	3140	0.1	20.4	25.9	88.9	3120	4960
PNR-16	2/7/2006 4:47:00 PM	490	597	4 ND	20	0.43	2950	0.3	19.7	25.5	61.4	3020	5000
PNR-16	5/24/2006 12:25:00 PM	486	592	4 ND	23	0.51	3080	0.2	25.7	27.7	43.8	3200	4780
PNR-16	8/22/2006 1:20:00 PM	462	564	4 ND	19	0.46	2970	0.1 ND	18.3	26	45.3	2950	4860
PNR-16	12/6/2006 1:00:00 PM	466	569	4 ND	20	0.5	2990	0.1 ND	20.9	27	29.4	3000	4970
PNR-16	3/13/2007 12:45:00 PM	460	561	4 ND	20			0.1 ND	21			3120	5050
PNR-17	8/22/2001 12:35:00 PM	220	269	1 ND	42500		5450	21.8	0.05 ND	55.2		1520	68800
PNR-17	8/22/2001 1:30:00 PM	219	267	1 ND	44200		5490	22.3	0.05 ND	55		1440	68700
PNR-17	11/8/2001 11:30:00 AM	178	217	1 ND	40300		10300	31.5	0.1		153	1490	61800
PNR-17	2/21/2002 5:00:00 PM	237	289	4 ND	41500		7120	29.9	0.05 ND	111		1120	65900
PNR-17	5/23/2002 10:50:00 AM	262	319	4 ND	42300	0.43	4990	22.9	0.05 ND	76		1480	62800
PNR-17	8/21/2002 3:15:00 PM	358	437	4 ND	41000	0.44	4420	19.3	0.05 ND	40	104	1400	70000
PNR-17	11/6/2002 3:40:00 PM	291	355	4 ND	36300	0.38	4870	19.1	0.05 ND	34	88	1630	67100
PNR-17	3/5/2003 1:30:00 PM	301	367	4 ND	40600	0.4	4220	16.8	0.05 ND	36	70	1580	65400
PNR-17	5/28/2003 10:00:00 AM	327	400	1 ND	38300	0.4	3920	15.7	0.05 ND	33	58	1320	66400
PNR-17	8/14/2003 11:05:00 AM	331	404	1 ND	39700	0.36	9060	16.5	0.05 ND	29	47	1020	65900
PNR-17	11/6/2003 11:30:00 AM	389	474	4 ND	38600	0.33	3360	15.2	0.05 ND	30	31	783	62000
PNR-17	3/17/2004 3:10:00 PM	453	553	1 ND	36900	0.31	3490	12.9	0.05 ND	32	35	536	58100
PNR-17	6/9/2004 3:45:00 PM	488	595	4 ND	35600	0.4	3070	12.4	0.05 ND	30	54	692	54700
PNR-17	9/16/2004 9:35:00 AM	556	678	4 ND	31300	0.36	2820	12	0.05 ND	32	48	579	50000
PNR-17	11/18/2004 12:20:00 P	652	796	4 ND	22200	0.46	2160	9.2	0.19	29	41	311	43200
PNR-17	3/2/2005 3:30:00 PM	833	1020	4 ND	20500	0.86	1650	7.2	0.05 ND	33	41	506	35400

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-17	5/25/2005 2:25:00 PM	778	949	4 ND	17300	0.88	1250	6.6	0.05 ND	30	35	757	30500
PNR-17	8/17/2005 5:25:00 PM	1010	1230	4 ND	12000	0.65	877	5.3	0.05 ND	27	30	583	25700
PNR-17	11/16/2005 2:01:00 PM	1040	1260	4 ND	11400	0.97	644	3.6	0.05 ND	27	31	755	18600
PNR-17	2/8/2006 2:05:00 PM	1160	1420	4 ND	8080	1.07	397	3.6	0.05 ND	26	24	814	15700
PNR-17	5/24/2006 1:50:00 PM	1050	1280	4 ND	7200	0.78	311	3.4	0.05 ND	24	34	1070	12800
PNR-17	8/24/2006 12:45:00 PM	994	1210	4 ND	5500	1.1	254	2.4	0.05 ND	22.7	25.7	1180	11300
PNR-17	12/8/2006 12:30:00 PM	947	1160	4 ND	4620	1.1	221	10.4	0.05 ND	21.2	21	1290	10500
PNR-17	3/15/2007 11:49:00 AM	936	1140	4 ND	4250 D			2.2	0.05 ND			1430 D	9400
PNR-18	8/8/2001 4:00:00 PM	616	751	1 ND	57		1580	2.4	0.05 ND	19.9		1470	2740
PNR-18	8/16/2001 11:00:00 AM	558	681	1 ND	56		1630	2.3	0.05 ND	23.6		1520	2900
PNR-18	11/7/2001 10:20:00 AM	696	849	1 ND	84		1470	1.4	0.13		30.8	1220	2650
PNR-18	2/20/2002 11:24:00 AM	671	819	4 ND	70		1750	2.2	0.05 ND	26		1600	2950
PNR-18	5/21/2002 10:30:00 AM	624	761	4 ND	42	0.26	1600	2.8	0.05 ND	27.9		1900	2960
PNR-18	8/19/2002 4:50:00 PM	576	703	4 ND	57	0.26	1800	2.5	0.05	23.5	31.7	1690	3130
PNR-18	11/5/2002 11:55:00 AM	613	748	4 ND	60	0.27	1800	2.4	0.05 ND	22.8	29.6	1790	3210
PNR-18	3/4/2003 2:35:00 PM	583	712	4 ND	67	0.3	1820	2.4	0.05 ND	24.1	36.5	1760	3140
PNR-18	5/13/2003 11:45:00 AM	623	760	4 ND	60	0.3	1860	2.6	0.05 ND	22.9	32.7	1690	3150
PNR-18	8/14/2003 8:40:00 AM	616	752	1 ND	45	0.25	1750	2.2	0.05 ND	24.1	143	1710	3200
PNR-18	11/4/2003 4:00:00 PM	650	793	4 ND	52	0.27	1790	2.3	0.05 ND	25.9	32.4	1820	3250
PNR-18	6/8/2004 9:55:00 AM	677	826	4 ND	60	0.29	2040	2.8	0.05 ND	27	114	1640	3210
PNR-18	9/14/2004 8:55:00 AM	737	899	4 ND	52	0.25	1860	2.8	0.05	25.3	27.7	1740	3280
PNR-18	11/18/2004 2:25:00 PM	715	872	4 ND	57	0.27	1870	2.5	0.05 ND	26.4	28.2	1710	3350
PNR-18	2/28/2005 5:50:00 PM	712	869	4 ND	53	0.23	1870	3.2	0.05 ND	27.5	34.3	1660	3240
PNR-18	5/25/2005 5:30:00 PM	594	724	4 ND	57	0.25	1840	3.9	0.05 ND	26.3	32.3	1620	3150
PNR-18	8/15/2005 6:00:00 PM	752	918	4 ND	55	0.23	1940	2.9	0.05 ND	24.7	24.6	1600	3330
PNR-18	11/15/2005 10:30:00 A	675	824	4 ND	60	0.25	1970	2.6	0.05 ND	25.4	27.1	1700	3300
PNR-18	2/7/2006 11:30:00 AM	743	906	4 ND	61	0.21	1850	2.9	0.05 ND	27.1	30.2	1660	3270
PNR-18	5/23/2006 11:15:00 AM	716	874	4 ND	69	0.24	1840	2.6	0.05 ND	27.6	29.8	1770	3030
PNR-18	8/22/2006 5:17:00 PM	708	863	4 ND	73	0.22	1870	2.3	0.05 ND	27.2	28.2	1670	3360
PNR-18	12/5/2006 2:45:00 PM	688	840	4 ND	74	0.2	1830	2.7	0.05 ND	27	28.6	1670	3420
PNR-18	3/14/2007 11:10:00 AM	719	877	4 ND	86			3.2	0.05 ND			1720	3480

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-19	8/7/2001 2:50:00 PM	354	432	1 ND	3820		4410	0.1 ND	18	21.4		1160	8810
PNR-19	8/15/2001 4:40:00 PM	344	420	1 ND	3180		4260	0.1 ND	13.8	22.5		1120	8260
PNR-19	11/6/2001 3:20:00 PM	343	418	1 ND	3770		4760	0.1 ND	20.2		25.4	1270	8650
PNR-19	2/19/2002 3:05:00 PM	326	398	4 ND	4410		5710	0.1 ND	23	26		1400	9380
PNR-19	5/22/2002 2:55:00 PM	352	430	4 ND	6080	0.24	5570	0.1 ND	23.8	26		1160	11300
PNR-19	8/20/2002 12:30:00 PM	360	439	4 ND	5070	0.28	5510	0.1 ND	22.1	21	27	1470	11300
PNR-19	11/5/2002 1:17:00 PM	359	438	4 ND	4960	0.28	5460	0.1 ND	23.3	19	25	1380	11400
PNR-19	3/4/2003 12:20:00 PM	345	420	4 ND	5520	0.3	5910	0.1 ND	25.7	21	24	1560	11500
PNR-19	5/27/2003 5:20:00 PM	360	440	1 ND	5880	0.3	5890	0.1 ND	24.4	21	23	1420	12900
PNR-19	8/13/2003 8:55:00 AM	350	427	1 ND	6210	0.29	5880	0.1 ND	24.6	20	31	1130	13000
PNR-19	11/4/2003 10:50:00 AM	354	431	4 ND	6820	0.28	5800	0.1 ND	28.7	22	25	1390	12200
PNR-19	3/17/2004 4:40:00 PM	364	444	1 ND	7970	0.25	7210	0.1 ND	24.8	24	28	1390	14700
PNR-19	6/8/2004 1:55:00 PM	358	437	4 ND	6860	0.31	6060	0.1 ND	25	20.8	25.3	1560	15200
PNR-19	9/14/2004 2:15:00 PM	345	421	4 ND	5580	0.33	5120	0.1 ND	24.6	23.7	24.5	1110	12600
PNR-19	11/16/2004 1:45:00 PM	335	409	4 ND	6270	0.32	5600	0.1 ND	27.2	22.4	22.5	1250	13000
PNR-19	3/1/2005 3:35:00 PM	368	449	4 ND	7590	0.32	6460	0.1 ND	26.3	24	23	1380	15700
PNR-19	5/25/2005 12:36:00 PM	318	388	4 ND	7370	0.31	6130	0.1 ND	28.3	21.6	20.3	1540	16700
PNR-19	8/17/2005 12:23:00 PM	353	431	4 ND	6970	0.29	5830	0.1 ND	18.1	21	19.8	1410	15600
PNR-19	11/16/2005 12:00:00 P	325	397	4 ND	8620	0.25	6650	0.1 ND	27.4	22.1	22	1350	16600
PNR-19	2/8/2006 12:55:00 PM	358	437	4 ND	8450	0.25	7290	0.1 ND	28.2	23	23	1530	16100
PNR-19	5/24/2006 3:20:00 PM	347	423	4 ND	9690	0.27	6850	0.1 ND	25.4	22	24	1430	16500
PNR-19	8/23/2006 2:05:00 PM	330	403	4 ND	9690	0.3	6990	0.1 ND	21.3	27	27	1350	19300
PNR-19	12/7/2006 3:30:00 PM	349	425	4 ND	13300	0.2	8350	0.1 ND	21.4	22	31	1510	24700
PNR-19	3/14/2007 3:00:00 PM	331	404	4 ND	10400 D			0.1 ND	20.7			1040 D	20000
PNR-20	8/8/2001 9:50:00 AM	413	504	1 ND	16100		9420	0.1 ND	11.2	18.5		1190	29000
PNR-20	8/15/2001 5:15:00 PM	412	502	1 ND	12900		9710	0.1 ND	10.4	24.2		1420	25400
PNR-20	11/8/2001 10:00:00 AM	508	620	1 ND	10600		8940	0.2	4.26		68.4	1460	19900
PNR-20	2/19/2002 3:40:00 PM	391	477	4 ND	15400		9840	0.1 ND	10.8	26		1180	25200
PNR-20	5/22/2002 11:00:00 AM	398	486	4 ND	17400	0.16	8540	0.1 ND	11.4	38		1030	29600
PNR-20	8/20/2002 1:25:00 PM	425	519	4 ND	17100	0.17	10000	0.1 ND	9.51	21	45	1390	31400
PNR-20	11/5/2002 4:05:00 PM	427	521	4 ND	18400	0.16	10000	0.1 ND	11	16	27	1500	33600
PNR-20	3/4/2003 2:15:00 PM	417	509	4 ND	17400	0.2	9330	0.1 ND	10.6	19	34	1650	30200

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-20	5/28/2003 11:00:00 AM	438	534	1 ND	17300	0.26	10100	0.1 ND	11.6	21	21	1270	32800
PNR-20	8/13/2003 11:35:00 AM	431	526	1 ND	18100	0.17	9060	0.1 ND	11.7	21	40	1130	32000
PNR-20	11/5/2003 12:50:00 PM	427	521	4 ND	21300	0.18	10100	0.1 ND	9.24	24	84	1030	35700
PNR-20	3/18/2004 12:50:00 PM	434	529	1 ND	16700	0.15	9250	0.1 ND	12.7	22	50	1110	28600
PNR-20	6/8/2004 12:15:00 PM	445	543	4 ND	19700	0.21	8710	0.1 ND	10.7	20	35	1580	34800
PNR-20	9/14/2004 1:42:00 PM	451	550	4 ND	15700	0.18	8330	0.1 ND	12.8	23	27	1410	31500
PNR-20	11/17/2004 10:40:00 A	435	531	4 ND	20000	0.19	9180	0.1 ND	10.3	22	24	1510	35800
PNR-20	3/1/2005 4:25:00 PM	472	576	4 ND	18600	0.43	8200	0.1 ND	11.5	26	28	1410	32400
PNR-20	5/24/2005 5:35:00 PM	401	489	4 ND	15600	0.2	8100	0.1 ND	15	22	27	1360	29700
PNR-20	8/16/2005 3:45:00 PM	482	588	4 ND	15600	0.19	8070	0.1 ND	15.9	19	19	1160	34300
PNR-20	11/15/2005 12:15:00 P	425	518	4 ND	19500	0.17	8070	0.1 ND	11.8	22	21	1360	33700
PNR-20	2/9/2006 10:50:00 AM	467	570	4 ND	15300	0.16	7950	0.1 ND	15.4	22	21	1420	26700
PNR-20	5/23/2006 5:55:00 PM	457	557	4 ND	21300	0.16	7780	0.1	10.9	21	21	1480	35500
PNR-20	8/23/2006 3:50:00 PM	438	534	4 ND	20600	0.2	7750	0.1	11.9	30	26	1500	35600
PNR-20	12/7/2006 4:10:00 PM	435	531	4 ND	16400	0.2	6780	0.1 ND	14.4	20	21	1490	29800
PNR-20	3/15/2007 10:18:00 AM	439	536	4 ND	20800 D			0.2	11.4			1390 D	35800
PNR-21	8/9/2001 10:15:00 AM	501	611	1 ND	26500		9670	2	8.16	16		1450	47000
PNR-21	8/16/2001 4:40:00 PM	548	669	1 ND	26900		10200	4.2	0.05 ND	17		1510	47000
PNR-21	11/8/2001 11:00:00 AM	538	656	1 ND	27900		9930	2.4	8.53		38.7	1630	45300
PNR-21	2/21/2002 9:15:00 AM	562	685	4 ND	28300		9280	2.1	7.54	27		1410	45800
PNR-21	5/22/2002 11:55:00 AM	544	663	4 ND	28600	0.14	8440	2.5	7.82	27		1560	47400
PNR-21	8/21/2002 9:00:00 AM	553	675	4 ND	29200	0.15	8580	2.8	7.51	15	18	1690	51200
PNR-21	11/5/2002 3:30:00 PM	559	682	4 ND	28600	0.15	9180	2.6	7.99	11	20 ND	1700	49600
PNR-21	3/5/2003 2:50:00 PM	546	666	4 ND	27000	0.3	8450	3.2	7.64	13	36	2070	46400
PNR-21	5/28/2003 11:50:00 AM	531	647	1 ND	27100	0.19	8860	2.7	7.92	16	44	1460	49100
PNR-21	8/13/2003 2:05:00 PM	560	683	1 ND	28600	0.15	217	3	7.71	16	38	1160	48800
PNR-21	11/5/2003 3:30:00 PM	537	655	4 ND	28100	0.17	6670	3.2	8.09	12	27	1170	46300
PNR-21	6/8/2004 12:55:00 PM	580	708	4 ND	28100	0.2	7880	3.4	7.86	15	43	1690	47800
PNR-21	9/14/2004 2:15:00 PM	560	683	4 ND	27800	0.17	8530	3.5	9.05	23	25	1620	48400
PNR-21	11/17/2004 12:40:00 P	561	685	4 ND	25600	0.18	8730	3.5	8.72	19	23	1530	45800
PNR-21	3/1/2005 4:32:00 PM	611	745	4 ND	26400	0.18	8550	3.2	8.62	20	23	1470	46900
PNR-21	5/24/2005 6:25:00 PM	518	631	4 ND	26600	0.2	8030	3.4	10.2	15	17	1640	47000

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-21	8/16/2005 4:20:00 PM	603	735	4 ND	22600	0.18	8130	3.6	9.84	16	11	1350	47000
PNR-21	11/15/2005 1:21:00 PM	516	629	4 ND	27700	0.17	7930	3.3	10	17	19	1480	45600
PNR-21	2/9/2006 11:45:00 AM	604	737	4 ND	25200	0.14	8360	6.3	12	16	17	1530	42800
PNR-21	5/24/2006 5:20:00 PM	579	706	4 ND	26300	0.17	7600	4.1	13.7	18	21	1690	42600
PNR-21	8/23/2006 5:00:00 PM	554	676	4 ND	26000	0.2	7620	3.5	11.9	23	21	1600	42100
PNR-21	12/7/2006 2:45:00 PM	565	689	4 ND	24600	0.2	7220	3.4	12.9	18	17	1700	42500
PNR-21	3/15/2007 11:15:00 AM	567	691	4 ND	25200 D			3.4	16.9			1560 D	43100
PNR-22	8/8/2001 5:10:00 PM	869	1060	1 ND	467		1250	3.5	0.05 ND	22.2		989	2900
PNR-22	8/16/2001 11:35:00 AM	853	1040	1 ND	463		1340	4	0.05 ND	26		959	2920
PNR-22	11/7/2001 9:10:00 AM	815	994	1 ND	548		1290	4.1	0.06		33.2	833	2870
PNR-22	2/20/2002 2:10:00 PM	790	964	4 ND	523		1310	3.8	0.05 ND	27.2		943	2960
PNR-22	5/21/2002 12:15:00 PM	777	948	4 ND	635	0.26	1260	5	0.05 ND	30.3		824	3040
PNR-22	8/20/2002 3:35:00 PM	785	958	4 ND	676	0.25	1420	5.2	0.05	26.8	33.1	924	3150
PNR-22	11/5/2002 12:50:00 PM	784	956	4 ND	790	0.24	1490	4.3	0.05 ND	25.7	30.6	935	3300
PNR-22	3/4/2003 3:10:00 PM	753	918	4 ND	857	0.3	1540	5.6	0.05 ND	23	29	942	3430
PNR-22	5/13/2003 12:45:00 PM	771	941	4 ND	925	0.28	1550	5.3	0.05 ND	25.9	29.1	890	3480
PNR-22	8/13/2003 9:15:00 AM	758	924	1 ND	977	0.25	1590	5.2	0.05 ND	27	37	766	3640
PNR-22	11/5/2003 12:25:00 PM	754	920	4 ND	1100	0.26	1650	5.5	0.05 ND	27.7	39.8	904	3640
PNR-22	6/8/2004 4:10:00 PM	760	927	4 ND	1150	0.29	1800	5.9	0.05 ND	26.6	34.4	993	3910
PNR-22	9/15/2004 8:50:00 AM	762	930	4 ND	1100	0.26	1880	6.3	0.05 ND	28.5	33.1	873	3810
PNR-22	11/18/2004 2:35:00 PM	743	907	4 ND	1150	0.26	1920	5.4	0.05 ND	30.6	43.4	906	3840
PNR-22	3/1/2005 11:00:00 AM	778	949	4 ND	1160	0.27	1980	5.8	0.05 ND	31.4	31.3	902	3890
PNR-22	5/24/2005 10:07:00 AM	647	789	4 ND	1130	0.27	1880	6.2	0.05 ND	27	36.8	837	3960
PNR-22	8/16/2005 9:30:00 AM	773	943	4 ND	1150	0.26	2030	6.3	0.05 ND	28.9	26.4	918	3890
PNR-22	11/15/2005 1:40:00 PM	687	838	4 ND	1180	0.25	2130	5.2	0.05 ND	29.4	30	923	3760
PNR-22	2/7/2006 10:30:00 AM	754	920	4 ND	1080	0.22	2000	6.3	0.05 ND	29.8	34.9	864	3790
PNR-22	5/23/2006 1:05:00 PM	729	890	4 ND	1150	0.24	1960	5.5	0.05 ND	29.6	48.4	938	3450
PNR-22	8/22/2006 6:00:00 PM	698	852	4 ND	1110	0.2	2050	5.8	0.05 ND	30.4	33	945	3970
PNR-22	12/6/2006 9:55:00 AM	708	864	4 ND	1080	0.2	1960	5.8	0.05 ND	29.4	31.1	961	3830
PNR-22	3/13/2007 3:25:00 PM	707	862	4 ND	1010			6.4	0.05 ND			875	3800
PNR-23	8/9/2001 5:30:00 PM	1 ND	1 ND	1 ND	41300		3270	14.1	0.05 ND	59.1		1480	62400

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-23	8/14/2001 10:30:00 AM	192	234	1 ND	45000		3730	15.9	0.05 ND	68.2		1600	68000
PNR-23	11/8/2001 1:15:00 PM	271	331	1 ND	33600		8520	22.9	3.82		114	1450	62600
PNR-23	2/21/2002 12:25:00 PM	214	262	4 ND	41500		6780	24.5	0.05	73		1180	63700
PNR-23	5/23/2002 11:15:00 AM	188	229	4 ND	42200	2.13	4570	18.8	0.05 ND	95		1490	68200
PNR-23	8/21/2002 12:55:00 PM	180	219	4 ND	43300	2.26	4670	18.1	0.05 ND	58	78	1710	70100
PNR-23	11/6/2002 12:15:00 PM	195	238	4 ND	36800	2.2	4290	17.4	0.05 ND	63	71	1670	67300
PNR-23	3/5/2003 11:20:00 AM	198	242	4 ND	37400	2.4	3930	15.9	0.05 ND	55	54	1830	66600
PNR-23	5/28/2003 2:40:00 PM	209	255	1 ND	40900	2.56	3920	15	0.05 ND	54	73	1420	68100
PNR-23	8/14/2003 8:43:00 AM	215	263	1 ND	39900	2.43	4120	17	0.1	54	63	1030	66300
PNR-23	11/6/2003 10:10:00 AM	209	255	4 ND	40900	2.27	3450	17.6	0.05 ND	46	51	1140	65700
PNR-23	3/17/2004 11:40:00 AM	224	273	1 ND	42600	2.34	4630	16.8	0.05 ND	56	60	1080	66000
PNR-23	6/9/2004 2:10:00 PM	230	281	4 ND	41800	3.3	4340	16.4	0.05 ND	51	53	1610	63900
PNR-23	9/15/2004 5:40:00 PM	245	299	4 ND	41800	2.82	4710	18.1	0.05 ND	52	60	1530	66100
PNR-23	11/18/2004 11:00:00 A	242	295	4 ND	35800	2.76	4390	15.7	0.1	49	52	1250	63200
PNR-23	3/2/2005 11:35:00 AM	278	339	4 ND	38800	2.64	4700	16.6	0.09	60	45	1330	64700
PNR-23	5/25/2005 1:00:00 PM	244	298	4 ND	39800	2.64	4600	17.5	0.05 ND	49	47	2600	62500
PNR-23	8/17/2005 3:20:00 PM	287	350	4 ND	38800	2.46	4370	17.3	0.05 ND	41	47	1360	62000
PNR-23	11/16/2005 12:15:00 P	258	315	4 ND	39400	2.34	4660	17.3	0.05 ND	53	50	1240	59600
PNR-23	2/9/2006 4:00:00 PM	307	375	4 ND	35300	2.4	3620	15.7	0.05 ND	49	49	1180	53800
PNR-23	5/25/2006 11:15:00 AM	310	378	4 ND	35400	2.05	3940	18.3	0.05 ND	51	52	1120	55000
PNR-23	8/24/2006 10:18:00 AM	308	376	4 ND	33600	2.1	3420	14	0.05 ND	49	49	1070	53500
PNR-23	12/8/2006 10:10:00 AM	341	416	4 ND	31800	2.6	3130	16	0.05 ND	48	49	1050	51500
PNR-23	3/14/2007 3:00:00 PM	397	485	4 ND	28300 D			13.9	0.05 ND			889 D	46500
PNR-24	8/14/2001 12:00:00 PM	237	289	1 ND	41100		3240	14.8	0.05 ND	73.2		1730	67700
PNR-24	8/14/2001 6:20:00 PM	231	282	1 ND	43400		3450	14.9	0.05 ND	65		1730	67000
PNR-24	11/8/2001 1:40:00 PM	479	584	1 ND	34600		3750	14.5	0.05 ND		320	1690	61000
PNR-24	2/21/2002 1:55:00 PM	235	287	4 ND	44700		3160	17.2	0.05 ND	163		1450	68500
PNR-24	5/23/2002 11:50:00 AM	258	315	4 ND	44700	3.71	2760	14.5	0.05 ND	207		1940	69000
PNR-24	8/21/2002 1:10:00 PM	175	214	4 ND	44400	3.67	3360	16	0.05 ND	59	199	1470	72200
PNR-24	11/6/2002 12:32:00 PM	171	208	4 ND	36900	3.53	3700	17	0.05 ND	50	225	1670	68300
PNR-24	3/5/2003 11:40:00 AM	195	238	4 ND	41300	3.5	4190	16.8	0.07	62	219	1740	66200
PNR-24	5/28/2003 2:50:00 PM	198	242	1 ND	40800	3.26	4190	17.9	0.05 ND	55	132	1440	68400

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-24	8/14/2003 1:08:00 PM	228	278	1 ND	41300	3.13	11300	17.8	0.05 ND	58	76	1130	68100
PNR-24	11/6/2003 11:00:00 AM	187	228	4 ND	40900	3.26	3410	19.3	0.05 ND	47	89	1080	64700
PNR-24	3/17/2004 12:10:00 PM	210	257	1 ND	36900	3.64	3570	14.4	0.05 ND	56	142	956	56200
PNR-24	6/9/2004 2:20:00 PM	303	369	4 ND	32500	4.32	2760	12.7	0.05 ND	52	110	1160	49700
PNR-24	9/15/2004 6:05:00 PM	707	862	4 ND	25100	4.56	1890	10.2	0.05 ND	57	125	407	40200
PNR-24	11/18/2004 11:05:00 A	869	1060	4 ND	22000	4.62	1360	7.7	0.12	64	73	273	34400
PNR-24	3/2/2005 1:25:00 PM	1050	1280	4 ND	18500	4.86	1100	6.9	0.05	59	63	211	29800
PNR-24	5/25/2005 1:45:00 PM	1010	1230	4 ND	14900	5.04	840	5.1	0.05 ND	55	80	106	24000
PNR-24	8/17/2005 4:05:00 PM	1250	1520	4 ND	12600	5.58	583	4.8	0.05 ND	52	70	43	22100
PNR-24	11/16/2005 4:15:00 PM	1310	1600	4 ND	10600	7.08	450	3.3	0.05 ND	60	101	9	17600
PNR-24	2/8/2006 1:30:00 PM	1440	1760	4 ND	8610	8.76	309	3.7	0.05 ND	57	57	12	15200
PNR-24	5/24/2006 12:55:00 PM	1430	1750	4 ND	7840	10.8	191	2.5	0.05 ND	50	53	14	12800
PNR-24	8/24/2006 11:22:00 AM	1490	1820	4 ND	6700	14.2	135	2.5	0.05 ND	48	46	18	11800
PNR-24	12/8/2006 10:50:00 AM	1450	1770	4 ND	5660	17	109	2.3	0.06	45.4	44	53	10900
PNR-24	3/14/2007 3:40:00 PM	1550	1880	4 ND	5110 D			2	0.05 ND			62 D	9920
PNR-25	8/14/2001 1:15:00 PM	255	311	1 ND	39900		2890	15.8	0.05 ND	68.6		1730	70500
PNR-25	8/14/2001 7:05:00 PM	246	301	1 ND	45400		3180	15.8	0.05 ND	65.3		1550	70300
PNR-25	11/8/2001 10:15:00 AM	528	644	1 ND	38300		6000	18.5	0.05 ND		276	2260	65600
PNR-25	2/21/2002 3:30:00 PM	237	289	4 ND	40100		9350	25.6	0.05 ND	200		1280	64500
PNR-25	5/22/2002 4:50:00 PM	930	1130	4 ND	11500	4.2	1770	10.4	0.05 ND	243		756	18700
PNR-25	8/21/2002 2:40:00 PM	1040	1270	4 ND	3560	6.52	384	1.4	0.05 ND	59	312	30 ND	6790
PNR-25	11/6/2002 2:55:00 PM	877	1070	4 ND	3110	8	298	0.9	0.05 ND	45	123	10 ND	6330
PNR-25	3/5/2003 12:45:00 PM	585	713	4 ND	3590	9.2	245	1	0.05 ND	37	285	6	6800
PNR-25	5/28/2003 3:25:00 PM	506	618	1 ND	3600	11.4	226	0.8	0.05 ND	30	301	3 ND	6400
PNR-25	8/14/2003 10:00:00 AM	459	560	1 ND	4510	11.2	2200	0.9	0.05 ND	31	80	10 ND	6590
PNR-25	11/5/2003 3:15:00 PM	513	626	4 ND	4610	9.3	256	1.6	0.05 ND	27	47	14	7090
PNR-25	3/17/2004 2:15:00 PM	461	562	1 ND	4760	9.36	264	1.4	0.05 ND	27	53	4	7130
PNR-25	6/8/2004 1:00:00 PM	601	733	4 ND	4090	9.18	254	1.4	0.05 ND	26.4	50	167	7490
PNR-25	9/15/2004 4:45:00 PM	562	685	4 ND	3980	7.44	323	1.6	0.05 ND	23.3	46	79	6880
PNR-25	11/18/2004 9:00:00 AM	554	676	4 ND	3750	7.56	322	1.5	0.07	23.2	26.9	39	6590
PNR-25	3/2/2005 1:00:00 PM	676	824	4 ND	3570	7.8	262	1.3	0.25	22	23	106	6630
PNR-25	5/25/2005 11:15:00 AM	487	588	4 ND	4250	8.28	311	1.5	0.05 ND	25.7	28.8	821	6270

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-25	8/17/2005 6:20:00 PM	522	637	4 ND	2960	7.92	289	1.2	0.05 ND	17.3	18.8	27	5550
PNR-25	11/16/2005 1:25:00 PM	492	586	7	2890	7.2	287	1.2	0.05 ND	19.8	19.6	46	4910
PNR-25	2/8/2006 11:15:00 AM	545	665	4 ND	2530	7.32	239	1.2	0.05 ND	19.9	39.5	10	4780
PNR-25	5/24/2006 11:45:00 AM	622	759	4 ND	2450	7.15	182	1	0.07	19.7	47.2	81	4200
PNR-25	8/24/2006 12:00:00 PM	527	643	4 ND	2180	6.32	191	1.2	0.05 ND	18.4	18.8	55	4190
PNR-25	12/8/2006 11:30:00 AM	547	667	4 ND	2060	5.9	239	1.2	0.05 ND	18.6	18	117	4180
PNR-25	3/15/2007 10:53:00 AM	513	626	4 ND	2090			1.4	0.05 ND			26	3820
PNR-26	8/14/2001 6:00:00 PM	144	176	1 ND	45000		2820	14.4	0.05 ND	63.1		1660	68700
PNR-26	8/22/2001 10:00:00 AM	159	194	1 ND	42600		2490	13.6	0.05 ND	61.9		1670	68600
PNR-26	11/8/2001 2:15:00 PM	640	781	1 ND	40900		3740	16.4	0.16		168	1170	67200
PNR-26	2/21/2002 4:00:00 PM	234	285	4 ND	40800		4380	18.4	0.05 ND	100		1080	67000
PNR-26	5/23/2002 11:15:00 AM	177	215	4 ND	42400	2.72	4210	18.4	0.05 ND	87		1530	67400
PNR-26	8/21/2002 4:00:00 PM	301	367	4 ND	40600	2.65	4880	17.5	0.05 ND	59	167	1340	69100
PNR-26	11/6/2002 4:20:00 PM	181	221	4 ND	36000	2.57	5080	16.8	0.05 ND	53	101	1610	65300
PNR-26	3/5/2003 2:00:00 PM	1470	1800	4 ND	8400	5.5	546	3.8	0.05 ND	58	109	19	15600
PNR-26	5/28/2003 4:35:00 PM	1500	1830	1 ND	8060	6.8	464	2.3	0.05 ND	57	85	5 ND	14800
PNR-26	8/14/2003 10:45:00 AM	876	1070	1 ND	8960	10.5	3810	3	0.09	45	101	10 ND	14300
PNR-26	11/6/2003 12:30:00 PM	1480	1800	4 ND	7010	10.3	151	2.9	0.22	45	56	1 ND	11700
PNR-26	3/17/2004 2:15:00 PM	1490	1710	53	6110	14.4	82	1.8	0.05 ND	36	52	1 ND	10000
PNR-26	6/9/2004 4:00:00 PM	1310	1590	4 ND	4710	11.2	67	1.7	0.05 ND	29.1	32	50 ND	9140
PNR-26	9/16/2004 9:50:00 AM	1350	1610	23	3880	8.9	45	1.5	0.05 ND	25.4	33	3 ND	7860
PNR-26	11/18/2004 12:25:00 P	1130	1370	4 ND	3690	9.3	47	1.6	0.33	26.2	128	1 ND	7250
PNR-26	3/2/2005 4:10:00 PM	1230	1490	5	3280	9.1	32	1.8	0.12	23	26	1 ND	6630
PNR-26	5/25/2005 3:15:00 PM	990	1200	5	3000	9.8	53	1.6	0.05 ND	19.3	23.6	1 ND	6170
PNR-26	8/17/2005 6:00:00 PM	1090	1330	4 ND	2900	9.4	54	1.2	0.05 ND	19.6	21	2	5990
PNR-26	11/16/2005 2:55:00 PM	884	1080	4 ND	2780	9.1	53	1.6	0.05 ND	22.5	38.3	2	5510
PNR-26	2/8/2006 3:10:00 PM	877	1070	4 ND	2640	8.9	59	1.2	0.05 ND	20.1	107	13	5280
PNR-26	8/24/2006 1:30:00 PM												
PNR-27	8/21/2001 3:35:00 PM	592	722	1 ND	10300		9790	0.1 ND	28.8	24.4		2020	21600
PNR-27	9/5/2001 3:15:00 PM	594	725	1 ND	10000		10600	0.1 ND	27.5	20.9		1940	20400
PNR-27	11/6/2001 3:30:00 PM	569	694	1 ND	10900		10700	0.1 ND	29.7		43	1750	21200

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-27	2/20/2002 5:02:00 PM	628	767	4 ND	11400		10600	0.1 ND	27.2	27		1530	21000
PNR-27	5/21/2002 6:12:00 PM	589	719	4 ND	12000	0.17	9650	0.1 ND	34.2	35		1940	23800
PNR-27	8/20/2002 7:20:00 PM	580	708	4 ND	12600	0.17	9710	0.1 ND	31.7	26	38	1850	25600
PNR-27	11/6/2002 9:55:00 AM	583	712	4 ND	11200	0.17	11000	0.1 ND	31.2	22	30	1820	24200
PNR-27	3/5/2003 11:15:00 AM	567	691	4 ND	12900	0.2	10800	0.1 ND	33.5	26	25	2080	22400
PNR-27	5/28/2003 11:00:00 AM	589	718	1 ND	12200	0.2	10400	0.1 ND	34	26	33	1620	25500
PNR-27	8/13/2003 1:35:00 PM	577	705	1 ND	13000	0.17	10200	0.1 ND	32.5	26	27	1280	24400
PNR-27	11/5/2003 11:45:00 AM	568	693	4 ND	13100	0.18	10000	0.1 ND	35.1	24	48	1430	23300
PNR-27	6/8/2004 11:50:00 AM	577	704	4 ND	14000	0.21	10400	0.1 ND	30.7	26	30	1920	26200
PNR-27	9/14/2004 1:05:00 PM	525	640	4 ND	13100	0.26	10500	0.1 ND	30.9	29	31	1760	27500
PNR-27	11/17/2004 10:38:00 A	575	701	4 ND	14600	0.2	10600	0.1 ND	30.8	32	35	1830	24800
PNR-27	3/1/2005 3:33:00 PM	612	747	4 ND	14700	0.19	11100	0.1 ND	30	28	33	1770	28200
PNR-27	5/24/2005 3:33:00 PM	519	633	4 ND	13500	0.22	10200	0.1 ND	33.3	22	23	1840	28400
PNR-27	8/16/2005 5:08:00 PM	600	732	4 ND	14300	0.19	11000	0.1 ND	39.6	29	28	1810	28000
PNR-27	11/15/2005 4:35:00 PM	526	642	4 ND	15200	0.18	12100	0.1 ND	35.4	31	28	1790	27200
PNR-27	2/8/2006 5:10:00 PM	597	729	4 ND	13900	0.14	11300	0.1 ND	30.6	28	27	1740	25200
PNR-27	5/23/2006 4:57:00 PM	575	701	4 ND	15200	0.18	10800	0.1 ND	39.4	27	29	1770	27900
PNR-27	8/23/2006 3:01:00 PM	550	671	4 ND	15000	0.2	10800	0.1 ND	29.3	31	28	1780	29500
PNR-27	12/7/2006 2:15:00 PM	565	690	4 ND	14200	0.2	10800	0.1 ND	34.4	27	28	1730	27900
PNR-27	3/14/2007 4:50:00 PM	559	682	4 ND	14700 D			0.1 ND	33.2			1680 D	28700
PNR-28	8/21/2001 4:45:00 PM	501	612	1 ND	11700		10800	0.1 ND	23.1	21.1		1480	25200
PNR-28	9/5/2001 2:35:00 PM	493	601	1 ND	12300		11100	0.1 ND	21.2	18.3			22600
PNR-28	11/6/2001 2:40:00 PM	519	633	1 ND	10500		10400	0.1 ND	20.2		37.3	1660	24700
PNR-28	2/20/2002 4:30:00 PM	522	637	4 ND	13700		11300	0.1 ND	21.6	23		1430	23000
PNR-28	5/21/2002 5:15:00 PM	450	549	4 ND	14700	0.17	10900	0.1 ND	23.3	33		1820	27400
PNR-28	8/20/2002 6:30:00 PM	510	622	4 ND	15200	0.15	10800	0.1 ND	22.9	23	30	1590	31200
PNR-28	11/5/2002 1:20:00 PM	516	630	4 ND	15700	0.17	12600	0.1 ND	22.7	20	36	1740	29700
PNR-28	3/5/2003 10:25:00 AM	503	614	4 ND	15700	0.2	11700	0.1 ND	23.6	22	23	1880	26700
PNR-28	5/28/2003 10:30:00 AM	519	633	1 ND	15100	0.21	11300	0.1 ND	22.4	22	38	1460	30200
PNR-28	8/13/2003 1:00:00 PM	517	631	1 ND	16800	0.15	11300	0.1 ND	21.8	22	31	1270	29500
PNR-28	11/5/2003 2:30:00 PM	484	591	4 ND	17300	0.16	11700	0.1 ND	22	23	28	1350	29100
PNR-28	6/8/2004 11:15:00 AM	528	644	4 ND	17400	0.21	11000	0.1 ND	21.7	20	36	1740	32900

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-28	9/15/2004 10:30:00 AM	542	661	4 ND	18300	0.24	11700	0.1 ND	20.6	28	32	1630	33700
PNR-28	11/17/2004 9:30:00 AM	529	646	4 ND	17800	0.18	11800	0.1 ND	21.3	25	24	1660	32500
PNR-28	3/1/2005 2:39:00 PM	560	684	4 ND	17500	0.17	11400	0.1 ND	20	25	29	1510	34300
PNR-28	5/25/2005 11:07:00 AM	472	575	4 ND	17800	0.21	11100	0.1 ND	21.5	22	21	1770	34200
PNR-28	8/16/2005 4:00:00 PM	571	697	4 ND	17900	0.18	11400	0.1 ND	21.8	24	21	1670	33500
PNR-28	11/15/2005 11:35:00 A	497	606	4 ND	19200	0.16	11600	0.1 ND	20.2	23	24	1600	32500
PNR-28	2/8/2006 2:40:00 PM	557	680	4 ND	18000	0.13	11300	0.1 ND	23	24	23	1630	31500
PNR-28	5/23/2006 1:55:00 PM	539	658	4 ND	18800	0.16	10800	0.1 ND	23.1	24	25	1630	32500
PNR-28	8/23/2006 12:35:00 PM	518	632	4 ND	18300	0.2	10700	0.1 ND	21.3	27	25	1600	34700
PNR-28	12/6/2006 4:30:00 PM	526	642	4 ND	18400	0.2	10100	0.1 ND	28.3	23	23	1680	33600
PNR-28	3/13/2007 6:00:00 PM	523	638	4 ND	18400 D			0.1 ND	21.6			1370 D	33300
PNR-29	8/21/2001 5:45:00 PM	606	740	1 ND	129		2170	0.1 ND	174	25		1940	4760
PNR-29	9/5/2001 2:00:00 PM	695	847	1 ND	104		2180	0.1 ND	162	22.4			4760
PNR-29	11/6/2001 12:50:00 PM	691	843	1 ND	99		2180	0.1 ND	158		30.1	1880	4650
PNR-29	2/20/2002 1:03:00 PM	623	760	4 ND	106		2200	0.1 ND	160	28		2070	4640
PNR-29	5/21/2002 4:30:00 PM	662	807	4 ND	83	0.24	1980	0.1 ND	169	31		2080	4640
PNR-29	8/20/2002 11:20:00 AM	669	816	4 ND	113	0.27	2130	0.1 ND	163	25	35	2030	4780
PNR-29	11/5/2002 12:42:00 PM	680	830	4 ND	117	0.28	2200	0.1 ND	167	25	31	2070	4770
PNR-29	3/5/2003 10:30:00 AM	661	807	4 ND	181	0.2	2230	0.1 ND	175	6	22	2060	4730
PNR-29	5/28/2003 10:00:00 AM	677	826	1 ND	116	0.32	2230	0.1 ND	172	25	35	2030	4790
PNR-29	8/13/2003 1:08:00 PM	674	822	1 ND	88	0.25	2200	0.1 ND	181	25	61	1920	4800
PNR-29	11/4/2003 4:45:00 PM	684	835	4 ND	104	0.27	2160	0.1 ND	178	26.9	29.8	2120	4760
PNR-29	6/8/2004 10:45:00 AM	702	856	4 ND	119	0.31	2260	0.1 ND	176	25.3	35.1	2030	4770
PNR-29	9/15/2004 9:40:00 AM	717	875	4 ND	99	0.28	2350	0.1 ND	174	26.8	26.2	2040	4780
PNR-29	11/17/2004 9:31:00 AM	693	846	4 ND	111	0.29	2270	0.1 ND	171	27.3	29	2010	4660
PNR-29	3/1/2005 1:36:00 PM	727	887	4 ND	112	0.3	2340	0.1 ND	170	28.5	26.8	2030	4800
PNR-29	5/25/2005 9:46:00 AM	611	745	4 ND	98	0.3	2290	0.1 ND	180	27	28.9	1860	4720
PNR-29	8/16/2005 2:48:00 PM	657	802	4 ND	102	0.28	2400	0.1 ND	177	25.7	23.3	1930	4790
PNR-29	11/15/2005 10:50:00 A	656	800	4 ND	107	0.26	2520	0.1 ND	180	27.5	26.3	2020	4810
PNR-29	2/8/2006 4:15:00 PM	720	878	4 ND	108	0.23	2530	0.1 ND	180	29.5	29.7	1980	4700
PNR-29	5/23/2006 2:35:00 PM	695	848	4 ND	106	0.27	2350	0.1 ND	256	28.2	31.8	2050	4520
PNR-29	8/23/2006 11:37:00 AM	663	808	4 ND	103	0.3	2410	0.1 ND	259	29.2	26.9	1970	4820

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
PNR-29	12/6/2006 4:00:00 PM	672	820	4 ND	96	0.3	2350	0.1 ND	223	29	27.9	2010	4830
PNR-29	3/13/2007 5:50:00 PM	664	811	4 ND	106			0.1 ND	235 D			1880	4740
PNR-33-06	12/6/2006 11:00:00 AM	464	566	4 ND	85	0.2	2740	0.1	53.4	25.3	26.4	2490	4450
PNR-33-06	3/13/2007 1:45:00 PM	411	502	4 ND	73			0.2	45.4			2390	4170
PNR-34-07	3/14/2007 1:15:00 PM	469	573	4 ND	15600 D			0.6	6.3			1630 D	29400
PNR-35-07	3/13/2007 11:15:00 AM	679	828	4 ND	84			0.9	0.05 ND			1560	3220
PNR-36-07	3/13/2007 11:40:00 AM	417	509	4 ND	183			0.1 ND	77.7 D			877	2690
USGS 92-12	6/1/2000 12:00:00 AM	389	474	1 ND	11		1670		3.94			1410	2330
USGS 92-12	8/7/2001 11:35:00 AM	422	515	1 ND	7		1420	0.1 ND	4.37	25.1		1360	2520
USGS 92-12	8/15/2001 2:40:00 PM	422	515	1 ND	8		1520	0.1 ND	4.28	28.3		1450	2310
USGS 92-12	11/6/2001 2:30:00 PM	420	512	1 ND	6		1370	0.1 ND	5.01		32.1	1200	2150
USGS 92-12	2/20/2002 2:25:00 PM	458	558	4 ND	6		1270	0.1 ND	5.07	29.1		1220	2140
USGS 92-12	5/21/2002 2:05:00 PM	403	491	4 ND	10 ND	0.43	1220	0.1 ND	4.98	26.8		1250	2040
USGS 92-12	8/19/2002 4:00:00 PM	413	504	4 ND	6	0.41	1520	0.1 ND	5.53	24.4	22.2	1400	2420
USGS 92-12	11/5/2002 12:00:00 PM	422	514	4 ND	6	0.43	1540	0.1 ND	6.05	25.8	30.3	1480	2560
USGS 92-12	3/4/2003 11:30:00 AM	404	493	4 ND	10	0.4	1360	0.1 ND	6.28	26	27	1190	2190
USGS 92-12	5/13/2003 2:15:00 PM	415	507	4 ND	7	0.44	1330	0.1 ND	6.22	24.3	24.9	1170	2030
USGS 92-12	8/13/2003 7:48:00 AM	415	507	1 ND	4	0.4	1440	0.1 ND	5.48	25.8	29.8	1370	2450
USGS 92-12	11/5/2003 10:00:00 AM	410	500	4 ND	4	0.41	1140	0.1 ND	6.83	26.7	32	924	1820
USGS 92-12	6/8/2004 9:15:00 AM	402	490	4 ND	4	0.46	1450	0.1 ND	5.32	23.4	37.6	1390	2500
USGS 92-12	9/14/2004 11:08:00 AM	418	510	4 ND	6	0.44	1990	0.1 ND	7.11	28.6	30.7	1840	3160
USGS 92-12	11/16/2004 9:20:00 AM	407	496	4 ND	6	0.45	1800	0.1 ND	8.27	29.1	29	1670	2760
USGS 92-12	3/1/2005 12:40:00 PM	425	518	4 ND	4	0.44	1410	0.1 ND	8.57	26.8	26.9	1250	2260
USGS 92-12	5/24/2005 10:43:00 AM	356	434	4 ND	4	0.43	1280	0.1 ND	9.06	24.4	22.9	1120	2260
USGS 92-12	8/17/2005 9:10:00 AM	434	529	4 ND	5	0.42	1780	0.1 ND	5	27.1	41.6	1680	2930
USGS 92-12	11/15/2005 2:41:00 PM	392	478	4 ND	5	0.4	1650	0.1 ND	5.99	28.1	56.3	1420	2440
USGS 92-12	2/7/2006 3:32:00 PM	426	520	4 ND	4	0.4	1420	0.1 ND	7.57	27.9	27.8	1180	2160
USGS 92-12	5/24/2006 10:55:00 AM	401	490	4 ND	4	0.41	1270	0.1 ND	7.54	27.6	29.2	1070	1860
USGS 92-12	8/22/2006 11:45:00 AM	368	448	4 ND	3	0.43	1150	0.1 ND	8.95	28.5	31.4	943	1780
USGS 92-12	12/6/2006 10:30:00 AM	365	446	4 ND	3	0.5	1010	0.1 ND	8.53	27.9	28.8	856	1630

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
USGS 92-12	3/13/2007 12:55:00 PM	353	430	4 ND	3			0.1 ND	9.15			772	1510
USGS 93-3	6/1/2000 12:00:00 AM	396	483	1 ND	39800		3770		0.05 ND			1730	67000
USGS 93-3	8/7/2001 6:55:00 PM	456	556	1 ND	41600		3390	15	0.05 ND	19.4		100	68200
USGS 93-3	8/15/2001 7:10:00 PM	418	510	1 ND	41800		3450	15.7	0.05 ND	22.1		2320	68400
USGS 93-3	11/7/2001 10:05:00 AM	472	576	1 ND	39700		3290	15.6	0.05 ND		21.5	1270	62300
USGS 93-3	2/20/2002 9:00:00 AM	395	482	4 ND	42300		3310	15.9	0.05 ND	15		888	67200
USGS 93-3	5/22/2002 9:30:00 AM	434	529	4 ND	42100	0.19	3150	14.9	0.05 ND	22		1870	68100
USGS 93-3	8/20/2002 4:25:00 PM	463	565	4 ND	42400	0.17	3230	14.9	0.05 ND	20	20	1170	68000
USGS 93-3	11/5/2002 4:10:00 PM	469	572	4 ND	38400	0.18	3420	14.9	0.05 ND	12	20	1240	67700
USGS 93-3	3/4/2003 3:45:00 PM	458	559	4 ND	41000	0.2	3130	14.3	0.05 ND	19	19	1180	67600
USGS 93-3	5/28/2003 1:15:00 PM	512	625	1 ND	40200	0.22	3130	14	0.05 ND	20	20	967	68100
USGS 93-3	8/14/2003 2:08:00 PM	517	631	1 ND	41800	0.19	3050	15.3	0.05 ND	22	24	791	68600
USGS 93-3	11/4/2003 4:45:00 PM	510	622	4 ND	41900	0.21	2210	15.7	0.05 ND	17	20	859	67500
USGS 93-3	6/8/2004 7:05:00 PM	468	571	4 ND	40000	0.15	3130	15.2	0.05 ND	23	26	1330	66500
USGS 93-3	9/14/2004 4:25:00 PM	464	566	4 ND	43300	0.2	3440	16.6	0.05 ND	25	27	1360	68300
USGS 93-3	11/17/2004 12:15:00 P	438	534	4 ND	35800	0.2	3200	14.7	0.05 ND	19	20	1100	66900
USGS 93-3	3/2/2005 11:05:00 AM	466	568	4 ND	43300	0.23	3470	15.9	0.05 ND	22	22	1300	66700
USGS 93-3	5/25/2005 3:52:00 PM	399	487	4 ND	42500	0.25	3580	15.8	0.05 ND	20	18	1400	64600
USGS 93-3	8/17/2005 12:55:00 PM	449	548	4 ND	37900	0.21	3390	14	0.54	14	23	1250	65800
USGS 93-3	11/16/2005 4:40:00 PM	384	468	4 ND	42700	0.2	3900	15.8	0.05 ND	20	19	1270	63600
USGS 93-3	2/9/2006 3:20:00 PM	431	525	4 ND	40700	0.17	3210	21.3	0.05 ND	23	22	1350	64100
USGS 93-3	5/24/2006 6:20:00 PM	409	499	4 ND	42900	0.18	3360	18.7	0.05 ND	22	21	1340	56600
USGS 93-3	8/23/2006 2:50:00 PM	390	476	4 ND	40900	0.2	3170	14.6	0.05 ND	24	34	1330	63100
USGS 93-3	12/7/2006 12:05:00 PM	400	488	4 ND	41100	0.2	3190	16.3	0.05 ND	24	21	1320	64300
USGS 93-3	3/15/2007 1:30:00 PM	401	489	4 ND	41900 D			17.1	0.05 ND			1240 D	64700
Whitmer	5/31/2000 12:00:00 AM	353	429	1 ND	794		695		0.05 ND			279	1970
Whitmer	8/10/2001 10:00:00 AM	366	447	1 ND	1020		893	0.6	0.05 ND	14.2		287	2520
Whitmer	8/22/2001 3:30:00 PM	360	439	1 ND	1020		820	0.7	0.05 ND	13.5		270	2470
Whitmer	11/9/2001 10:20:00 AM	343	418	1 ND	1060		879	0.8	0.05 ND		16.4	285	2410
Whitmer	2/22/2002 2:45:00 PM	353	430	4 ND	1110		865	0.8	0.05 ND	15		288	2530
Whitmer	5/22/2002 4:35:00 PM	339	414	4 ND	1290	0.21	870	0.7	0.05 ND	16.5		222	2650

Table 2B - Inorganic Analytical Results: Additional Analyses

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Alkalinity (mg/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness, Total as CaCO3 (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+ Nitrite as N (mg/L)	Silica, Dissolved (mg/L)	Silica, Total (mg/L)	Sulfate (mg/L)	Solids, Total Dissolved @ 180° C (mg/L)
Whitmer	8/21/2002 9:35:00 AM	331	404	4 ND	1240	0.21	918	0.8	0.05 ND	12.3	10.2	296	2710
Whitmer	11/5/2002 2:20:00 PM	334	407	4 ND	1250	0.23	1020	0.9	0.05 ND	13.4	16.9	309	2670
Whitmer	3/4/2003 2:10:00 PM	318	388	4 ND	1310	0.2	1020	0.8	0.05 ND	13.6	16	320	2720
Whitmer	5/13/2003 5:00:00 PM	329	402	4 ND	1330	0.23	1130	0.9	0.05 ND	14	15	306	2760
Whitmer	8/14/2003 12:10:00 PM	326	398	1 ND	1350	0.25	1130	0.7	0.05 ND	13.8	16.3	267	2950
Whitmer	11/4/2003 4:00:00 PM	323	395	4 ND	1490	0.23	1170	1	0.05 ND	14.4	16.2	248	2940
Whitmer	3/18/2004 1:05:00 PM	326	398	1 ND	1530	0.21	1280	1	0.05 ND	15.4	15.7	267	3130
Whitmer	6/9/2004 8:45:00 AM	327	399	4 ND	1570	0.25	1240	1	0.05 ND	13.8	16.3	359	3500
Whitmer	9/16/2004 11:20:00 AM	330	403	4 ND	1510	0.22	1350	0.9	0.05 ND	14.9	16.5	320	3520
Whitmer	11/18/2004 4:00:00 PM	297	362	1 ND	1610	0.24	1400	1	0.05 ND	15.4	16.5	327	3420
Whitmer	3/2/2005 4:44:00 PM	328	400	4 ND	1670	0.25	1470	1.1	0.11	15.4	15.9	324	3470
Whitmer	5/26/2005 10:20:00 AM	433	529	4 ND	149	0.49	255	0.2	0.05 ND	18	17.6	237	1150
Whitmer	8/16/2005 3:00:00 PM	322	393	4 ND	1610	0.22	1500	1.1	0.05 ND	15.2	14.6	329	3800
Whitmer	11/17/2005 10:25:00 A	289	352	4 ND	1790	0.21	1670	1.1	0.05 ND	15.8	16.3	323	3660
Whitmer	2/9/2006 11:15:00 AM	316	386	4 ND	1690	0.21	1440	1.2	0.05 ND	15.4	17	379	3460
Whitmer	5/25/2006 11:21:00 AM	302	369	4 ND	1820	0.21	1600	1.2	0.05 ND	16	17.6	348	3630
Whitmer	8/24/2006 11:45:00 AM	284	346	4 ND	1810	0.2	1630	1.2	0.05 ND	16	17.1	342	4240
Whitmer	12/7/2006 1:30:00 PM	286	349	4 ND	1840	0.2	1640	1.3	0.05 ND	14.8	16.6	351	4010
Whitmer	3/14/2007 4:55:00 PM	284	347	4 ND	1930			1.3	0.05 ND			340	4300

Notes:
If field left blank: not measured or tested.
ND = Analyte not detected, number shown is reporting limit.
D = Reporting limit increased due to sample matrix interference.
H = Analysis performed past recommended holding time.
J = Estimated value. Present but less than the limit of quantitation.
T = This target analyte was found in the associated trip blank as well as the sample.

Table 3

BTEX and TPH Analytical Results

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
LAW-M03	3/13/2007 5:40:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
Lockman	5/26/2005 11:05:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-18	11/8/2001 3:30:00 PM	53	21	1.8	10	0.2
M-18	8/23/2006 10:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-18	12/6/2006 12:25:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	8/16/2001 2:35:00 PM	0.5 ND	0.32 J	0.5 ND	0.5 ND	0.1 ND
M-27	8/16/2001 2:45:00 PM	0.5 ND	0.28 J	0.5 ND	0.5 ND	0.1 ND
M-27	11/8/2001 8:50:00 AM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.1 ND
M-27	2/20/2002 3:42:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1.5
M-27	5/21/2002 3:05:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1.3
M-27	8/20/2002 5:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	11/6/2002 9:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	3/5/2003 1:20:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	5/13/2003 10:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	8/13/2003 11:10:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	11/6/2003 10:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	6/8/2004 3:15:00 PM	0.77	0.5 ND	0.5 ND	0.52	0.1 ND
M-27	11/18/2004 3:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	3/1/2005 12:05:00 PM	0.5 ND	0.5 ND	0.5 ND	0.48	0.1 ND
M-27	5/24/2005 11:20:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	8/16/2005 9:30:00 AM	0.5 ND	0.5 ND	0.49	0.45	0.1 ND
M-27	11/15/2005 2:28:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	2/7/2006 1:10:00 PM	0.5 ND	0.5	0.5 ND	0.49 J	0.1 ND
M-27	5/23/2006 2:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	8/22/2006 2:30:00 PM	0.5 ND	0.41 J	0.5 ND	0.5 ND	0.5
M-27	12/6/2006 1:40:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-27	3/14/2007 5:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
M-28	6/1/2000 12:00:00 AM	14	2.8	0.5 ND	0.5 ND	
M-28	8/9/2001 12:15:00 PM	19	0.5 ND J	0.5 ND	1 ND	0.1 ND
M-28	8/16/2001 5:00:00 PM	19	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	11/8/2001 12:00:00 PM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.1 ND
M-28	2/21/2002 8:40:00 AM	20	0.5 ND	0.5 ND	0.5 ND	2.7
M-28	5/23/2002 9:30:00 AM	21	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	8/21/2002 10:00:00 AM	23	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	11/6/2002 11:20:00 AM	22	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	3/5/2003 3:30:00 PM	20	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	5/13/2003 4:45:00 PM	23	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	8/13/2003 3:35:00 PM	21	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	11/5/2003 10:30:00 AM	19	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	3/16/2004 5:34:00 PM	12	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	6/8/2004 5:18:00 PM	22	0.5 ND	0.5 ND	0.91	0.1 ND
M-28	11/19/2004 8:36:00 AM	18	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	3/1/2005 3:45:00 PM	19	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	5/24/2005 1:10:00 PM	16	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	8/16/2005 1:15:00 PM	16	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	11/15/2005 4:35:00 PM	18	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	2/7/2006 4:30:00 PM	19	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	5/23/2006 4:20:00 PM	18	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	8/22/2006 4:45:00 PM	20	0.5 ND	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
M-28	12/6/2006 2:40:00 PM	19	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-28	3/15/2007 10:15:00 AM	19	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
M-28 (Dup.)	5/23/2002 9:30:00 AM	23	0.5 ND	0.5 ND	0.5 ND	
M-30	6/1/2000 12:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	
M-30	2/22/2002 1:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-30	5/22/2002 5:10:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-30	8/21/2002 10:40:00 AM	0.5 ND	0.49	0.5 ND	0.5 ND	0.1 ND
M-31	6/1/2000 12:00:00 AM	41	0.88	0.5 ND	0.5 ND	
M-31	8/9/2001 11:05:00 AM	47	0.5 ND	0.5 ND	1 ND	0.1 ND
M-31	8/16/2001 5:30:00 PM	38	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	11/8/2001 4:00:00 PM	24	0.5 ND	0.5 ND	1 ND	0.1 ND
M-31	2/21/2002 9:45:00 AM	42	0.5 ND	0.5 ND	0.5 ND	3.4
M-31	5/22/2002 3:45:00 PM	38	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	8/21/2002 10:45:00 AM	41	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	11/6/2002 10:35:00 AM	23	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	3/5/2003 2:10:00 PM	38	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	5/13/2003 4:00:00 PM	37	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	8/13/2003 2:40:00 PM	35	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	11/5/2003 11:35:00 AM	30	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	3/16/2004 4:00:00 PM	32	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	6/8/2004 4:40:00 PM	35	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	11/18/2004 5:00:00 PM	32	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	3/1/2005 1:45:00 PM	32	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	5/24/2005 3:05:00 PM	28	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	8/16/2005 11:30:00 AM	29	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	11/15/2005 3:30:00 PM	29	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	2/7/2006 2:00:00 PM	30	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	5/23/2006 5:20:00 PM	27	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	8/23/2006 1:30:00 PM	29	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	12/6/2006 3:45:00 PM	28	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-31	3/15/2007 11:30:00 AM	30	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
M-36	9/5/2001 3:55:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
M-36	11/9/2001 11:05:00 AM	0.5 ND	0.5 ND	0.5 ND	1 ND	
M-39	11/7/2001 3:45:00 PM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.1 ND
MOC- 1B	3/14/2007 12:55:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
MOC- 2	3/13/2007 5:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
MOC- 3	3/14/2007 11:50:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
MOC- 4	3/12/2007 4:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
MOC-20A	3/13/2007 1:40:00 PM	0.5 ND	0.67	0.5 ND	0.5 ND	0.1 ND
MOC-20B	3/13/2007 3:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 4	11/8/2001 3:00:00 PM	437	2040	1280	3850	992
PNR- 5	6/1/2000 12:00:00 AM	1.2	0.75	6.7	4.2	0.1 ND
PNR- 5	11/7/2001 11:10:00 AM	0.5 ND	10 ND	5 ND	5 ND	0.1 ND
PNR- 5	2/20/2002 10:02:00 AM	1.2	0.98	4.3	0.68	0.1 ND
PNR- 5	5/22/2002 10:40:00 AM	1	1.2	8.5	0.85	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR- 5	8/20/2002 5:10:00 PM	0.92	0.37	6.2	0.62	1.3
PNR- 5	11/6/2002 11:10:00 AM	1.4	0.93	6.9	0.57	0.1 ND
PNR- 5	3/4/2003 4:30:00 PM	0.9	0.5 ND	5.8	0.5 ND	0.1 ND
PNR- 5	5/28/2003 12:35:00 PM	0.72	0.61	9.6	0.87	0.1 ND
PNR- 5	8/13/2003 2:59:00 PM	0.86	0.5 ND	4.5	0.72	0.1 ND
PNR- 5	11/4/2003 3:30:00 PM	1.3	1	10	1.1	0.1 ND
PNR- 5	3/17/2004 10:15:00 AM	0.74	1.3	14	1.1	0.1 ND
PNR- 5	6/9/2004 9:40:00 AM	1.4	0.5 ND	23	0.5 ND	0.1 ND
PNR- 5	9/14/2004 4:20:00 PM	1.1	25	1.3	0.5 ND	0.1 ND
PNR- 5	11/17/2004 1:50:00 PM	0.99	25	0.5 ND	1.1	0.1 ND
PNR- 5	3/2/2005 12:15:00 PM	1.1	36	1.3	0.5 ND	0.1 ND
PNR- 5	5/25/2005 5:20:00 PM	0.9	30	0.71	0.5 ND	1
PNR- 5	8/17/2005 11:00:00 AM	0.79	40	0.46	0.5 ND	0.1 ND
PNR- 5	11/16/2005 1:00:00 PM	1.1	1.1	65	0.5 ND	0.1 ND
PNR- 5	2/9/2006 3:20:00 PM	0.43 J	0.5 ND	73	0.38 J	0.1 ND
PNR- 5	5/25/2006 10:30:00 AM	0.46 J	0.5 ND	60	0.5 ND	0.1 ND
PNR- 5	8/23/2006 3:40:00 PM	0.66	0.5 ND	64	0.5 ND	0.1 ND
PNR- 5	12/7/2006 1:25:00 PM	0.79	0.5 ND	58	0.5 ND	0.1 ND
PNR- 5	3/14/2007 2:14:00 PM	0.75	1.2	85	0.5 ND	0.1 ND
PNR- 6	5/31/2000 12:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	
PNR- 6	8/7/2001 9:55:00 AM	0.5 ND	0.88	0.5 ND	1 ND	0.1 ND
PNR- 6	8/15/2001 3:30:00 PM	0.5 ND	0.3 J	0.5 ND	0.5 ND	0.1 ND
PNR- 6	2/19/2002 1:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	5/21/2002 12:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	8/19/2002 4:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	11/5/2002 11:25:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	3/4/2003 10:40:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	5/13/2003 11:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	8/13/2003 8:16:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	11/4/2003 1:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	6/8/2004 10:20:00 AM	0.5 ND	0.46	0.5 ND	0.53	0.1 ND
PNR- 6	9/14/2004 9:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5
PNR- 6	11/16/2004 10:17:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	2/28/2005 5:30:00 PM	0.5 ND	0.5 ND	0.51	0.5 ND	0.1 ND
PNR- 6	5/23/2005 6:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	8/16/2005 9:35:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	11/15/2005 10:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	2/7/2006 10:47:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	5/23/2006 10:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	8/22/2006 10:45:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	12/5/2006 1:40:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 6	3/14/2007 10:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	5/31/2000 12:00:00 AM	27	0.5 ND	0.5 ND	0.5 ND	
PNR- 7	8/7/2001 5:20:00 PM	35	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	8/15/2001 5:55:00 PM	20	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	11/7/2001 11:50:00 AM	40	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR- 7	2/19/2002 5:05:00 PM	39	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	5/22/2002 1:10:00 PM	39	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	8/20/2002 3:07:00 PM	41	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	11/5/2002 2:50:00 PM	39	0.5 ND	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR- 7	3/4/2003 3:05:00 PM	43	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	8/12/2003 12:20:00 PM	39	0.5 ND	0.5 ND	0.5 ND	0.28
PNR- 7	11/4/2003 2:30:00 PM	38	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	3/17/2004 5:10:00 PM	39	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	6/8/2004 6:40:00 PM	47	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	9/14/2004 6:00:00 PM	41	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	11/17/2004 1:40:00 PM	44	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	3/1/2005 5:30:00 PM	40	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	5/25/2005 1:47:00 PM	38	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	8/17/2005 10:52:00 AM	39	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	11/16/2005 2:00:00 PM	44	0.5 ND	2.2	0.5 ND	0.1 ND
PNR- 7	2/9/2006 2:15:00 PM	38	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	5/24/2006 4:10:00 PM	35	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	8/24/2006 10:24:00 AM	39	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	12/8/2006 10:15:00 AM	32	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 7	3/15/2007 12:15:00 PM	40	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
PNR- 8	5/31/2000 12:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	
PNR- 8	8/7/2001 1:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	8/16/2001 6:10:00 PM	0.5 ND	0.55	0.5 ND	0.54	0.1 ND
PNR- 8	11/6/2001 4:30:00 PM	0.5 ND	0.5 ND J	0.5 ND	1 ND	0.5
PNR- 8	2/22/2002 4:00:00 PM	0.5 ND	0.5 ND J	0.5 ND	0.5 ND	0.1 ND
PNR- 8	5/21/2002 5:45:00 PM	0.5 ND	0.5 ND J	0.5 ND	0.5 ND	0.1 ND
PNR- 8	8/21/2002 10:10:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	11/5/2002 3:25:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	3/4/2003 12:10:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	5/13/2003 5:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	8/12/2003 9:46:00 AM	1.1	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	11/4/2003 12:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	3/18/2004 11:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	2.7
PNR- 8	6/8/2004 6:40:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.69
PNR- 8	9/14/2004 5:05:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.4
PNR- 8	11/16/2004 4:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	3/2/2005 3:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	5/26/2005 10:46:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	8/18/2005 11:50:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	11/17/2005 9:45:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	2/9/2006 9:45:00 AM	0.42 J	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	5/24/2006 5:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	8/24/2006 12:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	12/7/2006 11:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 8	3/14/2007 1:25:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
PNR- 9	6/1/2000 12:00:00 AM	0.5 ND	0.86	0.5 ND	0.5 ND	
PNR- 9	8/9/2001 9:35:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	8/16/2001 1:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	11/7/2001 2:30:00 PM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.9
PNR- 9	2/20/2002 2:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	5/22/2002 10:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	8/20/2002 4:20:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	11/5/2002 2:05:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	3/4/2003 4:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR- 9	5/27/2003 6:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	8/13/2003 10:35:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	11/4/2003 2:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	6/8/2004 1:35:00 PM	1.8	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	9/14/2004 11:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	11/16/2004 4:12:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	3/1/2005 12:10:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	5/24/2005 5:25:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	8/16/2005 12:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	11/15/2005 3:55:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	2/8/2006 12:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	5/23/2006 1:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	8/23/2006 9:40:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	12/6/2006 3:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR- 9	3/13/2007 4:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
PNR-10	6/1/2000 12:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	
PNR-10	8/8/2001 6:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	8/16/2001 1:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	11/7/2001 12:30:00 PM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.6
PNR-10	2/20/2002 1:38:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	5/21/2002 1:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	8/20/2002 12:20:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	11/5/2002 1:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	3/4/2003 4:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	5/27/2003 5:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	8/13/2003 10:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	11/4/2003 1:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	6/8/2004 2:10:00 PM	0.43	0.59	0.5 ND	0.88	0.1 ND
PNR-10	9/14/2004 11:40:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	11/16/2004 11:28:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	3/1/2005 11:06:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	5/24/2005 3:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	8/16/2005 10:48:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	11/15/2005 11:45:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	2/7/2006 2:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	5/23/2006 12:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	8/23/2006 10:35:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	12/6/2006 2:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-10	3/13/2007 3:20:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
PNR-12	5/31/2000 12:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	
PNR-12	8/8/2001 3:00:00 PM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-12	8/15/2001 4:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	11/6/2001 4:20:00 PM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-12	2/20/2002 11:55:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	5/21/2002 11:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	8/19/2002 4:05:00 PM	0.5 ND	0.43	0.5 ND	0.5 ND	0.1 ND
PNR-12	11/5/2002 11:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	3/4/2003 1:10:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	5/27/2003 5:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	8/13/2003 8:05:00 AM	0.65	0.5 ND	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR-12	11/4/2003 12:35:00 PM	0.5 ND	0.59	0.5 ND	0.5 ND	0.1 ND
PNR-12	6/8/2004 9:15:00 AM	0.5 ND	1.4	0.5 ND	0.5 ND	0.1 ND
PNR-12	9/14/2004 10:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	11/16/2004 9:35:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	2/28/2005 5:10:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	5/23/2005 6:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	8/15/2005 6:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	11/15/2005 9:45:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	2/7/2006 1:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	5/23/2006 10:50:00 AM	0.5 J	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	12/5/2006 3:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-12	3/14/2007 12:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	8/15/2001 6:15:00 PM	19	0.83	0.5 ND	0.5 ND	0.1 ND
PNR-13	8/15/2001 7:00:00 PM	32	1.1	0.5 ND	0.49 J	0.1 ND
PNR-13	11/7/2001 1:35:00 PM	8.2	0.5 ND	0.5 ND	1 ND	5.4
PNR-13	2/19/2002 4:30:00 PM	6.4	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	5/22/2002 2:00:00 PM	4.3	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	8/20/2002 3:45:00 PM	3.5	0.39	0.5 ND	0.5 ND	0.1 ND
PNR-13	11/5/2002 3:30:00 PM	2.1	0.87	0.5 ND	0.5 ND	0.1 ND
PNR-13	3/4/2003 11:15:00 AM	1.2	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	5/28/2003 10:05:00 AM	1	0.7	0.5 ND	0.5 ND	0.1 ND
PNR-13	8/13/2003 10:20:00 AM	0.85	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	11/4/2003 2:15:00 PM	2.4	0.71	0.5 ND	0.5 ND	0.1 ND
PNR-13	6/8/2004 3:30:00 PM	2.5	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	9/14/2004 10:00:00 AM	0.62	0.5 ND	0.74	0.49	0.1 ND
PNR-13	11/16/2004 3:30:00 PM	1.3	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	3/1/2005 1:25:00 PM	0.78	0.5 ND	1.3	0.5 ND	0.1 ND
PNR-13	5/24/2005 12:00:00 PM	0.65	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	8/17/2005 9:40:00 AM	1	0.5 ND	0.86	0.5 ND	0.1 ND
PNR-13	11/16/2005 10:50:00 AM	1.2	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	2/8/2006 10:40:00 AM	1.3	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	5/24/2006 1:15:00 PM	0.51	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	8/22/2006 2:25:00 PM	0.92	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	12/6/2006 11:30:00 AM	1.8	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-13	3/14/2007 4:20:00 PM	0.81	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-14	8/9/2001 4:00:00 PM	4.1	0.59	55	1.9	0.1 ND
PNR-14	8/14/2001 9:45:00 AM	3.5	1.1	34 D	0.38 J	0.1 ND
PNR-14	11/7/2001 2:35:00 PM	18	0.5 ND J	9.7	1 ND	0.1 ND
PNR-14	2/21/2002 11:30:00 AM	0.92	0.5 ND	14	0.68	0.1 ND
PNR-14	5/22/2002 12:05:00 PM	1.1	0.55	41	1.8	0.1 ND
PNR-14	8/20/2002 5:45:00 PM	0.96	0.47	32	0.93	0.1 ND
PNR-14	11/6/2002 11:28:00 AM	0.78	0.5 ND	36	0.7	0.1 ND
PNR-14	3/4/2003 5:15:00 PM	0.88	0.5 ND	31	0.5	0.1 ND
PNR-14	5/28/2003 11:45:00 AM	0.69	0.8	22	0.45	0.1 ND
PNR-14	8/13/2003 3:43:00 PM	0.64	0.5 ND	22	0.5 ND	0.1 ND
PNR-14	11/5/2003 11:45:00 AM	0.62	0.5 ND	23	0.5 ND	0.1 ND
PNR-14	3/17/2004 10:45:00 AM	0.33	0.87	12	0.59	0.53
PNR-14	6/9/2004 10:40:00 AM	0.9	0.65	17	0.5 ND	0.1 ND
PNR-14	9/14/2004 3:35:00 PM	0.89	7.9	0.58	0.65	0.1 ND
PNR-14	11/17/2004 3:30:00 PM	0.76	5.9	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR-14	3/2/2005 10:50:00 AM	0.55	3.7	0.5 ND	0.5 ND	0.1 ND
PNR-14	5/25/2005 9:46:00 AM	0.5 ND	2.2	0.5 ND	0.5 ND	0.1 ND
PNR-14	8/17/2005 3:18:00 PM	0.5 ND	1.2	0.45	0.5 ND	1.6
PNR-14	11/16/2005 11:05:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-14	2/9/2006 2:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-14	5/24/2006 5:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-14	8/23/2006 4:20:00 PM	0.5 ND	0.5 ND	4.1	0.5 ND	0.1 ND
PNR-14	12/7/2006 3:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-14	3/14/2007 10:45:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-15	8/10/2001 8:15:00 AM	3.6	6.6	4.5	7.4	0.1 ND
PNR-15	8/14/2001 1:00:00 PM	3.3	4.8	3.8	4.4	0.5
PNR-15	11/8/2001 9:10:00 AM	4.8	6.6	24	5 ND	2.7
PNR-15	2/21/2002 2:54:00 PM	1.8	0.5 ND	24	5.7	1.5
PNR-15	5/22/2002 2:55:00 PM	2.3	0.72	18	1.4	3.4
PNR-15	8/21/2002 2:00:00 PM	2.5	3.8	14	19	1.1
PNR-15	11/6/2002 2:35:00 PM	2.8	0.5 ND	11	8.5	2
PNR-15	3/5/2003 12:30:00 PM	6.3	0.5 ND	21	230	68
PNR-15	5/28/2003 3:35:00 PM	4.2	1.2	16	34	4.4
PNR-15	8/14/2003 9:58:00 AM	20	32	13	13	0.28
PNR-15	11/5/2003 2:30:00 PM	1.9	1.2	12	9.3	1.2
PNR-15	3/17/2004 1:35:00 PM	0.77	0.5 ND	7.7	0.79	1.2
PNR-15	6/8/2004 12:45:00 PM	1	0.5 ND	9.6	0.5 ND	1.1
PNR-15	9/15/2004 4:30:00 PM	0.93	8.5	0.79	0.71	0.1 ND
PNR-15	11/18/2004 9:05:00 AM	0.74	9.4	0.78	0.93	0.1 ND
PNR-15	3/2/2005 12:20:00 PM	14	12	1.3	6.9	0.1 ND
PNR-15	5/25/2005 10:40:00 AM	0.45	5.4	0.5 ND	0.5 ND	0.1 ND
PNR-15	8/17/2005 4:45:00 PM	0.44	7.4	0.56	0.5 ND	0.1 ND
PNR-15	11/16/2005 11:35:00 AM	0.5 ND	0.5 ND	4.7	0.5 ND	0.1 ND
PNR-15	2/8/2006 10:45:00 AM	0.5 ND	0.5 ND	3.6	0.67	0.1 ND
PNR-15	5/24/2006 11:15:00 AM	0.5 ND	0.74	1.5	1.3	3.5
PNR-15	8/23/2006 5:15:00 PM	0.5 ND	0.66	1.5	0.6	0.1 ND
PNR-15	12/7/2006 4:30:00 PM	0.5 ND	0.5 ND	2.4	0.5 ND	0.1 ND
PNR-15	3/14/2007 11:40:00 AM	0.63	0.5 ND	2	0.56	0.1 ND
PNR-16	8/10/2001 3:15:00 PM	0.32 J	1 J	0.42 J	1	14
PNR-16	8/16/2001 6:35:00 PM	0.5 ND	0.37 J	0.5 ND	0.34 J	0.1 ND
PNR-16	11/6/2001 4:05:00 PM	0.5 ND	0.5 ND J	0.5 ND	1 ND	0.1 ND
PNR-16	2/21/2002 10:20:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	5/21/2002 3:50:00 PM	0.5 ND	0.83	0.5 ND	2	0.1 ND
PNR-16	8/20/2002 11:40:00 AM	0.5 ND	0.52	0.5 ND	0.5 ND	0.1 ND
PNR-16	11/5/2002 2:04:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	3/4/2003 1:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	5/27/2003 6:30:00 PM	0.5 ND	0.5	0.5 ND	0.5 ND	0.1 ND
PNR-16	8/13/2003 9:10:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	11/4/2003 12:30:00 PM	0.75	1.9	0.5 ND	0.85	0.1 ND
PNR-16	3/17/2004 4:09:00 PM	0.5 ND	0.53	0.59	0.5 ND	0.43
PNR-16	6/8/2004 12:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	9/14/2004 12:40:00 PM	0.5 ND	0.5 ND	0.78	0.5 ND	0.1 ND
PNR-16	11/16/2004 12:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	3/1/2005 2:30:00 PM	0.5 ND	0.5 ND	0.76	0.5 ND	0.1 ND
PNR-16	5/24/2005 1:58:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR-16	8/17/2005 9:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	11/15/2005 3:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	2/7/2006 4:47:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	5/24/2006 12:25:00 PM	0.5 ND	0.46 J	0.5 ND	0.5 ND	0.1 ND
PNR-16	8/22/2006 1:20:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	12/6/2006 1:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-16	3/13/2007 12:45:00 PM	0.5 ND	0.44 J	0.5 ND	0.5 ND	0.1 ND
PNR-17	8/22/2001 12:35:00 PM	309	640	135	377	15.8
PNR-17	8/22/2001 1:30:00 PM	206	342	75	214	30.8
PNR-17	11/8/2001 11:30:00 AM	301	1220	582	1720	806
PNR-17	2/21/2002 5:00:00 PM	341	682	191	511	62
PNR-17	5/23/2002 10:50:00 AM	386	877	225	620	53
PNR-17	8/21/2002 3:15:00 PM	230	438	98	261	140
PNR-17	11/6/2002 3:40:00 PM	97	195	69	181	200
PNR-17	3/5/2003 1:30:00 PM	90	245	105	277	82
PNR-17	5/28/2003 10:00:00 AM	76	202	118	305	41
PNR-17	8/14/2003 11:05:00 AM	64	119	82	190	180
PNR-17	11/6/2003 11:30:00 AM	74	75	120	200	150
PNR-17	3/17/2004 3:10:00 PM	47	12	89	87	56
PNR-17	6/9/2004 3:45:00 PM	45	1.9	85	13	31
PNR-17	9/16/2004 9:35:00 AM	33	63	1.7	5.4	10
PNR-17	11/18/2004 12:20:00 PM	23	56	0.5 ND	6.4	120
PNR-17	3/2/2005 3:30:00 PM	15	34	3.4	18	26
PNR-17	5/25/2005 2:25:00 PM	15	69	3.6	15	77
PNR-17	8/17/2005 5:25:00 PM	7.7	39	0.53	5.3	180
PNR-17	11/16/2005 2:01:00 PM	15	2.3	37	49	98
PNR-17	2/8/2006 2:05:00 PM	3.7	9.7	20	29	1.8
PNR-17	5/24/2006 1:50:00 PM	0.76	2.9	8.3	11	1200
PNR-17	8/24/2006 12:45:00 PM	1.8	5	28	51	12
PNR-17	12/8/2006 12:30:00 PM	0.66	4.4	23	40	5
PNR-17	3/15/2007 11:49:00 AM	1 ND	3.3	17	45	14 H
PNR-18	8/8/2001 4:00:00 PM	0.5 ND	0.81	0.5 ND	1 ND	0.1 ND
PNR-18	8/16/2001 11:00:00 AM	0.5 ND	0.78	0.5 ND	0.5 ND	0.1 ND
PNR-18	11/7/2001 10:20:00 AM	0.5 ND	0.66	0.5 ND	1 ND	0.9
PNR-18	2/20/2002 11:24:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	5/21/2002 10:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	8/19/2002 4:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	11/5/2002 11:55:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	3/4/2003 2:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	5/13/2003 11:45:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	8/14/2003 8:40:00 AM	0.82	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	11/4/2003 4:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	6/8/2004 9:55:00 AM	0.75	0.52	0.5 ND	0.63	0.1 ND
PNR-18	9/14/2004 8:55:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	11/18/2004 2:25:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	2/28/2005 5:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	5/25/2005 5:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	8/15/2005 6:00:00 PM	0.5 ND	0.5 ND	0.75	0.64	0.1 ND
PNR-18	11/15/2005 10:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	2/7/2006 11:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR-18	5/23/2006 11:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	8/22/2006 5:17:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	12/5/2006 2:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-18	3/14/2007 11:10:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	8/7/2001 2:50:00 PM	1.1	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-19	8/15/2001 4:40:00 PM	0.35 J	0.41 J	0.5 ND	0.5 ND	0.1 ND
PNR-19	11/6/2001 3:20:00 PM	1.4	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-19	2/19/2002 3:05:00 PM	2.3	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	5/22/2002 2:55:00 PM	3.2	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	8/20/2002 12:30:00 PM	3.3	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	11/5/2002 1:17:00 PM	3.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	3/4/2003 12:20:00 PM	5.1	0.5 ND	0.5 ND	0.5 ND	0.87
PNR-19	5/27/2003 5:20:00 PM	5.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	8/13/2003 8:55:00 AM	5.5	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	11/4/2003 10:50:00 AM	5.4	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	3/17/2004 4:40:00 PM	6.6	0.5 ND	0.46	0.5 ND	0.1 ND
PNR-19	6/8/2004 1:55:00 PM	8.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	9/14/2004 2:15:00 PM	6.3	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	11/16/2004 1:45:00 PM	7.8	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	3/1/2005 3:35:00 PM	7.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	5/25/2005 12:36:00 PM	7.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	8/17/2005 12:23:00 PM	7.9	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	11/16/2005 12:00:00 PM	8.9	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	2/8/2006 12:55:00 PM	11	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	5/24/2006 3:20:00 PM	9.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	8/23/2006 2:05:00 PM	11	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	12/7/2006 3:30:00 PM	12	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-19	3/14/2007 3:00:00 PM	12	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	8/8/2001 9:50:00 AM	5.4	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-20	8/15/2001 5:15:00 PM	5.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	11/8/2001 10:00:00 AM	1.4	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-20	2/19/2002 3:40:00 PM	11	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	5/22/2002 11:00:00 AM	10	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	8/20/2002 1:25:00 PM	13	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	11/5/2002 4:05:00 PM	17	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	3/4/2003 2:15:00 PM	15	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	5/28/2003 11:00:00 AM	13	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	8/13/2003 11:35:00 AM	13	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	11/5/2003 12:50:00 PM	15	0.51	0.5 ND	0.5 ND	0.1 ND
PNR-20	3/18/2004 12:50:00 PM	11	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	6/8/2004 12:15:00 PM	14	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	9/14/2004 1:42:00 PM	13	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	11/17/2004 10:40:00 AM	18	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	3/1/2005 4:25:00 PM	15	0.5 ND	0.57	0.5 ND	0.1 ND
PNR-20	5/24/2005 5:35:00 PM	11	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	8/16/2005 3:45:00 PM	16	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	11/15/2005 12:15:00 PM	16	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	2/9/2006 10:50:00 AM	14	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	5/23/2006 5:55:00 PM	16	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	8/23/2006 3:50:00 PM	17	0.5 ND	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR-20	12/7/2006 4:10:00 PM	13	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-20	3/15/2007 10:18:00 AM	20	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
PNR-21	8/9/2001 10:15:00 AM	28	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-21	8/16/2001 4:40:00 PM	26	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	11/8/2001 11:00:00 AM	32	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-21	2/21/2002 9:15:00 AM	32	0.5 ND	0.5 ND	0.5 ND	2.2
PNR-21	5/22/2002 11:55:00 AM	33	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	8/21/2002 9:00:00 AM	35	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	11/5/2002 3:30:00 PM	37	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	3/5/2003 2:50:00 PM	36	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	5/28/2003 11:50:00 AM	32	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	8/13/2003 2:05:00 PM	25	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	11/5/2003 3:30:00 PM	29	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	6/8/2004 12:55:00 PM	34	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	9/14/2004 2:15:00 PM	37	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	11/17/2004 12:40:00 PM	31	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	3/1/2005 4:32:00 PM	29	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	5/24/2005 6:25:00 PM	28	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	8/16/2005 4:20:00 PM	28	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	11/15/2005 1:21:00 PM	28	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	2/9/2006 11:45:00 AM	27	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	5/24/2006 5:20:00 PM	24	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	8/23/2006 5:00:00 PM	28	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	12/7/2006 2:45:00 PM	22	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-21	3/15/2007 11:15:00 AM	25	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
PNR-22	8/8/2001 5:10:00 PM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-22	8/16/2001 11:35:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	11/7/2001 9:10:00 AM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-22	2/20/2002 2:10:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	5/21/2002 12:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	8/20/2002 3:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	11/5/2002 12:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	3/4/2003 3:10:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	5/13/2003 12:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	8/13/2003 9:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	11/5/2003 12:25:00 PM	1.2	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	6/8/2004 4:10:00 PM	0.5 ND	0.5 ND	0.5 ND	1.2	0.1 ND
PNR-22	9/15/2004 8:50:00 AM	0.5 ND	0.5 ND	0.62	0.5 ND	0.1 ND
PNR-22	11/18/2004 2:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	3/1/2005 11:00:00 AM	0.5 ND	0.5 ND	0.51	0.5 ND	0.1 ND
PNR-22	5/24/2005 10:07:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	8/16/2005 9:30:00 AM	0.5 ND	0.5 ND	0.57	0.54	0.1 ND
PNR-22	11/15/2005 1:40:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	2/7/2006 10:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	5/23/2006 1:05:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	8/22/2006 6:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	12/6/2006 9:55:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-22	3/13/2007 3:25:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-23	8/9/2001 5:30:00 PM	58	94	17	49	0.1 ND
PNR-23	8/14/2001 10:30:00 AM	195	338	68	189	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR-23	11/8/2001 1:15:00 PM	215	269	51	127	56.2
PNR-23	2/21/2002 12:25:00 PM	220	224	27	84	11
PNR-23	5/23/2002 11:15:00 AM	417	575	78	245	3.6
PNR-23	8/21/2002 12:55:00 PM	465	666	92	283	1.4
PNR-23	11/6/2002 12:15:00 PM	401	573	70	219	0.6
PNR-23	3/5/2003 11:20:00 AM	419	664	90	271	0.66
PNR-23	5/28/2003 2:40:00 PM	433	759	137	413	1.5
PNR-23	8/14/2003 8:43:00 AM	161	236	38	112	0.62
PNR-23	11/6/2003 10:10:00 AM	357	700	143	399	2.1
PNR-23	3/17/2004 11:40:00 AM	288	277	94	203	0.78
PNR-23	6/9/2004 2:10:00 PM	331	73	116	179	0.57
PNR-23	9/15/2004 5:40:00 PM	200	74	9.3	103	0.8
PNR-23	11/18/2004 11:00:00 AM	268	115	8.8	166	0.7
PNR-23	3/2/2005 11:35:00 AM	199	77	5.6	99	0.1 ND
PNR-23	5/25/2005 1:00:00 PM	126	56	3.5	62	0.1 ND
PNR-23	8/17/2005 3:20:00 PM	114	42	4.2	44	2.8
PNR-23	11/16/2005 12:15:00 PM	121	2.6	41	31	0.2
PNR-23	2/9/2006 4:00:00 PM	100	3.4	31	14	0.1 ND
PNR-23	5/25/2006 11:15:00 AM	83	1.7	16	5.9	0.1 ND
PNR-23	8/24/2006 10:18:00 AM	101	1.6	7.7	2.1	0.4
PNR-23	12/8/2006 10:10:00 AM	88	1.7	4.7	1.7	0.1 ND
PNR-23	3/14/2007 3:00:00 PM	74	1.5	4.5	1.7	0.1 ND
PNR-24	8/14/2001 12:00:00 PM	195	320	66	198	74.6
PNR-24	8/14/2001 6:20:00 PM	346	594	123	344	970
PNR-24	11/8/2001 1:40:00 PM	422	601	102	316	49.7
PNR-24	2/21/2002 1:55:00 PM	569	974	198	623	110
PNR-24	5/23/2002 11:50:00 AM	294	633	117	455	29
PNR-24	8/21/2002 1:10:00 PM	321	653	110	392	360
PNR-24	11/6/2002 12:32:00 PM	292	543	77	286	170
PNR-24	3/5/2003 11:40:00 AM	358	783	131	472	160
PNR-24	5/28/2003 2:50:00 PM	150	290	65	257	36
PNR-24	8/14/2003 1:08:00 PM	149	347	72	283	53
PNR-24	11/6/2003 11:00:00 AM	234	501	78	296	84
PNR-24	3/17/2004 12:10:00 PM	125	265	57	204	44
PNR-24	6/9/2004 2:20:00 PM	157	343	60	233	82
PNR-24	9/15/2004 6:05:00 PM	170	109	484	349	130
PNR-24	11/18/2004 11:05:00 AM	128	88	317	271	97
PNR-24	3/2/2005 1:25:00 PM	88	51	85	80	76
PNR-24	5/25/2005 1:45:00 PM	50	42	76	59	47
PNR-24	8/17/2005 4:05:00 PM	28	39	68	61	180
PNR-24	11/16/2005 4:15:00 PM	18	137	43	70	450
PNR-24	2/8/2006 1:30:00 PM	7.7	92	54	107	28
PNR-24	5/24/2006 12:55:00 PM	2.1	42	26	65	26
PNR-24	8/24/2006 11:22:00 AM	3.7	31	30	61	43
PNR-24	12/8/2006 10:50:00 AM	2.8	54	66	104	28
PNR-24	3/14/2007 3:40:00 PM	1.8	26	46	74	3
PNR-25	8/14/2001 1:15:00 PM	164	161	18	156 D	93.1
PNR-25	8/14/2001 7:05:00 PM	216	224	32	266	156
PNR-25	11/8/2001 10:15:00 AM	229	219	22	237	0.1
PNR-25	2/21/2002 3:30:00 PM	225	541	121	495	75

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR-25	5/22/2002 4:50:00 PM	147	497	104	624	100
PNR-25	8/21/2002 2:40:00 PM	6.2	48	7.8	233	500
PNR-25	11/6/2002 2:55:00 PM	1.7	2.1	2.2	337	390
PNR-25	3/5/2003 12:45:00 PM	2.7	9.2	12	286	140
PNR-25	5/28/2003 3:25:00 PM	2.7	20	36	260	58
PNR-25	8/14/2003 10:00:00 AM	2.2	12	24	152	96
PNR-25	11/5/2003 3:15:00 PM	3.5	9.2	30	184	41
PNR-25	3/17/2004 2:15:00 PM	1.3	13	79	212	130
PNR-25	6/8/2004 1:00:00 PM	1.2	18	98	252	81
PNR-25	9/15/2004 4:45:00 PM	2.3	80	8.1	203	160
PNR-25	11/18/2004 9:00:00 AM	1.4	84	6.2	210	75
PNR-25	3/2/2005 1:00:00 PM	5.5	133	20	295	80
PNR-25	5/25/2005 11:15:00 AM	2.6	82	14	205	21
PNR-25	8/17/2005 6:20:00 PM	1	28	6.3	65	21
PNR-25	11/16/2005 1:25:00 PM	3.2	37	259	564	660
PNR-25	2/8/2006 11:15:00 AM	5 ND	36	193	495	210
PNR-25	5/24/2006 11:45:00 AM	4	63	163	339	370
PNR-25	8/24/2006 12:00:00 PM	7.9	104	249	472	900
PNR-25	12/8/2006 11:30:00 AM	8.9	97	191	346	510
PNR-25	3/15/2007 10:53:00 AM	11	125	269	707	300
PNR-26	8/14/2001 6:00:00 PM	124	270	80	232	2490
PNR-26	8/22/2001 10:00:00 AM	188	404	105	336	55.4
PNR-26	11/8/2001 2:15:00 PM	365	1920	908	2590	1160
PNR-26	2/21/2002 4:00:00 PM	514	1140	225	636	76
PNR-26	5/23/2002 11:15:00 AM	365	998	200	610	150
PNR-26	8/21/2002 4:00:00 PM	328	632	116	377	220
PNR-26	11/6/2002 4:20:00 PM	398	685	91	335	66
PNR-26	3/5/2003 2:00:00 PM	333	1090	237	884	400
PNR-26	5/28/2003 4:35:00 PM	447	912	179	666	80
PNR-26	8/14/2003 10:45:00 AM	319	946	206	725	250
PNR-26	11/6/2003 12:30:00 PM	462	1270	256	845	32
PNR-26	3/17/2004 2:15:00 PM	364	1030	200	670	46
PNR-26	6/9/2004 4:00:00 PM	450	1260	211	703	16
PNR-26	9/16/2004 9:50:00 AM	278	177	946	576	250
PNR-26	11/18/2004 12:25:00 PM	282	224	915	810	59
PNR-26	3/2/2005 4:10:00 PM	435	300	1290	946	270
PNR-26	5/25/2005 3:15:00 PM	264	339	1140	1250	78
PNR-26	8/17/2005 6:00:00 PM	292	223	1030	857	540
PNR-26	11/16/2005 2:55:00 PM	427	1550	458	1710	410
PNR-26	2/8/2006 3:10:00 PM	326	1170	278	991	220
PNR-27	8/21/2001 3:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	9/5/2001 3:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	11/6/2001 3:30:00 PM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.4
PNR-27	2/20/2002 5:02:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1
PNR-27	5/21/2002 6:12:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	8/20/2002 7:20:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	11/6/2002 9:55:00 AM	0.49 J	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	3/5/2003 11:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	5/28/2003 11:00:00 AM	0.42	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	8/13/2003 1:35:00 PM	0.81	0.5 ND	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR-27	11/5/2003 11:45:00 AM	0.66	1	0.5 ND	0.5 ND	0.1 ND
PNR-27	6/8/2004 11:50:00 AM	1.3	0.43	0.5 ND	0.57	0.1 ND
PNR-27	9/14/2004 1:05:00 PM	1.2	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	11/17/2004 10:38:00 AM	1.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	3/1/2005 3:33:00 PM	1.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	5/24/2005 3:33:00 PM	1.5	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	8/16/2005 5:08:00 PM	1.5	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	11/15/2005 4:35:00 PM	1.6	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	2/8/2006 5:10:00 PM	1.6	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	5/23/2006 4:57:00 PM	1.6	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	8/23/2006 3:01:00 PM	1.6	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	12/7/2006 2:15:00 PM	2	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-27	3/14/2007 4:50:00 PM	2.1	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
PNR-28	8/21/2001 4:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	9/5/2001 2:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	11/6/2001 2:40:00 PM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.1 ND
PNR-28	2/20/2002 4:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1.2
PNR-28	5/21/2002 5:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	8/20/2002 6:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	11/5/2002 1:20:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	3/5/2003 10:25:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	5/28/2003 10:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	8/13/2003 1:00:00 PM	0.51	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	11/5/2003 2:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	6/8/2004 11:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	9/15/2004 10:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	11/17/2004 9:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	3/1/2005 2:39:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	5/25/2005 11:07:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	8/16/2005 4:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	11/15/2005 11:35:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	2/8/2006 2:40:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	5/23/2006 1:55:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	8/23/2006 12:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	12/6/2006 4:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-28	3/13/2007 6:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	8/21/2001 5:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	9/5/2001 2:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	11/6/2001 12:50:00 PM	0.5 ND	0.69	0.5 ND	1 ND	0.1 ND
PNR-29	2/20/2002 1:03:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	5/21/2002 4:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	8/20/2002 11:20:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	11/5/2002 12:42:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	3/5/2003 10:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	5/28/2003 10:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	8/13/2003 1:08:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	11/4/2003 4:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	6/8/2004 10:45:00 AM	0.5 ND	0.59	0.5 ND	0.53	0.1 ND
PNR-29	9/15/2004 9:40:00 AM	0.5 ND	0.5 ND	0.52	0.5 ND	0.1 ND
PNR-29	11/17/2004 9:31:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
PNR-29	3/1/2005 1:36:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	5/25/2005 9:46:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	8/16/2005 2:48:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	11/15/2005 10:50:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	2/8/2006 4:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	5/23/2006 2:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	8/23/2006 11:37:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	12/6/2006 4:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-29	3/13/2007 5:50:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-33-06	12/6/2006 11:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-33-06	3/13/2007 1:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-34-07	3/14/2007 1:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
PNR-35-07	3/13/2007 11:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
PNR-36-07	3/13/2007 11:40:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
USGS 92-12	6/1/2000 12:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	
USGS 92-12	8/7/2001 11:35:00 AM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.1 ND
USGS 92-12	8/15/2001 2:40:00 PM	0.5 ND	0.36 J	0.5 ND	0.29 J	0.7
USGS 92-12	11/6/2001 2:30:00 PM	0.5 ND	0.5 ND J	0.5 ND	1 ND	2.9
USGS 92-12	2/20/2002 2:25:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	5/21/2002 2:05:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	8/19/2002 4:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	11/5/2002 12:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	3/4/2003 11:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	5/13/2003 2:15:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	8/13/2003 7:48:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	11/5/2003 10:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	6/8/2004 9:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	9/14/2004 11:08:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	11/16/2004 9:20:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	3/1/2005 12:40:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	5/24/2005 10:43:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	8/17/2005 9:10:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	11/15/2005 2:41:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	2/7/2006 3:32:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	5/24/2006 10:55:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	8/22/2006 11:45:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	12/6/2006 10:30:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 92-12	3/13/2007 12:55:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
USGS 93-3	6/1/2000 12:00:00 AM	4.4	0.5 ND	0.5 ND	0.5 ND	
USGS 93-3	8/7/2001 6:55:00 PM	3	0.5 ND	0.5 ND	1 ND	0.1 ND
USGS 93-3	8/15/2001 7:10:00 PM	3.4	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	11/7/2001 10:05:00 AM	3	0.5 ND	0.5 ND	1 ND J	0.3
USGS 93-3	2/20/2002 9:00:00 AM	2.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	5/22/2002 9:30:00 AM	2.5	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	8/20/2002 4:25:00 PM	3	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	11/5/2002 4:10:00 PM	3.8	0.49 J	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	3/4/2003 3:45:00 PM	3.4	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	5/28/2003 1:15:00 PM	2.9	0.5 ND	0.5 ND	0.5 ND	0.1 ND

Table 3 - BTEX and TPH Analytical Results

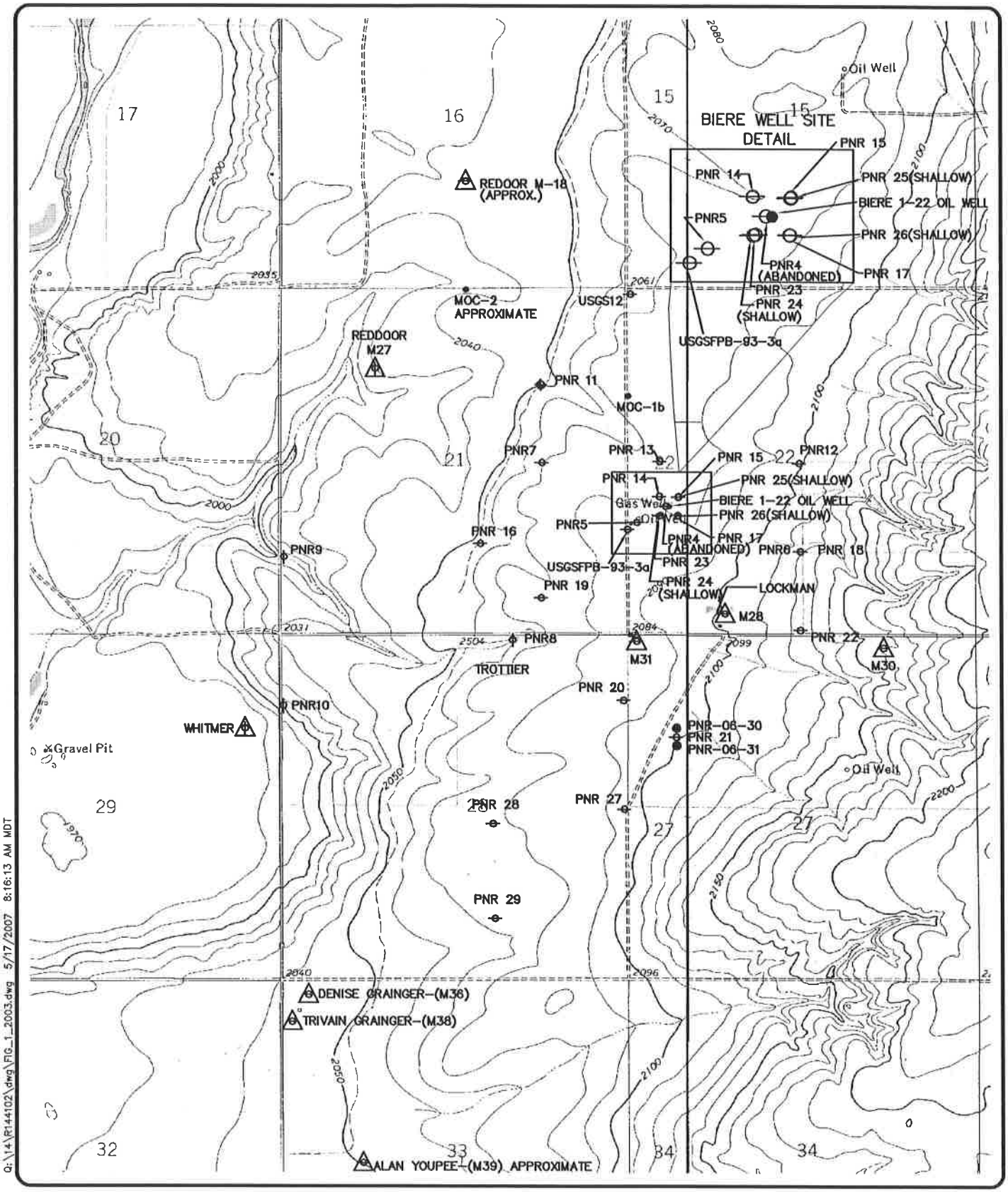
Pioneer Natural Resources, USA, Inc.
Biere 1-22 Investigation
HKM Job No.: 14R122.104

Well Name	Sample Collection Date and Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	TPH (mg/L)
USGS 93-3	8/14/2003 2:08:00 PM	2.6	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	11/4/2003 4:45:00 PM	2.4	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	6/8/2004 7:05:00 PM	3.1	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	9/14/2004 4:25:00 PM	2.1	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	11/17/2004 12:15:00 PM	2.3	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	3/2/2005 11:05:00 AM	2	0.5 ND	0.5 ND	0.5 ND	1.1
USGS 93-3	5/25/2005 3:52:00 PM	2.1	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	8/17/2005 12:55:00 PM	1.9	1.9	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	11/16/2005 4:40:00 PM	1.9	0.5 ND	1.9	0.5 ND	0.8
USGS 93-3	2/9/2006 3:20:00 PM	1.4	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	5/24/2006 6:20:00 PM	1.6	0.48 J	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	8/23/2006 2:50:00 PM	1.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	12/7/2006 12:05:00 PM	1.7	0.5 ND	0.5 ND	0.5 ND	0.1 ND
USGS 93-3	3/15/2007 1:30:00 PM	1.9	0.5 ND	0.5 ND	0.5 ND	0.1 ND H
Whitmer	5/31/2000 12:00:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	
Whitmer	8/10/2001 10:00:00 AM	0.5 ND	0.5 ND	0.5 ND	1 ND	0.1 ND
Whitmer	8/22/2001 3:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	11/9/2001 10:20:00 AM	0.5 ND	0.5 ND	0.5 ND	1 ND	
Whitmer	2/22/2002 2:45:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	5/22/2002 4:35:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	8/21/2002 9:35:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	11/5/2002 2:20:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	3/4/2003 2:10:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	5/13/2003 5:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	8/14/2003 12:10:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	11/4/2003 4:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	3/18/2004 1:05:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	6/9/2004 8:45:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	9/16/2004 11:20:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	11/18/2004 4:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	3/2/2005 4:44:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	5/26/2005 10:20:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	8/16/2005 3:00:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	11/17/2005 10:25:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	2/9/2006 11:15:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	5/25/2006 11:21:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	8/24/2006 11:45:00 AM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	12/7/2006 1:30:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND
Whitmer	3/14/2007 4:55:00 PM	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.1 ND H

Notes:
ND = Analyte not detected, number shown is reporting limit.
D = Reporting limit increased due to sample matrix interference.
H = Analysis performed past recommended holding time.
J = Estimated value. Present but less than the limit of quantitation.
T = This target analyte was found in the associated trip blank as well as the sample.
BTEX = Benzene, Toluene, Ethylbenzene, Xylene
TPH = Total Petroleum Hydrocarbons

APPENDIX A

WELL LOCATION MAP



Q:\14\R144102\dwg\FIG_1_2003.dwg 5/17/2007 8:16:13 AM MDT

WELL LOCATION MAP
POPLAR, MONTANA
PIONEER NATURAL RESOURCES USA INC.

FIGURE #1

HKM ENGINEERING

14R144.102	MAY 2007

APPENDIX B

LABORATORY ANALYTICAL REPORTS

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ANALYTICAL SUMMARY REPORT

April 18, 2007

Charlie Peterson
HKM Engineering Inc
PO Box 31318
Billings, MT 59107-1318

Workorder No.: B07031298

Project Name: Pioneer Natural Resources-Poplar Biere Well Site

Energy Laboratories Inc received the following 51 samples from HKM Engineering Inc on 3/16/2007 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B07031298-001	PNR-35-07	03/13/07 11:15	03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-002	PNR-16	03/13/07 12:45	03/16/07	Aqueous	Same As Above
B07031298-003	MOC-20A	03/13/07 13:40	03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-004	MOC-20B	03/13/07 15:00	03/16/07	Aqueous	Same As Above

B07031298-005	MOC-4	03/13/07 16:00 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-006	MOC-2	03/13/07 17:00 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-007	PNR-28	03/13/07 18:00 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-008	PNR-6	03/14/07 10:15 03/16/07	Aqueous	Same As Above
B07031298-009	PNR-18	03/14/07 11:10 03/16/07	Aqueous	Same As Above

B07031298-010	PNR-12	03/14/07 12:15 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-011	PNR-33-06	03/13/07 13:45 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-012	PNR-22	03/13/07 15:25 03/16/07	Aqueous	Same As Above
B07031298-013	PNR-29	03/13/07 17:50 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-014	PNR-13	03/14/07 16:20 03/16/07	Aqueous	Same As Above

B07031298-015	PNR-14	03/14/07 10:45 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-016	PNR-15	03/14/07 11:40 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-017	PNR-5	03/14/07 14:14 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-018	PNR-23	03/14/07 15:00 03/16/07	Aqueous	Same As Above
B07031298-019	PNR-19	03/14/07 15:00 03/16/07	Aqueous	Same As Above
B07031298-020	PNR-24	03/14/07 15:40 03/16/07	Aqueous	Same As Above
B07031298-021	PNR-25	03/15/07 10:53 03/16/07	Aqueous	Same As Above

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B07031298-022	PNR-17	03/15/07 11:49	03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-023	Trip Blank, Cooler #1, Lot # 030907, TS		03/16/07	Aqueous	Purgeable Aromatics
B07031298-024	Trip Blank, Cooler #2, Lot # 030907, TS		03/16/07	Aqueous	Same As Above
B07031298-025	Trip Blank, Cooler #3, Lot # 030907, TS		03/16/07	Aqueous	Same As Above
B07031298-026	Trip Blank, Cooler #4, Lot # 030907, TS		03/16/07	Aqueous	Same As Above
B07031298-027	Trip Blank, Cooler #5, Lot # 030907, TS		03/16/07	Aqueous	Same As Above
B07031298-028	Trip Blank, Cooler #6, Lot # 030907, TS		03/16/07	Aqueous	Same As Above
B07031298-029	Trip Blank, Cooler #7, Lot # 030907, TS		03/16/07	Aqueous	Same As Above
B07031298-030	PNR-36-07	03/13/07 11:40	03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-031	USGS-92-12	03/13/07 12:55	03/16/07	Aqueous	Same As Above
B07031298-032	PNR-10	03/13/07 15:20	03/16/07	Aqueous	Same As Above

B07031298-033	PNR-9	03/13/07 16:35 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-034	LAW-M03	03/13/07 17:40 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-035	PNR-8	03/14/07 13:25 03/16/07	Aqueous	Same As Above
B07031298-036	MOC-3	03/14/07 11:50 03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-037	MOC-18	03/14/07 12:55 03/16/07	Aqueous	Same As Above
B07031298-038	PNR-20	03/15/07 10:18 03/16/07	Aqueous	Same As Above
B07031298-039	PNR-21	03/15/07 11:15 03/16/07	Aqueous	Same As Above
B07031298-040	PNR-7	03/15/07 12:15 03/16/07	Aqueous	Same As Above
B07031298-041	PNR-27	03/14/07 16:50 03/16/07	Aqueous	Same As Above

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B07031298-042	PNR-34-07	03/14/07 13:15	03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-043	Whitmer	03/14/07 16:55	03/16/07	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Anions by ion chromatography Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Infrared Hardness as CaCO3 Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B07031298-044	M-27	03/14/07 17:30	03/16/07	Aqueous	Same As Above
B07031298-045	M-28	03/15/07 10:15	03/16/07	Aqueous	Same As Above
B07031298-046	M-31	03/15/07 11:30	03/16/07	Aqueous	Same As Above
B07031298-047	USGS-93-3	03/15/07 13:30	03/16/07	Aqueous	Same As Above
B07031298-048	Trip Blank, Cooler #8, Lot# 030907, TS		03/16/07	Aqueous	Purgeable Aromatics
B07031298-049	Trip Blank, Cooler #9, Lot# 030907, TS		03/16/07	Aqueous	Same As Above
B07031298-050	Trip Blank, Cooler #10, HKM		03/16/07	Aqueous	Same As Above
B07031298-051	Trip Blank, Cooler #2, HKM		03/16/07	Aqueous	Same As Above

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except if noted in report comments or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-001
Client Sample ID PNR-35-07

Report Date: 04/17/07
Collection Date: 03/13/07 11:15
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	03/16/07 15:18 / kns
Conductivity	4000	umhos/cm		1		A2510 B	03/16/07 15:22 / kns
Solids, Total Dissolved TDS @ 180 C	3220	mg/L		10		A2540 C	03/16/07 16:51 / qed
INORGANICS							
Alkalinity, Total as CaCO3	679	mg/L		4		A2320B	03/16/07 19:40 / jak
Bicarbonate as HCO3	828	mg/L		4		A2320B	03/16/07 19:40 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 19:40 / jak
Chloride	84	mg/L		1		E300.0	03/20/07 19:01 / qed
Sulfate	1560	mg/L		1		E300.0	03/20/07 19:01 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	0.9	mg/L		0.1		E350.1	04/09/07 10:36 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 09:41 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/19/07 20:17 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/19/07 20:17 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/19/07 20:17 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/19/07 20:17 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/19/07 20:17 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/19/07 20:17 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/19/07 20:17 / bjm
Surr: Trifluorotoluene	89.0	%REC			80-120	SW8021B	03/19/07 20:17 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 06:50 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-002
Client Sample ID PNR-16

Report Date: 04/17/07
Collection Date: 03/13/07 12:45
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	03/16/07 15:18 / kns
Conductivity	5250	umhos/cm		1		A2510 B	03/16/07 15:24 / kns
Solids, Total Dissolved TDS @ 180 C	5050	mg/L		10		A2540 C	03/16/07 16:53 / qed
INORGANICS							
Alkalinity, Total as CaCO3	460	mg/L		4		A2320B	03/16/07 19:47 / jak
Bicarbonate as HCO3	561	mg/L		4		A2320B	03/16/07 19:47 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 19:47 / jak
Chloride	20	mg/L		1		E300.0	03/20/07 19:36 / qed
Sulfate	3120	mg/L		1		E300.0	03/20/07 19:36 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.1		E350.1	04/09/07 10:37 / bls
Nitrogen, Nitrate+Nitrite as N	21.0	mg/L		0.05		E353.2	04/06/07 09:43 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/19/07 20:52 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/19/07 20:52 / bjm
Toluene	0.44	ug/L	J	0.50		SW8021B	03/19/07 20:52 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/19/07 20:52 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/19/07 20:52 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/19/07 20:52 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/19/07 20:52 / bjm
Surr: Trifluorotoluene	97.0	%REC			80-120	SW8021B	03/19/07 20:52 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 07:10 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-003
Client Sample ID MOC-20A

Report Date: 04/17/07
Collection Date: 03/13/07 13:40
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	03/16/07 15:18 / kns
Conductivity	5780	umhos/cm		1		A2510 B	03/16/07 15:26 / kns
Solids, Total Dissolved TDS @ 180 C	5480	mg/L		10		A2540 C	03/16/07 16:58 / qed
INORGANICS							
Alkalinity, Total as CaCO3	343	mg/L		4		A2320B	03/16/07 19:55 / jak
Bicarbonate as HCO3	419	mg/L		4		A2320B	03/16/07 19:55 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 19:55 / jak
Chloride	128	mg/L		1		E300.0	03/22/07 13:02 / qed
Sulfate	3220	mg/L		1		E300.0	03/22/07 13:02 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	0.9	mg/L		0.1		E350.1	04/09/07 10:38 / bls
Nitrogen, Nitrate+Nitrite as N	41.7	mg/L	D	0.2		E353.2	04/06/07 09:44 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/19/07 21:27 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/19/07 21:27 / bjm
Toluene	0.67	ug/L		0.50		SW8021B	03/19/07 21:27 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/19/07 21:27 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/19/07 21:27 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/19/07 21:27 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/19/07 21:27 / bjm
Surr: Trifluorotoluene	99.0	%REC			80-120	SW8021B	03/19/07 21:27 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 07:20 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-004
Client Sample ID MOC-20B

Report Date: 04/17/07
Collection Date: 03/13/07 15:00
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.1	s.u.		0.1		A4500 H	03/16/07 15:18 / kns
Conductivity	4460	umhos/cm		1		A2510 B	03/16/07 15:27 / kns
Solids, Total Dissolved TDS @ 180 C	3790	mg/L		10		A2540 C	03/16/07 17:00 / qed
INORGANICS							
Alkalinity, Total as CaCO3	400	mg/L		4		A2320B	03/16/07 20:02 / jak
Bicarbonate as HCO3	488	mg/L		4		A2320B	03/16/07 20:02 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 20:02 / jak
Chloride	163	mg/L		1		E300.0	03/22/07 13:14 / qed
Sulfate	2020	mg/L		1		E300.0	03/22/07 13:14 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	1.3	mg/L		0.1		E350.1	04/09/07 10:39 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 09:45 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/19/07 22:36 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/19/07 22:36 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/19/07 22:36 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/19/07 22:36 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/19/07 22:36 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/19/07 22:36 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/19/07 22:36 / bjm
Surr: Trifluorotoluene	97.0	%REC			80-120	SW8021B	03/19/07 22:36 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 07:30 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-005
Client Sample ID MOC-4

Report Date: 04/17/07
Collection Date: 03/13/07 16:00
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	03/16/07 15:19 / kns
Conductivity	9370	umhos/cm		1		A2510 B	03/16/07 15:28 / kns
Solids, Total Dissolved TDS @ 180 C	5560	mg/L		10		A2540 C	03/16/07 17:02 / qed
INORGANICS							
Alkalinity, Total as CaCO3	330	mg/L		4		A2320B	03/16/07 20:42 / jak
Bicarbonate as HCO3	402	mg/L		4		A2320B	03/16/07 20:42 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 20:42 / jak
Chloride	2640	mg/L	D	2		E300.0	03/19/07 13:37 / qed
Sulfate	726	mg/L	D	2		E300.0	03/19/07 13:37 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	1.3	mg/L		0.1		E350.1	04/09/07 10:40 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 09:46 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/19/07 23:10 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
Surr: Trifluorotoluene	97.0	%REC			80-120	SW8021B	03/19/07 23:10 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 07:40 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-006
Client Sample ID MOC-2

Report Date: 04/17/07
Collection Date: 03/13/07 17:00
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500 H	03/16/07 15:19 / kns
Conductivity	20600	umhos/cm		1		A2510 B	03/16/07 15:28 / kns
Solids, Total Dissolved TDS @ 180 C	13800	mg/L		10		A2540 C	03/16/07 17:04 / qed
INORGANICS							
Alkalinity, Total as CaCO3	321	mg/L		4		A2320B	03/16/07 20:49 / jak
Bicarbonate as HCO3	391	mg/L		4		A2320B	03/16/07 20:49 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 20:49 / jak
Chloride	7050	mg/L	D	2		E300.0	03/20/07 19:48 / qed
Sulfate	1730	mg/L		1		E300.0	03/19/07 13:48 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	3.6	mg/L		0.1		E350.1	04/09/07 10:42 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 09:47 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/19/07 23:45 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/19/07 23:45 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/19/07 23:45 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/19/07 23:45 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/19/07 23:45 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/19/07 23:45 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/19/07 23:45 / bjm
Surr: Trifluorotoluene	94.0	%REC			80-120	SW8021B	03/19/07 23:45 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 08:00 / bdw

Report Definitions:
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QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-007
Client Sample ID PNR-28

Report Date: 04/17/07
Collection Date: 03/13/07 18:00
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.7	s.u.		0.1		A4500 H	03/16/07 15:19 / kns
Conductivity	49300	umhos/cm		1		A2510 B	03/16/07 15:29 / kns
Solids, Total Dissolved TDS @ 180 C	33300	mg/L		10		A2540 C	03/16/07 17:05 / qed
INORGANICS							
Alkalinity, Total as CaCO3	523	mg/L		4		A2320B	03/16/07 20:57 / jak
Bicarbonate as HCO3	638	mg/L		4		A2320B	03/16/07 20:57 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 20:57 / jak
Chloride	18400	mg/L	D	10		E300.0	03/19/07 14:00 / qed
Sulfate	1370	mg/L	D	9		E300.0	03/19/07 14:00 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.1		E350.1	04/09/07 10:43 / bls
Nitrogen, Nitrate+Nitrite as N	21.6	mg/L		0.05		E353.2	04/06/07 09:49 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/19/07 23:10 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/19/07 23:10 / bjm
Surr: Trifluorotoluene	108	%REC			80-120	SW8021B	03/19/07 23:10 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 08:10 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-008
Client Sample ID PNR-6

Report Date: 04/17/07
Collection Date: 03/14/07 10:15
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.5	s.u.		0.1		A4500 H	03/16/07 15:19 / kns
Conductivity	1440	umhos/cm		1		A2510 B	03/16/07 15:31 / kns
Solids, Total Dissolved TDS @ 180 C	919	mg/L		10		A2540 C	03/16/07 17:27 / qed
INORGANICS							
Alkalinity, Total as CaCO3	503	mg/L		4		A2320B	03/16/07 21:05 / jak
Bicarbonate as HCO3	613	mg/L		4		A2320B	03/16/07 21:05 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 21:05 / jak
Chloride	14	mg/L		1		E300.0	03/19/07 14:12 / qed
Sulfate	262	mg/L		1		E300.0	03/19/07 14:12 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	0.4	mg/L		0.1		E350.1	04/09/07 10:32 / bls
Nitrogen, Nitrate+Nitrite as N	0.17	mg/L		0.05		E353.2	04/06/07 09:37 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/19/07 23:46 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/19/07 23:46 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/19/07 23:46 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/19/07 23:46 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/19/07 23:46 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/19/07 23:46 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/19/07 23:46 / bjm
Surr: Trifluorotoluene	108	%REC			80-120	SW8021B	03/19/07 23:46 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 08:20 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-009
Client Sample ID PNR-18

Report Date: 04/17/07
Collection Date: 03/14/07 11:10
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	03/16/07 15:19 / kns
Conductivity	4080	umhos/cm		1		A2510 B	03/16/07 15:32 / kns
Solids, Total Dissolved TDS @ 180 C	3480	mg/L		10		A2540 C	03/16/07 17:31 / qed
INORGANICS							
Alkalinity, Total as CaCO3	719	mg/L		4		A2320B	03/16/07 21:12 / jak
Bicarbonate as HCO3	877	mg/L		4		A2320B	03/16/07 21:12 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 21:12 / jak
Chloride	86	mg/L		1		E300.0	03/20/07 19:59 / qed
Sulfate	1720	mg/L		1		E300.0	03/20/07 19:59 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	3.2	mg/L		0.1		E350.1	04/09/07 10:44 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 09:50 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/20/07 00:23 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/20/07 00:23 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/20/07 00:23 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/20/07 00:23 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/20/07 00:23 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/20/07 00:23 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/20/07 00:23 / bjm
Surr: Trifluorotoluene	109	%REC			80-120	SW8021B	03/20/07 00:23 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 08:30 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-010
Client Sample ID PNR-12

Report Date: 04/17/07
Collection Date: 03/14/07 12:15
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	03/16/07 15:19 / kns
Conductivity	5230	umhos/cm		1		A2510 B	03/16/07 15:33 / kns
Solids, Total Dissolved TDS @ 180 C	4710	mg/L		10		A2540 C	03/16/07 17:33 / qed
INORGANICS							
Alkalinity, Total as CaCO3	615	mg/L		4		A2320B	03/16/07 21:21 / jak
Bicarbonate as HCO3	751	mg/L		4		A2320B	03/16/07 21:21 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 21:21 / jak
Chloride	71	mg/L		1		E300.0	03/20/07 20:11 / qed
Sulfate	1970	mg/L		1		E300.0	03/19/07 14:58 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.1		E350.1	04/09/07 10:45 / bls
Nitrogen, Nitrate+Nitrite as N	202	mg/L	D	0.2		E353.2	04/06/07 10:41 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/20/07 16:09 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/20/07 16:09 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/20/07 16:09 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/20/07 16:09 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/20/07 16:09 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/20/07 16:09 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/20/07 16:09 / bjm
Surr: Trifluorotoluene	110	%REC			80-120	SW8021B	03/20/07 16:09 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 08:40 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-011
Client Sample ID PNR-33-06

Report Date: 04/17/07
Collection Date: 03/13/07 13:45
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	03/16/07 15:19 / kns
Conductivity	4570	umhos/cm		1		A2510 B	03/16/07 15:33 / kns
Solids, Total Dissolved TDS @ 180 C	4170	mg/L		10		A2540 C	03/16/07 17:35 / qed
INORGANICS							
Alkalinity, Total as CaCO3	411	mg/L		4		A2320B	03/16/07 21:28 / jak
Bicarbonate as HCO3	502	mg/L		4		A2320B	03/16/07 21:28 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 21:28 / jak
Chloride	73	mg/L		1		E300.0	03/20/07 20:23 / qed
Sulfate	2390	mg/L		1		E300.0	03/20/07 20:23 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	0.2	mg/L		0.1		E350.1	04/09/07 10:52 / bls
Nitrogen, Nitrate+Nitrite as N	45.4	mg/L		0.05		E353.2	04/06/07 10:42 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/20/07 16:46 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/20/07 16:46 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/20/07 16:46 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/20/07 16:46 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/20/07 16:46 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/20/07 16:46 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/20/07 16:46 / bjm
Surr: Trifluorotoluene	110	%REC			80-120	SW8021B	03/20/07 16:46 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 09:00 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-012
Client Sample ID PNR-22

Report Date: 04/17/07
Collection Date: 03/13/07 15:25
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.1	s.u.		0.1		A4500 H	03/16/07 15:20 / kns
Conductivity	5740	umhos/cm		1		A2510 B	03/16/07 15:35 / kns
Solids, Total Dissolved TDS @ 180 C	3800	mg/L		10		A2540 C	03/16/07 17:36 / qed
INORGANICS							
Alkalinity, Total as CaCO3	707	mg/L		4		A2320B	03/16/07 21:36 / jak
Bicarbonate as HCO3	862	mg/L		4		A2320B	03/16/07 21:36 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 21:36 / jak
Chloride	1010	mg/L		1		E300.0	03/19/07 15:45 / qed
Sulfate	875	mg/L		1		E300.0	03/19/07 15:45 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	6.4	mg/L		0.1		E350.1	04/09/07 10:49 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 10:44 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/20/07 17:23 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/20/07 17:23 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/20/07 17:23 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/20/07 17:23 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/20/07 17:23 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/20/07 17:23 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/20/07 17:23 / bjm
Surr: Trifluorotoluene	108	%REC			80-120	SW8021B	03/20/07 17:23 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 09:10 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-013
Client Sample ID PNR-29

Report Date: 04/17/07
Collection Date: 03/13/07 17:50
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.1	s.u.		0.1		A4500 H	03/16/07 15:20 / kns
Conductivity	5540	umhos/cm		1		A2510 B	03/16/07 15:35 / kns
Solids, Total Dissolved TDS @ 180 C	4740	mg/L		10		A2540 C	03/16/07 17:37 / qed
INORGANICS							
Alkalinity, Total as CaCO3	664	mg/L		4		A2320B	03/16/07 21:44 / jak
Bicarbonate as HCO3	811	mg/L		4		A2320B	03/16/07 21:44 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 21:44 / jak
Chloride	106	mg/L		1		E300.0	03/20/07 20:34 / qed
Sulfate	1880	mg/L		1		E300.0	03/19/07 15:56 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.1		E350.1	04/09/07 10:53 / bls
Nitrogen, Nitrate+Nitrite as N	235	mg/L	D	0.2		E353.2	04/06/07 10:45 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/20/07 18:37 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/20/07 18:37 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/20/07 18:37 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/20/07 18:37 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/20/07 18:37 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/20/07 18:37 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/20/07 18:37 / bjm
Surr: Trifluorotoluene	106	%REC			80-120	SW8021B	03/20/07 18:37 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 09:20 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-014
Client Sample ID PNR-13

Report Date: 04/17/07
Collection Date: 03/14/07 16:20
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	03/16/07 15:20 / kns
Conductivity	4820	umhos/cm		1		A2510 B	03/16/07 15:36 / kns
Solids, Total Dissolved TDS @ 180 C	3790	mg/L		10		A2540 C	03/16/07 17:39 / qed
INORGANICS							
Alkalinity, Total as CaCO3	504	mg/L		4		A2320B	03/16/07 21:52 / jak
Bicarbonate as HCO3	615	mg/L		4		A2320B	03/16/07 21:52 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 21:52 / jak
Chloride	407	mg/L		1		E300.0	03/22/07 14:24 / qed
Sulfate	1670	mg/L		1		E300.0	03/22/07 14:24 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	1.5	mg/L		0.1		E350.1	04/09/07 10:55 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 10:38 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/20/07 19:14 / bjm
Benzene	0.81	ug/L		0.50		SW8021B	03/20/07 19:14 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/20/07 19:14 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/20/07 19:14 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/20/07 19:14 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/20/07 19:14 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/20/07 19:14 / bjm
Surr: Trifluorotoluene	108	%REC			80-120	SW8021B	03/20/07 19:14 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 09:30 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-017
Client Sample ID PNR-5

Report Date: 04/17/07
Collection Date: 03/14/07 14:14
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500 H	03/16/07 15:20 / kns
Conductivity	79800	umhos/cm		1		A2510 B	03/16/07 15:38 / kns
Solids, Total Dissolved TDS @ 180 C	50800	mg/L		10		A2540 C	03/16/07 17:44 / qed
INORGANICS							
Alkalinity, Total as CaCO3	416	mg/L		4		A2320B	03/16/07 22:53 / jak
Bicarbonate as HCO3	507	mg/L		4		A2320B	03/16/07 22:53 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 22:53 / jak
Chloride	32800	mg/L	D	10		E300.0	03/19/07 16:43 / qed
Sulfate	892	mg/L	D	9		E300.0	03/19/07 16:43 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	13.0	mg/L		0.1		E350.1	04/09/07 10:58 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 10:48 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/20/07 21:42 / bjm
Benzene	0.75	ug/L		0.50		SW8021B	03/20/07 21:42 / bjm
Toluene	1.2	ug/L		0.50		SW8021B	03/20/07 21:42 / bjm
Ethylbenzene	85	ug/L		0.50		SW8021B	03/20/07 21:42 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/20/07 21:42 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/20/07 21:42 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/20/07 21:42 / bjm
Surr: Trifluorotoluene	101	%REC			80-120	SW8021B	03/20/07 21:42 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 10:10 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-018
Client Sample ID PNR-23

Report Date: 04/17/07
Collection Date: 03/14/07 15:00
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.6	s.u.		0.1		A4500 H	03/16/07 15:21 / kns
Conductivity	73400	umhos/cm		1		A2510 B	03/16/07 15:39 / kns
Solids, Total Dissolved TDS @ 180 C	46500	mg/L		10		A2540 C	03/16/07 17:46 / qed
INORGANICS							
Alkalinity, Total as CaCO3	397	mg/L		4		A2320B	03/16/07 23:00 / jak
Bicarbonate as HCO3	485	mg/L		4		A2320B	03/16/07 23:00 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 23:00 / jak
Chloride	28300	mg/L	D	10		E300.0	03/19/07 16:54 / qed
Sulfate	889	mg/L	D	9		E300.0	03/19/07 16:54 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	13.9	mg/L		0.1		E350.1	04/09/07 10:59 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 10:50 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/20/07 22:19 / bjm
Benzene	74	ug/L		0.50		SW8021B	03/20/07 22:19 / bjm
Toluene	1.5	ug/L		0.50		SW8021B	03/20/07 22:19 / bjm
Ethylbenzene	4.5	ug/L		0.50		SW8021B	03/20/07 22:19 / bjm
m+p-Xylenes	1.7	ug/L		0.50		SW8021B	03/20/07 22:19 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/20/07 22:19 / bjm
Xylenes, Total	1.7	ug/L		0.50		SW8021B	03/20/07 22:19 / bjm
Surr: Trifluorotoluene	103	%REC			80-120	SW8021B	03/20/07 22:19 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 10:20 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-019
Client Sample ID PNR-19

Report Date: 04/17/07
Collection Date: 03/14/07 15:00
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.0	s.u.		0.1		A4500 H	03/16/07 15:21 / kns
Conductivity	30000	umhos/cm		1		A2510 B	03/16/07 15:40 / kns
Solids, Total Dissolved TDS @ 180 C	20000	mg/L		10		A2540 C	03/16/07 17:57 / qed
INORGANICS							
Alkalinity, Total as CaCO3	331	mg/L		4		A2320B	03/16/07 23:07 / jak
Bicarbonate as HCO3	404	mg/L		4		A2320B	03/16/07 23:07 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 23:07 / jak
Chloride	10400	mg/L	D	10		E300.0	03/19/07 17:29 / qed
Sulfate	1040	mg/L	D	9		E300.0	03/19/07 17:29 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.1		E350.1	04/09/07 11:01 / bls
Nitrogen, Nitrate+Nitrite as N	20.7	mg/L		0.05		E353.2	04/06/07 10:51 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/20/07 21:22 / bjm
Benzene	12	ug/L		0.50		SW8021B	03/20/07 21:22 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/20/07 21:22 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/20/07 21:22 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/20/07 21:22 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/20/07 21:22 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/20/07 21:22 / bjm
Surr: Trifluorotoluene	90.0	%REC			80-120	SW8021B	03/20/07 21:22 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		0.10		E418.1	03/23/07 10:40 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-020
Client Sample ID PNR-24

Report Date: 04/17/07
Collection Date: 03/14/07 15:40
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.8	s.u.		0.1		A4500 H	03/16/07 15:21 / kns
Conductivity	17100	umhos/cm		1		A2510 B	03/16/07 16:15 / kns
Solids, Total Dissolved TDS @ 180 C	9920	mg/L		10		A2540 C	03/16/07 18:00 / qed
INORGANICS							
Alkalinity, Total as CaCO3	1550	mg/L		4		A2320 B	03/22/07 18:14 / jak
Bicarbonate as HCO3	1880	mg/L		4		A2320 B	03/22/07 18:14 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/22/07 18:14 / jak
Chloride	5110	mg/L	D	2		E300.0	03/20/07 21:09 / qed
Sulfate	62	mg/L	D	2		E300.0	03/20/07 21:09 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	2.0	mg/L		0.1		E350.1	04/09/07 11:02 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 10:58 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	D	ug/L		2.0		SW8021B	03/20/07 22:31 / bjm
Benzene	1.8	ug/L		0.50		SW8021B	03/20/07 22:31 / bjm
Toluene	26	ug/L		0.50		SW8021B	03/20/07 22:31 / bjm
Ethylbenzene	46	ug/L		0.50		SW8021B	03/20/07 22:31 / bjm
m+p-Xylenes	51	ug/L		0.50		SW8021B	03/20/07 22:31 / bjm
o-Xylene	22	ug/L		0.50		SW8021B	03/20/07 22:31 / bjm
Xylenes, Total	74	ug/L		0.50		SW8021B	03/20/07 22:31 / bjm
Surr: Trifluorotoluene	89.0	%REC			80-120	SW8021B	03/20/07 22:31 / bjm
- The sample was received in the laboratory with a pH > 2. The pH was 7.							
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	3.0	mg/L		0.10		E418.1	03/23/07 11:00 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-021
Client Sample ID PNR-25

Report Date: 04/17/07
Collection Date: 03/15/07 10:53
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.7	s.u.		0.1		A4500 H	03/16/07 15:22 / kns
Conductivity	7070	umhos/cm		1		A2510 B	03/16/07 16:17 / kns
Solids, Total Dissolved TDS @ 180 C	3820	mg/L		10		A2540 C	03/16/07 18:02 / qed
INORGANICS							
Alkalinity, Total as CaCO3	513	mg/L		4		A2320B	03/16/07 23:44 / jak
Bicarbonate as HCO3	626	mg/L		4		A2320B	03/16/07 23:44 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 23:44 / jak
Chloride	2090	mg/L		1		E300.0	03/20/07 21:21 / qed
Sulfate	26	mg/L		1		E300.0	03/20/07 21:21 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	1.4	mg/L		0.1		E350.1	04/09/07 11:09 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 10:59 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L	D	40		SW8021B	03/23/07 16:51 / bjm
Benzene	11	ug/L		5.0		SW8021B	03/23/07 16:51 / bjm
Toluene	125	ug/L		5.0		SW8021B	03/23/07 16:51 / bjm
Ethylbenzene	269	ug/L		5.0		SW8021B	03/23/07 16:51 / bjm
m+p-Xylenes	566	ug/L		5.0		SW8021B	03/23/07 16:51 / bjm
o-Xylene	141	ug/L		5.0		SW8021B	03/23/07 16:51 / bjm
Xylenes, Total	707	ug/L		5.0		SW8021B	03/23/07 16:51 / bjm
Surr: Trifluorotoluene	106	%REC			80-120	SW8021B	03/23/07 16:51 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	300	mg/L		0.10		E418.1	03/23/07 11:20 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-022
Client Sample ID PNR-17

Report Date: 04/17/07
Collection Date: 03/15/07 11:49
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	8.1	s.u.		0.1		A4500 H	03/16/07 15:22 / kns
Conductivity	15500	umhos/cm		1		A2510 B	03/16/07 16:19 / kns
Solids, Total Dissolved TDS @ 180 C	9400	mg/L		10		A2540 C	03/16/07 18:03 / qed
INORGANICS							
Alkalinity, Total as CaCO3	936	mg/L		4		A2320B	03/16/07 23:53 / jak
Bicarbonate as HCO3	1140	mg/L		4		A2320B	03/16/07 23:53 / jak
Carbonate as CO3	ND	mg/L		4		A2320B	03/16/07 23:53 / jak
Chloride	4250	mg/L	D	5		E300.0	03/22/07 14:47 / qed
Sulfate	1430	mg/L	D	5		E300.0	03/22/07 14:47 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	2.2	mg/L		0.1		E350.1	04/09/07 11:10 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 11:00 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L	D	10		SW8021B	03/24/07 14:42 / bjm
Benzene	ND	ug/L		1.0		SW8021B	03/24/07 14:42 / bjm
Toluene	3.3	ug/L		1.0		SW8021B	03/24/07 14:42 / bjm
Ethylbenzene	17	ug/L		1.0		SW8021B	03/24/07 14:42 / bjm
m+p-Xylenes	36	ug/L		1.0		SW8021B	03/24/07 14:42 / bjm
o-Xylene	8.5	ug/L		1.0		SW8021B	03/24/07 14:42 / bjm
Xylenes, Total	45	ug/L		1.0		SW8021B	03/24/07 14:42 / bjm
Surr: Trifluorotoluene	102	%REC			80-120	SW8021B	03/24/07 14:42 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	14	mg/L	H	0.10		E418.1	03/24/07 09:00 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-023
Client Sample ID Trip Blank, Cooler #1, Lot # 030907, TS

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 17:05 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 17:05 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 17:05 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 17:05 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 17:05 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 17:05 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 17:05 / bjm
Surr: Trifluorotoluene	99.0	%REC			80-120	SW8021B	03/21/07 17:05 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-024
Client Sample ID Trip Blank, Cooler #2, Lot # 030907, TS

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 16:45 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 16:45 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 16:45 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 16:45 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 16:45 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 16:45 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 16:45 / bjm
Surr: Trifluorotoluene	109	%REC			80-120	SW8021B	03/21/07 16:45 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-025
Client Sample ID Trip Blank, Cooler #3, Lot # 030907, TS

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 17:40 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 17:40 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 17:40 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 17:40 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 17:40 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 17:40 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 17:40 / bjm
Surr: Trifluorotoluene	83.0	%REC			80-120	SW8021B	03/21/07 17:40 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-026
Client Sample ID Trip Blank, Cooler #4, Lot # 030907, TS

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 16:08 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 16:08 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 16:08 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 16:08 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 16:08 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 16:08 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 16:08 / bjm
Surr: Trifluorotoluene	108	%REC			80-120	SW8021B	03/21/07 16:08 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-027
Client Sample ID Trip Blank, Cooler #5, Lot # 030907, TS

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 16:31 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 16:31 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 16:31 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 16:31 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 16:31 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 16:31 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 16:31 / bjm
Surr: Trifluorotoluene	94.0	%REC			80-120	SW8021B	03/21/07 16:31 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-028
Client Sample ID Trip Blank, Cooler #6, Lot # 030907, TS

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 17:22 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 17:22 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 17:22 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 17:22 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 17:22 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 17:22 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 17:22 / bjm
Surr: Trifluorotoluene	106	%REC			80-120	SW8021B	03/21/07 17:22 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-029
Client Sample ID Trip Blank, Cooler #7, Lot # 030907, TS

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/23/07 15:55 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/23/07 15:55 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/23/07 15:55 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/23/07 15:55 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/23/07 15:55 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/23/07 15:55 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/23/07 15:55 / bjm
Surr: Trifluorotoluene	106	%REC			80-120	SW8021B	03/23/07 15:55 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-030
Client Sample ID PNR-36-07

Report Date: 04/17/07
Collection Date: 03/13/07 11:40
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.1	s.u.		0.1		A4500 H	03/16/07 15:23 / kns
Conductivity	3510	umhos/cm		1		A2510 B	03/16/07 16:19 / kns
Solids, Total Dissolved TDS @ 180 C	2690	mg/L		10		A2540 C	03/16/07 18:04 / qed
INORGANICS							
Alkalinity, Total as CaCO3	417	mg/L		4		A2320 B	03/19/07 13:16 / jak
Bicarbonate as HCO3	509	mg/L		4		A2320 B	03/19/07 13:16 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 13:16 / jak
Chloride	183	mg/L		1		E300.0	03/19/07 18:39 / qed
Sulfate	877	mg/L		1		E300.0	03/19/07 18:39 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.1		E350.1	04/09/07 11:11 / bls
Nitrogen, Nitrate+Nitrite as N	77.7	mg/L	D	0.2		E353.2	04/06/07 11:02 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 19:13 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 19:13 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 19:13 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 19:13 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 19:13 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 19:13 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 19:13 / bjm
Surr: Trifluorotoluene	105	%REC			80-120	SW8021B	03/21/07 19:13 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 09:10 / bdw

Report Definitions:
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QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-031
Client Sample ID USGS-92-12

Report Date: 04/17/07
Collection Date: 03/13/07 12:55
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.8	s.u.		0.1		A4500 H	03/16/07 16:50 / kns
Conductivity	1990	umhos/cm		1		A2510 B	03/16/07 16:28 / kns
Solids, Total Dissolved TDS @ 180 C	1510	mg/L		10		A2540 C	03/16/07 18:06 / qed
INORGANICS							
Alkalinity, Total as CaCO3	353	mg/L		4		A2320 B	03/19/07 13:43 / jak
Bicarbonate as HCO3	430	mg/L		4		A2320 B	03/19/07 13:43 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 13:43 / jak
Chloride	3	mg/L		1		E300.0	03/22/07 15:33 / qed
Sulfate	772	mg/L		1		E300.0	03/22/07 15:33 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.1		E350.1	04/09/07 11:05 / bls
Nitrogen, Nitrate+Nitrite as N	9.15	mg/L		0.05		E353.2	04/06/07 12:01 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 19:49 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 19:49 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 19:49 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 19:49 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 19:49 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 19:49 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 19:49 / bjm
Surr: Trifluorotoluene	106	%REC			80-120	SW8021B	03/21/07 19:49 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 09:20 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-032
Client Sample ID PNR-10

Report Date: 04/17/07
Collection Date: 03/13/07 15:20
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.1	s.u.		0.1		A4500 H	03/16/07 15:23 / kns
Conductivity	5630	umhos/cm		1		A2510 B	03/16/07 16:22 / kns
Solids, Total Dissolved TDS @ 180 C	4050	mg/L		10		A2540 C	03/16/07 18:07 / qed
INORGANICS							
Alkalinity, Total as CaCO3	450	mg/L		4		A2320 B	03/19/07 13:51 / jak
Bicarbonate as HCO3	550	mg/L		4		A2320 B	03/19/07 13:51 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 13:51 / jak
Chloride	922	mg/L		1		E300.0	03/22/07 15:45 / qed
Sulfate	1390	mg/L		1		E300.0	03/22/07 15:45 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	1.9	mg/L		0.1		E350.1	04/09/07 11:13 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 11:04 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 23:30 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 23:30 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 23:30 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 23:30 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 23:30 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 23:30 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 23:30 / bjm
Surr: Trifluorotoluene	104	%REC			80-120	SW8021B	03/21/07 23:30 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 09:30 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-033
Client Sample ID PNR-9

Report Date: 04/17/07
Collection Date: 03/13/07 16:35
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.9	s.u.		0.1		A4500 H	03/16/07 15:24 / kns
Conductivity	15300	umhos/cm		1		A2510 B	03/16/07 16:23 / kns
Solids, Total Dissolved TDS @ 180 C	10700	mg/L		10		A2540 C	03/16/07 18:08 / qed
INORGANICS							
Alkalinity, Total as CaCO3	247	mg/L		4		A2320 B	03/19/07 13:58 / jak
Bicarbonate as HCO3	302	mg/L		4		A2320 B	03/19/07 13:58 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 13:58 / jak
Chloride	4570	mg/L	D	5		E300.0	03/19/07 19:14 / qed
Sulfate	699	mg/L	D	5		E300.0	03/19/07 19:14 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	2.5	mg/L		0.1		E350.1	04/09/07 11:14 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 11:05 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 21:40 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 21:40 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 21:40 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 21:40 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 21:40 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 21:40 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 21:40 / bjm
Surr: Trifluorotoluene	105	%REC			80-120	SW8021B	03/21/07 21:40 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 09:40 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-034
Client Sample ID LAW-M03

Report Date: 04/17/07
Collection Date: 03/13/07 17:40
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.1	s.u.		0.1		A4500 H	03/16/07 15:24 / kns
Conductivity	6400	umhos/cm		1		A2510 B	03/16/07 16:24 / kns
Solids, Total Dissolved TDS @ 180 C	4270	mg/L		10		A2540 C	03/16/07 18:08 / qed
INORGANICS							
Alkalinity, Total as CaCO3	429	mg/L		4		A2320 B	03/19/07 14:05 / jak
Bicarbonate as HCO3	524	mg/L		4		A2320 B	03/19/07 14:05 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 14:05 / jak
Chloride	1370	mg/L		1		E300.0	03/22/07 15:57 / qed
Sulfate	1100	mg/L		1		E300.0	03/22/07 15:57 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	2.0	mg/L		0.1		E350.1	04/09/07 11:15 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 11:06 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/20/07 21:57 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/20/07 21:57 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/20/07 21:57 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/20/07 21:57 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/20/07 21:57 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/20/07 21:57 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/20/07 21:57 / bjm
Surr: Trifluorotoluene	93.0	%REC			80-120	SW8021B	03/20/07 21:57 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 09:50 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-035
Client Sample ID PNR-8

Report Date: 04/17/07
Collection Date: 03/14/07 13:25
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.1	s.u.		0.1		A4500 H	03/16/07 15:24 / kns
Conductivity	8340	umhos/cm		1		A2510 B	03/16/07 16:24 / kns
Solids, Total Dissolved TDS @ 180 C	5430	mg/L		10		A2540 C	03/16/07 18:08 / qed
INORGANICS							
Alkalinity, Total as CaCO3	427	mg/L		4		A2320 B	03/19/07 14:13 / jak
Bicarbonate as HCO3	520	mg/L		4		A2320 B	03/19/07 14:13 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 14:13 / jak
Chloride	2210	mg/L	D	2		E300.0	03/22/07 16:32 / qed
Sulfate	1070	mg/L	D	2		E300.0	03/19/07 19:37 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	0.5	mg/L		0.1		E350.1	04/09/07 11:16 / bls
Nitrogen, Nitrate+Nitrite as N	0.20	mg/L		0.05		E353.2	04/06/07 11:08 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 22:16 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 22:16 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 22:16 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 22:16 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 22:16 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 22:16 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 22:16 / bjm
Surr: Trifluorotoluene	105	%REC			80-120	SW8021B	03/21/07 22:16 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 10:00 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-036
Client Sample ID MOC-3

Report Date: 04/17/07
Collection Date: 03/14/07 11:50
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.3	s.u.		0.1		A4500 H	03/16/07 15:24 / kns
Conductivity	4000	umhos/cm		1		A2510 B	03/16/07 16:25 / kns
Solids, Total Dissolved TDS @ 180 C	3500	mg/L		10		A2540 C	03/16/07 18:09 / qed
INORGANICS							
Alkalinity, Total as CaCO3	360	mg/L		4		A2320 B	03/19/07 14:20 / jak
Bicarbonate as HCO3	439	mg/L		4		A2320 B	03/19/07 14:20 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 14:20 / jak
Chloride	74	mg/L		1		E300.0	03/20/07 21:55 / qed
Sulfate	1890	mg/L		1		E300.0	03/20/07 21:55 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.1		E350.1	04/09/07 11:17 / bls
Nitrogen, Nitrate+Nitrite as N	13.4	mg/L		0.05		E353.2	04/06/07 10:54 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 00:07 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/22/07 00:07 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 00:07 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 00:07 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 00:07 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 00:07 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 00:07 / bjm
Surr: Trifluorotoluene	104	%REC			80-120	SW8021B	03/22/07 00:07 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 10:10 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-037
Client Sample ID MOC-18

Report Date: 04/17/07
Collection Date: 03/14/07 12:55
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	03/16/07 15:24 / kns
Conductivity	4500	umhos/cm		1		A2510 B	03/16/07 16:26 / kns
Solids, Total Dissolved TDS @ 180 C	4070	mg/L		10		A2540 C	03/16/07 18:15 / qed
INORGANICS							
Alkalinity, Total as CaCO3	433	mg/L		4		A2320 B	03/19/07 14:29 / jak
Bicarbonate as HCO3	528	mg/L		4		A2320 B	03/19/07 14:29 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 14:29 / jak
Chloride	75	mg/L		1		E300.0	03/20/07 22:07 / qed
Sulfate	2220	mg/L		1		E300.0	03/20/07 22:07 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.1		E350.1	04/09/07 11:18 / bls
Nitrogen, Nitrate+Nitrite as N	30.6	mg/L		0.05		E353.2	04/06/07 12:02 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 21:03 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/21/07 21:03 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 21:03 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 21:03 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 21:03 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 21:03 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 21:03 / bjm
Surr: Trifluorotoluene	105	%REC			80-120	SW8021B	03/21/07 21:03 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 10:30 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-038
Client Sample ID PNR-20

Report Date: 04/17/07
Collection Date: 03/15/07 10:18
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.7	s.u.		0.1		A4500 H	03/16/07 15:24 / kns
Conductivity	53800	umhos/cm		1		A2510 B	03/16/07 16:32 / kns
Solids, Total Dissolved TDS @ 180 C	35800	mg/L		10		A2540 C	03/16/07 18:16 / qed
INORGANICS							
Alkalinity, Total as CaCO3	439	mg/L		4		A2320 B	03/19/07 14:43 / jak
Bicarbonate as HCO3	536	mg/L		4		A2320 B	03/19/07 14:43 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 14:43 / jak
Chloride	20800	mg/L	D	10		E300.0	03/20/07 22:19 / qed
Sulfate	1390	mg/L	D	9		E300.0	03/20/07 22:19 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	0.2	mg/L		0.1		E350.1	04/09/07 11:27 / bls
Nitrogen, Nitrate+Nitrite as N	11.4	mg/L		0.05		E353.2	04/06/07 12:04 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 00:44 / bjm
Benzene	20	ug/L		0.50		SW8021B	03/22/07 00:44 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 00:44 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 00:44 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 00:44 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 00:44 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 00:44 / bjm
Surr: Trifluorotoluene	101	%REC			80-120	SW8021B	03/22/07 00:44 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 10:40 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-039
Client Sample ID PNR-21

Report Date: 04/17/07
Collection Date: 03/15/07 11:15
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.7	s.u.		0.1		A4500 H	03/16/07 15:24 / kns
Conductivity	63600	umhos/cm		1		A2510 B	03/16/07 16:33 / kns
Solids, Total Dissolved TDS @ 180 C	43100	mg/L		10		A2540 C	03/19/07 15:00 / qed
INORGANICS							
Alkalinity, Total as CaCO3	567	mg/L		4		A2320 B	03/19/07 14:50 / jak
Bicarbonate as HCO3	691	mg/L		4		A2320 B	03/19/07 14:50 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 14:50 / jak
Chloride	25200	mg/L	D	10		E300.0	03/20/07 22:30 / qed
Sulfate	1560	mg/L	D	9		E300.0	03/20/07 22:30 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	3.4	mg/L		0.1		E350.1	04/09/07 11:28 / bls
Nitrogen, Nitrate+Nitrite as N	16.9	mg/L		0.05		E353.2	04/06/07 12:05 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/21/07 18:36 / bjm
Benzene	25	ug/L		0.50		SW8021B	03/21/07 18:36 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/21/07 18:36 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/21/07 18:36 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/21/07 18:36 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/21/07 18:36 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/21/07 18:36 / bjm
Surr: Trifluorotoluene	102	%REC			80-120	SW8021B	03/21/07 18:36 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 10:50 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-040
Client Sample ID PNR-7

Report Date: 04/17/07
Collection Date: 03/15/07 12:15
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.5	s.u.		0.1		A4500 H	03/16/07 15:24 / kns
Conductivity	66300	umhos/cm		1		A2510 B	03/16/07 16:33 / kns
Solids, Total Dissolved TDS @ 180 C	45400	mg/L		10		A2540 C	03/16/07 18:17 / qed
INORGANICS							
Alkalinity, Total as CaCO3	371	mg/L		4		A2320 B	03/19/07 14:57 / jak
Bicarbonate as HCO3	452	mg/L		4		A2320 B	03/19/07 14:57 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 14:57 / jak
Chloride	27600	mg/L	D	10		E300.0	03/20/07 22:42 / qed
Sulfate	1350	mg/L	D	9		E300.0	03/20/07 22:42 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	0.5	mg/L		0.1		E350.1	04/09/07 11:29 / bls
Nitrogen, Nitrate+Nitrite as N	3.39	mg/L		0.05		E353.2	04/06/07 12:06 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 18:36 / bjm
Benzene	40	ug/L		0.50		SW8021B	03/22/07 18:36 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 18:36 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 18:36 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 18:36 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 18:36 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 18:36 / bjm
Surr: Trifluorotoluene	96.0	%REC			80-120	SW8021B	03/22/07 18:36 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 11:00 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-041
Client Sample ID PNR-27

Report Date: 04/17/07
Collection Date: 03/14/07 16:50
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.6	s.u.		0.1		A4500 H	03/16/07 17:35 / kns
Conductivity	40100	umhos/cm		1		A2510 B	03/16/07 16:35 / kns
Solids, Total Dissolved TDS @ 180 C	28700	mg/L		10		A2540 C	03/19/07 15:06 / qed
INORGANICS							
Alkalinity, Total as CaCO3	559	mg/L		4		A2320 B	03/19/07 15:20 / jak
Bicarbonate as HCO3	682	mg/L		4		A2320 B	03/19/07 15:20 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 15:20 / jak
Chloride	14700	mg/L	D	10		E300.0	03/20/07 22:54 / qed
Sulfate	1680	mg/L	D	9		E300.0	03/20/07 22:54 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.1		E350.1	04/09/07 11:30 / bls
Nitrogen, Nitrate+Nitrite as N	33.2	mg/L		0.05		E353.2	04/06/07 12:07 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 19:46 / bjm
Benzene	2.1	ug/L		0.50		SW8021B	03/22/07 19:46 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 19:46 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 19:46 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 19:46 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 19:46 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 19:46 / bjm
Surr: Trifluorotoluene	96.0	%REC			80-120	SW8021B	03/22/07 19:46 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 11:10 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-042
Client Sample ID PNR-34-07

Report Date: 04/17/07
Collection Date: 03/14/07 13:15
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500 H	03/16/07 17:36 / kns
Conductivity	40300	umhos/cm		1		A2510 B	03/16/07 16:36 / kns
Solids, Total Dissolved TDS @ 180 C	29400	mg/L		10		A2540 C	03/19/07 15:07 / qed
INORGANICS							
Alkalinity, Total as CaCO3	469	mg/L		4		A2320 B	03/19/07 15:27 / jak
Bicarbonate as HCO3	573	mg/L		4		A2320 B	03/19/07 15:27 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 15:27 / jak
Chloride	15600	mg/L	D	10		E300.0	03/22/07 16:43 / qed
Sulfate	1630	mg/L	D	9		E300.0	03/20/07 23:05 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	0.6	mg/L		0.1		E350.1	04/09/07 11:32 / bls
Nitrogen, Nitrate+Nitrite as N	6.30	mg/L		0.05		E353.2	04/06/07 12:26 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 01:50 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/22/07 01:50 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 01:50 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 01:50 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 01:50 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 01:50 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 01:50 / bjm
Surr: Trifluorotoluene	98.0	%REC			80-120	SW8021B	03/22/07 01:50 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 11:20 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-043
Client Sample ID Whitmer

Report Date: 04/17/07
Collection Date: 03/14/07 16:55
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.4	s.u.		0.1		A4500 H	03/16/07 17:36 / kns
Conductivity	6860	umhos/cm		1		A2510 B	03/16/07 16:37 / kns
Solids, Total Dissolved TDS @ 180 C	4300	mg/L		10		A2540 C	03/19/07 15:08 / qed
INORGANICS							
Alkalinity, Total as CaCO3	284	mg/L		4		A2320 B	03/19/07 15:34 / jak
Bicarbonate as HCO3	347	mg/L		4		A2320 B	03/19/07 15:34 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 15:34 / jak
Chloride	1930	mg/L		1		E300.0	03/20/07 23:17 / qed
Sulfate	340	mg/L		1		E300.0	03/20/07 23:17 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	1.3	mg/L		0.1		E350.1	04/09/07 11:33 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 12:09 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 02:24 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/22/07 02:24 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 02:24 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 02:24 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 02:24 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 02:24 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 02:24 / bjm
Surr: Trifluorotoluene	96.0	%REC			80-120	SW8021B	03/22/07 02:24 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 11:30 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-044
Client Sample ID M-27

Report Date: 04/17/07
Collection Date: 03/14/07 17:30
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	4.4	s.u.		0.1		A4500 H	03/20/07 10:07 / jak
Conductivity	18500	umhos/cm		1		A2510 B	03/16/07 16:37 / kns
Solids, Total Dissolved TDS @ 180 C	12300	mg/L		10		A2540 C	03/19/07 15:10 / qed
INORGANICS							
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	03/19/07 15:39 / jak
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	03/19/07 15:39 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 15:39 / jak
Chloride	6200	mg/L	D	10		E300.0	03/22/07 12:51 / qed
Sulfate	806	mg/L	D	9		E300.0	03/22/07 12:51 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	2.8	mg/L		0.1		E350.1	04/09/07 11:34 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 12:19 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 17:27 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/22/07 17:27 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 17:27 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 17:27 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 17:27 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 17:27 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 17:27 / bjm
Surr: Trifluorotoluene	103	%REC			80-120	SW8021B	03/22/07 17:27 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 11:40 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-046
Client Sample ID M-31

Report Date: 04/17/07
Collection Date: 03/15/07 11:30
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.7	s.u.		0.1		A4500 H	03/16/07 16:47 / kns
Conductivity	93600	umhos/cm		1		A2510 B	03/16/07 16:39 / kns
Solids, Total Dissolved TDS @ 180 C	64000	mg/L		10		A2540 C	03/19/07 15:12 / qed
INORGANICS							
Alkalinity, Total as CaCO3	497	mg/L		4		A2320 B	03/19/07 16:12 / jak
Bicarbonate as HCO3	607	mg/L		4		A2320 B	03/19/07 16:12 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 16:12 / jak
Chloride	40800	mg/L	D	10		E300.0	03/21/07 00:38 / qed
Sulfate	1490	mg/L	D	9		E300.0	03/21/07 00:38 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	11.9	mg/L		0.1		E350.1	04/09/07 11:42 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 12:21 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 04:08 / bjm
Benzene	30	ug/L		0.50		SW8021B	03/22/07 04:08 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 04:08 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 04:08 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 04:08 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 04:08 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 04:08 / bjm
Surr: Trifluorotoluene	92.0	%REC			80-120	SW8021B	03/22/07 04:08 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 12:00 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-047
Client Sample ID USGS-93-3

Report Date: 04/17/07
Collection Date: 03/15/07 13:30
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500 H	03/16/07 16:48 / kns
Conductivity	96700	umhos/cm		1		A2510 B	03/16/07 16:39 / kns
Solids, Total Dissolved TDS @ 180 C	64700	mg/L		10		A2540 C	03/19/07 15:14 / qed
INORGANICS							
Alkalinity, Total as CaCO3	401	mg/L		4		A2320 B	03/19/07 16:19 / jak
Bicarbonate as HCO3	489	mg/L		4		A2320 B	03/19/07 16:19 / jak
Carbonate as CO3	ND	mg/L		4		A2320 B	03/19/07 16:19 / jak
Chloride	41900	mg/L	D	10		E300.0	03/21/07 00:50 / qed
Sulfate	1240	mg/L	D	9		E300.0	03/21/07 00:50 / qed
NUTRIENTS							
Nitrogen, Ammonia as N	17.1	mg/L		0.1		E350.1	04/09/07 11:43 / bls
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	04/06/07 12:23 / bls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 05:18 / bjm
Benzene	1.9	ug/L		0.50		SW8021B	03/22/07 05:18 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 05:18 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 05:18 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 05:18 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 05:18 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 05:18 / bjm
Surr: Trifluorotoluene	86.0	%REC			80-120	SW8021B	03/22/07 05:18 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L	H	0.10		E418.1	03/24/07 12:10 / bdw

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-048
Client Sample ID Trip Blank, Cooler #8, Lot# 030907, TS

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 16:30 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/22/07 16:30 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 16:30 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 16:30 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 16:30 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 16:30 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 16:30 / bjm
Surr: Trifluorotoluene	106	%REC			80-120	SW8021B	03/22/07 16:30 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-049
Client Sample ID Trip Blank, Cooler #9, Lot# 030907, TS

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 16:52 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/22/07 16:52 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 16:52 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 16:52 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 16:52 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 16:52 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 16:52 / bjm
Surr: Trifluorotoluene	102	%REC			80-120	SW8021B	03/22/07 16:52 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-050
Client Sample ID Trip Blank, Cooler #10, HKM

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 17:07 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/22/07 17:07 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 17:07 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 17:07 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 17:07 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 17:07 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 17:07 / bjm
Surr: Trifluorotoluene	106	%REC			80-120	SW8021B	03/22/07 17:07 / bjm

- The sample was received in the laboratory with a pH > 2. The pH was 7.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site
Lab ID: B07031298-051
Client Sample ID Trip Blank, Cooler #2, HKM

Report Date: 04/17/07
Collection Date: Not Provided
DateReceived: 03/16/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	03/22/07 18:21 / bjm
Benzene	ND	ug/L		0.50		SW8021B	03/22/07 18:21 / bjm
Toluene	ND	ug/L		0.50		SW8021B	03/22/07 18:21 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	03/22/07 18:21 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	03/22/07 18:21 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	03/22/07 18:21 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	03/22/07 18:21 / bjm
Surr: Trifluorotoluene	106	%REC			80-120	SW8021B	03/22/07 18:21 / bjm

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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800-735-4489 • 406-252-6325 • 406-252-6069 fax • eli@energylab.com

QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B								Batch: R90858	
Sample ID: MB	Method Blank				Run: MAN-TECH_070320A			03/19/07 12:58	
Alkalinity, Total as CaCO3	2	mg/L	1						
Bicarbonate as HCO3	2	mg/L	1						
Carbonate as CO3	ND	mg/L	1						
Sample ID: LCS	Laboratory Control Sample				Run: MAN-TECH_070320A			03/19/07 13:03	
Alkalinity, Total as CaCO3	99.1	mg/L	1.0	97	90	110			
Sample ID: B07031298-030AMS	Sample Matrix Spike				Run: MAN-TECH_070320A			03/19/07 13:28	
Alkalinity, Total as CaCO3	525	mg/L	1.0	81	80	120			
Sample ID: B07031298-030AMSD	Sample Matrix Spike Duplicate				Run: MAN-TECH_070320A			03/19/07 13:36	
Alkalinity, Total as CaCO3	520	mg/L	1.0	78	80	120	0.9	20	S
Sample ID: B07031298-040AMS	Sample Matrix Spike				Run: MAN-TECH_070320A			03/19/07 15:04	
Alkalinity, Total as CaCO3	483	mg/L	1.0	84	80	120			
Sample ID: B07031298-040AMSD	Sample Matrix Spike Duplicate				Run: MAN-TECH_070320A			03/19/07 15:12	
Alkalinity, Total as CaCO3	488	mg/L	1.0	69	80	120	1.0	20	S
Sample ID: B07031324-001CMS	Sample Matrix Spike				Run: MAN-TECH_070320A			03/19/07 16:49	
Alkalinity, Total as CaCO3	172	mg/L	1.0	93	80	120			
Sample ID: B07031324-001CMSD	Sample Matrix Spike Duplicate				Run: MAN-TECH_070320A			03/19/07 16:56	
Alkalinity, Total as CaCO3	173	mg/L	1.0	94	80	120	0.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: R91057
Sample ID: MB	Method Blank				Run: MAN-TECH_070322A				03/22/07 12:12
Alkalinity, Total as CaCO3	ND	mg/L	1						
Bicarbonate as HCO3	1	mg/L	1						
Carbonate as CO3	ND	mg/L	1						
Sample ID: LCS	Laboratory Control Sample				Run: MAN-TECH_070322A				03/22/07 12:17
Alkalinity, Total as CaCO3	99.4	mg/L	1.0	99	90	110			
Sample ID: B07031617-019CMS	Sample Matrix Spike				Run: MAN-TECH_070322A				03/22/07 17:34
Alkalinity, Total as CaCO3	583	mg/L	1.0	88	80	120			
Sample ID: B07031617-019CMSD	Sample Matrix Spike Duplicate				Run: MAN-TECH_070322A				03/22/07 17:42
Alkalinity, Total as CaCO3	582	mg/L	1.0	87	80	120	0.0	20	
Sample ID: B07031298-013AMS	Sample Matrix Spike				Run: MAN-TECH_070322A				03/22/07 19:07
Alkalinity, Total as CaCO3	740	mg/L	1.0	40	80	120			S
Sample ID: B07031298-013AMSD	Sample Matrix Spike Duplicate				Run: MAN-TECH_070322A				03/22/07 19:12
Alkalinity, Total as CaCO3	726	mg/L	1.0	31	80	120	1.9	20	S
Sample ID: B07031611-001AMS	Sample Matrix Spike				Run: MAN-TECH_070322A				03/22/07 20:27
Alkalinity, Total as CaCO3	289	mg/L	1.0	101	80	120			
Sample ID: B07031611-001AMSD	Sample Matrix Spike Duplicate				Run: MAN-TECH_070322A				03/22/07 20:33
Alkalinity, Total as CaCO3	275	mg/L	1.0	93	80	120	4.9	20	

Qualifiers:

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ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Batch: PHSC070316A	
Sample ID: PHC10719A	Laboratory Control Sample				Run: ORION555A_070316A			03/16/07 09:45	
Conductivity	5110	umhos/cm	1.0	102	90	110			
Sample ID: PHC10802A	Laboratory Control Sample				Run: ORION555A_070316A			03/16/07 09:47	
Conductivity	153	umhos/cm	1.0	102	90	110			
Sample ID: B07031298-001A	Sample Duplicate				Run: ORION555A_070316A			03/16/07 15:25	
Conductivity	3960	umhos/cm	1.0				1.0	10	
Sample ID: B07031298-011A	Sample Duplicate				Run: ORION555A_070316A			03/16/07 15:34	
Conductivity	4550	umhos/cm	1.0				0.4	10	
Sample ID: B07031298-021A	Sample Duplicate				Run: ORION555A_070316A			03/16/07 16:18	
Conductivity	7060	umhos/cm	1.0				0.1	10	
Sample ID: B07031298-031A	Sample Duplicate				Run: ORION555A_070316A			03/16/07 16:28	
Conductivity	1970	umhos/cm	1.0				0.9	10	
Method: A2540 C								Batch: TDS070316A	
Sample ID: MBLK1	Method Blank				Run: WC-BAL-99-3A_070316B			03/16/07 15:13	
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	10						
Sample ID: LFB1	Laboratory Fortified Blank				Run: WC-BAL-99-3A_070316B			03/16/07 15:14	
Solids, Total Dissolved TDS @ 180 C	1110	mg/L	10	102	90	110			
Sample ID: LFB2	Laboratory Fortified Blank				Run: WC-BAL-99-3A_070316B			03/16/07 15:45	
Solids, Total Dissolved TDS @ 180 C	1110	mg/L	10	100	90	110			
Sample ID: B07031279-004AMS	Sample Matrix Spike				Run: WC-BAL-99-3A_070316B			03/16/07 15:48	
Solids, Total Dissolved TDS @ 180 C	1830	mg/L	10	97	80	120			
Sample ID: B07031279-004AMSD	Sample Matrix Spike Duplicate				Run: WC-BAL-99-3A_070316B			03/16/07 15:50	
Solids, Total Dissolved TDS @ 180 C	1840	mg/L	10	98	80	120	0.4	20	

Qualifiers:

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ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C								Batch: TDS070316B	
Sample ID: MBLK3	Method Blank				Run: WC-BAL-99-3A_070316B			03/16/07 17:17	
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	10						
Sample ID: LFB3	Laboratory Fortified Blank				Run: WC-BAL-99-3A_070316B			03/16/07 17:18	
Solids, Total Dissolved TDS @ 180 C	1100	mg/L	10	100	90	110			
Sample ID: B07031298-008AMS	Sample Matrix Spike				Run: WC-BAL-99-3A_070316B			03/16/07 17:28	
Solids, Total Dissolved TDS @ 180 C	1970	mg/L	10	100	80	120			
Sample ID: B07031298-008AMSD	Sample Matrix Spike Duplicate				Run: WC-BAL-99-3A_070316B			03/16/07 17:29	
Solids, Total Dissolved TDS @ 180 C	1970	mg/L	10	100	80	120	0.0	20	
Sample ID: LFB4	Laboratory Fortified Blank				Run: WC-BAL-99-3A_070316B			03/16/07 17:55	
Solids, Total Dissolved TDS @ 180 C	1150	mg/L	10	102	90	110			
Sample ID: B07031298-019AMS	Sample Matrix Spike				Run: WC-BAL-99-3A_070316B			03/16/07 17:57	
Solids, Total Dissolved TDS @ 180 C	25300	mg/L	10	108	80	120			
Sample ID: B07031298-019AMSD	Sample Matrix Spike Duplicate				Run: WC-BAL-99-3A_070316B			03/16/07 17:58	
Solids, Total Dissolved TDS @ 180 C	25000	mg/L	10	104	80	120	1.3	20	
Method: A2540 C								Batch: TDS070316C	
Sample ID: MBLK5	Method Blank				Run: WC-BAL-99-3A_070316B			03/16/07 18:11	
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	10						
Sample ID: LFB5	Laboratory Fortified Blank				Run: WC-BAL-99-3A_070316B			03/16/07 18:11	
Solids, Total Dissolved TDS @ 180 C	1120	mg/L	10	101	90	110			
Sample ID: B07031298-030AMS	Sample Matrix Spike				Run: WC-BAL-99-3A_070316B			03/16/07 18:11	
Solids, Total Dissolved TDS @ 180 C	3930	mg/L	10	102	80	120			
Sample ID: B07031298-030AMSD	Sample Matrix Spike Duplicate				Run: WC-BAL-99-3A_070316B			03/16/07 18:11	
Solids, Total Dissolved TDS @ 180 C	4000	mg/L	10	102	80	120	1.7	20	

Qualifiers:

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ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C								Batch: TDS070319A	
Sample ID: MBLK1	Method Blank				Run: WC-BAL-99-3A_070319C			03/19/07 14:58	
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	10						
Sample ID: LFB1	Laboratory Fortified Blank				Run: WC-BAL-99-3A_070319C			03/19/07 14:58	
Solids, Total Dissolved TDS @ 180 C	1140	mg/L	10	100	90	110			
Sample ID: B07031298-039AMS	Sample Matrix Spike				Run: WC-BAL-99-3A_070319C			03/19/07 15:00	
Solids, Total Dissolved TDS @ 180 C	47400	mg/L	10	98	80	120			
Sample ID: B07031298-039AMSD	Sample Matrix Spike Duplicate				Run: WC-BAL-99-3A_070319C			03/19/07 15:00	
Solids, Total Dissolved TDS @ 180 C	47800	mg/L	10	100	80	120	0.9	20	
Sample ID: LFB2	Laboratory Fortified Blank				Run: WC-BAL-99-3A_070319C			03/19/07 15:22	
Solids, Total Dissolved TDS @ 180 C	1140	mg/L	10	101	90	110			
Sample ID: B07031324-002CMS	Sample Matrix Spike				Run: WC-BAL-99-3A_070319C			03/19/07 15:23	
Solids, Total Dissolved TDS @ 180 C	31700	mg/L	10	121	80	120			S
Sample ID: B07031324-002CMSD	Sample Matrix Spike Duplicate				Run: WC-BAL-99-3A_070319C			03/19/07 15:24	
Solids, Total Dissolved TDS @ 180 C	31700	mg/L	10	113	80	120	0.2	20	

Qualifiers:

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500 H								Analytical Run: ORION555A_070316A	
Sample ID: PHC10805	Initial Calibration Verification Standard							03/16/07 09:46	
pH	7.08	s.u.	0.10	101	98	102			
Method: A4500 H								Batch: PHSC070316A	
Sample ID: PHC10717	Laboratory Control Sample				Run: ORION555A_070316A			03/16/07 09:47	
pH	3.93	s.u.	0.10	98	97	103			
Sample ID: B07031267-001A	Sample Duplicate				Run: ORION555A_070316A			03/16/07 12:51	
pH	7.36	s.u.	0.10				0.8	10	
Sample ID: B07031310-001A	Sample Duplicate				Run: ORION555A_070316A			03/16/07 15:57	
pH	4.99	s.u.	0.10				0.2	10	
Sample ID: B07031298-001A	Sample Duplicate				Run: ORION555A_070316A			03/16/07 16:23	
pH	7.28	s.u.	0.10				1.2	10	
Sample ID: B07031298-011A	Sample Duplicate				Run: ORION555A_070316A			03/16/07 16:33	
pH	7.28	s.u.	0.10				0.6	10	
Sample ID: B07031298-031A	Sample Duplicate				Run: ORION555A_070316A			03/16/07 16:50	
pH	7.82	s.u.	0.10						
Sample ID: B07031298-021A	Sample Duplicate				Run: ORION555A_070316A			03/16/07 17:17	
pH	7.69	s.u.	0.10				0.3	10	
Method: A4500 H								Analytical Run: ORION555A_070320A	
Sample ID: PHC10805	Initial Calibration Verification Standard							03/20/07 09:33	
pH	7.09	s.u.	0.10	101	98	102			
Method: A4500 H								Batch: PHSC070320A	
Sample ID: PHC10717	Laboratory Control Sample				Run: ORION555A_070320A			03/20/07 09:34	
pH	3.94	s.u.	0.10	99	97	103			
Sample ID: B07031404-001A	Sample Duplicate				Run: ORION555A_070320A			03/20/07 14:19	
pH	4.46	s.u.	0.10				0.7	10	

Qualifiers:

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC202-B_070319A	
Sample ID: ICV	Initial Calibration Verification Standard							03/19/07 10:54	
Chloride	26.7	mg/L	1.0	107	90	110			
Sulfate	105	mg/L	1.0	105	90	110			
Method: E300.0								Batch: R90863	
Sample ID: ICB	Method Blank				Run: IC202-B_070319A			03/19/07 11:06	
Chloride	ND	mg/L	0.05						
Sulfate	0.1	mg/L	0.05						
Sample ID: LFB	Laboratory Fortified Blank				Run: IC202-B_070319A			03/19/07 11:17	
Chloride	9.56	mg/L	1.0	96	90	110			
Sulfate	38.7	mg/L	1.0	96	90	110			
Sample ID: B07031173-002AMS	Sample Matrix Spike				Run: IC202-B_070319A			03/19/07 11:41	
Chloride	59.3	mg/L	1.0	117	90	110			S
Sulfate	1290	mg/L	1.0		90	110			A
Sample ID: B07031173-002AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070319A			03/19/07 11:52	
Chloride	64.0	mg/L	1.0	127	90	110	7.6	20	S
Sulfate	1310	mg/L	1.0		90	110	2.0	20	A
Sample ID: B07031298-008AMS	Sample Matrix Spike				Run: IC202-B_070319A			03/19/07 14:23	
Chloride	39.2	mg/L	1.0	100	90	110			
Sulfate	360	mg/L	1.0	98	90	110			
Sample ID: B07031298-008AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070319A			03/19/07 14:35	
Chloride	38.3	mg/L	1.0	96	90	110	2.2	20	
Sulfate	358	mg/L	1.0	96	90	110	0.5	20	
Sample ID: B07031298-018AMS	Sample Matrix Spike				Run: IC202-B_070319A			03/19/07 17:06	
Chloride	38700	mg/L	11		90	110			A
Sulfate	24500	mg/L	10	118	90	110			S
Sample ID: B07031298-018AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070319A			03/19/07 17:17	
Chloride	34500	mg/L	11		90	110	11	20	A
Sulfate	19700	mg/L	10	94	90	110	21	20	R
Sample ID: B07031298-035AMS	Sample Matrix Spike				Run: IC202-B_070319A			03/19/07 19:49	
Chloride	3130	mg/L	2.8	97	90	110			
Sulfate	5860	mg/L	2.5	96	90	110			
Sample ID: B07031298-035AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070319A			03/19/07 20:23	
Chloride	3100	mg/L	2.8	95	90	110	0.9	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

R - RPD exceeds advisory limit.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Batch: R90863
Sample ID: B07031298-035AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070319A				03/19/07 20:23
Sulfate	5840	mg/L	2.5	95	90	110	0.5	20	
Sample ID: B07031298-045AMS	Sample Matrix Spike				Run: IC202-B_070319A				03/19/07 22:54
Chloride	15700	mg/L	11	122	90	110			S
Sulfate	20300	mg/L	10	95	90	110			
Sample ID: B07031298-045AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070319A				03/19/07 23:06
Chloride	14900	mg/L	11	106	90	110	5.1	20	
Sulfate	19800	mg/L	10	92	90	110	2.6	20	

Qualifiers:

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S - Spike recovery outside of advisory limits.

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QA/QC Summary Report

Client: HKM Engineering Inc
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Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC202-B_070320A	
Sample ID: ICV	Initial Calibration Verification Standard							03/20/07 10:07	
Chloride	24.7	mg/L	1.0	99	90	110			
Sulfate	99.1	mg/L	1.0	99	90	110			
Method: E300.0								Batch: R90935	
Sample ID: ICB	Method Blank				Run: IC202-B_070320A			03/20/07 10:18	
Chloride	ND	mg/L	0.05						
Sulfate	ND	mg/L	0.05						
Sample ID: LFB	Laboratory Fortified Blank				Run: IC202-B_070320A			03/20/07 10:30	
Chloride	9.53	mg/L	1.0	95	90	110			
Sulfate	37.7	mg/L	1.0	94	90	110			
Sample ID: B07031324-018CMS	Sample Matrix Spike				Run: IC202-B_070320A			03/20/07 18:03	
Chloride	69.2	mg/L	1.0	104	90	110			
Sulfate	1820	mg/L	1.0		90	110			A
Sample ID: B07031324-018CMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070320A			03/20/07 18:15	
Chloride	68.9	mg/L	1.0	103	90	110	0.4	20	
Sulfate	1800	mg/L	1.0		90	110	0.8	20	A
Sample ID: B07031298-013AMS	Sample Matrix Spike				Run: IC202-B_070320A			03/20/07 20:46	
Chloride	352	mg/L	1.0	98	90	110			
Sulfate	3070	mg/L	1.0	105	90	110			
Sample ID: B07031298-013AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070320A			03/20/07 20:57	
Chloride	348	mg/L	1.0	96	90	110	1.3	20	
Sulfate	3050	mg/L	1.0	102	90	110	0.9	20	
Sample ID: B07031298-043AMS	Sample Matrix Spike				Run: IC202-B_070320A			03/20/07 23:28	
Chloride	2470	mg/L	1.1	108	90	110			
Sulfate	2340	mg/L	1.0	100	90	110			
Sample ID: B07031298-043AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070320A			03/20/07 23:40	
Chloride	2410	mg/L	1.1	96	90	110	2.3	20	
Sulfate	2340	mg/L	1.0	100	90	110	0.1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC202-B_070322A	
Sample ID: ICV	Initial Calibration Verification Standard							03/22/07 11:41	
Chloride	24.5	mg/L	1.0	98	90	110			
Sulfate	99.9	mg/L	1.0	100	90	110			
Method: E300.0								Batch: R91070	
Sample ID: ICB	Method Blank				Run: IC202-B_070322A			03/22/07 11:53	
Chloride	ND	mg/L	0.05						
Sulfate	ND	mg/L	0.05						
Sample ID: LFB	Laboratory Fortified Blank				Run: IC202-B_070322A			03/22/07 12:04	
Chloride	9.51	mg/L	1.0	95	90	110			
Sulfate	38.7	mg/L	1.0	97	90	110			
Sample ID: B07031292-001AMS	Sample Matrix Spike				Run: IC202-B_070322A			03/22/07 12:28	
Chloride	531	mg/L	1.1	106	90	110			
Sulfate	4480	mg/L	1.0	115	90	110			S
Sample ID: B07031292-001AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070322A			03/22/07 12:39	
Chloride	489	mg/L	1.1	97	90	110	8.3	20	
Sulfate	4300	mg/L	1.0	105	90	110	4.1	20	
Sample ID: B07031298-030AMS	Sample Matrix Spike				Run: IC202-B_070322A			03/22/07 15:10	
Chloride	712	mg/L	1.1	101	90	110			
Sulfate	3090	mg/L	1.0	104	90	110			
Sample ID: B07031298-030AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070322A			03/22/07 15:22	
Chloride	783	mg/L	1.1	115	90	110	9.5	20	S
Sulfate	3460	mg/L	1.0	122	90	110	11	20	S
Sample ID: B07031324-006CMS	Sample Matrix Spike				Run: IC202-B_070322A			03/22/07 17:06	
Chloride	344	mg/L	1.0	103	90	110			
Sulfate	6650	mg/L	1.0		90	110			A
Sample ID: B07031324-006CMSD	Sample Matrix Spike Duplicate				Run: IC202-B_070322A			03/22/07 17:18	
Chloride	344	mg/L	1.0	103	90	110	0.2	20	
Sulfate	6620	mg/L	1.0		90	110	0.4	20	A
Sample ID: B07031365-003ADUP	Sample Duplicate				Run: IC202-B_070322A			03/22/07 19:26	
Chloride	ND	mg/L	2.5				0.0	20	
Sulfate	69700	mg/L	2.3				3.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 04/09/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E350.1								Analytical Run: FIA203-B_070409A	
Sample ID: ICV	Initial Calibration Verification Standard								04/09/07 09:52
Nitrogen, Ammonia as N	15.6	mg/L	0.10	98	90	110			
Method: E350.1								Batch: R91823	
Sample ID: MBLK	Method Blank				Run: FIA203-B_070409A				04/09/07 09:53
Nitrogen, Ammonia as N	ND	mg/L	0.006						
Sample ID: LFB	Laboratory Fortified Blank				Run: FIA203-B_070409A				04/09/07 09:54
Nitrogen, Ammonia as N	1.00	mg/L	0.10	101	90	110			
Sample ID: B07031298-008DMS	Sample Matrix Spike				Run: FIA203-B_070409A				04/09/07 10:33
Nitrogen, Ammonia as N	1.39	mg/L	0.10	97	90	110			
Sample ID: B07031298-008DMSD	Sample Matrix Spike Duplicate				Run: FIA203-B_070409A				04/09/07 10:35
Nitrogen, Ammonia as N	1.40	mg/L	0.10	97	90	110	0.4	10	
Sample ID: B07031298-012DMS	Sample Matrix Spike				Run: FIA203-B_070409A				04/09/07 10:50
Nitrogen, Ammonia as N	12.4	mg/L	0.10	103	90	110			
Sample ID: B07031298-012DMSD	Sample Matrix Spike Duplicate				Run: FIA203-B_070409A				04/09/07 10:51
Nitrogen, Ammonia as N	12.4	mg/L	0.10	103	90	110	0.0	10	
Sample ID: B07031298-031DMS	Sample Matrix Spike				Run: FIA203-B_070409A				04/09/07 11:07
Nitrogen, Ammonia as N	0.996	mg/L	0.10	102	90	110			
Sample ID: B07031298-031DMSD	Sample Matrix Spike Duplicate				Run: FIA203-B_070409A				04/09/07 11:08
Nitrogen, Ammonia as N	1.01	mg/L	0.10	103	90	110	1.7	10	
Sample ID: B07032308-002CMS	Sample Matrix Spike				Run: FIA203-B_070409A				04/09/07 11:23
Nitrogen, Ammonia as N	0.999	mg/L	0.10	101	90	110			
Sample ID: B07032308-002CMSD	Sample Matrix Spike Duplicate				Run: FIA203-B_070409A				04/09/07 11:24
Nitrogen, Ammonia as N	0.996	mg/L	0.10	101	90	110	0.3	10	
Sample ID: B07040411-001AMS	Sample Matrix Spike				Run: FIA203-B_070409A				04/09/07 11:40
Nitrogen, Ammonia as N	1.01	mg/L	0.10	100	90	110			
Sample ID: B07040411-001AMSD	Sample Matrix Spike Duplicate				Run: FIA203-B_070409A				04/09/07 11:41
Nitrogen, Ammonia as N	1.01	mg/L	0.10	100	90	110	0.1	10	

Qualifiers:

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ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: VARIAN2_070324A	
Sample ID: CCV_0324VA204r-W	Continuing Calibration Verification Standard							03/24/07 10:38	
Methyl tert-butyl ether (MTBE)	59.0	ug/L	1.0	98	85	115			
Benzene	19.6	ug/L	0.50	98	85	115			
Toluene	58.8	ug/L	0.50	98	85	115			
Ethylbenzene	20.2	ug/L	0.50	101	85	115			
m+p-Xylenes	78.6	ug/L	0.50	98	85	115			
o-Xylene	40.0	ug/L	0.50	100	85	115			
Xylenes, Total	119	ug/L	0.50	99	85	115			
Surr: Trifluorotoluene			0.50	99	85	115			
Method: SW8021B								Batch: R91140	
Sample ID: LCS_0324VA203r	Laboratory Control Sample				Run: VARIAN2_070324A			03/24/07 10:04	
Methyl tert-butyl ether (MTBE)	21.0	ug/L	1.0	105	70	130			
Benzene	20.5	ug/L	0.50	103	70	130			
Toluene	22.0	ug/L	0.50	110	70	130			
Ethylbenzene	21.1	ug/L	0.50	106	70	130			
m+p-Xylenes	44.6	ug/L	0.50	111	70	130			
o-Xylene	21.9	ug/L	0.50	110	70	130			
Xylenes, Total	66.5	ug/L	0.50	111	70	130			
Surr: Trifluorotoluene			0.50	102	80	120			
Sample ID: MBLK_0324VA207r	Method Blank				Run: VARIAN2_070324A			03/24/07 12:23	
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	96	80	120			

Qualifiers:

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: VARIAN2_070319A	
Sample ID: CCV_0319VA212r-W	Continuing Calibration Verification Standard								03/19/07 17:57
Methyl tert-butyl ether (MTBE)	56.9	ug/L	1.0	95	85	115			
Benzene	19.0	ug/L	0.50	95	85	115			
Toluene	58.7	ug/L	0.50	98	85	115			
Ethylbenzene	19.9	ug/L	0.50	100	85	115			
m+p-Xylenes	78.7	ug/L	0.50	98	85	115			
o-Xylene	39.5	ug/L	0.50	99	85	115			
Xylenes, Total	118	ug/L	0.50	98	85	115			
Surr: Trifluorotoluene			0.50	97	85	115			
Sample ID: CCV_0319VA226r-W	Continuing Calibration Verification Standard								03/20/07 02:03
Methyl tert-butyl ether (MTBE)	59.5	ug/L	1.0	99	85	115			
Benzene	19.7	ug/L	0.50	99	85	115			
Toluene	60.3	ug/L	0.50	101	85	115			
Ethylbenzene	20.5	ug/L	0.50	103	85	115			
m+p-Xylenes	80.1	ug/L	0.50	100	85	115			
o-Xylene	41.0	ug/L	0.50	102	85	115			
Xylenes, Total	121	ug/L	0.50	101	85	115			
Surr: Trifluorotoluene			0.50	95	85	115			
Method: SW8021B									Batch: R91182
Sample ID: MBLK_0319VA216r	Method Blank				Run: VARIAN2_070319A				03/19/07 20:17
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	89	80	120			

Qualifiers:

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ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: PE2_070319B	
Sample ID: CCV_0319PE204r-W	Continuing Calibration Verification Standard							03/19/07 13:21	
Methyl tert-butyl ether (MTBE)	55.1	ug/L	1.0	92	85	115			
Benzene	19.2	ug/L	0.50	96	85	115			
Toluene	59.7	ug/L	0.50	99	85	115			
Ethylbenzene	20.0	ug/L	0.50	100	85	115			
m+p-Xylenes	80.4	ug/L	0.50	100	85	115			
o-Xylene	39.7	ug/L	0.50	99	85	115			
Xylenes, Total	120	ug/L	0.50	100	85	115			
Surr: Trifluorotoluene			0.50	91	85	115			
Method: SW8021B								Batch: R91188	
Sample ID: LCS_0319PE203r	Laboratory Control Sample				Run: PE2_070319B			03/19/07 12:45	
Methyl tert-butyl ether (MTBE)	19.1	ug/L	1.0	95	70	130			
Benzene	19.9	ug/L	0.50	99	70	130			
Toluene	20.3	ug/L	0.50	101	70	130			
Ethylbenzene	19.9	ug/L	0.50	100	70	130			
m+p-Xylenes	40.3	ug/L	0.50	101	70	130			
o-Xylene	20.2	ug/L	0.50	101	70	130			
Xylenes, Total	60.4	ug/L	0.50	101	70	130			
Surr: Trifluorotoluene			0.50	91	80	120			
Sample ID: MBLK_0319PE207r	Method Blank				Run: PE2_070319B			03/19/07 15:11	
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	89	80	120			

Qualifiers:

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: PE2_070320A	
Sample ID: CCV_0320PE204r-W	Continuing Calibration Verification Standard								03/20/07 13:40
Methyl tert-butyl ether (MTBE)	62.6	ug/L	1.0	104	85	115			
Benzene	20.7	ug/L	0.50	103	85	115			
Toluene	64.6	ug/L	0.50	108	85	115			
Ethylbenzene	21.7	ug/L	0.50	108	85	115			
m+p-Xylenes	86.9	ug/L	0.50	109	85	115			
o-Xylene	43.2	ug/L	0.50	108	85	115			
Xylenes, Total	130	ug/L	0.50	108	85	115			
Surr: Trifluorotoluene			0.50	108	85	115			
Method: SW8021B								Batch: R91189	
Sample ID: LCS_0320PE203r	Laboratory Control Sample				Run: PE2_070320A				03/20/07 13:04
Methyl tert-butyl ether (MTBE)	20.7	ug/L	1.0	103	70	130			
Benzene	21.0	ug/L	0.50	105	70	130			
Toluene	21.4	ug/L	0.50	107	70	130			
Ethylbenzene	21.1	ug/L	0.50	106	70	130			
m+p-Xylenes	42.7	ug/L	0.50	107	70	130			
o-Xylene	21.5	ug/L	0.50	108	70	130			
Xylenes, Total	64.2	ug/L	0.50	107	70	130			
Surr: Trifluorotoluene			0.50	108	80	120			
Sample ID: MBLK_0320PE207r	Method Blank				Run: PE2_070320A				03/20/07 15:31
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	108	80	120			
Sample ID: B07031298-007FMS	Sample Matrix Spike				Run: PE2_070320A				03/20/07 23:33
Methyl tert-butyl ether (MTBE)	52.5	ug/L	2.0	105	70	130			
Benzene	50.3	ug/L	1.0	101	70	130			
Toluene	51.9	ug/L	1.0	104	70	130			
Ethylbenzene	50.7	ug/L	1.0	101	70	130			
m+p-Xylenes	102	ug/L	1.0	102	70	130			
o-Xylene	51.9	ug/L	1.0	104	70	130			
Xylenes, Total	154	ug/L	1.0	102	70	130			
Surr: Trifluorotoluene			1.0	104	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Batch: R91189
Sample ID: B07031298-007FMSD	Sample Matrix Spike Duplicate				Run: PE2_070320A			03/21/07 00:47	
Methyl tert-butyl ether (MTBE)	52.0	ug/L	2.0	104	70	130	0.9	20	
Benzene	50.8	ug/L	1.0	102	70	130	1.0	20	
Toluene	52.0	ug/L	1.0	104	70	130	0.3	20	
Ethylbenzene	51.0	ug/L	1.0	102	70	130	0.5	20	
m+p-Xylenes	102	ug/L	1.0	102	70	130	0.4	20	
o-Xylene	51.8	ug/L	1.0	104	70	130	0.1	20	
Xylenes, Total	154	ug/L	1.0	103	70	130			
Surr: Trifluorotoluene			1.0	103	80	120	0.0	20	

Qualifiers:

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: VARIAN2_070323A	
Sample ID: CCV_0323VA204r-W	Continuing Calibration Verification Standard							03/23/07 13:22	
Methyl tert-butyl ether (MTBE)	61.0	ug/L	1.0	102	85	115			
Benzene	20.2	ug/L	0.50	101	85	115			
Toluene	61.0	ug/L	0.50	102	85	115			
Ethylbenzene	20.6	ug/L	0.50	103	85	115			
m+p-Xylenes	80.3	ug/L	0.50	100	85	115			
o-Xylene	40.8	ug/L	0.50	102	85	115			
Xylenes, Total	121	ug/L	0.50	101	85	115			
Surr: Trifluorotoluene			0.50	101	85	115			
Method: SW8021B								Batch: R91192	
Sample ID: LCS_0323VA203r	Laboratory Control Sample				Run: VARIAN2_070323A			03/23/07 12:47	
Methyl tert-butyl ether (MTBE)	21.1	ug/L	1.0	105	70	130			
Benzene	20.0	ug/L	0.50	100	70	130			
Toluene	21.1	ug/L	0.50	106	70	130			
Ethylbenzene	20.3	ug/L	0.50	101	70	130			
m+p-Xylenes	42.4	ug/L	0.50	106	70	130			
o-Xylene	21.0	ug/L	0.50	105	70	130			
Xylenes, Total	63.4	ug/L	0.50	106	70	130			
Surr: Trifluorotoluene			0.50	97	80	120			
Sample ID: MBLK_0323VA207r	Method Blank				Run: VARIAN2_070323A			03/23/07 15:07	
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	95	80	120			
Sample ID: B07031298-034FMS	Sample Matrix Spike				Run: VARIAN2_070323A			03/23/07 19:11	
Methyl tert-butyl ether (MTBE)	48.8	ug/L	2.0	98	70	130			
Benzene	47.7	ug/L	1.0	95	70	130			
Toluene	49.1	ug/L	1.0	98	70	130			
Ethylbenzene	47.7	ug/L	1.0	95	70	130			
m+p-Xylenes	99.1	ug/L	1.0	99	70	130			
o-Xylene	48.6	ug/L	1.0	97	70	130			
Xylenes, Total	148	ug/L	1.0	98	70	130			
Surr: Trifluorotoluene			1.0	95	80	120			

Qualifiers:

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ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Batch: R91192
Sample ID: B07031298-034FMSD	Sample Matrix Spike Duplicate				Run: VARIAN2_070323A			03/23/07 20:20	
Methyl tert-butyl ether (MTBE)	48.6	ug/L	2.0	97	70	130	0.3	20	
Benzene	47.9	ug/L	1.0	96	70	130	0.3	20	
Toluene	49.4	ug/L	1.0	99	70	130	0.5	20	
Ethylbenzene	48.0	ug/L	1.0	96	70	130	0.7	20	
m+p-Xylenes	99.5	ug/L	1.0	99	70	130	0.4	20	
o-Xylene	49.4	ug/L	1.0	99	70	130	1.6	20	
Xylenes, Total	149	ug/L	1.0	99	70	130			
Surr: Trifluorotoluene			1.0	95	80	120	0.0	20	

Qualifiers:

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: VARIAN2_070321A	
Sample ID: CCV_0321VA204r-W	Continuing Calibration Verification Standard								03/21/07 14:12
Methyl tert-butyl ether (MTBE)	58.4	ug/L	1.0	97	85	115			
Benzene	19.7	ug/L	0.50	99	85	115			
Toluene	59.9	ug/L	0.50	100	85	115			
Ethylbenzene	20.7	ug/L	0.50	104	85	115			
m+p-Xylenes	80.9	ug/L	0.50	101	85	115			
o-Xylene	41.1	ug/L	0.50	103	85	115			
Xylenes, Total	122	ug/L	0.50	102	85	115			
Surr: Trifluorotoluene			0.50	99	85	115			
Sample ID: CCV_0321VA216r-W	Continuing Calibration Verification Standard								03/21/07 21:08
Methyl tert-butyl ether (MTBE)	52.9	ug/L	1.0	88	85	115			
Benzene	17.0	ug/L	0.50	85	85	115			
Toluene	51.5	ug/L	0.50	86	85	115			
Ethylbenzene	17.5	ug/L	0.50	87	85	115			
m+p-Xylenes	68.9	ug/L	0.50	86	85	115			
o-Xylene	35.1	ug/L	0.50	88	85	115			
Xylenes, Total	104	ug/L	0.50	87	85	115			
Surr: Trifluorotoluene			0.50	85	85	115			
Method: SW8021B									Batch: R91193
Sample ID: LCS_0321VA203r	Laboratory Control Sample				Run: VARIAN2_070321A				03/21/07 13:37
Methyl tert-butyl ether (MTBE)	18.3	ug/L	1.0	92	70	130			
Benzene	18.8	ug/L	0.50	94	70	130			
Toluene	20.2	ug/L	0.50	101	70	130			
Ethylbenzene	20.3	ug/L	0.50	102	70	130			
m+p-Xylenes	43.0	ug/L	0.50	108	70	130			
o-Xylene	21.1	ug/L	0.50	106	70	130			
Xylenes, Total	64.2	ug/L	0.50	107	70	130			
Surr: Trifluorotoluene			0.50	101	80	120			
Sample ID: MBLK_0321VA207r	Method Blank				Run: VARIAN2_070321A				03/21/07 15:56
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	89	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: VARIAN2_070320A	
Sample ID: CCV_0320VA204r-W	Continuing Calibration Verification Standard							03/20/07 13:15	
Methyl tert-butyl ether (MTBE)	57.9	ug/L	1.0	96	85	115			
Benzene	19.7	ug/L	0.50	99	85	115			
Toluene	60.2	ug/L	0.50	100	85	115			
Ethylbenzene	20.8	ug/L	0.50	104	85	115			
m+p-Xylenes	81.0	ug/L	0.50	101	85	115			
o-Xylene	41.0	ug/L	0.50	102	85	115			
Xylenes, Total	122	ug/L	0.50	102	85	115			
Surr: Trifluorotoluene			0.50	101	85	115			
Method: SW8021B								Batch: R91194	
Sample ID: MBLK_0320VA207r	Method Blank				Run: VARIAN2_070320A			03/20/07 14:59	
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	93	80	120			
Sample ID: B07031298-001FMS	Sample Matrix Spike				Run: VARIAN2_070320A			03/20/07 16:44	
Methyl tert-butyl ether (MTBE)	47.1	ug/L	2.0	94	70	130			
Benzene	45.9	ug/L	1.0	92	70	130			
Toluene	49.1	ug/L	1.0	98	70	130			
Ethylbenzene	48.6	ug/L	1.0	97	70	130			
m+p-Xylenes	102	ug/L	1.0	102	70	130			
o-Xylene	50.7	ug/L	1.0	101	70	130			
Xylenes, Total	153	ug/L	1.0	102	70	130			
Surr: Trifluorotoluene			1.0	98	80	120			
Sample ID: B07031298-001FMSD	Sample Matrix Spike Duplicate				Run: VARIAN2_070320A			03/20/07 17:54	
Methyl tert-butyl ether (MTBE)	47.8	ug/L	2.0	96	70	130	1.4	20	
Benzene	46.5	ug/L	1.0	93	70	130	1.3	20	
Toluene	48.8	ug/L	1.0	98	70	130	0.7	20	
Ethylbenzene	48.2	ug/L	1.0	96	70	130	0.9	20	
m+p-Xylenes	101	ug/L	1.0	101	70	130	1.8	20	
o-Xylene	49.7	ug/L	1.0	99	70	130	1.9	20	
Xylenes, Total	150	ug/L	1.0	100	70	130			
Surr: Trifluorotoluene			1.0	100	80	120	0.0	20	

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: VARIAN2_070322A	
Sample ID: CCV_0322VA204r-W	Continuing Calibration Verification Standard							03/22/07 13:58	
Methyl tert-butyl ether (MTBE)	59.6	ug/L	1.0	99	85	115			
Benzene	19.7	ug/L	0.50	98	85	115			
Toluene	60.0	ug/L	0.50	100	85	115			
Ethylbenzene	20.7	ug/L	0.50	104	85	115			
m+p-Xylenes	80.4	ug/L	0.50	101	85	115			
o-Xylene	40.8	ug/L	0.50	102	85	115			
Xylenes, Total	121	ug/L	0.50	101	85	115			
Surr: Trifluorotoluene			0.50	100	85	115			
Method: SW8021B								Batch: R91195	
Sample ID: LCS_0322VA203r	Laboratory Control Sample				Run: VARIAN2_070322A			03/22/07 13:23	
Methyl tert-butyl ether (MTBE)	21.8	ug/L	1.0	109	70	130			
Benzene	20.6	ug/L	0.50	103	70	130			
Toluene	21.1	ug/L	0.50	106	70	130			
Ethylbenzene	20.8	ug/L	0.50	104	70	130			
m+p-Xylenes	43.6	ug/L	0.50	109	70	130			
o-Xylene	21.4	ug/L	0.50	107	70	130			
Xylenes, Total	65.0	ug/L	0.50	108	70	130			
Surr: Trifluorotoluene			0.50	99	80	120			
Sample ID: MBLK_0322VA207r	Method Blank				Run: VARIAN2_070322A			03/22/07 15:42	
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	95	80	120			

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: PE2_070321A	
Sample ID: CCV_0321PE204r-W	Continuing Calibration Verification Standard							03/21/07 14:18	
Methyl tert-butyl ether (MTBE)	63.5	ug/L	1.0	106	85	115			
Benzene	21.1	ug/L	0.50	105	85	115			
Toluene	64.9	ug/L	0.50	108	85	115			
Ethylbenzene	21.8	ug/L	0.50	109	85	115			
m+p-Xylenes	87.4	ug/L	0.50	109	85	115			
o-Xylene	43.3	ug/L	0.50	108	85	115			
Xylenes, Total	131	ug/L	0.50	109	85	115			
Surr: Trifluorotoluene			0.50	109	85	115			
Method: SW8021B								Batch: R91196	
Sample ID: LCS_0321PE203r	Laboratory Control Sample				Run: PE2_070321A			03/21/07 13:41	
Methyl tert-butyl ether (MTBE)	19.4	ug/L	1.0	97	70	130			
Benzene	20.0	ug/L	0.50	100	70	130			
Toluene	20.7	ug/L	0.50	103	70	130			
Ethylbenzene	20.8	ug/L	0.50	104	70	130			
m+p-Xylenes	42.0	ug/L	0.50	105	70	130			
o-Xylene	21.2	ug/L	0.50	106	70	130			
Xylenes, Total	63.3	ug/L	0.50	105	70	130			
Surr: Trifluorotoluene			0.50	108	80	120			
Sample ID: MBLK_0321PE206r	Method Blank				Run: PE2_070321A			03/21/07 15:31	
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	101	80	120			

Qualifiers:

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: PE2_070323A	
Sample ID: CCV_0323PE204r-W	Continuing Calibration Verification Standard							03/23/07 13:28	
Methyl tert-butyl ether (MTBE)	60.7	ug/L	1.0	101	85	115			
Benzene	20.6	ug/L	0.50	103	85	115			
Toluene	62.4	ug/L	0.50	104	85	115			
Ethylbenzene	20.9	ug/L	0.50	105	85	115			
m+p-Xylenes	83.7	ug/L	0.50	105	85	115			
o-Xylene	41.5	ug/L	0.50	104	85	115			
Xylenes, Total	125	ug/L	0.50	104	85	115			
Surr: Trifluorotoluene			0.50	105	85	115			
Method: SW8021B								Batch: R91197	
Sample ID: LCS_0323PE203r	Laboratory Control Sample				Run: PE2_070323A			03/23/07 12:51	
Methyl tert-butyl ether (MTBE)	21.0	ug/L	1.0	105	70	130			
Benzene	21.7	ug/L	0.50	109	70	130			
Toluene	21.9	ug/L	0.50	110	70	130			
Ethylbenzene	21.1	ug/L	0.50	106	70	130			
m+p-Xylenes	42.6	ug/L	0.50	106	70	130			
o-Xylene	21.3	ug/L	0.50	107	70	130			
Xylenes, Total	63.9	ug/L	0.50	107	70	130			
Surr: Trifluorotoluene			0.50	106	80	120			
Sample ID: MBLK_0323PE206r	Method Blank				Run: PE2_070323A			03/23/07 14:41	
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	100	80	120			
Sample ID: B07031298-039FMS	Sample Matrix Spike				Run: PE2_070323A			03/23/07 16:32	
Methyl tert-butyl ether (MTBE)	54.6	ug/L	2.0	109	70	130			
Benzene	74.8	ug/L	1.0	101	70	130			
Toluene	53.5	ug/L	1.0	107	70	130			
Ethylbenzene	51.3	ug/L	1.0	103	70	130			
m+p-Xylenes	103	ug/L	1.0	103	70	130			
o-Xylene	52.0	ug/L	1.0	104	70	130			
Xylenes, Total	155	ug/L	1.0	103	70	130			
Surr: Trifluorotoluene			1.0	106	80	120			

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QA/QC Summary Report

Client: HKM Engineering Inc
Project: Pioneer Natural Resources-Poplar Biere Well Site

Report Date: 03/26/07
Work Order: B07031298

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Batch: R91197
Sample ID: B07031298-039FMSD	Sample Matrix Spike Duplicate				Run: PE2_070323A				03/23/07 17:46
Methyl tert-butyl ether (MTBE)	55.6	ug/L	2.0	111	70	130	1.7	20	
Benzene	75.1	ug/L	1.0	101	70	130	0.4	20	
Toluene	52.5	ug/L	1.0	105	70	130	1.8	20	
Ethylbenzene	51.1	ug/L	1.0	102	70	130	0.5	20	
m+p-Xylenes	102	ug/L	1.0	102	70	130	0.6	20	
o-Xylene	52.0	ug/L	1.0	104	70	130	0.0	20	
Xylenes, Total	154	ug/L	1.0	103	70	130			
Surr: Trifluorotoluene			1.0	105	80	120	0.0	20	
Method: SW8021B									Analytical Run: PE2_070322A
Sample ID: CCV_0322PE204r-W	Continuing Calibration Verification Standard								03/22/07 14:03
Methyl tert-butyl ether (MTBE)	60.3	ug/L	1.0	100	85	115			
Benzene	20.3	ug/L	0.50	101	85	115			
Toluene	62.6	ug/L	0.50	104	85	115			
Ethylbenzene	21.0	ug/L	0.50	105	85	115			
m+p-Xylenes	84.4	ug/L	0.50	106	85	115			
o-Xylene	41.9	ug/L	0.50	105	85	115			
Xylenes, Total	126	ug/L	0.50	105	85	115			
Surr: Trifluorotoluene			0.50	108	85	115			
Method: SW8021B									Batch: R91199
Sample ID: LCS_0322PE203r	Laboratory Control Sample				Run: PE2_070322A				03/22/07 13:26
Methyl tert-butyl ether (MTBE)	21.1	ug/L	1.0	106	70	130			
Benzene	21.7	ug/L	0.50	109	70	130			
Toluene	21.9	ug/L	0.50	110	70	130			
Ethylbenzene	21.4	ug/L	0.50	107	70	130			
m+p-Xylenes	43.1	ug/L	0.50	108	70	130			
o-Xylene	21.7	ug/L	0.50	109	70	130			
Xylenes, Total	64.8	ug/L	0.50	108	70	130			
Surr: Trifluorotoluene			0.50	106	80	120			
Sample ID: MBLK_0322PE206r	Method Blank				Run: PE2_070322A				03/22/07 15:17
Methyl tert-butyl ether (MTBE)	ND	ug/L	1.0						
Benzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	102	80	120			

Qualifiers:

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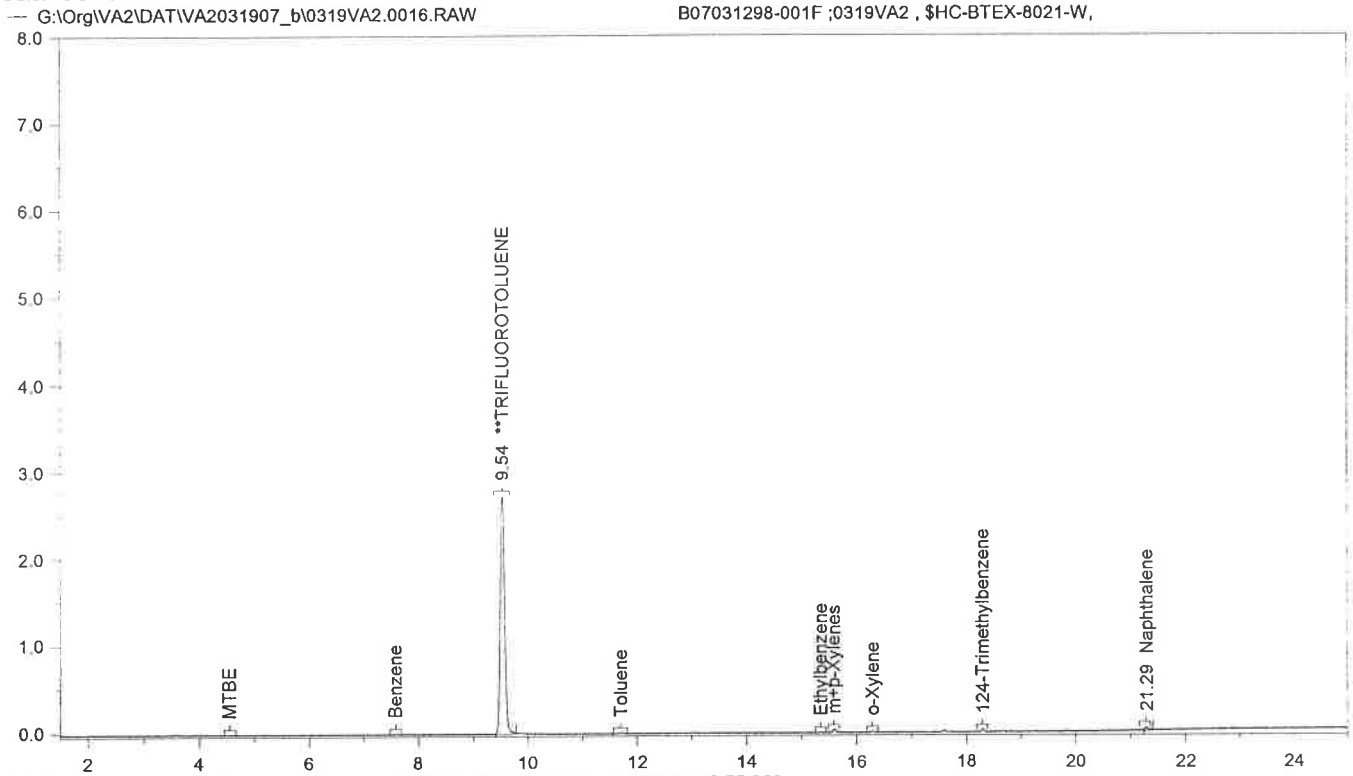
PNR-35-07



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-001F ;0319VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2031907_b\0319VA2.0016.RAW
Date & Time Acquired: 3/19/2007 8:17:31 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.	191	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.536	50.	44.591	89.18	80-120

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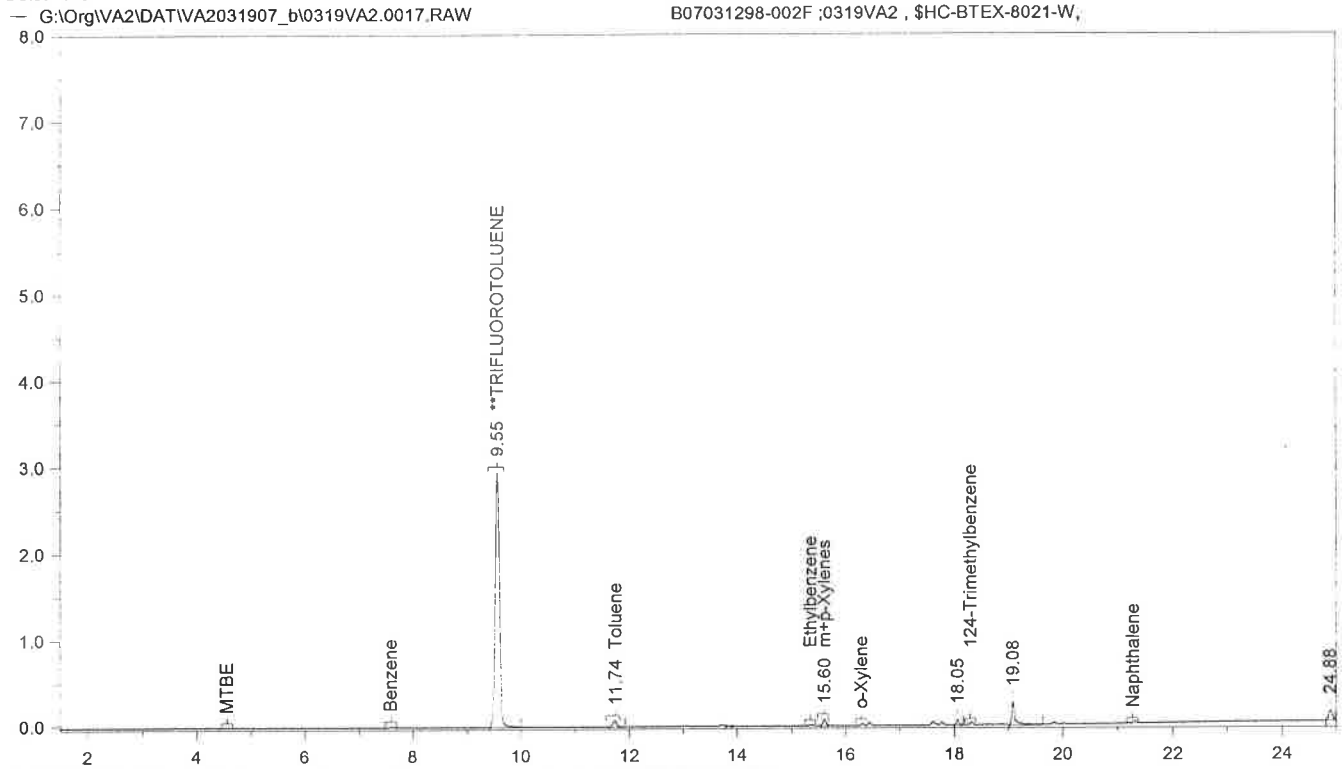
PNR-16



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-002F ;0319VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2031907_b\0319VA2.0017.RAW
Date & Time Acquired: 3/19/2007 8:52:11 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	11.741	-2.174	-2.194	441	.439	J
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.604	15.604	15.604	314	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.547	50.	48.699	97.4	80-120

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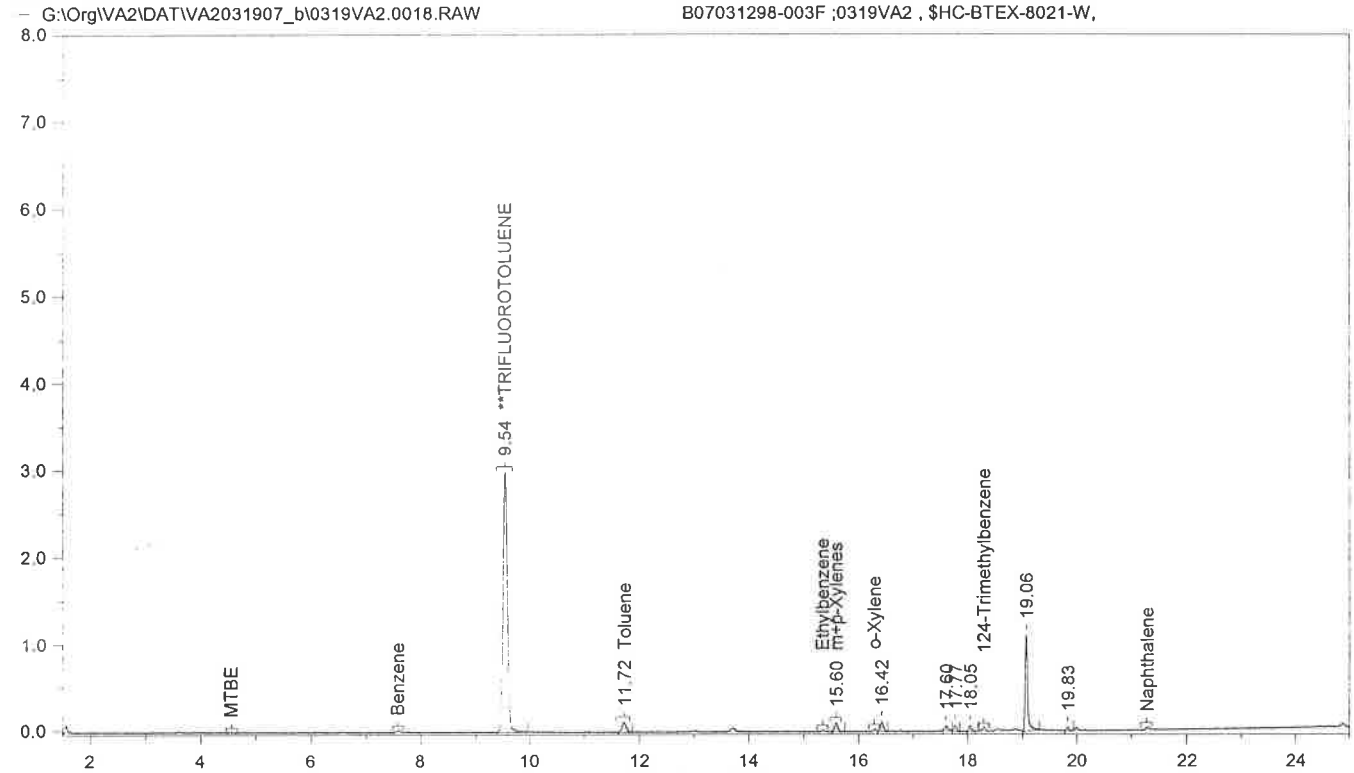
MOC-20A



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-003F ;0319VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2031907_b\0319VA2.0018.RAW
Date & Time Acquired: 3/19/2007 9:27:10 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	11.72	-2.174	-2.184	667	.666	
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.597	15.597	15.597	450	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.536	50.	49.508	99.02	80-120

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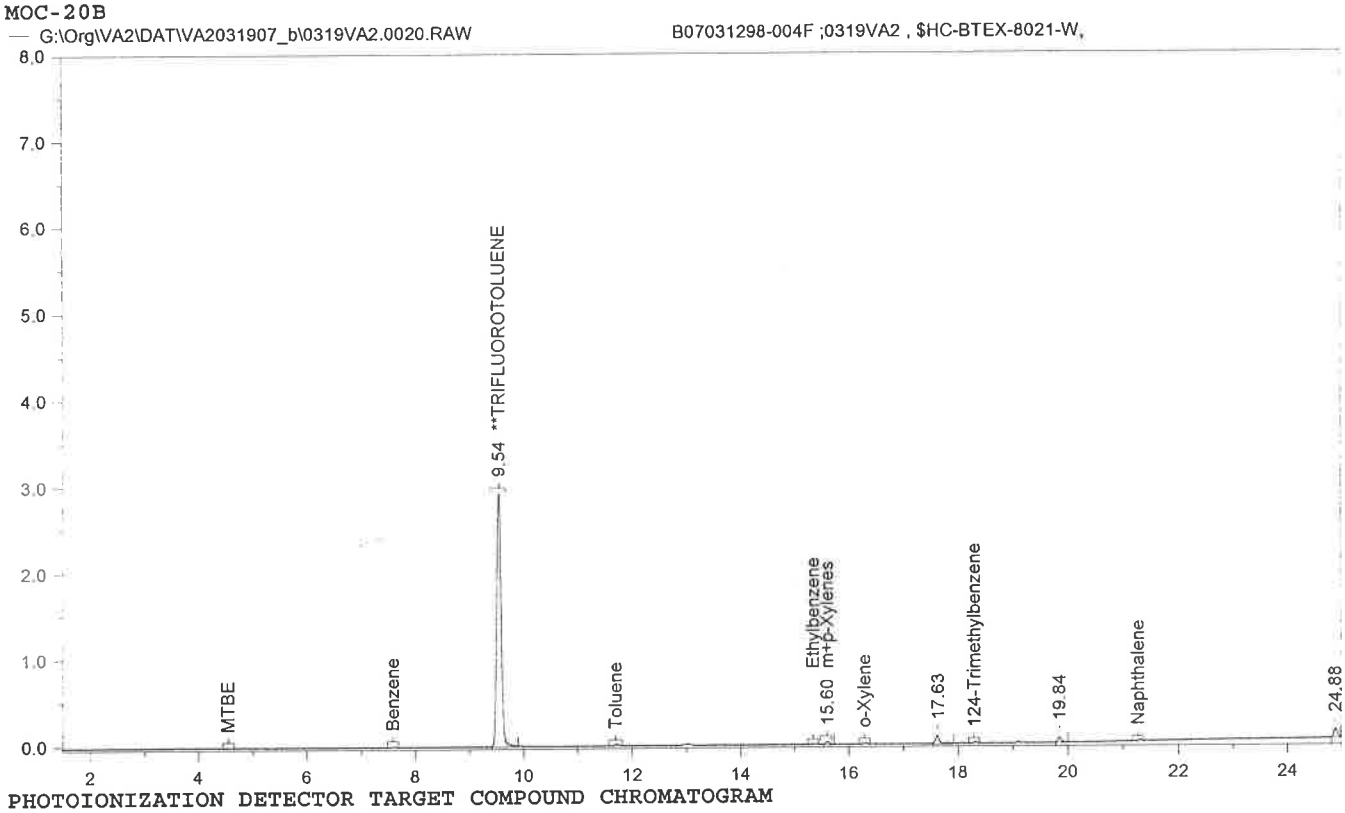
MOC-20B



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-004F ;0319VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2031907_b\0319VA2.0020.RAW
Date & Time Acquired: 3/19/2007 10:36:00 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.603	15.603	15.603	203	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.544	50.	48.402	96.8	80-120

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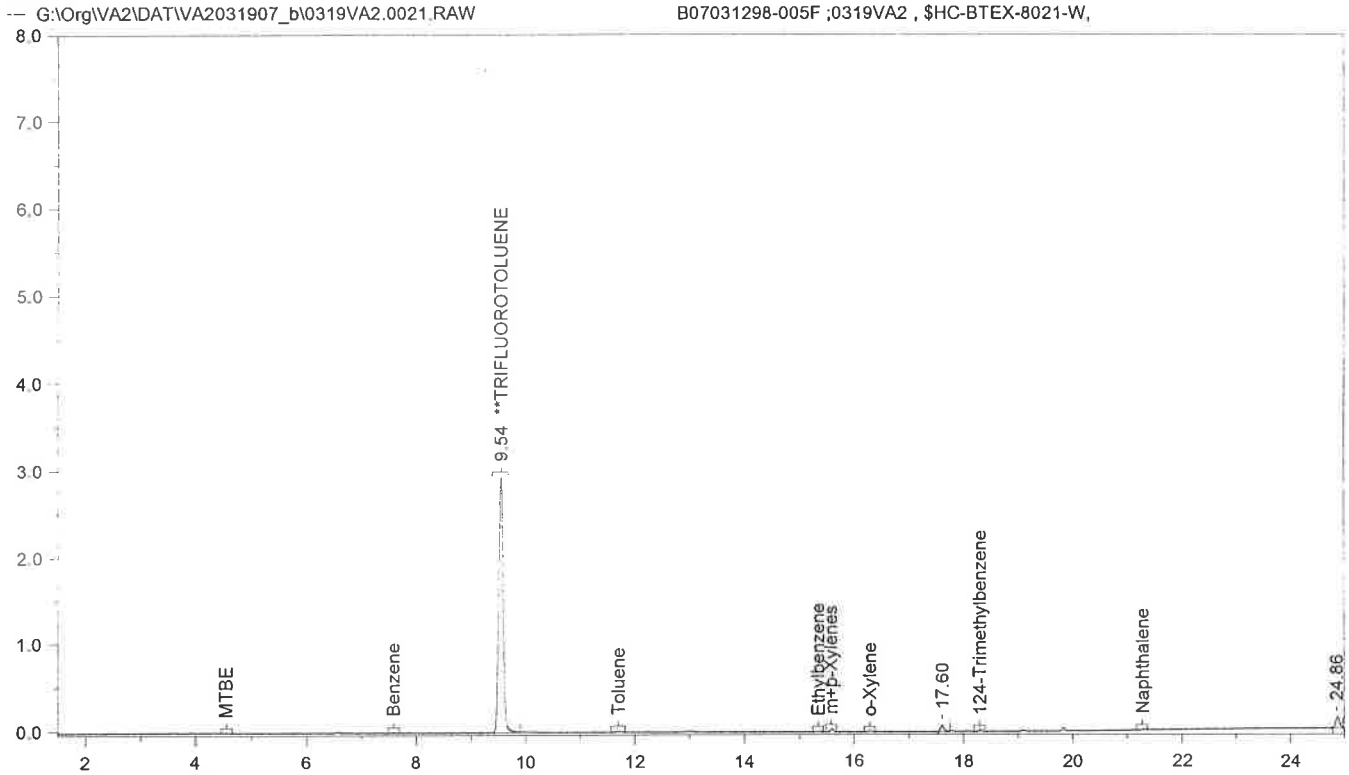
MOC-4

-- G:\Org\VA2\DAT\VA2031907_b\0319VA2.0021.RAW B07031298-005F ;0319VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-005F ;0319VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2031907_b\0319VA2.0021.RAW
Date & Time Acquired: 3/19/2007 11:10:49 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.539	50.	48.278	96.56	80-120

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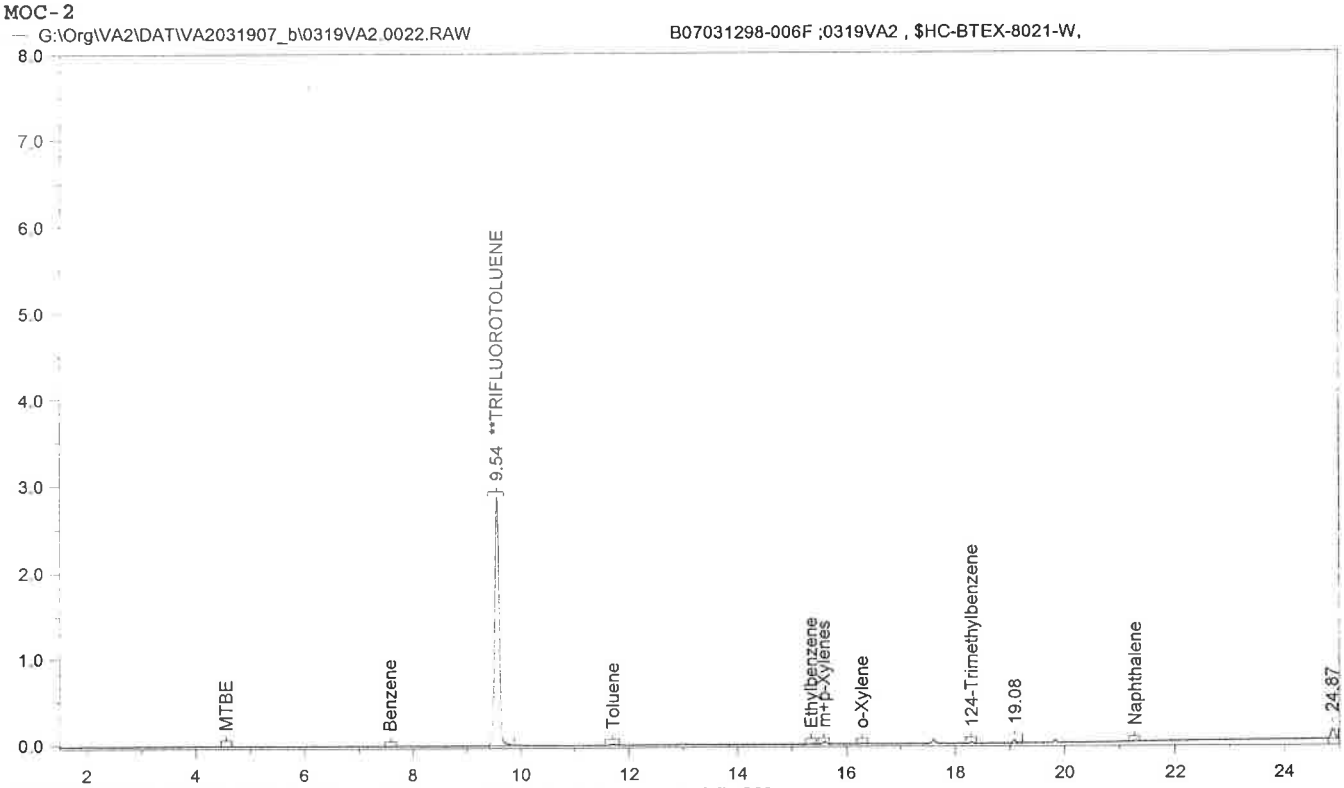
MOC-2



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-006F ;0319VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2031907_b\0319VA2.0022.RAW
Date & Time Acquired: 3/19/2007 11:45:11 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.542	50.	47.195	94.39	80-120

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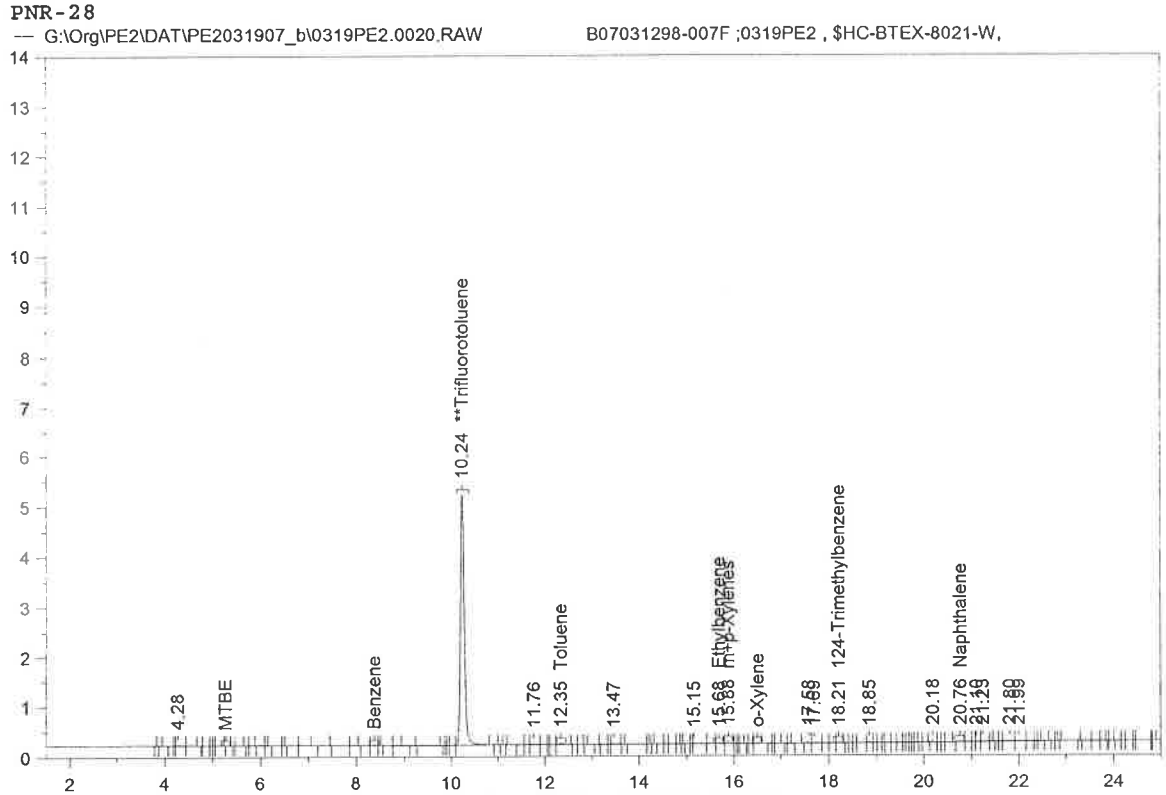
PNR-28



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-007F ;0319PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2031907_b\0319PE2.0020.RAW
Date & Time Acquired: 3/19/2007 11:10:01 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.345	12.345	12.345	192	.5	U
Ethylbenzene	15.682	15.682	15.682	83	.5	U
m+p-Xylenes	15.877	15.877	15.877	216	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.207	18.207	18.207	110	2.	U
Naphthalene	20.759	20.759	20.759	124	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.239	50.	54.068	108.14	80-120

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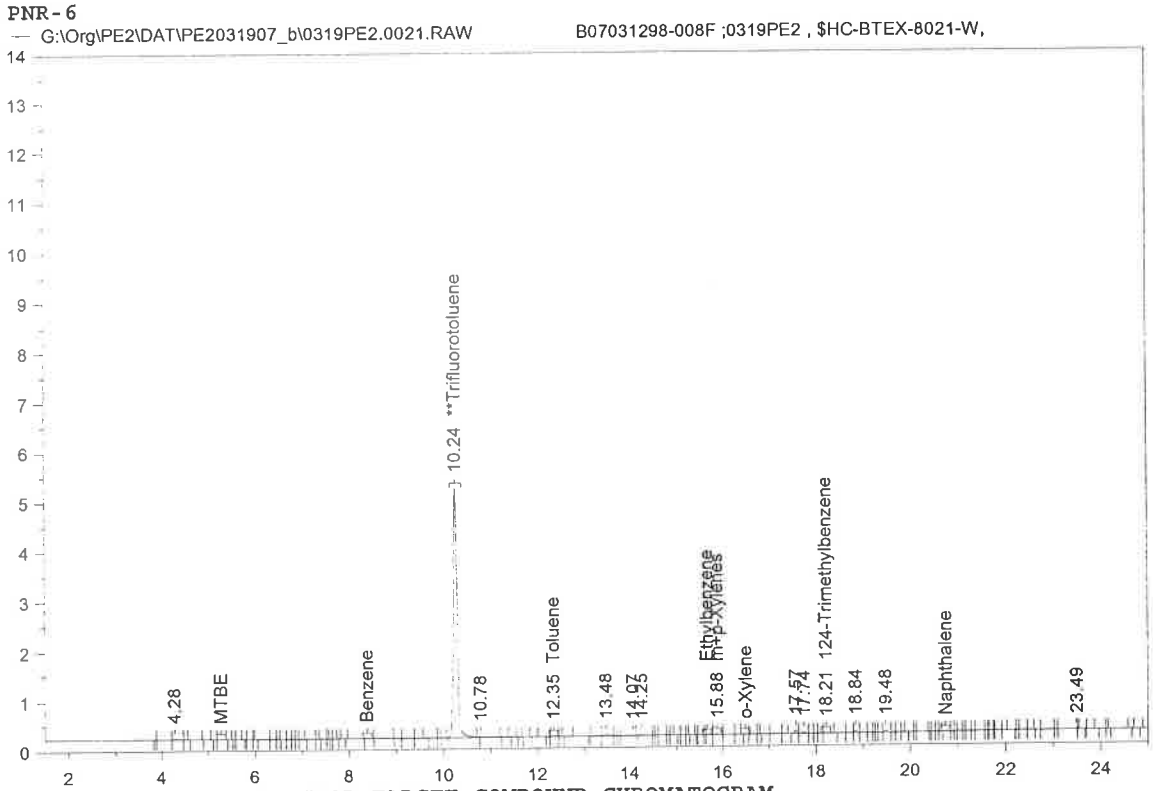
PNR-6



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-008F ;0319PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2031907_b\0319PE2.0021.RAW
Date & Time Acquired: 3/19/2007 11:46:52 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.354	12.354	12.354	124	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.877	15.877	15.877	133	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.212	18.212	18.212	107	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.239	50.	54.194	108.39	80-120

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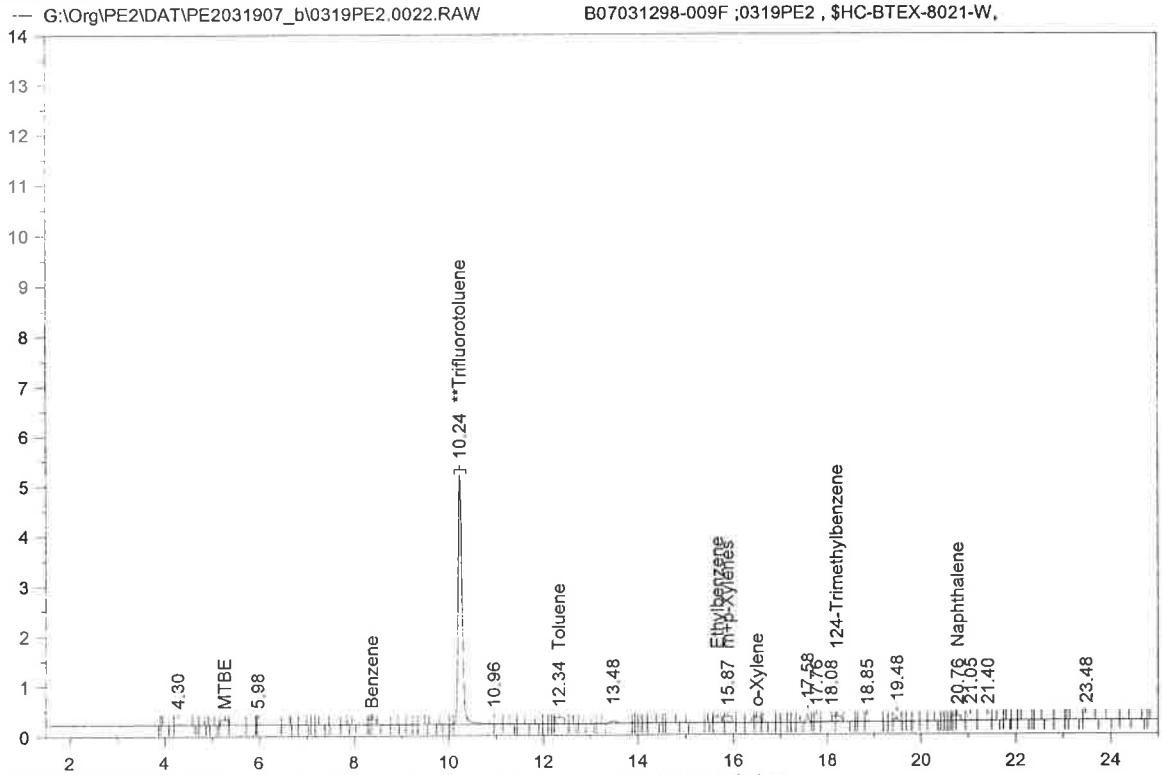
PNR-18



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-009F ;0319PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2031907_b\0319PE2.0022.RAW
Date & Time Acquired: 3/20/2007 12:23:38 AM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.336	12.336	12.336	113	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.875	15.875	15.875	110	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	20.765	20.765	20.765	78	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.241	50.	54.341	108.68	80-120

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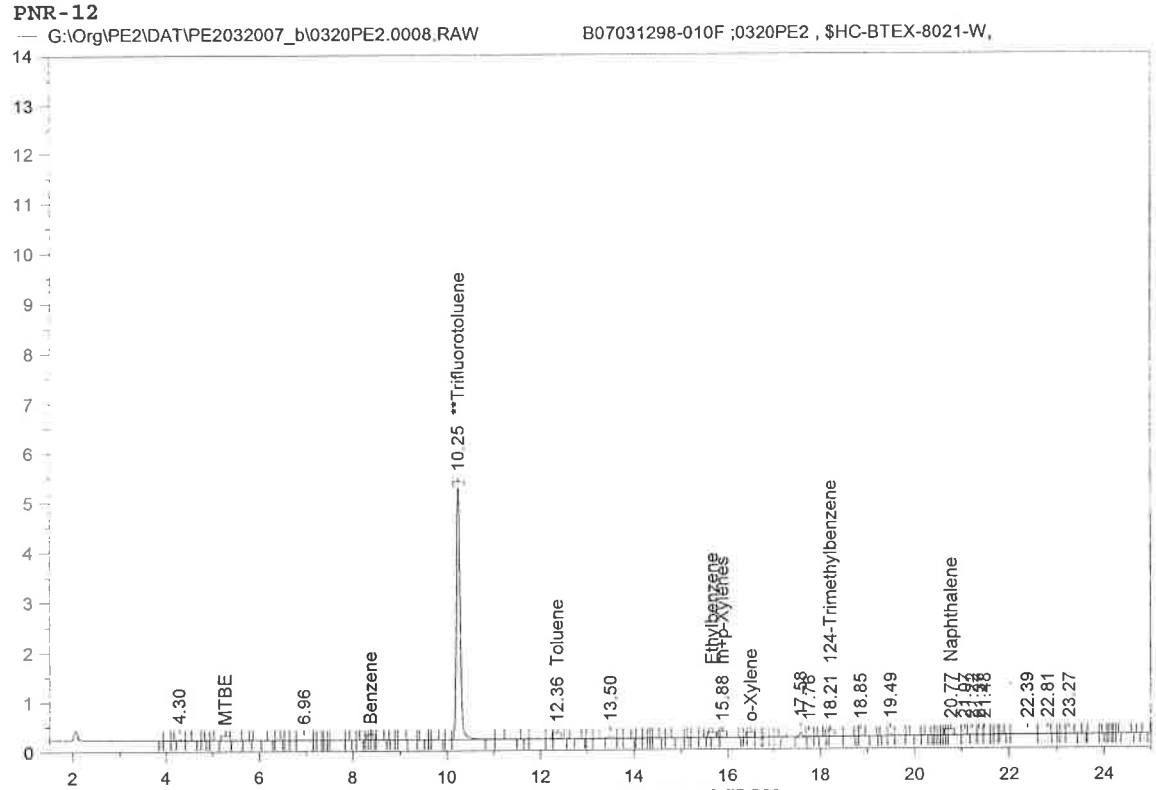
PNR-12



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-010F ;0320PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0008.RAW
Date & Time Acquired: 3/20/2007 4:09:13 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.361	12.361	12.361	125	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.883	15.883	15.883	124	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.212	18.212	18.212	122	2.	U
Naphthalene	20.77	20.77	20.77	168	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.247	50.	54.802	109.6	80-120

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PNR-33-06

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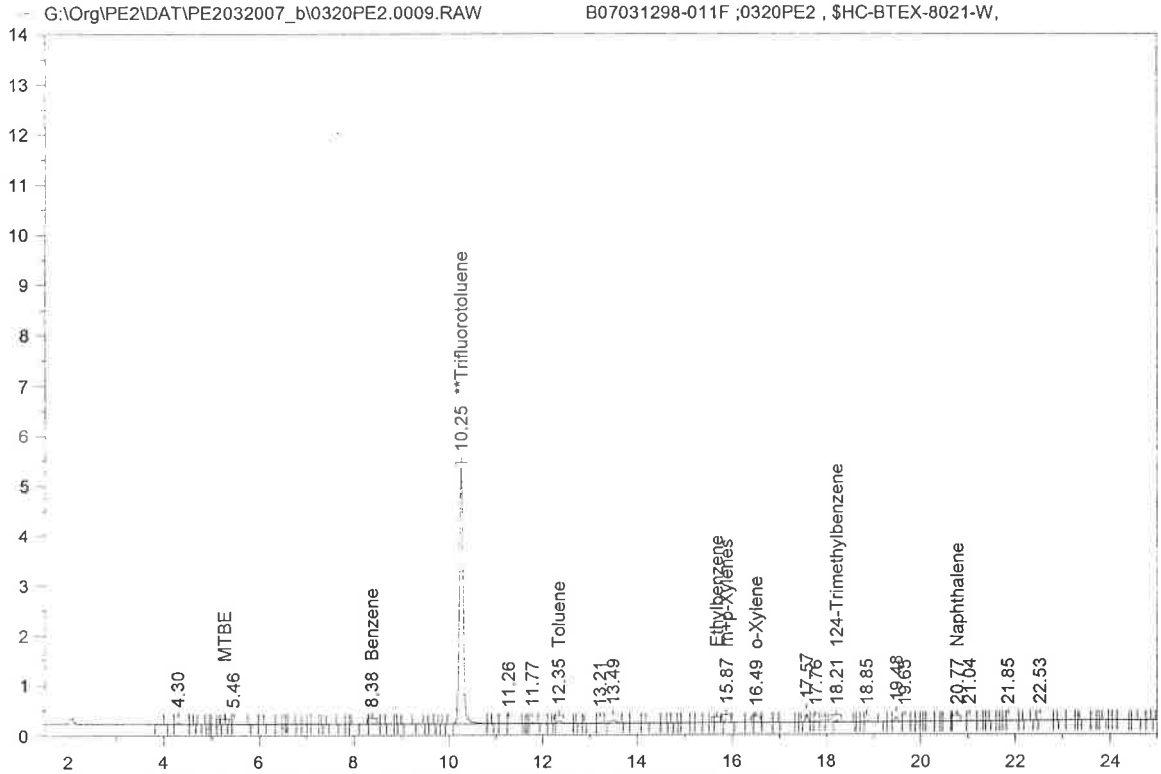

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-011F ;0320PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0009.RAW
Date & Time Acquired: 3/20/2007 4:46:34 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.383	8.383	8.383	82	.5	U
Toluene	12.345	12.345	12.345	382	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.873	15.873	15.873	279	.5	U
o-Xylene	16.491	16.491	16.491	107	.5	U
124-Trimethylbenzene	18.208	18.208	18.208	154	2.	U
Naphthalene	20.768	20.768	20.768	155	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.246	50.	55.112	110.22	80-120

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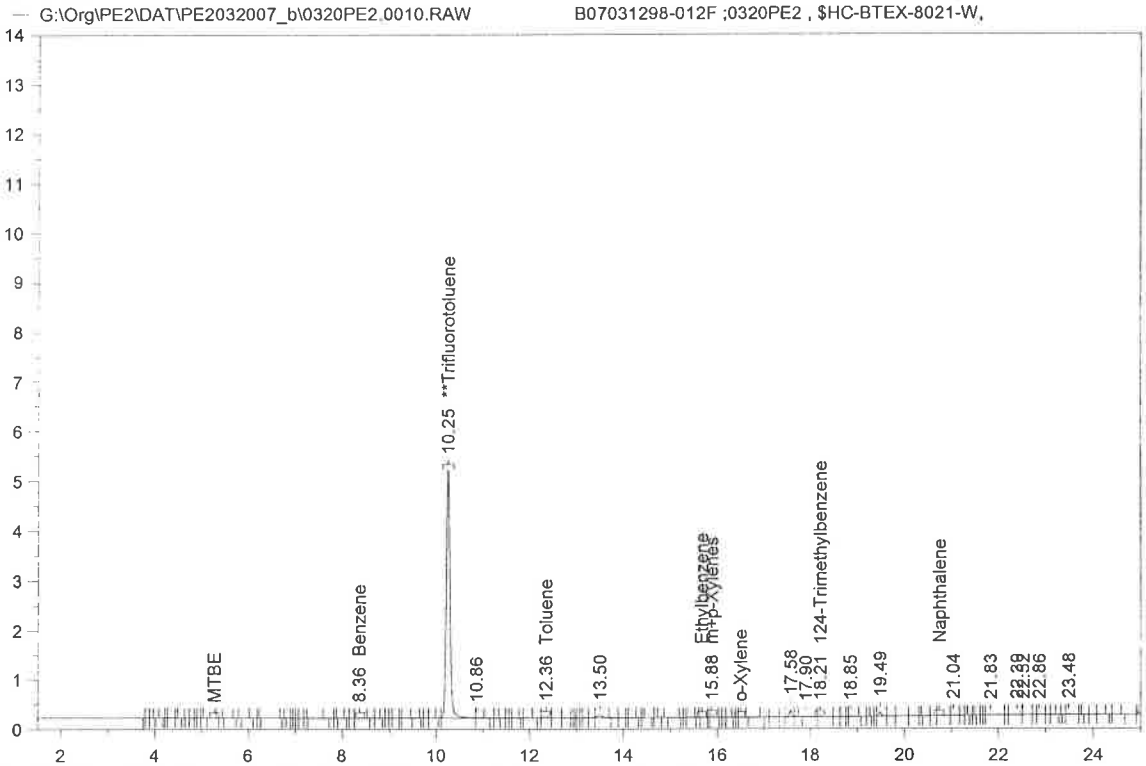
PNR-22



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-012F ;0320PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0010.RAW
Date & Time Acquired: 3/20/2007 5:23:50 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.364	8.364	8.364	90	.5	U
Toluene	12.356	12.356	12.356	218	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.878	15.878	15.878	171	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.212	18.212	18.212	104	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.247	50.	53.969	107.94	80-120

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PNR-29

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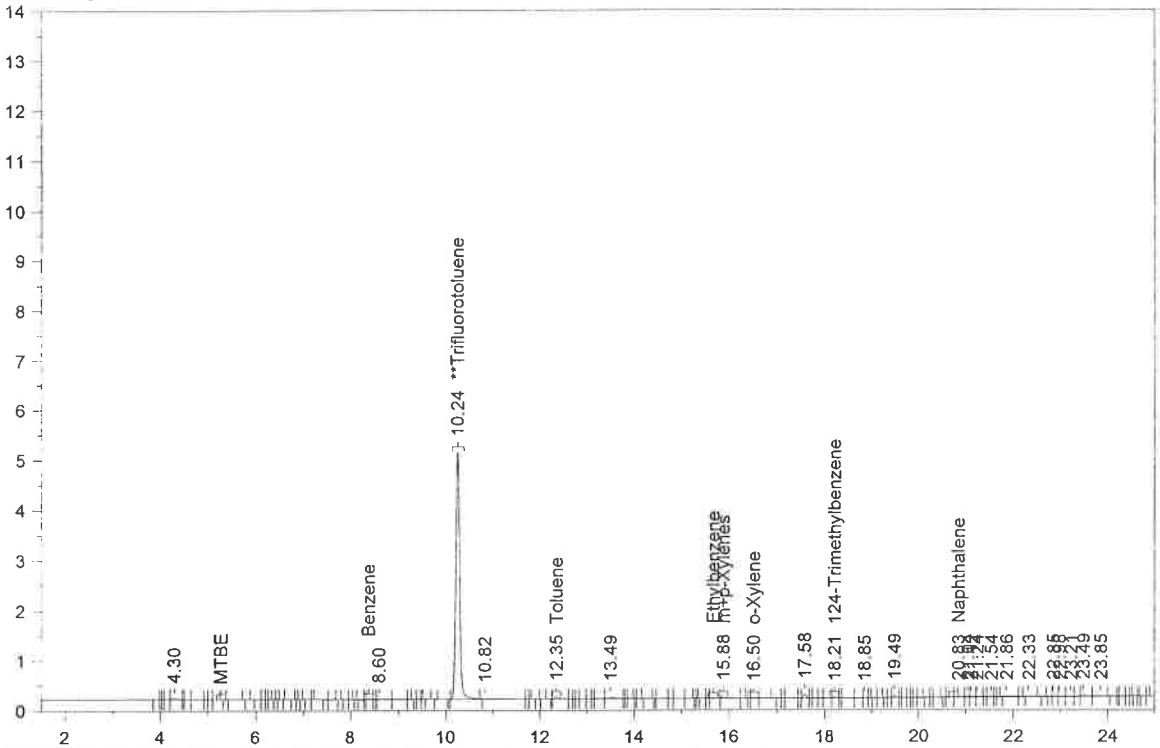

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-013F ;0320PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0012.RAW
Date & Time Acquired: 3/20/2007 6:37:58 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.354	12.354	12.354	257	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.879	15.879	15.879	256	.5	U
o-Xylene	16.498	16.498	16.498	82	.5	U
124-Trimethylbenzene	18.212	18.212	18.212	92	2.	U
Naphthalene	20.83	20.83	20.83	118	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.242	50.	53.101	106.2	80-120

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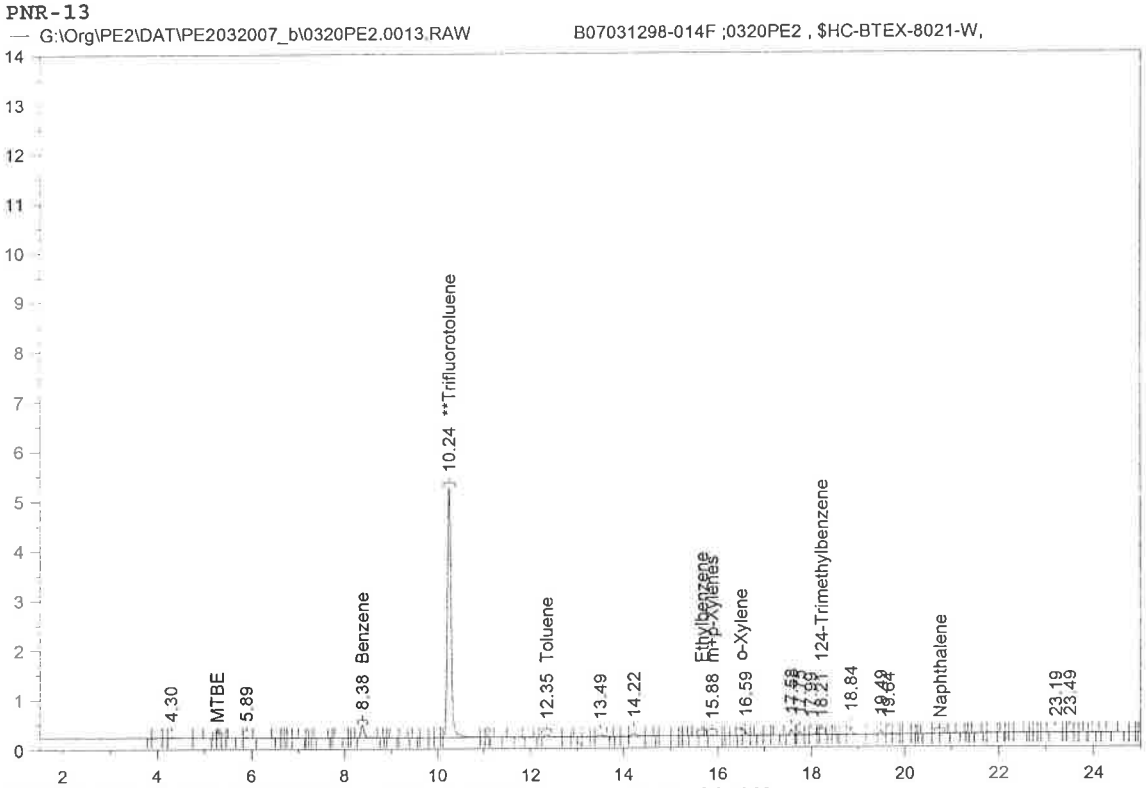
PNR-13



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-014F ;0320PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0013.RAW
Date & Time Acquired: 3/20/2007 7:14:54 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.378	1.874	1.867	1361	.809	
Toluene	12.354	12.354	12.354	313	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.877	15.877	15.877	135	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.213	18.213	18.213	87	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.245	50.	54.068	108.14	80-120

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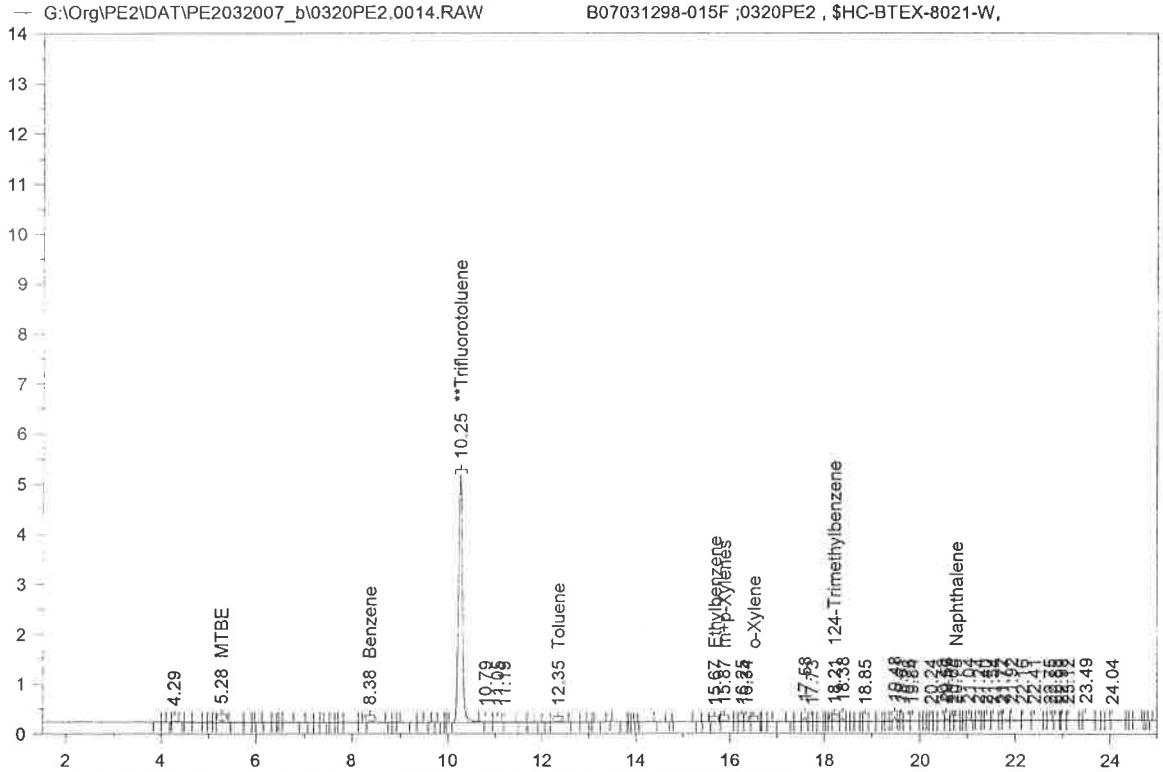
PNR-14



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-015F ;0320PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0014.RAW
Date & Time Acquired: 3/20/2007 7:51:42 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	5.279	5.279	5.279	176	1.	U
Benzene	8.375	8.375	8.375	263	.5	U
Toluene	12.352	12.352	12.352	177	.5	U
Ethylbenzene	15.669	15.669	15.669	80	.5	U
m+p-Xylenes	15.873	15.873	15.873	221	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.209	18.209	18.209	161	2.	U
Naphthalene	20.755	20.755	20.755	136	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.245	50.	52.983	105.97	80-120

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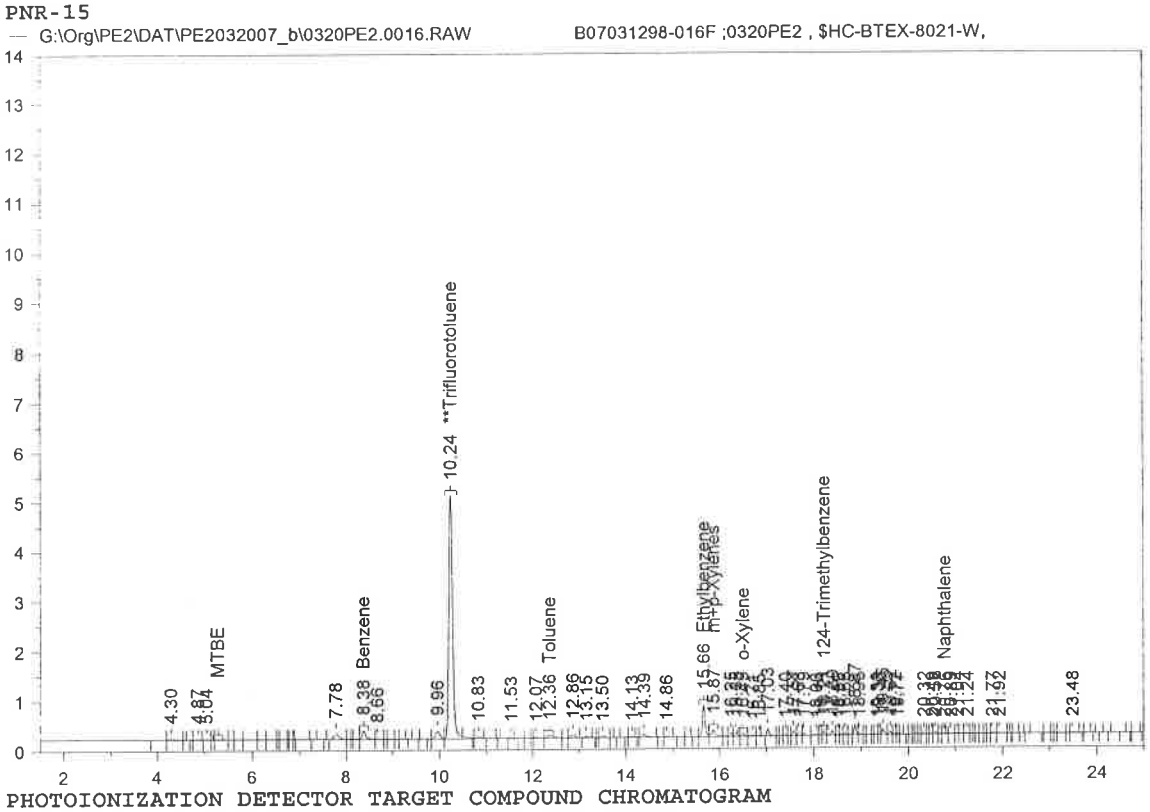
PNR-15



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-016F ;0320PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0016.RAW
Date & Time Acquired: 3/20/2007 9:05:30 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.377	1.874	1.868	1067	.634	
Toluene	12.362	12.362	12.362	545	.5	U
Ethylbenzene	15.661	-5.41	-5.416	2595	1.989	
m+p-Xylenes	15.873	-5.619	-5.628	834	.556	
o-Xylene	16.493	16.493	16.493	249	.5	U
124-Trimethylbenzene	18.209	18.209	18.209	292	2.	U
Naphthalene	20.756	20.756	20.756	86	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.245	50.	52.115	104.23	80-120

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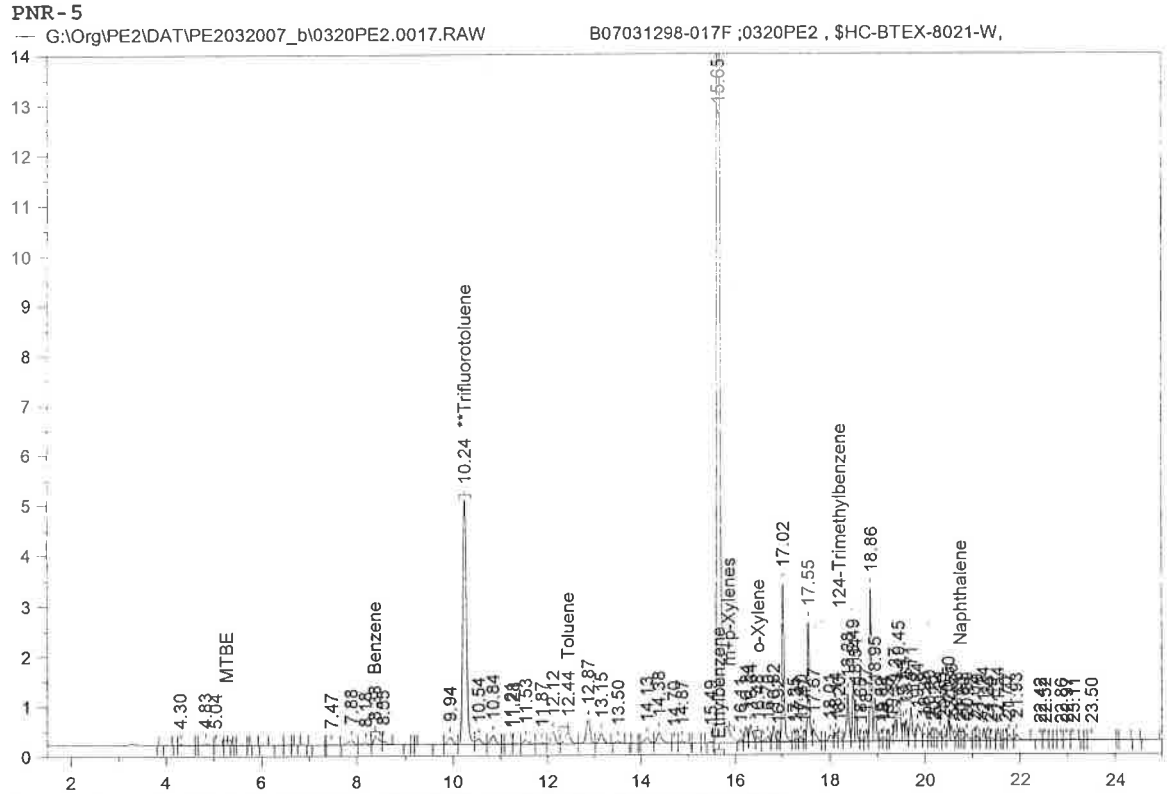
PNR-5



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-017F ;0320PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0017.RAW
Date & Time Acquired: 3/20/2007 9:42:30 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.377	1.874	1.867	1256	.746	
Toluene	12.439	-2.095	-2.195	1819	1.212	
Ethylbenzene	15.652	-5.41	-5.409	110829	84.954	
m+p-Xylenes	.	.	.		.5	U
o-Xylene	16.484	16.484	16.484	406	.5	U
124-Trimethylbenzene	18.204	18.204	18.204	305	2.	U
Naphthalene	20.735	20.735	20.735	162	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.243	50.	50.682	101.36	80-120

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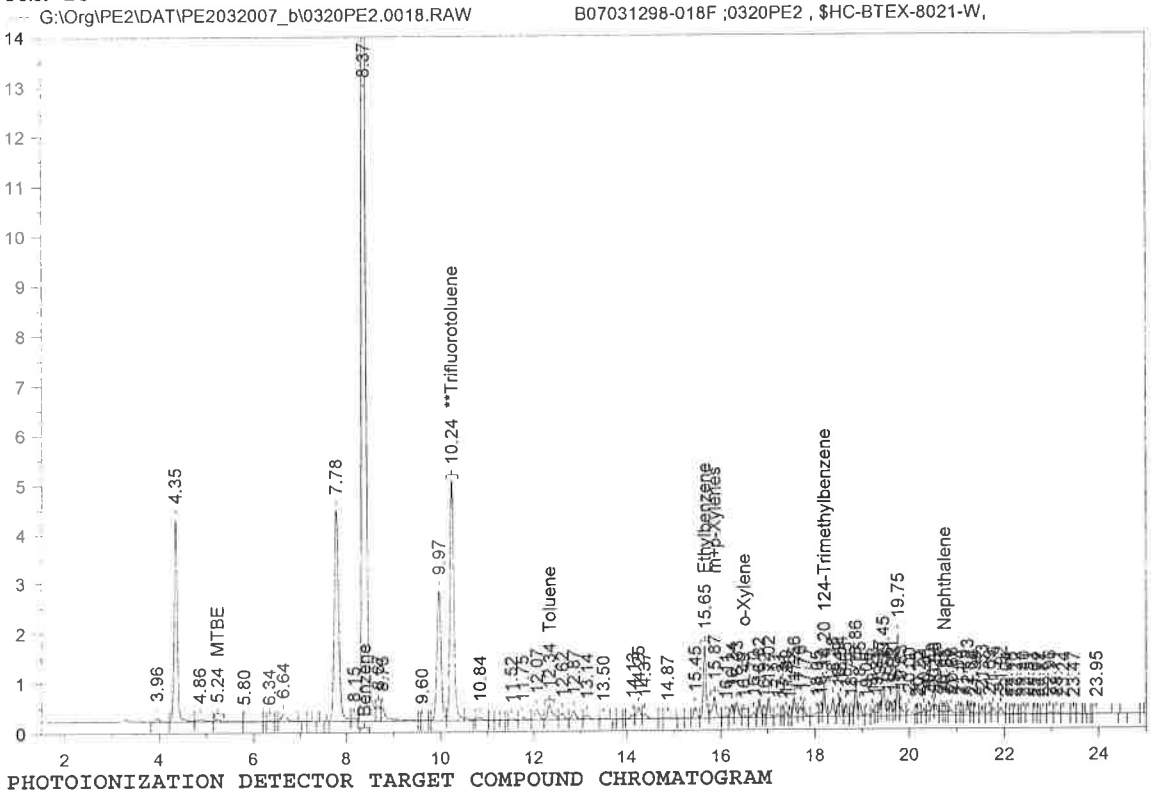
PNR-23

G:\Org\PE2\DAT\PE2032007_b\0320PE2.0018.RAW B07031298-018F ;0320PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-018F ;0320PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0018.RAW
Date & Time Acquired: 3/20/2007 10:19:40 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	5.238	5.238	5.238	458	1.	U
Benzene	8.371	1.874	1.873	124749	74.135	
Toluene	12.343	-2.095	-2.099	2214	1.476	
Ethylbenzene	15.652	-5.41	-5.407	5815	4.458	
m+p-Xylenes	15.865	-5.619	-5.621	2511	1.673	
o-Xylene	16.486	16.486	16.486	316	.5	U
124-Trimethylbenzene	18.197	18.197	18.197	1937	2.	U
Naphthalene	20.734	20.734	20.734	231	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.244	50.	51.418	102.84	80-120

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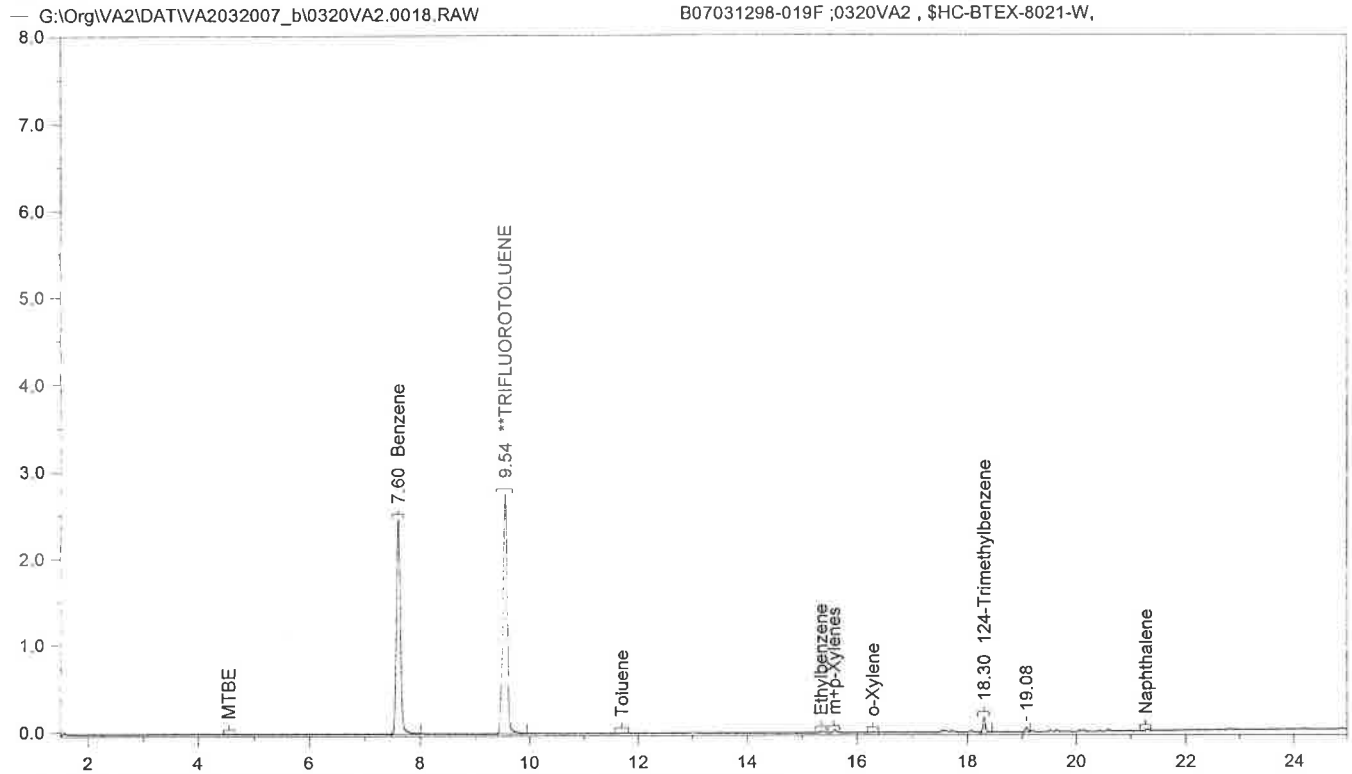
PNR-19



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-019F ;0320VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032007_b\0320VA2.0018.RAW
Date & Time Acquired: 3/20/2007 9:22:42 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.597	1.941	1.941	12400	11.628	
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.303	18.303	18.303	589	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.538	50.	44.974	89.95	80-120

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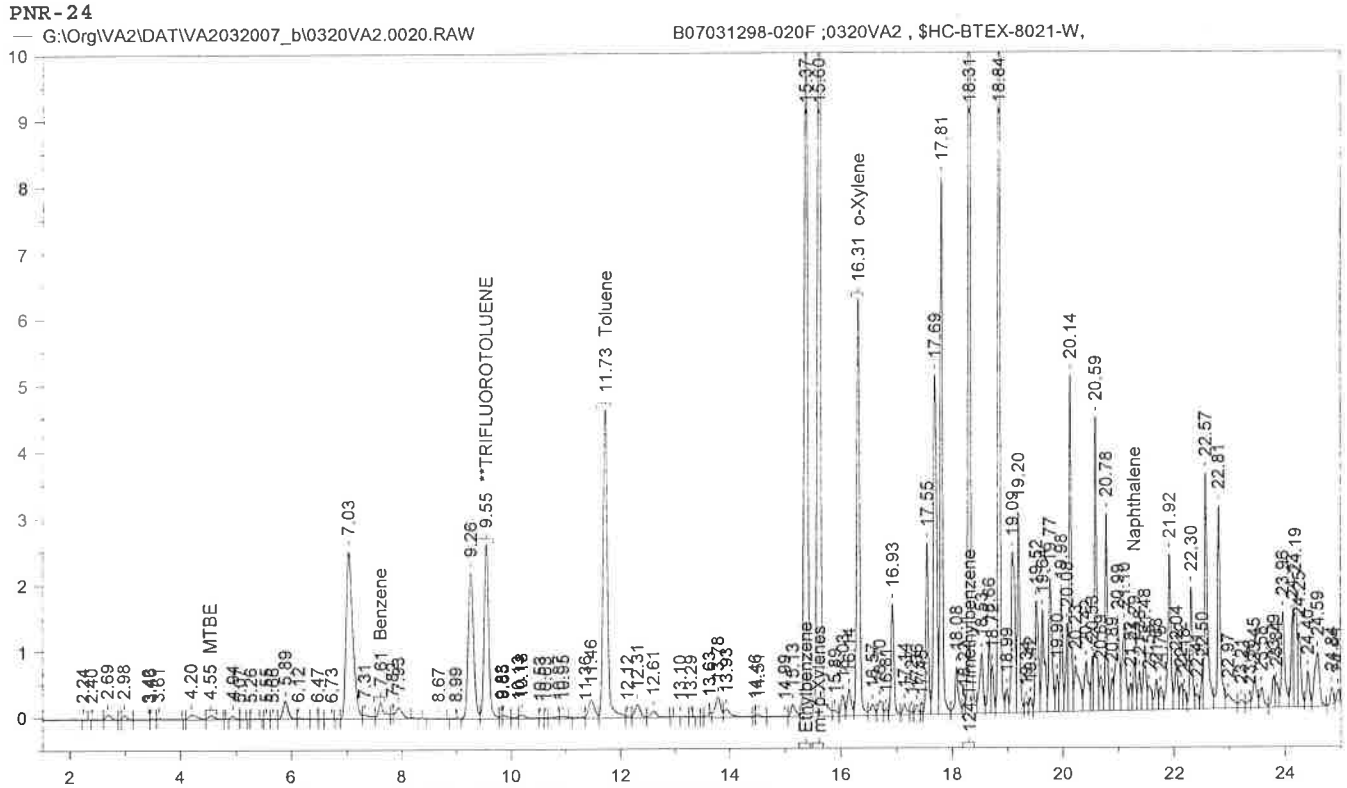
PNR-24



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-020F ;0320VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032007_b\0320VA2.0020.RAW
Date & Time Acquired: 3/20/2007 10:31:55 PM
Method File: G:\Org\VA2\Methods\0321w1.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	4.545	4.967	5.001	519	~~1.145~~	<2.0 BOM
Benzene	7.607	1.941	1.939	1911	1.792	
Toluene	11.727	-2.174	-2.18	25646	25.569	
Ethylbenzene	15.367	-5.821	-5.821	45619	46.37	
m+p-Xylenes	15.603	-6.059	-6.057	54817	51.458	
o-Xylene	16.308	-6.764	-6.762	22417	22.178	
124-Trimethylbenzene	18.308	-8.766	-8.762	42766	37.659	
Naphthalene	21.287	-11.744	-11.741	2461	1.952	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.546	50.	44.279	88.56	80-120

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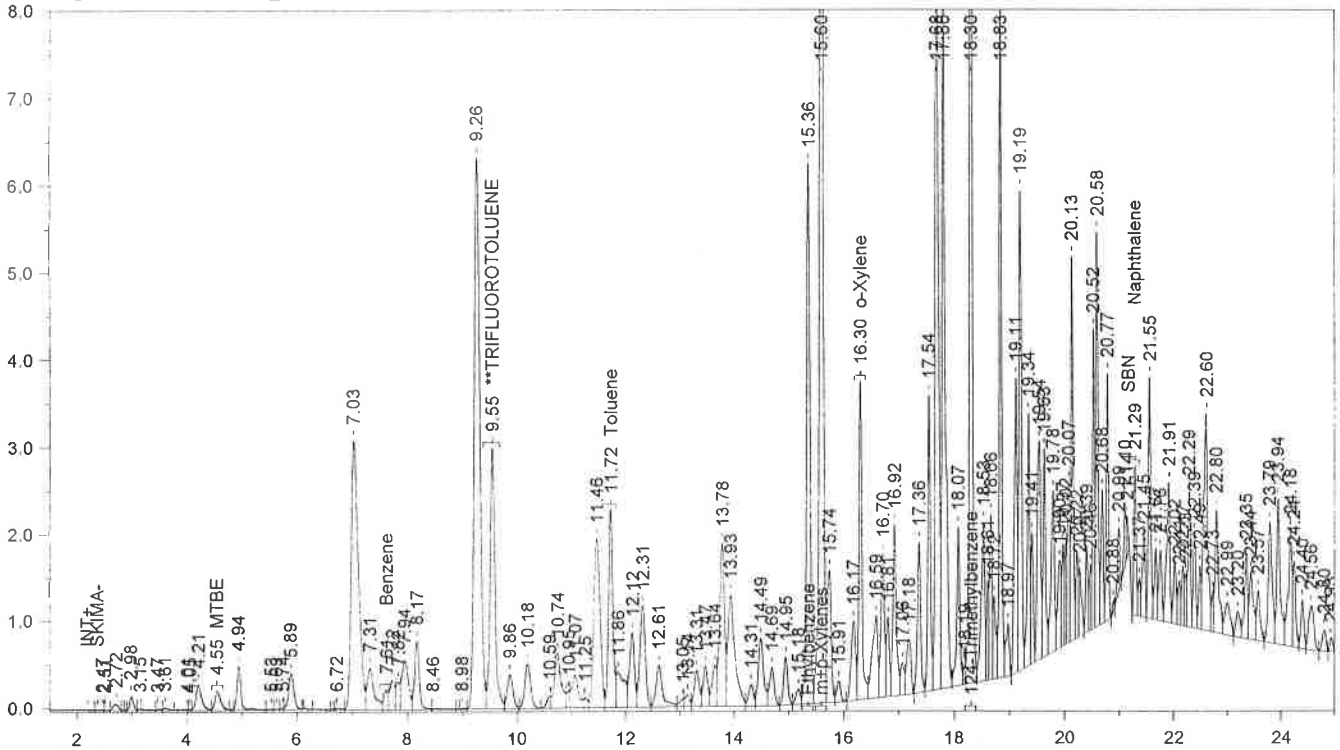
PNR-25

G:\Org\VA2\DAT\VA2032307_b\0323VA2.0010.RAW B07031298-021F ;0323VA2 , $HC-BTEX-8021-W,,(1,10)



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-021F ;0323VA2 , $HC-BTEX-8021-W,,(1,10)
Raw File: G:\Org\VA2\DAT\VA2032307_b\0323VA2.0010.RAW
Date & Time Acquired: 3/23/2007 4:51:35 PM
Method File: G:\Org\VA2\Methods\032607wn.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 10 S.A.: 10

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	4.551	4.967	4.996	1629	~~35.924~~	<40 BJm
Benzene	7.61	1.941	1.937	1209	11.335	
Toluene	11.721	-2.174	-2.174	12488	124.51	
Ethylbenzene	15.36	-5.821	-5.813	26445	268.806	
m+p-Xylenes	15.597	-6.059	-6.05	60280	565.861	
o-Xylene	16.3	-6.764	-6.753	14288	141.353	
124-Trimethylbenzene	18.3	-8.766	-8.753	52833	465.252	
Naphthalene	21.286	-11.744	-11.739	5053	40.068	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.547	500.	532.323	106.46	80-120

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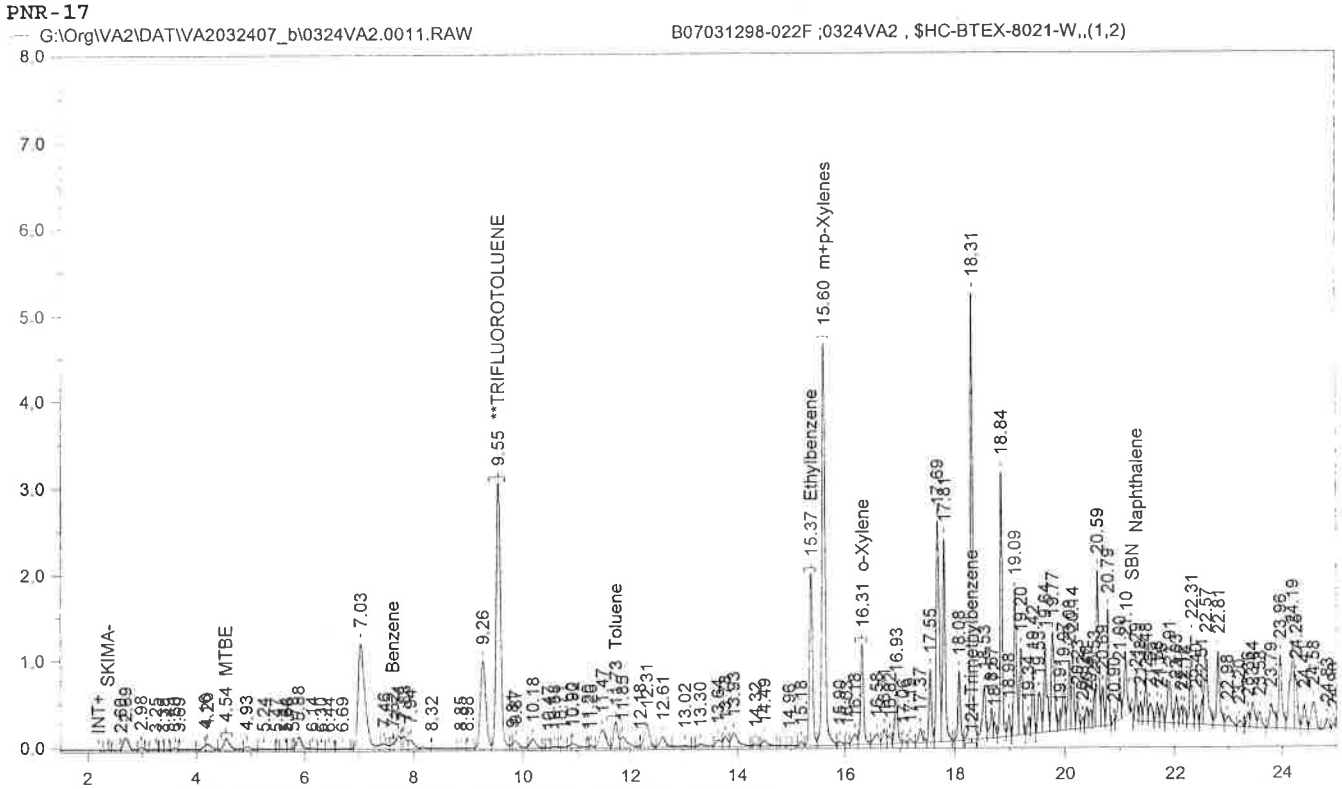
PNR-17



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-022F ;0324VA2 , $HC-BTEX-8021-W,,(1,2)
Raw File: G:\Org\VA2\DAT\VA2032407_b\0324VA2.0011.RAW
Date & Time Acquired: 3/24/2007 2:42:39 PM
Method File: G:\Org\VA2\Methods\0325wn1.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 2 S.A.: 2

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	4.543	4.967	5.003	1172	~~5.17~~ <10 BJW	
Benzene	7.619	7.619	7.619	236	1.	U
Toluene	11.727	-2.174	-2.181	1662	3.315	
Ethylbenzene	15.368	-5.821	-5.822	8265	16.802	
m+p-Xylenes	15.604	-6.059	-6.059	19357	36.342	
o-Xylene	16.31	-6.764	-6.764	4308	8.525	
124-Trimethylbenzene	18.31	-8.766	-8.765	15011	26.438	
Naphthalene	21.293	-11.744	-11.747	1168	1.853	J

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.546	100.	101.826	101.83	80-120

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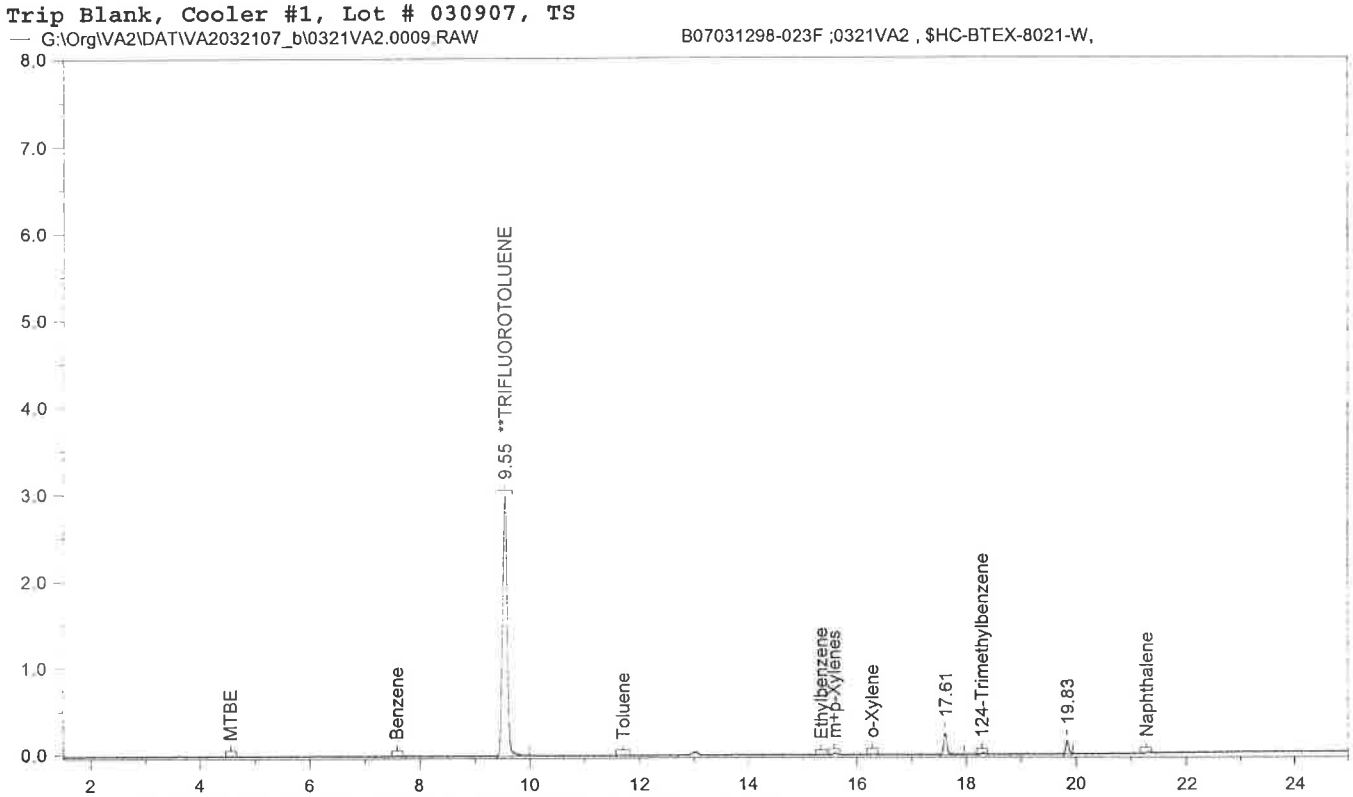
Trip Blank, Cooler #1, Lot # 030907, TS



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-023F ;0321VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032107_b\0321VA2.0009.RAW
Date & Time Acquired: 3/21/2007 5:05:57 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.546	50.	49.268	98.54	80-120

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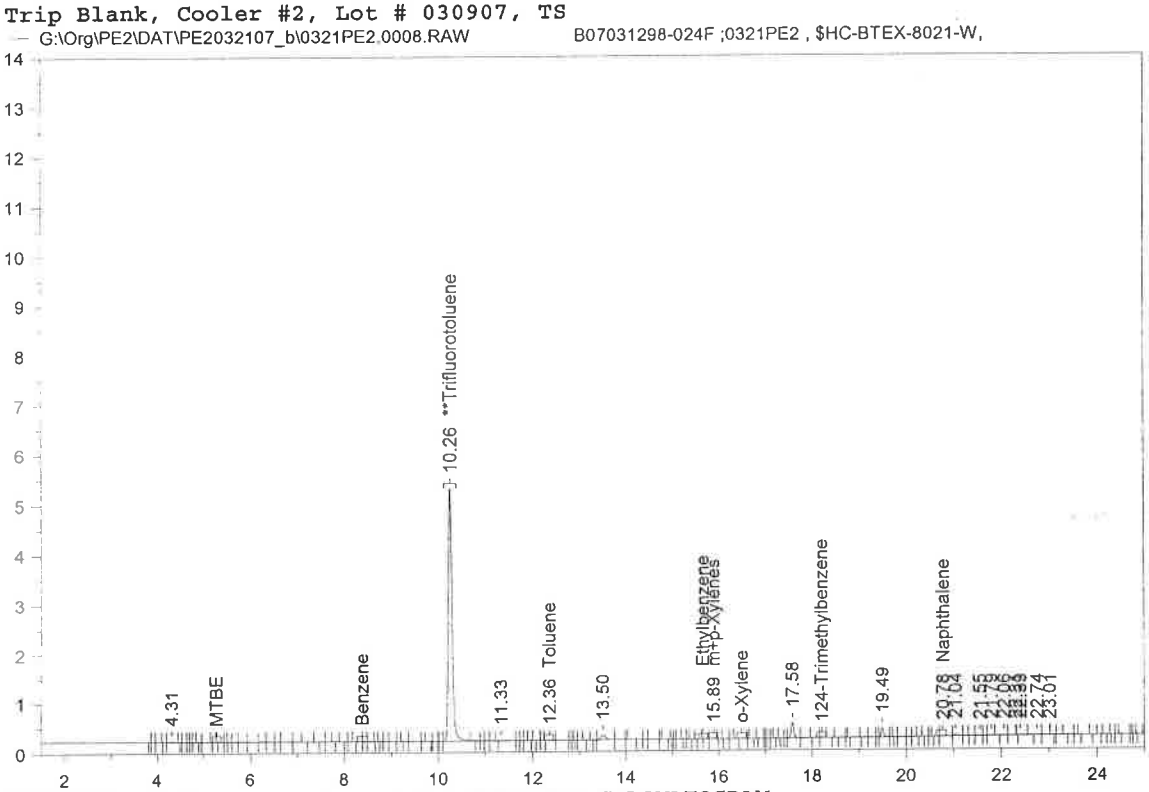
Trip Blank, Cooler #2, Lot # 030907, TS



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-024F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0008.RAW
Date & Time Acquired: 3/21/2007 4:45:56 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.363	12.363	12.363	77	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.891	15.891	15.891	76	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	20.776	20.776	20.776	171	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.259	50.	54.315	108.63	80-120

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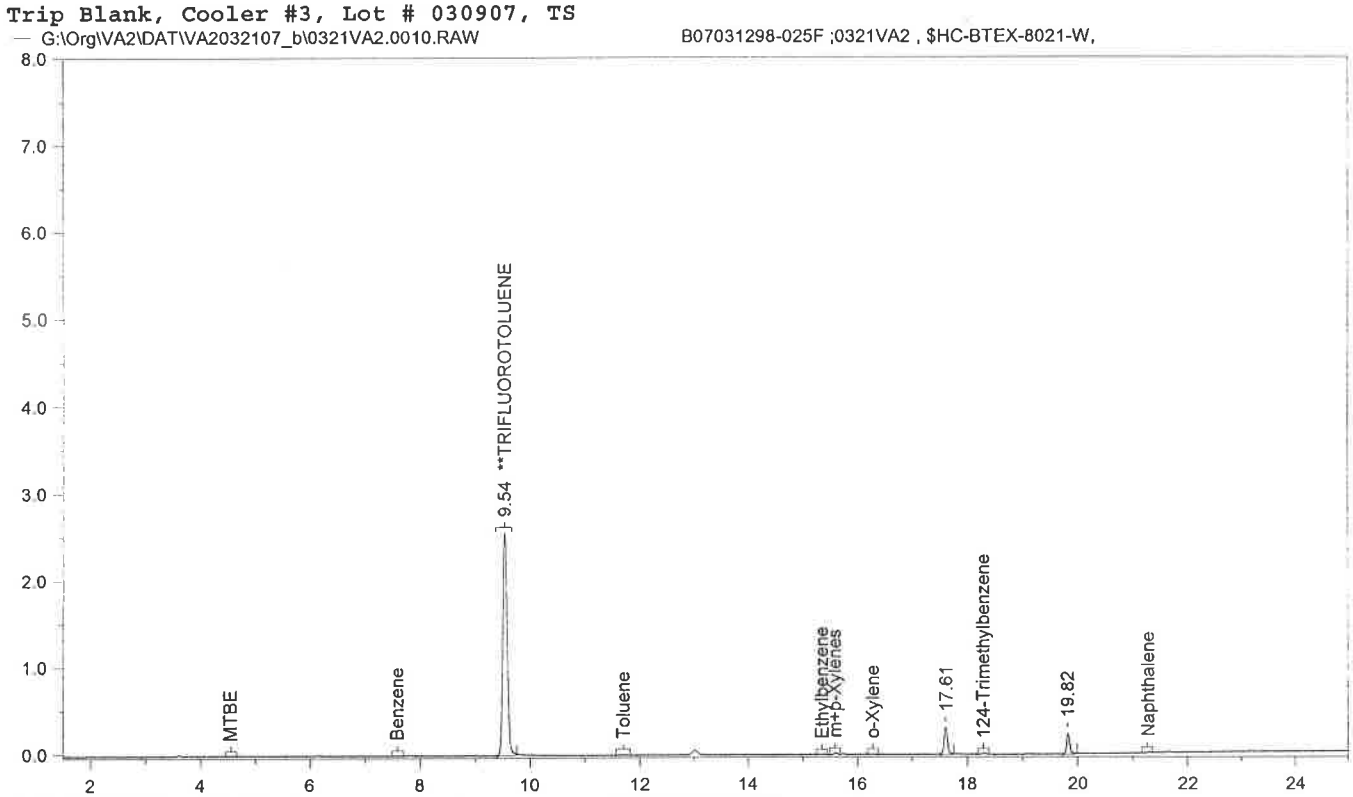
Trip Blank, Cooler #3, Lot # 030907, TS



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-025F ;0321VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032107_b\0321VA2.0010.RAW
Date & Time Acquired: 3/21/2007 5:40:46 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.541	50.	41.465	82.93	80-120

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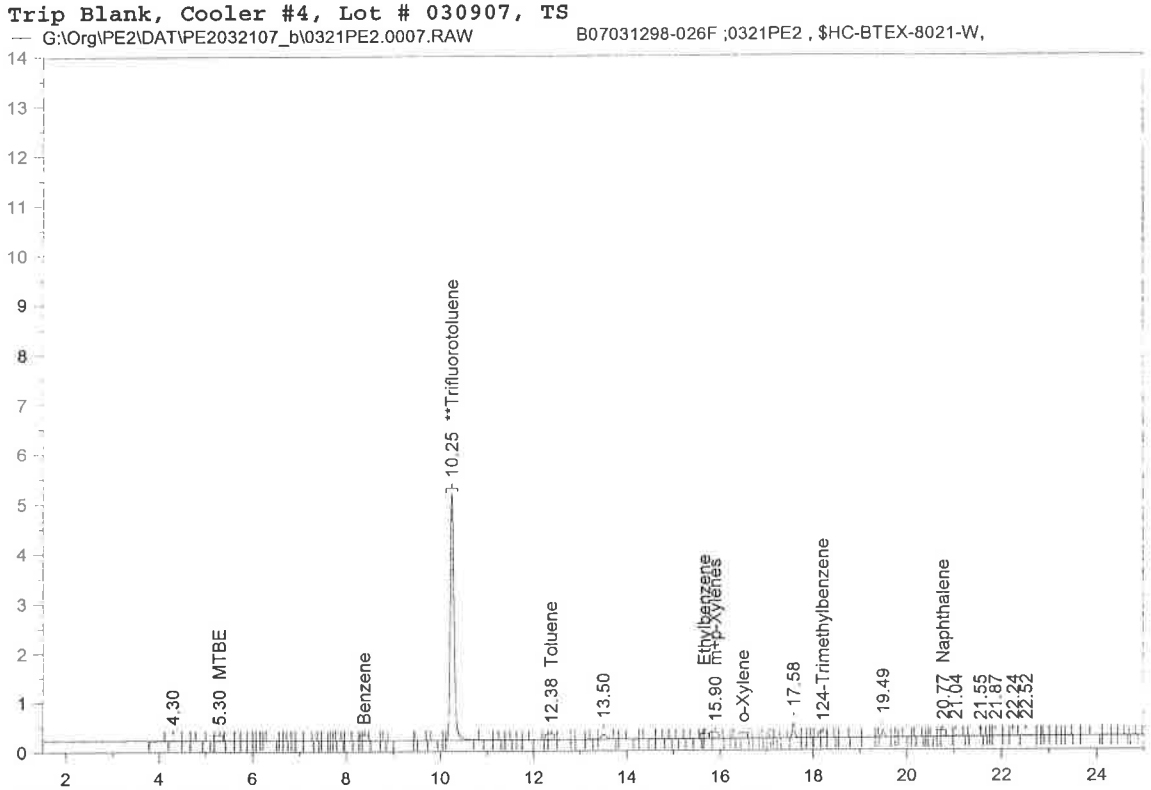
Trip Blank, Cooler #4, Lot # 030907, TS



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-026F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0007.RAW
Date & Time Acquired: 3/21/2007 4:08:55 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	5.302	5.302	5.302	80	1.	U
Benzene	.	.	.		.5	U
Toluene	12.384	12.384	12.384	84	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.897	15.897	15.897	137	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	20.771	20.771	20.771	149	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.255	50.	53.778	107.56	80-120

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Trip Blank, Cooler #5, Lot # 030907, TS

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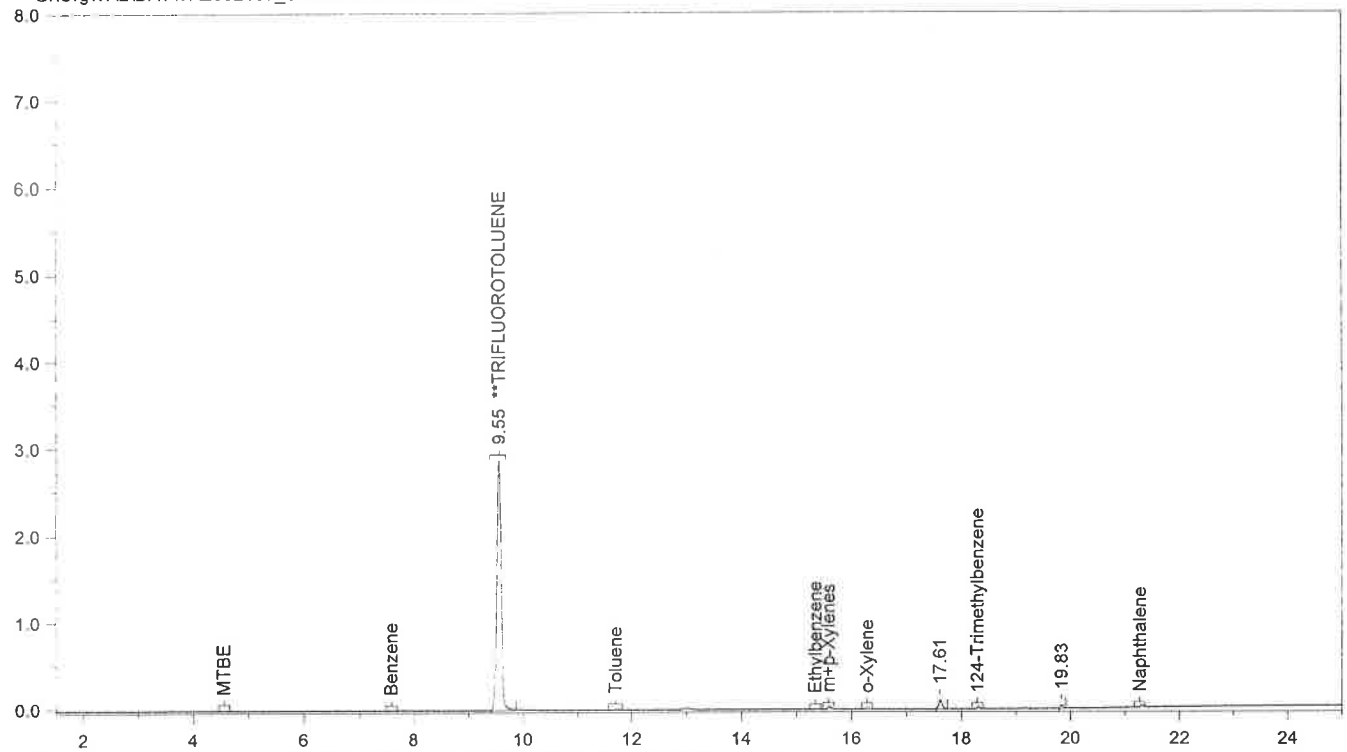

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-027F ;0321VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032107_b\0321VA2.0008.RAW
Date & Time Acquired: 3/21/2007 4:31:18 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.546	50.	46.816	93.63	80-120

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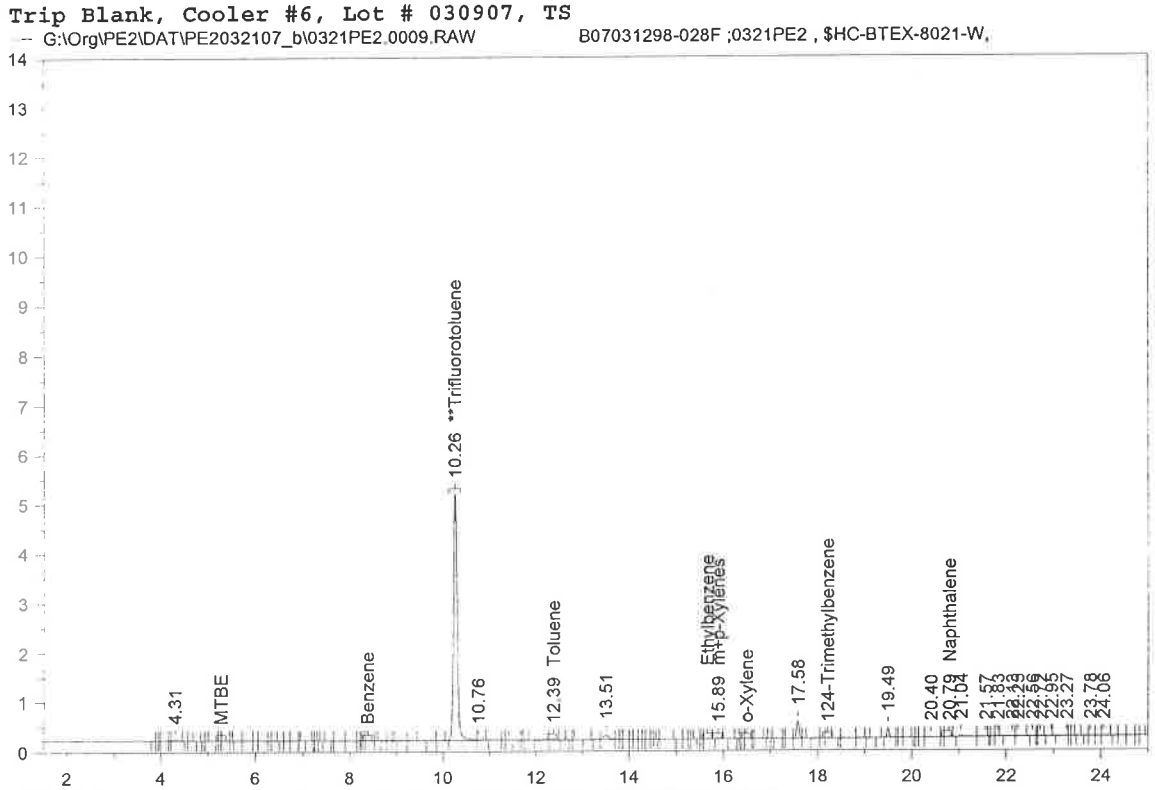
Trip Blank, Cooler #6, Lot # 030907, TS



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-028F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0009.RAW
Date & Time Acquired: 3/21/2007 5:22:47 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.386	12.386	12.386	92	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.891	15.891	15.891	78	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	20.79	20.79	20.79	110	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.261	50.	53.114	106.23	80-120

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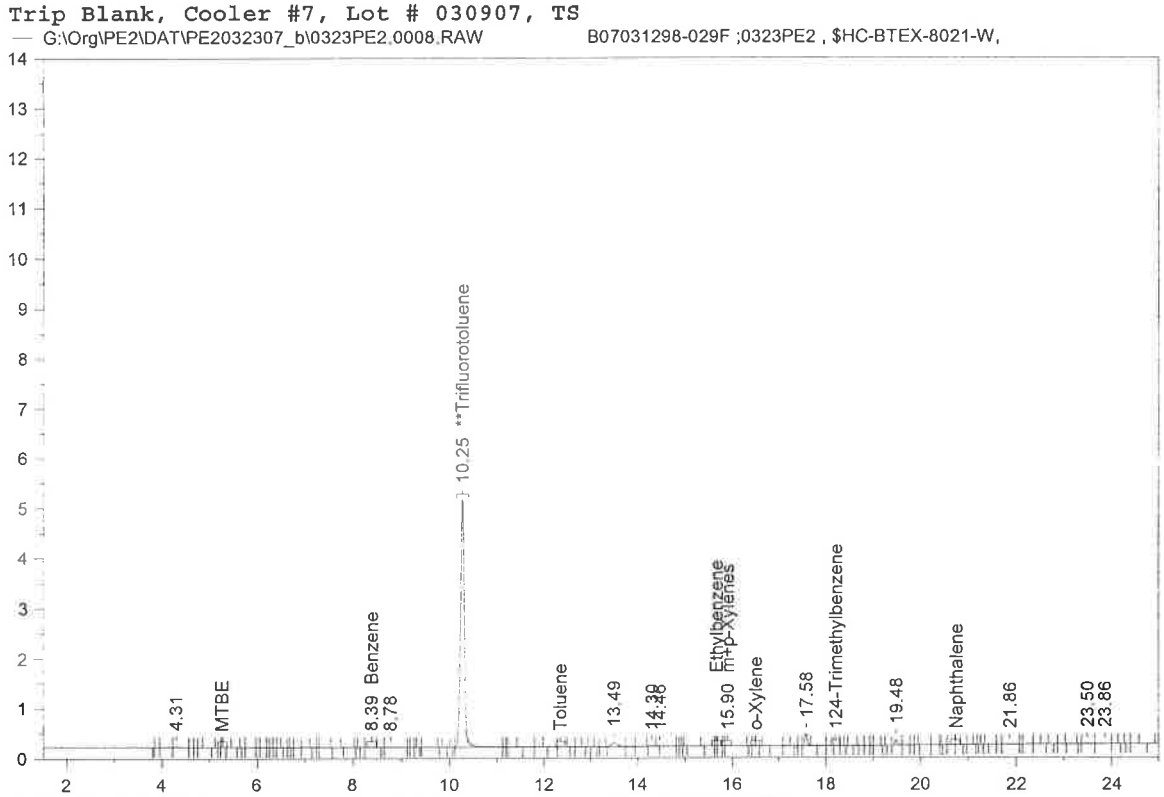
Trip Blank, Cooler #7, Lot # 030907, TS



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-029F ;0323PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032307_b\0323PE2.0008.RAW
Date & Time Acquired: 3/23/2007 3:55:43 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.386	8.386	8.386	87	.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.895	15.895	15.895	107	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.252	50.	53.205	106.41	80-120

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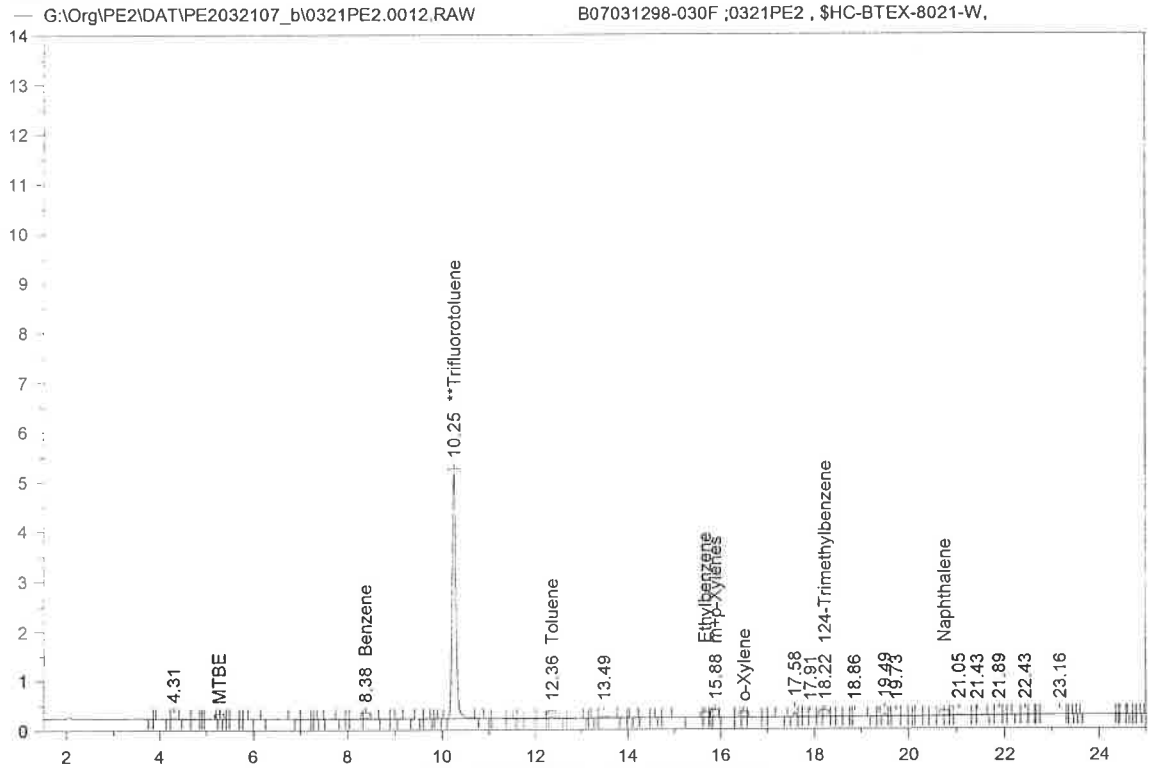
PNR-36-07



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-030F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0012.RAW
Date & Time Acquired: 3/21/2007 7:13:22 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.378	8.378	8.378	165	.5	U
Toluene	12.363	12.363	12.363	268	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.884	15.884	15.884	184	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.222	18.222	18.222	112	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.252	50.	52.658	105.32	80-120

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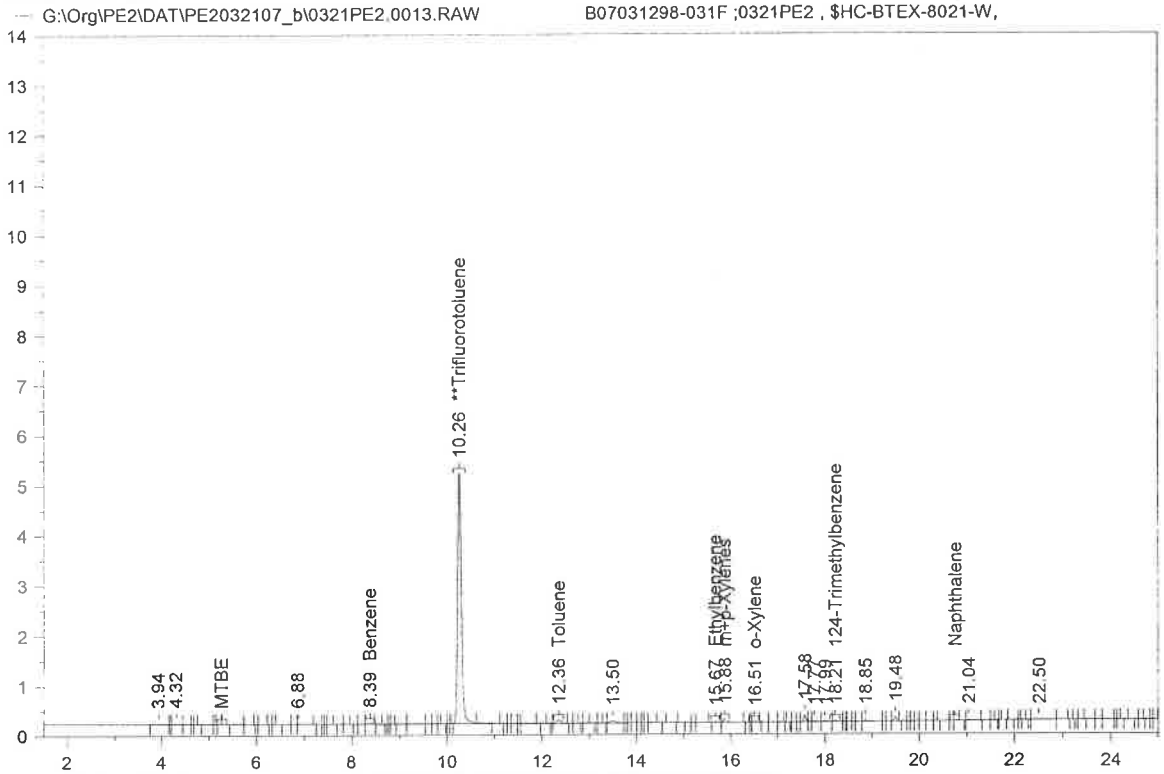
USGS-92-12



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-031F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0013.RAW
Date & Time Acquired: 3/21/2007 7:49:36 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.39	8.39	8.39	99	.5	U
Toluene	12.362	12.362	12.362	434	.5	U
Ethylbenzene	15.672	15.672	15.672	103	.5	U
m+p-Xylenes	15.878	15.878	15.878	347	.5	U
o-Xylene	16.506	16.506	16.506	97	.5	U
124-Trimethylbenzene	18.213	18.213	18.213	155	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.258	50.	53.178	106.36	80-120

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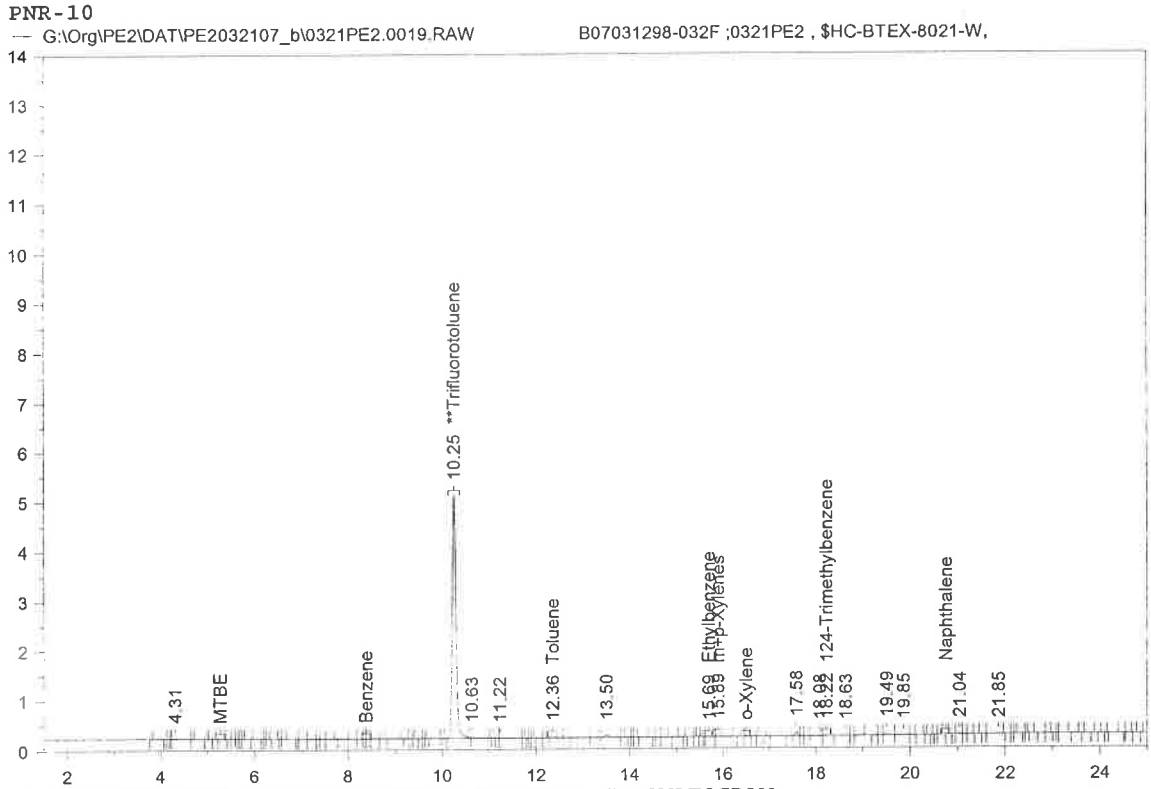
PNR-10



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-032F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0019.RAW
Date & Time Acquired: 3/21/2007 11:30:41 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.36	12.36	12.36	191	.5	U
Ethylbenzene	15.69	15.69	15.69	77	.5	U
m+p-Xylenes	15.889	15.889	15.889	206	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.218	18.218	18.218	86	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.253	50.	51.921	103.84	80-120

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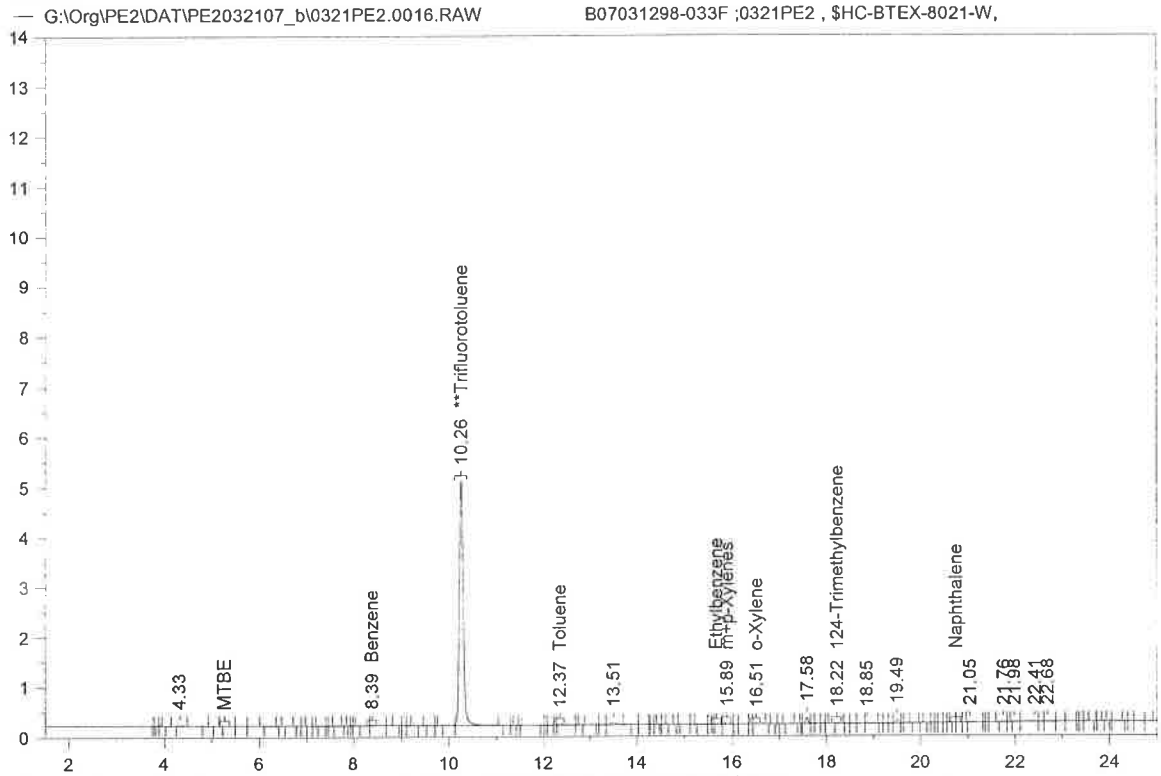
PNR-9



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-033F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0016.RAW
Date & Time Acquired: 3/21/2007 9:40:04 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.391	8.391	8.391	80	.5	U
Toluene	12.368	12.368	12.368	180	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.889	15.889	15.889	212	.5	U
o-Xylene	16.512	16.512	16.512	78	.5	U
124-Trimethylbenzene	18.218	18.218	18.218	86	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.258	50.	52.536	105.07	80-120

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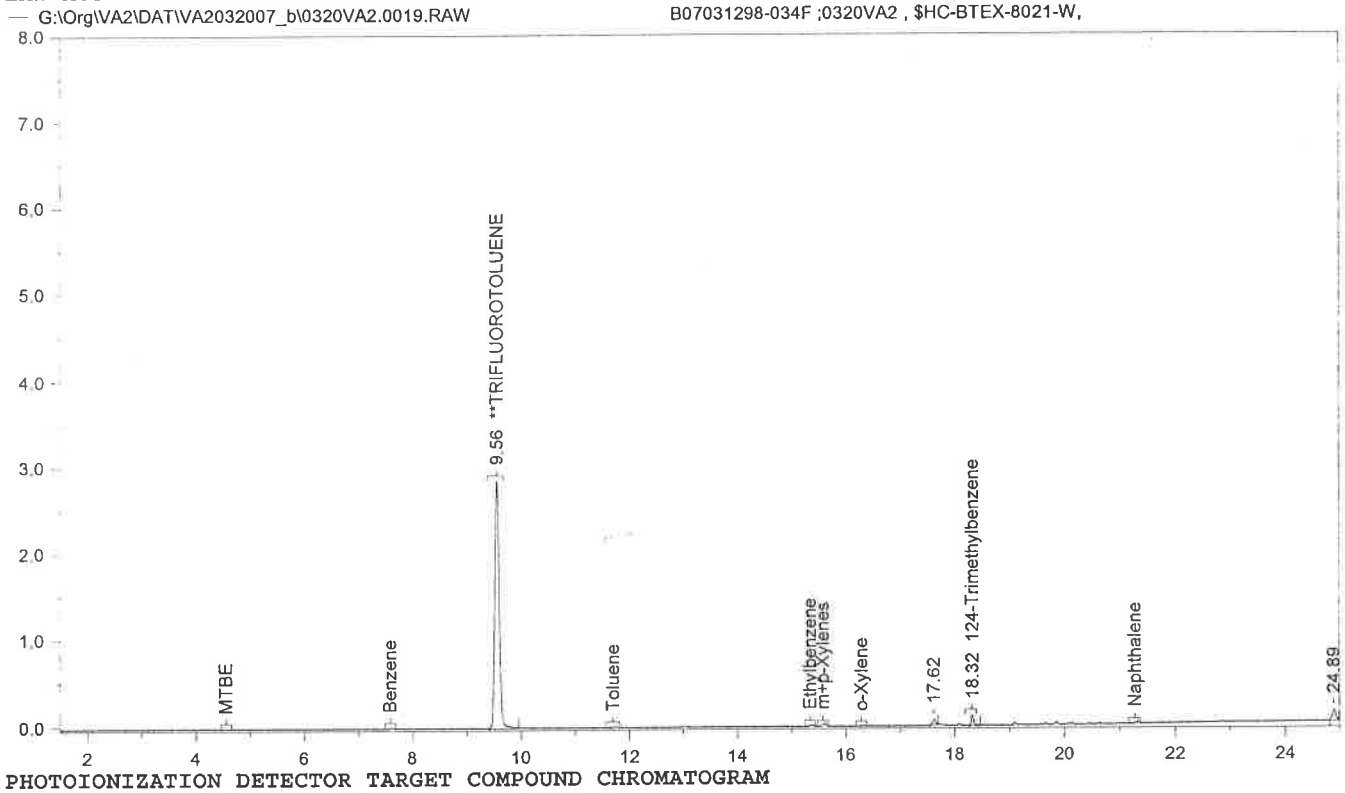
LAW-M03



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-034F ;0320VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032007_b\0320VA2.0019.RAW
Date & Time Acquired: 3/20/2007 9:57:34 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.316	18.316	18.316	411	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.557	50.	46.614	93.23	80-120

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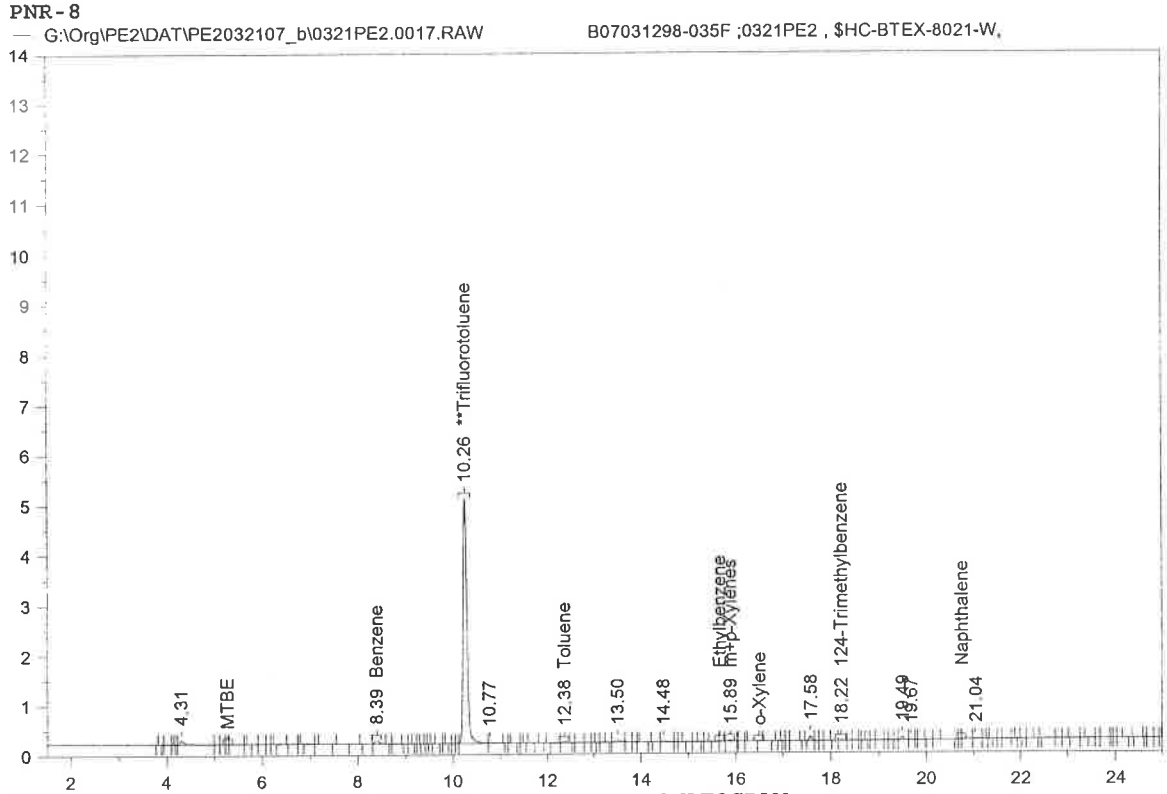
PNR - 8



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-035F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0017.RAW
Date & Time Acquired: 3/21/2007 10:16:59 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.393	8.393	8.393	417	.5	U
Toluene	12.38	12.38	12.38	142	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.887	15.887	15.887	154	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.217	18.217	18.217	89	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.26	50.	52.418	104.84	80-120

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MOC-3

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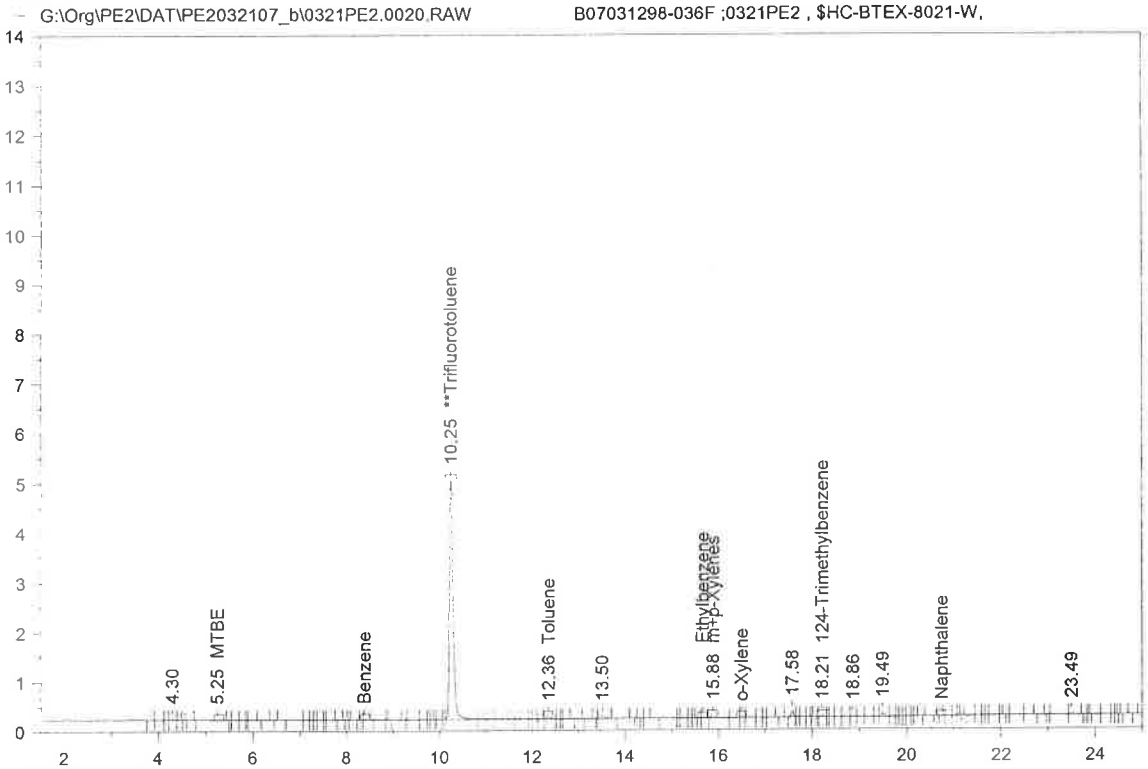

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-036F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0020.RAW
Date & Time Acquired: 3/22/2007 12:07:26 AM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	5.252	5.252	5.252	77	1.	U
Benzene	.	.	.		.5	U
Toluene	12.358	12.358	12.358	322	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.885	15.885	15.885	280	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.214	18.214	18.214	84	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.253	50.	51.836	103.67	80-120

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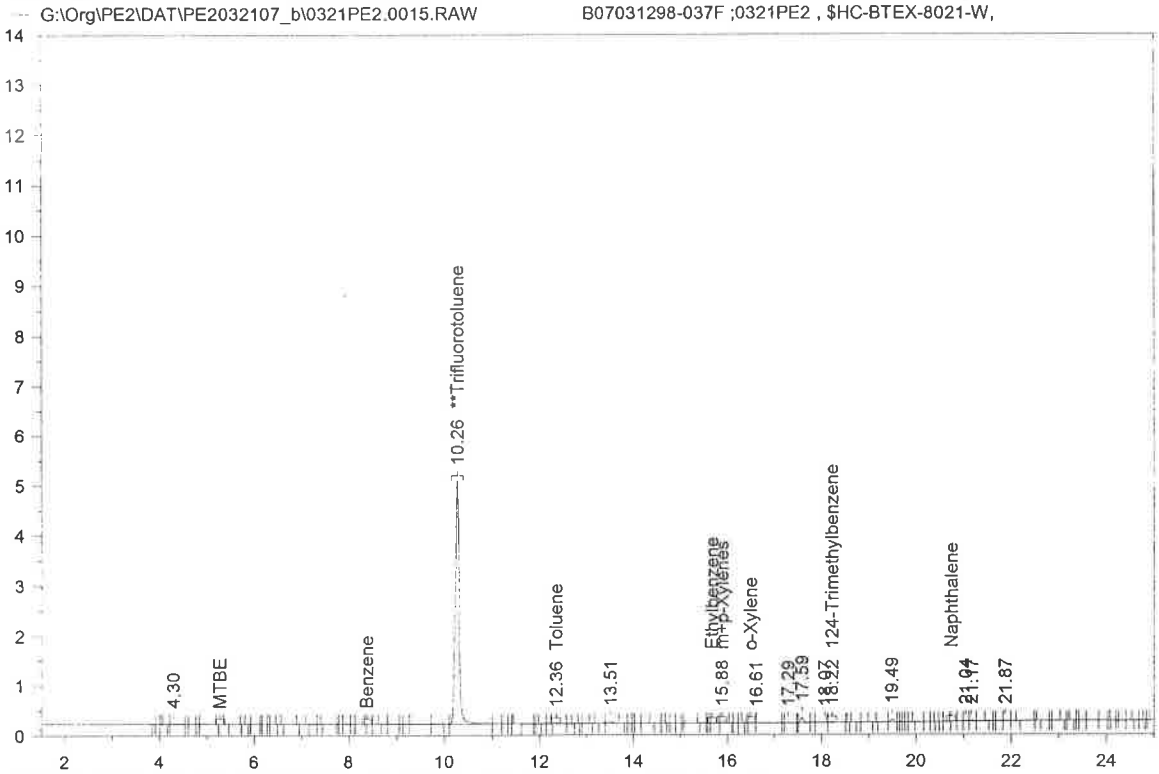
MOC-18



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-037F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0015.RAW
Date & Time Acquired: 3/21/2007 9:03:15 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.364	12.364	12.364	137	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.884	15.884	15.884	145	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.222	18.222	18.222	125	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.257	50.	52.544	105.09	80-120

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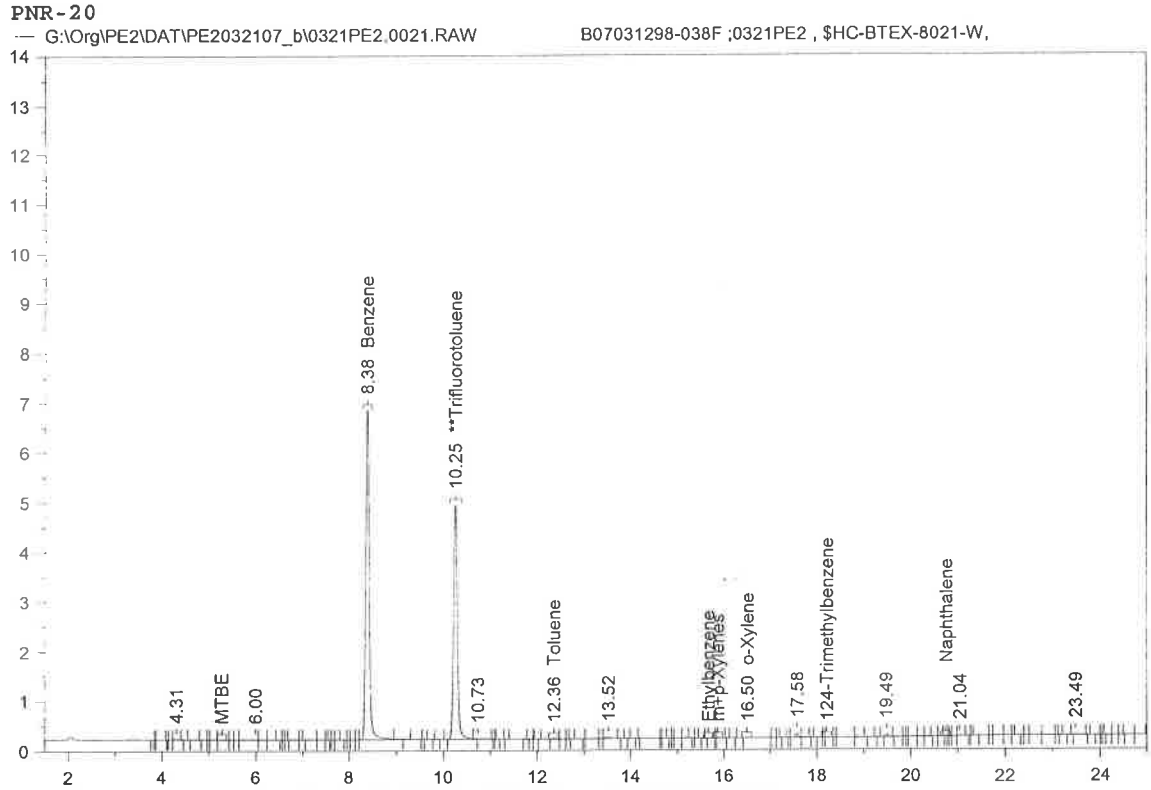
PNR-20



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-038F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0021.RAW
Date & Time Acquired: 3/22/2007 12:44:08 AM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.38	1.874	1.874	33676	20.013	
Toluene	12.36	12.36	12.36	99	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	16.496	16.496	16.496	114	.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.254	50.	50.318	100.64	80-120

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PNR-21

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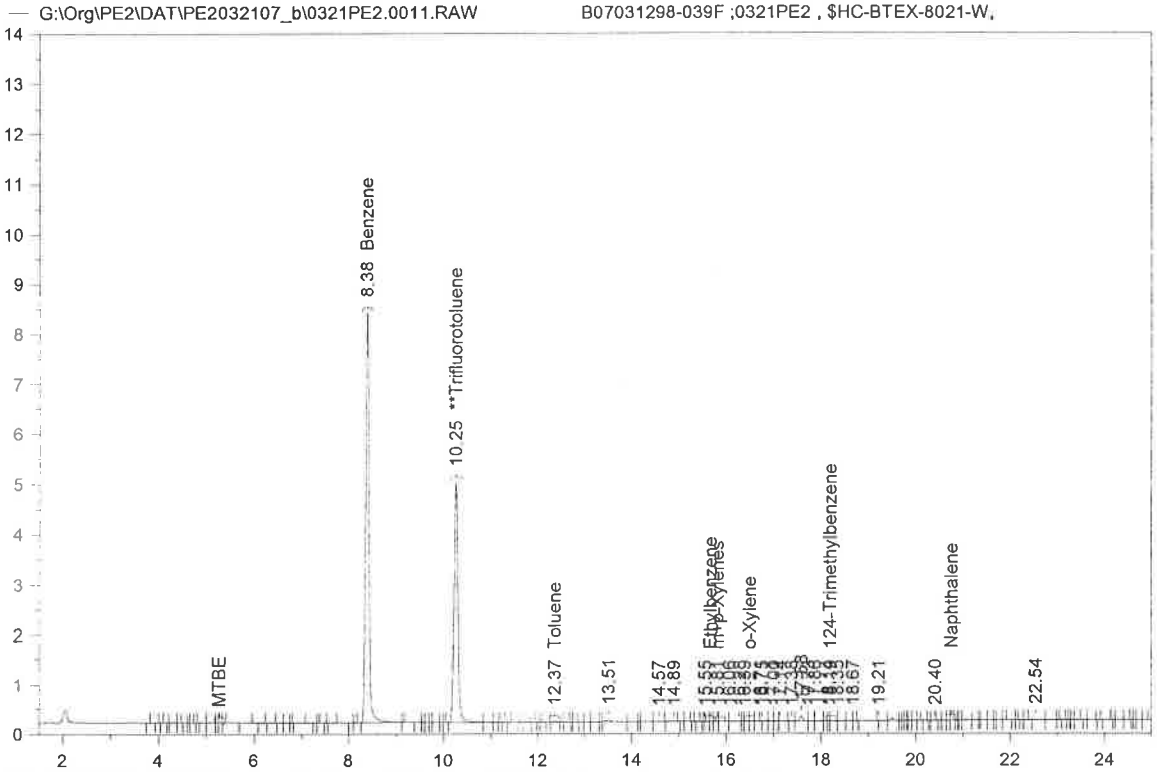

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-039F ;0321PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032107_b\0321PE2.0011.RAW
Date & Time Acquired: 3/21/2007 6:36:28 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.379	1.874	1.874	41268	24.524	
Toluene	12.373	12.373	12.373	117	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.813	15.813	15.813	77	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.188	18.188	18.188	129	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.253	50.	51.122	102.24	80-120

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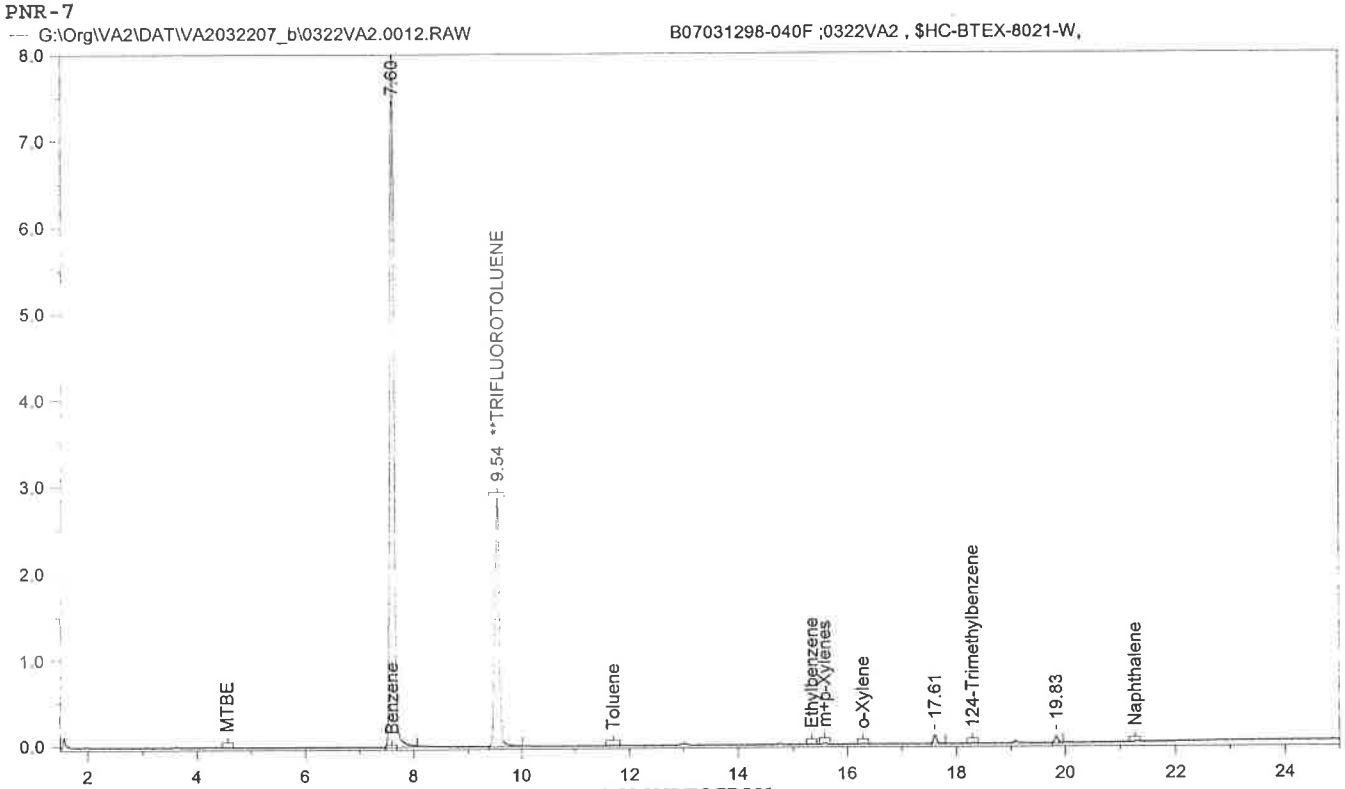
PNR-7



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-040F ;0322VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032207_b\0322VA2.0012.RAW
Date & Time Acquired: 3/22/2007 6:36:29 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.598	1.941	1.942	42673	40.017	
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.54	50.	47.871	95.74	80-120

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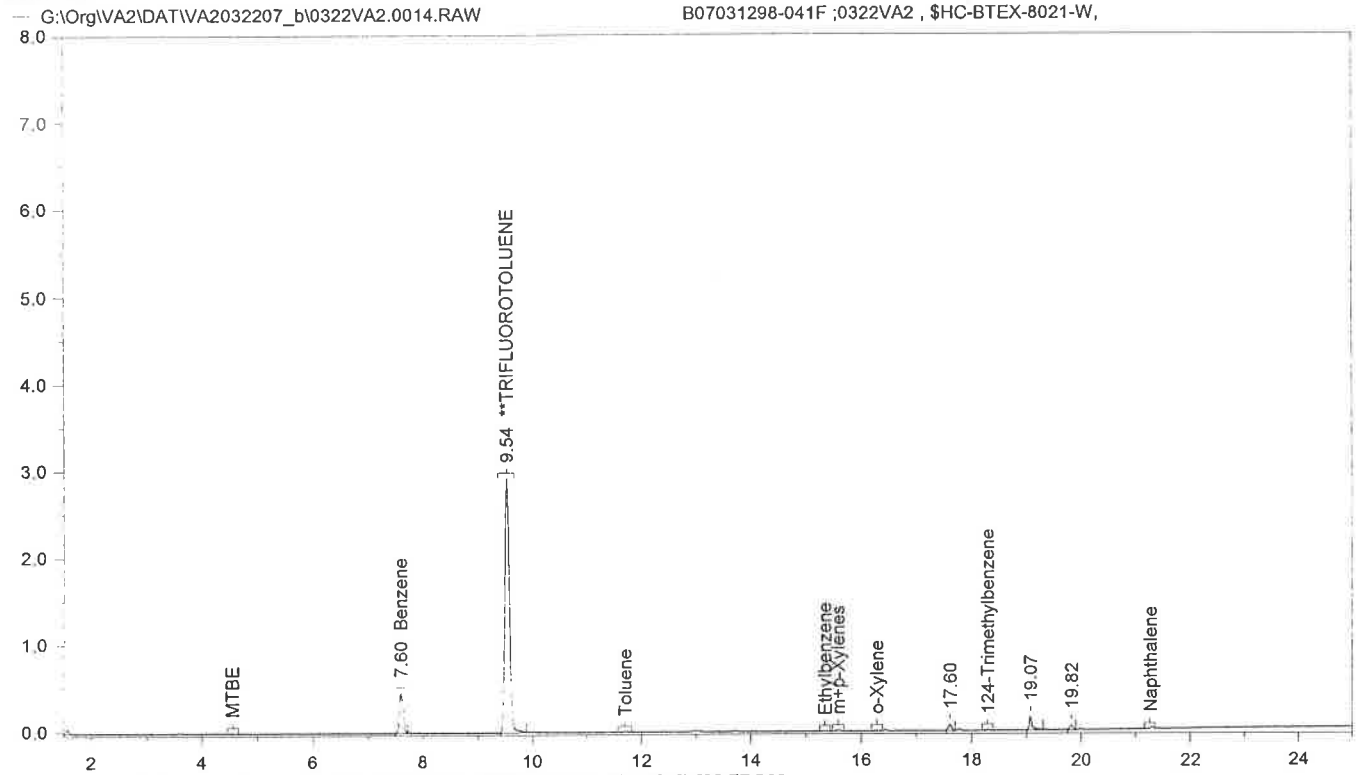
PNR-27



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-041F ;0322VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032207_b\0322VA2.0014.RAW
Date & Time Acquired: 3/22/2007 7:46:10 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.6	1.941	1.94	2230	2.092	
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.54	50.	47.927	95.85	80-120

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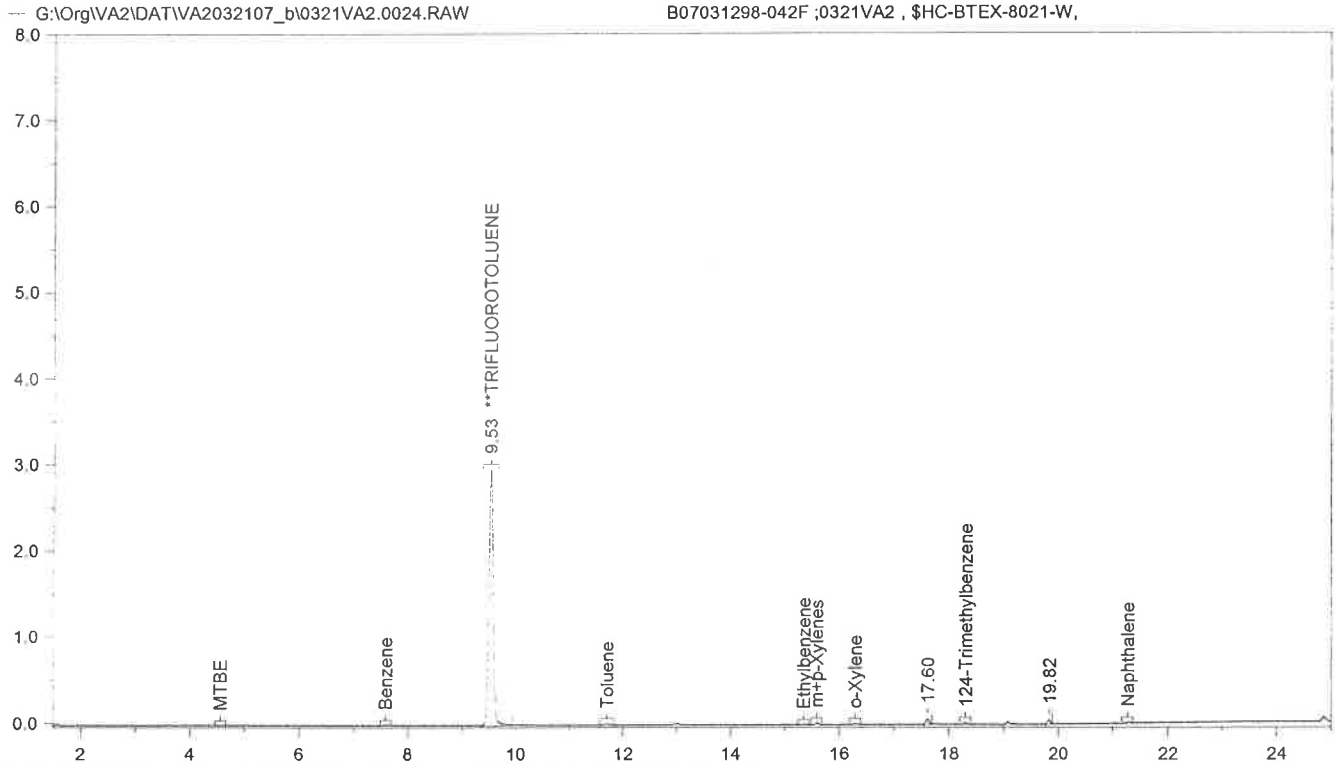
PNR-34-07



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-042F ;0321VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032107_b\0321VA2.0024.RAW
Date & Time Acquired: 3/22/2007 1:50:10 AM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.529	50.	49.211	98.42	80-120

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Whitmer

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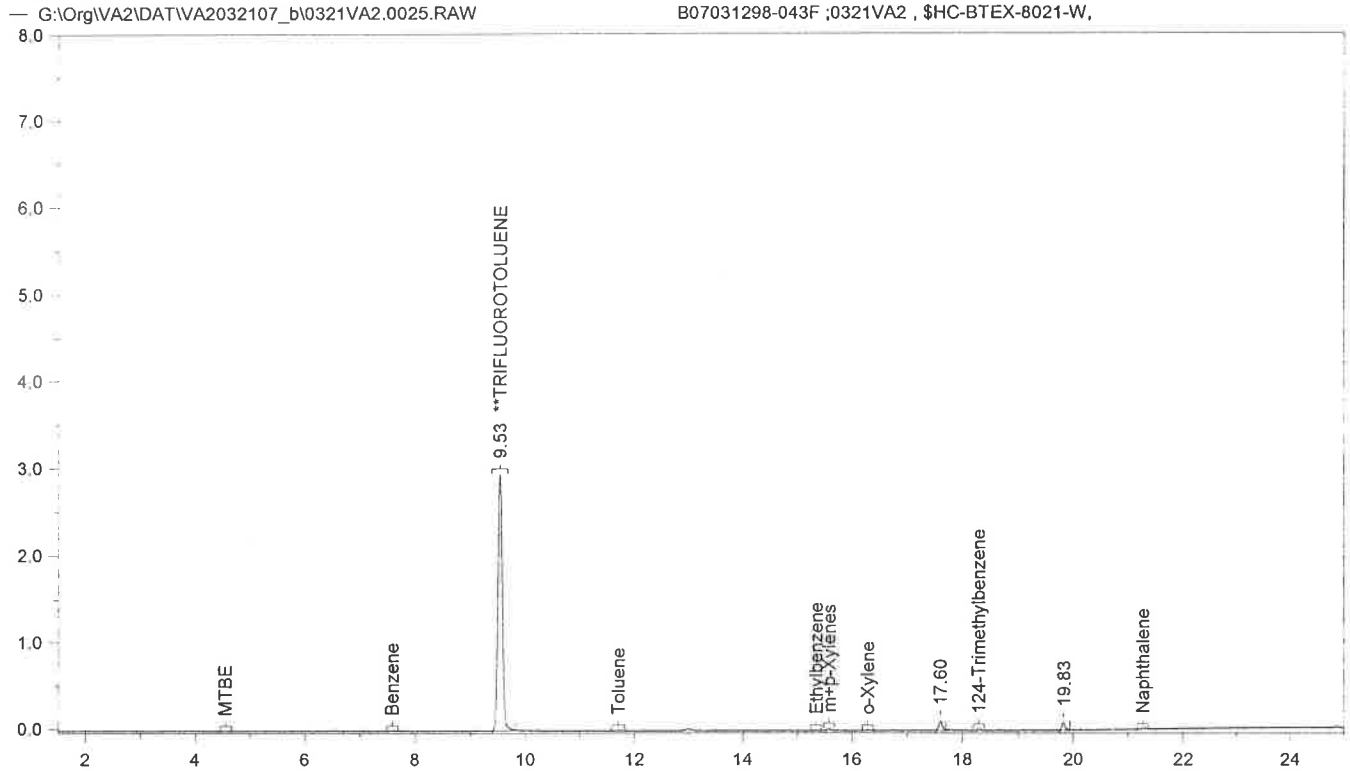

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-043F ;0321VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032107_b\0321VA2.0025.RAW
Date & Time Acquired: 3/22/2007 2:24:31 AM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.528	50.	48.103	96.21	80-120

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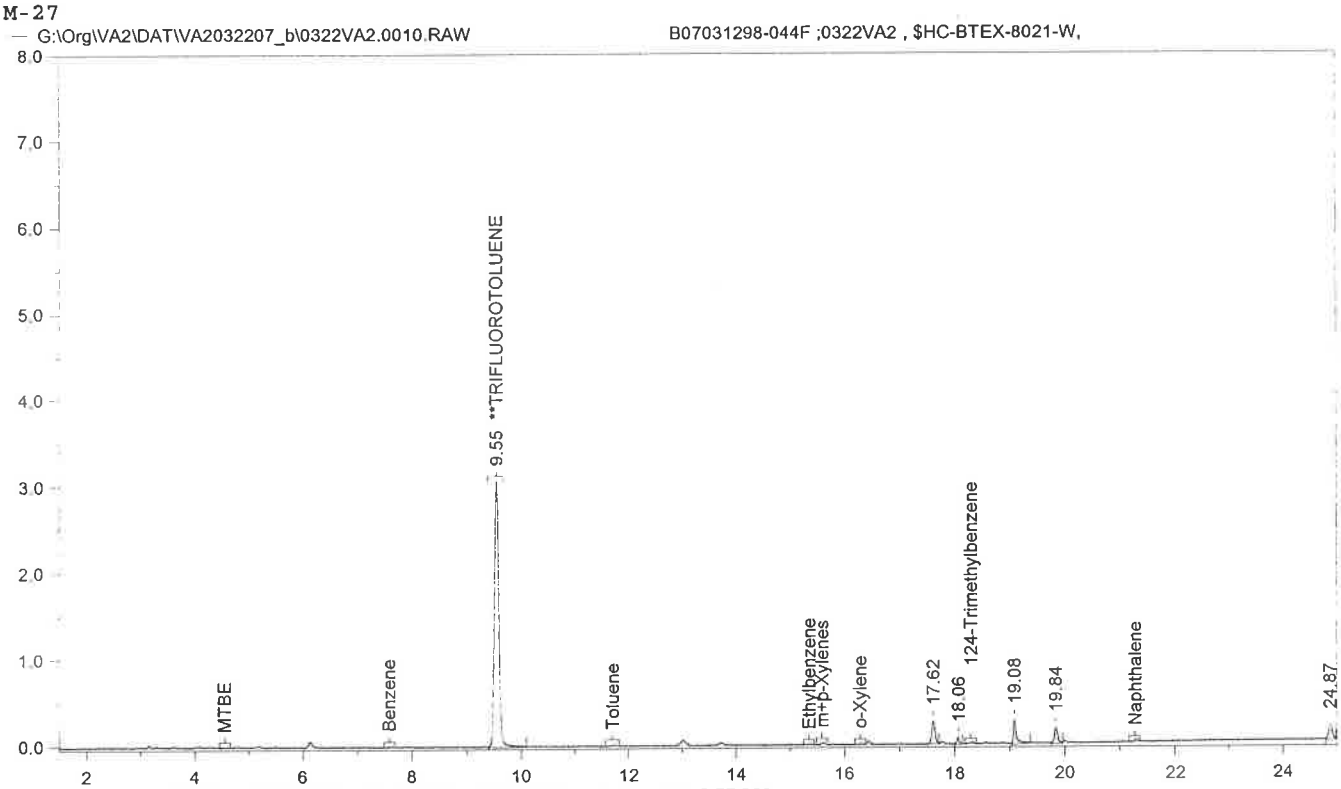
M-27



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-044F ;0322VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032207_b\0322VA2.0010.RAW
Date & Time Acquired: 3/22/2007 5:27:15 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.547	50.	51.466	102.93	80-120

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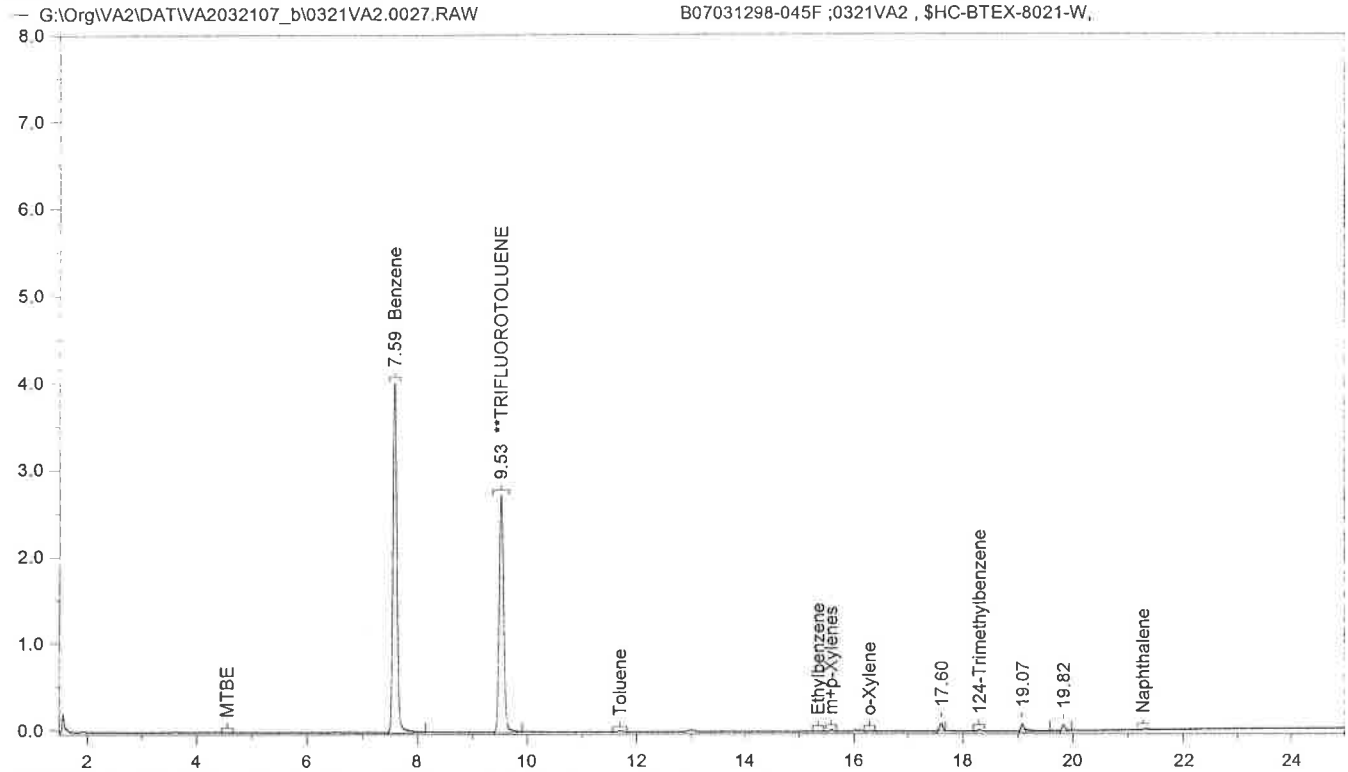
M-28



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-045F ;0321VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032107_b\0321VA2.0027.RAW
Date & Time Acquired: 3/22/2007 3:34:06 AM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.589	1.941	1.941	20556	19.276	
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.53	50.	45.005	90.01	80-120

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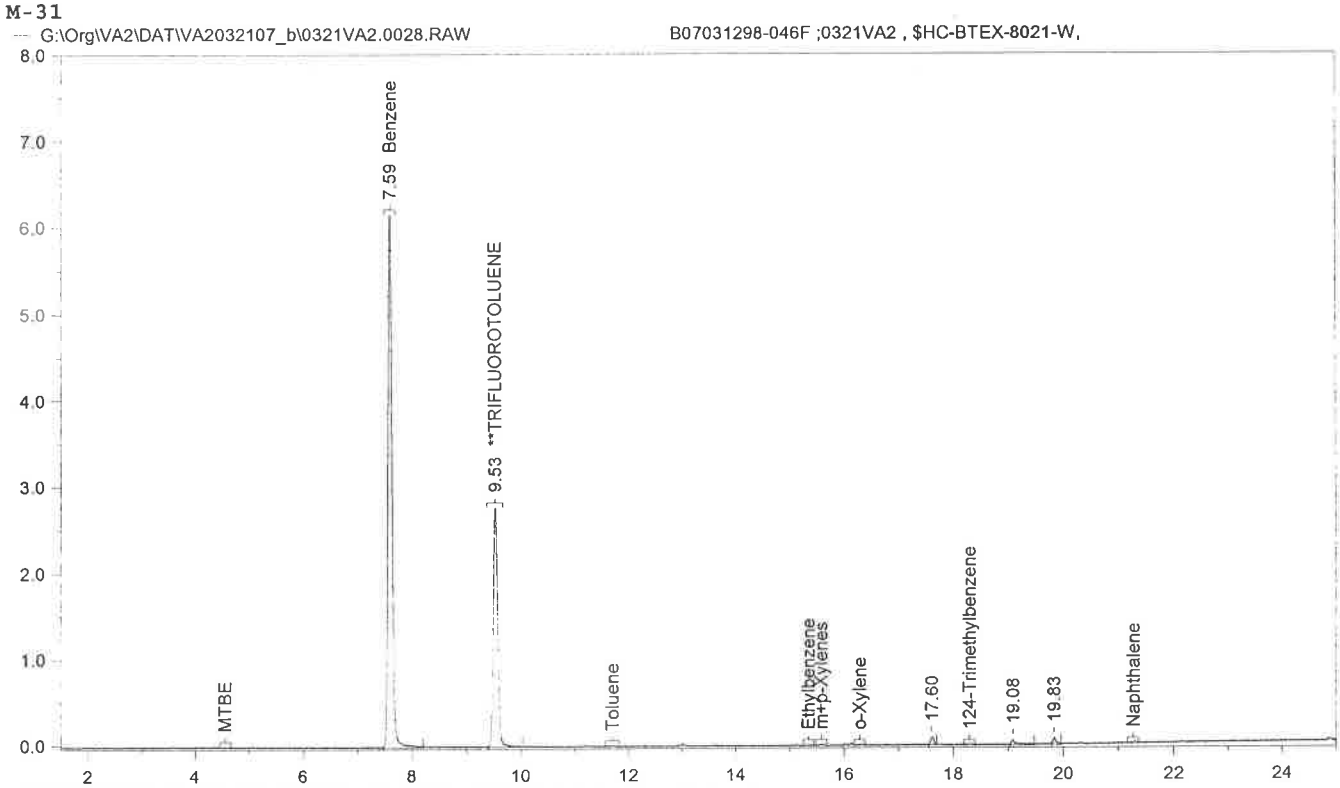
M-31



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-046F ;0321VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032107_b\0321VA2.0028.RAW
Date & Time Acquired: 3/22/2007 4:08:54 AM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.59	1.941	1.94	31559	29.595	
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.53	50.	46.136	92.27	80-120

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USGS-93-3

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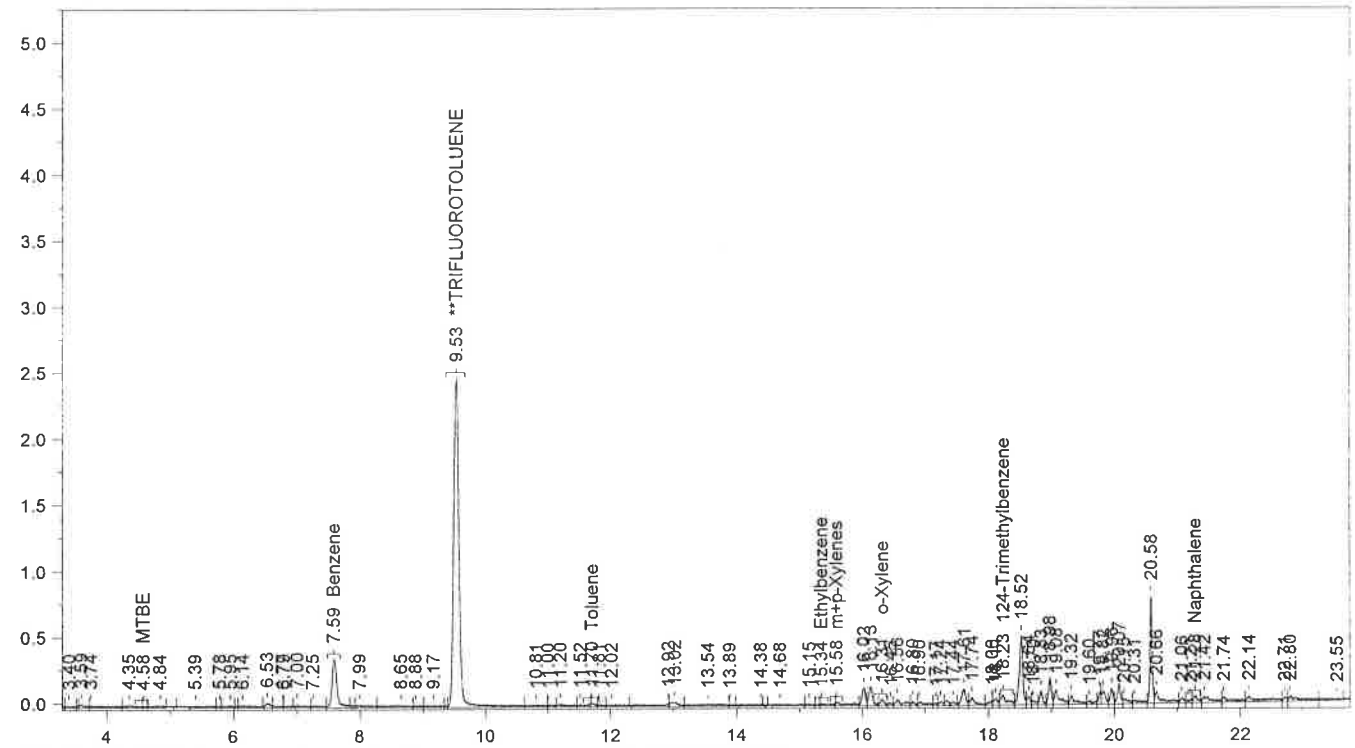

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-047F ;0321VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032107_b\0321VA2.0030.RAW
Date & Time Acquired: 3/22/2007 5:18:28 AM
Method File: G:\Org\VA2\Methods\032207v2.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	4.584	4.584	4.584	52	1.	U
Benzene	7.586	1.941	1.946	2044	1.916	
Toluene	11.704	11.704	11.704	133	.5	U
Ethylbenzene	15.341	15.341	15.341	169	.5	U
m+p-Xylenes	15.579	15.579	15.579	324	.5	U
o-Xylene	16.314	16.314	16.314	227	.5	U
124-Trimethylbenzene	18.235	18.235	18.235	534	2.	U
Naphthalene	21.275	21.275	21.275	237	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.531	50.	42.982	85.96	80-120

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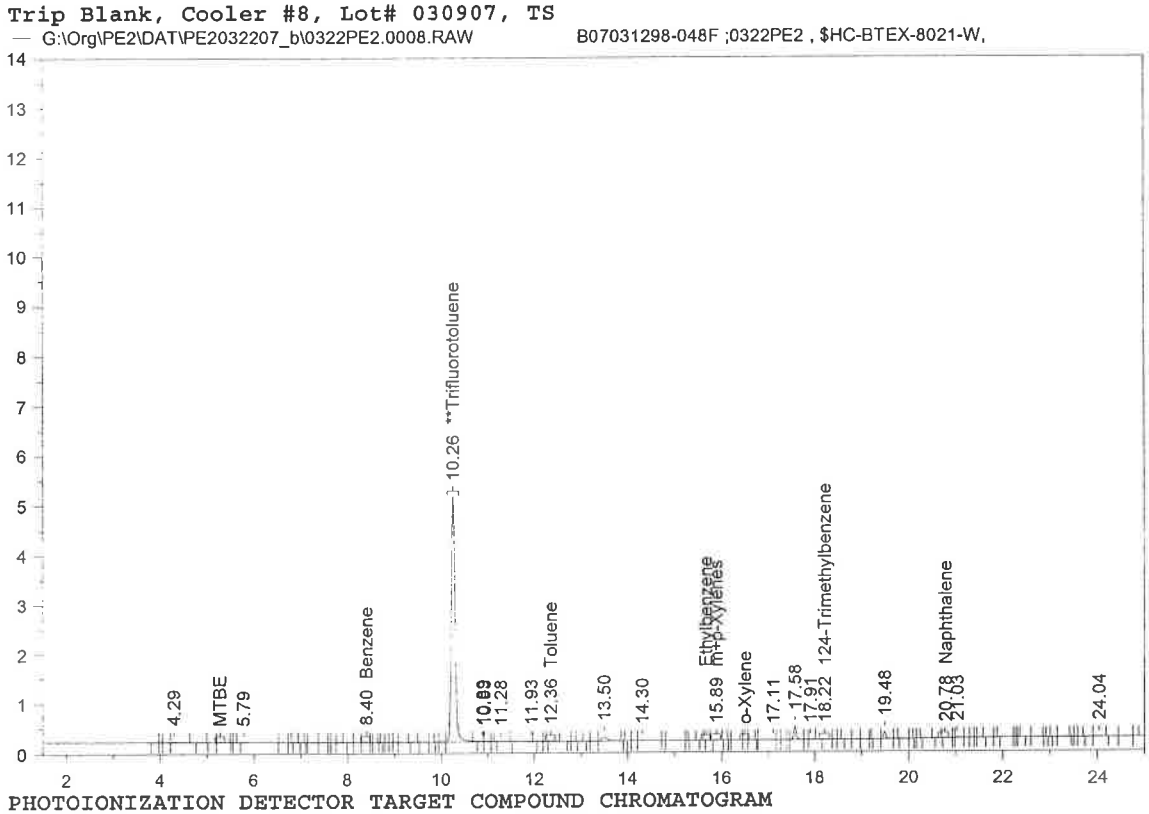
Trip Blank, Cooler #8, Lot# 030907, TS



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-048F ;0322PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032207_b\0322PE2.0008.RAW
Date & Time Acquired: 3/22/2007 4:30:45 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.4	8.4	8.4	103	.5	U
Toluene	12.359	12.359	12.359	108	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.887	15.887	15.887	83	.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.215	18.215	18.215	92	2.	U
Naphthalene	20.779	20.779	20.779	85	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.255	50.	52.98	105.96	80-120

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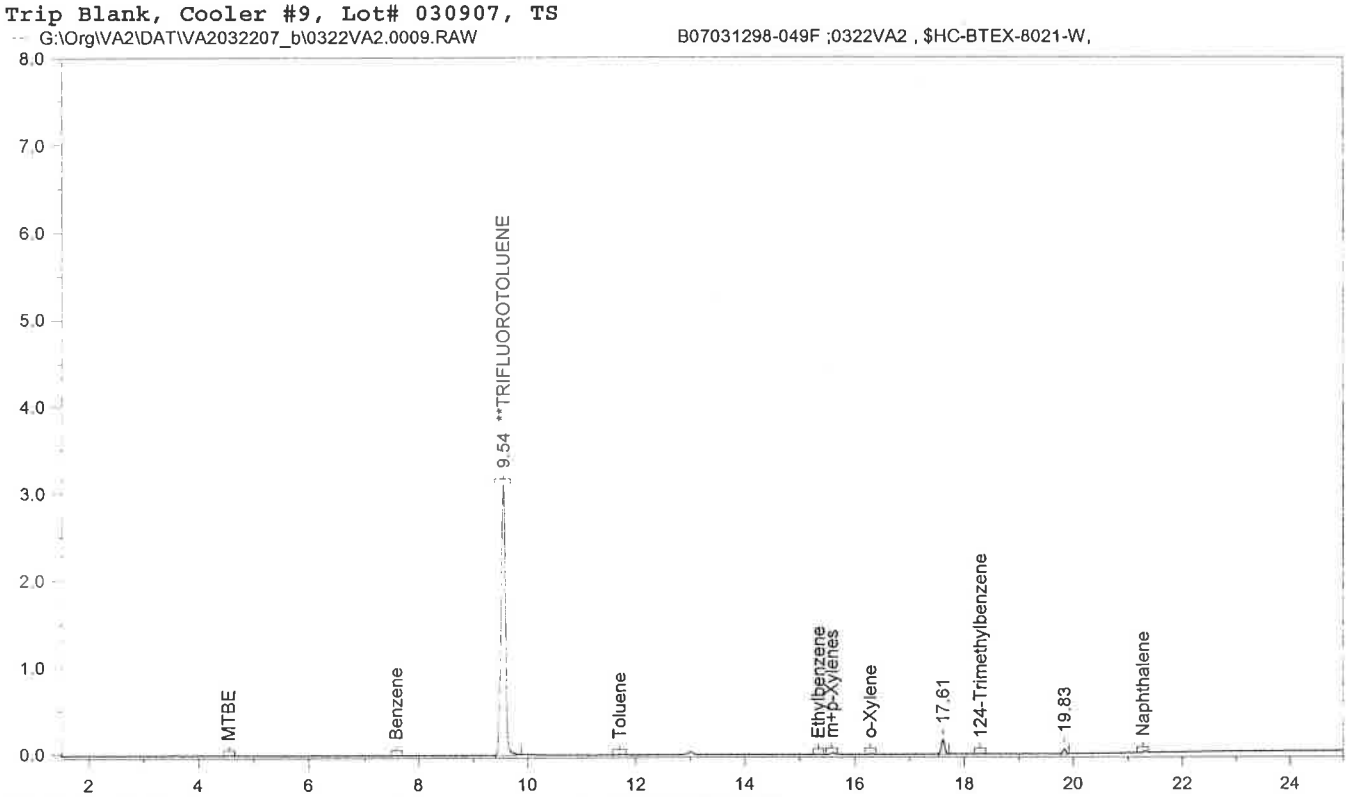
Trip Blank, Cooler #9, Lot# 030907, TS



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-049F ;0322VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2032207_b\0322VA2.0009.RAW
Date & Time Acquired: 3/22/2007 4:52:21 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		.5	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.541	50.	50.842	101.68	80-120

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Trip Blank, Cooler #10, HKM

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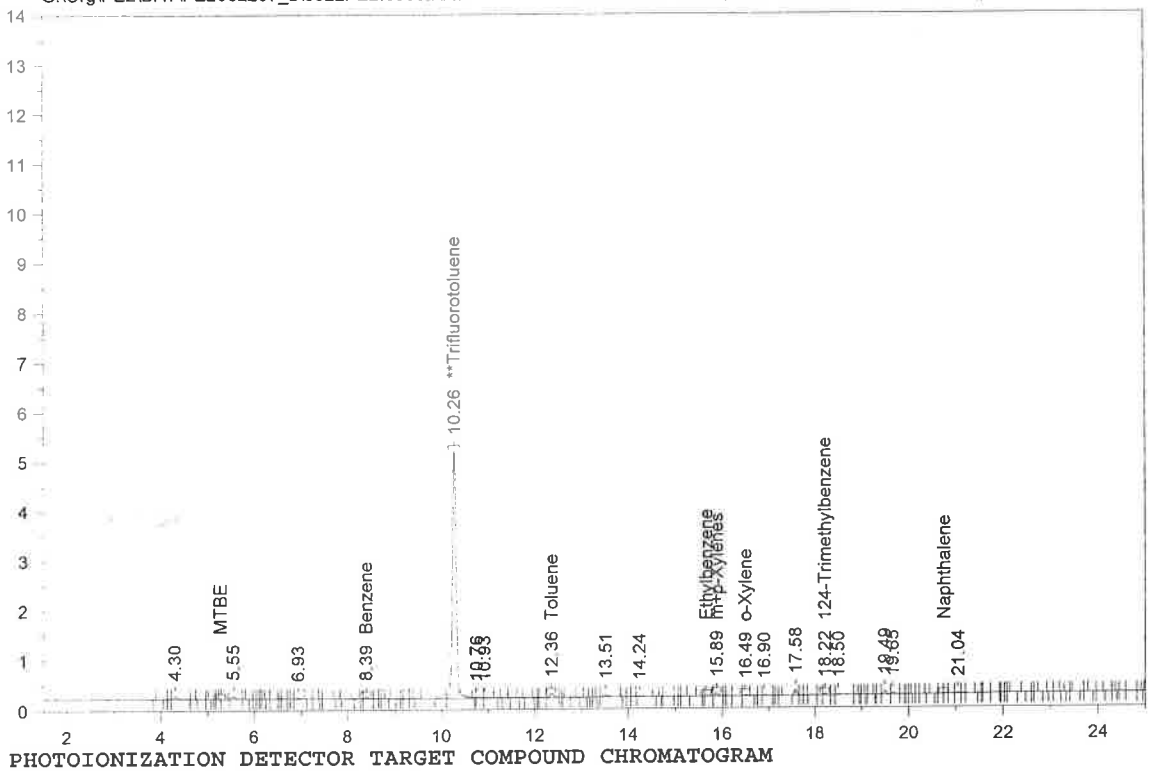

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-050F ;0322PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032207_b\0322PE2.0009.RAW
Date & Time Acquired: 3/22/2007 5:07:36 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.39	8.39	8.39	180	.5	U
Toluene	12.362	12.362	12.362	445	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	15.886	15.886	15.886	265	.5	U
o-Xylene	16.492	16.492	16.492	122	.5	U
124-Trimethylbenzene	18.217	18.217	18.217	111	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.258	50.	53.228	106.46	80-120

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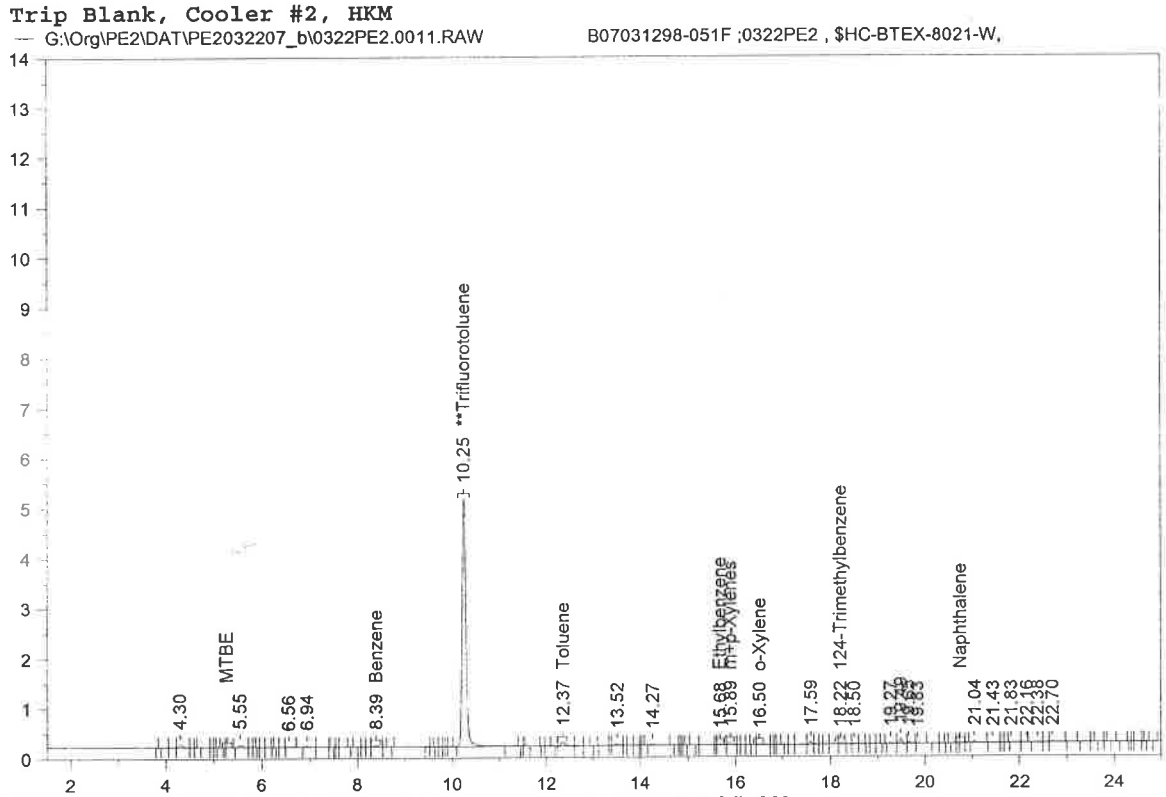
Trip Blank, Cooler #2, HKM



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-051F ;0322PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2032207_b\0322PE2.0011.RAW
Date & Time Acquired: 3/22/2007 6:21:25 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.39	8.39	8.39	181	.5	U
Toluene	12.368	12.368	12.368	494	.5	U
Ethylbenzene	15.677	15.677	15.677	82	.5	U
m+p-Xylenes	15.889	15.889	15.889	268	.5	U
o-Xylene	16.504	16.504	16.504	153	.5	U
124-Trimethylbenzene	18.218	18.218	18.218	95	2.	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.255	50.	53.083	106.17	80-120

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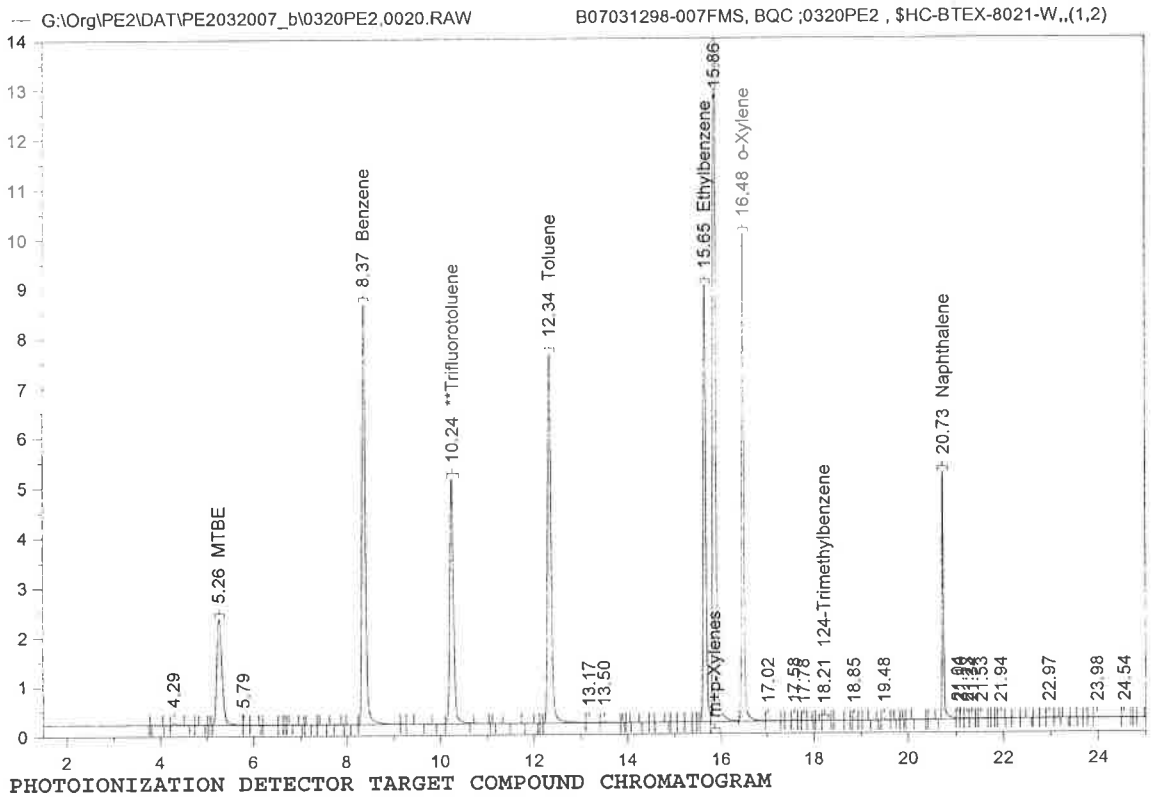

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-007FMS, BQC ;0320PE2 , $HC-BTEX-8021-W,,(1,2)
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0020.RAW
Date & Time Acquired: 3/20/2007 11:33:27 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 2 S.A.: 2

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	5.264	4.979	4.979	16809	52.491	
Benzene	8.368	1.874	1.874	42296	50.271	
Toluene	12.336	-2.095	-2.093	38938	51.91	
Ethylbenzene	15.651	-5.41	-5.408	33099	50.743	
m+p-Xylenes	15.86	-5.619	-5.617	76338	101.736	
o-Xylene	16.48	-6.238	-6.237	33136	51.864	
124-Trimethylbenzene	18.211	18.211	18.211	91	4.	U
Naphthalene	20.733	-10.488	-10.49	11698	50.762	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.243	100.	103.598	103.6	80-120

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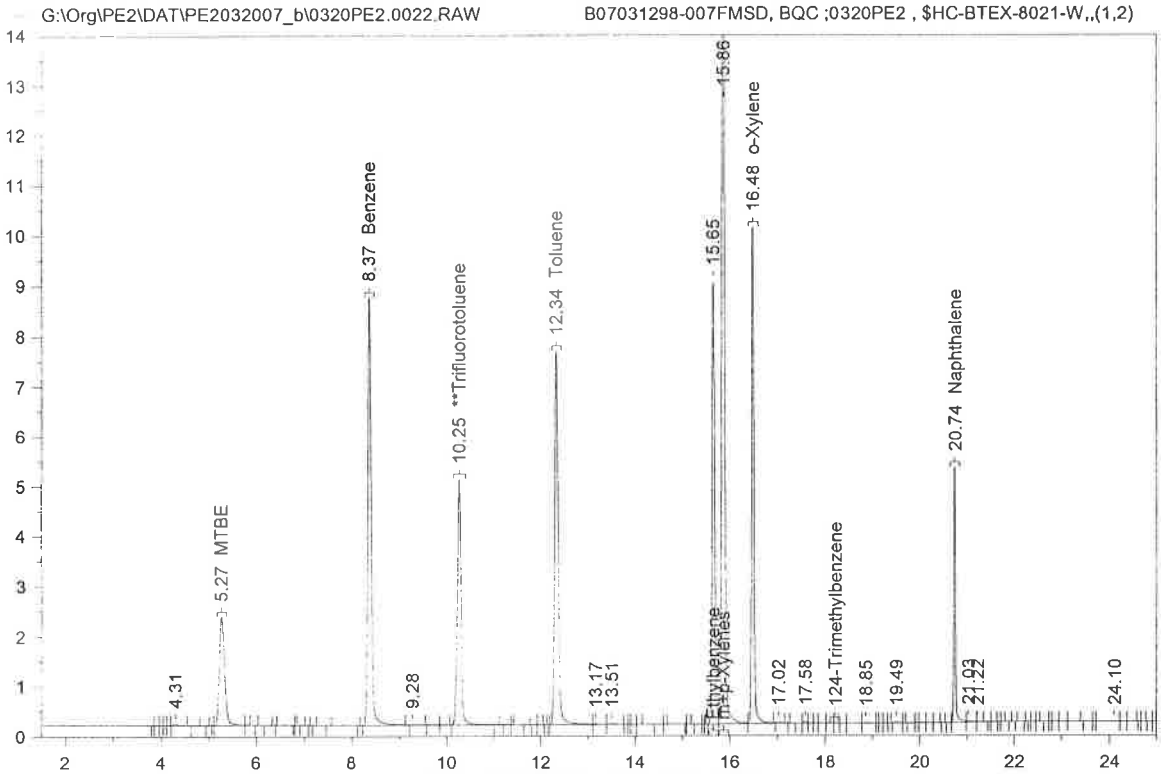

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-007FMSD, BQC ;0320PE2 , $HC-BTEX-8021-W,,(1,2)
Raw File: G:\Org\PE2\DAT\PE2032007_b\0320PE2.0022.RAW
Date & Time Acquired: 3/21/2007 12:47:21 AM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 2 S.A.: 2

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	5.268	4.979	4.977	16658	52.019	
Benzene	8.372	1.874	1.873	42701	50.752	
Toluene	12.338	-2.095	-2.093	39037	52.042	
Ethylbenzene	15.652	-5.41	-5.407	33273	51.01	
m+p-Xylenes	15.861	-5.619	-5.616	76642	102.142	
o-Xylene	16.481	-6.238	-6.236	33104	51.814	
124-Trimethylbenzene	.	.	.		4.	U
Naphthalene	20.735	-10.488	-10.49	11918	51.715	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.245	100.	103.251	103.25	80-120

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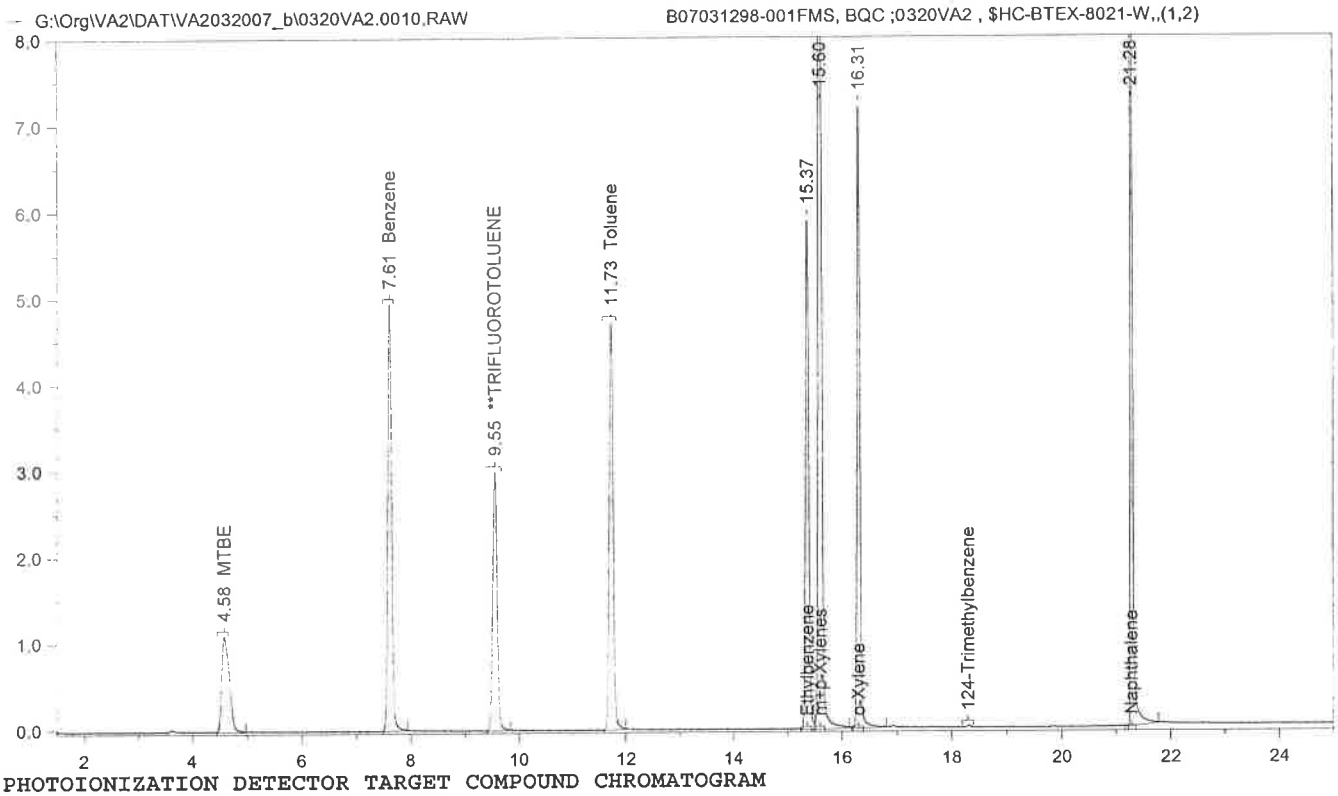

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-001FMS, BQC ;0320VA2 , $HC-BTEX-8021-W,,(1,2)
Raw File: G:\Org\VA2\DAT\VA2032007_b\0320VA2.0010.RAW
Date & Time Acquired: 3/20/2007 4:44:10 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 2 S.A.: 2

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	4.584	4.967	4.969	10686	47.126	
Benzene	7.612	1.941	1.941	24485	45.922	
Toluene	11.728	-2.174	-2.175	24642	49.138	
Ethylbenzene	15.368	-5.821	-5.814	23911	48.61	
m+p-Xylenes	15.603	-6.059	-6.05	54594	102.498	
o-Xylene	16.306	-6.764	-6.753	25606	50.665	
124-Trimethylbenzene	.	.	.		4.	U
Naphthalene	.	-11.744	9.553	35088	55.649	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.553	100.	97.554	97.55	80-120

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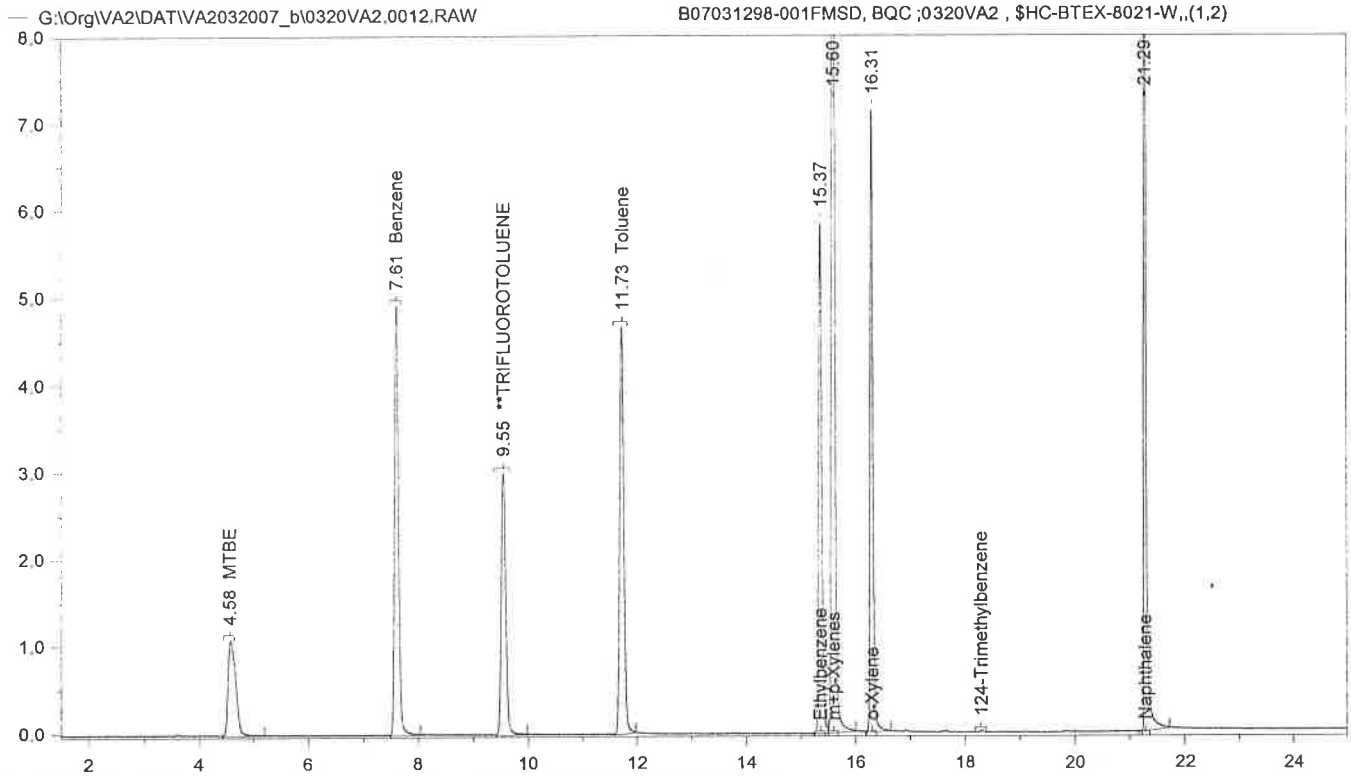

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-001FMSD, BQC ;0320VA2 , $HC-BTEX-8021-W,,(1,2)
Raw File: G:\Org\VA2\DAT\VA2032007_b\0320VA2.0012.RAW
Date & Time Acquired: 3/20/2007 5:54:01 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 2 S.A.: 2

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	4.577	4.967	4.974	10835	47.782	
Benzene	7.607	1.941	1.944	24814	46.539	
Toluene	11.727	-2.174	-2.176	24469	48.791	
Ethylbenzene	15.366	-5.821	-5.815	23695	48.171	
m+p-Xylenes	15.604	-6.059	-6.053	53623	100.674	
o-Xylene	16.308	-6.764	-6.757	25114	49.69	
124-Trimethylbenzene	.	.	.		4.	U
Naphthalene	.	-11.744	9.551	35160	55.764	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.551	100.	99.596	99.6	80-120

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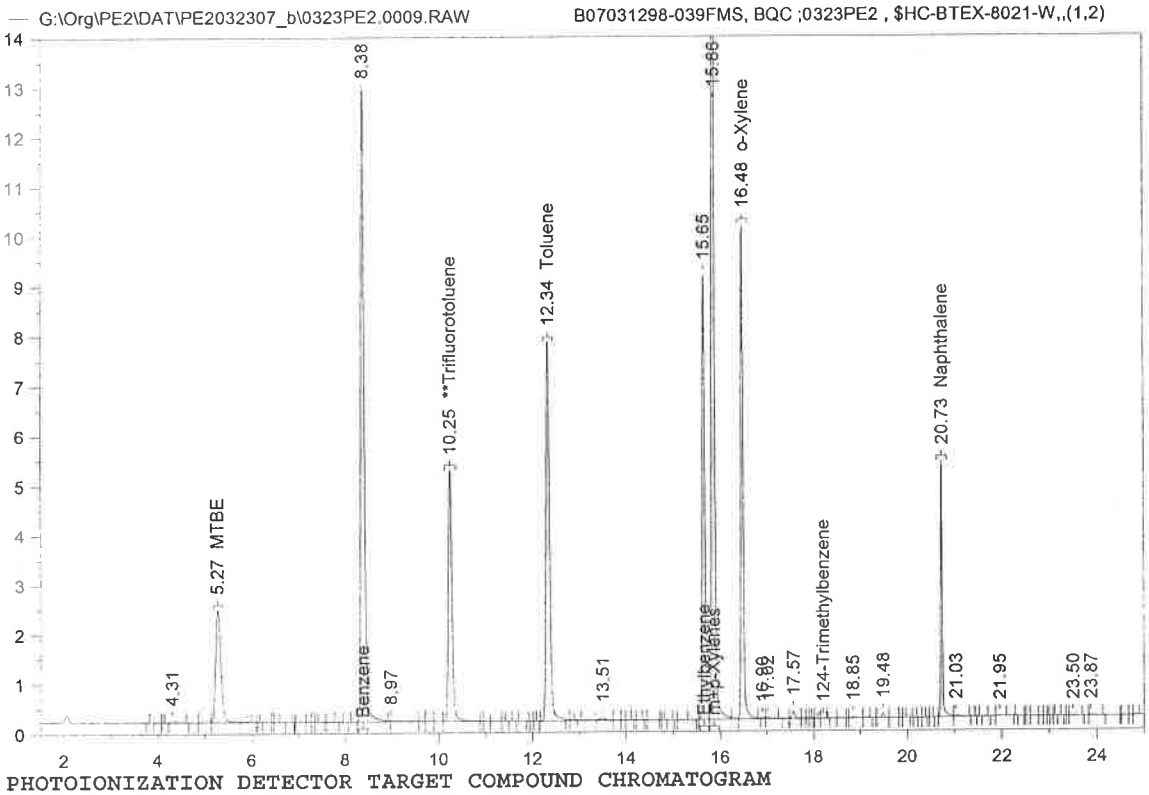

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-039FMS, BQC ;0323PE2 , $HC-BTEX-8021-W,,(1,2)
Raw File: G:\Org\PE2\DAT\PE2032307_b\0323PE2.0009.RAW
Date & Time Acquired: 3/23/2007 4:32:39 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 2 S.A.: 2

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	5.274	4.979	4.976	17497	54.638	
Benzene	8.378	1.874	1.872	62914	74.776	
Toluene	12.341	-2.095	-2.091	40120	53.485	
Ethylbenzene	15.651	-5.41	-5.401	33462	51.299	
m+p-Xylenes	15.86	-5.619	-5.61	77127	102.788	
o-Xylene	16.479	-6.238	-6.229	33222	51.998	
124-Trimethylbenzene	.	.	.		4.	U
Naphthalene	20.733	-10.488	-10.483	12067	52.36	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.25	100.	106.193	106.19	80-120

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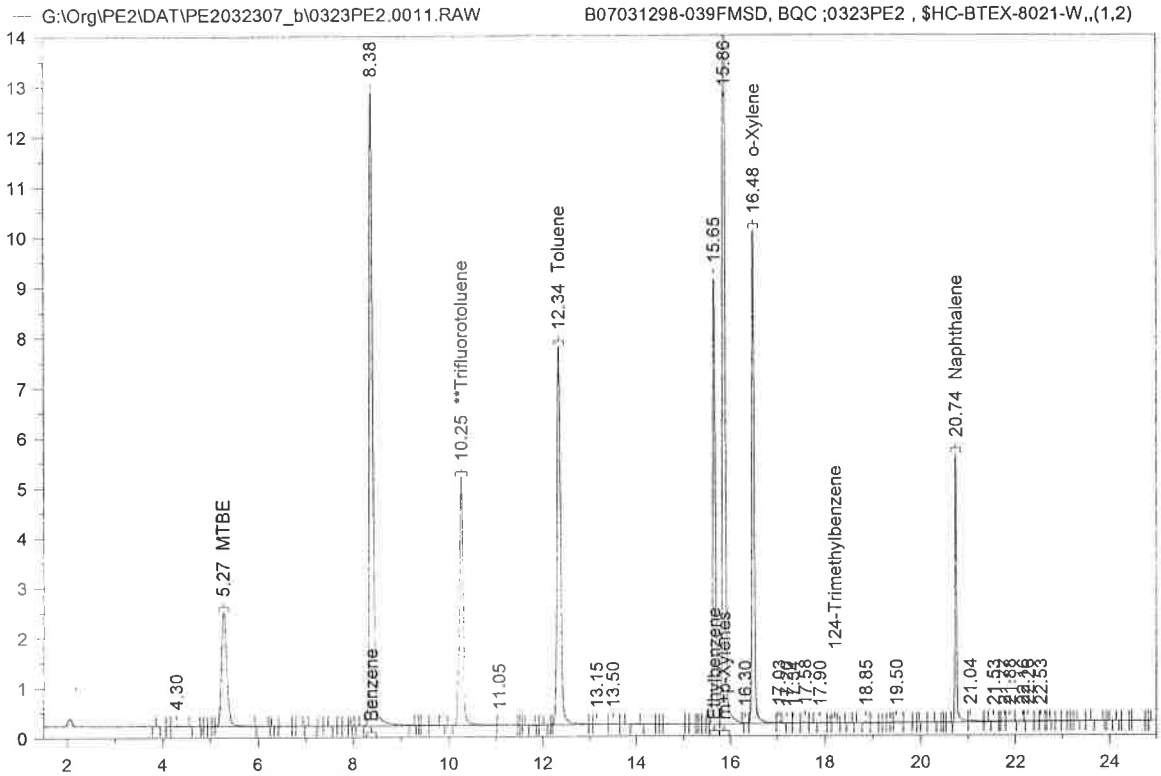

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-039FMSD, BQC ;0323PE2 , $HC-BTEX-8021-W,,(1,2)
Raw File: G:\Org\PE2\DAT\PE2032307_b\0323PE2.0011.RAW
Date & Time Acquired: 3/23/2007 5:46:29 PM
Method File: G:\Org\PE2\Methods\02P207.MET
Calibration File: G:\Org\PE2\Cals\02MAQ07.CAL
Sample Weight: 5 Dilution: 2 S.A.: 2

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	5.275	4.979	4.976	17789	55.552	
Benzene	8.377	1.874	1.873	63150	75.056	
Toluene	12.343	-2.095	-2.092	39387	52.508	
Ethylbenzene	15.655	-5.41	-5.404	33307	51.062	
m+p-Xylenes	15.864	-5.619	-5.613	76687	102.202	
o-Xylene	16.484	-6.238	-6.234	33232	52.013	
124-Trimethylbenzene	.	.	.		4.	U
Naphthalene	20.738	-10.488	-10.488	12617	54.747	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	10.251	100.	104.736	104.74	80-120

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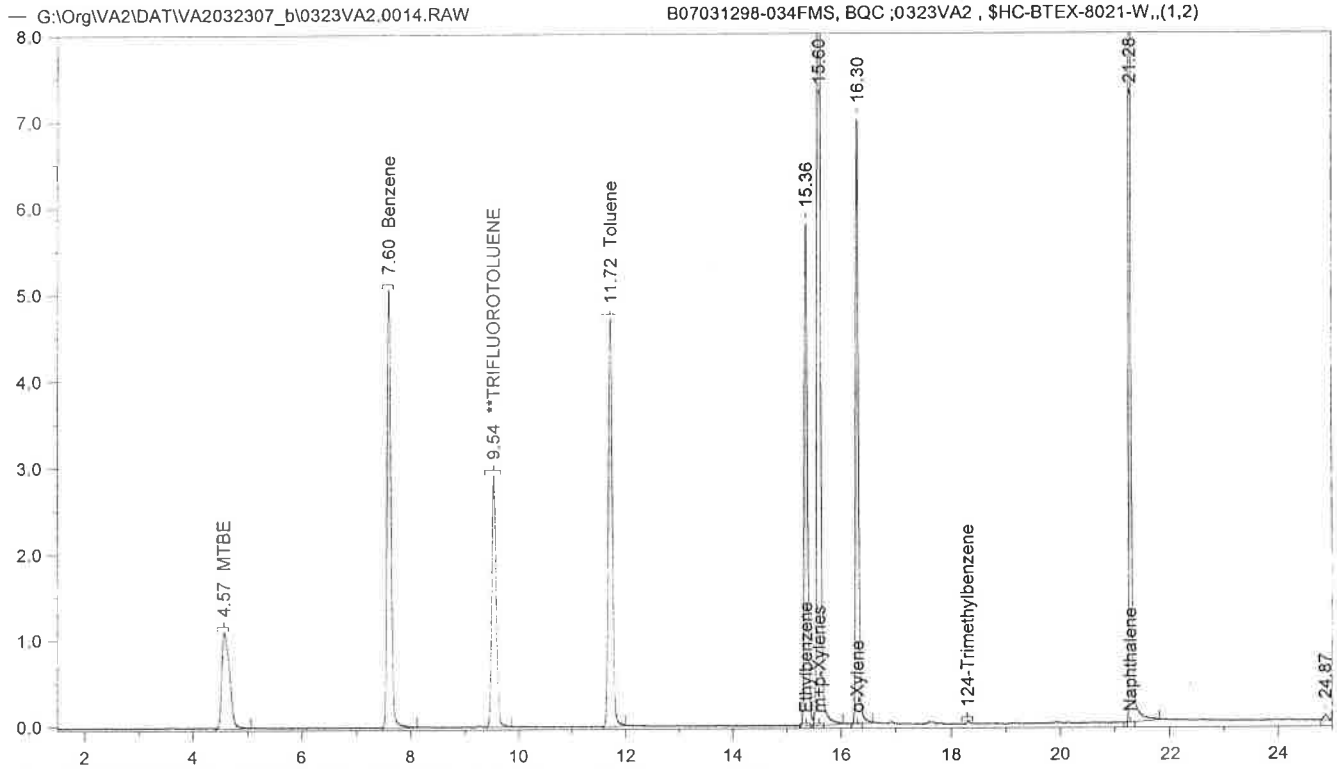

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-034FMS, BQC ;0323VA2 , $HC-BTEX-8021-W,,(1,2)
Raw File: G:\Org\VA2\DAT\VA2032307_b\0323VA2.0014.RAW
Date & Time Acquired: 3/23/2007 7:11:04 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 2 S.A.: 2

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	4.574	4.967	4.968	11058	48.769	
Benzene	7.599	1.941	1.942	25451	47.733	
Toluene	11.718	-2.174	-2.177	24625	49.103	
Ethylbenzene	15.36	-5.821	-5.819	23441	47.654	
m+p-Xylenes	15.598	-6.059	-6.057	52758	99.051	
o-Xylene	16.302	-6.764	-6.761	24567	48.609	
124-Trimethylbenzene	.	.	.		4.	U
Naphthalene	21.28	-11.744	-11.738	34383	54.531	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.541	100.	94.739	94.74	80-120

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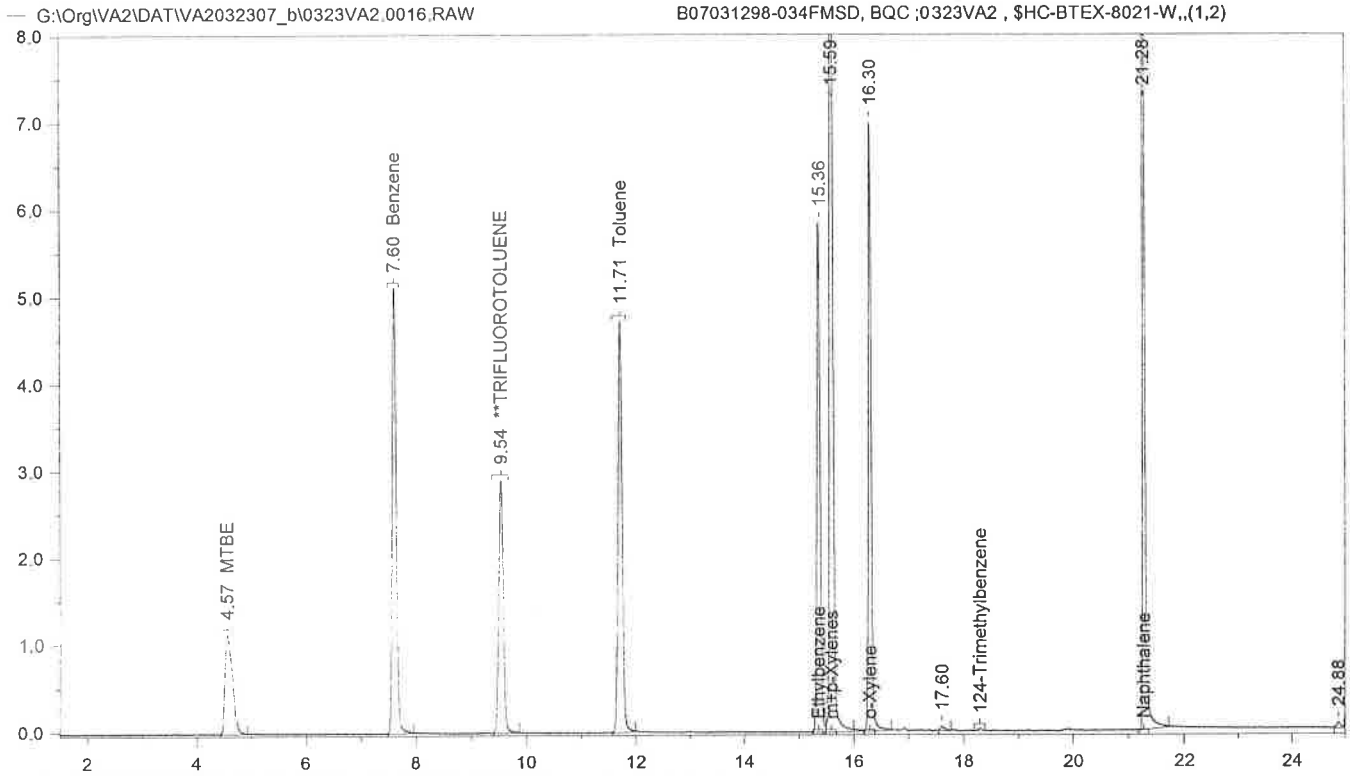

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B07031298-034FMSD, BQC ;0323VA2 , $HC-BTEX-8021-W,,(1,2)
Raw File: G:\Org\VA2\DAT\VA2032307_b\0323VA2.0016.RAW
Date & Time Acquired: 3/23/2007 8:20:48 PM
Method File: G:\Org\VA2\Methods\01W207.MET
Calibration File: G:\Org\VA2\Cals\01mas07.cal
Sample Weight: 5 Dilution: 2 S.A.: 2

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	4.568	4.967	4.972	11023	48.612	
Benzene	7.597	1.941	1.944	25515	47.854	
Toluene	11.715	-2.174	-2.174	24759	49.371	
Ethylbenzene	15.356	-5.821	-5.816	23605	47.989	
m+p-Xylenes	15.595	-6.059	-6.054	52995	99.495	
o-Xylene	16.298	-6.764	-6.758	24958	49.382	
124-Trimethylbenzene	.	.	.		4.	U
Naphthalene	21.275	-11.744	-11.735	34372	54.513	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	9.54	100.	94.885	94.89	80-120

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Energy Laboratories Inc

Sample Receipt Checklist

Client Name: **HKM Engineering Inc**

Date and Time Received: **3/16/2007**

Work Order Number **B07031298**

Received by: dlf

Login completed by: Kathi Renier (Signature) 3/16/2007 (Date)

Reviewed by: Denise Ruby (Initials) 3/17/2007 (Date)

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping 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 ☐	4 °C On Ice
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☑	Not Applicable ☐

Adjusted? _____ Checked by _____

Contact and Corrective Action Comments:

Sample for PNR-24 (Nutrients) was received at a pH~5, 2mL H2SO4 acid added to preserve to a pH<2. Sample for PNR-24 (TPH) was received at a pH~5, 4mL H2SO4 acid added to preserve to a pH<2.

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Company Name: HKM Engineering Inc.

Project Name, PWS #, Permit #, Etc.: Pioneer Natural Resources - Biere Well Site, Poplar, MT

Report Mail Address: 601 Nikles Drive, Suite 2, Bozeman MT 59715

Contact Name, Phone, Fax, E-mail: Nate Peterson 586-8834 npeterson@hkminc.com

Sampler Name if other than Contact: Chris Leibli

Invoice Address: Same

Invoice Contact & Phone #: Same

Purchase Order #:

ELI Quote #: 78

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

Special Report Formats - ELI must be notified prior to sample submittal for the following:
NELAC ☐ A2LA ☐ Level IV ☐
Other _____
EDD/EDT ☐ Format _____

ANALYSIS REQUESTED

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Comments:

Shipped by: Hand

Cooler ID(s)

Receipt Temp 4 °C on ice

Custody Seal Y N
Intact Y N
Signature Match Y N

#	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers / Sample Type: A W S V B O / Air Water Solids/Solids Vegetation Bioassay Other / MATRIX	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Comments	Lab ID
1	PNR-35-07	3/13/07	11:15	GW		X		Cooler #7	0703128-1
2	PNR-16		12:45						-2
3	MOC-20 A		13:40						-3
4	MOC-20 B		15:00						-4
5	MOC-4		16:00						-5
6	MOC-2		17:00						-6
7	PNR-28		18:00					Cooler #2	-7
8	PNR-6	3/14/07	10:15						-8
9	PNR-18		11:10						-9
10	PNR-12		12:15					Cooler #1	-10

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Nate Peterson	3/16/07 12:33				
			D. Fosigod	3-16-07 1230	

Sample Disposal: Return to client: _____ Lab Disposal: _____

LABORATORY USE ONLY
Sample Type: _____ # of fractions _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, & links.

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

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Company Name: HKM Engineering Inc.

Project Name, PWS #, Permit #, Etc.: Pioneer Natural Resources - Biere Well Site

Report Mail Address:

Contact Name, Phone, Fax, E-mail:

Sampler Name if other than Contact:

Invoice Address:

Invoice Contact & Phone #:

Purchase Order #:

ELI Quote #:

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

Special Report Formats - ELI must be notified prior to sample submittal for the following:

NELAC ☐ A2LA ☐ Level IV ☐

Other _____

EDD/EDT ☐ Format _____

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Shipped by: Hand

Cooler ID(s)

Receipt Temp 4 °C on ice

Custody Seal Y N

Intact Y N

Signature Match Y N

Lab ID

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Comments:	LABORATORY USE ONLY
1	PNR-33-06	3/13/07	1375	6W		X		Cooler #6	1807031298-11
2	PNR-22	↓	15:25						-12
3	PNR-29	=	1750						-13
4	PNR-13	3/14/07	16:20	6W					-14
5	PNR-14	"	10:45						-15
6	PNR-15	"	11:40					Cooler #4	-16
7	PNR-5	3/14/07	14:14						-17
8	PNR-23	"	1500						-18
9	PNR-19	"						Cooler # 3	-19
10	~~PNR-27~~	~~"~~	~~16:50~~					~~Cooler #~~	

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Nate Peterson	3/16/07 12:33				
Relinquished by (print):	Date/Time:	Signature:	Received by (print): Dfosigd	Date/Time: 3-16-07 1230	Signature:

Sample Disposal: Return to client: _____ Lab Disposal: _____

LABORATORY USE ONLY

Sample Type: _____ # of fractions _____

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ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

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Company Name: HKM Engineering Inc.

Project Name, PWS #, Permit #, Etc.: Pioneer Natural Resources - Biere Well Site

Report Mail Address:

Contact Name, Phone, Fax, E-mail:

Sampler Name if other than Contact:

Invoice Address:

Invoice Contact & Phone #:

Purchase Order #:

ELI Quote #:

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

Special Report Formats - ELI must be notified prior to sample submittal for the following:

NELAC ☐ A2LA ☐ Level IV ☐

Other _____

EDD/EDT ☐ Format _____

ANALYSIS REQUESTED

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Shipped by: Hand

Cooler ID(s)

Receipt Temp 2 °C

Custody Seal Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Comments:	Lab ID (LABORATORY USE ONLY)
1	PNR-24	3/14/07	1540	6W		X		Cooler #9	B0703 1298-20
2	PNR-25	3/15/07	10:53			X			-21
3	PNR-17	3/15/07	11:49			X			-22
4	Trip Blank 3-9-07 TS			1W		X		Cooler #1	-23
5	Trip Blank #3907 TS ~~#1270603~~							" " 2	-24
6	Trip Blank 3-9-07 TS							" " 3	-25
7	Trip Blank 3-9-07 TS							" " 4	-26
8	Trip Blank 3-9-07 TS							" " 5	-27
9	Trip Blank 3-9-07 TS							" " 6	-28
10	Trip Blank #3-9-07 TS ~~#1270603~~							" " 7	-29

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Nate Peterson	3/16/07	[signature]			
			D. Fosjord	3-16-07 1230	[signature]

Sample Disposal: Return to client: _____ Lab Disposal: _____

LABORATORY USE ONLY

Sample Type: _____ # of fractions _____

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ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Company Name: HKM Engineering

Project Name, PWS #, Permit #, Etc.: Pioneer Natural Resources, Biere Well Site

Report Mail Address: ~~PO Box 31318~~ ~~Billings, MT~~

Contact Name, Phone, Fax, E-mail: ~~Charlie Peterson~~

Sampler Name if other than Contact:

Invoice Address:

Invoice Contact & Phone #:

Purchase Order #:

ELI Quote #:

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

Special Report Formats - ELI must be notified prior to sample submittal for the following:

NELAC ☐ A2LA ☐ Level IV ☐

Other _____

EDD/EDT ☐ Format _____

ANALYSIS REQUESTED

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Comments:

Shipped by: Hand

Cooler ID(s)

Receipt Temp 4 °C

Custody Seal Y N
Intact Y N
Signature Y N
Match

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers / Sample Type: A W S V B O / Air Water Soils/Solids Vegetation Bioassay Other / MATRIX	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Comments	Lab ID
1	PNR-36-07	3/13/07	1140	GW		X		Cooler #8	B703129 8-30
2	USGS-92-12	↓	1255	↓		↓	↓	↓	-31
3	PNR-10		1520						-32
4	PNR-9		1635						-33
5	LAW-MO3	↓	1740	↓					-34
6	PNR-8	3/14/07	1325						-35
7	MOC-3		1150	~~HNO3~~				Cooler #3	-36
8	MOC-1B		1255						-37
9									
10				↓					

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print): Nate Peterson Date/Time: 3/16/07 12:33 Signature:

Received by (print): Date/Time: Signature:

Relinquished by (print): Date/Time: Signature:

Received by (print): D. Fosjord Date/Time: 3-16-07 1230 Signature:

LABORATORY USE ONLY

Sample Disposal: Return to client: _____ Lab Disposal: _____

Sample Type: _____ # of fractions _____

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ENERGY LABORATORIES

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Company Name: HKM Engineering

Project Name, PWS #, Permit #, Etc.: Pioneer Natural Resources - Biere well site

Report Mail Address:

Contact Name, Phone, Fax, E-mail:

Sampler Name if other than Contact:

Invoice Address:

Invoice Contact & Phone #:

Purchase Order #:

ELI Quote #:

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

Special Report Formats - ELI must be notified prior to sample submittal for the following:

NELAC ☐ A2LA ☐ Level IV ☐

Other _____

EDD/EDT ☐ Format _____

ANALYSIS REQUESTED

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Shipped by: Chard

Cooler ID(s)

Receipt Temp 4 °C

Custody Seal Y N

Intact Y N

Signature Match Y N

Lab ID

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Comments:	LABORATORY USE ONLY
1	PNR-20	3/15/07	1018	6 W		X		Cooler #5	B07031298-38
2	PNR-21	↓	1115	↓		↓			-39
3	PNR-7	↓	1215	↓		↓			-40
4	PNR-27	3/14/07	16:50	↓		↓			-41
5									
6									
7									
8									
9									
10									

Custody Record MUST be Signed

Relinquished by (print): Nate Peterson Date/Time: 3/16/07 12:33 Signature: [signature]

Relinquished by (print): Date/Time: Signature:

Received by (print): Date/Time: Signature:

Received by (print): D. Fosigard Date/Time: 3-16-07 1230 Signature: [signature]

Sample Disposal: Return to client: _____ Lab Disposal: _____

LABORATORY USE ONLY

Sample Type: _____ # of fractions _____

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ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

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Company Name: HKM Engineering Inc.

Project Name, PWS #, Permit #, Etc.: Pioneer Natural Resources - Biere Wellsite

Report Mail Address:

Contact Name, Phone, Fax, E-mail:

Sampler Name if other than Contact:

Invoice Address:

Invoice Contact & Phone #:

Purchase Order #:

ELI Quote #:

Report Required For: POTW/WWTP ☐ DW ☐ Other _____

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NELAC ☐ A2LA ☐ Level IV ☐

Other _____

EDD/EDT ☐ Format _____

ANALYSIS REQUESTED

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Shipped by: hand

Cooler ID(s)

Receipt Temp 4 °C

Custody Seal Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Comments:	LABORATORY USE ONLY Lab ID
1	PNR-34-07	3/14/07	13:15	6W		X			B703129 8-42
2	Whitmer		16:55					Cooler #1	-43
3	M-27		17:30						-44
4	M-28	3/15/07	10:15						-45
5	M-31		11:30					Cooler #10	-46
6	USGS-43-3		13:30						-47
7	Trip Blank 3-9-07 TS			1W				Cooler #8	-48
8	Trip Blank 3-9-07 TS							Cooler #9	-49
9	Trip Blank ~~TRIP BLANK~~, HKM							Cooler #16	-50
10	Trip Blank, HKM							Cooler #2 - added	-51 included in cooler

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Nate Petersen	3/16/07 12:33				
Relinquished by (print):	Date/Time:	Signature:	Received by (print): D. Fosjord	Date/Time: 3-16-07 1230	Signature:

Sample Disposal: Return to client: _____ Lab Disposal: _____

LABORATORY USE ONLY

Sample Type: _____ # of fractions _____

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