DOWL HKM

June 6, 2011
Project No. 14B8.05101.01

Michael Jacobs, P.G.
Pioneer Natural Resources USA, Inc.
4815 E. Hwy 80
Midland, TX 79706

RE: May 2011 Groundwater Monitoring Data Report
Pioneer Natural Resources USA, Inc.
Biere 1-22 Well Site
East Poplar Oil Well Field
Poplar, Montana

Dear Mr. Jacobs

Pursuant to the United States Environmental Protection Agency, Emergency Administrative Order Upon Consent (EAOC), Pioneer Natural Resources USA, Inc. (Pioneer) conducted semi-annual groundwater monitoring and sampling in the vicinity of the Biere 1-22 oil well. The investigation was performed during May 2011 and included groundwater monitoring and sampling. This letter serves as a semi-annual groundwater monitoring and sampling report under the EAOC.

From May 3rd through May 7th 2011, monitor wells, selected existing domestic wells, and brine recovery wells were sampled. The locations of the monitor, domestic, and brine recovery 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. A groundwater elevation map is provided in Appendix A. Prior to sample collection, monitor and domestic wells were purged by use of a decontaminated submersible electric pump or disposable bailers. Since the brine recovery wells are all operating with dedicated pumps on a continuous basis, minimal additional purging was conducted on these wells.

To ensure representative groundwater samples were collected from the monitor and domestic wells, water quality parameters were monitored and allowed to stabilize during the purging process prior to sample collection. Conductivity, temperature, pH, and dissolved oxygen of the purged groundwater were monitored. Once at least three well volumes had been purged from the monitor and domestic wells and the parameters had stabilized, samples were collected in the appropriate laboratory containers and preserved as directed by the laboratory. The brine recovery wells were only purged enough to clear out the sampling port since these wells are continuously operating. 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, inorganic and organic water chemistry results, and brine recovery well sampling results are presented in Tables 1, 2, 3, and 4 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,

DOWL HKM

Jim Potts
Hydrogeologist E.I.

Charlie Peterson
Senior Geologist P.G.

Attachments:

Table 1:	Depth to Water and LNAPL in Monitor Wells and Domestic Wells
Table 2:	Inorganic Water Chemistry Data
Table 3:	BTEX and TPH Analytical Results
Table 4:	Brine Recovery Wells – BTEX and Chloride Analytical Results
Appendix A:	Well Location and Groundwater Elevation Map
Appendix B:	Laboratory Analytical Reports

cc: Bill Knight, Pioneer Natural Resources USA, Inc.

Table 1

Depth to Water and Product 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

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Well Name and Elevation			Fluid Levels				
Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
LAW-M01	2091.17	2093.01	12/5/2006		57.63		2035.38
			10/2/2007		58.00		2035.01
			4/14/2009		58.32		2034.69
LAW-M03	1986.45	1988.90	12/15/2006		31.47		1957.43
			3/13/2007		39.99		1948.91
			10/2/2007		31.76		1957.14
			3/25/2008		31.38		1957.52
			10/22/2008		32.10		1956.80
			4/14/2009		29.82		1959.08
			4/8/2010		31.00		1957.90
			9/15/2010		31.61		1957.29
			5/3/2011		28.15		1960.75
LAW-M04		1976.85	12/15/2006		23.14		1953.71
LAW-M05		2048.90	12/15/2006		98.58		1950.32
			4/19/2009		97.54		1951.36
LAW-M06		2023.68	12/15/2006		76.18		1947.50
LAW-M08		2010.58	12/15/2006		62.40		1948.18
M-10			4/16/2009		9.15		
M-18	2047.10	2048.13	11/6/2001		80.80		1967.33
			2/19/2002		80.25		1967.88
			5/20/2002		80.60		1967.53
			8/19/2002		80.60		1967.53
			3/5/2003		79.60		1968.53
			5/12/2003		79.00		1969.13
			8/12/2003		80.46		1967.67
			3/18/2004		80.47		1967.66
			6/13/2004		80.30		1967.83
			3/2/2005		80.70		1967.43
			8/18/2005		80.60		1967.53
			8/22/2006		80.76		1967.37
			12/5/2006		80.57		1967.56
			10/2/2007		80.86		1967.27
			4/14/2009		78.72		1969.41
			9/30/2009		80.37		1967.76
			4/8/2010		80.06		1968.07
			9/15/2010		80.71		1967.42
			5/3/2011		77.17		1970.96
M-25	2031.70	2033.33	11/9/2001		67.30		1966.03
M-27	2029.92	2031.19	8/13/2001		67.15		1964.04
			9/5/2001		67.28		1963.91
			11/6/2001		67.61		1963.58
			2/19/2002		67.07		1964.12
			5/20/2002		67.04		1964.15
			8/19/2002		67.74		1963.45
			11/4/2002		67.70		1963.49
			3/5/2003		68.88		1962.31
			5/12/2003		66.60		1964.59
			8/12/2003		67.30		1963.89
			11/9/2003		68.00		1963.19
			3/18/2004		67.39		1963.80
			6/7/2004		66.05		1965.14
			9/13/2004		67.12		1964.07
			11/18/2004		67.42		1963.77
			3/1/2005		67.19		1964.00
			5/24/2005		67.24		1963.95
			8/16/2005		67.50		1963.69
			11/15/2005		67.66		1963.53
			2/7/2006		67.42		1963.77
			5/23/2006		66.88		1964.31

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

Pioneer Natural Resources, USA, Inc. - Biere 1-22 Investigation

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Well Name and Elevation			Fluid Levels				
Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			8/22/2006		67.81		1963.38
			12/5/2006		67.66		1963.53
			3/12/2007		67.29		1963.90
			10/2/2007		67.80		1963.39
			3/25/2008		67.56		1963.63
			10/22/2008		67.97		1963.22
			4/14/2009		66.03		1965.16
			9/30/2009		67.48		1963.71
			4/8/2010		67.14		1964.05
			9/15/2010		67.55		1963.64
			5/3/2011		64.12		1967.07
M-28	2102.82	2096.63	5/31/2001		49.23		2047.40
			8/13/2001		48.85		2047.78
			9/5/2001		48.61		2048.02
			11/6/2001		49.06		2047.57
			2/19/2002		49.00		2047.63
			5/20/2002		49.10		2047.53
			8/19/2002		49.62		2047.01
			11/6/2002		49.73		2046.90
			3/5/2003		49.39		2047.24
			5/12/2003		50.50		2046.13
			8/12/2003		49.92		2046.71
			11/5/2003		50.28		2046.35
			3/16/2004		50.01		2046.62
			6/7/2004		50.04		2046.59
			9/15/2004		49.85		2046.78
			11/19/2004		49.73		2046.90
			3/1/2005		49.78		2046.85
			5/24/2005		50.31		2046.32
			8/16/2005		50.11		2046.52
			11/15/2005		50.66		2045.97
			2/7/2006		50.58		2046.05
			5/23/2006		49.88		2046.75
			8/22/2006		50.28		2046.35
			12/5/2006		50.33		2046.30
			3/12/2007		50.25		2046.38
			10/2/2007		50.10		2046.53
			3/25/2008		50.45		2046.18
			10/22/2008		51.13		2045.50
			4/14/2009		50.95		2045.68
			9/30/2009		50.90		2045.73
			4/8/2010		51.52		2045.11
			9/15/2010		52.10		2044.53
			5/3/2011		51.54		2045.09
M-31	2085.00	2087.17	5/31/2001		40.37		2046.80
			8/13/2001		40.26		2046.91
			9/5/2001		40.15		2047.02
			11/6/2001		40.33		2046.84
			2/19/2002		40.42		2046.75
			5/20/2002		40.77		2046.40
			8/19/2002		41.22		2045.95
			11/4/2002		41.18		2045.99
			3/5/2003		41.30		2045.87
			5/12/2003		40.87		2046.30
			8/12/2003		41.62		2045.55
			11/5/2003		41.86		2045.31
			3/16/2004		41.65		2045.52
			6/7/2004		41.85		2045.32
			9/13/2004		41.65		2045.52
			11/18/2004		41.52		2045.65
			3/1/2005		41.65		2045.52
			5/24/2005		41.91		2045.26
			8/16/2005		41.07		2046.10
			11/15/2005		41.27		2045.90
			2/7/2006		41.34		2045.83
			5/23/2006		41.20		2045.97
			8/22/2006		41.36		2045.81

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Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			12/5/2006		41.71		2045.46
			3/12/2007		41.80		2045.37
			10/2/2007		41.82		2045.35
			3/25/2008		42.05		2045.12
			10/22/2008		42.81		2044.36
			4/14/2009		43.15		2044.02
			9/30/2009		43.85		2043.32
			4/8/2010		44.55		2042.62
			9/15/2010		44.87		2042.30
			5/3/2011		43.91		2043.26
M-39	2049.10	2050.63	11/6/2001		100.68		1949.95
			12/5/2006		100.60		1950.03
M-41			12/5/2006		42.24		
M-69			4/14/2009		3.80		
M-80			4/18/2009		16.31		
MOC- 1B	2077.05	2079.51	11/6/2001		28.25		2051.26
			11/4/2002		28.66		2050.85
			6/7/2004		28.48		2051.03
			12/5/2006		30.40		2049.11
			3/12/2007		30.41		2049.10
			10/2/2007		28.58		2050.93
			3/25/2008		30.29		2049.22
			10/22/2008		31.04		2048.47
			4/14/2009		30.15		2049.36
			9/30/2009		31.01		2048.50
			4/8/2010		30.68		2048.83
			9/15/2010		27.79		2051.72
			5/3/2011		23.13		2056.38
MOC- 2	2036.10	2038.91	11/9/2001		73.50		1965.41
			12/5/2006		73.60		1965.31
			3/12/2007		73.01		1965.90
			10/2/2007		73.80		1965.11
			3/25/2008		73.50		1965.41
			10/22/2008		74.12		1964.79
			4/14/2009		71.76		1967.15
			9/30/2009		73.27		1965.64
			4/8/2010		73.03		1965.88
			9/15/2010		73.66		1965.25
			5/3/2011		70.13		1968.78
MOC- 3		2010.56	12/5/2006		53.01		1957.55
			3/12/2007		53.93		1956.63
			10/2/2007		52.46		1958.10
			3/25/2008		52.93		1957.63
			10/22/2008		53.52		1957.04
			4/14/2009		52.50		1958.06
			9/30/2009		52.00		1958.56
			4/8/2010		52.74		1957.82
			9/15/2010		51.17		1959.39
			5/3/2011		49.08		1961.48
MOC- 4		1966.63	12/5/2006		76.15		1890.48
			3/13/2007		75.62		1891.01
			10/2/2007		74.92		1891.71
			3/25/2008		74.57		1892.06
			10/22/2008		75.12		1891.51
			4/14/2009		72.64		1893.99
			9/30/2009		74.40		1892.23
			4/8/2010		74.03		1892.60
			9/15/2010		74.69		1891.94
			5/3/2011		71.13		1895.50
MOC- 5		2055.86	12/5/2006		17.74		2038.12

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			10/2/2007		15.66		2040.20
MOC- 7		2051.96	12/5/2006		34.74		2017.22
			10/2/2007		33.16		2018.80
MOC- 8		1969.92	12/5/2006		75.17		1894.75
			10/2/2007		75.37		1894.55
MOC- 9		2051.83	12/5/2006		27.45		2024.38
			10/2/2007		25.92		2025.91
MOC-10		2052.66	12/5/2006		31.54		2021.12
			10/2/2007		30.38		2022.28
MOC-11		1974.04	12/5/2006		76.20		1897.84
			10/2/2007		74.87		1899.17
MOC-12		2053.25	12/5/2006		55.39		1997.86
			10/2/2007		54.25		1999.00
MOC-13			12/5/2006		35.59		
			10/2/2007		35.48		
MOC-14		2052.26	12/5/2006		35.13		2017.13
			10/2/2007		33.95		2018.31
MOC-16		2049.02	12/5/2006		30.40		2018.62
			10/2/2007		29.54		2019.48
MOC-17		2063.19	12/5/2006		31.92		2031.27
			10/2/2007		31.82		2031.37
MOC-18		2055.13	12/5/2006		33.03		2022.10
			10/2/2007		32.89		2022.24
MOC-19		1971.24	12/5/2006		75.29		1895.95
			10/2/2007		75.48		1895.76
MOC-20A		1991.89	12/5/2006		17.73		1974.16
			3/12/2007		19.66		1972.23
			10/2/2007		16.16		1975.73
			3/25/2008		16.66		1975.23
			10/22/2008		17.68		1974.21
			4/14/2009		18.45		1973.44
			9/30/2009		16.64		1975.25
			4/8/2010		17.24		1974.65
			9/15/2010		16.68		1975.21
			5/3/2011		11.77		1980.12
MOC-20B		1926.46	12/5/2006		73.18		1853.28
			3/12/2007		72.60		1853.86
			10/2/2007		73.37		1853.09
			3/25/2008		73.07		1853.39
			10/22/2008		73.76		1852.70
			4/14/2009		71.47		1854.99
			9/30/2009		72.77		1853.69
			4/8/2010		72.67		1853.79
			9/15/2010		73.25		1853.21
			5/3/2011		69.72		1856.74
MOC-23		2042.56	12/5/2006		25.78		2016.78
			10/2/2007		25.40		2017.16
PNR- 4	2080.86	2084.21	8/13/2001	27.38	56.31	28.93	2048.15
			9/4/2001	27.08	69.88	42.80	2044.28
			11/6/2001	29.01	69.88	40.87	2042.93
PNR- 5	2082.64	2085.56	5/31/2000		37.17		2048.39
			8/13/2001		37.04		2048.52

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			9/5/2001		36.99		2048.57
			11/6/2001		37.05		2048.51
			2/19/2002		37.22		2048.34
			5/20/2002		38.25		2047.31
			8/19/2002		38.76		2046.80
			11/4/2002		38.81		2046.75
			3/5/2003		38.70		2046.86
			5/12/2003		38.53		2047.03
			8/12/2003		39.15		2046.41
			11/4/2003		39.39		2046.17
			3/16/2004		39.58		2045.98
			6/7/2004		39.54		2046.02
			9/13/2004		39.18		2046.38
			11/17/2004		39.27		2046.29
			3/2/2005		39.50		2046.06
			5/25/2005		39.53		2046.03
			8/17/2005		39.35		2046.21
			11/16/2005		39.24		2046.32
			2/9/2006		39.67		2045.89
			5/25/2006		39.67		2045.89
			8/22/2006		39.78		2045.78
			12/5/2006		39.91		2045.65
			3/12/2007		39.83		2045.73
			10/2/2007		39.47		2046.09
			10/22/2008		40.17		2045.39
			4/14/2009		40.27		2045.29
			9/30/2009		39.95		2045.61
			4/8/2010		40.82		2044.74
			9/15/2010		41.42		2044.14
			5/3/2011		40.37		2045.19
PNR- 6	2116.53	2119.07	5/31/2000		20.33		2098.74
			8/13/2001		20.55		2098.52
			9/5/2001		20.51		2098.56
			11/6/2001		21.02		2098.05
			2/19/2002		21.39		2097.68
			5/20/2002		21.65		2097.42
			8/19/2002		21.06		2098.01
			11/4/2002		21.23		2097.84
			3/4/2003		20.50		2098.57
			5/12/2003		22.12		2096.95
			8/12/2003		21.04		2098.03
			11/4/2003		21.60		2097.47
			3/16/2004		22.16		2096.91
			6/7/2004		20.32		2098.75
			9/13/2004		20.05		2099.02
			11/17/2004		20.78		2098.29
			2/28/2005		21.55		2097.52
			5/23/2005		21.88		2097.19
			8/16/2005		21.93		2097.14
			11/15/2005		22.47		2096.60
			2/7/2006		22.66		2096.41
			5/23/2006		22.35		2096.72
			8/22/2006		21.61		2097.46
			12/5/2006		20.96		2098.11
			3/12/2007		21.13		2097.94
			10/2/2007		19.24		2099.83
			3/25/2008		21.18		2097.89
			10/22/2008		19.81		2099.26
			4/14/2009		19.48		2099.59
			9/30/2009		17.91		2101.16
			4/8/2010		20.22		2098.85
			9/15/2010		14.15		2104.92
			5/3/2011		12.47		2106.60
PNR- 7	2069.59	2072.22	5/31/2000		25.50		2046.72
			8/13/2001		25.19		2047.03
			9/5/2001		25.08		2047.14
			11/6/2001		25.47		2046.75

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			2/19/2002		25.72		2046.50
			5/20/2002		26.20		2046.02
			8/19/2002		26.17		2046.05
			11/4/2002		26.54		2045.68
			3/4/2003		27.50		2044.72
			5/12/2003		27.39		2044.83
			8/12/2003		27.05		2045.17
			11/4/2003		27.40		2044.82
			3/16/2004		27.55		2044.67
			6/7/2004		27.32		2044.90
			9/13/2004		26.98		2045.24
			11/17/2004		27.35		2044.87
			3/1/2005		27.15		2045.07
			5/25/2005		27.90		2044.32
			8/17/2005		27.28		2044.94
			11/16/2005		27.78		2044.44
			2/9/2006		27.88		2044.34
			5/24/2006		28.09		2044.13
			8/22/2006		28.02		2044.20
			12/5/2006		27.92		2044.30
			3/12/2007		27.97		2044.25
			10/4/2007		28.07		2044.15
			3/25/2008		28.12		2044.10
			10/22/2008		28.87		2043.35
			4/14/2009		28.51		2043.71
			9/30/2009		28.07		2044.15
			4/8/2010		29.43		2042.79
			9/15/2010		29.72		2042.50
			5/3/2011		28.34		2043.88
PNR- 8	2060.21	2062.99	5/31/2000		63.64		1999.35
			8/13/2001		63.53		1999.46
			9/5/2001		63.84		1999.15
			11/6/2001		64.54		1998.45
			2/19/2002		64.21		1998.78
			5/20/2002		64.40		1998.59
			8/19/2002		64.61		1998.38
			11/4/2002		64.56		1998.43
			3/4/2003		64.00		1998.99
			5/12/2003		64.84		1998.15
			8/12/2003		64.94		1998.05
			11/4/2003		68.50		1994.49
			3/16/2004		65.41		1997.58
			6/7/2004		64.98		1998.01
			9/13/2004		65.16		1997.83
			11/16/2004		65.61		1997.38
			3/2/2005		65.64		1997.35
			5/26/2005		65.94		1997.05
			8/18/2005		65.75		1997.24
			11/17/2005		66.26		1996.73
			2/9/2006		66.09		1996.90
			5/24/2006		65.77		1997.22
			8/22/2006		66.11		1996.88
			12/5/2006		66.09		1996.90
			3/12/2007		66.13		1996.86
			10/2/2007		66.41		1996.58
			3/25/2008		66.32		1996.67
			10/22/2008		66.91		1996.08
			4/14/2009		66.04		1996.95
			9/30/2009		65.97		1997.02
			4/8/2010		66.16		1996.83
			9/15/2010		66.25		1996.74
			5/3/2011		65.09		1997.90
PNR- 9	2014.11	2017.26	5/31/2000		56.46		1960.80
			8/13/2001		57.29		1959.97
			9/5/2001		57.28		1959.98
			11/6/2001		57.61		1959.65
			2/19/2002		57.12		1960.14

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

Pioneer Natural Resources, USA, Inc. - Blere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

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Well Name and Elevation			Fluid Levels				
Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			5/20/2002		57.08		1960.18
			8/19/2002		57.90		1959.36
			11/4/2002		57.29		1959.97
			3/4/2003		57.11		1960.15
			5/12/2003		56.47		1960.79
			8/12/2003		57.33		1959.93
			11/4/2003		57.40		1959.86
			3/18/2004		57.31		1959.95
			6/7/2004		56.04		1961.22
			9/13/2004		57.12		1960.14
			11/16/2004		57.26		1960.00
			3/1/2005		57.12		1960.14
			5/24/2005		57.19		1960.07
			8/16/2005		57.38		1959.88
			11/15/2005		57.74		1959.52
			2/9/2006		57.24		1960.02
			5/23/2006		56.69		1960.57
			8/22/2006		57.67		1959.59
			12/5/2006		57.39		1959.87
			3/12/2007		59.96		1957.30
			10/2/2007		57.73		1959.53
			3/25/2008		57.35		1959.91
			10/22/2008		58.00		1959.26
			4/14/2009		55.68		1961.58
			9/30/2009		57.21		1960.05
			4/8/2010		56.95		1960.31
			9/15/2010		57.56		1959.70
			5/3/2011		54.02		1963.24
PNR-10	2009.17	2011.69	5/31/2000		53.93		1957.76
			8/13/2001		53.93		1957.76
			9/5/2001		54.03		1957.66
			11/6/2001		54.37		1957.32
			2/19/2002		53.88		1957.81
			5/20/2002		53.79		1957.90
			8/19/2002		54.27		1957.42
			11/4/2002		54.04		1957.65
			3/4/2003		53.84		1957.85
			5/12/2003		53.17		1958.52
			8/12/2003		54.11		1957.58
			11/4/2003		54.30		1957.39
			3/18/2004		53.99		1957.70
			6/7/2004		52.74		1958.95
			9/13/2004		53.85		1957.84
			11/16/2004		53.99		1957.70
			3/1/2005		53.80		1957.89
			5/24/2005		53.94		1957.75
			8/16/2005		54.11		1957.58
			11/15/2005		54.48		1957.21
			2/7/2006		54.03		1957.66
			5/23/2006		53.38		1958.31
			8/22/2006		54.42		1957.27
			12/5/2006		54.11		1957.58
			3/12/2007		53.55		1958.14
			10/2/2007		54.41		1957.28
			3/25/2008		54.03		1957.66
			10/22/2008		54.73		1956.96
			4/14/2009		52.42		1959.27
			9/30/2009		53.91		1957.78
			4/8/2010		53.65		1958.04
			9/15/2010		54.25		1957.44
			5/3/2011		50.76		1960.93
PNR-12	2098.44	2101.23	5/31/2000		51.10		2050.13
			8/13/2001		49.90		2051.33
			9/5/2001		49.67		2051.56
			11/6/2001		50.52		2050.71
			2/19/2002		50.80		2050.43
			5/20/2002		51.40		2049.83

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Pioneer Natural Resources, USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

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Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			8/19/2002		51.20		2050.03
			11/4/2002		50.86		2050.37
			3/4/2003		51.79		2049.44
			5/12/2003		51.95		2049.28
			8/12/2003		50.80		2050.43
			11/4/2003		54.10		2047.13
			3/16/2004		51.75		2049.48
			6/7/2004		51.01		2050.22
			9/13/2004		50.51		2050.72
			11/16/2004		51.05		2050.18
			2/28/2005		51.52		2049.71
			5/23/2005		51.74		2049.49
			8/15/2005		51.05		2050.18
			11/15/2005		51.98		2049.25
			2/7/2006		52.12		2049.11
			5/23/2006		51.54		2049.69
			8/22/2006		52.00		2049.23
			12/5/2006		52.00		2049.23
			3/12/2007		51.92		2049.31
			10/2/2007		51.20		2050.03
			3/25/2008		51.99		2049.24
			10/22/2008		52.76		2048.47
			4/14/2009		52.20		2049.03
			9/30/2009		51.18		2050.05
			4/8/2010		52.58		2048.65
			9/15/2010		51.36		2049.87
			5/3/2011		49.70		2051.53
PNR-13	2079.38	2081.12	8/13/2001		30.44		2050.68
			9/5/2001		30.19		2050.93
			11/6/2001		30.46		2050.66
			2/19/2002		31.48		2049.64
			5/20/2002		32.05		2049.07
			8/19/2002		32.32		2048.80
			11/4/2002		32.34		2048.78
			3/4/2003		32.96		2048.16
			5/12/2003		33.01		2048.11
			8/12/2003		32.50		2048.62
			11/4/2003		32.87		2048.25
			3/16/2004		33.20		2047.92
			6/7/2004		32.93		2048.19
			9/13/2004		32.48		2048.64
			11/16/2004		32.27		2048.85
			3/1/2005		32.92		2048.20
			5/24/2005		33.26		2047.86
			8/17/2005		36.33		2044.79
			11/16/2005		34.33		2046.79
			2/8/2006		33.29		2047.83
			5/24/2006		33.49		2047.63
			8/22/2006		33.58		2047.54
			12/5/2006		33.63		2047.49
			3/12/2007		33.62		2047.50
			10/2/2007		33.04		2048.08
			3/25/2008		33.56		2047.56
			10/22/2008		34.11		2047.01
			4/14/2009		33.89		2047.23
			9/30/2009		33.25		2047.87
			4/8/2010		34.35		2046.77
			9/15/2010		34.47		2046.65
			5/3/2011		32.65		2048.47
PNR-14	2079.82	2082.11	8/13/2001		32.50		2049.61
			9/4/2001		32.27		2049.84
			11/6/2001		32.30		2049.81
			2/19/2002		33.42		2048.69
			5/20/2002		33.77		2048.34
			8/19/2002		34.33		2047.78
			11/4/2002		34.27		2047.84
			3/4/2003		34.67		2047.44

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Pioneer Natural Resources, USA, Inc. - Biere 1-22 Investigation

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Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			5/12/2003		34.71		2047.40
			8/12/2003		34.48		2047.63
			11/5/2003		34.75		2047.36
			3/16/2004		34.80		2047.31
			6/7/2004		34.71		2047.40
			9/13/2004		34.23		2047.88
			11/17/2004		34.43		2047.68
			3/2/2005		34.55		2047.56
			5/25/2005		34.78		2047.33
			8/17/2005		34.41		2047.70
			11/16/2005		34.64		2047.47
			2/9/2006		34.90		2047.21
			5/24/2006		34.96		2047.15
			8/22/2006		34.94		2047.17
			12/5/2006		35.10		2047.01
			3/12/2007		35.05		2047.06
			10/2/2007		34.57		2047.54
			3/25/2008		35.03		2047.08
			10/22/2008		35.49		2046.62
			4/14/2009		35.45		2046.66
			9/30/2009		35.05		2047.06
			4/8/2010		35.74		2046.37
			9/15/2010		36.00		2046.11
			5/3/2011		34.99		2047.12
PNR-15	2081.92	2084.10	8/13/2001		33.86		2050.24
			9/4/2001		33.84		2050.26
			11/6/2001		34.30		2049.80
			2/19/2002		35.36		2048.74
			5/20/2002		35.87		2048.23
			8/19/2002		36.20		2047.90
			11/4/2002		36.22		2047.88
			3/5/2003	36.20	36.22	0.02	2047.89
			5/12/2003		36.81		2047.29
			8/12/2003		36.20		2047.90
			11/5/2003		36.26		2047.84
			3/16/2004		36.44		2047.66
			6/7/2004		36.31		2047.79
			9/15/2004		35.72		2048.38
			11/17/2004		36.00		2048.10
			3/2/2005		36.12		2047.98
			5/25/2005		36.39		2047.71
			8/17/2005		35.88		2048.22
			11/16/2005		36.17		2047.93
			2/8/2006		36.25		2047.85
			5/24/2006		36.48		2047.62
			8/22/2006		36.49		2047.61
			12/5/2006		36.65		2047.45
			3/12/2007		36.55		2047.55
			10/2/2007		35.98		2048.12
			3/25/2008		36.46		2047.64
			10/22/2008		36.97		2047.13
			4/14/2009		36.89		2047.21
			9/30/2009		36.44		2047.66
			4/8/2010		37.05		2047.05
			9/15/2010		37.11		2046.99
			5/3/2011		36.16		2047.94
PNR-16	2053.88	2056.80	8/13/2001		13.83		2042.97
			9/5/2001		12.70		2044.10
			11/6/2001		14.50		2042.30
			2/19/2002		14.76		2042.04
			5/20/2002		13.76		2043.04
			8/19/2002		9.47		2047.33
			11/4/2002		11.69		2045.11
			3/4/2003		15.20		2041.60
			5/12/2003		10.21		2046.59
			8/12/2003		13.41		2043.39
			11/4/2003		15.42		2041.38

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Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			3/16/2004		17.25		2039.55
			6/7/2004		7.49		2049.31
			9/13/2004		10.07		2046.73
			11/16/2004		11.90		2044.90
			3/1/2005		14.08		2042.72
			5/24/2005		12.67		2044.13
			8/17/2005		13.24		2043.56
			11/15/2005		15.89		2040.91
			2/7/2006		17.04		2039.76
			5/24/2006		13.54		2043.26
			8/22/2006		14.67		2042.13
			12/5/2006		14.36		2042.44
			3/12/2007		15.67		2041.13
			10/2/2007		16.20		2040.60
			3/25/2008		18.27		2038.53
			10/22/2008		14.40		2042.40
			4/14/2009		7.47		2049.33
			9/30/2009		13.26		2043.54
			4/8/2010		12.46		2044.34
			9/15/2010		9.08		2047.72
			5/3/2011		5.51		2051.29
PNR-17	2084.06	2086.14	8/13/2001	30.40	55.62	25.22	2048.17
			9/4/2001	30.42	55.86	25.44	2048.09
			11/6/2001	30.98	55.86	24.88	2047.70
			2/19/2002	32.04	55.77	23.73	2046.98
			5/20/2002	32.75	NM	NM	NM
			8/19/2002	33.62	NM	NM	NM
			11/4/2002	37.68	40.43	2.75	2047.63
			3/4/2003	38.37	40.31	1.94	2047.19
			5/12/2003	38.55	40.42	1.87	2047.03
			8/12/2003	38.22	40.04	1.82	2047.37
			11/6/2003	38.28	41.11	2.83	2047.01
			3/16/2004	37.95	43.46	5.51	2046.54
			6/7/2004	37.83	43.33	5.50	2046.66
			9/16/2004	37.38	42.71	5.33	2047.16
			11/17/2004	38.19	40.65	2.46	2047.21
			3/2/2005	38.47	39.28	0.81	2047.43
			5/25/2005	38.55	40.15	1.60	2047.11
			8/17/2005	38.23	39.12	0.89	2047.64
			11/16/2005	38.54	38.64	0.10	2047.57
			2/8/2006	38.50	38.59	0.09	2047.61
			5/24/2006	38.78	39.02	0.24	2047.29
			8/22/2006	38.69	38.82	0.13	2047.41
			12/5/2006	39.87	39.96	0.09	2046.24
			3/12/2007	38.83	38.86	0.03	2047.30
			10/2/2007	38.32	38.35	0.03	2047.81
			3/25/2008	38.75	38.78	0.03	2047.38
			10/22/2008	39.21	39.24	0.03	2046.92
			4/14/2009	39.26	39.33	0.07	2046.86
			9/30/2009	38.90	39.00	0.10	2047.21
			4/8/2010	39.51	39.60	0.09	2046.60
			9/15/2010	39.55	39.71	0.16	2046.54
			5/3/2011	38.70	38.80	0.10	2047.41
PNR-18	2116.21	2118.16	8/13/2001		68.90		2049.26
			9/5/2001		68.58		2049.58
			11/6/2001		69.08		2049.08
			2/19/2002		69.11		2049.05
			5/20/2002		70.10		2048.06
			8/19/2002		69.71		2048.45
			11/4/2002		69.36		2048.80
			3/4/2003		70.02		2048.14
			5/12/2003		70.38		2047.78
			8/12/2003		69.65		2048.51
			11/4/2003		70.30		2047.86
			3/16/2004		70.10		2048.06
			6/7/2004		69.44		2048.72
			9/13/2004		69.39		2048.77

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			11/16/2004		69.71		2048.45
			2/28/2005		69.96		2048.20
			5/23/2005		70.13		2048.03
			8/15/2005		69.92		2048.24
			11/15/2005		70.61		2047.55
			2/7/2006		70.63		2047.53
			5/23/2006		69.96		2048.20
			8/22/2006		70.40		2047.76
			12/5/2006		70.44		2047.72
			3/12/2007		70.24		2047.92
			10/2/2007		70.05		2048.11
			3/25/2008		70.40		2047.76
			10/22/2008		71.19		2046.97
			4/14/2009		70.77		2047.39
			9/30/2009		70.17		2047.99
			4/8/2010		71.23		2046.93
			9/15/2010		71.03		2047.13
			5/3/2011		70.32		2047.84
PNR-19	2071.26	2073.23	8/13/2001		25.75		2047.48
			9/5/2001		25.68		2047.55
			11/6/2001		25.98		2047.25
			2/19/2002		26.00		2047.23
			5/20/2002		26.37		2046.86
			8/19/2002		26.75		2046.48
			11/4/2002		26.86		2046.37
			3/4/2003		27.30		2045.93
			5/12/2003		27.52		2045.71
			8/12/2003		27.44		2045.79
			11/4/2003		27.58		2045.65
			3/16/2004		27.77		2045.46
			6/7/2004		27.67		2045.56
			9/13/2004		27.38		2045.85
			11/16/2004		27.46		2045.77
			3/1/2005		27.51		2045.72
			5/25/2005		27.90		2045.33
			8/17/2005		27.69		2045.54
			11/16/2005		27.85		2045.38
			2/8/2006		27.87		2045.36
			5/24/2006		28.13		2045.10
			8/22/2006		28.14		2045.09
			12/5/2006		28.29		2044.94
			3/13/2007		28.47		2044.76
			10/2/2007		28.22		2045.01
			3/25/2008		28.36		2044.87
			10/22/2008		28.56		2044.67
			4/14/2009		28.83		2044.40
			9/30/2009		29.96		2043.27
			4/8/2010		30.10		2043.13
			9/15/2010		30.22		2043.01
			5/3/2011		28.63		2044.60
PNR-20	2084.55	2087.16	8/18/2001		41.20		2045.96
			9/5/2001		41.05		2046.11
			11/6/2001		41.58		2045.58
			2/19/2002		41.41		2045.75
			5/20/2002		41.60		2045.56
			8/19/2002		41.91		2045.25
			11/4/2002		41.78		2045.38
			3/4/2003		42.30		2044.86
			5/12/2003		42.41		2044.75
			8/12/2003		42.39		2044.77
			11/4/2003		45.20		2041.96
			3/16/2004		42.56		2044.60
			6/7/2004		42.57		2044.59
			9/13/2004		42.37		2044.79
			11/17/2004		42.61		2044.55
			3/1/2005		42.37		2044.79
			5/24/2005		42.71		2044.45

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

Pioneer Natural Resources, USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

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Well Name and Elevation			Fluid Levels				
Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			8/16/2005		42.56		2044.60
			11/15/2005		43.59		2043.57
			2/9/2006		42.72		2044.44
			5/23/2006		42.57		2044.59
			8/22/2006		42.82		2044.34
			12/5/2006		42.81		2044.35
			3/12/2007		42.80		2044.36
			10/2/2007		43.05		2044.11
			3/25/2008		43.10		2044.06
			10/22/2008		43.65		2043.51
			4/14/2009		44.87		2042.29
			9/30/2009		45.25		2041.91
			4/8/2010		47.05		2040.11
			9/15/2010		46.93		2040.23
			5/3/2011		45.36		2041.80
PNR-21	2099.04	2101.59	8/13/01		58.80		2042.79
			9/5/01		58.68		2042.91
			11/6/01		59.12		2042.47
			2/19/02		58.81		2042.78
			5/20/02		58.80		2042.79
			8/19/02		59.02		2042.57
			11/4/02		58.89		2042.70
			3/5/03		58.78		2042.81
			5/12/03		58.80		2042.79
			8/12/03		59.32		2042.27
			11/5/03		59.70		2041.89
			3/16/04		59.46		2042.13
			6/7/04		59.43		2042.16
			9/13/04		59.31		2042.28
			11/17/04		59.46		2042.13
			3/1/05		59.23		2042.36
			5/24/05		59.43		2042.16
			8/16/05		59.35		2042.24
			11/15/05		59.82		2041.77
			2/9/06		59.64		2041.95
			5/23/06		59.60		2041.99
			8/22/06		59.53		2042.06
			12/5/06		59.57		2042.02
			3/12/07		59.46		2042.13
			10/2/07		59.84		2041.75
			3/25/2008		59.82		2041.77
			10/22/2008		60.21		2041.38
			4/14/2009		61.07		2040.52
			9/30/2009		61.49		2040.10
			4/8/2010		62.03		2039.56
			9/15/2010		61.15		2040.44
			5/3/2011		61.85		2039.74
PNR-22	2127.38	2129.43	8/13/2001		81.50		2047.93
			9/5/2001		81.21		2048.22
			11/6/2001		81.66		2047.77
			2/19/2002		81.48		2047.95
			5/20/2002		81.90		2047.53
			8/19/2002		82.11		2047.32
			11/4/2002		81.75		2047.68
			3/4/2003		82.41		2047.02
			5/12/2003		82.62		2046.81
			8/12/2003		82.22		2047.21
			11/5/2003		82.60		2046.83
			3/16/2004		82.47		2046.96
			6/7/2004		82.24		2047.19
			9/13/2004		81.98		2047.45
			11/18/2004		82.15		2047.28
			3/1/2005		82.22		2047.21
			5/24/2005		82.65		2046.78
			8/16/2005		82.52		2046.91
			11/15/2005		83.07		2046.36
			2/7/2006		83.08		2046.35

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Pioneer Natural Resources, USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

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Well Name and Elevation			Fluid Levels				
Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			5/25/2006		82.58		2046.85
			8/22/2006		82.78		2046.65
			12/5/2006		82.80		2046.63
			3/12/2007		82.60		2046.83
			10/2/2007		82.66		2046.77
			3/25/2008		82.82		2046.61
			10/22/2008		83.59		2045.84
			4/14/2009		83.25		2046.18
			9/30/2009		82.91		2046.52
			4/8/2010		83.90		2045.53
			9/15/2010		84.04		2045.39
			5/3/2011		83.55		2045.88
PNR-23	2083.00	2085.27	8/13/2001		35.85		2049.42
			9/4/2001		35.90		2049.37
			11/6/2001		36.03		2049.24
			2/19/2002		36.88		2048.39
			5/20/2002		37.35		2047.92
			8/19/2002		37.78		2047.49
			11/4/2002		37.81		2047.46
			3/4/2003		38.26		2047.01
			5/12/2003		38.34		2046.93
			8/12/2003		38.13		2047.14
			11/6/2003		38.36		2046.91
			3/16/2004		38.62		2046.65
			6/7/2004		38.51		2046.76
			9/15/2004		38.10		2047.17
			11/17/2004		38.35		2046.92
			3/2/2005		38.51		2046.76
			5/25/2005		38.78		2046.49
			8/17/2005		38.44		2046.83
			11/16/2005		38.57		2046.70
			2/9/2006		38.79		2046.48
			5/25/2006		38.67		2046.60
			8/22/2006		38.75		2046.52
			12/5/2006		38.90		2046.37
			3/12/2007		38.85		2046.42
			10/2/2007		38.36		2046.91
			3/25/2008		38.73		2046.54
			10/22/2008		39.08		2046.19
			4/14/2009		39.20		2046.07
			9/30/2009		38.92		2046.35
			4/8/2010		39.62		2045.65
			9/15/2010		40.13		2045.14
			5/3/2011		39.11		2046.16
PNR-24	2083.00	2085.68	8/13/2001		36.30		2049.38
			9/4/2001		36.31		2049.37
			11/6/2001		36.45		2049.23
			2/19/2002		37.17		2048.51
			5/20/2002		37.52		2048.16
			8/16/2002		37.88		2047.80
			11/14/2002	37.90	39.68	1.78	2047.25
			3/4/2003	38.38	40.05	1.67	2046.80
			5/15/2003	38.48	38.48	0.00	2047.20
			8/12/2003	38.39	39.35	0.96	2047.00
			11/6/2003	38.53	39.90	1.37	2046.74
			3/16/2004	38.70	44.30	5.60	2045.30
			6/7/2004	38.65	39.98	1.33	2046.63
			9/15/2004	38.33	38.51	0.18	2047.30
			11/17/2004	38.51	39.21	0.70	2046.96
			3/2/2005	38.61	39.50	0.89	2046.80
			5/25/2005	38.74	39.91	1.17	2046.59
			8/17/2005	38.54	38.89	0.35	2047.03
			11/16/2005	38.65	39.09	0.44	2046.90
			2/8/2006	38.63	39.24	0.61	2046.87
			5/24/2006	38.90	39.87	0.97	2046.49
			8/22/2006	38.86	39.85	0.99	2046.52
			12/5/2006	39.12	39.75	0.63	2046.37

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Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			3/12/2007	39.06	39.26	0.20	2046.56
			10/2/2007		38.65		2047.03
			3/25/2008		39.05		2046.63
			10/22/2008	39.42	39.52	0.10	2046.23
			4/14/2009	39.45	39.61	0.16	2046.18
			9/30/2009	39.20	39.45	0.25	2046.40
			4/8/2010	39.84	n/a (>40.65)	n/a (>0.81)	n/a
			9/15/2010	40.3	n/a (>40.65)	n/a (>0.35)	n/a
			5/3/2011	39.51	39.64	0.13	2046.13
PNR-25	2081.92	2084.03	8/13/2001	33.78	34.08	0.30	2050.16
			9/4/2001		33.73		2050.30
			11/6/2001		34.09		2049.94
			2/19/2002	34.98	36.63	1.65	2048.56
			5/20/2002	35.36	NM	NM	NM
			8/19/2002	35.64	NM	NM	NM
			11/4/2002	35.55	37.48	1.93	2047.90
			3/4/2003	35.91	38.04	2.13	2047.48
			5/12/2003	36.02	38.04	2.02	2047.40
			8/12/2003	35.62	37.03	1.41	2047.99
			11/5/2003	35.15	37.50	2.35	2048.18
			3/16/2004	35.93	38.00	2.07	2047.48
			6/7/2004	35.86	37.53	1.67	2047.67
			9/15/2004	35.37	36.58	1.21	2048.30
			11/17/2004	35.60	37.08	1.48	2047.99
			3/2/2005	35.66	37.35	1.69	2047.86
			5/25/2005	35.90	37.86	1.96	2047.54
			8/17/2005	35.55	37.03	1.48	2048.04
			11/16/2005	35.77	37.51	1.74	2047.74
			2/8/2006	35.82	37.88	2.06	2047.59
			5/24/2006	36.01	38.12	2.11	2047.39
			8/22/2006	36.04	38.19	2.15	2047.35
			12/5/2006	36.15	38.30	2.15	2047.24
			3/12/2007	36.12	38.23	2.11	2047.28
			10/2/2007	35.65	37.02	1.37	2047.97
			3/25/2008	36.05	37.89	1.84	2047.43
			10/22/2008	38.58	39.98	1.40	2045.03
			4/14/2009	36.37	38.52	2.15	2047.02
			9/30/2009	36.05	37.75	1.70	2047.47
			4/8/2010	36.68	38.90	2.22	2046.68
			9/15/2010	36.74	38.31	1.57	2046.82
			5/3/2011	35.94	37.25	1.31	2047.70
PNR-26	2084.06	2086.15	8/13/2001	34.65	36.85	2.20	2050.84
			9/4/2001	35.96	37.12	1.16	2049.84
			11/6/2001	36.24	37.12	0.88	2049.65
			2/19/2002	36.98	39.30	2.32	2048.47
			5/20/2002	37.43	NM	NM	NM
			8/19/2002	37.78	NM	NM	NM
			11/4/2002	37.76	40.15	2.39	2047.67
			3/4/2003	38.11	40.07	1.96	2047.45
			5/12/2003	38.20	40.09	1.89	2047.38
			8/12/2003	37.82	39.98	2.16	2047.68
			11/6/2003	37.93	39.99	2.06	2047.60
			3/16/2004	38.80	40.01	1.21	2046.99
			6/7/2004	38.02	40.02	2.00	2047.53
			9/16/2004	37.60	39.73	2.13	2047.91
			11/17/2004	37.79	39.98	2.19	2047.70
			3/2/2005	37.87	40.00	2.13	2047.64
			5/25/2005	38.01	39.92	1.91	2047.57
			8/17/2005	37.78	40.00	2.22	2047.70
			11/16/2005	37.92	40.00	2.08	2047.61
			2/8/2006	37.90	40.01	2.11	2047.62
			5/24/2006	38.23	40.05	1.82	2047.37
			8/22/2006	38.18	40.04	1.86	2047.41
			12/5/2006	38.35	40.05	1.70	2047.29
			3/12/2007	38.34	40.03	1.69	2047.30
			10/2/2007	37.94	40.03	2.09	2047.58
			3/25/2008	38.24	39.99	1.75	2047.39

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Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			10/22/2008	36.44	38.50	2.06	2049.09
			4/14/2009	38.71	39.95	1.24	2047.07
			9/30/2009	38.50	39.95	1.45	2047.22
			4/8/2010	39.10	39.90	0.80	2046.81
			9/15/2010	39.13	39.95	0.82	2046.77
			5/3/2011	38.47	39.84	1.37	2047.27
PNR-27	2092.86	2095.30	9/5/2001		67.28		2028.02
			11/6/2001		55.68		2039.62
			2/19/2002		55.32		2039.98
			5/20/2002		55.25		2040.05
			8/19/2002		55.34		2039.96
			11/4/2002		55.25		2040.05
			3/5/2003		55.17		2040.13
			5/12/2003		55.62		2039.68
			8/12/2003		55.67		2039.63
			11/5/2003		56.20		2039.10
			6/7/2004		56.80		2038.50
			9/13/2004		55.73		2039.57
			11/17/2004		55.91		2039.39
			3/2/2005		55.63		2039.67
			5/24/2005		55.79		2039.51
			8/16/2005		55.64		2039.66
			11/15/2005		56.04		2039.26
			2/8/2006		55.65		2039.65
			5/23/2006		55.66		2039.64
			8/22/2006		55.85		2039.45
			12/5/2006		55.92		2039.38
			3/12/2007		55.79		2039.51
			10/2/2007		56.23		2039.07
			3/25/2008		56.20		2039.10
			10/22/2008		56.52		2038.78
			4/14/2009		57.02		2038.28
			9/30/2009		57.25		2038.05
			4/8/2010		57.72		2037.58
			9/15/2010		58.16		2037.14
			5/3/2011		58.07		2037.23
PNR-28	2079.64	2078.44	9/5/2001		46.38		2032.06
			11/6/2001		44.85		2033.59
			2/19/2002		44.67		2033.77
			5/20/2002		44.45		2033.99
			8/19/2002		44.59		2033.85
			11/4/2002		44.55		2033.89
			3/5/2003		44.49		2033.95
			5/12/2003		44.40		2034.04
			8/12/2003		44.89		2033.55
			11/5/2003		46.20		2032.24
			6/7/2004		45.24		2033.20
			9/15/2004		45.19		2033.25
			11/17/2004		45.28		2033.16
			3/1/2005		45.06		2033.38
			5/25/2005		45.23		2033.21
			8/16/2005		45.02		2033.42
			11/15/2005		45.61		2032.83
			2/8/2006		45.17		2033.27
			5/23/2006		45.17		2033.27
			8/22/2006		45.21		2033.23
			12/5/2006		45.37		2033.07
			3/12/2007		45.24		2033.20
			10/2/2007		45.65		2032.79
			3/25/2008		45.55		2032.89
			10/22/2008		45.74		2032.70
			4/14/2009		45.91		2032.53
			9/30/2009		45.99		2032.45
			4/8/2010		46.37		2032.07
			9/15/2010		48.03		2030.41
			5/3/2011		48.52		2029.92

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Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
PNR-29	2073.76	2072.64	9/5/2001		41.86		2030.78
			11/6/2001		40.28		2032.36
			2/19/2002		40.03		2032.61
			5/20/2002		39.80		2032.84
			8/19/2002		39.96		2032.68
			11/4/2002		39.82		2032.82
			3/5/2003		39.70		2032.94
			5/12/2003		40.17		2032.47
			8/12/2003		40.21		2032.43
			11/4/2003		40.70		2031.94
			6/15/2004		40.54		2032.10
			9/15/2004		40.54		2032.10
			11/17/2004		40.64		2032.00
			3/1/2005		40.39		2032.25
			5/25/2005		40.68		2031.96
			8/16/2005		40.42		2032.22
			11/15/2005		41.03		2031.61
			2/8/2006		40.45		2032.19
			5/23/2006		40.47		2032.17
			8/22/2006		40.60		2032.04
			12/5/2006		40.63		2032.01
			3/12/2007		40.68		2031.96
			10/2/2007		40.95		2031.69
			3/25/2008		40.83		2031.81
			10/22/2008		41.14		2031.50
			4/14/2009		41.06		2031.58
			9/30/2009		40.85		2031.79
			4/8/2010		41.24		2031.40
			9/15/2010		42.10		2030.54
			5/3/2011		42.68		2029.96
PNR-30-06	2083.55	2083.55	10/19/2006		37.91		2045.64
			12/5/2006	37.50	40.70	3.20	2045.09
			3/12/2007	37.39	40.86	3.47	2045.12
PNR-31-06	2098.91	2100.98	10/19/2006		58.69		2042.29
			12/5/2006		58.85		2042.13
			3/12/2007		58.59		2042.39
			10/2/2007		58.95		2042.03
			3/25/2008		58.86		2042.12
			4/14/2009		60.15		2040.83
			9/30/2009		60.58		2040.40
			4/8/2010		61.11		2039.87
			9/15/2010		61.22		2039.76
PNR-32-06	2098.17	2100.01	10/19/2006		57.87		2042.14
			12/5/2006		58.00		2042.01
			3/12/2007		57.80		2042.21
			10/2/2007		58.16		2041.85
			3/25/2008		58.14		2041.87
			4/14/2009		59.44		2040.57
			9/30/2009		59.96		2040.05
			4/8/2010		60.45		2039.56
			9/15/2010		60.55		2039.46
PNR-33-06	2142.86	2144.53	10/19/2006		102.50		2042.03
			12/5/2006		100.76		2043.77
			3/12/2007		102.35		2042.18
			10/2/2007		102.81		2041.72
			3/25/2008		102.89		2041.64
			10/22/2008		103.52		2041.01
			4/14/2009		103.32		2041.21
			9/30/2009		103.27		2041.26
			4/8/2010		103.75		2040.78
			9/15/2010		104.50		2040.03
			5/3/2011		104.33		2040.20
PNR-34-07	2053.42	2052.14	3/12/2007		93.84		1958.30
			10/2/2007		94.31		1957.83

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

Pioneer Natural Resources, USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

Last Update: May 2011

Well Name and Elevation			Fluid Levels				
Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			3/25/2008		94.20		1957.94
			10/22/2008		94.89		1957.25
			4/14/2009		93.35		1958.79
			9/30/2009		93.90		1958.24
			4/8/2010		93.93		1958.21
			9/15/2010		94.40		1957.74
			5/3/2011		91.86		1960.28
PNR-35-07	2060.91	2059.75	3/12/2007		71.15		1988.60
			10/2/2007		71.55		1988.20
			3/25/2008		71.37		1988.38
			10/22/2008		71.34		1988.41
			4/14/2009		71.19		1988.56
			9/30/2009		71.24		1988.51
			4/8/2010		71.30		1988.45
			9/15/2010		71.69		1988.06
			5/3/2011		71.74		1988.01
PNR-36-07	2104.80	2107.00	3/12/2007		54.74		2052.26
			10/2/2007		53.88		2053.12
			3/25/2008		54.76		2052.24
			10/22/2008		55.57		2051.43
			4/14/2009		54.95		2052.05
			9/30/2009		53.70		2053.30
			4/8/2010		54.96		2052.04
			9/15/2010		52.82		2054.18
			5/3/2011		51.30		2055.70
PNR-37-07	2097.50	2100.50	10/2/2007		50.41		2050.09
			3/25/2008		51.18		2049.32
			4/14/2009		51.41		2049.09
			9/30/2009		50.36		2050.14
			4/8/2010		51.75		2048.75
			9/15/2010		50.57		2049.93
			5/3/2011		48.84		2051.66
PNR-38-08	2038.21	2039.34	3/25/2008		86.52		1952.82
			10/22/2008		87.93		1951.41
			4/14/2009		85.81		1953.53
			9/30/2009		86.86		1952.48
			4/8/2010		86.65		1952.69
			9/15/2010		87.34		1952.00
			5/3/2011		84.03		1955.31
PNR-39-08	2052.80	2055.27	10/22/2008		98.38		1956.89
			4/14/2009		96.71		1958.56
			9/30/2009		97.46		1957.81
			4/8/2010		97.63		1957.64
			5/15/2010		98.41		1956.86
			5/3/2011		96.09		1959.18
USGS-06-1			4/14/2009		54.01		
USGS-06-2			4/14/2009		48.84		
USGS-06-7			10/4/2007		62.45		
USGS-06-8			10/4/2007		61.79		
			4/14/2009		55.34		
USGS-06-9			10/4/2007		16.79		
USGS-06-11			4/14/2009		14.95		
USGS-92-12	2063.92	2065.92	5/31/2001		15.10		2050.82
			8/13/2001		10.70		2055.22
			9/5/2001		12.12		2053.80
			11/6/2001		13.11		2052.81
			2/19/2002		13.85		2052.07

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

Pioneer Natural Resources, USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

Last Update: May 2011

Well Name and Elevation			Fluid Levels				
Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			5/20/2002		13.65		2052.27
			8/19/2002		12.68		2053.24
			11/4/2002		12.77		2053.15
			3/4/2003		14.20		2051.72
			5/12/2003		12.58		2053.34
			8/12/2003		11.99		2053.93
			11/5/2003		17.10		2048.82
			6/7/2004		10.75		2055.17
			9/14/2004		10.70		2055.22
			11/16/2004		12.35		2053.57
			3/1/2005		13.28		2052.64
			5/25/2005		12.02		2053.90
			8/17/2005		11.00		2054.92
			11/15/2005		12.50		2053.42
			2/7/2006		13.08		2052.84
			5/24/2006		12.22		2053.70
			8/22/2006		14.04		2051.88
			12/5/2006		14.90		2051.02
			3/12/2007		14.97		2050.95
			10/2/2007		12.84		2053.08
			3/25/2008		14.47		2051.45
			10/22/2008		14.83		2051.09
			4/14/2009		10.90		2055.02
			9/30/2009		11.33		2054.59
			4/8/2010		12.75		2053.17
			9/15/2010		8.79		2057.13
			5/3/2011		6.83		2059.09
USGS-92-6			4/14/2009		17.05		
USGS-92-7			4/14/2009		11.26		
USGS-92-9			4/14/2009		7.75		
USGS 93-3	2082.10	2083.46	5/31/2001		35.07		2048.39
			11/6/2001		35.22		2048.24
			2/19/2002		35.72		2047.74
			5/20/2002		36.30		2047.16
			8/19/2002		36.75		2046.71
			11/4/2002		36.81		2046.65
			3/4/2003		37.20		2046.26
			5/12/2003		37.23		2046.23
			8/12/2003		37.16		2046.30
			11/4/2003		37.32		2046.14
			3/16/2004		39.58		2043.88
			6/7/2004		37.47		2045.99
			9/14/2004		37.07		2046.39
			11/17/2004		37.25		2046.21
			3/1/2005		37.26		2046.20
			5/25/2005		37.52		2045.94
			8/17/2005		37.35		2046.11
			11/16/2005		37.41		2046.05
			2/9/2006		37.75		2045.71
			5/24/2006		37.90		2045.56
			8/22/2006		37.92		2045.54
			12/5/2006		38.00		2045.46
			3/12/2007		38.02		2045.44
			10/2/2007		37.72		2045.74
			3/25/2008		38.04		2045.42
			10/22/2008		38.40		2045.06
			4/14/2009		38.51		2044.95
			9/30/2009		38.00		2045.46
			4/8/2010		39.07		2044.39
			9/15/2010		39.88		2043.58
			5/3/2011		38.71		2044.75
USGS 93-3a	2081.97	2083.23	8/13/2001		35.15		2048.31
			9/5/2001		35.11		2048.35
			11/6/2001		34.96		2048.50

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

Pioneer Natural Resources, USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

Last Update: May 2011

Well Name and Elevation			Fluid Levels				
Well Name	Ground Surface Elev. (ft)	Measure Pt. Elev. (ft)	Gauging Date	Depth to LNAPL (ft bmp)	Depth to Water (ft bmp)	LNAPL Thickness (ft)	Groundwater Elev.* (ft)
			5/20/2002		36.05		2047.41
			8/19/2002		36.62		2046.84
			11/4/2002		36.59		2046.87
			8/12/2003		36.94		2046.52
			11/5/2003		37.89		2045.57
			6/7/2004		37.28		2046.18
			11/17/2004		37.25		2046.21
			3/1/2005		37.26		2046.20
			5/25/2005		37.52		2045.94
USGS-93-4A			4/14/2009		41.49		
USGS-93-5			4/17/2009		55.04		
Whitmer	1980.41	1981.44	5/31/2001		23.82		1957.62
			11/6/2001		24.30		1957.14
			2/19/2002		24.30		1957.14
			5/20/2002		24.10		1957.34
			8/19/2002		24.20		1957.24
			11/4/2002		24.30		1957.14
			3/4/2003		24.30		1957.14
			5/12/2003		24.20		1957.24
			8/12/2003		25.00		1956.44
			3/18/2004		24.10		1957.34
			6/7/2004		22.09		1959.35
			9/16/2004		23.90		1957.54
			11/18/2004		24.20		1957.24
			3/2/2005		24.10		1957.34
			5/24/2005		24.20		1957.24
			8/16/2005		24.03		1957.41
			11/17/2005		24.22		1957.22
			2/9/2006		23.84		1957.60
			5/25/2006		23.58		1957.86
			8/22/2006		24.40		1957.04
			12/5/2006		24.07		1957.37
			3/12/2007		23.51		1957.93
			10/2/2007		24.30		1957.14
			3/25/2008		23.98		1957.46
			4/14/2009		22.33		1959.11
			9/30/2009		23.85		1957.59
			4/8/2010		23.60		1957.84
			9/15/2010		24.21		1957.23
			5/3/2011		20.69		1960.75

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).

Accronyms/Abbreviations:

ft = feet

ft bmp = feet below measuring point

LNAPL = light non-aqueous phase liquid

Table 2

Inorganic Water Chemistry Data

Table 2 - Inorganic Water Chemistry Data
Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation
DOWL HKM Job No.: 14B8.05101.01
Last update: May 2011

Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
Hendrikson	11/9/2001 9:00	821	701	89	0.30	< 0.05	7.5	9	nm	15	416	1890	3.3	172	nm
LAW-M01	4/20/2009 14:30	29	1370	166	0.50	1.80	7.2	17	25	25	208	2420	3.0	1120	0.3
LAW-M03	3/13/2007 17:40	1370	1960	237	2.00	< 0.05	7.1	14	32	nm	690	4270	6.4	1100	0.2
LAW-M03	3/27/2008 10:30	1560	2070	250	1.70	< 0.05	7.1	9	23	26	705	4560	7.0	1120	0.2
LAW-M03	10/23/2008 15:35	1530	2220	270	2.10	< 0.05	7.0	10	23	27	736	4680	6.9	1210	0.2
LAW-M03	4/18/2009 15:40	1540	2230	270	2.00	< 0.05	7.0	13	22	25	746	4260	7.3	1110	0.2
LAW-M03	4/13/2010 16:45	1920	2330	283	1.97	< 0.01	7.0	14	24	27	842	5300	7.6	997	0.2
LAW-M03	5/5/2011 16:30	2040	2400	289	1.73	0.01	7.0	14	24	29	831	5680	7.5	1170	0.2
LAW-M05	4/20/2009 17:30	551	2060	270	0.80	8.27	7.2	15	20	51	501	3030	5.2	1640	0.2
M-10	4/16/2009 15:10	94	673	76	< 0.1	< 0.05	7.5	9	13	14	217	1520	2.1	720	0.3
M-18	11/8/2001 15:30	5190	2920	303	37.50	< 0.05	5.9	32	nm	< 3	1630	8600	13.5	25	nm
M-18	8/23/2006 10:30	5620	3580	426	9.70	< 0.05	6.8	25	15	18	2790	11800	18.0	1000	0.2
M-18	12/6/2006 12:25	5470	2810	418	29.10	< 0.05	7.1	28	6	8	2740	10300	17.4	621	< 0.1
M-18	4/22/2009 15:00	4960	2960	362	5.70	< 0.05	7.0	23	14	16	2540	10100	16.9	1060	0.1
M-18	10/6/2009 16:35	5660	3220	377	2.44	0.07	7.0	22	17	20	2540	9750	16.8	877	0.1
M-18	4/19/2010 17:40	5920	3080	361	2.10	< 0.01	7.0	21	18	19	2480	10400	16.6	986	0.1
M-18	9/20/2010 16:45	5300	2520	352	3.10	0.04	6.2	23	0.6	0.4	2650	9370	15.6	643	< 0.1
M-18	5/7/2011 9:30	5410	2660	346	2.50	0.02	6.8	22	11.7	13.1	2500	10200	14.6	1210	0.1
M-27	8/16/2001 14:35	5280	3940	540	1.80	< 0.05	8.8	19	<1	nm	1640	10400	13.1	160	nm
M-27	8/16/2001 14:45	5380	3920	538	4.00	< 0.05	7.7	19	<1	nm	1610	10900	13.2	156	nm
M-27	11/8/2001 8:50	5650	4050	553	4.30	< 0.05	6.7	23	nm	< 3	1670	9920	14.2	433	nm
M-27	2/20/2002 15:42	5710	4450	524	2.70	< 0.05	6.7	42	17	nm	1700	10500	16.6	814	nm
M-27	5/21/2002 15:05	7110	4130	494	2.70	< 0.05	6.9	20	20	nm	1620	12000	16.8	1160	0.2
M-27	8/20/2002 17:45	5750	3740	479	4.20	< 0.05	5.7	19	< 2	< 2	1560	12200	16.0	664	< 0.1
M-27	11/6/2002 9:00	5100	3990	526	2.60	< 0.05	6.0	23	< 2	< 2	1730	10500	17.0	619	< 0.1
M-27	3/5/2003 13:20	5640	4230	547	2.60	< 0.05	6.5	24	2	< 2	1830	10300	16.7	649	< 0.1
M-27	5/28/2003 10:30	5590	4250	565	2.60	< 0.05	5.9	25	< 2	< 2	1730	10300	15.6	525	< 0.1
M-27	8/13/2003 11:10	6460	4070	536	3.80	< 0.05	6.1	25	< 2	2	1690	11000	13.3	481	< 0.1
M-27	11/6/2003 10:00	6390	4070	545	5.60	< 0.05	6.5	27	< 2	< 4	1800	10300	14.9	418	< 0.1
M-27	3/1/2004 0:00														
M-27	6/8/2004 15:15	5970	4050	544	7.20	< 0.05	6.7	24	3	3	1890	11600	14.4	564	0.1
M-27	9/15/2004 12:25	5920	4870	576	3.00	< 0.05	6.7	24	18	19	1870	13900	17.5	919	0.1
M-27	11/18/2004 15:35	6050	4380	571	3.00	< 0.05	6.2	24	3	3	2090	11700	17.5	981	< 0.1
M-27	3/1/2005 12:05	5980	4240	565	2.70	< 0.05	5.8	30	3	2	2100	11700	17.0	835	< 0.1
M-27	5/24/2005 11:20	5790	4160	528	3.80	< 0.05	5.8	19	< 0.4	2	2310	11300	16.6	737	< 0.1
M-27	8/16/2005 9:30	5790	4210	553	2.80	< 0.05	5.7	18	1	< 0.9	1980	12200	17.4	801	< 0.1
M-27	11/15/2005 14:28	5270	4050	525	3.40	< 0.05	5.8	21	1	1	2150	10000	15.6	721	< 0.1

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DOWL HKM Job No.: 14B8.05101.01
Last update: May 2011

Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
M-27	2/7/2006 13:10	5250	4060	500	3.40	< 0.05	6.2	26	6	6	2120	9820	15.9	712	< 0.1
M-27	5/23/2006 14:00	6520	4670	608	2.60	< 0.05	5.5	27	2	2	2400	11200	17.9	853	< 0.1
M-27	8/22/2006 14:30	6040	4600	581	3.00	< 0.05	6.2	26	4	7	2420	12400	18.3	793	< 0.1
M-27	12/6/2006 13:40	6170	4500	582	3.20	< 0.05	5.3	27	1	< 0.9	2400	11600	18.7	868	< 0.1
M-27	3/14/2007 17:30	6200	4330	564	2.80	< 0.05	4.4	29	38	nm	2330	12300	18.5	806	< 0.1
M-27	10/4/2007 12:30	6520	4570	557	3.30	< 0.05	6.6	23	12	13	2260	13100	19.8	1070	< 0.1
M-27	3/27/2008 16:00	6140	4110	526	3.10	< 0.05	5.6	19	< 2	< 0.9	2210	11000	18.1	1340	< 0.1
M-27	10/24/2008 13:30	6170	4400	550	3.40	< 0.05	6.2	25	3	3	2480	11600	18.4	1010	< 0.1
M-27	4/22/2009 9:00	5840	3920	488	3.10	< 0.05	6.3	23	4	5	2280	12300	18.6	975	< 0.1
M-27	10/5/2009 17:20	6340	3910	504	3.20	< 0.01	5.8	23	2	< 4	2330	11100	17.7	651	< 0.1
M-27	4/16/2010 17:35	6280	2950	382	< 0.05	< 0.01	5.5	25	< 0.9	< 20	2430	10400	14.9	681	< 0.1
M-27	9/21/2010 15:00	6310	3760	479	3.20	< 0.01	5.3	25	< 0.3	< 0.4	2570	14000	17.4	715	< 0.1
M-27	5/7/2011 10:15	6450	3970	487	2.95	< 0.01	6.2	24	4	5	2420	12400	17.1	1100	< 0.1
M-28	6/1/2000 0:00	25800	6920	749	nm	20.90	7.1	62	nm	nm	14200	44700	58.9	1910	nm
M-28	8/9/2001 12:15	23800	5600	628	4.00	27.90	6.9	57	17	nm	11300	40500	53.5	1880	nm
M-28	8/16/2001 17:00	22600	6130	677	5.40	24.60	7.0	62	19	nm	12800	41000	48.8	2260	nm
M-28	11/8/2001 12:00	1410	1240	169	0.40	31.30	7.3	13	nm	29	873	3950	60.9	687	nm
M-28	2/21/2002 8:40	25900	5620	607	6.90	15.00	7.0	77	17	nm	13300	43800	47.4	1400	nm
M-28	5/23/2002 9:30	31000	5080	491	8.80	8.35	6.8	87	20	nm	15600	50700	57.7	1920	0.1
M-28	8/21/2002 10:00	25500	5620	614	8.00	12.90	6.8	51	18	18	9540	45900	51.8	1700	0.2
M-28	11/6/2002 11:20	22400	5330	562	6.70	17.00	6.9	71	< 20	< 10	12600	43100	44.0	1840	0.2
M-28	3/5/2003 15:30	22400	5140	528	6.60	19.70	6.8	62	18	22	11200	40500	32.9	2330	0.2
M-28	5/13/2003 16:45	24300	5220	551	6.70	16.90	6.7	93	16	19	13800	43800	65.0	1700	0.2
M-28	8/13/2003 15:35	21900	5150	564	6.00	22.70	6.7	113	21	22	11400	38600	51.5	1220	0.2
M-28	11/5/2003 10:30	23000	4440	484	6.50	23.70	6.8	76	17	< 20	10300	38700	32.8	1370	0.3
M-28	3/16/2004 17:34	13800	5240	645	3.30	37.60	6.9	61	24	24	7520	25800	37.5	1590	0.2
M-28	6/8/2004 17:18	19200	4850	551	5.60	23.30	6.9	77	20	21	9940	16900	34.3	2020	0.2
M-28	9/15/2004 14:00	20500	4860	549	6.70	23.30	7.0	94	19	25	10800	35600	52.1	1820	0.3
M-28	11/19/2004 8:36	16000	5040	576	4.50	27.20	6.8	82	23	24	9280	32000	47.8	1730	0.2
M-28	3/1/2005 15:45	17600	4980	579	5.30	22.50	6.9	94	21	23	10900	32800	47.9	1700	0.2
M-28	5/24/2005 13:10	14900	4610	552	4.60	27.90	7.0	68	16	22	8890	28400	42.0	1940	0.2
M-28	8/16/2005 13:15	17700	4320	504	5.30	22.30	7.3	62	22	21	9980	30200	45.8	1570	0.2
M-28	11/15/2005 16:35	16200	4870	584	5.10	20.10	7.0	79	23	22	9880	26600	42.8	1740	0.2
M-28	2/7/2006 16:30	16000	4630	534	5.10	19.80	6.9	73	21	19	9450	28600	44.6	1730	0.2
M-28	5/23/2006 16:20	16300	4530	522	4.50	19.40	7.5	65	22	22	9010	24500	42.7	1850	0.2
M-28	8/22/2006 16:45	14200	4260	505	4.10	9.84	6.8	56	23	22	8080	25600	40.4	1780	0.2
M-28	12/6/2006 14:40	14300	4260	503	4.20	22.60	6.9	67	23	53	8480	26600	42.0	1800	0.2
M-28	3/15/2007 10:15	11200	4290	548	3.50	23.60	6.9	57	169	nm	6280	21200	32.5	1770	0.2
M-28	10/3/2007 16:40	10900	3800	479	3.00	18.00	6.8	47	22	22	5820	20700	34.2	1830	0.2
M-28	3/27/2008 9:50	9600	4120	531	3.20	14.50	6.9	45	26	70	5900	18400	29.4	1730	0.2
M-28	10/26/2008 14:30	7940	3890	515	2.80	13.70	7.0	30	22	31	4490	16200	25.1	2000	0.2
M-28	4/15/2009 11:20	6210	3330	452	1.40	10.90	7.1	31	23	19	3620	12900	21.0	1500	0.2

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M-28	10/1/2009 15:45	6180	3010	402	1.63	6.00	6.8	31	22	27	3360	11300	20.3	1450	0.2
M-28	4/15/2010 11:30	4970	2050	272	1.10	1.44	7.1	27	23	24	3240	10600	16.0	1730	0.2
M-28	9/16/2010 11:45	3170	1440	186	0.80	0.19	7.2	22	21	23	2690	8310	12.8	1600	0.3
M-28	5/5/2011 17:45	1930	1030	144	0.45	1.88	7.4	20	24	24	2010	6700	9.8	1950	0.3
M-30	6/1/2000 0:00	36	801	118	nm	< 0.05	8.0	7	nm	nm	325	1740	2.4	501	nm
M-30	2/22/2002 13:00	43	735	110	4.00	< 0.05	7.5	7	28	nm	325	1790	2.6	549	nm
M-30	5/22/2002 17:10	34	700	103	5.60	< 0.05	7.6	6	32	nm	291	1730	2.6	539	0.3
M-30	8/21/2002 10:40	42	733	109	5.80	< 0.05	7.7	6	27	24	257	1650	2.5	528	0.3
M-30	11/19/2004 8:15	46	735	105	4.70	< 0.05	7.4	8	28	29	254	1550	2.3	459	0.4
M-30	3/2/2005 17:50	58	825	122	4.20	< 0.05	7.5	8	28	28	331	1770	2.5	537	0.4
M-31	6/1/2000 0:00	36000	7610	783	nm	0.17	7.1	122	nm	nm	20200	60800	80.5	1690	nm
M-31	8/9/2001 11:05	35900	6530	649	6.60	< 0.05	6.9	150	16	nm	19800	63800	74.2	1220	nm
M-31	8/16/2001 17:30	37200	6820	659	6.90	< 0.05	6.9	150	16	nm	21900	63300	68.3	2120	nm
M-31	11/8/2001 16:00	28300	7350	1070	11.30	0.06	6.0	110	nm	<5	15700	50200	39.8	840	nm
M-31	2/21/2002 9:45	38600	6510	630	7.50	< 0.05	7.0	207	17	nm	20800	63000	58.4	1690	nm
M-31	5/22/2002 15:45	39700	5950	571	7.70	< 0.05	6.8	162	24	nm	20000	63700	64.7	2210	0.1
M-31	8/21/2002 10:45	39200	6390	626	8.40	< 0.05	6.8	136	16	14	16600	67100	67.5	1780	0.1
M-31	11/6/2002 10:35	33600	6280	601	8.10	< 0.05	6.8	177	17	< 10	19100	62800	55.0	1650	0.1
M-31	3/5/2003 14:10	39200	6210	574	7.60	< 0.05	6.7	169	16	15	19300	62600	43.2	1740	0.1
M-31	5/13/2003 16:00	36100	6180	588	8.10	< 0.05	6.7	238	13	15	22200	63500	85.0	1530	0.1
M-31	8/13/2003 14:40	37300	6070	577	8.00	< 0.05	6.6	229	16	18	20400	63900	81.9	1050	0.1
M-31	11/5/2003 11:35	37700	4400	450	8.40	< 0.05	6.7	206	16	< 20	16900	62100	42.1	1140	0.2
M-31	3/16/2004 16:00	42000	6110	604	9.50	< 0.05	6.7	214	17	17	20200	62900	87.1	1330	0.1
M-31	6/8/2004 16:40	39400	5930	559	9.20	< 0.05	6.8	182	15	16	18800	62100	89.1	1700	0.2
M-31	9/15/2004 15:00	39500	6150	577	9.90	< 0.05	6.9	227	17	17	20900	64800	90.5	1560	0.2
M-31	11/18/2004 17:00	37000	6390	590	8.80	< 0.05	6.7	274	18	18	20700	62700	91.4	1510	0.1
M-31	3/1/2005 13:45	40300	6380	603	8.80	< 0.05	6.8	264	21	31	23000	62800	89.9	1560	0.1
M-31	5/24/2005 15:05	37700	5770	540	9.10	0.08	6.7	251	7	14	22800	61800	89.6	1620	0.2
M-31	8/16/2005 11:30	35300	6260	592	10.10	< 0.05	6.9	185	17	20	20700	61400	90.0	1310	0.1
M-31	11/15/2005 15:30	39700	6700	637	9.10	< 0.05	7.0	218	28	44	23600	57700	91.9	12	0.1
M-31	2/7/2006 14:00	37300	6180	558	10.00	< 0.05	7.1	262	17	17	22400	61200	90.4	1460	0.1
M-31	5/23/2006 17:20	39700	6040	523	10.10	< 0.05	7.4	305	19	22	22500	57200	91.3	1510	0.1
M-31	8/23/2006 13:30	37600	6090	542	4.30	< 0.05	6.6	220	23	23	23000	59800	94.3	1500	0.1
M-31	12/6/2006 15:45	39400	5780	527	11.50	< 0.05	6.8	239	19	19	22700	62900	95.2	1550	0.1
M-31	3/15/2007 11:30	40800	6380	595	11.90	< 0.05	6.7	259	58	nm	24100	64000	93.6	1490	0.1
M-31	10/4/2007 14:30	40800	6160	558	13.20	< 0.05	6.6	239	21	19	22300	63300	99.1	1620	0.1
M-31	3/27/2008 10:30	41200	6850	620	10.90	< 0.05	6.6	276	29	27	25100	62000	94.7	1420	0.1
M-31	10/26/2008 17:20	40800	6200	566	13.20	< 0.05	6.8	236	13	29	22300	61200	92.1	1690	0.1
M-31	4/15/2009 16:15	37400	5460	506	11.20	< 0.05	6.8	246	9	< 20	21400	53800	90.6	1470	0.1
M-31	10/1/2009 16:20	41600	5940	536	11.10	0.04	7.0	238	15	31	21500	58900	88.2	1060	0.1
M-31	4/15/2010 13:10	45300	5270	487	11.30	0.03	6.8	252	15	15	22000	59900	84.4	1260	0.1

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M-31	9/16/2010 11:10	41600	5290	494	12.00	< 1.0	6.9	252	15	16	22200	58800	83.3	1350	0.1
M-31	5/7/2011 12:30	35800	5070	460	10.40	0.26	6.8	237	18	21	19400	60300	76.7	1550	0.1
M-36	9/5/2001 15:55	259	1160	156	1.10	< 0.05	6.6	7	21	nm	458	2920	3.5	1230	nm
M-36	11/9/2001 11:05	313	1210	163	1.00	0.05	7.2	8	nm	28	478	2960	3.8	1220	nm
M-38	9/5/2001 16:25	174	1080	132	1.00	< 0.05	6.6	7	21	nm	434	2750	3.3	1230	nm
M-38	11/9/2001 11:40	183	1080	135	1.00	0.05	7.3	8	nm	27	436	2690	3.5	1240	nm
M-39	11/7/2001 15:45	34	1020	241	8.80	< 0.05	8.9	8	nm	2	269	2150	2.6	1260	nm
M-69	4/15/2009 14:17	61	402	40	0.40	8.36	7.6	109	14	14	170	1190	1.8	386	0.5
M-80	4/18/2009 15:30	7500	5410	675	1.70	< 0.05	6.7	30	10	14	2810	13500	22.9	395	0.2
MOC-1B	3/14/2007 12:55	75	2150	301	< 0.1	30.60	7.2	11	32	nm	384	4070	4.5	2220	0.2
MOC-1B	10/3/2007 10:35	74	2080	289	< 0.1	32.20	7.2	9	23	25	367	3920	4.6	2280	0.2
MOC-1B	3/25/2008 18:30	74	2090	292	< 0.1	36.80	7.2	8	23	23	370	3810	4.4	2240	0.2
MOC-1B	10/23/2008 14:15	80	2120	297	< 0.1	29.20	7.4	9	24	26	361	3810	4.4	2260	0.2
MOC-1B	4/21/2009 12:45	68	2070	286	< 0.1	28.90	7.3	10	23	24	368	3540	4.4	2230	0.2
MOC-1B	10/3/2009 12:45	64	2120	294	< 0.05	30.90	7.3	9	24	24	357	3970	4.3	2110	0.2
MOC-1B	4/13/2010 17:30	66	2060	287	< 0.05	32.90	7.2	10	24	22	384	3980	4.4	2260	0.2
MOC-1B	9/16/2010 15:30	57	2120	292	< 0.05	35.30	7.2	10	23	23	370	3950	4.2	2150	0.2
MOC-1B	5/4/2011 10:45	66	2020	282	<0.05	27.30	7.3	9	23	25	354	4150	4.4	2310	0.2
MOC-2	3/13/2007 17:00	7050	4990	571	3.60	< 0.05	6.8	28	77	nm	2750	13800	20.6	1730	0.2
MOC-2	10/5/2007 14:30	7110	4950	556	4.00	< 0.05	6.8	25	20	26	2840	14600	21.2	1540	0.2
MOC-2	3/26/2008 17:30	7200	5000	555	3.60	< 0.05	6.7	27	23	25	3060	13700	21.3	1460	0.2
MOC-2	10/25/2008 13:07	6880	4830	542	3.80	< 0.05	6.8	23	20	28	2910	13000	20.9	1670	0.2
MOC-2	4/21/2009 13:40	6560	4720	519	3.40	< 0.05	6.8	26	20	26	2990	13600	21.1	1430	0.2
MOC-2	10/3/2009 14:55	6990	4540	502	3.55	< 0.01	6.7	24	22	27	2860	13300	20.8	1170	0.2
MOC-2	4/16/2010 15:35	7550	4660	526	3.20	< 0.01	6.8	25	22	22	3010	13900	20.5	1260	0.2
MOC-2	9/21/2010 14:21	7030	4480	488	3.70	< 0.01	7.4	26	22	25	3100	15100	20.0	1140	0.2
MOC-2	5/6/2011 0:00	7020	4410	490	3.30	< 0.01	6.8	25	25	33	3010	14100	19.0	1570	0.2
MOC-3	3/14/2007 11:50	74	1690	218	< 0.1	13.40	7.3	12	43	nm	400	3500	4.0	1890	0.5
MOC-3	10/2/2007 19:00	76	1580	202	< 0.1	15.20	7.1	10	19	30	379	3370	4.1	1890	0.5
MOC-3	3/25/2008 16:50	73	1670	216	< 0.1	17.90	7.3	11	19	21	385	3260	3.9	1890	0.5
MOC-3	10/23/2008 12:40	78	1630	208	< 0.1	17.70	7.3	10	20	25	392	3330	3.9	1830	0.5
MOC-3	4/20/2009 19:05	70	1600	204	< 0.1	14.20	7.3	11	19	20	368	3140	3.9	1900	0.5
MOC-3	10/3/2009 13:30	65	1650	212	< 0.05	14.90	7.3	11	20	24	359	3400	3.8	1710	0.5
MOC-3	4/13/2010 15:45	66	1550	200	< 0.05	17.80	7.3	12	20	21	372	3320	3.8	1820	0.5
MOC-3	9/16/2010 16:00	60	1660	206	< 0.05	16.60	7.2	11	20	39	374	3280	3.7	1810	0.4

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MOC-3	5/4/2011 12:30	56	1330	128	< 0.05	26.20	7.4	13	20	27	244	2680	3.1	1530	0.2
MOC-4	10/17/2006 13:30	2660	2200	271	1.20	< 0.05	7.3	17	17	19	1170	5700	9.4	789	0.2
MOC-4	10/4/2007 11:00	2580	2290	286	1.30	< 0.05	7.1	15	18	20	1230	5550	9.6	817	0.2
MOC-4	3/26/2008 16:30	2590	2080	261	1.20	< 0.05	7.1	14	16	17	1130	5440	9.1	779	0.2
MOC-4	10/25/2008 12:08	2420	2150	271	1.30	< 0.05	7.4	14	16	19	1160	5470	9.0	834	0.2
MOC-4	4/23/2009 13:00	2300	2020	250	1.40	< 0.05	7.3	16	16	18	1120	5040	8.9	793	0.2
MOC-4	10/3/2009 12:50	2530	2050	253	1.30	< 0.01	7.2	15	16	19	1090	5470	8.8	635	0.2
MOC-4	4/14/2010 17:45	2750	2000	248	1.26	< 0.01	7.3	17	17	18	1200	5400	9.0	750	0.2
MOC-4	9/22/2010 12:25	2400	2000	245	1.34	0.02	7.5	15	16	19	1160	5380	8.6	674	0.2
MOC-4	5/5/2011 15:30	2410	1920	238	1.09	0.02	7.3	15	18	21	1170	5350	8.4	835	0.2
MOC-20A	3/13/2007 13:40	128	3020	429	0.90	41.70	7.2	24	38	nm	464	5480	5.8	3220	0.4
MOC-20A	10/3/2007 17:00	125	2860	408	0.30	22.00	7.2	23	40	106	462	5370	5.9	3290	0.4
MOC-20A	3/26/2008 15:00	119	2870	411	0.60	19.70	7.0	22	31	302	425	5260	5.5	3290	0.4
MOC-20A	10/24/2008 11:46	133	2970	433	< 0.1	9.65	7.4	22	30	32	486	5310	5.6	3390	0.5
MOC-20A	4/22/2009 11:00	120	2930	428	< 0.1	10.80	7.4	24	30	28	464	4800	5.5	3290	0.4
MOC-20A	10/4/2009 9:10	112	2870	415	< 0.05	17.80	7.2	21	27	33	432	5310	5.4	3060	0.4
MOC-20A	4/14/2010 10:20	110	2830	403	0.12	14.30	7.1	26	27	33	458	5280	5.5	3320	0.4
MOC-20A	9/17/2010 9:30	110	2920	419	0.06	18.70	7.3	25	27	35	480	5590	5.5	3190	0.4
MOC-20A	5/4/2011 10:45	150	2820	411	< 0.1	10.30	7.5	22	29	30	456	5620	5.3	3570	0.4
MOC-20B	3/13/2007 15:00	163	1680	202	1.30	< 0.05	7.1	9	30	nm	513	3790	4.5	2020	0.3
MOC-20B	10/3/2007 13:30	181	1600	192	1.20	< 0.05	7.0	9	26	31	490	3800	4.7	2050	0.3
MOC-20B	3/26/2008 14:30	176	1640	199	1.10	< 0.05	7.0	8	26	28	481	3640	4.4	2040	0.3
MOC-20B	10/23/2008 17:10	198	1700	207	1.20	< 0.05	7.0	8	27	32	506	3700	4.5	2050	0.3
MOC-20B	4/21/2009 12:40	180	1650	199	1.30	< 0.05	7.1	9	26	31	481	3440	4.4	2010	0.3
MOC-20B	10/2/2009 11:30	196	1690	204	1.22	< 0.01	7.0	8	26	33	467	3690	4.4	1910	0.3
MOC-20B	4/14/2010 16:30	212	1660	204	1.11	< 0.01	7.0	10	27	32	534	3930	4.5	2130	0.3
MOC-20B	9/21/2010 13:27	195	1730	205	1.18	0.02	7.4	9	25	29	512	3870	4.4	1970	0.3
MOC-20B	5/5/2011 15:00	251	1670	206	0.98	0.01	7.0	9	27	32	504	3990	4.3	2220	0.3
PNR-4	6/1/2000 0:00	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
PNR-4	8/10/2001 13:15	44700	2610	125	14.10	< 0.05	7.0	534	56	nm	24800	71200	75.1	1800	nm
PNR-4	8/10/2001 13:20	44600	2480	121	14.40	< 0.05	7.0	500	52	nm	24000	71200	78.2	1900	nm
PNR-4	11/8/2001 15:00	31800	3210	43	15.10	0.08	7.9	453	nm	237	20700	61400	49.2	1310	nm
PNR-4	Plugged and abandoned														
PNR-5	6/1/2000 0:00	38900	3810	213	nm	< 0.05	7.4	396	nm	nm	22600	65200	85.1	1690	nm
PNR-5	8/8/2001 11:00	40700	3850	264	16.80	< 0.05	6.7	436	37	nm	23400	68600	79.5	1400	nm
PNR-5	8/15/2001 11:00	41200	4140	271	17.90	< 0.05	6.9	460	41	nm	23800	68000	72.8	1520	nm
PNR-5	11/7/2001 11:10	33700	3540	234	17.90	< 0.05	6.5	368	nm	37	21500	67200	52.7	1290	nm
PNR-5	2/20/2002 10:02	44500	3770	248	17.30	< 0.05	6.7	432	30	nm	23500	67700	61.3	1270	nm

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Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-5	5/22/2002 10:40	43500	3310	212	16.40	< 0.05	6.7	377	39	nm	21800	68800	68.4	1870	0.4
PNR-5	8/20/2002 17:10	42600	3590	241	15.90	< 0.05	6.6	297	36	37	23700	69700	71.9	1570	0.3
PNR-5	11/6/2002 11:10	42800	3870	250	16.30	< 0.05	6.7	446	29	46	22800	68100	61.3	1730	0.3
PNR-5	3/4/2003 16:30	42100	3570	218	16.10	< 0.05	6.6	413	34	52	22100	67800	50.5	1880	0.3
PNR-5	5/28/2003 12:35	39600	3490	228	15.60	< 0.05	6.5	473	32	41	23000	69300	95.2	1480	0.4
PNR-5	8/13/2003 14:59	42000	3530	256	17.00	< 0.05	6.7	450	38	40	23100	69700	90.2	1170	0.4
PNR-5	11/4/2003 15:30	42200	2400	186	16.70	< 0.05	6.6	359	27	27	19300	68400	48.9	1200	0.4
PNR-5	3/17/2004 10:15	44300	3960	256	16.70	< 0.05	6.8	507	38	35	25000	68500	94.8	1170	0.3
PNR-5	6/9/2004 9:40	42900	3520	228	16.40	< 0.05	6.6	400	36	35	22400	65800	97.1	1720	0.4
PNR-5	9/14/2004 16:20	43400	3890	253	17.80	< 0.05	6.8	446	39	44	24000	69700	98.1	1590	0.3
PNR-5	11/17/2004 13:50	42800	3640	233	15.50	< 0.05	6.6	445	30	43	24300	67600	94.9	1560	0.3
PNR-5	3/2/2005 12:15	43700	3950	259	17.30	< 0.05	6.7	501	39	34	27200	67200	96.7	1590	0.4
PNR-5	5/25/2005 17:20	43100	4130	279	16.20	< 0.05	6.6	446	34	31	26400	68400	95.6	1910	0.4
PNR-5	8/17/2005 11:00	35400	3800	261	16.80	< 0.05	6.8	464	31	42	23300	65300	94.8	1300	0.4
PNR-5	11/16/2005 13:00	40900	4110	286	14.90	< 0.05	6.7	420	32	33	25500	58700	95.8	1330	0.3
PNR-5	2/9/2006 15:20	38500	3410	217	15.40	< 0.05	6.8	430	35	35	23000	59400	91.6	1400	0.3
PNR-5	5/25/2006 10:30	37700	3380	220	18.00	< 0.05	7.4	382	37	34	23000	49400	89.0	1270	0.4
PNR-5	8/23/2006 15:40	32900	2850	185	14.00	< 0.05	6.6	310	41	37	19900	56400	87.6	1090	0.4
PNR-5	12/7/2006 13:25	32400	2740	182	15.20	< 0.05	6.8	332	37	37	19800	53100	83.8	1040	0.4
PNR-5	3/14/2007 14:14	32800	2910	215	13.00	< 0.05	6.8	329	537	nm	20000	50800	79.8	892	0.4
PNR-5	10/5/2007 11:40	27900	2440	177	13.00	< 0.05	6.8	278	37	34	17100	46400	73.1	913	0.4
PNR-5	3/27/2008 16:30	23500	1710	124	9.50	< 0.05	6.8	228	39	39	14100	38300	61.2	689	0.5
PNR-5	10/27/2008 13:35	20300	1650	123	9.20	< 0.05	7.0	216	36	46	13200	32500	52.9	785	0.6
PNR-5	4/15/2009 14:20	15900	1180	95	6.60	< 0.05	7.1	167	33	29	10400	25600	44.9	842	0.6
PNR-5	10/2/2009 14:00	14200	846	67	5.20	< 0.01	7.2	127	36	36	8330	22400	37.2	589	0.7
PNR-5	4/15/2010 16:45	10400	558	49	3.70	< 0.01	7.2	108	36	35	6860	17100	28.1	772	0.9
PNR-5	9/21/2010 11:15	4840	197	17	2.60	0.02	7.8	59	36	37	3980	10100	16.4	619	1.8
PNR-5	5/6/2011 11:20	3480	120	10	0.86	0.01	7.4	45	41	44	3030	8270	12.7	862	2.3
PNR-6	5/31/2000 0:00	14	587	77	nm	0.06	8.0	6	nm	nm	75	849	1.2	229	nm
PNR-6	8/7/2001 9:55	31	724	108	0.30	0.28	7.1	6	21	nm	124	1350	1.8	559	nm
PNR-6	8/15/2001 15:30	30	835	126	0.20	0.25	7.3	7	23	nm	143	1280	1.7	530	nm
PNR-6	11/7/2001 8:55	30	690	101	0.20	0.31	7.3	6	nm	36	117	1210	1.6	437	nm
PNR-6	2/19/2002 13:30	49	966	143	0.30	0.49	7.0	7	41	nm	121	1740	2.3	869	nm
PNR-6	5/21/2002 12:15	35	837	117	0.30	0.42	7.5	7	31	nm	123	1370	1.9	831	0.5
PNR-6	8/19/2002 16:35	23	710	104	0.50	0.30	7.4	5	23	44	91	1180	1.7	450	0.4
PNR-6	11/5/2002 11:25	19	589	82	0.40	0.19	7.5	6	21	27	97	1000	1.5	341	0.5
PNR-6	3/4/2003 10:40	31	567	81	0.30	0.12	7.6	6	22	30	120	897	1.3	276	0.5
PNR-6	5/13/2003 11:30	16	573	82	0.20	0.16	7.2	7	21	52	99	918	1.4	265	0.6
PNR-6	8/13/2003 8:16	16	594	86	0.30	0.26	7.4	6	22	43	95	955	1.4	323	0.5
PNR-6	11/4/2003 13:30	26	643	95	0.20	0.27	7.6	7	23	40	114	1140	1.5	460	0.5
PNR-6	6/8/2004 10:20	126	1990	337	< 0.1	2.47	7.4	10	22	32	283	3740	3.8	2180	0.5
PNR-6	9/14/2004 9:15	56	1230	205	< 0.1	1.18	7.6	7	24	27	183	2240	2.7	1120	0.5

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PNR-6	11/16/2004 10:17	34	901	144	< 0.1	0.62	7.4	7	25	26	124	1370	1.9	605	0.5
PNR-6	2/28/2005 17:30	31	865	128	0.20	0.39	7.3	7	24	27	96	1340	1.8	541	0.5
PNR-6	5/23/2005 18:00	28	852	122	0.50	0.37	7.2	7	23	26	92	1320	1.7	501	0.5
PNR-6	8/16/2005 9:35	27	856	124	0.30	0.34	7.5	6	22	1	94	1270	1.7	482	0.5
PNR-6	11/15/2005 10:00	25	755	112	0.20	0.21	7.5	8	24	33	95	1190	1.7	487	1.0
PNR-6	2/7/2006 10:47	17	651	95	0.30	0.11	7.1	7	40	215	97	993	1.5	332	0.5
PNR-6	5/23/2006 10:30	20	655	93	0.30	0.16	8.0	7	45	115	103	924	1.5	330	0.5
PNR-6	8/22/2006 10:45	12	557	82	0.30	0.09	7.2	7	23	27	93	820	1.3	214	0.5
PNR-6	12/5/2006 13:40	16	594	89	0.20	0.11	7.2	6	23	31	99	914	1.5	274	0.5
PNR-6	3/14/2007 10:15	14	596	86	0.40	0.17	7.5	6	26	nm	93	919	1.4	262	0.5
PNR-6	10/2/2007 18:55	37	933	148	0.50	0.66	7.6	6	25	37	132	1520	2.2	701	0.5
PNR-6	3/26/2008 11:50	19	616	92	0.40	0.21	7.5	5	23	27	91	948	1.5	315	0.5
PNR-6	10/22/2008 14:40	25	801	122	0.50	0.48	7.3	6	25	29	111	1210	1.7	489	0.5
PNR-6	4/17/2009 15:15	153	2950	506	< 0.1	3.62	7.4	12	25	29	420	4570	5.5	3310	0.4
PNR-6	10/4/2009 12:55	45	1410	245	< 0.05	1.72	7.4	8	26	29	211	2400	2.9	1160	0.5
PNR-6	4/13/2010 11:15	113	2830	473	< 0.05	3.67	7.3	12	25	25	345	4820	5.0	3020	0.4
PNR-6	9/16/2010 16:30	46	1540	264	0.21	1.90	7.3	9	26	35	227	2720	3.0	1450	0.4
PNR-6	5/3/2011 16:45	117	4720	864	< 0.01	6.63	7.4	12	25	29	753	8470	8.1	5640	0.4
PNR-7	5/31/2000 0:00	21700	15700	2130	nm	4.11	7.2	55	nm	nm	6800	35300	48.2	1540	nm
PNR-7	8/7/2001 17:20	23300	13800	1850	0.30	4.78	6.7	52	17	nm	6740	39300	49.4	1370	nm
PNR-7	8/15/2001 17:55	23000	15700	2220	0.40	3.86	6.9	57	20	nm	7910	40600	44.9	1590	nm
PNR-7	11/7/2001 11:50	22100	14600	1960	0.40	4.06	6.6	52	nm	20	7060	40600	34.7	1440	nm
PNR-7	2/19/2002 17:05	23700	14800	1960	0.30	4.19	6.7	57	17	nm	7550	36200	41.0	1390	nm
PNR-7	5/22/2002 13:10	23500	13900	1860	0.30	3.91	6.6	60	29	nm	7450	39800	45.1	1650	0.3
PNR-7	8/20/2002 15:07	23900	14400	1990	0.40	3.58	6.7	47	17	26	8200	42100	45.9	1460	0.3
PNR-7	11/5/2002 14:50	24100	14500	1900	0.40	3.87	6.8	57	14	19	7690	44500	37.4	1580	0.2
PNR-7	3/4/2003 15:05	22900	14200	1880	0.40	3.85	6.6	72	17	17	8650	39800	29.0	1500	0.3
PNR-7	8/12/2003 12:20	24300	3050	1950	0.30	3.23	6.5	69	20	18	8460	45100	56.0	964	< 0.1
PNR-7	11/4/2003 14:30	24900	11400	1490	0.40	3.58	6.8	55	14	22	6880	40200	23.7	1110	< 0.73
PNR-7	3/17/2004 17:10	25300	15400	2010	0.40	3.71	6.6	68	20	18	9040	41200	56.9	1100	0.2
PNR-7	6/8/2004 18:40	25800	13600	1770	0.40	3.73	6.6	69	18	23	8850	46400	60.0	1570	0.3
PNR-7	9/14/2004 18:00	25000	14100	1840	0.40	3.65	6.8	88	22	23	9390	46100	60.8	1350	0.3
PNR-7	11/17/2004 13:40	25500	14200	1830	0.40	3.85	6.6	71	21	20	9700	43000	61.3	1580	0.3
PNR-7	3/1/2005 17:30	25400	13700	1780	0.40	3.56	6.6	72	22	23	9940	42100	60.6	1450	0.3
PNR-7	5/25/2005 13:47	25300	14000	1800	0.40	3.77	6.6	49	17	16	10600	44100	59.7	1700	0.3
PNR-7	8/17/2005 10:52	26100	15100	1940	0.40	3.59	6.7	71	18	22	10500	45400	61.9	1590	0.2
PNR-7	11/16/2005 14:00	26800	14900	1920	0.40	3.57	6.8	66	25	25	10700	43300	63.0	1480	0.3
PNR-7	2/9/2006 14:15	25100	14600	1820	0.50	3.70	6.8	98	18	19	11000	41200	61.9	1450	0.2
PNR-7	5/24/2006 16:10	26200	13600	1750	0.50	3.61	7.3	76	18	20	11500	42300	62.9	1470	0.2
PNR-7	8/24/2006 10:24	26600	13200	1660	0.40	3.69	6.5	67	22	22	10800	44400	66.1	1450	0.2
PNR-7	12/8/2006 10:15	23800	12600	1580	0.50	3.44	6.7	57	19	21	10400	43100	66.7	1410	0.2
PNR-7	3/15/2007 12:15	27600	13900	1750	0.50	3.39	6.5	105	194	nm	11700	45400	66.3	1350	< 0.1

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PNR-7	10/4/2007 19:00	26500	13100	1630	0.50	3.80	6.4	72	19	24	11000	45400	70.1	1510	0.2
PNR-7	3/28/2008 10:30	27200	13100	1630	0.60	3.69	6.6	66	20	20	11300	42100	63.7	2600	0.2
PNR-7	10/25/2008 17:30	29200	14300	1770	0.50	3.35	6.7	57	17	26	12300	45200	66.7	1630	0.2
PNR-7	4/15/2009 17:15	26700	12100	1490	0.50	3.31	6.8	65	9	7	11800	45500	66.6	1430	0.2
PNR-7	10/6/2009 15:15	23400	11800	1480	0.50	3.32	6.7	61	26	< 20	10800	37500	64.4	961	0.1
PNR-7	4/19/2010 13:30	30300	12500	1530	0.47	3.10	6.6	87	20	< 20	11600	46900	63.6	1470	0.2
PNR-7	9/22/2010 14:00	28600	12100	1440	0.52	3.12	7.0	76	15	18	13100	48600	62.3	1060	0.2
PNR-7	5/6/2011 15:30	27800	11500	1370	0.48	2.84	6.6	62	19	20	11000	50400	57.6	1580	0.2
PNR-8	5/31/2000 0:00	380	1500	200	nm	< 0.05	7.8	12	nm	nm	420	2350	4.1	738	nm
PNR-8	8/7/2001 13:50	764	1470	196	0.40	< 0.05	7.1	10	21	nm	406	3460	4.4	1210	nm
PNR-8	8/16/2001 18:10	647	1420	191	0.30	< 0.05	2.3	8	26	nm	406	4460	12.8	2990	nm
PNR-8	11/6/2001 16:30	1020	1820	243	0.40	0.18	7.2	14	nm	31	480	3940	5.0	1150	nm
PNR-8	2/22/2002 16:00	888	1680	222	0.30	< 0.05	7.2	15	462	nm	481	3640	4.9	1180	nm
PNR-8	5/21/2002 17:45	1310	1610	215	0.30	0.08	7.4	12	159	nm	463	4020	5.6	1190	0.4
PNR-8	8/21/2002 10:10	1180	1810	246	0.50	0.08	7.3	11	20	140	435	4240	5.8	1290	0.4
PNR-8	11/5/2002 15:25	1140	1850	242	0.40	< 0.05	7.2	12	21	294	485	3880	5.6	1260	0.3
PNR-8	3/4/2003 12:10	1170	1860	247	0.30	< 0.05	7.1	13	22	95	528	3960	5.5	1280	0.3
PNR-8	5/13/2003 17:00	1090	1920	254	0.40	0.14	7.2	13	21	181	552	3910	5.2	1150	0.3
PNR-8	8/12/2003 9:46	1170	2020	268	0.30	< 0.05	7.1	12	23	80	584	4640	5.7	1090	0.3
PNR-8	11/4/2003 12:00	1060	1770	234	0.40	< 0.05	7.4	12	24	32	452	3700	4.7	1190	0.3
PNR-8	3/18/2004 11:30	1120	1930	258	0.30	0.06	7.2	12	26	64	491	3890	5.0	1060	0.3
PNR-8	6/8/2004 18:40	1240	1940	256	0.50	0.06	7.3	13	19	26	530	4250	5.7	1240	0.4
PNR-8	9/14/2004 17:05	1070	1960	256	0.50	0.06	7.3	13	24	38	514	4120	5.7	1080	0.3
PNR-8	11/16/2004 16:15	1230	2020	264	0.40	0.08	7.2	14	25	49	527	4130	5.9	1180	0.3
PNR-8	3/2/2005 15:30	1400	2150	290	0.50	< 0.05	7.3	17	26	35	650	4390	6.2	1210	0.4
PNR-8	5/26/2005 10:46	1540	2390	319	0.50	< 0.05	7.2	11	26	68	681	4820	6.5	1150	0.4
PNR-8	8/18/2005 11:50	1420	2230	299	0.40	< 0.05	7.3	12	20	48	594	4600	6.4	1170	0.4
PNR-8	11/17/2005 9:45	1610	2510	337	0.40	< 0.05	7.2	12	24	70	703	4530	6.8	1180	0.3
PNR-8	2/9/2006 9:45	1590	2310	309	0.50	< 0.05	7.3	16	25	63	707	4780	7.0	1180	0.3
PNR-8	5/24/2006 17:50	1630	2340	312	0.50	< 0.05	7.9	16	23	41	664	4230	6.9	1200	0.3
PNR-8	8/24/2006 12:30	1620	2410	322	0.50	0.14	7.0	16	22	62	724	4960	7.3	1170	0.3
PNR-8	12/7/2006 11:30	1810	2450	331	0.40	< 0.05	7.2	15	24	89	763	5130	7.9	1170	0.3
PNR-8	3/14/2007 13:25	2210	2760	369	0.50	0.20	7.1	19	36	nm	899	5430	8.3	1070	0.3
PNR-8	10/4/2007 14:35	1970	2570	345	0.50	0.36	7.1	15	23	41	810	5370	8.5	1200	0.3
PNR-8	3/28/2008 11:30	2270	2800	375	0.50	0.18	7.2	15	23	38	953	5700	8.8	1150	0.3
PNR-8	10/27/2008 16:15	1610	2490	332	0.60	0.08	7.2	14	27	30	740	5050	7.2	1130	0.3
PNR-8	4/19/2009 14:15	1520	2490	338	0.50	< 0.05	7.1	16	23	23	680	4370	7.3	1260	0.3
PNR-8	10/4/2009 15:00	2010	2510	330	0.56	< 0.01	7.1	14	25	28	754	4710	7.7	934	0.3
PNR-8	4/19/2010 8:25	2170	2570	345	0.50	0.01	7.0	14	27	30	788	5140	7.9	1020	0.3
PNR-8	9/22/2010 13:10	2190	2610	343	0.61	1.07	7.3	16	25	26	874	5020	8.3	945	0.3
PNR-8	5/4/2011 10:10	1520	2450	406	0.16	3.37	7.2	24	16	19	597	4890	6.4	1360	0.3

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Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-9	6/1/2000 0:00	3060	2920	355	nm	< 0.05	7.3	16	nm	nm	887	5700	9.3	609	nm
PNR-9	8/9/2001 9:35	3360	3150	378	1.60	< 0.05	7.1	18	17	nm	985	7940	9.7	760	nm
PNR-9	8/16/2001 13:45	3620	3350	412	1.20	< 0.05	7.2	17	16	nm	1050	8020	9.9	639	nm
PNR-9	11/7/2001 14:30	3640	3450	420	1.70	< 0.05	7.0	20	nm	29	1060	7630	10.3	740	nm
PNR-9	2/20/2002 14:50	3700	3420	413	1.80	< 0.05	6.8	30	32	nm	1110	7300	11.7	629	nm
PNR-9	5/22/2002 10:15	4330	3060	375	1.80	< 0.05	7.0	18	25	nm	1030	8580	11.3	510	0.2
PNR-9	8/20/2002 16:20	4060	3460	434	1.80	< 0.05	7.0	16	15	24	1000	9120	11.9	690	0.2
PNR-9	11/5/2002 14:05	4000	3470	417	1.90	< 0.05	7.1	18	14	25	1030	8340	12.1	757	0.2
PNR-9	3/4/2003 16:00	3920	3620	421	1.90	< 0.05	6.8	20	16	36	1110	7880	12.8	720	0.2
PNR-9	5/27/2003 18:15	3790	3620	434	1.80	< 0.05	6.9	19	16	54	1070	8530	13.0	711	0.2
PNR-9	8/13/2003 10:35	4580	3530	421	1.90	< 0.05	6.8	19	16	22	1110	8850	10.9	571	0.2
PNR-9	11/4/2003 14:35	4700	3720	480	1.90	< 0.05	7.0	21	15	22	1210	8280	11.6	663	0.2
PNR-9	3/1/2004 0:00														
PNR-9	6/8/2004 13:35	4340	3880	467	2.10	< 0.05	7.1	20	16	19	1350	9660	12.2	842	0.2
PNR-9	9/14/2004 11:00	4210	4070	483	2.30	< 0.05	7.0	20	18	21	1220	10600	13.3	752	0.3
PNR-9	11/16/2004 16:12	4480	4110	485	2.10	< 0.05	6.9	23	19	20	1270	9140	13.6	769	0.3
PNR-9	3/1/2005 12:10	4450	4080	490	2.10	< 0.05	7.1	24	19	19	1430	9590	13.4	767	0.2
PNR-9	5/24/2005 17:25	4580	4390	528	2.20	< 0.05	7.0	19	22	22	1490	10200	13.6	908	0.3
PNR-9	8/16/2005 12:00	4540	4190	502	2.10	< 0.05	7.1	16	17	17	1300	10300	13.9	779	0.3
PNR-9	11/15/2005 15:55	4600	4620	557	2.10	< 0.05	7.2	20	18	21	1550	9990	14.2	766	0.1
PNR-9	2/8/2006 12:00	4490	4540	542	2.20	< 0.05	7.1	25	20	21	1550	8850	14.2	761	0.2
PNR-9	5/23/2006 13:15	4990	4260	511	2.30	< 0.05	7.4	24	18	22	1520	9800	14.5	831	0.2
PNR-9	8/23/2006 9:40	4760	4480	539	2.20	< 0.05	6.8	22	19	20	1550	10800	15.1	823	0.2
PNR-9	12/6/2006 15:00	4620	4420	530	2.50	< 0.05	7.0	23	17	23	1600	10000	15.2	855	0.2
PNR-9	3/13/2007 16:35	4570	4360	520	2.50	< 0.05	6.9	29	80	nm	1590	10700	15.3	699	0.2
PNR-9	10/4/2007 10:40	5200	4510	539	3.00	< 0.05	6.8	21	17	51	1670	11300	16.2	889	0.2
PNR-9	3/27/2008 13:40	5040	4230	501	2.30	< 0.05	7.0	18	18	20	1640	9620	15.3	860	0.2
PNR-9	10/23/2008 17:00	5110	4640	553	2.60	< 0.05	7.0	18	17	23	1720	10400	15.7	939	0.2
PNR-9	4/18/2009 16:20	4720	4140	491	2.50	< 0.05	6.9	22	15	17	1620	9710	15.7	909	0.2
PNR-9	10/3/2009 13:40	5440	4470	524	2.41	< 0.01	6.8	23	18	24	1740	10200	15.3	732	0.2
PNR-9	4/13/2010 18:00	5690	4310	509	2.51	< 0.01	6.9	25	17	20	1900	11500	15.7	714	0.2
PNR-9	9/20/2010 15:40	5330	4280	482	2.45	0.02	6.9	25	16	22	1810	12200	15.6	699	0.2
PNR-9	5/5/2011 14:10	5160	4080	482	2.27	0.02	6.9	22	22	38	1830	10900	13.7	1030	0.2
PNR-10	6/1/2000 0:00	147	978	111	nm	< 0.05	7.6	8	nm	nm	435	2480	3.1	1210	nm
PNR-10	8/8/2001 18:50	245	1090	127	1.20	< 0.05	7.2	8	24	nm	449	2890	3.5	1260	nm
PNR-10	8/16/2001 13:15	263	1100	128	1.20	< 0.05	7.2	8	28	nm	482	2900	3.5	1320	nm
PNR-10	11/7/2001 12:30	196	1040	121	1.20	0.08	7.4	10	nm	39	443	2690	3.2	1220	nm
PNR-10	2/20/2002 13:38	304	1110	131	1.20	< 0.05	7.0	8	30	nm	448	2920	3.9	1340	nm
PNR-10	5/21/2002 13:35	415	1040	124	1.30	< 0.05	7.2	8	31	nm	430	2810	3.8	1680	0.2
PNR-10	8/20/2002 12:20	351	1150	139	1.30	0.07	7.2	7	23	31	407	3090	4.0	1350	0.3
PNR-10	11/5/2002 13:30	384	1250	145	1.40	< 0.05	7.2	11	24	31	581	3130	4.1	1380	0.3
PNR-10	3/4/2003 16:50	426	1270	150	1.30	< 0.05	7.0	9	24	52	470	3180	4.3	1340	0.3

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PNR-10	5/27/2003 17:45	434	1310	155	1.20	< 0.05	7.1	9	25	29	476	3230	4.4	1350	0.3
PNR-10	8/13/2003 10:00	457	1270	149	1.20	< 0.05	6.9	9	24	45	444	3270	4.2	1340	0.3
PNR-10	11/4/2003 13:45	512	1270	162	1.40	< 0.05	7.2	9	25	28	468	3310	3.9	1420	0.3
PNR-10	3/1/2004 0:00														
PNR-10	6/8/2004 14:10	561	1410	170	1.40	< 0.05	7.2	9	24	56	524	3390	4.2	1410	0.3
PNR-10	9/14/2004 11:40	607	1490	180	1.80	< 0.05	7.2	10	26	31	508	3510	4.6	1350	0.3
PNR-10	11/16/2004 11:28	602	1540	181	1.50	< 0.05	7.2	10	26	29	502	3430	4.6	1360	0.3
PNR-10	3/1/2005 11:06	653	1570	191	1.40	< 0.05	7.1	12	27	28	571	3560	4.7	1370	0.3
PNR-10	5/24/2005 15:50	645	1500	181	1.60	< 0.05	7.2	11	25	25	558	3610	4.8	1260	0.3
PNR-10	8/16/2005 10:48	688	1630	197	1.40	< 0.05	7.2	7	25	26	495	3660	4.9	1360	0.3
PNR-10	11/15/2005 11:45	758	1800	220	1.40	< 0.05	7.2	8	26	28	585	3730	5.1	1400	0.2
PNR-10	2/7/2006 14:00	708	1740	208	1.50	< 0.05	7.1	11	28	29	582	3730	5.1	1300	0.3
PNR-10	5/23/2006 12:15	834	1740	209	1.70	< 0.05	7.8	11	27	32	597	3790	5.1	1430	0.2
PNR-10	8/23/2006 10:35	811	1740	208	1.50	< 0.05	7.0	11	27	30	598	3820	5.5	1370	0.2
PNR-10	12/6/2006 14:30	790	1770	208	1.80	< 0.05	7.0	12	27	30	633	3890	14.9	1340	0.2
PNR-10	3/13/2007 15:20	922	1870	225	1.90	< 0.05	7.1	11	41	nm	620	4050	5.6	1390	0.2
PNR-10	10/3/2007 16:30	984	1840	225	1.70	< 0.05	7.0	10	26	32	612	4130	6.1	1400	0.2
PNR-10	3/27/2008 11:45	1090	1880	230	1.60	< 0.05	7.1	9	27	29	629	4300	6.0	1410	0.2
PNR-10	10/23/2008 14:20	1010	1970	241	2.00	< 0.05	7.1	10	26	29	655	4190	5.9	1460	0.2
PNR-10	4/18/2009 14:05	1060	2090	256	2.00	< 0.05	7.1	12	26	28	676	3910	6.3	1390	0.2
PNR-10	10/3/2009 11:35	1290	2140	257	1.97	< 0.01	7.0	11	26	29	660	4550	6.3	1320	0.2
PNR-10	4/13/2010 15:46	1430	2090	258	1.66	< 0.01	7.0	12	25	36	737	4680	6.6	1440	0.2
PNR-10	9/20/2010 12:30	1350	2050	250	1.81	0.03	7.0	11	24	30	712	4820	6.6	1330	0.2
PNR-10	5/5/2011 16:00	1480	2160	268	1.70	< 0.01	7.0	12	28	36	746	4960	6.4	1560	0.2
PNR-12	5/31/2000 0:00	78	2410	328	nm	96	7.6	17	nm	nm	362	1020	4.6	2030	nm
PNR-12	8/8/2001 15:00	74	2390	325	0.30	139	7.3	15	19	nm	397	4720	4.8	2130	nm
PNR-12	8/15/2001 16:00	72	2570	356	0.30	138	7.3	16	21	nm	381	4610	4.6	2050	nm
PNR-12	11/6/2001 16:20	72	2430	333	0.40	105	7.2	15	nm	65	336	4590	4.7	2040	nm
PNR-12	2/20/2002 11:55	67	2370	349	0.20	145	7.2	14	36	nm	373	4700	5.1	2170	nm
PNR-12	5/21/2002 11:00	56	2360	324	< 0.1	142	7.3	12	22	nm	342	4630	5.1	2250	0.2
PNR-12	8/19/2002 16:05	68	2070	304	1.10	83	7.4	11	21	88	298	3990	4.5	1830	0.3
PNR-12	11/5/2002 11:15	76	2470	331	< 0.1	130	7.2	12	19	69	328	4660	5.1	2200	0.2
PNR-12	3/4/2003 13:10	148	2420	340	< 0.1	128	7.2	15	19	139	361	4590	4.8	2200	0.2
PNR-12	5/27/2003 17:00	80	2280	316	< 0.1	112	7.2	13	17	181	323	4540	5.3	2200	0.3
PNR-12	8/13/2003 8:05	58	2440	341	< 0.1	133	7.1	11	20	33	314	4600	4.9	2180	0.2
PNR-12	11/4/2003 12:35	64	2380	354	< 0.1	135	7.2	12	21	47	331	4590	4.4	2240	0.2
PNR-12	3/1/2004 0:00														
PNR-12	6/8/2004 9:15	72	2410	342	< 0.1	337	7.2	11	19	34	389	4540	4.6	2120	0.3
PNR-12	9/14/2004 10:00	75	2540	359	< 0.1	104	7.1	12	21	17	345	4580	4.9	2080	0.2
PNR-12	11/16/2004 9:35	70	2640	366	< 0.1	135	7.4	12	22	34	340	4550	5.0	2100	0.3
PNR-12	2/28/2005 17:10	66	2530	363	< 0.1	126	7.1	12	22	25	361	4620	4.9	2100	0.3
PNR-12	5/23/2005 18:50	65	2420	342	< 0.1	130	6.9	11	20	24	354	4540	4.8	1980	0.3

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PNR-12	8/15/2005 6:00	63	2630	372	< 0.1	163	7.2	9	22	21	335	4600	4.9	2060	0.2
PNR-12	11/15/2005 9:45	71	2690	384	< 0.1	155	7.1	9	20	39	376	4520	5.0	2170	0.2
PNR-12	2/7/2006 13:00	66	2670	385	< 0.1	204	7.0	11	23	28	374	4550	5.0	2100	0.2
PNR-12	5/23/2006 10:50	72	2710	388	< 0.1	197	7.9	11	22	26	376	4400	5.0	2200	0.2
PNR-12	8/22/2006 16:10	68	2660	381	< 0.1	185	6.9	11	22	32	361	4540	5.1	2070	0.2
PNR-12	12/5/2006 15:45	69	2650	370	< 0.1	187	7.0	11	22	30	361	4700	5.3	2120	0.2
PNR-12	3/14/2007 12:15	71	2690	380	< 0.1	202	7.2	13	37	nm	367	4710	5.2	1970	0.2
PNR-12	10/3/2007 13:00	63	2460	349	< 0.1	144	7.3	8	22	45	321	4450	5.2	2060	0.2
PNR-12	3/26/2008 10:45	58	2500	355	< 0.1	166	7.1	9	22	22	333	4450	4.9	2100	0.2
PNR-12	10/23/2008 10:40	68	2580	366	< 0.1	125	7.1	9	22	36	360	4440	4.9	2110	0.2
PNR-12	4/20/2009 18:10	58	2490	354	< 0.1	157	7.1	10	22	23	336	3860	4.9	2100	0.2
PNR-12	10/3/2009 10:45	58	2490	351	< 0.1	107	7.2	10	23	27	335	4170	4.7	1990	0.2
PNR-12	4/14/2010 11:35	50	2370	338	<0.05	134	7.1	10	21	22	347	4320	4.9	2030	0.2
PNR-12	9/16/2010 14:50	51	2540	356	<0.05	164	7.4	10	22	27	346	4420	4.8	2010	0.2
PNR-12	5/3/2011 18:00	57	2240	339	0.11	142	7.2	11	23	72	342	4490	4.9	2150	0.2
PNR-13	8/15/2001 18:15	12300	4870	546	6.00	1.12	7.3	31	19	nm	6050	22200	27.3	862	nm
PNR-13	8/15/2001 19:00	11500	4480	492	5.10	1.46	7.2	42	20	nm	5710	21200	25.6	841	nm
PNR-13	11/7/2001 13:35	3420	2540	296	2.10	0.37	7.1	26	nm	26	1610	7780	10.9	1360	nm
PNR-13	2/19/2002 16:30	2220	2310	273	1.20	< 0.05	7.0	17	32	nm	1250	6720	9.4	1810	nm
PNR-13	5/22/2002 14:00	1040	2070	249	1.20	< 0.05	7.4	14	29	nm	680	5120	6.3	2270	0.3
PNR-13	8/20/2002 15:45	679	2080	257	1.40	< 0.05	7.2	12	24	30	588	4530	5.6	2000	0.4
PNR-13	11/5/2002 15:30	769	1900	227	1.30	< 0.05	7.2	14	22	30	493	4110	5.3	1730	0.4
PNR-13	3/4/2003 11:15	592	1880	224	1.20	< 0.05	7.1	11	23	37	437	3950	4.7	1810	0.4
PNR-13	5/28/2003 10:05	517	1910	230	1.10	< 0.05	7.2	14	24	28	471	3940	5.1	1770	0.5
PNR-13	8/13/2003 10:20	690	1550	193	1.10	< 0.05	7.1	11	23	29	374	3570	4.3	1180	0.3
PNR-13	11/4/2003 14:15	1200	1720	223	1.50	< 0.05	7.2	14	24	26	772	4630	5.6	1600	0.4
PNR-13	3/1/2004 0:00														
PNR-13	6/8/2004 15:30	860	1620	201	1.60	< 0.05	7.1	11	23	27	667	4190	5.6	1580	0.4
PNR-13	9/14/2004 10:00	565	1550	190	1.40	0.05	7.2	11	26	26	350	3150	4.1	1180	0.4
PNR-13	11/16/2004 15:30	624	1650	202	1.30	< 0.05	7.2	13	25	31	520	3480	4.7	1360	0.4
PNR-13	3/1/2005 13:25	447	1570	196	1.10	< 0.05	7.1	12	27	28	370	3110	3.9	1270	0.4
PNR-13	5/24/2005 12:00	470	1510	189	1.30	< 0.05	7.1	12	24	30	488	3610	4.5	1410	0.4
PNR-13	8/17/2005 9:40	541	1550	193	1.20	0.39	7.3	9	26	63	383	3440	4.5	1330	0.4
PNR-13	11/16/2005 10:50	500	1780	227	1.20	< 0.05	7.3	10	27	55	565	3840	4.7	1690	0.3
PNR-13	2/8/2006 10:40	410	1690	216	1.30	< 0.05	7.3	11	28	29	535	3750	4.6	1620	0.3
PNR-13	5/24/2006 13:15	385	1680	215	1.20	< 0.05	7.9	11	28	31	480	3240	4.3	1630	0.3
PNR-13	8/22/2006 14:25	437	1760	231	1.30	< 0.05	7.0	11	25	29	620	3880	5.1	1770	0.3
PNR-13	12/6/2006 11:30	769	1800	235	1.40	< 0.05	7.3	11	24	30	723	4430	6.1	1780	0.3
PNR-13	3/14/2007 16:20	407	1700	220	1.50	< 0.05	7.2	10	38	nm	546	3790	4.8	1670	0.3
PNR-13	10/7/2008 17:30	347	1630	210	1.20	< 0.05	7.2	9	26	37	495	3750	4.8	1740	0.3
PNR-13	3/27/2008 15:00	319	1630	206	1.20	< 0.05	6.9	10	27	30	423	3430	4.2	1630	0.3
PNR-13	10/25/2008 14:30	306	1640	211	1.50	< 0.05	7.3	9	26	40	455	3490	4.3	1720	0.4

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PNR-13	4/18/2009 17:55	235	1690	213	1.30	< 0.05	7.3	11	26	37	423	3080	4.3	1720	0.4
PNR-13	10/6/2009 10:50	244	1710	213	1.43	< 0.05	7.2	10	26	27	419	3380	4.1	1590	0.3
PNR-13	4/16/2010 17:40	225	1820	238	1.09	< 0.01	7.2	11	24	26	521	4170	4.7	2040	0.4
PNR-13	9/17/2010 11:15	181	1650	201	1.14	0.02	7.2	12	25	33	376	3340	3.9	1560	0.3
PNR-13	5/5/2011 11:30	166	1660	202	0.96	0.63	7.3	13	22	23	335	3370	3.8	1890	0.3
PNR-14	8/9/2001 16:00	44200	5110	397	23.80	< 0.05	6.5	327	31	nm	23100	70000	80.5	1460	nm
PNR-14	8/14/2001 9:45	44300	5190	394	24.00	< 0.05	6.6	310	31	nm	23200	69700	74.3	1330	nm
PNR-14	11/7/2001 14:35	40900	6370	519	28.10	< 0.05	6.3	170	nm	37	22200	67400	51.1	1490	nm
PNR-14	2/21/2002 11:30	43100	5910	483	29.80	< 0.05	6.6	249	25	nm	22700	64200	60.4	1300	nm
PNR-14	5/22/2002 12:05	39700	4630	358	22.20	< 0.05	6.4	282	42	nm	22000	67200	66.7	1730	0.4
PNR-14	8/20/2002 17:45	39900	4800	407	18.50	< 0.05	6.5	133	30	29	21200	66300	68.5	1510	0.3
PNR-14	11/6/2002 11:28	35300	5210	412	18.40	< 0.05	6.6	368	22	33	21500	65400	57.5	1590	0.3
PNR-14	3/4/2003 17:15	40200	5050	384	17.50	< 0.05	6.4	355	29	42	20800	65200	47.4	1650	0.3
PNR-14	5/28/2003 11:45	33300	4940	426	15.10	< 0.05	6.5	343	29	30	19300	60600	84.1	1460	0.3
PNR-14	8/13/2003 15:43	37400	4860	394	17.00	< 0.05	6.4	370	30	31	20700	62800	82.2	1030	0.3
PNR-14	11/5/2003 11:45	26400	5370	596	6.30	< 0.05	6.5	214	39	46	12400	43300	31.0	1210	0.4
PNR-14	3/17/2004 10:45	30300	4400	397	12.70	< 0.05	6.7	314	35	32	16800	49300	70.4	1080	0.4
PNR-14	6/9/2004 10:40	28100	3230	283	11.80	< 0.05	6.6	241	27	30	14500	45500	68.5	1400	0.4
PNR-14	9/14/2004 15:35	25000	3000	275	11.10	< 0.05	6.8	263	34	34	13800	39800	60.0	1300	0.4
PNR-14	11/17/2004 15:30	19300	2970	271	9.10	< 0.05	6.7	242	30	32	11700	36200	55.6	1140	0.4
PNR-14	3/2/2005 10:50	16500	2600	257	7.70	< 0.05	6.8	175	31	30	10400	29700	45.5	1480	0.5
PNR-14	5/25/2005 9:46	13600	2440	248	6.80	< 0.05	6.9	178	30	67	8840	25200	38.1	2110	0.5
PNR-14	8/17/2005 15:18	11100	2390	260	6.20	< 0.05	7.0	125	30	28	6900	21400	33.0	2270	0.5
PNR-14	11/16/2005 11:05	10800	3170	368	5.60	< 0.05	7.1	173	37	37	6850	20100	31.7	2040	0.4
PNR-14	2/9/2006 14:35	9060	2730	321	5.40	< 0.05	7.0	145	34	32	5650	18700	28.6	2140	0.3
PNR-14	5/24/2006 17:00	9220	2790	331	6.10	< 0.05	7.6	121	34	35	5530	17600	27.4	2080	0.4
PNR-14	8/23/2006 16:20	8220	2640	322	4.30	< 0.05	6.9	105	34	35	4930	16700	26.9	2060	0.4
PNR-14	12/7/2006 15:30	7230	2640	324	4.40	< 0.05	6.9	91	32	32	4530	15600	24.5	2080	0.4
PNR-14	3/14/2007 10:45	6590	2780	362	4.00	< 0.05	6.8	96	97	nm	4440	14600	23.2	1890	0.4
PNR-14	10/4/2007 16:50	6290	2640	351	3.10	< 0.05	6.7	76	30	35	3560	13500	21.7	2100	0.4
PNR-14	3/27/2008 13:15	5880	2650	356	2.90	< 0.05	6.8	70	33	31	3530	12800	20.0	1930	0.4
PNR-14	10/27/2008 11:30	5200	2770	377	9.20	0.06	7.0	68	31	33	3390	11800	18.2	2030	0.5
PNR-14	4/16/2009 14:00	4450	2310	315	2.20	< 0.05	7.2	59	28	31	2840	10400	16.7	1810	0.5
PNR-14	10/2/2009 11:00	4890	2550	355	2.00	< 0.01	7.0	55	31	31	2790	10600	16.6	1420	0.6
PNR-14	4/15/2010 14:00	5070	2430	327	2.20	< 0.01	6.9	54	29	28	2900	10600	16.4	1440	0.5
PNR-14	9/20/2010 14:50	4500	2540	336	2.40	< 0.01	6.9	53	31	33	2930	10500	15.7	1290	0.5
PNR-14	5/6/2011 10:30	4220	2430	324	1.16	< 0.01	6.9	49	34	32	2620	10200	14.0	1770	0.5
PNR-15	8/10/2001 8:15	43500	3370	243	14.40	< 0.05	7.4	440	42	nm	22700	66100	79.3	1470	nm
PNR-15	8/14/2001 13:00	40800	4060	277	15.40	< 0.05	7.0	480	48	nm	25200	66000	72.9	1650	nm
PNR-15	11/8/2001 9:10	37400	3340	237	15.60	0.08	6.7	382	nm	50	21300	62400	49.4	1430	nm
PNR-15	2/21/2002 14:54	45500	3430	232	15.70	0.06	6.8	462	70	nm	22700	68100	62.4	1420	nm

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Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-15	5/22/2002 14:55	43000	3300	226	14.90	< 0.05	6.6	398	61	nm	21900	68800	69.1	2300	0.3
PNR-15	8/21/2002 14:00	46200	3800	250	15.40	0.07	6.8	385	38	43	22100	70100	72.7	1840	0.4
PNR-15	11/6/2002 14:35	37400	3480	235	15.40	< 0.05	6.8	420	27	42	21700	67800	60.4	1750	0.3
PNR-15	3/5/2003 12:30	39300	3680	278	14.20	< 0.05	6.6	403	35	34	24800	64600	46.8	1730	0.4
PNR-15	5/28/2003 15:35	38600	3810	282	13.10	< 0.05	6.7	432	32	33	22200	65400	90.1	1380	0.4
PNR-15	8/14/2003 9:58	35900	3710	278	12.90	< 0.05	6.6	378	33	37	19800	59600	78.3	1020	0.4
PNR-15	11/5/2003 14:30	31800	3380	267	10.50	< 0.05	6.7	386	39	39	18700	51800	37.8	1100	0.4
PNR-15	3/17/2004 13:35	27600	3110	253	10.10	< 0.05	6.1	286	35	43	15800	45800	66.3	1160	0.4
PNR-15	6/8/2004 12:45	24700	2490	209	9.00	< 0.05	7.0	241	30	36	13900	37100	60.5	1530	0.5
PNR-15	9/15/2004 16:30	23300	2920	252	9.40	< 0.05	7.0	235	36	40	13200	39000	58.9	1310	0.4
PNR-15	11/18/2004 9:05	21300	2660	239	7.70	< 0.05	6.8	253	27	30	12000	35200	54.7	1310	0.5
PNR-15	3/2/2005 12:20	19600	2640	242	7.40	< 0.05	7.0	191	31	39	11800	33000	50.2	1290	0.5
PNR-15	5/25/2005 10:40	14700	2040	194	5.90	< 0.05	7.2	175	29	38	9080	26100	40.0	1650	0.7
PNR-15	8/17/2005 16:45	12700	2090	199	6.20	< 0.05	7.2	128	26	29	8400	27300	42.2	1200	0.6
PNR-15	11/16/2005 11:35	13800	2270	214	5.50	< 0.05	7.1	177	33	39	8830	22800	37.7	1420	0.6
PNR-15	2/8/2006 10:45	10400	1580	146	4.60	< 0.05	7.2	115	30	35	6920	19500	31.6	1560	0.7
PNR-15	5/24/2006 11:15	7470	1010	91	3.50	< 0.05	7.9	90	29	33	5310	14200	24.3	1840	0.9
PNR-15	8/23/2006 17:15	8720	1230	111	3.90	< 0.05	7.2	93	27	27	5950	16900	28.2	1670	0.7
PNR-15	12/7/2006 16:30	8790	1250	115	4.30	< 0.05	7.3	85	26	28	5720	17100	28.1	1650	0.8
PNR-15	3/14/2007 11:40	9290	1470	142	4.90	< 0.05	7.3	100	158	nm	6260	17600	28.7	1640	0.7
PNR-15	10/4/2007 18:00	9050	1340	126	4.60	< 0.05	7.2	96	28	36	6390	16800	28.0	1810	0.6
PNR-15	3/27/2008 15:20	7720	1130	113	3.70	< 0.05	7.3	81	24	35	5390	15100	25.0	1580	0.6
PNR-15	10/27/2008 12:30	6110	911	90	3.50	< 0.05	7.5	64	21	28	4510	12900	20.7	1910	0.7
PNR-15	4/16/2009 14:30	5000	705	71	2.30	< 0.05	7.7	60	21	22	3940	10600	18.3	1770	0.7
PNR-15	10/2/2009 11:40	4450	585	59	2.40	< 0.01	7.5	50	21	24	3370	9810	15.9	1400	0.7
PNR-15	4/15/2010 14:40	3670	486	49	2.30	< 0.01	7.5	50	20	23	3150	9100	13.7	1600	0.8
PNR-15	9/22/2010 11:30	2730	418	41	6	< 0.01	7.7	43	21	24	2940	8310	12.3	1440	0.9
PNR-15	5/6/2011 10:20	2720	409	39	2	< 0.01	7.7	38	26	40	2610	7920	11.3	1940	0.7
PNR-16	8/10/2001 15:15	33	2300	340	0.30	20.20	7.4	19	22	nm	282	4260	4.2	2480	nm
PNR-16	8/16/2001 18:35	33	2460	357	0.10	19.00	7.2	20	23	nm	299	4260	4.1	2380	nm
PNR-16	11/6/2001 16:05	26	2570	347	2.00	8.60	7.1	21	nm	158	337	4650	4.6	2780	nm
PNR-16	2/21/2002 10:20	28	2850	408	1.40	13.30	7.1	26	39	nm	427	4960	5.1	3180	nm
PNR-16	5/21/2002 15:50	16	2650	407	0.20	16.50	7.3	20	40	nm	289	5090	5.0	3460	0.5
PNR-16	8/20/2002 11:40	26	2860	452	< 0.1	17.70	7.3	14	24	42	371	5060	5.0	3270	0.5
PNR-16	11/5/2002 14:04	24	2810	428	< 0.1	18.20	7.2	21	22	30	286	5110	5.2	3210	0.5
PNR-16	3/4/2003 13:00	22	2770	460	0.50	18.40	7.1	20	24	103	361	5050	4.9	3190	0.4
PNR-16	5/27/2003 18:30	28	2760	419	< 0.1	18.70	7.1	19	24	26	285	4990	5.4	3090	0.5
PNR-16	8/13/2003 9:10	17	2730	417	0.20	18.20	7.1	20	24	37	302	5060	4.7	3120	0.4
PNR-16	11/4/2003 12:30	17	2790	446	0.50	17.80	7.3	23	25	33	312	5030	4.5	3260	0.4
PNR-16	3/17/2004 16:09	19	3010	457	0.40	16.30	7.0	22	27	35	320	5110	4.9	3250	0.5
PNR-16	6/8/2004 12:30	9	2740	425	< 0.1	19.30	7.1	20	24	33	301	4940	4.9	3070	0.6
PNR-16	9/14/2004 12:40	22	2960	454	< 0.1	18.80	7.3	22	27	41	294	4920	4.9	2990	0.5

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PNR-16	11/16/2004 12:30	24	2750	412	0.20	19.00	7.3	21	24	245	282	4840	4.9	2930	0.6
PNR-16	3/1/2005 14:30	21	2980	458	< 0.1	18.20	7.1	22	27	35	339	4960	4.9	2890	0.5
PNR-16	5/24/2005 13:58	19	2750	411	1.00	17.10	7.0	24	26	54	342	5000	4.9	2950	0.5
PNR-16	8/17/2005 9:30	18	2920	450	< 0.1	22.10	7.4	22	25	37	291	4960	5.0	2940	0.3
PNR-16	11/15/2005 15:15	20	3140	480	0.10	20.40	7.2	19	26	89	341	4960	5.0	3120	0.5
PNR-16	2/7/2006 16:47	20	2950	440	0.30	19.70	7.0	21	26	61	341	5000	5.1	3020	0.4
PNR-16	5/24/2006 12:25	23	3080	486	0.20	25.70	7.9	22	28	44	349	4780	5.1	3200	0.5
PNR-16	8/22/2006 13:20	19	2970	456	< 0.1	18.30	6.9	22	26	45	348	4860	5.2	2950	0.5
PNR-16	12/6/2006 13:00	20	2990	454	< 0.1	20.90	7.4	22	27	29	324	4970	5.3	3000	0.5
PNR-16	3/13/2007 12:45	20	3060	463	< 0.1	21.00	7.2	21	40	nm	330	5050	5.3	3120	0.5
PNR-16	10/3/2007 10:55	18	2950	443	0.80	15.10	7.2	24	37	42	403	5030	5.6	3150	0.4
PNR-16	3/26/2008 14:30	32	2910	436	0.60	19.30	7.1	20	26	92	341	5110	5.2	3160	0.5
PNR-16	10/23/2008 11:00	19	3000	454	< 0.1	17.20	7.1	20	26	36	380	4960	5.2	3140	0.5
PNR-16	4/17/2009 13:40	22	2770	429	< 0.1	21.90	7.2	20	27	32	288	4320	4.9	2920	0.5
PNR-16	10/3/2009 8:30	16	2570	397	< 0.05	22.80	7.2	18	28	29	295	3430	4.4	2360	0.5
PNR-16	4/14/2010 15:15	17	2790	417	< 0.05	21.80	7.1	22	26	30	358	4960	5.0	3070	0.4
PNR-16	9/18/2010 13:00	18	2540	375	< 0.05	22.10	7.3	20	26	58	276	4350	4.6	2510	0.5
PNR-16	5/3/2011 10:30	19	2620	395	< 0.05	23.30	7.2	20	27	45	288	4550	4.5	2960	0.5
PNR-17	8/22/2001 12:35	42500	5450	449	21.80	< 0.05	7.4	372	55	nm	22900	68800	65.4	1520	nm
PNR-17	8/22/2001 13:30	44200	5490	468	22.30	< 0.05	7.3	367	55	nm	22900	68700	66.4	1440	nm
PNR-17	11/8/2001 11:30	40300	10300	1070	31.50	0.10	7.1	289	nm	153	20800	61800	47.8	1490	nm
PNR-17	2/21/2002 17:00	41500	7120	608	29.90	< 0.05	6.8	291	111	nm	21200	65900	59.1	1120	nm
PNR-17	5/23/2002 10:50	42300	4990	386	22.90	< 0.05	6.8	289	76	nm	21000	62800	67.0	1480	0.4
PNR-17	8/21/2002 15:15	41000	4420	334	19.30	< 0.05	6.8	316	40	104	15400	70000	53.1	1400	0.4
PNR-17	11/6/2002 15:40	36300	4870	358	19.10	< 0.05	6.8	405	34	88	23500	67100	58.3	1630	0.4
PNR-17	3/5/2003 13:30	40600	4220	303	16.80	< 0.05	6.8	342	36	70	24000	65400	46.2	1580	0.4
PNR-17	5/28/2003 10:00	38300	3920	288	15.70	< 0.05	6.7	383	33	58	22000	66400	91.6	1320	0.4
PNR-17	8/14/2003 11:05	39700	9060	248	16.50	< 0.05	6.7	288	29	47	17600	65900	85.9	1020	0.4
PNR-17	11/6/2003 11:30	38600	3360	262	15.20	< 0.05	6.8	378	30	31	20500	62000	41.8	783	0.3
PNR-17	3/17/2004 15:10	36900	3490	302	12.90	< 0.05	6.7	326	32	35	20200	58100	83.2	536	0.3
PNR-17	6/9/2004 15:45	35600	3070	277	12.40	< 0.05	6.7	274	30	54	18700	54700	81.4	692	0.4
PNR-17	9/16/2004 9:35	31300	2820	268	12.00	< 0.05	6.9	271	32	48	17500	50000	74.5	579	0.4
PNR-17	11/18/2004 12:20	22200	2160	224	9.20	0.19	7.1	269	29	41	15000	43200	66.6	311	0.5
PNR-17	3/2/2005 15:30	20500	1650	179	7.20	< 0.05	7.2	209	33	41	13400	35400	54.9	506	0.9
PNR-17	5/25/2005 14:25	17300	1250	151	6.60	< 0.05	7.2	176	30	35	11200	30500	47.2	757	0.9
PNR-17	8/17/2005 17:25	12000	877	112	5.30	< 0.05	7.4	100	27	30	8330	25700	41.3	583	0.7
PNR-17	11/16/2005 14:01	11400	644	88	3.60	< 0.05	7.6	74	27	31	7670	18600	31.5	755	1.0
PNR-17	2/8/2006 14:05	8080	397	48	3.60	< 0.05	7.9	93	26	24	5970	15700	25.9	814	1.1
PNR-17	5/24/2006 13:50	7200	311	39	3.40	< 0.05	8.0	69	24	34	5240	12800	22.6	1070	0.8
PNR-17	8/24/2006 12:45	5500	254	32	2.40	<0.05	7.9	59	23	26	4710	11300	19.6	1180	1.1
PNR-17	12/8/2006 12:30	4620	221	28	10.40	<0.05	8.1	51	21	21	3990	10500	17.4	1290	1.1
PNR-17	3/15/2007 11:49	4250	225	29	2.20	< 0.05	8.1	50	73	nm	3660	9400	15.5	1430	1.2

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PNR-18	8/8/2001 16:00	57	1580	215	2.40	< 0.05	7.3	12	20	nm	193	2740	2.9	1470	nm
PNR-18	8/16/2001 11:00	56	1630	235	2.30	< 0.05	7.3	11	24	nm	203	2900	3.0	1520	nm
PNR-18	11/7/2001 10:20	84	1470	200	1.40	0.13	7.5	10	nm	31	184	2650	2.9	1220	nm
PNR-18	2/20/2002 11:24	70	1750	238	2.20	< 0.05	7.3	10	26	nm	241	2950	3.5	1600	nm
PNR-18	5/21/2002 10:30	42	1600	217	2.80	< 0.05	7.4	7	28	nm	172	2960	3.4	1900	0.3
PNR-18	8/19/2002 16:50	57	1800	256	2.50	0.05	7.1	7	24	32	152	3130	3.5	1690	0.3
PNR-18	11/5/2002 11:55	60	1800	240	2.40	< 0.05	7.2	8	23	30	184	3210	3.6	1790	0.3
PNR-18	3/4/2003 14:35	67	1820	241	2.40	< 0.05	7.0	8	24	37	180	3140	3.6	1760	0.3
PNR-18	5/13/2003 11:45	60	1860	254	2.60	< 0.05	7.0	8	23	33	200	3150	3.4	1690	0.3
PNR-18	8/14/2003 8:40	45	1750	235	2.20	< 0.05	6.9	7	24	143	196	3200	3.5	1710	0.3
PNR-18	11/4/2003 16:00	52	1790	264	2.30	< 0.05	7.2	8	26	32	234	3250	3.2	1820	0.3
PNR-18	3/1/2004 0:00														
PNR-18	6/8/2004 9:55	60	2040	280	2.80	< 0.05	7.2	8	27	114	261	3210	3.4	1640	0.3
PNR-18	9/14/2004 8:55	52	1860	254	2.80	0.05	7.2	8	25	28	263	3280	3.7	1740	0.3
PNR-18	11/18/2004 14:25	57	1870	254	2.50	< 0.05	7.1	8	26	28	272	3350	3.8	1710	0.3
PNR-18	2/28/2005 17:50	53	1870	262	3.20	< 0.05	7.0	8	28	34	247	3240	3.6	1660	0.2
PNR-18	5/25/2005 17:30	57	1840	256	3.90	< 0.05	7.0	8	26	32	236	3150	3.5	1620	0.3
PNR-18	8/15/2005 18:00	55	1940	270	2.90	< 0.05	7.2	7	25	25	274	3330	3.6	1600	0.2
PNR-18	11/15/2005 10:30	60	1970	278	2.60	< 0.05	7.2	6	25	27	298	3300	3.8	1700	0.3
PNR-18	2/7/2006 11:30	61	1850	262	2.90	< 0.05	7.0	8	27	30	300	3270	3.8	1660	0.2
PNR-18	5/23/2006 11:15	69	1840	259	2.60	< 0.05	7.8	9	28	30	326	3030	3.8	1770	0.2
PNR-18	8/22/2006 17:17	73	1870	261	2.30	< 0.05	7.0	9	27	28	346	3360	4.0	1670	0.2
PNR-18	12/5/2006 14:45	74	1830	256	2.70	< 0.05	7.0	8	27	29	310	3420	4.0	1670	0.2
PNR-18	3/14/2007 11:10	86	1850	256	3.20	< 0.05	7.2	7	42	nm	360	3480	4.1	1720	0.2
PNR-18	10/2/2007 17:20	86	1810	252	3.00	< 0.05	7.2	8	27	29	360	3490	4.4	1730	0.2
PNR-18	3/26/2008 13:30	93	1760	247	2.30	< 0.05	7.2	7	26	28	375	3570	4.1	1670	0.2
PNR-18	10/22/2008 16:00	119	1780	250	3.00	< 0.05	7.4	7	26	30	405	3570	4.1	1710	0.2
PNR-18	4/17/2009 15:50	127	1730	241	2.90	< 0.05	7.1	8	27	30	386	3160	4.1	1630	0.3
PNR-18	10/4/2009 11:30	112	1820	253	3.00	< 0.01	7.1	8	27	31	396	3080	4.0	1590	0.2
PNR-18	4/13/2010 13:20	117	1770	245	3.60	< 0.01	7.1	9	28	31	397	3570	4.1	1680	0.2
PNR-18	9/16/2010 17:00	124	1830	248	3.20	< 0.01	7.1	8	28	28	413	3500	4.0	1580	0.2
PNR-18	5/3/2011 16:45	149	1720	236	20.36	0.03	7.1	8	27	82	388	3480	4.0	1780	0.2
PNR-19	8/7/2001 14:50	3820	4410	631	<0.1	18.0	7.0	19	21	nm	819	8810	10.6	1160	nm
PNR-19	8/15/2001 16:40	3180	4260	610	<0.1	13.8	7.2	20	23	nm	745	8260	9.5	1120	nm
PNR-19	11/6/2001 15:20	3770	4760	675	<0.1	20.2	7.1	20	nm	25	861	8650	11.4	1270	nm
PNR-19	2/19/2002 15:05	4410	5710	799	<0.1	23.0	7.0	26	26	nm	1130	9380	14.1	1400	nm
PNR-19	5/22/2002 14:55	6080	5570	791	<0.1	23.8	7.1	25	26	nm	1300	11300	15.6	1160	0.2
PNR-19	8/20/2002 12:30	5070	5510	787	< 0.1	22.1	7.0	20	21	27	1210	11300	15.1	1470	0.3
PNR-19	11/5/2002 13:17	4960	5460	755	< 0.1	23.3	7.1	22	19	25	1220	11400	16.2	1380	0.3
PNR-19	3/4/2003 12:20	5520	5910	818	< 0.1	25.7	7.0	25	21	24	1450	11500	16.6	1560	0.3
PNR-19	5/27/2003 17:20	5880	5890	813	< 0.1	24.4	6.9	26	21	23	1470	12900	18.9	1420	0.3

Table 2 - Inorganic Water Chemistry Data

Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

Last update: May 2011

Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-19	8/13/2003 8:55	6210	5880	810	< 0.1	24.6	7.0	24	20	31	1570	13000	12.4	1130	0.3
PNR-19	11/4/2003 10:50	6820	5800	834	< 0.1	28.7	7.0	30	22	25	1680	12200	15.8	1390	0.3
PNR-19	3/17/2004 16:40	7970	7210	976	< 0.1	24.8	7.0	33	24	28	2140	14700	20.0	1390	0.3
PNR-19	6/8/2004 13:55	6860	6060	825	< 0.1	25.0	7.0	30	21	25	2110	15200	19.3	1560	0.3
PNR-19	9/14/2004 14:15	5580	5120	691	< 0.1	24.6	7.1	34	24	25	1870	12600	17.1	1110	0.3
PNR-19	11/16/2004 13:45	6270	5600	745	< 0.1	27.2	7.0	30	22	23	1990	13000	18.6	1250	0.3
PNR-19	3/1/2005 15:35	7590	6460	877	< 0.1	26.3	7.0	34	24	23	2680	15700	21.8	1380	0.3
PNR-19	5/25/2005 12:36	7370	6130	824	< 0.1	28.3	7.0	35	22	20	2570	16700	22.1	1540	0.3
PNR-19	8/17/2005 12:23	6970	5830	782	< 0.1	18.1	7.1	28	21	20	2380	15600	20.8	1410	0.3
PNR-19	11/16/2005 12:00	8620	6650	888	< 0.1	27.4	7.1	42	22	22	3050	16600	24.1	1350	0.3
PNR-19	2/8/2006 12:55	8450	7290	968	< 0.1	28.2	7.1	40	23	23	3340	16100	24.9	1530	0.3
PNR-19	5/24/2006 15:20	9690	6850	921	< 0.1	25.4	7.6	45	22	24	3660	16500	26.4	1430	0.3
PNR-19	8/23/2006 14:05	9690	6990	905	< 0.1	21.3	6.8	40	27	27	3830	19300	28.6	1350	0.3
PNR-19	12/7/2006 15:30	13300	8350	1080	< 0.1	21.4	7.0	40	22	31	5220	24700	37.9	1510	0.2
PNR-19	3/14/2007 15:00	10400	6830	891	< 0.1	20.7	7.0	53	224	nm	4260	20000	30.0	1040	0.3
PNR-19	10/3/2007 14:50	11200	6010	762	< 0.1	26.2	6.9	38	23	25	4370	20000	31.4	1350	0.3
PNR-19	3/27/2008 16:30	13100	7560	647	< 0.1	18.7	6.6	42	26	24	5940	24000	36.3	1290	0.2
PNR-19	10/25/2008 15:15	13300	7320	920	< 0.1	16.3	7.0	43	20	27	5890	23200	35.1	1560	0.2
PNR-19	4/19/2009 13:55	11700	6020	747	< 0.1	20.0	6.9	63	16	19	5540	20200	34.2	1370	0.2
PNR-19	10/6/2009 13:45	9730	4590	574	< 0.05	24.6	7.1	34	24	24	4500	16300	26.5	933	0.3
PNR-19	4/19/2010 10:45	13900	5410	683	0.07	24.5	6.9	39	22	13	5230	20400	31.0	1330	0.3
PNR-19	9/22/2010 12:30	8470	4130	512	0.08	27.8	7.3	33	22	22	4310	16200	23.1	1370	0.3
PNR-19	5/4/2011 17:10	5130	2600	340	0.16	23.9	7.3	21	23	25	2690	10500	14.6	1080	0.4
PNR-20	8/8/2001 9:50	16100	9420	1230	<0.1	11.2	7.2	42	19	nm	5180	29000	38.1	1190	nm
PNR-20	8/15/2001 17:15	12900	9710	1270	<0.1	10.4	7.1	46	24	nm	4800	25400	29.6	1420	nm
PNR-20	11/8/2001 10:00	10600	8940	1200	0.20	4.3	6.9	37	nm	68	3480	19900	26.8	1460	nm
PNR-20	2/19/2002 15:40	15400	9840	1280	<0.1	10.8	6.8	43	26	nm	5460	25200	32.7	1180	nm
PNR-20	5/22/2002 11:00	17400	8540	1110	<0.1	11.4	7.0	40	38	nm	5050	29600	36.4	1030	0.2
PNR-20	8/20/2002 13:25	17100	10000	1350	< 0.1	9.5	6.8	35	21	45	6840	31400	36.8	1390	0.2
PNR-20	11/5/2002 16:05	18400	10000	1260	< 0.1	11.0	6.9	44	16	27	6790	33600	33.3	1500	0.2
PNR-20	3/4/2003 14:15	17400	9330	1180	< 0.1	10.6	6.8	47	19	34	6840	30200	25.6	1650	0.2
PNR-20	5/28/2003 11:00	17300	10100	1270	< 0.1	11.6	6.8	50	21	21	7300	32800	43.8	1270	0.3
PNR-20	8/13/2003 11:35	18100	9060	1150	< 0.1	11.7	6.6	42	21	40	6260	32000	40.4	1130	0.2
PNR-20	11/5/2003 12:50	21300	10100	1260	< 0.1	9.2	6.8	62	24	84	8580	35700	27.5	1030	0.2
PNR-20	3/18/2004 12:50	16700	9250	1170	< 0.1	12.7	6.8	46	22	50	6240	28600	39.8	1110	0.2
PNR-20	6/8/2004 12:15	19700	8710	1080	< 0.1	10.7	6.8	57	20	35	8600	34800	49.6	1580	0.2
PNR-20	9/14/2004 13:42	15700	8330	1030	< 0.1	12.8	6.9	58	23	27	6970	31500	43.4	1410	0.2
PNR-20	11/17/2004 10:40	20000	9180	1090	< 0.1	10.3	6.8	91	22	24	9100	35800	52.8	1510	0.2
PNR-20	3/1/2005 16:25	18600	8200	998	< 0.1	11.5	6.8	56	26	28	8570	32400	48.1	1410	0.4
PNR-20	5/24/2005 17:35	15600	8100	1020	< 0.1	15.0	6.9	50	22	27	7180	29700	40.9	1360	0.2
PNR-20	8/16/2005 15:45	15600	8070	988	< 0.1	15.9	7.1	36	19	19	8140	34300	47.2	1160	0.2
PNR-20	11/15/2005 12:15	19500	8070	975	< 0.1	11.8	6.9	57	22	21	9580	33700	49.1	1360	0.2

Table 2 - Inorganic Water Chemistry Data

Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

Last update: May 2011

Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-20	2/9/2006 10:50	15300	7950	972	< 0.1	15.4	6.9	82	22	21	7580	26700	41.2	1420	0.2
PNR-20	5/23/2006 17:55	21300	7780	917	0.10	10.9	7.5	61	21	21	10500	35500	53.1	1480	0.2
PNR-20	8/23/2006 15:50	20600	7750	891	0.10	11.9	6.7	53	30	26	10100	35600	54.4	1500	0.2
PNR-20	12/7/2006 16:10	16400	6780	824	< 0.1	14.4	6.9	36	20	21	7630	29800	45.7	1490	0.2
PNR-20	3/15/2007 10:18	20800	7950	934	0.20	11.4	6.7	101	334	nm	11100	35800	53.8	1390	0.2
PNR-20	10/4/2007 10:25	20000	7050	823	0.20	12.3	6.7	51	22	29	9060	33600	52.4	1610	0.2
PNR-20	3/27/2008 17:40	20100	7630	884	0.20	13.5	6.8	49	27	24	10900	34500	52.0	1410	0.2
PNR-20	10/25/2008 16:30	16200	6700	805	0.20	16.8	6.9	38	19	20	7880	27900	42.3	1680	0.2
PNR-20	4/21/2009 15:40	23100	8210	970	0.40	9.6	6.7	59	7	14	11700	35200	54.2	1180	0.1
PNR-20	10/6/2009 14:30	22400	9560	1170	0.29	11.8	6.9	47	25	23	9670	39400	53.8	1010	< 0.1
PNR-20	4/19/2010 12:40	26100	10400	1320	0.16	10.6	6.8	69	19	22	9830	38900	53.2	1250	0.1
PNR-20	9/22/2010 13:15	22000	11100	1330	0.13	12.2	7.1	64	19	27	11600	37900	51.3	1200	0.2
PNR-20	5/4/2011 17:50	19100	7770	954	0.12	9.2	7.0	43	22	57	8120	35000	43.5	1680	0.2
PNR-21	8/9/2001 10:15	26500	9670	1100	2.00	8.16	6.8	63	16	nm	12500	47000	58.5	1450	nm
PNR-21	8/16/2001 16:40	26900	10200	1170	4.20	< 0.05	6.9	61	17	nm	13200	47000	53.4	1510	nm
PNR-21	11/8/2001 11:00	27900	9930	1140	2.40	8.53	6.7	68	nm	39	13100	45300	40.4	1630	nm
PNR-21	2/21/2002 9:15	28300	9280	1060	2.10	7.54	6.9	66	27	nm	12900	45800	48.1	1410	nm
PNR-21	5/22/2002 11:55	28600	8440	959	2.50	7.82	6.8	60	27	nm	12600	47400	53.2	1560	0.1
PNR-21	8/21/2002 9:00	29200	8580	980	2.80	7.51	6.8	74	15	18	12900	51200	54.2	1690	0.2
PNR-21	11/5/2002 15:30	28600	9180	1020	2.60	7.99	6.8	61	11	< 20	13000	49600	44.6	1700	0.2
PNR-21	3/5/2003 14:50	27000	8450	897	3.20	7.64	6.7	56	13	36	12200	46400	33.6	2070	0.3
PNR-21	5/28/2003 11:50	27100	8860	978	2.70	7.92	6.7	73	16	44	13200	49100	67.1	1460	0.2
PNR-21	8/13/2003 14:05	28600	217	928	3.00	7.71	6.6	70	16	38	13000	48800	68.6	1160	0.2
PNR-21	11/5/2003 15:30	28100	6670	738	3.20	8.09	6.8	57	12	27	10600	46300	34.0	1170	0.2
PNR-21	3/1/2004 0:00														
PNR-21	6/8/2004 12:55	28100	7880	881	3.40	7.86	6.8	67	15	43	13200	47800	66.7	1690	0.2
PNR-21	9/14/2004 14:15	27800	8530	942	3.50	9.05	6.8	74	23	25	13600	48400	66.8	1620	0.2
PNR-21	11/17/2004 12:40	25600	8730	942	3.50	8.72	6.7	76	19	23	13400	45800	68.4	1530	0.2
PNR-21	3/1/2005 16:32	26400	8550	939	3.20	8.62	6.7	78	20	23	14600	46900	66.0	1470	0.2
PNR-21	5/24/2005 18:25	26600	8030	876	3.40	10.20	6.7	70	15	17	13800	47000	65.2	1640	0.2
PNR-21	8/16/2005 16:20	22600	8130	899	3.60	9.84	7.0	50	16	11	12600	47000	65.2	1350	0.2
PNR-21	11/15/2005 13:21	27700	7930	869	3.30	10.0	6.8	68	17	19	14200	45600	66.9	1480	0.2
PNR-21	2/9/2006 11:45	25200	8360	889	6.30	12.0	6.9	107	16	17	14100	42800	64.7	1530	0.1
PNR-21	5/24/2006 17:20	26300	7600	820	4.10	13.7	7.5	82	18	21	13600	42600	64.2	1690	0.2
PNR-21	8/23/2006 17:00	26000	7620	816	3.50	11.9	6.6	66	23	21	13900	42100	67.4	1600	0.2
PNR-21	12/7/2006 14:45	24600	7220	773	3.40	12.9	6.8	59	18	17	12800	42500	65.5	1700	0.2
PNR-21	3/15/2007 11:15	25200	7740	853	3.40	16.9	6.7	94	23	nm	13600	43100	63.6	1560	0.2
PNR-21	10/4/2007 11:40	25300	7410	804	3.90	15.4	6.6	62	21	24	13100	42000	64.8	1730	0.2
PNR-21	3/27/2008 18:20	24100	7240	786	3.10	16.7	6.7	54	20	33	13500	39700	61.6	1590	0.2
PNR-21	10/25/2008 15:50	23200	7130	771	3.60	19.5	6.8	58	13	29	12700	39500	58.7	1810	0.2
PNR-21	4/21/2009 16:35	19900	6140	684	2.90	15.2	6.7	55	3	< 10	11200	34600	54.0	1780	0.2
PNR-21	10/6/2009 14:00	19900	5900	665	2.70	13.8	6.9	47	21	22	10200	29900	47.8	1290	< 0.1

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Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation
DOWL HKM Job No.: 14B8.05101.01
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Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-21	4/19/2010 11:50	18300	4700	530	1.49	14.0	6.8	39	16	16	8010	26500	40.1	1600	0.2
PNR-21	9/21/2010 16:20	12800	4040	458	16.0	19.0	7.1	36	15	17	6800	21600	33.1	1310	0.2
PNR-21	5/5/2011 18:10	9910	3380	396	1.0	9.0	7.2	30	25	31	5850	18100	28.4	1680	0.2
PNR-22	8/8/2001 17:10	467	1250	180	3.50	< 0.05	7.2	9	22	nm	434	2900	3.8	989	nm
PNR-22	8/16/2001 11:35	463	1340	193	4.00	< 0.05	7.2	9	26	nm	464	2920	3.8	959	nm
PNR-22	11/7/2001 9:10	548	1290	188	4.10	0.06	7.4	8	nm	33	421	2870	3.9	833	nm
PNR-22	2/20/2002 14:10	523	1310	195	3.80	< 0.05	6.9	9	27	nm	467	2960	4.3	943	nm
PNR-22	5/21/2002 12:15	635	1260	182	5.00	< 0.05	7.4	9	30	nm	542	3040	4.3	824	0.3
PNR-22	8/20/2002 15:35	676	1420	213	5.20	0.05	7.2	7	27	33	407	3150	4.6	924	0.3
PNR-22	11/5/2002 12:50	790	1490	213	4.30	< 0.05	7.2	9	26	31	462	3300	4.8	935	0.2
PNR-22	3/4/2003 15:10	857	1540	218	5.60	< 0.05	7.0	10	23	29	487	3430	5.1	942	0.3
PNR-22	5/13/2003 12:45	925	1550	225	5.30	< 0.05	7.0	9	26	29	474	3480	4.9	890	0.3
PNR-22	8/13/2003 9:15	977	1590	228	5.20	< 0.05	6.8	9	27	37	487	3640	5.1	766	0.3
PNR-22	11/5/2003 12:25	1100	1650	252	5.50	< 0.05	7.2	10	28	40	510	3640	4.7	904	0.3
PNR-22	3/1/2004 0:00														
PNR-22	6/8/2004 16:10	1150	1800	259	5.90	< 0.05	7.1	10	27	34	489	3910	5.2	993	0.3
PNR-22	9/15/2004 8:50	1100	1880	270	6.30	< 0.05	7.2	10	29	33	525	3810	5.6	873	0.3
PNR-22	11/18/2004 14:35	1150	1920	274	5.40	< 0.05	7.0	11	31	43	524	3840	5.7	906	0.3
PNR-22	3/1/2005 11:00	1160	1980	290	5.80	< 0.05	7.0	11	31	31	586	3890	5.7	902	0.3
PNR-22	5/24/2005 10:07	1130	1880	274	6.20	< 0.05	6.9	11	27	37	557	3960	5.6	837	0.3
PNR-22	8/16/2005 9:30	1150	2030	294	6.30	< 0.05	7.2	8	29	26	547	3890	5.7	918	0.3
PNR-22	11/15/2005 13:40	1180	2130	310	5.20	< 0.05	7.2	7	29	30	588	3760	5.7	923	0.3
PNR-22	2/7/2006 10:30	1080	2000	290	6.30	< 0.05	7.0	10	30	35	565	3790	5.6	864	0.2
PNR-22	5/23/2006 13:05	1150	1960	287	5.50	< 0.05	7.8	11	30	48	576	3450	5.7	938	0.2
PNR-22	8/22/2006 18:00	1110	2050	295	5.80	< 0.05	7.0	11	30	33	580	3970	5.9	945	0.2
PNR-22	12/6/2006 9:55	1080	1960	280	5.80	< 0.05	7.0	10	29	31	546	3830	5.9	961	0.2
PNR-22	3/13/2007 15:25	1010	1970	287	6.40	< 0.05	7.1	10	34	nm	563	3800	5.7	875	0.2
PNR-22	10/3/2007 16:45	994	1850	267	6.60	< 0.05	7.0	9	29	32	505	3780	5.8	982	0.2
PNR-22	3/26/2008 17:45	932	1820	263	6.20	< 0.05	7.1	8	30	32	544	3690	5.5	965	0.2
PNR-22	10/22/2008 18:15	895	1850	268	6.70	< 0.05	7.2	9	30	35	532	3720	4.0	1060	0.2
PNR-22	4/18/2009 13:10	895	1700	244	6.30	0.05	7.1	9	28	33	482	2970	5.2	958	0.3
PNR-22	10/2/2009 12:25	748	1720	249	6.00	0.02	7.1	9	29	32	509	3350	5.0	876	0.2
PNR-22	4/13/2010 14:35	742	1640	238	5.30	0.54	7.0	10	30	30	540	3390	4.8	1030	0.2
PNR-22	9/18/2010 10:45	631	1560	226	4.29	0.04	7.2	10	29	31	499	3320	4.7	939	0.2
PNR-22	5/5/2011 15:30	552	1650	243	4.40	0.06	7.2	9	30	32	472	3420	4.3	1250	0.3
PNR-23	8/9/2001 17:30	41300	3270	275	14.10	< 0.05	3.7	411	59	nm	20300	62400	77.3	1480	nm
PNR-23	8/14/2001 10:30	45000	3730	282	15.90	< 0.05	6.5	480	68	nm	23800	68000	74.2	1600	nm
PNR-23	11/8/2001 13:15	33600	8520	789	22.90	3.82	6.4	312	nm	114	18200	62600	47.0	1450	nm
PNR-23	2/21/2002 12:25	41500	6780	572	24.50	0.05	6.6	313	73	nm	20400	63700	58.7	1180	nm
PNR-23	5/23/2002 11:15	42200	4570	376	18.80	< 0.05	6.4	348	95	nm	21100	68200	68.3	1490	2.1
PNR-23	8/21/2002 12:55	43300	4670	392	18.10	< 0.05	6.6	293	58	78	18000	70100	68.5	1710	2.3

Table 2 - Inorganic Water Chemistry Data

Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

Last update: May 2011

Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-23	11/6/2002 12:15	36800	4290	324	17.40	< 0.05	6.5	410	63	71	22100	67300	60.2	1670	2.2
PNR-23	3/5/2003 11:20	37400	3930	276	15.90	< 0.05	6.6	373	55	54	21700	66600	48.5	1830	2.4
PNR-23	5/28/2003 14:40	40900	3920	296	15.00	< 0.05	6.4	474	54	73	23800	68100	93.8	1420	2.6
PNR-23	8/14/2003 8:43	39900	4120	314	17.00	0.10	6.6	433	54	63	22100	66300	87.6	1030	2.4
PNR-23	11/6/2003 10:10	40900	3450	270	17.60	< 0.05	6.5	408	46	51	19500	65700	42.2	1140	2.3
PNR-23	3/17/2004 11:40	42600	4630	364	16.80	< 0.05	6.6	460	56	60	23700	66000	91.7	1080	2.3
PNR-23	6/9/2004 14:10	41800	4340	344	16.40	< 0.05	6.7	446	51	53	23900	63900	93.3	1610	3.3
PNR-23	9/15/2004 17:40	41800	4710	386	18.10	< 0.05	6.8	403	52	60	21900	66100	92.6	1530	2.8
PNR-23	11/18/2004 11:00	35800	4390	368	15.70	0.10	6.5	451	49	52	21800	63200	92.2	1250	2.8
PNR-23	3/2/2005 11:35	38800	4700	392	16.60	0.09	6.5	399	60	45	23800	64700	92.4	1330	2.6
PNR-23	5/25/2005 13:00	39800	4600	377	17.50	< 0.05	6.5	444	49	47	23800	62500	91.1	2600	2.6
PNR-23	8/17/2005 15:20	38800	4370	368	17.30	< 0.05	6.6	313	41	47	20200	62000	91.1	1360	2.5
PNR-23	11/16/2005 12:15	39400	4660	385	17.30	< 0.05	6.7	478	53	50	24900	59600	31.5	1240	2.3
PNR-23	2/9/2006 16:00	35300	3620	285	15.70	< 0.05	6.7	346	49	49	21300	53800	85.3	1180	2.4
PNR-23	5/25/2006 11:15	35400	3940	320	18.30	< 0.05	7.4	326	51	52	21800	55000	83.8	1120	2.1
PNR-23	8/24/2006 10:18	33600	3420	276	14.00	< 0.05	6.6	298	49	49	20200	53500	85.2	1070	2.1
PNR-23	12/8/2006 10:10	31800	3130	266	16.00	< 0.05	6.7	274	48	49	18800	51500	80.0	1050	2.6
PNR-23	3/14/2007 15:00	28300	3210	293	13.90	< 0.05	6.6	290	206	nm	18400	46500	73.4	889	2.5
PNR-23	10/5/2007 12:30	25300	2620	242	10.20	< 0.05	6.8	201	50	46	14100	39700	62.1	1080	2.6
PNR-23	3/27/2008 16:05	21100	2100	192	8.60	< 0.05	6.8	174	47	49	12600	35100	55.9	994	3.4
PNR-23	10/27/2008 14:56	16900	1590	139	8.60	< 0.05	7.2	140	44	48	11100	28000	44.6	1280	4.8
PNR-23	4/16/2009 15:00	12300	1070	106	4.90	< 0.05	7.4	110	39	34	8030	22000	36.3	1150	6.3
PNR-23	10/2/2009 12:00	10700	944	98	4.70	< 0.01	7.3	86	37	37	6600	18000	30.2	827	5.3
PNR-23	4/15/2010 15:40	4950	450	52	2.80	< 0.01	7.4	48	38	38	3720	9810	16.1	881	7.2
PNR-23	9/21/2010 10:30	2370	175	19	1.70	0.02	8.0	30	37	42	2460	6940	10.4	830	11.0
PNR-23	5/5/2011 10:30	1500	109	12	0.72	0.03	7.9	20	31	35	1800	5210	82.8	1070	2.4
PNR-24	8/14/2001 12:00	41100	3240	180	14.80	< 0.05	6.8	470	73	nm	24900	67700	73.8	1730	nm
PNR-24	8/14/2001 18:20	43400	3450	206	14.90	< 0.05	6.8	500	65	nm	23900	67000	51.3	1730	nm
PNR-24	11/8/2001 13:40	34600	3750	248	14.50	< 0.05	6.5	379	nm	320	19400	61000	49.2	1690	nm
PNR-24	2/21/2002 13:55	44700	3160	150	17.20	< 0.05	6.8	498	163	nm	23500	68500	62.6	1450	nm
PNR-24	5/23/2002 11:50	44700	2760	159	14.50	< 0.05	6.7	404	207	nm	21300	69000	71.2	1940	3.7
PNR-24	8/21/2002 13:10	44400	3360	170	16.00	< 0.05	6.7	435	59	199	21600	72200	73.9	1470	3.7
PNR-24	11/6/2002 12:32	36900	3700	219	17.00	< 0.05	6.7	452	50	225	22100	68300	61.1	1670	3.5
PNR-24	3/5/2003 11:40	41300	4190	283	16.80	0.07	6.6	401	62	219	22500	66200	47.3	1740	3.5
PNR-24	5/28/2003 14:50	40800	4190	306	17.90	< 0.05	6.9	438	55	132	23300	68400	94.0	1440	3.3
PNR-24	8/14/2003 13:08	41300	11300	313	17.80	< 0.05	6.8	402	58	76	22000	68100	88.6	1130	3.1
PNR-24	11/6/2003 11:00	40900	3410	254	19.30	< 0.05	6.8	385	47	89	19500	64700	41.9	1080	3.3
PNR-24	3/17/2004 12:10	36900	3570	256	14.40	< 0.05	6.8	371	56	142	20000	56200	80.1	956	3.6
PNR-24	6/9/2004 14:20	32500	2760	213	12.70	< 0.05	6.9	311	52	110	18000	49700	75.8	1160	4.3
PNR-24	9/15/2004 18:05	25100	1890	171	10.20	< 0.05	7.0	235	57	125	14200	40200	61.4	407	4.6
PNR-24	11/18/2004 11:05	22000	1360	129	7.70	0.12	6.9	254	64	73	12400	34400	55.0	273	4.6
PNR-24	3/2/2005 13:25	18500	1100	117	6.90	0.05	7.1	174	59	63	11800	29800	46.5	211	4.9

Table 2 - Inorganic Water Chemistry Data

Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

Last update: May 2011

Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-24	5/25/2005 13:45	14900	840	94	5.10	< 0.05	7.0	164	55	80	9980	24000	41.0	106	5.0
PNR-24	8/17/2005 16:05	12600	583	68	4.80	< 0.05	7.2	93	52	70	7910	22100	36.2	43	5.6
PNR-24	11/16/2005 16:15	10600	450	55	3.30	< 0.05	7.2	120	60	101	7410	17600	29.7	9	7.1
PNR-24	2/8/2006 13:30	8610	309	32	3.70	< 0.05	7.1	109	57	57	6220	15200	26.1	12	8.8
PNR-24	5/24/2006 12:55	7840	191	22	2.50	< 0.05	7.9	67	50	53	5330	12800	22.8	14	10.8
PNR-24	8/24/2006 11:22	6700	135	15	2.50	<0.05	7.4	61	48	46	4850	11800	21.5	18	14.2
PNR-24	12/8/2006 10:50	5660	109	12	2.30	0.06	7.6	52	45	44	4350	10900	19.0	53	17.0
PNR-24	3/14/2007 15:40	5110	127	12	2.00	< 0.05	7.8	59	78	nm	4080	9920	17.1	62	15.0
PNR-25	8/14/2001 13:15	39900	2890	140	15.80	< 0.05	6.8	510	69	nm	24000	70500	75.6	1730	nm
PNR-25	8/14/2001 19:05	45400	3180	160	15.80	< 0.05	6.8	560	65	nm	26600	70300	76.8	1550	nm
PNR-25	11/8/2001 10:15	38300	6000	448	18.50	< 0.05	6.5	433	nm	276	21200	65600	48.5	2260	nm
PNR-25	2/21/2002 15:30	40100	9350	797	25.60	< 0.05	6.7	278	200	nm	18700	64500	57.9	1280	nm
PNR-25	5/22/2002 16:50	11500	1770	156	10.40	< 0.05	7.0	78	243	nm	5600	18700	28.9	756	4.2
PNR-25	8/21/2002 14:40	3560	384	51	1.40	< 0.05	7.4	31	59	312	2040	6790	11.9	< 30	6.5
PNR-25	11/6/2002 14:55	3110	298	43	0.90	< 0.05	7.5	33	45	123	2140	6330	13.0	< 10	8.0
PNR-25	3/5/2003 12:45	3590	245	31	1.00	< 0.05	7.4	32	37	285	2340	6800	12.2	6	9.2
PNR-25	5/28/2003 15:25	3600	226	31	0.80	< 0.05	7.5	32	30	301	2200	6400	11.8	< 3	11.4
PNR-25	8/14/2003 10:00	4510	2200	31	0.90	< 0.05	7.6	26	31	80	2140	6590	10.4	< 10	11.2
PNR-25	11/5/2003 15:15	4610	256	37	1.60	< 0.05	7.5	35	27	47	2360	7090	11.6	14	9.3
PNR-25	3/17/2004 14:15	4760	264	34	1.40	< 0.05	7.4	33	27	53	2480	7130	12.2	4	9.4
PNR-25	6/8/2004 13:00	4090	254	34	1.40	< 0.05	7.7	36	26	50	3040	7490	12.4	167	9.2
PNR-25	9/15/2004 16:45	3980	323	47	1.60	< 0.05	7.7	34	23	46	2440	6880	12.0	79	7.4
PNR-25	11/18/2004 9:00	3750	322	48	1.50	0.07	7.7	37	23	27	2360	6590	12.0	39	7.6
PNR-25	3/2/2005 13:00	3570	262	40	1.30	0.25	7.9	29	22	23	2510	6630	11.5	106	7.8
PNR-25	5/25/2005 11:15	4250	311	49	1.50	< 0.05	7.9	22	26	29	2400	6270	10.8	821	8.3
PNR-25	8/17/2005 18:20	2960	289	46	1.20	< 0.05	7.8	23	17	19	1980	5550	10.0	27	7.9
PNR-25	11/16/2005 13:25	2890	287	48	1.20	< 0.05	7.9	21	20	20	2010	4910	9.2	46	7.2
PNR-25	2/8/2006 11:15	2530	239	36	1.20	< 0.05	7.7	25	20	40	1860	4780	8.5	10	7.3
PNR-25	5/24/2006 11:45	2450	182	27	1.00	0.07	8.2	22	20	47	1790	4200	8.3	81	7.2
PNR-25	8/24/2006 12:00	2180	191	30	1.20	<0.05	8.0	23	18	19	1600	4190	7.9	55	6.3
PNR-25	12/8/2006 11:30	2060	239	38	1.20	<0.05	8.0	23	19	18	1500	4180	7.7	117	5.9
PNR-25	3/15/2007 10:53	2090	368	59	1.40	< 0.05	7.7	26	21	nm	1430	3820	7.1	26	4.9
PNR-26	8/14/2001 18:00	45000	2820	133	14.40	< 0.05	7.2	517	63	nm	23800	68700	74.7	1660	nm
PNR-26	8/22/2001 10:00	42600	2490	118	13.60	< 0.05	7.5	499	62	nm	23400	68600	65.8	1670	nm
PNR-26	11/8/2001 14:15	40900	3740	259	16.40	0.16	7.5	437	nm	168	22800	67200	51.6	1170	nm
PNR-26	2/21/2002 16:00	40800	4380	269	18.40	< 0.05	6.9	453	100	nm	22300	67000	61.2	1080	nm
PNR-26	5/23/2002 11:15	42400	4210	284	18.40	< 0.05	6.9	392	87	nm	20800	67400	67.2	1530	2.7
PNR-26	8/21/2002 16:00	40600	4880	361	17.50	< 0.05	6.7	403	59	167	15300	69100	50.7	1340	2.7
PNR-26	11/6/2002 16:20	36000	5080	356	16.80	< 0.05	6.7	509	53	101	22900	65300	57.5	1610	2.6
PNR-26	3/5/2003 14:00	8400	546	67	3.80	< 0.05	7.4	72	58	109	5290	15600	27.4	19	5.5
PNR-26	5/28/2003 16:35	8060	464	75	2.30	< 0.05	7.4	74	57	85	4990	14800	25.6	< 5	6.8

Table 2 - Inorganic Water Chemistry Data
Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation
DOWL HKM Job No.: 14B8.05101.01
Last update: May 2011

Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-26	8/14/2003 10:45	8960	3810	51	3.00	0.09	7.4	49	45	101	4650	14300	18.9	< 10	10.5
PNR-26	11/6/2003 12:30	7010	151	26	2.90	0.22	7.8	48	45	56	4450	11700	18.5	< 1	10.3
PNR-26	3/17/2004 14:15	6110	82	13	1.80	< 0.05	7.7	32	36	52	3620	10000	16.0	< 1	14.4
PNR-26	6/9/2004 16:00	4710	67	9	1.70	< 0.05	7.9	34	29	32	3750	9140	14.2	< 50	11.2
PNR-26	9/16/2004 9:50	3880	45	6	1.50	< 0.05	8.0	27	25	33	3020	7860	13.4	< 3	8.9
PNR-26	11/18/2004 12:25	3690	47	7	1.60	0.33	8.0	29	26	128	2730	7250	12.6	< 1	9.3
PNR-26	3/2/2005 16:10	3280	32	5	1.80	0.12	8.0	22	23	26	2660	6630	11.3	< 1	9.1
PNR-26	5/25/2005 15:15	3000	53	5	1.60	< 0.05	8.2	19	19	24	2230	6170	10.2	< 1	9.8
PNR-26	8/17/2005 18:00	2900	54	5	1.20	< 0.05	8.0	18	20	21	2200	5990	10.3	2	9.4
PNR-26	11/16/2005 14:55	2780	53	7	1.60	< 0.05	7.6	14	23	38	2270	5510	10.4	2	9.1
PNR-26	2/8/2006 15:10	2640	59	6	1.20	< 0.05	7.1	17	20	107	2070	5280	9.4	13	8.9
PNR-26	5/24/2006 14:10	6310	252	31	2.40	< 0.05	8.0	58	23	35	4530	11100	19.9	845	2.7
PNR-26	8/24/2006 13:30	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
PNR-27	8/21/2001 15:35	10300	9790	1290	<0.1	28.8	7.1	37	24	nm	2440	21600	23.1	2020	nm
PNR-27	9/5/2001 15:15	10000	10600	1370	<0.1	27.5	6.8	39	21	nm	2700	20400	25.0	1940	nm
PNR-27	11/6/2001 15:30	10900	10700	1400	<0.1	29.7	6.7	40	nm	43	2840	21200	27.1	1750	nm
PNR-27	2/20/2002 17:02	11400	10600	1390	<0.1	27.2	6.8	54	27	nm	3130	21000	27.1	1530	nm
PNR-27	5/21/2002 18:12	12000	9650	1260	<0.1	34.2	6.8	40	35	nm	2990	23800	29.9	1940	0.2
PNR-27	8/20/2002 19:20	12600	9710	1210	< 0.1	31.7	6.9	32	26	38	2850	25600	28.2	1850	0.2
PNR-27	11/6/2002 9:55	11200	11000	1400	< 0.1	31.2	6.8	42	22	30	3450	24200	26.0	1820	0.2
PNR-27	3/5/2003 11:15	12900	10800	1370	< 0.1	33.5	6.6	43	26	25	3740	22400	19.5	2080	0.2
PNR-27	5/28/2003 11:00	12200	10400	1330	< 0.1	34.0	6.7	57	26	33	3640	25500	34.1	1620	0.2
PNR-27	8/13/2003 13:35	13000	10200	1320	< 0.1	32.5	6.6	54	26	27	3660	24400	31.7	1280	0.2
PNR-27	11/5/2003 11:45	13100	10000	1370	< 0.1	35.1	6.8	53	24	48	3760	23300	19.6	1430	0.2
PNR-27	3/1/2004 0:00														
PNR-27	6/8/2004 11:50	14000	10400	1340	< 0.1	30.7	6.7	46	26	30	4480	26200	36.7	1920	0.2
PNR-27	9/14/2004 13:05	13100	10500	1340	< 0.1	30.9	6.8	58	29	31	4320	27500	36.5	1760	0.3
PNR-27	11/17/2004 10:38	14600	10600	1360	< 0.1	30.8	6.6	56	32	35	4630	24800	37.3	1830	0.2
PNR-27	3/1/2005 15:33	14700	11100	1420	< 0.1	30.0	6.8	48	28	33	5060	28200	36.7	1770	0.2
PNR-27	5/24/2005 15:33	13500	10200	1280	< 0.1	33.3	6.7	50	22	23	4920	28400	37.6	1840	0.2
PNR-27	8/16/2005 17:08	14300	11000	1400	< 0.1	39.6	6.7	39	29	28	4850	28000	37.9	1810	0.2
PNR-27	11/15/2005 16:35	15200	12100	1550	< 0.1	35.4	6.8	67	31	28	6000	27200	39.0	1790	0.2
PNR-27	2/8/2006 17:10	13900	11300	1440	< 0.1	30.6	6.9	64	28	27	5460	25200	47.0	1740	0.1
PNR-27	5/23/2006 16:57	15200	10800	1400	< 0.1	39.4	7.4	70	27	29	5580	27900	39.1	1770	0.2
PNR-27	8/23/2006 15:01	15000	10800	1370	< 0.1	29.3	6.6	47	31	28	5390	29500	41.2	1780	0.2
PNR-27	12/7/2006 14:15	14200	10800	1350	< 0.1	34.4	6.8	47	27	28	5490	27900	41.6	1730	0.2
PNR-27	3/14/2007 16:50	14700	10800	1370	< 0.1	33.2	6.6	51	247	nm	5660	28700	40.1	1680	0.2
PNR-27	10/3/2007 12:50	15100	10000	1270	< 0.1	31.8	6.6	46	28	32	5410	27300	41.7	1900	0.2
PNR-27	3/27/2008 17:10	15500	10400	1310	< 0.1	32.9	6.5	53	32	29	5900	27200	41.2	1690	0.2
PNR-27	10/25/2008 14:45	14900	10200	1290	< 0.1	38.6	6.8	44	27	32	6130	28300	39.9	1910	0.2
PNR-27	4/19/2009 12:50	15400	9990	1240	< 0.1	29.3	6.7	50	19	21	6240	23900	42.6	1750	0.2
PNR-27	10/6/2009 11:40	14600	10100	1270	< 0.05	43.8	6.8	43	31	29	5470	24100	38.0	1350	0.2

Table 2 - Inorganic Water Chemistry Data
Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation
DOWL HKM Job No.: 14B8.05101.01
Last update: May 2011

Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-27	4/19/2010 9:45	16400	10600	1350	< 0.05	40.7	6.7	45	26	17	5670	27800	38.8	1460	0.2
PNR-27	9/21/2010 13:25	14000	9670	1200	< 0.05	34.5	7.1	45	25	26	5380	26500	36.8	1420	0.2
PNR-27	5/4/2011 16:10	13200	9810	1260	< 0.05	40.2	6.9	44	33	32	5420	27700	32.7	1850	0.2
PNR-28	8/21/2001 16:45	11700	10800	1460	< 0.1	23.1	7.2	39	21	nm	3090	25200	26.2	1480	nm
PNR-28	9/5/2001 14:35	12300	11100	1470	< 0.1	21.2	6.9	36	18	nm	3200	22600	27.0	nm	nm
PNR-28	11/6/2001 14:40	10500	10400	1380	< 0.1	20.2	6.7	34	nm	37	3070	24700	24.4	1660	nm
PNR-28	2/20/2002 16:30	13700	11300	1490	< 0.1	21.6	6.8	82	23	nm	3850	23000	30.6	1430	nm
PNR-28	5/21/2002 17:15	14700	10900	1430	< 0.1	23.3	6.8	43	33	nm	3910	27400	33.9	1820	0.2
PNR-28	8/20/2002 18:30	15200	10800	1340	< 0.1	22.9	6.8	39	23	30	3510	31200	32.8	1590	0.2
PNR-28	11/5/2002 13:20	15700	12600	1640	< 0.1	22.7	6.8	46	20	36	4850	29700	28.9	1740	0.2
PNR-28	3/5/2003 10:25	15700	11700	1480	< 0.1	23.6	6.6	45	22	23	4930	26700	22.4	1880	0.2
PNR-28	5/28/2003 10:30	15100	11300	1450	< 0.1	22.4	6.7	63	22	38	4900	30200	40.8	1460	0.2
PNR-28	8/13/2003 13:00	16800	11300	1440	< 0.1	21.8	6.5	53	22	31	5200	29500	38.8	1270	0.2
PNR-28	11/5/2003 14:30	17300	11700	1520	< 0.1	22.0	6.9	58	23	28	6010	29100	23.0	1350	0.2
PNR-28	3/1/2004 0:00														
PNR-28	6/8/2004 11:15	17400	11000	1400	< 0.1	21.7	6.7	51	20	36	5720	32900	44.5	1740	0.2
PNR-28	9/15/2004 10:30	18300	11700	1490	< 0.1	20.6	6.8	62	28	32	6490	33700	45.3	1630	0.2
PNR-28	11/17/2004 9:30	17800	11800	1470	< 0.1	21.3	6.8	68	25	24	6480	32500	45.8	1660	0.2
PNR-28	3/1/2005 14:39	17500	11400	1440	< 0.1	20.0	6.7	58	25	29	7370	34300	45.5	1510	0.2
PNR-28	5/25/2005 11:07	17800	11100	1400	< 0.1	21.5	6.7	59	22	21	7440	34200	45.7	1770	0.2
PNR-28	8/16/2005 16:00	17900	11400	1430	< 0.1	21.8	6.9	43	24	21	7050	33500	46.3	1670	0.2
PNR-28	11/15/2005 11:35	19200	11600	1470	< 0.1	20.2	6.9	42	23	24	7700	32500	47.5	1600	0.2
PNR-28	2/8/2006 14:40	18000	11300	1420	< 0.1	23.0	6.9	66	24	23	7970	31500	47.0	1630	0.1
PNR-28	5/23/2006 13:55	18800	10800	1350	< 0.1	23.1	7.4	60	24	25	7970	32500	47.7	1630	0.2
PNR-28	8/23/2006 12:35	18300	10700	1310	< 0.1	21.3	6.6	55	27	25	7930	34700	49.8	1600	0.2
PNR-28	12/6/2006 16:30	18400	10100	1250	< 0.1	28.3	6.8	44	23	23	7690	33600	49.5	1680	0.2
PNR-28	3/13/2007 18:00	18400	10200	1270	< 0.1	21.6	6.7	61	92	nm	8180	33300	49.3	1370	0.2
PNR-28	10/4/2007 16:30	19500	9550	1160	< 0.1	23.2	6.5	43	21	30	7950	33200	51.9	1720	0.1
PNR-28	3/26/2008 18:30	19000	10300	1280	< 0.1	24.4	6.6	50	25	24	8610	31900	48.6	1560	0.2
PNR-28	10/25/2008 13:40	18600	9390	1150	< 0.1	26.0	6.8	46	20	27	7980	34100	48.9	1750	0.2
PNR-28	4/19/2009 11:10	17500	8780	1080	< 0.1	22.2	6.7	50	15	15	7860	29600	48.0	1660	0.1
PNR-28	10/7/2009 10:15	18600	9210	1120	< 0.05	24.6	6.9	51	27	24	8040	34000	46.1	1320	< 0.1
PNR-28	4/16/2010 16:25	19100	8990	1120	< 0.05	26.6	6.7	49	23	15	7660	31800	44.2	1310	0.2
PNR-28	9/21/2010 12:15	14800	10600	1340	< 0.05	29.9	7.1	49	22	23	5490	27200	36.5	1290	0.2
PNR-28	5/5/2011 17:40	13200	11300	1500	< 0.05	39.5	6.8	46	32	33	4620	26200	31.4	1670	0.2
PNR-29	8/21/2001 17:45	129	2170	290	< 0.1	174	7.2	14	25	nm	480	4760	5.0	1940	nm
PNR-29	9/5/2001 14:00	104	2180	291	< 0.1	162	6.5	11	22	nm	483	4760	4.8	nm	nm
PNR-29	11/6/2001 12:50	99	2180	286	< 0.1	158	7.1	11	nm	30	469	4650	5.0	1880	nm
PNR-29	2/20/2002 13:03	106	2200	292	< 0.1	160	6.9	13	28	nm	501	4640	5.4	2070	nm
PNR-29	5/21/2002 16:30	83	1980	262	< 0.1	169	7.3	11	31	nm	449	4640	5.3	2080	0.2
PNR-29	8/20/2002 11:20	113	2130	290	< 0.1	163	7.2	10	25	35	431	4780	5.4	2030	0.3

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Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
PNR-29	11/5/2002 12:42	117	2200	290	< 0.1	167	7.1	12	25	31	469	4770	5.5	2070	0.3
PNR-29	3/5/2003 10:30	181	2230	292	< 0.1	175	7.2	13	6	22	550	4730	5.5	2060	0.2
PNR-29	5/28/2003 10:00	116	2230	292	< 0.1	172	7.1	13	25	35	489	4790	5.6	2030	0.3
PNR-29	8/13/2003 13:08	88	2200	288	< 0.1	181	7.0	11	25	61	460	4800	5.3	1920	0.3
PNR-29	11/4/2003 16:45	104	2160	305	< 0.1	178	7.1	13	27	30	482	4760	4.7	2120	0.3
PNR-29	3/1/2004 0:00														
PNR-29	6/8/2004 10:45	119	2260	304	< 0.1	176	7.1	12	25	35	492	4770	4.9	2030	0.3
PNR-29	9/15/2004 9:40	99	2350	303	< 0.1	174	7.2	12	27	26	468	4780	5.3	2040	0.3
PNR-29	11/17/2004 9:31	111	2270	299	< 0.1	171	6.9	13	27	29	505	4660	5.3	2010	0.3
PNR-29	3/1/2005 13:36	112	2340	309	< 0.1	170	7.1	14	29	27	549	4800	5.3	2030	0.3
PNR-29	5/25/2005 9:46	98	2290	301	< 0.1	180	7.2	14	27	29	524	4720	5.3	1860	0.3
PNR-29	8/16/2005 14:48	102	2400	317	< 0.1	177	7.3	11	26	23	498	4790	5.3	1930	0.3
PNR-29	11/15/2005 10:50	107	2520	332	< 0.1	180	7.1	10	28	26	536	4810	5.4	2020	0.3
PNR-29	2/8/2006 16:15	108	2530	332	< 0.1	180	7.2	13	30	30	564	4700	5.4	1980	0.2
PNR-29	5/23/2006 14:35	106	2350	316	< 0.1	256	7.9	13	28	32	555	4520	5.4	2050	0.3
PNR-29	8/23/2006 11:37	103	2410	315	< 0.1	259	7.0	14	29	27	545	4820	5.6	1970	0.3
PNR-29	12/6/2006 16:00	96	2350	313	< 0.1	223	7.2	15	29	28	544	4830	5.7	2010	0.3
PNR-29	3/13/2007 17:50	106	2410	315	< 0.1	235	7.1	13	38	nm	538	4740	5.5	1880	0.3
PNR-29	10/2/2007 18:40	96	2280	299	< 0.1	243	7.1	11	28	31	487	4680	5.8	1960	0.3
PNR-29	3/26/2008 12:10	92	2320	306	< 0.1	260	7.1	10	27	28	489	4660	5.5	1990	0.3
PNR-29	10/25/2008 12:55	105	2430	319	< 0.1	202	7.1	12	28	37	543	4960	5.5	2150	0.3
PNR-29	4/21/2009 11:30	81	2390	310	< 0.1	202	7.1	13	28	29	499	4250	5.4	2140	0.3
PNR-29	10/3/2009 15:15	86	2390	311	< 0.05	183	7.1	12	29	35	494	4500	5.3	1940	0.3
PNR-29	4/14/2010 11:55	90	2460	318	< 0.05	228	7.1	12	28	34	520	4900	5.4	2120	0.3
PNR-29	9/18/2010 11:45	97	2340	305	< 0.05	183	7.2	12	27	28	504	4880	5.5	1980	0.3
PNR-29	5/4/2011 13:50	90	2340	302	< 0.05	186	7.2	13	29	30	504	4910	5.6	2210	0.2
PNR-33-06	10/24/2006 16:25	101	3020	447	0.50	38.8	7.0	20	29	38	286	4890	5.3	2700	0.2
PNR-33-06	12/6/2006 11:00	85	2740	381	0.10	53.4	7.0	16	25	26	264	4450	4.9	2490	0.2
PNR-33-06	3/13/2007 13:45	73	2490	321	0.20	45.4	7.2	15	34	nm	269	4170	4.6	2390	0.2
PNR-33-06	10/3/2007 15:35	104	2600	340	0.10	43.6	7.1	16	25	27	276	4480	5.0	2510	0.3
PNR-33-06	3/26/2008 0:00	107	2540	336	0.10	53.8	7.2	16	26	30	270	4550	4.9	2550	0.3
PNR-33-06	10/23/2008 11:05	125	2840	379	< 0.1	57.0	7.3	16	26	28	295	4500	4.9	2650	0.3
PNR-33-06	4/17/2009 17:30	134	2690	356	< 0.1	47.4	7.2	17	26	27	273	4230	4.9	2670	0.3
PNR-33-06	10/4/2009 13:05	118	2920	380	< 0.05	44.0	7.3	17	25	27	300	4540	4.9	2600	0.3
PNR-33-06	4/14/2010 15:00	108	2740	366	< 0.05	60.0	7.2	18	26	27	305	4790	5.0	2730	0.3
PNR-33-06	9/21/2010 12:18	101	2830	370	< 0.05	43.2	7.6	17	26	27	299	4890	4.9	2660	0.3
PNR-33-06	5/4/2011 11:45	109	2810	375	0.05	52.7	7.3	17	26	28	296	4840	4.7	2980	0.3
PNR-34-07	3/14/2007 13:15	15600	13200	1800	0.60	6.30	6.8	50	330	nm	4480	29400	40.3	1630	0.1
PNR-34-07	10/5/2007 15:40	15700	12700	1730	0.40	2.84	6.8	45	16	28	4390	28700	40.1	1700	0.3
PNR-34-07	3/27/2008 18:00	15900	11900	1590	0.20	9.39	6.7	38	17	17	5290	26900	41.3	1430	0.3
PNR-34-07	10/25/2008 11:15	17000	12800	1720	0.20	6.33	6.8	43	12	41	5850	29800	44.4	1740	0.1

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PNR-34-07	4/22/2009 16:15	14300	9390	1220	0.50	9.46	6.7	50	10	24	5560	26300	39.4	1470	< 0.1
PNR-34-07	10/6/2009 15:55	17200	11300	1480	0.25	5.17	6.9	46	17	35	6020	31900	41.7	1140	< 0.1
PNR-34-07	4/16/2010 12:20	21300	10400	1340	0.16	11.70	6.8	46	15	31	6780	31500	44.0	1460	0.1
PNR-34-07	9/21/2010 16:20	18200	10400	1330	0.13	8.53	7.1	49	13	23	7050	33700	43.2	1220	0.1
PNR-34-07	5/4/2011 15:10	16600	8140	1030	0.10	12.00	6.9	39	13	34	6080	30400	35.7	1510	0.1
PNR-35-07	3/13/2007 11:15	84	1300	171	0.90	< 0.05	7.2	8	31	nm	518	3220	4.0	1560	0.4
PNR-35-07	10/2/2007 16:05	89	1290	172	0.40	< 0.05	7.2	8	22	34	509	3150	4.2	1580	0.4
PNR-35-07	3/26/2008 10:40	87	1310	176	0.40	< 0.05	7.2	8	22	47	513	3120	4.0	1580	0.4
PNR-35-07	10/22/2008 17:10	101	1340	181	0.40	< 0.05	7.3	8	21	70	527	3230	4.0	1620	0.4
PNR-35-07	4/20/2009 18:30	79	1350	179	0.50	< 0.05	7.3	10	22	164	490	2830	4.0	1570	0.4
PNR-35-07	10/3/2009 16:45	89	1280	173	0.35	0.18	7.3	9	22	163	482	2750	3.9	1400	0.4
PNR-35-07	4/14/2010 14:15	106	1320	178	0.38	< 0.01	7.1	11	23	84	536	3250	4.1	1620	0.4
PNR-35-07	9/18/2010 14:30	114	1390	184	0.40	0.04	7.3	10	23	107	509	3210	4.0	1480	0.4
PNR-35-07	5/4/2011 15:45	118	1300	174	0.38	0.04	7.3	9	23	68	504	3390	4.1	1660	0.3
PNR-36-07	3/13/2007 11:40	209	1470	185	< 0.1	77.7	7.1	12	25	nm	272	2690	3.5	1010	< 0.1
PNR-36-07	10/3/2007 16:50	139	1400	176	< 0.1	68.4	7.1	9	18	30	242	2700	3.6	1200	0.3
PNR-36-07	3/26/2008 0:00	138	1350	166	< 0.1	56.4	7.2	10	17	20	208	2450	3.1	1050	0.3
PNR-36-07	10/23/2008 15:25	265	1560	196	< 0.1	78.7	7.1	11	18	22	289	2810	3.7	1170	0.3
PNR-36-07	4/21/2009 14:35	246	1560	197	< 0.1	68.8	7.0	13	16	23	274	2480	3.7	1130	0.3
PNR-36-07	10/2/2009 16:40	193	1610	203	< 0.05	61.0	7.2	12	19	23	276	2730	3.5	1240	0.3
PNR-36-07	4/14/2010 12:20	191	1440	182	< 0.05	61.0	7.1	12	18	19	233	2610	3.4	1130	0.3
PNR-36-07	9/17/2010 10:30	119	1680	214	< 0.05	60.2	7.2	12	19	21	268	3180	3.6	1360	0.2
PNR-36-07	5/4/2011 10:45	123	1760	227	<0.05	42.0	7.2	11	21	22	252	3230	3.8	1660	0.2
PNR-38-08	3/26/2008 18:30	854	1690	200	< 0.1	0.07	7.2	12	29	42	584	3630	5.2	1130	0.2
PNR-38-08	10/23/2008 13:10	1160	2030	247	1.80	< 0.05	7.2	12	24	32	618	4050	6.0	1210	0.2
PNR-38-08	4/21/2009 16:30	1230	2020	246	1.90	< 0.05	7.2	13	22	26	597	3710	6.3	1160	0.2
PNR-38-08	10/3/2009 17:10	1460	2120	257	1.80	< 0.01	7.1	12	22	28	623	4320	6.3	1080	0.2
PNR-38-08	4/14/2010 17:05	1620	2200	268	1.69	< 0.01	7.1	13	25	49	689	4700	6.6	1200	0.2
PNR-38-08	9/20/2010 13:35	1580	2250	273	1.89	0.03	7.1	12	22	27	669	4740	6.7	1070	0.2
PNR-38-08	5/4/2011 13:30	1760	2310	287	1.55	0.01	7.0	13	23	27	670	5340	6.7	1240	0.2
PNR-39-08	6/28/2008 14:20	10900	11900	1630	< 0.1	21.5	6.5	39	22	15	2840	20500	28.5	1830	0.2
PNR-39-08	10/23/2008 18:00	11300	12100	1670	< 0.1	32.2	6.8	34	18	22	3020	21100	31.1	1720	0.2
PNR-39-08	4/22/2009 14:40	11200	10800	1470	< 0.1	26.6	6.6	38	6	13	2800	23000	31.2	1670	0.2
PNR-39-08	10/4/2009 14:15	11600	11100	1490	< 0.05	26.6	6.8	36	25	21	2940	22800	30.9	1260	0.2
PNR-39-08	4/16/2010 11:05	13000	10800	1460	< 0.05	30.4	6.8	39	18	17	3150	21300	31.4	1430	0.2
PNR-39-08	9/21/2010 15:45	11500	10700	1420	< 0.05	27.4	7.2	38	19	17	2920	26200	28.9	1270	0.2
PNR-39-08	5/4/2011 14:30	10500	11200	1520	< 0.05	30.8	6.9	38	28	22	3180	21200	24.7	1710	0.2
USGS-06-1	1/10/2008 12:53	200	1390	182	NA	NA	7.3	9	21	NA	166	2340	3.0	1040	0.2

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Well No.	Date & Time	Chloride mg/l	Hardness, Total as $CaCO_3$ mg/l	Magnesium mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate plus Nitrite mg/l	Lab pH S.U.	Potassium mg/l	Silica, Dissolved mg/l	Silica, Total mg/l	Sodium mg/l	Total Dissolved Solids @ 180° C mg/l	Specific Conductance @ 25° C mS/cm	Sulfate mg/l	Flouride mg/l
USGS-06-1	4/17/2009 17:15	229	1310	172	< 0.1	11.30	7.4	9	22	50	165	2270	2.9	973	0.3
USGS-06-2	4/18/2009 13:50	791	2400	346	< 0.1	22.20	7.6	8	19	116	523	4250	6.0	1910	0.5
USGS-06-7	10/4/2007 17:50	13	90	10	0.60	2.65	8.0	3	16	17	240	748	1.3	172	0.4
USGS-06-8	4/19/2009 13:05	15	99	11	0.60	< 0.05	7.9	4	16	17	236	734	1.2	168	0.5
USGS-06-11	4/20/2009 17:35	14	155	18	0.40	< 0.05	7.8	4	18	18	222	751	1.2	166	0.4
USGS-92-6	4/16/2009 16:13	2990	1650	178	0.80	< 0.05	7.3	12	17	20	1420	4820	10.1	486	0.2
USGS-92-7	4/15/2009 15:40	3290	899	88	2.40	< 0.05	7.4	20	14	13	1930	5580	10.8	371	0.3
USGS-92-9	4/15/2009 17:02	3480	2050	203	0.60	< 0.05	7.1	12	13	15	1610	6500	11.4	683	0.2
USGS-92-12	6/1/2000 0:00	11	1670	260		3.94	7.9	14	nm	nm	95	2330	2.6	1410	nm
USGS-92-12	8/7/2001 11:35	7	1420	222	<0.1	4.37	7.2	12	25	nm	92	2520	2.6	1360	nm
USGS-92-12	8/15/2001 14:40	8	1520	235	<0.1	4.28	7.4	13	28	nm	94	2310	2.4	1450	nm
USGS-92-12	11/6/2001 14:30	6	1370	212	<0.1	5.01	7.4	13	nm	32	83	2150	2.3	1200	nm
USGS-92-12	2/20/2002 14:25	6	1270	205	<0.1	5.07	7.3	11	29	nm	84	2140	2.5	1220	nm
USGS 92-12	5/21/2002 14:05	<10	1220	191	<0.1	4.98	7.6	11	27	nm	85	2040	2.3	1250	0.4
USGS 92-12	8/19/2002 16:00	6	1520	249	< 0.1	5.53	7.4	12	24	22	90	2420	2.7	1400	0.4
USGS-92-12	11/5/2002 12:00	6	1540	237	< 0.1	6.05	7.4	14	26	30	97	2560	2.9	1480	0.4
USGS-92-12	3/4/2003 11:30	10	1360	216	< 0.1	6.28	7.5	13	26	27	97	2190	2.4	1190	0.4
USGS-92-12	5/13/2003 14:15	7	1330	211	< 0.1	6.22	7.4	13	24	25	89	2030	2.3	1170	0.4
USGS-92-12	8/13/2003 7:48	4	1440	226	< 0.1	5.48	7.4	13	26	30	101	2450	2.6	1370	0.4
USGS-92-12	11/5/2003 10:00	4	1140	184	< 0.1	6.83	7.6	15	27	32	79	1820	2.0	924	0.4
USGS-92-12	3/1/2004 0:00														
USGS-92-12	6/8/2004 9:15	4	1450	230	< 0.1	5.32	7.4	13	23	38	117	2500	2.8	1390	0.5
USGS-92-12	9/14/2004 11:08	6	1990	314	< 0.1	7.11	7.5	19	29	31	133	3160	3.3	1840	0.4
USGS-92-12	11/16/2004 9:20	6	1800	282	< 0.1	8.27	7.4	19	29	29	129	2760	3.1	1670	0.5
USGS-92-12	3/1/2005 12:40	4	1410	226	< 0.1	8.57	7.4	15	27	27	117	2260	2.5	1250	0.4
USGS-92-12	5/24/2005 10:43	4	1280	203	< 0.1	9.06	7.5	15	24	23	110	2260	2.6	1120	0.4
USGS-92-12	8/17/2005 9:10	5	1780	282	< 0.1	5.00	7.5	18	27	42	136	2930	3.2	1680	0.4
USGS-92-12	11/15/2005 14:41	5	1650	263	< 0.1	5.99	7.6	16	28	56	125	2440	2.8	1420	0.4
USGS-92-12	2/7/2006 15:32	4	1420	227	< 0.1	7.57	7.5	15	28	28	117	2160	2.5	1180	0.4
USGS-92-12	5/24/2006 10:55	4	1270	205	< 0.1	7.54	8.2	14	28	29	109	1860	2.3	1070	0.4
USGS-92-12	8/22/2006 11:45	3	1150	187	< 0.1	8.95	7.4	14	29	31	102	1780	2.3	943	0.4
USGS-92-12	12/6/2006 10:30	3	1010	162	< 0.1	8.53	7.6	13	28	29	94	1630	2.1	856	0.5
USGS-92-12	3/13/2007 12:55	3	990	158	< 0.1	9.15	7.8	13	28	nm	92	1510	2.0	772	0.5
USGS-92-12	10/2/2007 17:10	4	1410	215	< 0.1	9.19	7.6	13	17	92	106	2220	2.8	1240	0.5
USGS-92-12	3/25/2008 15:30	3	1040	166	< 0.1	11.30	7.6	10	27	30	86	1610	2.1	912	0.5

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USGS-92-12	10/22/2008 17:00	3	958	152	< 0.1	10.10	7.5	11	29	33	91	1450	1.9	733	0.6
USGS-92-12	4/17/2009 12:30	3	915	143	< 0.1	10.20	7.6	11	26	86	72	1460	1.9	751	0.5
USGS-92-12	10/2/2009 16:30	4	1550	244	< 0.05	7.80	7.4	15	27	54	109	2360	2.8	1340	0.5
USGS-92-12	4/13/2010 14:30	3	1160	182	< 0.05	9.00	7.5	14	27	30	98	1840	2.2	963	0.5
USGS-92-12	9/16/2010 14:00	3	1380	215	< 0.05	5.75	7.4	15	27	36	109	2180	2.5	1160	0.5
USGS-92-12	5/3/2011 15:30	4	1380	217	< 0.05	4.03	7.6	14	26	37	108	2190	2.5	1290	0.4
USGS 93-3	6/1/2000 0:00	39800	3770	257	nm	< 0.05	7.1	403	nm	nm	23400	67000	87.0	1730	nm
USGS 93-3	8/7/2001 18:55	41600	3390	241	15.0	< 0.05	6.9	425	19	nm	22600	68200	79.2	100	nm
USGS 93-3	8/15/2001 19:10	41800	3450	257	15.7	< 0.05	7.0	430	22	nm	25300	68400	73.9	2320	nm
USGS 93-3	11/7/2001 10:05	39700	3290	236	15.6	< 0.05	6.7	383	nm	22	23600	62300	52.3	1270	nm
USGS-93-3	2/20/2002 9:00	42300	3310	241	15.9	< 0.05	6.8	422	15	nm	22500	67200	61.2	888	nm
USGS 93-3	5/22/2002 9:30	42100	3150	210	14.9	< 0.05	6.8	386	22	nm	22800	68100	69.3	1870	0.2
USGS 93-3	8/20/2002 16:25	42400	3230	242	14.9	< 0.05	6.8	284	20	20	22800	68000	71.7	1170	0.2
USGS-93-3	11/5/2002 16:10	38400	3420	236	14.9	< 0.05	6.8	439	12	20	22800	67700	61.7	1240	0.2
USGS-93-3	3/4/2003 15:45	41000	3130	215	14.3	< 0.05	6.8	416	19	19	23900	67600	51.5	1180	0.2
USGS-93-3	5/28/2003 13:15	40200	3130	222	14.0	< 0.05	6.7	486	20	20	24100	68100	93.5	967	0.2
USGS-93-3	8/14/2003 14:08	41800	3050	216	15.3	< 0.05	6.7	446	22	24	22900	68600	88.6	791	0.2
USGS-93-3	11/4/2003 16:45	41900	2210	168	15.7	< 0.05	6.8	427	17	20	19600	67500	50.4	859	0.2
USGS-93-3	3/1/2004 0:00														
USGS-93-3	6/8/2004 19:05	40000	3130	208	15.2	< 0.05	6.8	416	23	26	22400	66500	96.7	1330	0.2
USGS-93-3	9/14/2004 16:25	43300	3440	234	16.6	< 0.05	6.9	467	25	27	24700	68300	98.6	1360	0.2
USGS-93-3	11/17/2004 12:15	35800	3200	220	14.7	< 0.05	6.7	538	19	20	23700	66900	98.6	1100	0.2
USGS-93-3	3/2/2005 11:05	43300	3470	230	15.9	< 0.05	6.8	500	22	22	27100	66700	97.6	1300	0.2
USGS-93-3	5/25/2005 15:52	42500	3580	241	15.8	< 0.05	6.7	569	20	18	27200	64600	95.5	1400	0.3
USGS-93-3	8/17/2005 12:55	37900	3390	224	14.0	0.54	6.9	421	14	23	24700	65800	97.3	1250	0.2
USGS-93-3	11/16/2005 16:40	42700	3900	263	15.8	<0.05	6.8	472	20	19	27600	63600	98.5	1270	0.2
USGS-93-3	2/9/2006 15:20	40700	3210	188	21.3	<0.05	6.9	521	23	22	24700	64100	96.7	1350	0.2
USGS-93-3	5/24/2006 18:20	42900	3360	200	18.7	< 0.05	7.4	470	22	21	25100	56600	97.1	1340	0.2
USGS-93-3	8/23/2006 14:50	40900	3170	186	14.6	< 0.05	6.7	403	24	34	24200	63100	99.8	1330	0.2
USGS-93-3	12/7/2006 12:05	41100	3190	199	16.3	< 0.05	6.9	445	24	21	23800	64300	99.5	1320	0.2
USGS-93-3	3/15/2007 13:30	41900	3590	240	17.1	< 0.05	6.8	468	138	nm	26000	64700	96.7	1240	0.2
USGS-93-3	10/3/2007 11:50	40300	3170	201	15.6	< 0.05	6.7	375	23	26	21800	61600	98.6	1330	0.2
USGS-93-3	3/27/2008 11:15	37300	2950	202	13.0	< 0.05	6.8	386	22	67	21200	55700	85.6	2440	0.2
USGS-93-3	10/26/2008 11:45	36000	3190	219	15.8	< 0.05	7.0	358	17	32	21000	53700	81.2	1340	0.2
USGS-93-3	4/15/2009 15:00	25200	2180	168	9.6	< 0.05	7.2	272	16	< 20	15600	40800	66.3	987	0.3
USGS-93-3	10/1/2009 14:00	26400	2120	164	9.4	< 0.01	7.1	239	27	37	14000	38000	61.5	884	0.2
USGS-93-3	4/15/2010 11:55	25100	1910	152	8.2	< 0.01	7.1	244	21	32	14300	36700	57.2	1020	0.3
USGS-93-3	9/16/2010 10:25	17700	1540	127	7.7	< 0.01	7.2	185	21	52	11400	27900	44.9	1130	0.3
USGS -93-3	5/10/2011 12:40	11600	886	75	4.4	< 0.01	7.3	128	28	25	7490	20500	30.8	1390	0.5
USGS-93-4A	4/18/2009 17:05	30	721	96	< 0.1	22.20	7.6	7	23	24	507	2080	3.2	880	0.4

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USGS-93-5	4/17/2009 15:00	9470	3120	359	1.60	< 0.05	6.8	26	6	17	4640	15800	27.1	355	0.2
Whitmer	5/31/2000 0:00	794	695	88	nm	< 0.05	8.2	8	nm	nm	432	1970	3.2	279	nm
Whitmer	8/10/2001 10:00	1020	893	115	0.60	< 0.05	7.4	10	14	nm	524	2520	3.9	287	nm
Whitmer	8/22/2001 15:30	1020	820	105	0.70	< 0.05	7.5	8	14	nm	445	2470	3.8	270	nm
Whitmer	11/9/2001 10:20	1060	879	111	0.80	< 0.05	7.5	9	nm	16	484	2410	4.0	285	nm
Whitmer	2/22/2002 14:45	1110	865	110	0.80	< 0.05	7.6	8	15	nm	472	2530	4.2	288	nm
Whitmer	5/22/2002 16:35	1290	870	112	0.70	< 0.05	7.6	9	17	nm	457	2650	4.3	222	0.2
Whitmer	8/21/2002 9:35	1240	918	110	0.80	< 0.05	7.6	9	12	10	512	2710	4.4	296	0.2
Whitmer	11/5/2002 14:20	1250	1020	129	0.90	< 0.05	7.5	10	13	17	509	2670	4.7	309	0.2
Whitmer	3/4/2003 14:10	1310	1020	151	0.80	< 0.05	7.3	10	14	16	619	2720	5.0	320	0.2
Whitmer	5/13/2003 17:00	1330	1130	144	0.90	< 0.05	7.4	12	14	15	531	2760	4.5	306	0.2
Whitmer	8/14/2003 12:10	1350	1130	141	0.70	< 0.05	7.5	11	14	16	536	2950	4.6	267	0.3
Whitmer	11/4/2003 16:00	1490	1170	148	1.00	< 0.05	7.5	12	14	16	548	2940	4.7	248	0.2
Whitmer	3/18/2004 13:05	1530	1280	161	1.00	< 0.05	7.4	11	15	16	547	3130	4.9	267	0.2
Whitmer	6/9/2004 8:45	1570	1240	156	1.00	< 0.05	7.5	13	14	16	634	3500	5.5	359	0.3
Whitmer	9/16/2004 11:20	1510	1350	168	0.90	< 0.05	7.6	12	15	17	593	3520	5.5	320	0.2
Whitmer	11/18/2004 16:00	1610	1400	177	1.00	< 0.05	7.3	11	15	17	608	3420	5.7	327	0.2
Whitmer	3/2/2005 16:44	1670	1470	188	1.10	0.11	7.5	13	15	16	676	3470	5.7	324	0.3
Whitmer	8/16/2005 15:00	1610	1500	192	1.10	< 0.05	7.7	11	15	15	636	3800	5.8	329	0.2
Whitmer	11/17/2005 10:25	1790	1670	214	1.10	< 0.05	7.5	11	16	16	687	3660	6.0	323	0.2
Whitmer	2/9/2006 11:15	1690	1440	182	1.20	< 0.05	7.4	15	15	17	650	3460	6.0	379	0.2
Whitmer	5/25/2006 11:21	1820	1600	204	1.20	< 0.05	7.9	14	16	18	708	3630	6.2	348	0.2
Whitmer	8/24/2006 11:45	1810	1630	204	1.20	< 0.05	7.2	14	16	17	687	4240	6.6	342	0.2
Whitmer	12/7/2006 13:30	1840	1640	203	1.30	< 0.05	7.3	12	15	17	684	4010	6.8	351	0.2
Whitmer	3/14/2007 16:55	1930	1770	225	1.30	< 0.05	7.4	13	20	nm	732	4300	6.9	340	0.2
Whitmer	10/5/2007 18:00	1980	1820	231	1.40	< 0.05	7.2	14	15	17	731	4520	7.1	365	0.2
Whitmer	3/27/2008 11:10	2100	1930	246	1.30	< 0.05	7.2	13	16	17	743	4320	7.2	344	0.2
Whitmer	10/27/2008 17:55	2170	2050	262	1.40	< 0.05	7.4	14	16	17	812	4990	7.4	411	0.2
Whitmer	4/21/2009 19:00	2180	1930	246	1.40	< 0.05	7.1	15	12	16	750	4110	7.6	394	0.2
Whitmer	10/1/2009 15:04	2540	2210	283	1.46	< 0.01	7.3	13	17	18	824	4900	7.9	317	0.2
Whitmer	4/13/2010 12:05	2720	2260	287	1.35	< 0.01	7.2	16	15	16	838	5300	8.0	340	0.2
Whitmer	9/22/2010 15:00	2480	2220	278	1.43	< 0.01	7.6	15	15	18	877	5340	8.2	310	0.2
Whitmer	5/6/2011 16:18	2740	2320	293	1.27	0.01	7.1	17	18	17	907	5550	8.2	448	0.2
Whitmer (city)	5/26/2005 10:20	149	255	29	0.20	< 0.05	7.7	6	18	18	302	1150	1.8	237	0.5
Lockman (city)	5/26/2005 11:05	173	273	31	< 0.1	< 0.05	7.6	5	19	17	312	1170	1.8	235	0.5

Notes:
nm = Not measured

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mnw = Meter failure, reading recorded in field notes but not used
or = Over range of meter, SC>2.0 mS
< # = Not detected, number shown is reporting limit

Table 3

BTEX and TPH Analytical Results

Table 3 - BTEX and TPH Analyses
Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation
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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
LAW-M01	4/20/2009 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
LAW-M03	3/13/2007 17:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)
LAW-M03	3/27/2008 10:30	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
LAW-M03	10/23/2008 15:35	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0
LAW-M03	4/18/2009 15:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
LAW-M03	4/13/2010 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
LAW-M03	5/5/2011 0:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
LAW-M05	4/20/2009 17:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
M-10	4/16/2009 15:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
M-18	11/8/2001 15:30	53	21	1.8	10	0.2
M-18	8/23/2006 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-18	12/6/2006 12:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-18	4/22/2009 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-18	10/6/2009 16:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-18	4/19/2010 17:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-18	9/20/2010 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-18	5/7/2011 9:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
M-27	8/16/2001 14:35	< 0.5	0.32 (J)	< 0.5	< 0.5	< 0.1
M-27	8/16/2001 14:45	< 0.5	0.28 (J)	< 0.5	< 0.5	< 0.1
M-27	11/8/2001 8:50	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
M-27	2/20/2002 15:42	< 0.5	< 0.5	< 0.5	< 0.5	1.5
M-27	5/21/2002 15:05	< 0.5	< 0.5	< 0.5	< 0.5	1.3
M-27	8/20/2002 17:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	11/6/2002 9:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	3/5/2003 13:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	5/13/2003 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	8/13/2003 11:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	11/6/2003 10:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	March-04	Not sampled				
M-27	6/8/2004 15:15	0.77	< 0.5	< 0.5	0.52	< 0.1
M-27	11/18/2004 15:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	3/1/2005 12:05	< 0.5	< 0.5	< 0.5	0.48	< 0.1
M-27	5/24/2005 11:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	8/16/2005 10:20	< 0.5	< 0.5	0.49	0.45	< 0.1
M-27	11/15/2005 14:28	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	2/7/2006 13:10	< 0.5	0.50	< 0.5	0.49 (J)	< 0.1
M-27	5/23/2006 14:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	8/22/2006 14:30	< 0.5	0.41 (J)	< 0.5	< 0.5	0.5
M-27	12/6/2006 13:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	3/14/2007 17:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)
M-27	10/4/2007 12:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	3/27/2008 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-27	10/24/2008 13:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
M-27	4/22/2009 9:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
M-27	10/5/2009 17:20	6.1	1.30	< 0.5	0.81	< 1.0
M-27	4/16/2010 17:35	1.4	0.49	< 0.5	< 0.5	2.9
M-27	9/21/2010 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
M-27	5/7/2011 10:15	< 0.5	< 0.5	< 0.5	< 0.5	1.6
M-28	6/1/2000	14	2.8	< 0.5	< 0.5	nm
M-28	8/9/2001 12:15	19	< 0.5 (J)	< 0.5	< 1.0	< 0.1
M-28	8/16/2001 17:00	19	< 0.5	< 0.5	< 0.5	< 0.1
M-28	11/8/2001 12:00	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
M-28	2/21/2002 8:40	20	< 0.5	< 0.5	< 0.5	2.7
M-28	5/23/2002 9:30	21	< 0.5	< 0.5	< 0.5	< 0.1
M-28	8/21/2002 10:00	23	< 0.5	< 0.5	< 0.5	< 0.1
M-28	11/6/2002 11:20	22	< 0.5	< 0.5	< 0.5	< 0.1

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
M-28	3/5/2003 15:30	20	< 0.5	< 0.5	< 0.5	< 0.1
M-28	5/13/2003 16:45	23	< 0.5	< 0.5	< 0.5	< 0.1
M-28	8/13/2003 15:35	21	< 0.5	< 0.5	< 0.5	< 0.1
M-28	11/5/2003 10:30	19	< 0.5	< 0.5	< 0.5	< 0.1
M-28	3/16/2004 17:30	12	< 0.5	< 0.5	< 0.5	< 0.1
M-28	6/8/2004 17:18	22	< 0.5	< 0.5	0.91	< 0.1
M-28	11/19/2004 8:36	18	< 0.5	< 0.5	< 0.5	< 0.1
M-28	3/1/2005 15:45	19	< 0.5	< 0.5	< 0.5	< 0.1
M-28	5/24/2005 13:10	16	< 0.5	< 0.5	< 0.5	< 0.1
M-28	8/16/2005 13:15	16	< 0.5	< 0.5	< 0.5	< 0.1
M-28	11/15/2005 16:35	18	< 0.5	< 0.5	< 0.5	< 0.1
M-28	2/7/2006 16:30	19	< 0.5	< 0.5	< 0.5	< 0.1
M-28	5/23/2006 16:20	18	< 0.5	< 0.5	< 0.5	< 0.1
M-28	8/22/2006 16:45	20	< 0.5	< 0.5	< 0.5	< 0.1
M-28	12/6/2006 14:40	19	< 0.5	< 0.5	< 0.5	< 0.1
M-28	3/15/2007 10:15	19	< 0.5	< 0.5	< 0.5	< 0.1 (H)
M-28	10/3/2007 16:40	19	< 0.5	< 0.5	< 0.5	< 0.1
M-28	3/27/2008 9:50	15	< 0.5	< 0.5	< 0.5	< 0.1
M-28	10/26/2008 14:30	12	< 0.5	< 0.5	< 0.5	< 1.0
M-28	4/15/2009 11:20	6.4	< 0.5	< 0.5	< 0.5	< 1.0
M-28	10/1/2009 15:45	5.5	< 0.5	< 0.5	< 0.5	< 1.0
M-28	4/15/2010 11:30	1.5	< 0.5	< 0.5	< 0.5	< 1.0
M-28	9/16/2010 11:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
M-28	5/5/2011 17:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
M-30	6/1/2000	< 0.5	< 0.5	< 0.5	< 0.5	nm
M-30	2/22/2002 13:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-30	5/22/2002 17:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-30	8/21/2002 10:40	< 0.5	0.49	< 0.5	< 0.5	< 0.1
M-30	11/19/2004 8:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-30	3/2/2005 17:50	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
M-31	6/1/2000	41	0.88	< 0.5	< 0.5	nm
M-31	8/9/2001 11:05	47	< 0.5	< 0.5	< 1.0	< 0.1
M-31	8/16/2001 17:30	38	< 0.5	< 0.5	< 0.5	< 0.1
M-31	11/8/2001 16:00	24	< 0.5	< 0.5	< 1.0	< 0.1
M-31	2/21/2002 9:45	42	< 0.5	< 0.5	< 0.5	3.4
M-31	5/22/2002 15:45	38	< 0.5	< 0.5	< 0.5	< 0.1
M-31	8/21/2002 10:45	41	< 0.5	< 0.5	< 0.5	< 0.1
M-31	11/6/2002 10:35	23	< 0.5	< 0.5	< 0.5	< 0.1
M-31	3/5/2003 14:10	38	< 0.5	< 0.5	< 0.5	< 0.1
M-31	5/13/2003 16:00	37	< 0.5	< 0.5	< 0.5	< 0.1
M-31	8/13/2003 14:40	35	< 0.5	< 0.5	< 0.5	< 0.1
M-31	11/5/2003 11:35	30	< 0.5	< 0.5	< 0.5	< 0.1
M-31	3/16/2004 16:00	32	< 0.5	< 0.5	< 0.5	< 0.1
M-31	6/8/2004 16:40	35	< 0.5	< 0.5	< 0.5	< 0.1
M-31	11/18/2004 17:00	32	< 0.5	< 0.5	< 0.5	< 0.1
M-31	3/1/2005 13:45	32	< 0.5	< 0.5	< 0.5	< 0.1
M-31	5/24/2005 15:05	28	< 0.5	< 0.5	< 0.5	< 0.1
M-31	8/16/2005 11:30	29	< 0.5	< 0.5	< 0.5	< 0.1
M-31	11/15/2005 15:30	29	< 0.5	< 0.5	< 0.5	< 0.1
M-31	2/7/2006 14:00	30	< 0.5	< 0.5	< 0.5	< 0.1
M-31	5/23/2006 17:20	27	< 0.5	< 0.5	< 0.5	< 0.1
M-31	8/23/2006 13:30	29	< 0.5	< 0.5	< 0.5	< 0.1
M-31	12/6/2006 15:45	28	< 0.5	< 0.5	< 0.5	< 0.1
M-31	3/15/2007 11:30	30	< 0.5	< 0.5	< 0.5	< 0.1 (H)
M-31	10/4/2007 14:30	30	< 0.5	< 0.5	0.66	< 0.1
M-31	3/27/2008 10:30	24	< 0.5	< 0.5	0.66	< 0.1
M-31	10/26/2008 17:20	27	< 0.5	< 0.5	0.66	< 1.0
M-31	4/15/2009 16:15	25	< 0.5	< 0.5	< 0.5	< 1.0
M-31	10/1/2009 16:20	25	< 0.5	< 0.5	< 0.5	< 1.0
M-31	4/15/2010 13:10	25	< 0.5	< 0.5	< 0.5	< 1.0
M-31	9/16/2010 11:10	26	< 0.5	< 0.5	< 0.5	5.5

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
M-31	5/7/2011 12:30	26	< 0.5	< 0.5	< 0.5	< 1.0
M-32	11/9/2001 9:00	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
M-36	9/5/2001 15:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-36	11/9/2001 11:00	< 0.5	< 0.5	< 0.5	< 1.0	nm
M-38	9/5/2001 16:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
M-38	11/9/2001 11:40	< 0.5	< 0.5	< 0.5	< 0.1	nm
M-39	11/7/2001 15:45	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
M-69	4/15/2009 14:17	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
M-80	4/18/2009 15:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-1B	10/16/2006 15:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-1B	3/14/2007 12:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)
MOC-1B	10/3/2007 10:35	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
MOC-1B	3/25/2008 18:30	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
MOC-1B	10/23/2008 14:15	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0
MOC-1B	4/21/2009 12:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-1B	10/3/2009 12:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-1B	4/13/2010 17:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-1B	9/16/2010 15:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-1B	5/4/2011 10:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-2	10/16/2006 17:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-2	3/13/2007 17:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-2	10/5/2007 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-2	3/26/2008 17:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-2	10/25/2008 13:07	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-2	4/21/2009 13:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-2	10/3/2009 14:55	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-2	4/16/2010 15:35	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-2	9/21/2010 14:21	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-2	5/6/2011 16:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-3	10/17/2006 12:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-3	3/14/2007 11:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)
MOC-3	10/2/2007 19:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-3	3/25/2008 16:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-3	10/23/2008 12:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-3	4/20/2009 19:05	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-3	10/3/2009 13:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-3	4/13/2010 15:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-3	9/16/2010 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-3	5/4/2011 12:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-4	10/17/2006 13:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-4	10/4/2007 11:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-4	3/26/2008 16:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-4	10/25/2008 12:08	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-4	4/23/2009 13:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-4	10/3/2009 12:50	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-4	4/14/2010 17:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-4	9/22/2010 12:25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-4	5/5/2011 15:30	1.7	< 0.5	< 0.5	< 0.5	< 1.0
MOC-20A	10/16/2006 11:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-20A	3/13/2007 13:40	< 0.5	0.67	< 0.5	< 0.5	< 0.1
MOC-20A	10/3/2007 17:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-20A	3/26/2008 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
MOC-20A	10/24/2008 11:46	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-20A	4/22/2009 11:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-20A	10/4/2009 9:10	< 0.5	0.63	< 0.5	< 0.5	< 1.0
MOC-20A	4/14/2010 10:20	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-20A	9/17/2010 9:30	< 0.5	0.83	< 0.5	< 0.5	< 1.0
MOC-20A	5/5/2011 10:45	< 0.5	0.83	< 0.5	< 0.5	< 1.0
MOC-20B	10/16/2006 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-20B	3/13/2007 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-20B	10/3/2007 13:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-20B	3/26/2008 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
MOC-20B	10/23/2008 17:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-20B	4/21/2009 12:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-20B	10/2/2009 11:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-20B	4/14/2010 16:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-20B	9/21/2010 13:27	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
MOC-20B	5/5/2011 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-4	8/10/2001 13:15	422	885 (T)	233	594	628.0
PNR-4	8/10/2001 13:20	375	835 (T)	123	349	635.0
PNR-4	11/8/2001 15:00	437	2040	1280	3850	992.0
PNR-4	Plugged and abandoned					
PNR-5	6/1/2000 0:00	1.2	0.75	6.7	4.2	< 0.1
PNR-5	8/8/2001 11:00	0.9	1.6	3.9	< 1.0	< 0.1
PNR-5	8/15/2001 11:00	2.1	8.8	2.6	8.1	1.4
PNR-5	11/7/2001 11:10	< 0.5	< 10	< 5.0	<5.0	< 0.1
PNR-5	2/20/2002 10:02	1.2	0.98	4.3	0.68	< 0.1
PNR-5	5/22/2002 10:40	1.0	1.2	8.5	0.85	< 0.1
PNR-5	8/20/2002 17:10	0.9	0.37	6.2	0.62	1.3
PNR-5	11/6/2002 11:10	1.4	0.93	6.9	0.57	< 0.1
PNR-5	3/4/2003 16:30	0.9	< 0.5	5.8	< 0.5	< 0.1
PNR-5	5/28/2003 12:35	0.7	0.61	9.6	0.87	< 0.1
PNR-5	8/13/2003 14:59	0.86	< 0.5	4.5	0.72	< 0.1
PNR-5	11/4/2003 15:30	1.3	1.0	10.0	1.1	< 0.1
PNR-5	3/17/2004 10:15	0.74	1.3	14	1.1	< 0.1
PNR-5	6/9/2004 9:40	1.4	< 0.5	23	< 0.5	< 0.1
PNR-5	9/14/2004 16:20	1.1	25	1.3	< 0.5	< 0.1
PNR-5	11/17/2004 13:50	0.99	25	< 0.5	1.1	< 0.1
PNR-5	3/2/2005 12:15	1.1	36	1.3	< 0.5	< 0.1
PNR-5	5/25/2005 17:20	0.9	30	0.71	< 0.5	1.0
PNR-5	8/17/2005 11:00	0.8	40	0.46	< 0.5	< 0.1
PNR-5	11/16/2005 13:00	1.1	1.1	65	< 0.5	< 0.1
PNR-5	2/9/2006 15:20	0.43 (J)	< 0.5	73	0.38 (J)	< 0.1
PNR-5	5/25/2006 10:30	0.46 (J)	< 0.5	60	< 0.5	< 0.1
PNR-5	8/23/2006 15:40	0.7	< 0.5	64	< 0.5	< 0.1
PNR-5	12/7/2006 13:25	0.8	< 0.5	58	< 0.5	< 0.1
PNR-5	3/14/2007 14:14	0.75	1.2	85	< 0.5	< 0.1
PNR-5	10/5/2007 11:40	< 0.5	< 0.5	0.43	0.76	< 0.1
PNR-5	3/27/2008 16:30	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
PNR-5	10/27/2008 13:35	< 0.5	< 1.0	28	< 1.0	< 1.0
PNR-5	4/15/2009 14:20	< 0.5	< 0.5	6.7	< 0.5	< 1.0
PNR-5	10/2/2009 14:00	< 0.5	< 0.5	2.6	< 0.5	< 1.0
PNR-5	4/15/2010 16:45	< 0.5	< 0.5	2.4	< 0.5	< 1.0
PNR-5	9/21/2010 11:15	< 0.5	< 0.5	2.4	< 0.5	< 1.0
PNR-5	5/6/2011 11:20	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-6	5/31/2000 0:00	< 0.5	< 0.5	< 0.5	< 0.5	nm
PNR-6	8/7/2001 9:55	< 0.5	0.88	< 0.5	< 1.0	< 0.1
PNR-6	8/15/2001 15:30	< 0.5	0.3 (J)	< 0.5	< 0.5	< 0.1
PNR-6	11/7/2001 8:55	< 0.5	0.56	< 0.5	< 1.0	< 0.1
PNR-6	2/19/2002 13:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	5/21/2002 12:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
PNR-6	8/19/2002 16:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	11/5/2002 11:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	3/4/2003 10:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	5/13/2003 11:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	8/13/2003 8:16	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	11/4/2003 13:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	March 2004		Not sampled			
PNR-6	6/8/2004 10:20	< 0.5	0.46	< 0.5	0.53	< 0.1
PNR-6	9/14/2004 9:15	< 0.5	< 0.5	< 0.5	< 0.5	0.5
PNR-6	11/16/2004 10:17	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	2/28/2005 17:30	< 0.5	< 0.5	0.51	< 0.5	< 0.1
PNR-6	5/23/2005 18:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	8/16/2005 9:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	11/15/2005 10:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	2/7/2006 10:47	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	5/23/2006 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	8/22/2006 10:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	12/5/2006 13:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	3/14/2007 10:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	10/2/2007 18:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	3/26/2008 11:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-6	10/22/2008 14:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-6	4/17/2009 15:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-6	10/4/2009 12:55	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-6	4/13/2010 11:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-6	9/16/2010 16:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-6	5/3/2011 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-7	5/31/2000 0:00	27	< 0.5	< 0.5	< 0.5	nm
PNR-7	8/7/2001 17:20	35	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	8/15/2001 17:55	20	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	11/7/2001 11:50	40	< 0.5	< 0.5	< 1.0	< 0.1
PNR-7	2/19/2002 17:05	39	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	5/22/2002 13:10	39	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	8/20/2002 15:07	41	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	11/5/2002 14:50	39	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	3/4/2003 15:05	43	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	May 2003		Not sampled			
PNR-7	8/12/2003 12:20	39	< 0.5	< 0.5	< 0.5	0.3
PNR-7	11/4/2003 14:30	38	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	3/17/2004 17:10	39	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	6/8/2004 18:40	47	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	9/14/2004 18:00	41	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	11/17/2004 13:40	44	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	3/1/2005 17:30	40	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	5/25/2005 13:47	38	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	8/17/2005 10:52	39	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	11/16/2005 14:00	44	< 0.5	2.2	< 0.5	< 0.1
PNR-7	2/9/2006 14:15	38	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	5/24/2006 16:10	35	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	8/24/2006 10:24	39	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	12/8/2006 10:15	32	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	3/15/2007 12:15	40	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	10/4/2007 19:00	43	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	3/28/2008 10:30	37	< 0.5	< 0.5	< 0.5	< 0.1
PNR-7	10/25/2008 17:30	37	< 0.5	< 0.5	< 0.5	< 1.0
PNR-7	4/15/2009 17:15	33	< 0.5	< 0.5	< 0.5	< 1.0
PNR-7	10/6/2009 15:15	38	< 0.5	< 0.5	< 0.5	< 1.0
PNR-7	4/19/2010 13:30	42	< 0.5	< 0.5	< 0.5	< 1.0
PNR-7	9/22/2010 14:00	36	< 0.5	< 0.5	< 0.5	< 1.0
PNR-7	5/6/2011 15:30	32	< 0.5	< 0.5	< 0.5	< 1.0
PNR-8	5/31/2000 0:00	< 0.5	< 0.5	< 0.5	< 0.5	nm

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
PNR-8	8/7/2001 13:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	8/16/2001 18:10	< 0.5	0.55	< 0.5	0.54	< 0.1
PNR-8	11/6/2001 16:30	< 0.5	< 0.5 (J)	< 0.5	< 1.0	0.5
PNR-8	2/22/2002 16:00	< 0.5	< 0.5 (J)	< 0.5	< 0.5	< 0.1
PNR-8	5/21/2002 17:45	< 0.5	< 0.5 (J)	< 0.5	< 0.5	< 0.1
PNR-8	8/21/2002 10:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	11/5/2002 15:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	3/4/2003 12:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	5/13/2003 17:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	8/12/2003 9:46	1.1	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	11/4/2003 12:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	3/18/2004 11:30	< 0.5	< 0.5	< 0.5	< 0.5	2.7
PNR-8	6/8/2004 18:40	< 0.5	< 0.5	< 0.5	< 0.5	0.7
PNR-8	9/14/2004 17:05	< 0.5	< 0.5	< 0.5	< 0.5	0.4
PNR-8	11/16/2004 16:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	3/2/2005 15:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	5/26/2005 10:46	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	8/18/2005 11:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	11/17/2005 9:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	2/9/2006 9:45	0.42 (J)	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	5/24/2006 17:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	8/24/2006 12:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	12/7/2006 11:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	3/14/2007 13:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)
PNR-8	10/4/2007 14:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	3/28/2008 11:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-8	10/27/2008 16:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-8	4/19/2009 14:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-8	10/4/2009 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-8	4/19/2010 8:25	< 0.5	0.68	< 0.5	< 0.5	< 1.0
PNR-8	9/22/2010 13:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-8	5/5/2011 10:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-9	6/1/2000 0:00	< 0.5	0.86	< 0.5	< 0.5	nm
PNR-9	8/9/2001 9:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	8/16/2001 13:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	11/7/2001 14:30	< 0.5	< 0.5	< 0.5	< 1.0	0.9
PNR-9	2/20/2002 14:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	5/22/2002 10:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	8/20/2002 16:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	11/5/2002 14:05	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	3/4/2003 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	5/27/2003 18:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	8/13/2003 10:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	11/4/2003 14:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	March 2004		Not sampled			
PNR-9	6/8/2004 13:35	1.8	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	9/14/2004 11:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	11/16/2004 16:12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	3/1/2005 12:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	5/24/2005 17:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	8/16/2005 12:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	11/15/2005 15:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	2/8/2006 12:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	5/23/2006 13:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	8/23/2006 9:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	12/6/2006 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	3/13/2007 16:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)
PNR-9	10/4/2007 10:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	3/27/2008 13:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-9	10/23/2008 17:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-9	4/18/2009 16:20	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-9	10/3/2009 13:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
PNR-9	4/13/2010 18:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-9	9/20/2010 15:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-9	5/5/2011 17:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-10	6/1/2000 0:00	< 0.5	< 0.5	< 0.5	< 0.5	nm
PNR-10	8/8/2001 18:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	8/16/2001 13:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	11/7/2001 12:30	< 0.5	< 0.5	< 0.5	< 1.0	0.6
PNR-10	2/20/2002 13:38	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	5/21/2002 13:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	8/20/2002 12:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	11/5/2002 13:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	3/4/2003 16:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	5/27/2003 17:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	8/13/2003 10:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	11/4/2003 13:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	March 2004		Not sampled			
PNR-10	6/8/2004 14:10	0.43	0.59	< 0.5	0.88	< 0.1
PNR-10	9/14/2004 11:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	11/16/2004 11:28	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	3/1/2005 11:06	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	5/24/2005 15:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	8/16/2005 10:48	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	11/15/2005 11:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	2/7/2006 14:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	5/23/2006 12:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	8/23/2006 10:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	12/6/2006 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	3/13/2007 15:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)
PNR-10	10/3/2007 16:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	3/27/2008 11:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-10	10/23/2008 14:20	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-10	4/18/2009 14:05	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-10	10/3/2009 11:35	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-10	4/13/2010 15:46	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-10	9/20/2010 12:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-10	5/5/2011 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-12	5/31/2000 0:00	< 0.5	< 0.5	< 0.5	< 0.5	nm
PNR-12	8/8/2001 15:00	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
PNR-12	8/15/2001 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	11/6/2001 16:20	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
PNR-12	2/20/2002 11:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	5/21/2002 11:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	8/19/2002 16:05	< 0.5	0.43	< 0.5	< 0.5	< 0.1
PNR-12	11/5/2002 11:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	3/4/2003 13:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	5/27/2003 17:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	8/13/2003 8:05	0.65	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	11/4/2003 12:35	< 0.5	0.59	< 0.5	< 0.5	< 0.1
PNR-12	March 2004		Not sampled			
PNR-12	6/8/2004 9:15	< 0.5	1.4	< 0.5	< 0.5	< 0.1
PNR-12	9/14/2004 10:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	11/16/2004 9:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	2/28/2005 17:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	5/23/2005 18:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	8/15/2005 6:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	11/15/2005 9:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	2/7/2006 13:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	5/23/2006 10:50	0.50 (J)	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	8/23/2006 16:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	12/5/2006 15:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	3/14/2007 12:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

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PNR-12	10/3/2007 13:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	3/26/2008 10:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-12	10/23/2008 10:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-12	4/20/2009 18:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-12	10/3/2009 10:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-12	4/14/2010 11:35	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-12	9/16/2010 14:50	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-12	5/3/2011 18:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-13	8/15/2001 18:15	19	0.8	< 0.5	< 0.5	< 0.1
PNR-13	8/15/2001 19:00	32	1.1	< 0.5	0.49 (J)	< 0.1
PNR-13	11/7/2001 13:35	8.2	< 0.5	< 0.5	< 1.0	5.4
PNR-13	2/19/2002 16:30	6.4	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	5/22/2002 14:00	4.3	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	8/20/2002 15:45	3.5	0.4	< 0.5	< 0.5	< 0.1
PNR-13	11/5/2002 15:30	2.1	0.9	< 0.5	< 0.5	< 0.1
PNR-13	3/4/2003 11:15	1.2	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	5/28/2003 10:05	1.0	0.7	< 0.5	< 0.5	< 0.1
PNR-13	8/13/2003 10:20	0.85	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	11/4/2003 14:15	2.4	0.71	< 0.5	< 0.5	< 0.1
PNR-13	March 2004		Not sampled			
PNR-13	6/8/2004 15:30	2.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	9/14/2004 10:00	0.62	< 0.5	0.74	0.49	< 0.1
PNR-13	11/16/2004 15:30	1.3	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	3/1/2005 13:25	0.78	< 0.5	1.3	< 0.5	< 0.1
PNR-13	5/24/2005 12:00	0.65	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	8/17/2005 9:40	1.0	< 0.5	0.86	< 0.5	< 0.1
PNR-13	11/16/2005 10:50	1.2	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	2/8/2006 10:40	1.3	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	5/24/2006 13:15	0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	8/22/2006 14:25	0.9	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	12/6/2006 11:30	1.8	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	3/14/2007 16:20	0.81	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	10/4/2007 17:30	0.43	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	3/27/2008 15:00	0.63	< 0.5	< 0.5	< 0.5	< 0.1
PNR-13	10/25/2008 14:30	0.5 (J)	< 0.5	< 0.5	< 0.5	< 1.0
PNR-13	4/18/2009 17:55	0.7	< 0.5	< 0.5	< 0.5	< 1.0
PNR-13	10/6/2009 10:50	0.48 (J)	< 0.5	< 0.5	< 0.5	< 1.0
PNR-13	4/16/2010 17:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-13	9/17/2010 11:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-13	5/5/2011 11:30	< 0.5	0.74	< 0.5	< 0.5	< 1.0
PNR-14	8/9/2001 16:00	4.1	0.6	55	1.9	< 0.1
PNR-14	8/14/2001 9:45	3.5	1.1	34	0.38 (J)	< 0.1
PNR-14	11/7/2001 14:35	18.0	< 0.5 (J)	9.7	< 1.0	< 0.1
PNR-14	2/21/2002 11:30	0.9	< 0.5	14	0.68	< 0.1
PNR-14	5/22/2002 12:05	1.1	0.6	41	1.8	< 0.1
PNR-14	8/20/2002 17:45	1.0	0.5	32	0.93	< 0.1
PNR-14	11/6/2002 11:28	0.8	< 0.5	36	0.7	< 0.1
PNR-14	3/4/2003 17:15	0.9	< 0.5	31	0.5	< 0.1
PNR-14	5/28/2003 11:45	0.7	0.8	22	0.45	< 0.1
PNR-14	8/13/2003 15:43	0.64	< 0.5	22	< 0.5	< 0.1
PNR-14	11/5/2003 11:45	0.62	< 0.5	23	< 0.5	< 0.1
PNR-14	3/17/2004 10:45	0.33	0.87	12	0.59	0.5
PNR-14	6/9/2004 10:40	0.9	0.65	17	< 0.5	< 0.1
PNR-14	9/14/2004 15:35	0.89	7.9	0.58	0.65	< 0.1
PNR-14	11/17/2004 15:30	0.76	5.9	< 0.5	< 0.5	< 0.1
PNR-14	3/2/2005 10:50	0.55	3.7	< 0.5	< 0.5	< 0.1
PNR-14	5/25/2005 9:46	< 0.5	2.2	< 0.5	< 0.5	< 0.1
PNR-14	8/17/2005 15:18	< 0.5	1.2	0.45	< 0.5	1.6
PNR-14	11/16/2005 11:05	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-14	2/9/2006 14:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-14	5/24/2006 17:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

Table 3 - BTEX and TPH Analyses
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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
PNR-14	8/23/2006 16:20	< 0.5	< 0.5	4.1	< 0.5	< 0.1
PNR-14	12/7/2006 15:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-14	3/14/2007 10:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-14	10/4/2007 16:50	0.54	0.64	< 0.5	< 0.5	< 0.1
PNR-14	3/27/2008 13:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-14	10/27/2008 11:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-14	4/16/2009 14:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-14	10/2/2009 11:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-14	4/15/2010 14:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-14	9/20/2010 14:50	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-14	5/6/2011 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-15	8/10/2001 8:15	3.6	6.6	4.5	7.4	< 0.1
PNR-15	8/14/2001 13:00	3.3	4.8	3.8	4.4	0.5
PNR-15	11/8/2001 9:10	4.8	6.6	24	<5.0	2.7
PNR-15	2/21/2002 14:54	1.8	<0.50	24	5.7	1.5
PNR-15	5/22/2002 14:55	2.3	0.7	18	1.4	3.4
PNR-15	8/21/2002 14:00	2.5	3.8	14	19	1.1
PNR-15	11/6/2002 14:35	2.8	< 0.5	11	8.5	2.0
PNR-15	3/5/2003 12:30	6.3	< 0.5	21	230	68.0
PNR-15	5/28/2003 15:35	4.2	1.2	16	34	4.4
PNR-15	8/14/2003 9:58	20	32	13	13	0.3
PNR-15	11/5/2003 14:30	1.9	1.2	12	9.3	1.2
PNR-15	3/17/2004 13:35	0.77	< 0.5	7.7	0.79	1.2
PNR-15	6/8/2004 12:45	1.0	< 0.5	9.6	< 0.5	1.1
PNR-15	9/15/2004 16:30	0.93	8.5	0.79	0.71	< 0.1
PNR-15	11/18/2004 9:05	0.74	9.4	0.78	0.93	< 0.1
PNR-15	3/2/2005 12:20	14	12	1.3	6.9	< 0.1
PNR-15	5/25/2005 10:40	0.45	5.4	< 0.5	< 0.5	< 0.1
PNR-15	8/17/2005 16:45	0.44	7.4	0.56	< 0.5	< 0.1
PNR-15	11/16/2005 11:35	< 0.5	< 0.5	4.7	< 0.5	< 0.1
PNR-15	2/8/2006 10:45	< 0.5	< 0.5	3.6	0.67	< 0.1
PNR-15	5/24/2006 11:15	< 0.5	0.74	1.5	1.3	3.5
PNR-15	8/23/2006 17:15	< 0.5	0.66	1.5	0.6	< 0.1
PNR-15	12/7/2006 16:30	< 0.5	< 0.5	2.4	< 0.5	< 0.1
PNR-15	3/14/2007 11:40	0.63	< 0.5	2	0.56	< 0.1
PNR-15	10/4/2007 18:00	0.63	< 0.5	0.76	< 0.5	< 0.1
PNR-15	3/27/2008 15:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-15	10/27/2008 12:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-15	4/16/2009 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-15	10/2/2009 11:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-15	4/15/2010 14:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-15	9/22/2010 11:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-15	5/6/2011 10:20	< 0.5	< 0.5	< 0.5	< 0.5	2.1
PNR-16	8/10/2001 15:15	0.32(J)	1.00 (J)	0.42 (J)	1.0	14.0
PNR-16	8/16/2001 18:35	< 0.5	0.37 (J)	< 0.5	0.34 (J)	< 0.1
PNR-16	11/6/2001 16:05	< 0.5	< 0.5 (J)	< 0.5	< 1.0	< 0.1
PNR-16	2/21/2002 10:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	5/21/2002 15:50	< 0.5	0.83	< 0.5	2.0	< 0.1
PNR-16	8/20/2002 11:40	< 0.5	0.52	< 0.5	<0.50	< 0.1
PNR-16	11/5/2002 14:04	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	3/4/2003 13:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	5/27/2003 18:30	< 0.5	0.5	< 0.5	< 0.5	< 0.1
PNR-16	8/13/2003 9:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	11/4/2003 12:30	0.75	1.9	< 0.5	0.85	< 0.1
PNR-16	3/17/2004 16:09	< 0.5	0.53	0.59	< 0.5	0.4
PNR-16	6/8/2004 12:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	9/14/2004 12:40	< 0.5	< 0.5	0.78	< 0.5	< 0.1
PNR-16	11/16/2004 12:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	3/1/2005 14:30	< 0.5	< 0.5	0.76	< 0.5	< 0.1
PNR-16	5/24/2005 13:58	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	8/17/2005 9:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
PNR-16	11/15/2005 15:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	2/7/2006 16:47	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	5/24/2006 12:25	< 0.5	0.46 (J)	< 0.5	< 0.5	< 0.1
PNR-16	8/22/2006 13:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	12/6/2006 13:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	3/13/2007 12:45	< 0.5	0.44 (J)	< 0.5	< 0.5	< 0.1
PNR-16	10/3/2007 10:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	3/26/2008 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-16	10/23/2008 11:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-16	4/17/2009 13:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-16	10/3/2009 8:30	< 0.5	0.5	< 0.5	< 0.5	< 1.0
PNR-16	4/14/2010 15:15	< 0.5	0.5	< 0.5	< 0.5	< 1.0
PNR-16	9/18/2010 13:00	< 0.5	0.5	< 0.5	< 0.5	< 1.0
PNR-16	5/4/2011 10:30	< 0.5	0.5	< 0.5	< 0.5	< 1.0
PNR-17	8/22/2001 12:35	309	640	135	377	15.8
PNR-17	8/22/2001 13:30	206	342	75	214	30.8
PNR-17	11/8/2001 11:30	301	1220	582	1720	806.0
PNR-17	2/21/2002 17:00	341	682	191	511	62.0
PNR-17	5/23/2002 10:50	386	877	225	620	53.0
PNR-17	8/21/2002 15:15	230	438	98	261	140.0
PNR-17	11/6/2002 15:40	97	195	69	181	200.0
PNR-17	3/5/2003 13:30	90	245	105	277	82.0
PNR-17	5/28/2003 10:00	76	202	118	305	41.0
PNR-17	8/14/2003 11:05	64	119	82	190	180.0
PNR-17	11/6/2003 11:30	74	75	120	200	150.0
PNR-17	3/17/2004 15:10	47	12	89	87	56.0
PNR-17	6/9/2004 15:45	45	1.9	85	13	31.0
PNR-17	9/16/2004 9:35	33	63	1.7	5.4	10.0
PNR-17	11/18/2004 12:20	23	56	< 0.5	6.4	120.0
PNR-17	3/2/2005 15:30	15	34	3.4	18	26.0
PNR-17	5/25/2005 14:25	15	69	3.6	15	77.0
PNR-17	8/17/2005 17:25	7.7	39	0.53	5.3	180.0
PNR-17	11/16/2005 14:01	15	2.3	37	49	98.0
PNR-17	2/8/2006 14:05	3.7	9.7	20	29	1.8
PNR-17	5/24/2006 13:50	0.76	2.9	8.3	11	1200.0
PNR-17	8/24/2006 12:45	1.8	5.0	28	51	12.0
PNR-17	12/8/2006 12:30	0.66	4.4	23	40	5.0
PNR-17	3/15/2007 11:49	< 1	3.3	17	45	14 (H)
PNR-18	8/8/2001 16:00	< 0.5	0.81	< 0.5	< 1.0	< 0.1
PNR-18	8/16/2001 11:00	< 0.5	0.78	< 0.5	< 0.5	< 0.1
PNR-18	11/7/2001 10:20	< 0.5	0.66	< 0.5	< 1.0	0.9
PNR-18	2/20/2002 11:24	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	5/21/2002 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	8/19/2002 16:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	11/5/2002 11:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	3/4/2003 14:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	5/13/2003 11:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	8/14/2003 8:40	0.82	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	11/4/2003 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	March 2004		Not sampled			
PNR-18	6/8/2004 9:55	0.75	0.52	< 0.5	0.63	< 0.1
PNR-18	9/14/2004 8:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	11/18/2004 14:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	2/28/2005 17:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	5/25/2005 17:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	8/15/2005 18:00	< 0.5	< 0.5	0.75	0.64	< 0.1
PNR-18	11/15/2005 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	2/7/2006 11:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	5/23/2006 11:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	8/22/2006 17:17	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	12/5/2006 14:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
PNR-18	3/14/2007 11:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	10/2/2007 17:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	3/28/2008 13:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-18	10/22/2008 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-18	4/17/2009 15:50	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-18	10/4/2009 11:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-18	4/13/2010 13:20	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-18	9/16/2010 17:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-18	5/3/2011 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-19	8/7/2001 14:50	1.1	< 0.5	< 0.5	< 1.0	< 0.1
PNR-19	8/15/2001 16:40	0.35(J)	0.41(J)	< 0.5	< 0.5	< 0.1
PNR-19	11/6/2001 15:20	1.4	< 0.5	< 0.5	< 1.0	< 0.1
PNR-19	2/19/2002 15:05	2.3	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	5/22/2002 14:55	3.2	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	8/20/2002 12:30	3.3	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	11/5/2002 13:17	3.7	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	3/4/2003 12:20	5.1	< 0.5	< 0.5	< 0.5	0.9
PNR-19	5/27/2003 17:20	5.7	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	8/13/2003 8:55	5.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	11/4/2003 10:50	5.4	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	3/17/2004 16:40	6.6	< 0.5	0.46	< 0.5	< 0.1
PNR-19	6/8/2004 13:55	8.7	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	9/14/2004 14:15	6.3	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	11/16/2004 13:45	7.8	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	3/1/2005 15:35	7.7	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	5/25/2005 12:36	7.7	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	8/17/2005 12:23	7.9	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	11/16/2005 12:00	8.9	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	2/8/2006 12:55	11	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	5/24/2006 15:20	9.7	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	8/23/2006 14:05	11	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	12/7/2006 15:30	12	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	3/14/2007 15:00	12	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	10/3/2007 14:50	11	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	3/27/2008 16:30	11	< 0.5	< 0.5	< 0.5	< 0.1
PNR-19	10/25/2008 15:15	12	< 0.5	< 0.5	< 0.5	< 1.0
PNR-19	4/19/2009 13:55	12	< 0.5	< 0.5	< 0.5	< 1.0
PNR-19	10/6/2009 13:45	8.6	< 0.5	< 0.5	< 0.5	< 1.0
PNR-19	4/19/2010 10:45	11	< 0.5	< 0.5	< 0.5	< 1.0
PNR-19	9/22/2010 12:30	7.4	< 0.5	< 0.5	< 0.5	< 1.0
PNR-19	5/4/2011 17:10	4.7	< 0.5	< 0.5	< 0.5	< 1.0
PNR-20	8/8/2001 9:50	5.4	< 0.5	< 0.5	< 1.0	< 0.1
PNR-20	8/15/2001 17:15	5.7	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	11/8/2001 10:00	1.4	< 0.5	< 0.5	< 1.0	< 0.1
PNR-20	2/19/2002 15:40	11	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	5/22/2002 11:00	10	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	8/20/2002 13:25	13	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	11/5/2002 16:05	17	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	3/4/2003 14:15	15	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	5/28/2003 11:00	13	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	8/13/2003 11:35	13	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	11/5/2003 12:50	15	0.51	< 0.5	< 0.5	< 0.1
PNR-20	3/18/2004 12:50	11	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	6/8/2004 12:15	14	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	9/14/2004 13:42	13	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	11/17/2004 10:40	18	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	3/1/2005 16:25	15	< 0.5	0.57	< 0.5	< 0.1
PNR-20	5/24/2005 17:35	11	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	8/16/2005 15:45	16	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	11/15/2005 12:15	16	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	2/9/2006 10:50	14	< 0.5	< 0.5	< 0.5	< 0.1

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
PNR-20	5/23/2006 17:55	16	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	8/23/2006 15:50	17	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	12/7/2006 16:10	13	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	3/15/2007 10:18	20	< 0.5	< 0.5	< 0.5	< 0.1 (H)
PNR-20	10/4/2007 10:25	17	< 0.5	< 0.5	< 0.5	< 0.1 (H)
PNR-20	3/27/2008 17:40	16	< 0.5	< 0.5	< 0.5	< 0.1
PNR-20	10/25/2008 16:30	13	< 0.5	< 0.5	< 0.5	< 1.0
PNR-20	4/21/2009 15:40	19	< 0.5	< 0.5	< 0.5	< 1.0
PNR-20	10/6/2009 14:30	17	< 0.5	< 0.5	< 0.5	< 1.0
PNR-20	4/19/2010 12:40	19	< 0.5	< 0.5	< 0.5	< 1.0
PNR-20	9/22/2010 13:15	16	< 0.5	< 0.5	< 0.5	< 1.0
PNR-20	5/4/2011 17:50	16	< 0.5	< 0.5	< 0.5	< 1.0
PNR-21	8/9/2001 10:15	28	< 0.5	< 0.5	< 1.0	< 0.1
PNR-21	8/16/2001 16:40	26	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	11/8/2001 11:00	32	< 0.5	< 0.5	< 1.0	< 0.1
PNR-21	2/21/2002 9:15	32	< 0.5	< 0.5	< 0.5	2.2
PNR-21	5/22/2002 11:55	33	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	8/21/2002 9:00	35	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	11/5/2002 15:30	37	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	3/5/2003 14:50	36	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	5/28/2003 11:50	32	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	8/13/2003 14:05	25	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	11/5/2003 15:30	29	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	3/1/2004 0:00		Not sampled			
PNR-21	6/8/2004 12:55	34	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	9/14/2004 14:15	37	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	11/17/2004 12:40	31	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	3/1/2005 16:32	29	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	5/24/2005 18:25	28	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	8/16/2005 16:20	28	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	11/15/2005 13:21	28	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	2/9/2006 11:45	27	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	5/24/2006 17:20	24	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	8/23/2006 17:00	28	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	12/7/2006 14:45	22	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	3/15/2007 11:15	25	< 0.5	< 0.5	< 0.5	< 0.1 (H)
PNR-21	10/4/2007 11:40	21	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	3/27/2008 18:20	19	< 0.5	< 0.5	< 0.5	< 0.1
PNR-21	10/25/2008 15:50	16	< 0.5	< 0.5	< 0.5	< 1.0
PNR-21	4/21/2009 16:35	14	< 0.5	< 0.5	< 0.5	< 1.0
PNR-21	10/6/2009 14:00	11	< 0.5	< 0.5	< 0.5	< 1.0
PNR-21	4/19/2010 11:50	6.1	< 0.5	< 0.5	< 0.5	< 1.0
PNR-21	9/21/2010 16:20	2.1	< 0.5	< 0.5	< 0.5	< 1.0
PNR-21	5/5/2011 18:10	0.75	< 0.5	< 0.5	< 0.5	1.3
PNR-22	8/8/2001 17:10	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
PNR-22	8/16/2001 11:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	11/7/2001 9:10	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
PNR-22	2/20/2002 14:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	5/21/2002 12:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	8/20/2002 15:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	11/5/2002 12:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	3/4/2003 15:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	5/13/2003 12:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	8/13/2003 9:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	11/5/2003 12:25	1.2	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	March 2004		Not sampled			
PNR-22	6/8/2004 16:10	< 0.5	< 0.5	< 0.5	1.2	< 0.1
PNR-22	9/15/2004 8:50	< 0.5	< 0.5	0.62	< 0.5	< 0.1
PNR-22	11/18/2004 14:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	3/1/2005 11:00	< 0.5	< 0.5	0.51	< 0.5	< 0.1
PNR-22	5/24/2005 10:07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

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PNR-22	8/16/2005 9:30	< 0.5	< 0.5	0.57	0.54	< 0.1
PNR-22	11/15/2005 13:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	2/7/2006 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	5/23/2006 13:05	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	8/22/2006 18:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	12/6/2006 9:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	3/13/2007 15:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	10/3/2007 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	3/26/2008 17:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-22	10/22/2008 18:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-22	4/18/2009 13:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-22	10/2/2009 12:25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-22	4/13/2010 14:35	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-22	9/18/2010 10:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-22	5/5/2011 15:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-23	8/9/2001 17:30	58	94	17	49	< 0.1
PNR-23	8/14/2001 10:30	195	338	68	189	< 0.1
PNR-23	11/8/2001 13:15	215	269	51	127	56.2
PNR-23	2/21/2002 12:25	220	224	27	84	11.0
PNR-23	5/23/2002 11:15	417	575	78	245	3.6
PNR-23	8/21/2002 12:55	465	666	92	283	1.4
PNR-23	11/6/2002 12:15	401	573	70	219	0.6
PNR-23	3/5/2003 11:20	419	664	90	271	0.7
PNR-23	5/28/2003 14:40	433	759	137	413	1.5
PNR-23	8/14/2003 8:43	161	236	38	112	0.6
PNR-23	11/6/2003 10:10	357	700	143	399	2.1
PNR-23	3/17/2004 11:40	288	277	94	203	0.8
PNR-23	6/9/2004 14:10	331	73	116	179	0.6
PNR-23	9/15/2004 17:40	200	74	9.3	103	0.8
PNR-23	11/18/2004 11:00	268	115	8.8	166	0.7
PNR-23	3/2/2005 11:35	199	77	5.6	99	< 0.1
PNR-23	5/25/2005 13:00	126	56	3.5	62	< 0.1
PNR-23	8/17/2005 15:20	114	42	4.2	44	2.8
PNR-23	11/16/2005 12:15	121	2.6	41	31	0.2
PNR-23	2/9/2006 16:00	100	3.4	31	14	< 0.1
PNR-23	5/25/2006 11:15	83	1.7	16	5.9	< 0.1
PNR-23	8/24/2006 10:18	101	1.6	7.7	2.1	0.4
PNR-23	12/8/2006 10:10	88	1.7	4.7	1.7	< 0.1
PNR-23	3/14/2007 15:00	74	1.5	4.5	1.7	< 0.1
PNR-23	10/5/2007 12:30	53	< 0.5	2.7	< 0.5	< 0.1
PNR-23	3/27/2008 16:05	12	< 0.5	0.48 (J)	< 0.5	< 0.1
PNR-23	10/27/2008 14:56	0.84	< 0.5	1	0.47 (J)	< 1.0
PNR-23	4/16/2009 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-23	10/2/2009 12:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-23	4/15/2010 15:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-23	9/21/2010 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-23	5/5/2011 0:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-24	8/14/2001 12:00	195	320	66	198	74.6
PNR-24	8/14/2001 18:20	346	594	123	344	970.0
PNR-24	11/8/2001 13:40	422	601	102	316	49.7
PNR-24	2/21/2002 13:55	569	974	198	623	110.0
PNR-24	5/23/2002 11:50	294	633	117	455	29.0
PNR-24	8/21/2002 13:10	321	653	110	392	360.0
PNR-24	11/6/2002 12:32	292	543	77	286	170.0
PNR-24	3/5/2003 11:40	358	783	131	472	160.0
PNR-24	5/28/2003 14:50	150	290	65	257	36.0
PNR-24	8/14/2003 13:08	149	347	72	283	53.0
PNR-24	11/6/2003 11:00	234	501	78	296	84.0
PNR-24	3/17/2004 12:10	125	265	57	204	44.0
PNR-24	6/9/2004 14:20	157	343	60	233	82.0
PNR-24	9/15/2004 18:05	170	109	484	349	130.0

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PNR-24	11/18/2004 11:05	128	88	317	271	97.0
PNR-24	3/2/2005 13:25	88	51	85	80	76.0
PNR-24	5/25/2005 13:45	50	42	76	59	47.0
PNR-24	8/17/2005 16:05	28	39	68	61	180.0
PNR-24	11/16/2005 16:15	18	137	43	70	450.0
PNR-24	2/8/2006 13:30	7.7	92	54	107	28.0
PNR-24	5/24/2006 12:55	2.1	42	26	65	26.0
PNR-24	8/24/2006 11:22	3.7	31	30	61	43.0
PNR-24	12/8/2006 10:50	2.8	54	66	104	28.0
PNR-24	3/14/2007 15:40	1.8	26	46	74	3.0
PNR-25	8/14/2001 13:15	164	161	18.0	156(D)	93.1
PNR-25	8/14/2001 19:05	216	224	32.0	266	156.0
PNR-25	11/8/2001 10:15	229	219	22.0	237	0.1
PNR-25	2/21/2002 15:30	225	541	121.0	495	75.0
PNR-25	5/22/2002 16:50	147	497	104.0	624	100.0
PNR-25	8/21/2002 14:40	6.2	48	7.8	233	500.0
PNR-25	11/6/2002 14:55	1.7	2.1	2.2	337	390.0
PNR-25	3/5/2003 12:45	2.7	9.2	12.0	286	140.0
PNR-25	5/28/2003 15:25	2.7	20	36.0	260	58.0
PNR-25	8/14/2003 10:00	2.2	12	24.0	152	96.0
PNR-25	11/5/2003 15:15	3.5	9.2	30.0	184	41.0
PNR-25	3/17/2004 14:15	1.3	13	79.0	212	130.0
PNR-25	6/8/2004 13:00	1.2	18	98.0	252	81.0
PNR-25	9/15/2004 16:45	2.3	80	8.1	203	160.0
PNR-25	11/18/2004 9:00	1.4	84	6.2	210	75.0
PNR-25	3/2/2005 13:00	5.5	133	20.0	295	80.0
PNR-25	5/25/2005 11:15	2.6	82	14.0	205	21.0
PNR-25	8/17/2005 18:20	1.0	28	6.3	65	21.0
PNR-25	11/16/2005 13:25	3.2	37	259.0	564	660.0
PNR-25	2/8/2006 11:15	< 5	36	193.0	495	210.0
PNR-25	5/24/2006 11:45	4.0	63	163.0	339	370.0
PNR-25	8/24/2006 12:00	7.9	104	249.0	472	900.0
PNR-25	12/8/2006 11:30	8.9	97	191.0	346	510.0
PNR-25	3/15/2007 10:53	11	125	269	707	300.0
PNR-26	8/14/2001 18:00	124	270	80	232	2490.0
PNR-26	8/22/2001 10:00	188	404	105	336	55.4
PNR-26	11/8/2001 14:15	365	1920	908	2590	1160.0
PNR-26	2/21/2002 16:00	514	1140	225	636	76.0
PNR-26	5/23/2002 11:15	365	998	200	610	150.0
PNR-26	8/21/2002 16:00	328	632	116	377	220.0
PNR-26	11/6/2002 16:20	398	685	91	335	66.0
PNR-26	3/5/2003 14:00	333	1090	237	884	400.0
PNR-26	5/28/2003 16:35	447	912	179	666	80.0
PNR-26	8/14/2003 10:45	319	946	206	725	250.0
PNR-26	11/6/2003 12:30	462	1270	256	845	32.0
PNR-26	3/17/2004 14:15	364	1030	200	670	46.0
PNR-26	6/9/2004 16:00	450	1260	211	703	16.0
PNR-26	9/16/2004 9:50	278	177	946	576	250.0
PNR-26	11/18/2004 12:25	282	224	915	810	59.0
PNR-26	3/2/2005 16:10	435	300	1290	946	270.0
PNR-26	5/25/2005 15:15	264	339	1140	1250	78.0
PNR-26	8/17/2005 18:00	292	223	1030	857	540.0
PNR-26	11/16/2005 14:55	427	1550	458	1710	410.0
PNR-26	2/8/2006 15:10	326	1170	278	991	220.0
PNR-26	5/24/2006 14:10	118	313	75	240	20000.0
PNR-27	8/21/2001 15:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	9/5/2001 15:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	11/6/2001 15:30	< 0.5	< 0.5	< 0.5	< 1.0	0.4
PNR-27	2/20/2002 17:02	< 0.5	< 0.5	< 0.5	< 0.5	1.0
PNR-27	5/21/2002 18:12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

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PNR-27	8/20/2002 19:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	11/6/2002 9:55	0.49 (J)	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	3/5/2003 11:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	5/28/2003 11:00	0.42	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	8/13/2003 13:35	0.81	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	11/5/2003 11:45	0.66	1.0	< 0.5	< 0.5	< 0.1
PNR-27	March 2004		Not sampled			
PNR-27	6/8/2004 11:50	1.3	0.43	< 0.5	0.57	< 0.1
PNR-27	9/14/2004 13:05	1.2	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	11/17/2004 10:38	1.7	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	3/1/2005 15:33	1.7	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	5/24/2005 15:33	1.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	8/16/2005 17:08	1.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	11/15/2005 16:35	1.6	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	2/8/2006 17:10	1.6	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	5/23/2006 16:57	1.6	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	8/23/2006 15:01	1.6	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	12/7/2006 14:15	2.0	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	3/14/2007 16:50	2.1	< 0.5	< 0.5	< 0.5	< 0.1 (H)
PNR-27	10/3/2007 12:50	1.7	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	3/27/2008 17:10	2.3	< 0.5	< 0.5	< 0.5	< 0.1
PNR-27	10/25/2008 14:45	2.6	< 0.5	< 0.5	< 0.5	< 1.0
PNR-27	4/19/2009 12:50	2.6	< 0.5	< 0.5	< 0.5	< 1.0
PNR-27	10/6/2009 11:40	1.7	< 0.5	< 0.5	< 0.5	< 1.0
PNR-27	4/19/2010 9:45	1.6	< 0.5	< 0.5	< 0.5	< 1.0
PNR-27	9/21/2010 13:25	1.6	< 0.5	< 0.5	< 0.5	< 1.0
PNR-27	5/4/2011 16:10	1.1	< 0.5	< 0.5	< 0.5	< 1.0
PNR-28	8/21/2001 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	9/5/2001 14:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	11/6/2001 14:40	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
PNR-28	2/20/2002 16:30	< 0.5	< 0.5	< 0.5	< 0.5	1.2
PNR-28	5/21/2002 17:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	8/20/2002 18:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	11/5/2002 13:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	3/5/2003 10:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	5/28/2003 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	8/13/2003 13:00	0.51	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	11/5/2003 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	March 2004		Not sampled			
PNR-28	6/8/2004 11:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	9/15/2004 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	11/17/2004 9:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	3/1/2005 14:39	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	5/25/2005 11:07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	8/16/2005 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	11/15/2005 11:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	2/8/2006 14:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	5/23/2006 13:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	8/23/2006 12:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	12/6/2006 16:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	3/13/2007 18:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	10/4/2007 16:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	3/26/2008 18:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-28	10/25/2008 13:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-28	4/19/2009 11:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-28	10/7/2009 10:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-28	4/16/2010 16:25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-28	9/21/2010 12:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-28	5/5/2011 17:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-29	8/21/2001 17:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	9/5/2001 14:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

Table 3 - BTEX and TPH Analyses
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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
PNR-29	11/6/2001 12:50	< 0.5	0.69	< 0.5	< 1.0	< 0.1
PNR-29	2/20/2002 13:03	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	5/21/2002 16:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	8/20/2002 11:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	11/5/2002 12:42	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	3/5/2003 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	5/28/2003 10:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	8/13/2003 13:08	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	11/4/2003 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	March 2004	Not sampled				
PNR-29	6/8/2004 10:45	< 0.5	0.59	< 0.5	0.53	< 0.1
PNR-29	9/15/2004 9:40	< 0.5	< 0.5	0.52	< 0.5	< 0.1
PNR-29	11/17/2004 9:31	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	3/1/2005 13:36	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	5/25/2005 9:46	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	8/16/2005 14:48	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	11/15/2005 10:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	2/8/2006 16:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	5/23/2006 14:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	8/23/2006 11:37	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	12/6/2006 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	3/13/2007 17:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	10/2/2007 18:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	3/26/2008 12:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-29	10/25/2008 12:55	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-29	4/21/2009 11:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-29	10/3/2009 15:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-29	4/14/2010 11:55	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-29	9/18/2010 11:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-29	5/4/2011 13:50	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-33-06	12/6/2006 11:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-33-06	3/13/2007 13:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-33-06	10/3/2007 15:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-33-06	3/26/2008 17:15	< 0.5	< 0.5	< 0.5	1.4	< 0.1
PNR-33-06	10/23/2008 11:05	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-33-06	4/17/2009 17:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-33-06	10/4/2009 13:05	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-33-06	4/14/2010 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-33-06	9/21/2010 12:18	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-33-06	5/4/2011 11:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-34-07	3/14/2007 13:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)
PNR-34-07	10/5/2007 15:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-34-07	3/27/2008 18:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-34-07	10/25/2008 11:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-34-07	4/22/2009 16:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-34-07	10/6/2009 15:55	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-34-07	4/16/2010 12:20	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-34-07	9/21/2010 16:20	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-34-07	5/4/2011 15:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-35-07	3/13/2007 11:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-35-07	10/2/2007 16:05	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-35-07	3/26/2008 10:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-35-07	10/22/2008 17:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-35-07	4/20/2009 18:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-35-07	10/3/2009 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-35-07	4/14/2010 14:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-35-07	9/18/2010 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-35-07	5/4/2011 15:45	< 0.5	< 0.5	< 0.5	< 0.5	1.1
PNR-36-07	3/13/2007 11:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
PNR-36-07	10/3/2007 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-36-07	3/26/2008 16:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-36-07	10/23/2008 15:25	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-36-07	4/21/2009 14:35	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-36-07	10/2/2009 16:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-36-07	4/14/2010 12:20	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-36-07	9/17/2010 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-36-07	5/4/2011 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-38-08	3/26/2008 18:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-38-08	10/23/2008 13:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-38-08	4/21/2009 16:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-38-08	10/3/2009 17:10	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-38-08	4/14/2010 17:05	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-38-08	9/20/2010 13:35	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-38-08	5/4/2011 13:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-39-08	6/28/2008 14:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
PNR-39-08	10/23/2008 18:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-39-08	4/22/2009 14:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-39-08	10/4/2009 14:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-39-08	4/16/2010 11:05	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-39-08	9/21/2010 15:45	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
PNR-39-08	5/4/2011 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-06-1	4/17/2009 17:15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-06-2	4/18/2009 13:50	< 0.5	< 0.5	< 0.5	< 0.5	7.3
USGS-06-8	4/19/2009 13:05	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-06-11	4/20/2009 17:35	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-92-6	4/16/2009 16:13	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-92-7	4/15/2009 15:40	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-92-9	4/15/2009 17:02	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-92-12	6/1/2000 0:00	< 0.5	< 0.5	< 0.5	< 0.5	nm
USGS-92-12	8/7/2001 11:35	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
USGS-92-12	8/15/2001 14:40	< 0.5	0.36 (J)	< 0.5	0.29 (J)	0.7
USGS-92-12	11/6/2001 14:30	< 0.5	< 0.5 (J)	< 0.5	< 1.0	2.9
USGS-92-12	2/20/2002 14:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	5/21/2002 14:05	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	8/19/2002 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	11/5/2002 12:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	3/4/2003 11:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	5/13/2003 14:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	8/13/2003 7:48	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	11/5/2003 10:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	March 2004		Not sampled			
USGS-92-12	6/8/2004 9:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	9/14/2004 11:08	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	11/16/2004 9:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS92-12	3/1/2005 12:40	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS 92-12	5/24/2005 10:43	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS 92-12	8/17/2005 9:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS 92-12	11/15/2005 14:41	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS 92-12	2/7/2006 15:32	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS 92-12	5/24/2006 10:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	8/22/2006 11:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	12/6/2006 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

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Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
USGS-92-12	3/13/2007 12:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)
USGS-92-12	10/2/2007 17:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	3/25/2008 15:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-92-12	10/22/2008 17:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-92-12	4/17/2009 12:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-92-12	10/2/2009 16:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-92-12	4/13/2010 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-92-12	9/16/2010 14:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-92-12	5/3/2011 15:30	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-93-3	6/1/2000 0:00	4.4	< 0.5	< 0.5	< 0.5	nm
USGS-93-3	8/7/2001 18:55	3.0	< 0.5	< 0.5	< 1.0	< 0.1
USGS-93-3	8/15/2001 19:10	3.4	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	11/7/2001 10:05	3.0	< 0.5	< 0.5	< 1.0J	0.3
USGS-93-3	2/20/2002 9:00	2.7	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	5/22/2002 9:30	2.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	8/20/2002 16:25	3.0	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	11/5/2002 16:10	3.8	0.49 (J)	< 0.5	< 0.5	< 0.1
USGS-93-3	3/4/2003 15:45	3.4	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	5/28/2003 13:15	2.9	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	8/14/2003 14:08	2.6	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	11/4/2003 16:45	2.4	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	March 2004		Not sampled			
USGS-93-3	6/8/2004 19:05	3.1	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	9/14/2004 16:25	2.1	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	11/17/2004 12:15	2.3	< 0.5	< 0.5	< 0.5	< 0.1
USGS93-3	3/2/2005 11:05	2.0	< 0.5	< 0.5	< 0.5	1.1
USGS 93-3	5/25/2005 15:52	2.1	< 0.5	< 0.5	< 0.5	< 0.1
USGS 93-3	8/17/2005 12:55	1.9	1.9	< 0.5	< 0.5	< 0.1
USGS 93-3	11/16/2005 16:40	1.9	< 0.5	1.9	< 0.5	0.8
USGS 93-3	2/9/2006 15:20	1.4	< 0.5	< 0.5	< 0.5	< 0.1
USGS 93-3	5/24/2006 18:20	1.6	0.48 (J)	< 0.5	< 0.5	< 0.1
USGS 93-3	8/23/2006 14:50	1.7	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	12/7/2006 12:05	1.7	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	3/15/2007 13:30	1.9	< 0.5	< 0.5	< 0.5	< 0.1 (H)
USGS-93-3	10/3/2007 11:50	1.4	< 0.5	< 0.5	< 0.5	< 0.1
USGS-93-3	3/27/2008 11:15	2.2	< 0.5	< 0.5	0.51	< 0.1
USGS-93-3	10/26/2008 11:45	3.9	< 0.5	< 0.5	< 0.5	< 1.0
USGS-93-3	4/15/2009 15:00	4.2	< 0.5	< 0.5	< 0.5	< 1.0
USGS-93-3	10/1/2009 14:00	2.2	< 0.5	< 0.5	< 0.5	< 1.0
USGS-93-3	4/15/2010 11:55	2.6	< 0.5	< 0.5	< 0.5	< 1.0
USGS-93-3	9/16/2010 10:25	2.0	< 0.5	< 0.5	< 0.5	< 1.0
USGS-93-3	5/6/2011 12:40	1.4	< 0.5	< 0.5	< 0.5	< 1.0
USGS-93-4A	4/18/2009 17:05	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-93-5	4/17/2009 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
USGS-06-1	1/10/2008 12:53	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
USGS-06-7	10/4/2007 17:50	< 0.5	< 0.5	0.75	< 0.5	< 0.1
USGS-06-7	11/14/2007 16:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	5/31/2000 0:00	< 0.5	< 0.5	< 0.5	< 0.5	nm
Whitmer	8/10/2001 10:00	< 0.5	< 0.5	< 0.5	< 1.0	< 0.1
Whitmer	8/22/2001 15:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	11/9/2001 10:20	< 0.5	< 0.5	< 0.5	< 1.0	nm
Whitmer	2/22/2002 14:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	5/22/2002 16:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	8/21/2002 9:35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	11/5/2002 14:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whittmer	3/4/2003 14:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	5/13/2003 17:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

Table 3 - BTEX and TPH Analyses

Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

Last update: May 2011

Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l
Whitmer	8/14/2003 12:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	11/4/2003 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	3/18/2004 13:05	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	6/9/2004 8:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	9/16/2004 11:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	11/18/2004 16:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	3/2/2005 16:44	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	8/16/2005 16:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	11/17/2005 10:25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	2/9/2006 11:15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	5/25/2006 11:21	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	8/24/2006 11:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	12/7/2006 13:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	3/14/2007 16:55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1 (H)
Whitmer	10/5/2007 18:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	3/27/2008 11:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Whitmer	10/27/2008 17:55	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
Whitmer	4/21/2009 19:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
Whitmer	10/1/2009 15:04	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
Whitmer	4/13/2010 12:05	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
Whitmer	9/22/2010 15:00	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
Whitmer	5/6/2011 16:18	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0
Whitmer (city)	5/26/2005 10:20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Lockman (city)	5/26/2005 11:05	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Blank #1 Lot #05	5/3/2011 15:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Blank #2 Lot #05	5/4/2011 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Blank #3 Lot #05	5/4/2011 14:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Blank #3 Lot #05	5/4/2011 17:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Blank #5 Lot #05	5/5/2011 10:45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Blank #6 Lot #05	5/5/2011 15:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Blank #7 Lot #05	5/5/2011 17:10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Bank #8 Lot #05	5/3/2011 18:00	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Blank #9 Lot #05	5/4/2011 13:50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1
Bank #10 Lot #05	5/5/2011 10:30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1

Notes

< # = Analyte not detected, number shown is reporting limit

J = Estimated value. Present but less than the limit of quantitation.

H = Analysis performed past recommended holding time.

Table 3 - BTEX and TPH Analyses

Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation

DOWL HKM Job No.: 14B8.05101.01

Last update: May 2011

Well No.	Date & Time	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l	Total Petroleum Hydrocarbons mg/l

nm = Not measured.

T = This target analyte was found in the associated trip blank as well as the sample.

Table 4

Brine Recovery Wells - Analytical Results

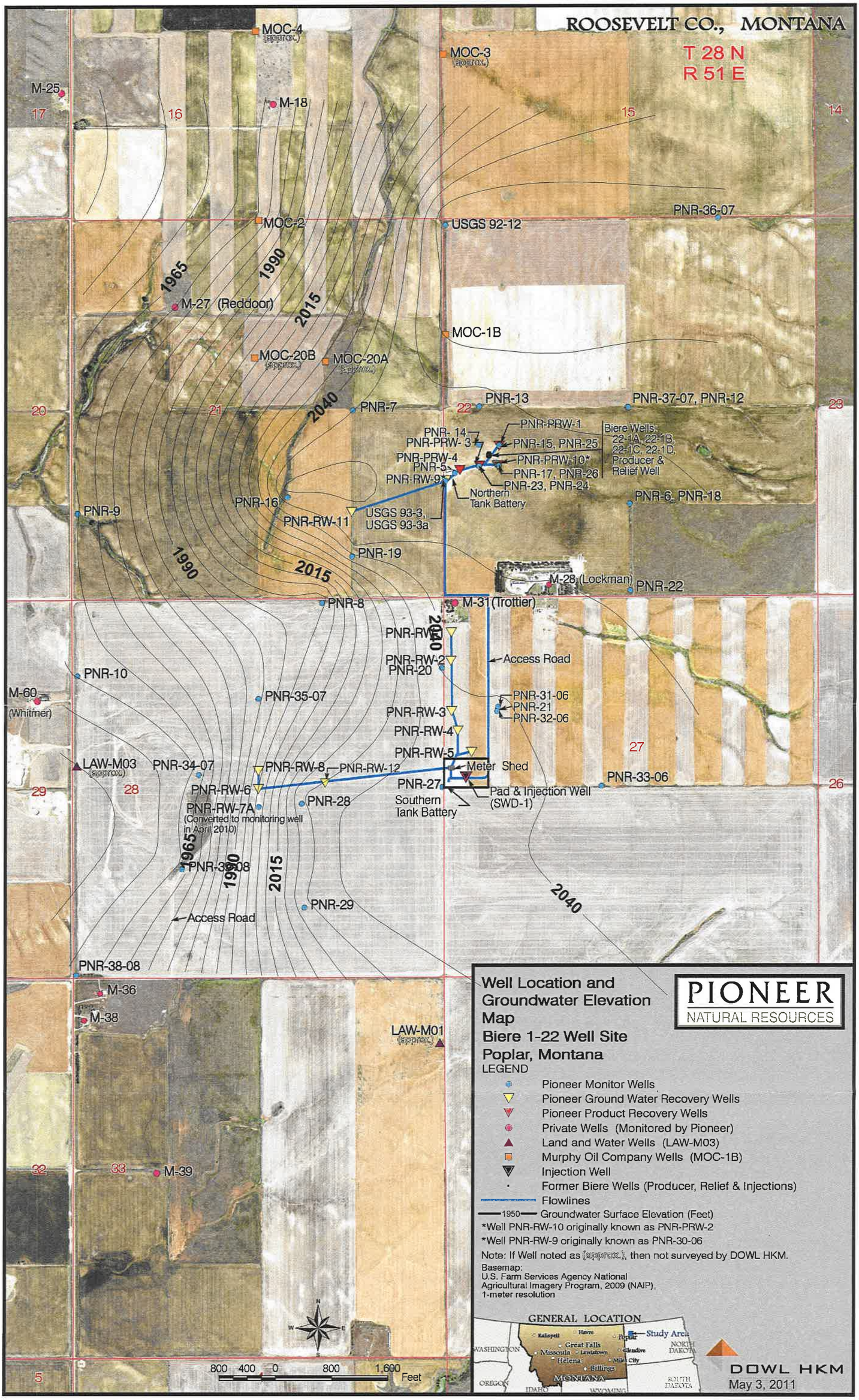
Table 4 - Brine Recovery Wells - Chloride and BTEX Analyses
Pioneer Natural Resources USA, Inc. - Biere 1-22 Investigation
DOWL HKM Job No.: 14B8.05101.01
Last update: May 2011

Well No.	Date & Time	Chloride mg/l	Ph S.U.	Specific Conductance @ 25° C mS/cm	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Total Xylenes µg/l
PNR-RW-1	1/9/2008 14:33	28000	nm	71.2	19.00	< 0.50	< 0.50	< 0.50
PNR-RW-1	10/5/2009 15:10	25600	nm	55.4	19.00	< 0.50	< 0.50	< 0.50
PNR-RW-1	4/14/2010 10:00	25400	6.9	52.9	17.00	< 0.50	< 0.50	< 0.50
PNR-RW-1	9/17/2010 13:35	22600	nm	54.1	17.00	< 0.50	< 0.50	< 0.50
PNR-RW-2	1/9/2008 12:20	22400	nm	59.7	13.00	< 0.50	< 0.50	< 0.50
PNR-RW-2	4/22/2009 19:20	17500	nm	48.5	14.00	< 0.50	< 0.50	< 0.50
PNR-RW-2	10/5/2009 15:20	22900	nm	50.4	16.00	< 0.50	< 0.50	< 0.50
PNR-RW-2	4/14/2010 10:30	22400	6.9	47.9	15.00	< 0.50	< 0.50	< 0.50
PNR-RW-2	9/17/2010 14:00	18500	nm	45.6	15.00	< 0.50	< 0.50	< 0.50
PNR-RW-3	1/8/2008 16:08	31800	nm	76.8	23.00	< 0.50	< 0.50	0.49 (J)
PNR-RW-3	4/22/2009 19:05	22000	nm	58.5	12.00	< 0.50	< 0.50	< 0.50
PNR-RW-3	10/14/2009 14:10	31200	nm	nm	16.00	< 0.50	< 0.50	< 0.50
PNR-RW-3	4/16/2010 9:20	36400	6.7	67.9	18.00	< 0.50	< 0.50	< 0.50
PNR-RW-3	9/17/2010 14:10	11200	nm	29.4	18.00	< 0.50	< 0.50	< 0.50
PNR-RW-3	5/6/2011 11:45	24100	6.8	52.8	12.00	< 0.50	< 0.50	< 0.50
PNR-RW-4	1/8/2008 14:10	24400	nm	63.6	20.00	< 0.50	< 0.50	< 0.50
PNR-RW-4	4/22/2009 18:55	19700	nm	53.6	14.00	< 0.50	< 0.50	< 0.50
PNR-RW-4	10/5/2009 15:30	23500	nm	50.3	11.00	< 0.50	< 0.50	< 0.50
PNR-RW-4	4/14/2010 11:00	21500	6.9	46.8	8.60	< 0.50	< 0.50	< 0.50
PNR-RW-4	9/17/2010 14:20	14700	nm	37.9	5.90	< 0.50	< 0.50	< 0.50
PNR-RW-4	5/6/2011 13:54	12700	7	30.9	2.70	< 0.50	< 0.50	< 0.50
PNR-RW-5	1/8/2008 11:47	15000	nm	42.4	5.00	< 0.50	< 0.50	< 0.50
PNR-RW-5	4/22/2009 18:40	15800	nm	44.0	6.20	< 0.50	< 0.50	< 0.50
PNR-RW-5	10/5/2009 15:45	18000	nm	41.7	5.40	< 0.50	< 0.50	< 0.50
PNR-RW-5	4/14/2010 11:15	15200	6.8	36.6	4.70	< 0.50	< 0.50	< 0.50
PNR-RW-5	9/17/2010 14:30	12300	nm	32.4	3.50	< 0.50	< 0.50	< 0.50
PNR-RW-5	5/6/2011 14:09	10900	6.8	10.9	2.20	< 0.50	< 0.50	< 0.50
PNR-RW-6	4/22/2009 17:00	18800	nm	50.7	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-6	4/19/2010 14:40	21500	6.8	46.4	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-6	9/17/2010 14:45	19200	nm	46.2	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-6	5/6/2011 11:20	18600	6.8	40.5	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-7A	4/22/2009 17:15	17900	nm	47.0	< 0.50	0.61	< 0.50	< 0.50
PNR-RW-7A	10/5/2009 14:15	20400	nm	47.5	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-7A	4/16/2010 10:30	23100	6.8	45.3	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-7A	9/22/2010 16:00	17700	nm	42.5	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-8	4/22/2009 16:45	18900	nm	50.3	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-8	10/5/2009 14:30	23300	nm	49.9	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-8	4/19/2010 14:10	22700	6.9	50.1	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-9	4/22/2009 17:45	21800	nm	58.6	1.90	< 0.50	5.1	0.99
PNR-RW-9	10/14/2009 14:10	13900	nm	nm	1.40	< 0.50	8.5	3.3
PNR-RW-9	4/14/2010 12:05	16900	7.1	41.8	0.91	< 0.50	6.9	6.6
PNR-RW-9	9/17/2010 15:20	12300	nm	33.3	0.91	< 0.50	8.2	3.5
PNR-RW-9	5/6/2011 14:25	9350	7.3	25.8	0.65	< 0.50	4.7	1.5
PNR-RW-10	4/22/2009 18:00	871	nm	6.8	13.00	42	19	49
PNR-RW-10	10/5/2009 14:50	914	nm	6.7	12.00	62	30	96
PNR-RW-10	4/14/2010 11:50	641	8.5	5.9	10.00	39	23	61
PNR-RW-10	9/21/2010 10:00	315	nm	4.9	39.00	139	78	212
PNR-RW-10	5/6/2011 14:42	436	8	5.0	6.80	28	33	69
PNR-RW-11	10/1/2009 10:45	36700	nm	82.6	12.00	< 0.50	< 0.50	< 0.50
PNR-RW-11	4/15/2010 10:00	31900	6.9	63.0	9.10	< 0.50	< 0.50	< 0.50
PNR-RW-11	9/17/2010 15:10	24700	nm	58.3	9.90	< 0.50	< 0.50	< 0.50
PNR-RW-11	5/6/2011 14:55	20300	7	47.5	8.30	< 0.50	< 0.50	< 0.50
PNR-RW-12	4/19/2010 15:05	22000	6.8	47.4	0.70	< 0.50	< 0.50	< 0.50
PNR-RW-12	9/17/2010 14:55	19200	nm	47.1	< 0.50	< 0.50	< 0.50	< 0.50
PNR-RW-12	5/6/2011 11:35	18900	6.8	42.9	< 0.50	< 0.50	< 0.50	< 0.50

Notes
< # = Analyte not detected, number shown is reporting limit
J = Estimated value. Present but less than the limit of quantitation.
nm = Not measured.

Appendix A

Well Location and Groundwater Elevation Map


ROOSEVELT CO., MONTANA
T 28 N
R 51 E
MOC-4 (approx.)
MOC-3 (approx.)
M-25
M-18
17
16
15
14
PNR-36-07
MOC-2
USGS 92-12
1965
1990
2015
M-27 (Reddoor)
MOC-1B
MOC-20B (approx.)
MOC-20A (approx.)
2040
PNR-7
PNR-13
PNR-37-07, PNR-12
20
21
22
23
PNR-PRW-1
PNR- 14
PNR-PRW- 3
PNR-15, PNR-25
Biere Wells:
22-1A, 22-1B,
22-1C, 22-1D,
Producer &
Relief Well
PNR-PRW-4
PNR-5
PNR-PRW-10*
PNR-17, PNR-26
PNR-RW-9
PNR-23, PNR-24
Northern
Tank Battery
PNR-6, PNR-18
PNR-16
PNR-9
USGS 93-3,
USGS 93-3a
PNR-RW-11
PNR-19
M-28 (Lockman)
PNR-22
M-31 (Trottier)
PNR-8
PNR-RW-1
PNR-RW-2
PNR-20
Access Road
PNR-10
M-60
(Whitmer)
PNR-35-07
PNR-31-06
PNR-21
PNR-32-06
PNR-RW-3
PNR-RW-4
PNR-RW-5
27
LAW-M03 (approx.)
PNR-34-07
PNR-RW-8
PNR-RW-12
Meter Shed
PNR-33-06
29
28
26
PNR-RW-6
PNR-27
Pad & Injection Well
(SWD-1)
PNR-RW-7A
(Converted to monitoring well
in April 2010)
PNR-28
Southern
Tank Battery
PNR-38-08
PNR-29
Access Road
PNR-38-08
M-36
M-38
LAW-M01 (approx.)
32
33
M-39
5
800 400 0 800 1,600 Feet
Well Location and
Groundwater Elevation
Map
Biere 1-22 Well Site
Poplar, Montana
PIONEER
NATURAL RESOURCES
LEGEND
Pioneer Monitor Wells
Pioneer Ground Water Recovery Wells
Pioneer Product Recovery Wells
Private Wells (Monitored by Pioneer)
Land and Water Wells (LAW-M03)
Murphy Oil Company Wells (MOC-1B)
Injection Well
Former Biere Wells (Producer, Relief & Injections)
Flowlines
1950 Groundwater Surface Elevation (Feet)
*Well PNR-RW-10 originally known as PNR-PRW-2
*Well PNR-RW-9 originally known as PNR-30-06
Note: If Well noted as (approx.), then not surveyed by DOWL HKM.
Basemap:
U.S. Farm Services Agency National
Agricultural Imagery Program, 2009 (NAIP),
1-meter resolution
GENERAL LOCATION
Study Area
WASHINGTON
NORTH DAKOTA
OREGON
IDAHO
MONTANA
WYOMING
SOUTH DAKOTA
DOWL HKM
May 3, 2011

Appendix B

Laboratory Analytical Reports

ANALYTICAL SUMMARY REPORT

May 23, 2011

DOWL HKM
PO Box 31318
Billings, MT 59107-1318

Workorder No.: B11050715 Quote ID: B78 - Pioneer Natural Resources-Poplar Biere Well Site

Project Name: Biere Well Remediation

Energy Laboratories Inc Billings MT received the following 22 samples for DOWL HKM on 5/9/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B11050715-001	PNR-15	05/06/11 10:20	05/09/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B11050715-002	PNR-14	05/06/11 10:30	05/09/11	Aqueous	Same As Above
B11050715-003	PNR-5	05/06/11 11:20	05/09/11	Aqueous	Same As Above
B11050715-004	USGS 93-3	05/06/11 12:40	05/09/11	Aqueous	Same As Above
B11050715-005	PNR-7	05/06/11 15:30	05/09/11	Aqueous	Same As Above
B11050715-006	MOC-2	05/06/11 16:10	05/09/11	Aqueous	Same As Above
B11050715-007	Whitmer	05/06/11 16:18	05/09/11	Aqueous	Same As Above
B11050715-008	M-18	05/07/11 9:30	05/09/11	Aqueous	Same As Above
B11050715-009	M-27	05/07/11 10:15	05/09/11	Aqueous	Same As Above
B11050715-010	M-31	05/07/11 12:30	05/09/11	Aqueous	Same As Above
B11050715-011	PNR-RW-6	05/06/11 11:20	05/09/11	Aqueous	Conductivity Purgeable Aromatics Anions by Ion Chromatography pH
B11050715-012	PNR-RW-12	05/06/11 11:35	05/09/11	Aqueous	Same As Above
B11050715-013	PNR-RW-3	05/06/11 11:45	05/09/11	Aqueous	Same As Above
B11050715-014	PNR-RW-4	05/06/11 13:54	05/09/11	Aqueous	Same As Above
B11050715-015	PNR-RW-5	05/06/11 14:09	05/09/11	Aqueous	Same As Above
B11050715-016	PNR-RW-9	05/06/11 14:24	05/09/11	Aqueous	Same As Above
B11050715-017	PNR-RW-10	05/06/11 14:42	05/09/11	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

B11050715-018	PNR-RW-11	05/06/11 14:55 05/09/11	Aqueous	Same As Above
B11050715-019	Trip Blank #1 Lot #050511, B-KR 0253	05/06/11 10:20 05/09/11	Trip Blank	Purgeable Aromatics
B11050715-020	Trip Blank #2 Lot #050511, B-KR 0253	05/06/11 10:30 05/09/11	Trip Blank	Same As Above
B11050715-021	Trip Blank #3 Lot #050511, B-KR 0253	05/06/11 11:20 05/09/11	Trip Blank	Same As Above
B11050715-022	Trip Blank #4 Lot #050511,B-KR 0253	05/06/11 15:30 05/09/11	Trip Blank	Same As Above

This report was prepared by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

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

Report Approved By:

CLIENT: DOWL HKM
Project: Biere Well Remediation
Sample Delivery Group: B11050715

Report Date: 05/23/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-G were subcontracted to Energy Laboratories, 400 W Boxelder Rd, Gillette, WY, EPA Number WY00006.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-001
Client Sample ID PNR-15

Report Date: 05/23/11
Collection Date: 05/06/11 10:20
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.7	s.u.		0.1		A4500-H B	05/12/11 11:49 / sam
Conductivity @ 25 C	11300	umhos/cm		5		A2510 B	05/12/11 11:49 / sam
Solids, Total Dissolved TDS @ 180 C	7920	mg/L		10		A2540 C	05/09/11 16:47 / qed
INORGANICS							
Alkalinity, Total as CaCO3	645	mg/L		4		A2320 B	05/10/11 18:19 / sam
Bicarbonate as HCO3	787	mg/L		4		A2320 B	05/10/11 18:19 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 18:19 / sam
Chloride	2720	mg/L	D	10		E300.0	05/12/11 01:03 / kh
Sulfate	1940	mg/L	D	50		E300.0	05/12/11 01:03 / kh
Fluoride	0.7	mg/L		0.1		A4500-F C	05/11/11 21:50 / sam
Hardness as CaCO3	409	mg/L		1		A2340 B	05/13/11 12:28 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	1.6	mg/L	D	0.3		E350.1	05/09/11 13:51 / jlh
Nitrogen, Nitrate+Nitrite as N	ND	mg/L	D	1		E353.2	05/10/11 06:39 / bls
METALS, DISSOLVED							
Calcium	99	mg/L		1		E200.7	05/13/11 12:28 / rlh
Magnesium	39	mg/L		1		E200.7	05/13/11 12:28 / rlh
Potassium	38	mg/L		1		E200.7	05/13/11 12:28 / rlh
Silica	25.6	mg/L	D	0.7		E200.7	05/10/11 17:12 / rlh
Sodium	2610	mg/L	D	8		E200.7	05/13/11 12:28 / rlh
METALS, TOTAL							
Silica	40	mg/L	D	2		E200.7	05/10/11 17:06 / rlh
QUALITY CONTROL							
A/C Balance Sigma	3.43					Calculation	05/16/11 10:30 / rls
Anions	130	meq/L		0.01		Calculation	05/16/11 10:30 / rls
Cations	123	meq/L		0.01		Calculation	05/16/11 10:30 / rls
A/C Balance	-2.88	%				Calculation	05/16/11 10:30 / rls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/16/11 14:38 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/16/11 14:38 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/16/11 14:38 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/16/11 14:38 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/16/11 14:38 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/16/11 14:38 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/16/11 14:38 / bjm
Surr: Trifluorotoluene	102	%REC		80-120		SW8021B	05/16/11 14:38 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-001
Client Sample ID PNR-15

Report Date: 05/23/11
Collection Date: 05/06/11 10:20
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	2.1	mg/L		1.0		E1664A	05/11/11 15:30 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-002
Client Sample ID PNR-14

Report Date: 05/23/11
Collection Date: 05/06/11 10:30
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.9	s.u.		0.1		A4500-H B	05/09/11 14:25 / sam
Conductivity @ 25 C	14000	umhos/cm		5		A2510 B	05/09/11 14:25 / sam
Solids, Total Dissolved TDS @ 180 C	10200	mg/L		10		A2540 C	05/09/11 16:48 / qed
INORGANICS							
Alkalinity, Total as CaCO3	750	mg/L		4		A2320 B	05/10/11 18:35 / sam
Bicarbonate as HCO3	915	mg/L		4		A2320 B	05/10/11 18:35 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 18:35 / sam
Chloride	4220	mg/L	D	20		E300.0	05/13/11 00:18 / kh
Sulfate	1770	mg/L	D	100		E300.0	05/13/11 00:18 / kh
Fluoride	0.5	mg/L		0.1		A4500-F C	05/11/11 21:52 / sam
Hardness as CaCO3	2430	mg/L		1		A2340 B	05/13/11 12:47 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	1.16	mg/L		0.05		E350.1	05/09/11 14:20 / jlh
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	05/10/11 06:40 / bls
METALS, DISSOLVED							
Calcium	438	mg/L		1		E200.7	05/13/11 12:47 / rlh
Magnesium	324	mg/L		1		E200.7	05/13/11 12:47 / rlh
Potassium	49	mg/L		1		E200.7	05/13/11 12:47 / rlh
Silica	34.2	mg/L	D	0.7		E200.7	05/10/11 17:15 / rlh
Sodium	2620	mg/L	D	8		E200.7	05/13/11 12:47 / rlh
METALS, TOTAL							
Silica	31.8	mg/L	D	0.6		E200.7	05/10/11 14:28 / rlh
QUALITY CONTROL							
A/C Balance Sigma	2.58					Calculation	05/16/11 10:32 / rls
Anions	171	meq/L		0.01		Calculation	05/16/11 10:32 / rls
Cations	164	meq/L		0.01		Calculation	05/16/11 10:32 / rls
A/C Balance	-2.13	%				Calculation	05/16/11 10:32 / rls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 18:48 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 18:48 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 18:48 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 18:48 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 18:48 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 18:48 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 18:48 / bjm
Surr: Trifluorotoluene	101	%REC		80-120		SW8021B	05/12/11 18:48 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-002
Client Sample ID PNR-14

Report Date: 05/23/11
Collection Date: 05/06/11 10:30
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 14:37 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-003
Client Sample ID PNR-5

Report Date: 05/23/11
Collection Date: 05/06/11 11:20
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.4	s.u.		0.1		A4500-H B	05/09/11 14:30 / sam
Conductivity @ 25 C	12700	umhos/cm		5		A2510 B	05/09/11 14:30 / sam
Solids, Total Dissolved TDS @ 180 C	8270	mg/L		10		A2540 C	05/09/11 16:50 / qed
INORGANICS							
Alkalinity, Total as CaCO3	1290	mg/L		4		A2320 B	05/10/11 18:54 / sam
Bicarbonate as HCO3	1580	mg/L		4		A2320 B	05/10/11 18:54 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 18:54 / sam
Chloride	3480	mg/L	D	20		E300.0	05/13/11 00:28 / kh
Sulfate	862	mg/L	D	100		E300.0	05/13/11 00:28 / kh
Fluoride	2.3	mg/L		0.1		A4500-F C	05/11/11 21:55 / sam
Hardness as CaCO3	120	mg/L		1		A2340 B	05/10/11 17:25 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	0.86	mg/L		0.05		E350.1	05/09/11 14:21 / jlh
Nitrogen, Nitrate+Nitrite as N	0.01	mg/L		0.01		E353.2	05/10/11 06:41 / bls
METALS, DISSOLVED							
Calcium	31	mg/L		1		E200.7	05/10/11 17:25 / rlh
Magnesium	10	mg/L		1		E200.7	05/10/11 17:25 / rlh
Potassium	45	mg/L		1		E200.7	05/10/11 17:25 / rlh
Silica	41.2	mg/L	D	0.7		E200.7	05/10/11 17:25 / rlh
Sodium	3030	mg/L	D	7		E200.7	05/10/11 17:25 / rlh
METALS, TOTAL							
Silica	44.0	mg/L	D	0.9		E200.7	05/10/11 17:09 / rlh
QUALITY CONTROL							
A/C Balance Sigma	2.82					Calculation	05/16/11 10:33 / rls
Anions	142	meq/L		0.01		Calculation	05/16/11 10:33 / rls
Cations	135	meq/L		0.01		Calculation	05/16/11 10:33 / rls
A/C Balance	-2.35	%				Calculation	05/16/11 10:33 / rls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 23:35 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 23:35 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 23:35 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 23:35 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 23:35 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 23:35 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 23:35 / bjm
Surr: Trifluorotoluene	97.0	%REC		80-120		SW8021B	05/12/11 23:35 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-003
Client Sample ID PNR-5

Report Date: 05/23/11
Collection Date: 05/06/11 11:20
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 14:31 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-004
Client Sample ID USGS 93-3

Report Date: 05/23/11
Collection Date: 05/06/11 12:40
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.3	s.u.		0.1		A4500-H B	05/09/11 14:33 / sam
Conductivity @ 25 C	30800	umhos/cm	E	5		A2510 B	05/09/11 14:33 / sam
Solids, Total Dissolved TDS @ 180 C	20500	mg/L		10		A2540 C	05/09/11 16:52 / qed
INORGANICS							
Alkalinity, Total as CaCO3	1030	mg/L		4		A2320 B	05/13/11 19:24 / sam
Bicarbonate as HCO3	1250	mg/L		4		A2320 B	05/13/11 19:24 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/13/11 19:24 / sam
Chloride	11600	mg/L	D	50		E300.0	05/12/11 01:38 / kh
Sulfate	1390	mg/L	D	200		E300.0	05/12/11 01:38 / kh
Fluoride	0.5	mg/L		0.1		A4500-F C	05/11/11 21:58 / sam
Hardness as CaCO3	886	mg/L		1		A2340 B	05/13/11 12:54 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	4.4	mg/L	D	0.3		E350.1	05/09/11 13:57 / jlh
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	05/10/11 06:42 / bls
METALS, DISSOLVED							
Calcium	231	mg/L		1		E200.7	05/13/11 12:54 / rlh
Magnesium	75	mg/L		1		E200.7	05/13/11 12:54 / rlh
Potassium	128	mg/L		1		E200.7	05/13/11 12:54 / rlh
Silica	28	mg/L	D	2		E200.7	05/10/11 17:28 / rlh
Sodium	7490	mg/L	D	20		E200.7	05/13/11 12:54 / rlh
METALS, TOTAL							
Silica	25	mg/L	D	2		E200.7	05/10/11 17:13 / rlh
QUALITY CONTROL							
A/C Balance Sigma	4.55					Calculation	05/16/11 10:36 / rls
Anions	375	meq/L		0.01		Calculation	05/16/11 10:36 / rls
Cations	348	meq/L		0.01		Calculation	05/16/11 10:36 / rls
A/C Balance	-3.73	%				Calculation	05/16/11 10:36 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 22:23 / bjm
Benzene	1.4	ug/L		0.50		SW8021B	05/12/11 22:23 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 22:23 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 22:23 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 22:23 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 22:23 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 22:23 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-004
Client Sample ID USGS 93-3

Report Date: 05/23/11
Collection Date: 05/06/11 12:40
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/12/11 22:23 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 14:45 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-005
Client Sample ID PNR-7

Report Date: 05/23/11
Collection Date: 05/06/11 15:30
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.6	s.u.		0.1		A4500-H B	05/09/11 14:36 / sam
Conductivity @ 25 C	57600	umhos/cm	E	5		A2510 B	05/09/11 14:36 / sam
Solids, Total Dissolved TDS @ 180 C	50400	mg/L		10		A2540 C	05/09/11 16:53 / qed
INORGANICS							
Alkalinity, Total as CaCO3	399	mg/L		4		A2320 B	05/10/11 19:17 / sam
Bicarbonate as HCO3	487	mg/L		4		A2320 B	05/10/11 19:17 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 19:17 / sam
Chloride	27800	mg/L	D	50		E300.0	05/13/11 00:48 / kh
Sulfate	1580	mg/L	D	200		E300.0	05/12/11 01:49 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/11/11 22:01 / sam
Hardness as CaCO3	11500	mg/L		1		A2340 B	05/10/11 17:31 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	0.48	mg/L		0.05		E350.1	05/09/11 13:58 / jlh
Nitrogen, Nitrate+Nitrite as N	2.84	mg/L		0.01		E353.2	05/10/11 06:35 / bls
METALS, DISSOLVED							
Calcium	2340	mg/L	D	4		E200.7	05/10/11 17:31 / rlh
Magnesium	1370	mg/L		1		E200.7	05/10/11 17:31 / rlh
Potassium	62	mg/L		1		E200.7	05/10/11 17:31 / rlh
Silica	19	mg/L	D	2		E200.7	05/13/11 12:58 / rlh
Sodium	11000	mg/L	D	40		E200.7	05/10/11 17:31 / rlh
METALS, TOTAL							
Silica	20	mg/L	D	3		E200.7	05/10/11 14:31 / rlh
QUALITY CONTROL							
A/C Balance Sigma	8.85					Calculation	05/16/11 10:39 / rls
Anions	824	meq/L		0.01		Calculation	05/16/11 10:39 / rls
Cations	710	meq/L		0.01		Calculation	05/16/11 10:39 / rls
A/C Balance	-7.43	%				Calculation	05/16/11 10:39 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 20:35 / bjm
Benzene	32	ug/L		0.50		SW8021B	05/12/11 20:35 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 20:35 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 20:35 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 20:35 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 20:35 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 20:35 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-005
Client Sample ID PNR-7

Report Date: 05/23/11
Collection Date: 05/06/11 15:30
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/12/11 20:35 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 15:29 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-006
Client Sample ID MOC-2

Report Date: 05/23/11
Collection Date: 05/06/11 16:10
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500-H B	05/09/11 14:38 / sam
Conductivity @ 25 C	19000	umhos/cm		5		A2510 B	05/09/11 14:38 / sam
Solids, Total Dissolved TDS @ 180 C	14100	mg/L		10		A2540 C	05/09/11 16:54 / qed
INORGANICS							
Alkalinity, Total as CaCO3	309	mg/L		4		A2320 B	05/13/11 19:40 / sam
Bicarbonate as HCO3	377	mg/L		4		A2320 B	05/13/11 19:40 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/13/11 19:40 / sam
Chloride	7020	mg/L	D	20		E300.0	05/13/11 00:58 / kh
Sulfate	1570	mg/L	D	100		E300.0	05/12/11 02:01 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/11/11 22:04 / sam
Hardness as CaCO3	4410	mg/L		1		A2340 B	05/13/11 13:01 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	3.3	mg/L	D	0.1		E350.1	05/09/11 13:59 / jlh
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	05/10/11 06:47 / bls
METALS, DISSOLVED							
Calcium	956	mg/L		1		E200.7	05/13/11 13:01 / rlh
Magnesium	490	mg/L		1		E200.7	05/13/11 13:01 / rlh
Potassium	25	mg/L		1		E200.7	05/13/11 13:01 / rlh
Silica	25.2	mg/L	D	0.7		E200.7	05/10/11 17:35 / rlh
Sodium	3010	mg/L	D	8		E200.7	05/13/11 13:01 / rlh
METALS, TOTAL							
Silica	33.0	mg/L	D	0.9		E200.7	05/10/11 17:16 / rlh
QUALITY CONTROL							
A/C Balance Sigma	3.87					Calculation	05/16/11 10:42 / rls
Anions	237	meq/L		0.01		Calculation	05/16/11 10:42 / rls
Cations	222	meq/L		0.01		Calculation	05/16/11 10:42 / rls
A/C Balance	-3.18	%				Calculation	05/16/11 10:42 / rls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 19:24 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 19:24 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 19:24 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 19:24 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 19:24 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 19:24 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 19:24 / bjm
Surr: Trifluorotoluene	100	%REC		80-120		SW8021B	05/12/11 19:24 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-006
Client Sample ID MOC-2

Report Date: 05/23/11
Collection Date: 05/06/11 16:10
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:43 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-007
Client Sample ID Whitmer

Report Date: 05/23/11
Collection Date: 05/06/11 16:18
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.1	s.u.		0.1		A4500-H B	05/09/11 14:41 / sam
Conductivity @ 25 C	8170	umhos/cm		5		A2510 B	05/09/11 14:41 / sam
Solids, Total Dissolved TDS @ 180 C	5550	mg/L		10		A2540 C	05/09/11 16:56 / qed
INORGANICS							
Alkalinity, Total as CaCO3	278	mg/L		4		A2320 B	05/10/11 20:13 / sam
Bicarbonate as HCO3	339	mg/L		4		A2320 B	05/10/11 20:13 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 20:13 / sam
Chloride	2740	mg/L	D	10		E300.0	05/12/11 02:36 / kh
Sulfate	448	mg/L	D	50		E300.0	05/12/11 02:36 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/16/11 16:28 / sam
Hardness as CaCO3	2320	mg/L		1		A2340 B	05/13/11 13:05 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	1.27	mg/L		0.05		E350.1	05/09/11 14:01 / jlh
Nitrogen, Nitrate+Nitrite as N	0.01	mg/L		0.01		E353.2	05/10/11 06:48 / bls
METALS, DISSOLVED							
Calcium	448	mg/L		1		E200.7	05/13/11 13:05 / rlh
Magnesium	293	mg/L		1		E200.7	05/13/11 13:05 / rlh
Potassium	17	mg/L		1		E200.7	05/13/11 13:05 / rlh
Silica	17.5	mg/L	D	0.3		E200.7	05/10/11 17:44 / rlh
Sodium	907	mg/L	D	4		E200.7	05/13/11 13:05 / rlh
METALS, TOTAL							
Silica	17.3	mg/L	D	0.3		E200.7	05/10/11 14:34 / rlh
QUALITY CONTROL							
A/C Balance Sigma	3.82					Calculation	05/16/11 10:43 / rls
Anions	92.3	meq/L		0.01		Calculation	05/16/11 10:43 / rls
Cations	86.4	meq/L		0.01		Calculation	05/16/11 10:43 / rls
A/C Balance	-3.28	%				Calculation	05/16/11 10:43 / rls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 21:11 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 21:11 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 21:11 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 21:11 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 21:11 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 21:11 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 21:11 / bjm
Surr: Trifluorotoluene	100	%REC		80-120		SW8021B	05/12/11 21:11 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-007
Client Sample ID Whitmer

Report Date: 05/23/11
Collection Date: 05/06/11 16:18
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:53 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-008
Client Sample ID M-18

Report Date: 05/23/11
Collection Date: 05/07/11 09:30
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500-H B	05/09/11 14:44 / sam
Conductivity @ 25 C	14600	umhos/cm		5		A2510 B	05/09/11 14:44 / sam
Solids, Total Dissolved TDS @ 180 C	10200	mg/L		10		A2540 C	05/09/11 16:57 / qed
INORGANICS							
Alkalinity, Total as CaCO3	152	mg/L		4		A2320 B	05/10/11 20:27 / sam
Bicarbonate as HCO3	185	mg/L		4		A2320 B	05/10/11 20:27 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 20:27 / sam
Chloride	5410	mg/L	D	20		E300.0	05/13/11 01:19 / kh
Sulfate	1210	mg/L	D	100		E300.0	05/13/11 01:19 / kh
Fluoride	0.1	mg/L		0.1		A4500-F C	05/16/11 16:32 / sam
Hardness as CaCO3	2660	mg/L		1		A2340 B	05/13/11 13:08 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	2.5	mg/L	D	0.1		E350.1	05/09/11 14:02 / jlh
Nitrogen, Nitrate+Nitrite as N	0.02	mg/L		0.01		E353.2	05/10/11 06:55 / bls
METALS, DISSOLVED							
Calcium	494	mg/L		1		E200.7	05/13/11 13:08 / rlh
Magnesium	346	mg/L		1		E200.7	05/13/11 13:08 / rlh
Potassium	22	mg/L		1		E200.7	05/13/11 13:08 / rlh
Silica	11.7	mg/L	D	0.7		E200.7	05/10/11 17:51 / rlh
Sodium	2500	mg/L	D	8		E200.7	05/13/11 13:08 / rlh
METALS, TOTAL							
Silica	13.1	mg/L	D	0.9		E200.7	05/10/11 17:20 / rlh
QUALITY CONTROL							
A/C Balance Sigma	7.52					Calculation	05/16/11 10:46 / rls
Anions	186	meq/L		0.01		Calculation	05/16/11 10:46 / rls
Cations	163	meq/L		0.01		Calculation	05/16/11 10:46 / rls
A/C Balance	-6.43	%				Calculation	05/16/11 10:46 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 13:12 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/13/11 13:12 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 13:12 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 13:12 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 13:12 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 13:12 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 13:12 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-008
Client Sample ID M-18

Report Date: 05/23/11
Collection Date: 05/07/11 09:30
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	102	%REC		80-120		SW8021B	05/13/11 13:12 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:46 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-009
Client Sample ID M-27

Report Date: 05/23/11
Collection Date: 05/07/11 10:15
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.2	s.u.		0.1		A4500-H B	05/09/11 14:46 / sam
Conductivity @ 25 C	17100	umhos/cm		5		A2510 B	05/09/11 14:46 / sam
Solids, Total Dissolved TDS @ 180 C	12400	mg/L		10		A2540 C	05/10/11 17:48 / qed
INORGANICS							
Alkalinity, Total as CaCO3	67	mg/L		4		A2320 B	05/10/11 20:35 / sam
Bicarbonate as HCO3	82	mg/L		4		A2320 B	05/10/11 20:35 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 20:35 / sam
Chloride	6450	mg/L	D	20		E300.0	05/13/11 01:29 / kh
Sulfate	1100	mg/L	D	100		E300.0	05/12/11 03:22 / kh
Fluoride	ND	mg/L		0.1		A4500-F C	05/16/11 16:37 / sam
Hardness as CaCO3	3970	mg/L		1		A2340 B	05/13/11 13:12 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	2.95	mg/L		0.05		E350.1	05/09/11 14:03 / jlh
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	05/10/11 06:57 / bls
METALS, DISSOLVED							
Calcium	786	mg/L		1		E200.7	05/13/11 13:12 / rlh
Magnesium	487	mg/L		1		E200.7	05/13/11 13:12 / rlh
Potassium	24	mg/L		1		E200.7	05/13/11 13:12 / rlh
Silica	3.9	mg/L	D	0.4		E200.7	05/13/11 13:12 / rlh
Sodium	2420	mg/L	D	8		E200.7	05/13/11 13:12 / rlh
METALS, TOTAL							
Silica	5.3	mg/L	D	0.9		E200.7	05/10/11 17:23 / rlh
QUALITY CONTROL							
A/C Balance Sigma	5.41					Calculation	05/18/11 09:27 / rls
Anions	207	meq/L		0.01		Calculation	05/18/11 09:27 / rls
Cations	189	meq/L		0.01		Calculation	05/18/11 09:27 / rls
A/C Balance	-4.53	%				Calculation	05/18/11 09:27 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 13:48 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/13/11 13:48 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 13:48 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 13:48 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 13:48 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 13:48 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 13:48 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-009
Client Sample ID M-27

Report Date: 05/23/11
Collection Date: 05/07/11 10:15
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/13/11 13:48 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	1.6	mg/L		1.0		E1664A	05/11/11 17:20 / eli-g
- The TPH value was confirmed by re-analysis.							

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-010
Client Sample ID M-31

Report Date: 05/23/11
Collection Date: 05/07/11 12:30
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500-H B	05/09/11 14:49 / sam
Conductivity @ 25 C	76700	umhos/cm	E	5		A2510 B	05/09/11 14:49 / sam
Solids, Total Dissolved TDS @ 180 C	60300	mg/L		10		A2540 C	05/10/11 17:47 / qed
INORGANICS							
Alkalinity, Total as CaCO3	541	mg/L		4		A2320 B	05/13/11 20:01 / sam
Bicarbonate as HCO3	660	mg/L		4		A2320 B	05/13/11 20:01 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/13/11 20:01 / sam
Chloride	35800	mg/L	D	100		E300.0	05/13/11 01:39 / kh
Sulfate	1550	mg/L	D	500		E300.0	05/12/11 03:34 / kh
Fluoride	0.1	mg/L		0.1		A4500-F C	05/16/11 16:42 / sam
Hardness as CaCO3	5070	mg/L		1		A2340 B	05/10/11 18:04 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	10.4	mg/L	D	0.3		E350.1	05/09/11 14:04 / jlh
Nitrogen, Nitrate+Nitrite as N	0.26	mg/L		0.01		E353.2	05/10/11 06:52 / bls
METALS, DISSOLVED							
Calcium	1270	mg/L	D	4		E200.7	05/10/11 18:04 / rlh
Magnesium	460	mg/L		1		E200.7	05/10/11 18:04 / rlh
Potassium	237	mg/L		1		E200.7	05/10/11 18:04 / rlh
Silica	18	mg/L	D	2		E200.7	05/13/11 13:15 / rlh
Sodium	19400	mg/L	D	40		E200.7	05/10/11 18:04 / rlh
METALS, TOTAL							
Silica	21	mg/L	D	3		E200.7	05/10/11 14:38 / rlh
QUALITY CONTROL							
A/C Balance Sigma	6.09					Calculation	05/16/11 10:52 / rls
Anions	1050	meq/L		0.01		Calculation	05/16/11 10:52 / rls
Cations	954	meq/L		0.01		Calculation	05/16/11 10:52 / rls
A/C Balance	-4.99	%				Calculation	05/16/11 10:52 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 15:00 / bjm
Benzene	26	ug/L		0.50		SW8021B	05/13/11 15:00 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 15:00 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 15:00 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 15:00 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 15:00 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 15:00 / bjm

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-010
Client Sample ID M-31

Report Date: 05/23/11
Collection Date: 05/07/11 12:30
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/13/11 15:00 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:53 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-011
Client Sample ID PNR-RW-6

Report Date: 05/23/11
Collection Date: 05/06/11 11:20
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500-H B	05/09/11 14:52 / sam
Conductivity @ 25 C	40500	umhos/cm	E	5		A2510 B	05/09/11 14:52 / sam
INORGANICS							
Chloride	18600	mg/L	D	50		E300.0	05/12/11 03:46 / kh
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 15:36 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/13/11 15:36 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 15:36 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 15:36 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 15:36 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 15:36 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 15:36 / bjm
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/13/11 15:36 / bjm

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-012
Client Sample ID PNR-RW-12

Report Date: 05/23/11
Collection Date: 05/06/11 11:35
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500-H B	05/09/11 14:57 / sam
Conductivity @ 25 C	42900	umhos/cm	E	5		A2510 B	05/09/11 14:57 / sam
INORGANICS							
Chloride	18900	mg/L	D	50		E300.0	05/12/11 03:57 / kh
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/14/11 20:21 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/14/11 20:21 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/14/11 20:21 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/14/11 20:21 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/14/11 20:21 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/14/11 20:21 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/14/11 20:21 / bjm
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/14/11 20:21 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-013
Client Sample ID PNR-RW-3

Report Date: 05/23/11
Collection Date: 05/06/11 11:45
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500-H B	05/09/11 15:00 / sam
Conductivity @ 25 C	52800	umhos/cm	E	5		A2510 B	05/09/11 15:00 / sam
INORGANICS							
Chloride	24100	mg/L	D	50		E300.0	05/12/11 04:09 / kh
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/14/11 20:57 / bjm
Benzene	12	ug/L		0.50		SW8021B	05/14/11 20:57 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/14/11 20:57 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/14/11 20:57 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/14/11 20:57 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/14/11 20:57 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/14/11 20:57 / bjm
Surr: Trifluorotoluene	100	%REC		80-120		SW8021B	05/14/11 20:57 / bjm

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-014
Client Sample ID PNR-RW-4

Report Date: 05/23/11
Collection Date: 05/06/11 13:54
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.0	s.u.		0.1		A4500-H B	05/09/11 15:02 / sam
Conductivity @ 25 C	30900	umhos/cm	E	5		A2510 B	05/09/11 15:02 / sam
INORGANICS							
Chloride	12700	mg/L	D	50		E300.0	05/12/11 04:21 / kh
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/14/11 21:33 / bjm
Benzene	2.7	ug/L		0.50		SW8021B	05/14/11 21:33 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/14/11 21:33 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/14/11 21:33 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/14/11 21:33 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/14/11 21:33 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/14/11 21:33 / bjm
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/14/11 21:33 / bjm

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-015
Client Sample ID PNR-RW-5

Report Date: 05/23/11
Collection Date: 05/06/11 14:09
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500-H B	05/09/11 15:05 / sam
Conductivity @ 25 C	27300	umhos/cm	E	5		A2510 B	05/09/11 15:05 / sam
INORGANICS							
Chloride	10900	mg/L	D	50		E300.0	05/12/11 04:32 / kh
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/14/11 22:45 / bjm
Benzene	2.2	ug/L		0.50		SW8021B	05/14/11 22:45 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/14/11 22:45 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/14/11 22:45 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/14/11 22:45 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/14/11 22:45 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/14/11 22:45 / bjm
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/14/11 22:45 / bjm

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-016
Client Sample ID PNR-RW-9

Report Date: 05/23/11
Collection Date: 05/06/11 14:24
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.3	s.u.		0.1		A4500-H B	05/09/11 15:08 / sam
Conductivity @ 25 C	25800	umhos/cm	E	5		A2510 B	05/09/11 15:08 / sam
INORGANICS							
Chloride	9350	mg/L	D	50		E300.0	05/12/11 04:44 / kh
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/15/11 00:32 / bjm
Benzene	0.65	ug/L		0.50		SW8021B	05/15/11 00:32 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/15/11 00:32 / bjm
Ethylbenzene	4.7	ug/L		0.50		SW8021B	05/15/11 00:32 / bjm
m+p-Xylenes	1.5	ug/L		0.50		SW8021B	05/15/11 00:32 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/15/11 00:32 / bjm
Xylenes, Total	1.5	ug/L		0.50		SW8021B	05/15/11 00:32 / bjm
Surr: Trifluorotoluene	104	%REC		80-120		SW8021B	05/15/11 00:32 / bjm

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-017
Client Sample ID PNR-RW-10

Report Date: 05/23/11
Collection Date: 05/06/11 14:42
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	8.0	s.u.		0.1		A4500-H B	05/10/11 11:06 / sam
Conductivity @ 25 C	5030	umhos/cm		5		A2510 B	05/10/11 11:06 / sam
INORGANICS							
Chloride	436	mg/L	D	5		E300.0	05/12/11 05:19 / kh
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/14/11 23:20 / bjm
Benzene	6.8	ug/L		0.50		SW8021B	05/14/11 23:20 / bjm
Toluene	28	ug/L		0.50		SW8021B	05/14/11 23:20 / bjm
Ethylbenzene	33	ug/L		0.50		SW8021B	05/14/11 23:20 / bjm
m+p-Xylenes	50	ug/L		0.50		SW8021B	05/14/11 23:20 / bjm
o-Xylene	18	ug/L		0.50		SW8021B	05/14/11 23:20 / bjm
Xylenes, Total	69	ug/L		0.50		SW8021B	05/14/11 23:20 / bjm
Surr: Trifluorotoluene	116	%REC		80-120		SW8021B	05/14/11 23:20 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-018
Client Sample ID PNR-RW-11

Report Date: 05/23/11
Collection Date: 05/06/11 14:55
DateReceived: 05/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.0	s.u.		0.1		A4500-H B	05/10/11 11:09 / sam
Conductivity @ 25 C	47500	umhos/cm	E	5		A2510 B	05/10/11 11:09 / sam
INORGANICS							
Chloride	20300	mg/L	D	50		E300.0	05/12/11 05:54 / kh
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/16/11 15:50 / bjm
Benzene	8.3	ug/L		0.50		SW8021B	05/16/11 15:50 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/16/11 15:50 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/16/11 15:50 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/16/11 15:50 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/16/11 15:50 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/16/11 15:50 / bjm
Surr: Trifluorotoluene	97.0	%REC		80-120		SW8021B	05/16/11 15:50 / bjm

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-019
Client Sample ID Trip Blank #1 Lot #050511, B-KR 0253

Report Date: 05/23/11
Collection Date: 05/06/11 10:20
DateReceived: 05/09/11
Matrix: Trip Blank

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	05/12/11 15:48 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 15:48 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 15:48 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 15:48 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 15:48 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 15:48 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 15:48 / bjm
Surr: Trifluorotoluene	101	%REC		80-120		SW8021B	05/12/11 15:48 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-020
Client Sample ID Trip Blank #2 Lot #050511, B-KR 0253

Report Date: 05/23/11
Collection Date: 05/06/11 10:30
DateReceived: 05/09/11
Matrix: Trip Blank

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	05/12/11 16:24 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 16:24 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 16:24 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 16:24 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 16:24 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 16:24 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 16:24 / bjm
Surr: Trifluorotoluene	101	%REC		80-120		SW8021B	05/12/11 16:24 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-021
Client Sample ID Trip Blank #3 Lot #050511, B-KR 0253

Report Date: 05/23/11
Collection Date: 05/06/11 11:20
DateReceived: 05/09/11
Matrix: Trip Blank

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	05/12/11 17:00 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 17:00 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 17:00 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 17:00 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 17:00 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 17:00 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 17:00 / bjm
Surr: Trifluorotoluene	100	%REC		80-120		SW8021B	05/12/11 17:00 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050715-022
Client Sample ID Trip Blank #4 Lot #050511,B-KR 0253

Report Date: 05/23/11
Collection Date: 05/06/11 15:30
DateReceived: 05/09/11
Matrix: Trip Blank

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	05/12/11 17:36 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 17:36 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 17:36 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 17:36 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 17:36 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 17:36 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 17:36 / bjm
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/12/11 17:36 / bjm

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

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: R165377
Sample ID: MBLK	Method Blank				Run: MAN-TECH_110510A				05/10/11 15:27
Alkalinity, Total as CaCO3	ND	mg/L	3						
Bicarbonate as HCO3	ND	mg/L	3						
Carbonate as CO3	ND	mg/L	4						
Sample ID: LCS	Laboratory Control Sample				Run: MAN-TECH_110510A				05/10/11 15:33
Alkalinity, Total as CaCO3	100	mg/L	4.0	100	90	110			
Sample ID: B11050715-001ADUP	Sample Duplicate				Run: MAN-TECH_110510A				05/10/11 18:26
Alkalinity, Total as CaCO3	646	mg/L	4.0				0.1	20	
Bicarbonate as HCO3	788	mg/L	4.0				0.1	20	
Carbonate as CO3	ND	mg/L	4.0					20	
Sample ID: B11050715-002AMS	Sample Matrix Spike				Run: MAN-TECH_110510A				05/10/11 18:43
Alkalinity, Total as CaCO3	899	mg/L	4.0	87	80	120			
Sample ID: MBLK	Method Blank				Run: MAN-TECH_110510A				05/10/11 19:59
Alkalinity, Total as CaCO3	3	mg/L	3						
Bicarbonate as HCO3	4	mg/L	3						
Carbonate as CO3	ND	mg/L	4						
Sample ID: LCS	Laboratory Control Sample				Run: MAN-TECH_110510A				05/10/11 20:05
Alkalinity, Total as CaCO3	101	mg/L	4.0	98	90	110			
Sample ID: B11050723-001BDUP	Sample Duplicate				Run: MAN-TECH_110510A				05/10/11 20:56
Alkalinity, Total as CaCO3	82.6	mg/L	4.0				0.7	20	
Bicarbonate as HCO3	101	mg/L	4.0				0.7	20	
Carbonate as CO3	ND	mg/L	4.0					20	
Sample ID: B11050723-002AMS	Sample Matrix Spike				Run: MAN-TECH_110510A				05/10/11 21:08
Alkalinity, Total as CaCO3	214	mg/L	4.0	104	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: R165584
Sample ID: MBLK	Method Blank				Run: MAN-TECH_110513B				05/13/11 18:06
Alkalinity, Total as CaCO3	ND	mg/L	3						
Bicarbonate as HCO3	ND	mg/L	3						
Carbonate as CO3	ND	mg/L	4						
Sample ID: LCS	Laboratory Control Sample				Run: MAN-TECH_110513B				05/13/11 18:12
Alkalinity, Total as CaCO3	101	mg/L	4.0	101	90	110			
Sample ID: B11050715-003ADUP	Sample Duplicate				Run: MAN-TECH_110513B				05/13/11 19:16
Alkalinity, Total as CaCO3	1280	mg/L	4.0				0.1	20	
Bicarbonate as HCO3	1560	mg/L	4.0				0.1	20	
Carbonate as CO3	ND	mg/L	4.0					20	
Sample ID: B11050715-005AMS	Sample Matrix Spike				Run: MAN-TECH_110513B				05/13/11 19:34
Alkalinity, Total as CaCO3	542	mg/L	4.0	85	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B									Batch: R165252
Sample ID: SC 2ND 1413	Laboratory Control Sample				Run: PHSC_101-B_110509A				05/09/11 08:46
Conductivity @ 25 C	1460	umhos/cm	5.0	103	90	110			
Sample ID: MBLK	Method Blank				Run: PHSC_101-B_110509A				05/09/11 10:55
Conductivity @ 25 C	2	umhos/cm							
Sample ID: B11050715-002ADUP	Sample Duplicate				Run: PHSC_101-B_110509A				05/09/11 14:28
Conductivity @ 25 C	14200	umhos/cm	5.0				1.0	10	
Sample ID: B11050715-011ADUP	Sample Duplicate				Run: PHSC_101-B_110509A				05/09/11 14:54
Conductivity @ 25 C	42000	umhos/cm	5.0				3.6	10	
Method: A2510 B									Batch: R165300
Sample ID: SC 2ND 1413	Laboratory Control Sample				Run: PHSC_101-B_110510A				05/10/11 08:36
Conductivity @ 25 C	1440	umhos/cm	5.0	102	90	110			
Sample ID: MBLK	Method Blank				Run: PHSC_101-B_110510A				05/10/11 11:03
Conductivity @ 25 C	1	umhos/cm							
Sample ID: B11050783-001ADUP	Sample Duplicate				Run: PHSC_101-B_110510A				05/10/11 11:16
Conductivity @ 25 C	152	umhos/cm	5.0				1.3	10	
Method: A2510 B									Batch: R165444
Sample ID: SC 2ND 1413	Laboratory Control Sample				Run: PHSC_101-B_110512A				05/12/11 09:01
Conductivity @ 25 C	1430	umhos/cm	5.0	101	90	110			
Sample ID: MBLK	Method Blank				Run: PHSC_101-B_110512A				05/12/11 09:06
Conductivity @ 25 C	1	umhos/cm							
Sample ID: B11050715-009ADUP	Sample Duplicate				Run: PHSC_101-B_110512A				05/12/11 11:59
Conductivity @ 25 C	16700	umhos/cm	5.0				2.3	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: TDS110509B
Sample ID: MBLK2	Method Blank				Run: CPA124S_110509B				05/09/11 16:14
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	9						
Sample ID: LCS2	Laboratory Control Sample				Run: CPA124S_110509B				05/09/11 16:15
Solids, Total Dissolved TDS @ 180 C	1680	mg/L	10	101	90	110			
Sample ID: B11050651-023A MS	Sample Matrix Spike				Run: CPA124S_110509B				05/09/11 16:19
Solids, Total Dissolved TDS @ 180 C	9390	mg/L	10	105	90	110			
Sample ID: B11050715-004A DUP	Sample Duplicate				Run: CPA124S_110509B				05/09/11 16:52
Solids, Total Dissolved TDS @ 180 C	20600	mg/L	10		90	110	0.7	5	
Method: A2540 C									Batch: TDS110510A
Sample ID: MBLK1	Method Blank				Run: CPA124S_110510C				05/10/11 17:38
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	9						
Sample ID: LCS1	Laboratory Control Sample				Run: CPA124S_110510C				05/10/11 17:39
Solids, Total Dissolved TDS @ 180 C	1660	mg/L	10	100	90	110			
Sample ID: B11050780-001A MS	Sample Matrix Spike				Run: CPA124S_110510C				05/10/11 17:42
Solids, Total Dissolved TDS @ 180 C	2040	mg/L	10	88	90	110			S
Sample ID: B11050715-010A DUP	Sample Duplicate				Run: CPA124S_110510C				05/10/11 17:47
Solids, Total Dissolved TDS @ 180 C	59100	mg/L	10		90	110	2.0	5	

Qualifiers:

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

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte		Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**A4500-F C**								Analytical Run: MAN-TECH_110511A	
Sample ID:	**ICV**	Initial Calibration Verification Standard							05/11/11 16:35	
Fluoride		1.02	mg/L	0.10	102	90	110			
Method:	**A4500-F C**								Batch: R165446	
Sample ID:	**MBLK**	Method Blank				Run: MAN-TECH_110511A			05/11/11 16:29	
Fluoride		ND	mg/L	0.01						
Sample ID:	**LFB**	Laboratory Fortified Blank				Run: MAN-TECH_110511A			05/11/11 16:32	
Fluoride		0.960	mg/L	0.10	96	90	110			
Sample ID:	**B11050715-006AMS**	Sample Matrix Spike				Run: MAN-TECH_110511A			05/11/11 22:07	
Fluoride		0.970	mg/L	0.10	82	80	120			
Sample ID:	**B11050715-006AMSD**	Sample Matrix Spike Duplicate				Run: MAN-TECH_110511A			05/11/11 22:09	
Fluoride		0.990	mg/L	0.10	84	80	120	2.0	10	
Method:	**A4500-F C**								Analytical Run: MAN-TECH_110516B	
Sample ID:	**ICV**	Initial Calibration Verification Standard							05/16/11 15:47	
Fluoride		1.04	mg/L	0.10	104	90	110			
Method:	**A4500-F C**								Batch: R165669	
Sample ID:	**MBLK**	Method Blank				Run: MAN-TECH_110516B			05/16/11 15:38	
Fluoride		ND	mg/L	0.01						
Sample ID:	**LFB**	Laboratory Fortified Blank				Run: MAN-TECH_110516B			05/16/11 15:42	
Fluoride		0.990	mg/L	0.10	99	90	110			
Sample ID:	**B11051181-003AMS**	Sample Matrix Spike				Run: MAN-TECH_110516B			05/16/11 16:04	
Fluoride		2.76	mg/L	0.10	89	80	120			
Sample ID:	**B11051181-003AMSD**	Sample Matrix Spike Duplicate				Run: MAN-TECH_110516B			05/16/11 16:09	
Fluoride		2.74	mg/L	0.10	87	80	120	0.7	10	
Sample ID:	**B11051194-001AMS**	Sample Matrix Spike				Run: MAN-TECH_110516B			05/16/11 16:50	
Fluoride		4.14	mg/L	0.10	67	80	120			S
Sample ID:	**B11051194-001AMSD**	Sample Matrix Spike Duplicate				Run: MAN-TECH_110516B			05/16/11 16:55	
Fluoride		4.16	mg/L	0.10	69	80	120	0.5	10	S

Qualifiers:

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

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B							Analytical Run: PHSC _101-B_110509A		
Sample ID: pH 8	Initial Calibration Verification Standard								05/09/11 08:36
pH	7.95	s.u.	0.10	99	98	102			
Method: A4500-H B									Batch: R165252
Sample ID: B11050715-002ADUP	Sample Duplicate				Run: PHSC _101-B_110509A				05/09/11 14:28
pH	6.85	s.u.	0.10				0.1	3	
Sample ID: B11050715-011ADUP	Sample Duplicate				Run: PHSC _101-B_110509A				05/09/11 14:54
pH	6.79	s.u.	0.10				0.3	3	
Method: A4500-H B							Analytical Run: PHSC _101-B_110510A		
Sample ID: pH 8	Initial Calibration Verification Standard								05/10/11 08:24
pH	7.95	s.u.	0.10	99	98	102			
Method: A4500-H B									Batch: R165300
Sample ID: B11050783-001ADUP	Sample Duplicate				Run: PHSC _101-B_110510A				05/10/11 11:16
pH	6.64	s.u.	0.10				0.3	3	
Method: A4500-H B							Analytical Run: PHSC _101-B_110512A		
Sample ID: pH 8	Initial Calibration Verification Standard								05/12/11 08:50
pH	7.94	s.u.	0.10	99	98	102			
Method: A4500-H B									Batch: R165444
Sample ID: B11050715-009ADUP	Sample Duplicate				Run: PHSC _101-B_110512A				05/12/11 11:59
pH	5.72	s.u.	0.10				0.0	3	

Qualifiers:

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ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E1664A								Batch: G_TPH110511A	
Sample ID: G11050261-002BMS	Sample Matrix Spike				Run: SUB-G185412			05/11/11 14:18	
Total Petroleum Hydrocarbons	15	mg/L	1.0	72	64	132			
Sample ID: LCSD1105110000	Laboratory Control Sample Duplicate				Run: SUB-G185412			05/11/11 14:15	
Total Petroleum Hydrocarbons	16	mg/L	1.0	80	64	132	4.9	34	
Sample ID: LCS1105110000	Laboratory Control Sample				Run: SUB-G185412			05/11/11 14:13	
Total Petroleum Hydrocarbons	17	mg/L	1.0	84	64	132			
Sample ID: MBLK1105110000	Method Blank				Run: SUB-G185412			05/11/11 14:12	
Total Petroleum Hydrocarbons	ND	mg/L	0.4						
Method: E1664A								Batch: G_TPH110511B	
Sample ID: B11050651-008E	Sample Matrix Spike				Run: SUB-G185421			05/11/11 16:41	
Total Petroleum Hydrocarbons	15	mg/L	1.0	70	64	132			
Sample ID: MBLK1105110000	Method Blank				Run: SUB-G185421			05/11/11 16:32	
Total Petroleum Hydrocarbons	ND	mg/L	0.4						
Sample ID: LCS1105110000	Laboratory Control Sample				Run: SUB-G185421			05/11/11 16:33	
Total Petroleum Hydrocarbons	16	mg/L	1.0	79	64	132			
Sample ID: LCSD1105110000	Laboratory Control Sample Duplicate				Run: SUB-G185421			05/11/11 16:34	
Total Petroleum Hydrocarbons	16	mg/L	1.0	80	64	132	1.3	34	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP202-B_110510A	
Sample ID: ICV	Continuing Calibration Verification Standard							05/10/11 11:48	
Calcium	24.5	mg/L	1.0	98	95	105			
Magnesium	24.0	mg/L	1.0	96	95	105			
Potassium	24.6	mg/L	1.0	98	95	105			
Sodium	24.4	mg/L	1.0	97	95	105			
Silicon	5.05	mg/L	0.10	101	95	105			
Method: E200.7								Batch: R165382	
Sample ID: MB-SPDIS110510A	Method Blank				Run: ICP202-B_110510A			05/10/11 12:31	
Calcium	ND	mg/L	0.04						
Magnesium	ND	mg/L	0.01						
Potassium	0.004	mg/L	0.004						
Sodium	ND	mg/L	0.006						
Silicon	0.03	mg/L	0.02						
Sample ID: LFB-SPDIS110510A	Laboratory Fortified Blank				Run: ICP202-B_110510A			05/10/11 12:34	
Calcium	50.5	mg/L	1.0	101	85	115			
Magnesium	50.8	mg/L	1.0	102	85	115			
Potassium	51.0	mg/L	1.0	102	85	115			
Sodium	51.3	mg/L	1.0	103	85	115			
Silicon	10.8	mg/L	0.10	108	85	115			
Sample ID: B11050682-004CMS2	Sample Matrix Spike				Run: ICP202-B_110510A			05/10/11 14:12	
Calcium	286	mg/L	1.0	99	70	130			
Magnesium	268	mg/L	1.0	100	70	130			
Potassium	254	mg/L	1.0	99	70	130			
Silicon	56.5	mg/L	0.10	105	70	130			
Sodium	1270	mg/L	1.0		70	130			A
Silica	121	mg/L	0.21	105	70	130			
Sample ID: B11050682-004CMSD2	Sample Matrix Spike Duplicate				Run: ICP202-B_110510A			05/10/11 14:15	
Calcium	274	mg/L	1.0	94	70	130	4.4	20	
Magnesium	260	mg/L	1.0	97	70	130	3.1	20	
Potassium	260	mg/L	1.0	101	70	130	2.1	20	
Silicon	56.0	mg/L	0.10	104	70	130	0.9	20	
Sodium	1280	mg/L	1.0		70	130	0.9	20	A
Silica	120	mg/L	0.21	104	70	130	0.9	20	
Sample ID: B11050780-001AMS2	Sample Matrix Spike				Run: ICP202-B_110510A			05/10/11 16:50	
Calcium	93.8	mg/L	1.0	93	70	130			
Magnesium	58.6	mg/L	1.0	96	70	130			
Potassium	57.6	mg/L	1.0	97	70	130			
Silicon	31.2	mg/L	0.10	100	70	130			
Sodium	176	mg/L	1.0	103	70	130			
Silica	66.9	mg/L	0.21	100	70	130			

Qualifiers:

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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.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM **Report Date:** 05/18/11

Project: Biere Well Remediation **Work Order:** B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R165382
Sample ID: B11050780-001AMS2	Sample Matrix Spike				Run: ICP202-B_110510A				05/10/11 16:50
Sample ID: B11050780-001AMSD2	Sample Matrix Spike Duplicate				Run: ICP202-B_110510A				05/10/11 16:54
Calcium	96.6	mg/L	1.0	99	70	130	2.9	20	
Magnesium	59.5	mg/L	1.0	98	70	130	1.6	20	
Potassium	61.1	mg/L	1.0	104	70	130	5.9	20	
Silicon	31.3	mg/L	0.10	101	70	130	0.3	20	
Sodium	175	mg/L	1.0	101	70	130	0.6	20	
Silica	67.0	mg/L	0.21	101	70	130	0.3	20	
Sample ID: MB-53847	Method Blank				Run: ICP202-B_110510A				05/10/11 17:09
Calcium	ND	mg/L	0.04						
Magnesium	ND	mg/L	0.01						
Potassium	0.4	mg/L	0.004						
Silicon	0.08	mg/L	0.02						
Sodium	0.06	mg/L	0.006						
Silica	0.2	mg/L	0.03						
Sample ID: B11050715-006BMS2	Sample Matrix Spike				Run: ICP202-B_110510A				05/10/11 17:38
Calcium	1880	mg/L	1.0	96	70	130			
Magnesium	1440	mg/L	1.0	98	70	130			
Potassium	1060	mg/L	1.0	103	70	130			
Silicon	233	mg/L	0.33	111	70	130			
Sodium	4160	mg/L	7.5	134	70	130			S
Silica	499	mg/L	0.71	111	70	130			
Sample ID: B11050715-006BMSD2	Sample Matrix Spike Duplicate				Run: ICP202-B_110510A				05/10/11 17:41
Calcium	1920	mg/L	1.0	100	70	130	2.0	20	
Magnesium	1440	mg/L	1.0	98	70	130	0.0	20	
Potassium	1020	mg/L	1.0	100	70	130	3.7	20	
Silicon	228	mg/L	0.33	108	70	130	2.4	20	
Sodium	4010	mg/L	7.5	119	70	130	3.6	20	
Silica	487	mg/L	0.71	108	70	130	2.4	20	
Sample ID: B11050729-002CMS2	Sample Matrix Spike				Run: ICP202-B_110510A				05/10/11 18:23
Calcium	209	mg/L	1.0	100	70	130			
Magnesium	173	mg/L	1.0	100	70	130			
Potassium	116	mg/L	1.0	102	70	130			
Silicon	31.6	mg/L	0.10	106	70	130			
Sodium	254	mg/L	1.0	98	70	130			
Silica	67.6	mg/L	0.21	106	70	130			
Sample ID: B11050729-002CMSD2	Sample Matrix Spike Duplicate				Run: ICP202-B_110510A				05/10/11 18:27
Calcium	210	mg/L	1.0	101	70	130	0.6	20	
Magnesium	170	mg/L	1.0	97	70	130	1.4	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R165382
Sample ID: B11050729-002CMSD2	Sample Matrix Spike Duplicate				Run: ICP202-B_110510A				05/10/11 18:27
Potassium	114	mg/L	1.0	99	70	130	2.2	20	
Silicon	32.0	mg/L	0.10	108	70	130	1.2	20	
Sodium	259	mg/L	1.0	103	70	130	1.8	20	
Silica	68.3	mg/L	0.21	108	70	130	1.2	20	
Method: E200.7									Analytical Run: ICP203-B_110510A
Sample ID: ICV	Continuing Calibration Verification Standard								05/10/11 12:18
Silicon	4.98	mg/L	0.10	100	95	105			
Method: E200.7									Batch: 53859
Sample ID: MB-53859	Method Blank				Run: ICP203-B_110510A				05/10/11 16:36
Silicon	ND	mg/L	0.02						
Silica	ND	mg/L	0.03						
Sample ID: LCS-53859	Laboratory Control Sample				Run: ICP203-B_110510A				05/10/11 16:40
Silicon	5.37	mg/L	0.10	107	85	115			
Silica	11.5	mg/L	0.21	107	85	115			
Sample ID: B11050708-001AMS3	Sample Matrix Spike				Run: ICP203-B_110510A				05/10/11 16:59
Silicon	30.3	mg/L	0.10		70	130			A
Silica	64.9	mg/L	0.21		70	130			A
Sample ID: B11050708-001AMSD3	Sample Matrix Spike Duplicate				Run: ICP203-B_110510A				05/10/11 17:02
Silicon	30.5	mg/L	0.10		70	130	0.5	20	A
Silica	65.2	mg/L	0.21		70	130	0.5	20	A

Qualifiers:

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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.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP203-B_110513A	
Sample ID: ICV	Continuing Calibration Verification Standard							05/13/11 11:58	
Calcium	25.0	mg/L	1.0	100	95	105			
Magnesium	24.2	mg/L	1.0	97	95	105			
Potassium	25.8	mg/L	1.0	103	95	105			
Sodium	26.3	mg/L	1.0	105	95	105			
Silicon	5.22	mg/L	0.10	104	95	105			
Method: E200.7								Batch: R165575	
Sample ID: MB-6500DIS110513A	Method Blank				Run: ICP203-B_110513A			05/13/11 12:18	
Calcium	ND	mg/L	0.01						
Magnesium	ND	mg/L	0.007						
Potassium	ND	mg/L	0.02						
Sodium	ND	mg/L	0.01						
Silicon	ND	mg/L	0.009						
Sample ID: LFB-6500DIS110513A	Laboratory Fortified Blank				Run: ICP203-B_110513A			05/13/11 12:21	
Calcium	48.5	mg/L	1.0	97	85	115			
Magnesium	47.4	mg/L	1.0	95	85	115			
Potassium	50.3	mg/L	1.0	101	85	115			
Sodium	49.6	mg/L	1.0	99	85	115			
Silicon	10.5	mg/L	0.10	105	85	115			
Sample ID: MB-53847	Method Blank				Run: ICP203-B_110513A			05/13/11 12:24	
Calcium	0.04	mg/L	0.01						
Magnesium	ND	mg/L	0.007						
Potassium	0.5	mg/L	0.02						
Silicon	0.09	mg/L	0.009						
Sodium	ND	mg/L	0.4						
Silica	0.2	mg/L	0.02						
Sample ID: B11050715-001BMS2	Sample Matrix Spike				Run: ICP203-B_110513A			05/13/11 12:34	
Calcium	1040	mg/L	1.0	94	70	130			
Magnesium	972	mg/L	1.0	93	70	130			
Potassium	1010	mg/L	1.0	97	70	130			
Silicon	214	mg/L	0.19	102	70	130			
Sodium	3520	mg/L	8.2	92	70	130			
Silica	459	mg/L	0.40	102	70	130			
Sample ID: B11050715-001BMSD2	Sample Matrix Spike Duplicate				Run: ICP203-B_110513A			05/13/11 12:44	
Calcium	1060	mg/L	1.0	96	70	130	2.2	20	
Magnesium	983	mg/L	1.0	94	70	130	1.1	20	
Potassium	1040	mg/L	1.0	100	70	130	3.3	20	
Silicon	222	mg/L	0.19	106	70	130	3.6	20	
Sodium	3570	mg/L	8.2	96	70	130	1.3	20	
Silica	475	mg/L	0.40	106	70	130	3.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R165575
Sample ID: B11050715-001BMSD2	Sample Matrix Spike Duplicate				Run: ICP203-B_110513A				05/13/11 12:44
Sample ID: B11050764-001BMS2	Sample Matrix Spike				Run: ICP203-B_110513A				05/13/11 13:28
Calcium	276	mg/L	1.0	95	70	130			
Magnesium	255	mg/L	1.0	94	70	130			
Potassium	266	mg/L	1.0	102	70	130			
Silicon	58.1	mg/L	0.10	104	70	130			
Sodium	744	mg/L	2.1	94	70	130			
Silica	124	mg/L	0.21	104	70	130			
Sample ID: B11050764-001BMSD2	Sample Matrix Spike Duplicate				Run: ICP203-B_110513A				05/13/11 13:32
Calcium	271	mg/L	1.0	93	70	130	1.9	20	
Magnesium	252	mg/L	1.0	92	70	130	1.3	20	
Potassium	263	mg/L	1.0	101	70	130	1.0	20	
Silicon	57.3	mg/L	0.10	103	70	130	1.5	20	
Sodium	759	mg/L	2.1	100	70	130	2.0	20	
Silica	123	mg/L	0.21	103	70	130	1.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC202-B_110511A	
Sample ID: ICV051111-11	Initial Calibration Verification Standard							05/11/11 13:08	
Chloride	24.5	mg/L	1.0	98	90	110			
Sulfate	106	mg/L	1.0	106	90	110			
Method: E300.0								Batch: R165445	
Sample ID: ICB051111-12	Method Blank				Run: IC202-B_110511A			05/11/11 13:18	
Chloride	0.04	mg/L	0.02						
Sulfate	ND	mg/L	0.2						
Sample ID: LFB051111-13	Laboratory Fortified Blank				Run: IC202-B_110511A			05/11/11 13:28	
Chloride	24.4	mg/L	1.0	97	90	110			
Sulfate	103	mg/L	1.1	103	90	110			
Sample ID: B11050651-025AMS	Sample Matrix Spike				Run: IC202-B_110511A			05/12/11 00:05	
Chloride	604	mg/L	5.4	102	90	110			
Sulfate	4460	mg/L	21	110	90	110			
Sample ID: B11050651-025AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_110511A			05/12/11 00:16	
Chloride	609	mg/L	5.4	103	90	110	0.9	20	
Sulfate	4500	mg/L	21	112	90	110	0.9	20	S
Sample ID: B11050715-007AMS	Sample Matrix Spike				Run: IC202-B_110511A			05/12/11 02:48	
Chloride	3960	mg/L	13	97	90	110			
Sulfate	5910	mg/L	54	109	90	110			
Sample ID: B11050715-007AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_110511A			05/12/11 02:59	
Chloride	4000	mg/L	13	100	90	110	0.9	20	
Sulfate	5990	mg/L	54	111	90	110	1.4	20	S
Sample ID: B11050715-017AMS	Sample Matrix Spike				Run: IC202-B_110511A			05/12/11 05:30	
Chloride	947	mg/L	5.4	102	90	110			
Sulfate	3750	mg/L	21	107	90	110			
Sample ID: B11050715-017AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_110511A			05/12/11 05:42	
Chloride	939	mg/L	5.4	101	90	110	0.8	20	
Sulfate	3700	mg/L	21	104	90	110	1.3	20	

Qualifiers:

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

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC202-B_110512A	
Sample ID: ICV051211-11	Initial Calibration Verification Standard							05/12/11 11:28	
Chloride	24.7	mg/L	1.0	99	90	110			
Sulfate	105	mg/L	1.0	105	90	110			
Method: E300.0								Batch: R165499	
Sample ID: ICB051211-12	Method Blank				Run: IC202-B_110512A			05/12/11 11:38	
Chloride	0.07	mg/L	0.02						
Sulfate	ND	mg/L	0.2						
Sample ID: LFB051211-13	Laboratory Fortified Blank				Run: IC202-B_110512A			05/12/11 11:48	
Chloride	23.8	mg/L	1.0	95	90	110			
Sulfate	102	mg/L	1.1	102	90	110			
Sample ID: B11050715-001AMS	Sample Matrix Spike				Run: IC202-B_110512A			05/12/11 23:58	
Chloride	3950	mg/L	13	105	90	110			
Sulfate	7510	mg/L	54	112	90	110			S
Sample ID: B11050715-001AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_110512A			05/13/11 00:08	
Chloride	3940	mg/L	13	105	90	110	0.1	20	
Sulfate	7520	mg/L	54	112	90	110	0.1	20	S
Sample ID: B11050727-002AMS	Sample Matrix Spike				Run: IC202-B_110512A			05/13/11 02:19	
Chloride	409	mg/L	2.7	108	90	110			
Sulfate	2300	mg/L	11	114	90	110			S
Sample ID: B11050727-002AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_110512A			05/13/11 02:29	
Chloride	412	mg/L	2.7	109	90	110	0.6	20	
Sulfate	2300	mg/L	11	115	90	110	0.4	20	S

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E350.1								Analytical Run: FIA203-B_110509B	
Sample ID: ICV	Initial Calibration Verification Standard								05/09/11 12:54
Nitrogen, Ammonia as N	8.14	mg/L	0.30	100	90	110			
Method: E350.1									Batch: R165271
Sample ID: MBLK	Method Blank				Run: FIA203-B_110509B				05/09/11 12:55
Nitrogen, Ammonia as N	ND	mg/L	0.01						
Sample ID: LFB	Laboratory Fortified Blank				Run: FIA203-B_110509B				05/09/11 12:56
Nitrogen, Ammonia as N	0.992	mg/L	0.050	100	90	110			
Sample ID: B11050715-001DMS	Sample Matrix Spike				Run: FIA203-B_110509B				05/09/11 13:52
Nitrogen, Ammonia as N	7.34	mg/L	0.30	98	90	110			
Sample ID: B11050715-001DMSD	Sample Matrix Spike Duplicate				Run: FIA203-B_110509B				05/09/11 13:53
Nitrogen, Ammonia as N	7.28	mg/L	0.30	97	90	110	0.8	10	
Sample ID: B11050720-001AMS	Sample Matrix Spike				Run: FIA203-B_110509B				05/09/11 14:09
Nitrogen, Ammonia as N	10.8	mg/L	0.30	99	90	110			
Sample ID: B11050720-001AMSD	Sample Matrix Spike Duplicate				Run: FIA203-B_110509B				05/09/11 14:10
Nitrogen, Ammonia as N	10.9	mg/L	0.30	100	90	110	0.6	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2								Analytical Run: FIA203-B_110510A	
Sample ID: ICV	Initial Calibration Verification Standard							05/10/11 06:28	
Nitrogen, Nitrate+Nitrite as N	21.6	mg/L	0.060	99	90	110			
Method: E353.2								Batch: R165294	
Sample ID: MBLK	Method Blank				Run: FIA203-B_110510A			05/10/11 06:29	
Nitrogen, Nitrate+Nitrite as N	0.006	mg/L	0.004						
Sample ID: LFB	Laboratory Fortified Blank				Run: FIA203-B_110510A			05/10/11 06:30	
Nitrogen, Nitrate+Nitrite as N	0.992	mg/L	0.010	101	90	110			
Sample ID: B11050715-005DMS	Sample Matrix Spike				Run: FIA203-B_110510A			05/10/11 06:36	
Nitrogen, Nitrate+Nitrite as N	3.85	mg/L	0.010	102	90	110			
Sample ID: B11050715-005DMSD	Sample Matrix Spike Duplicate				Run: FIA203-B_110510A			05/10/11 06:38	
Nitrogen, Nitrate+Nitrite as N	3.87	mg/L	0.010	104	90	110	0.6	10	
Sample ID: B11050715-010DMS	Sample Matrix Spike				Run: FIA203-B_110510A			05/10/11 06:53	
Nitrogen, Nitrate+Nitrite as N	1.23	mg/L	0.010	99	90	110			
Sample ID: B11050715-010DMSD	Sample Matrix Spike Duplicate				Run: FIA203-B_110510A			05/10/11 06:54	
Nitrogen, Nitrate+Nitrite as N	1.22	mg/L	0.010	97	90	110	1.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Analytical Run: R165622
Sample ID: CCV_0512PE203r-W	Continuing Calibration Verification Standard								05/12/11 12:49
Methyl tert-butyl ether (MTBE)	23.7	ug/L	1.0	95	85	115			
Benzene	23.6	ug/L	0.50	94	85	115			
Toluene	23.6	ug/L	0.50	94	85	115			
Ethylbenzene	23.7	ug/L	0.50	95	85	115			
m+p-Xylenes	47.1	ug/L	0.50	94	85	115			
o-Xylene	23.6	ug/L	0.50	95	85	115			
Xylenes, Total	70.7	ug/L	0.50	94	85	115			
Surr: Trifluorotoluene			1.0	100	85	115			
Sample ID: CCV_0512PE229r-W	Continuing Calibration Verification Standard								05/13/11 04:22
Methyl tert-butyl ether (MTBE)	24.9	ug/L	1.0	100	85	115			
Benzene	24.7	ug/L	0.50	99	85	115			
Toluene	24.6	ug/L	0.50	98	85	115			
Ethylbenzene	24.6	ug/L	0.50	99	85	115			
m+p-Xylenes	48.8	ug/L	0.50	98	85	115			
o-Xylene	24.6	ug/L	0.50	98	85	115			
Xylenes, Total	73.4	ug/L	0.50	98	85	115			
Surr: Trifluorotoluene			1.0	102	85	115			
Method: SW8021B									Batch: R165622
Sample ID: LCS_0512PE204r	Laboratory Control Sample				Run: PE2_110512A				05/12/11 13:25
Methyl tert-butyl ether (MTBE)	23.7	ug/L	1.0	95	70	130			
Benzene	24.2	ug/L	0.50	97	70	130			
Toluene	24.7	ug/L	0.50	99	70	130			
Ethylbenzene	24.5	ug/L	0.50	98	70	130			
m+p-Xylenes	49.5	ug/L	0.50	99	70	130			
o-Xylene	24.7	ug/L	0.50	99	70	130			
Xylenes, Total	74.2	ug/L	0.50	99	70	130			
Surr: Trifluorotoluene			1.0	104	80	120			
Sample ID: MBLK_0512PE207r	Method Blank				Run: PE2_110512A				05/12/11 15:12
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			1.0	101	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Analytical Run: R165630
Sample ID: CCV_0514PE203r-W	Continuing Calibration Verification Standard								05/14/11 17:22
Methyl tert-butyl ether (MTBE)	24.0	ug/L	1.0	96	85	115			
Benzene	24.1	ug/L	0.50	97	85	115			
Toluene	24.2	ug/L	0.50	97	85	115			
Ethylbenzene	24.3	ug/L	0.50	97	85	115			
m+p-Xylenes	48.4	ug/L	0.50	97	85	115			
o-Xylene	24.3	ug/L	0.50	97	85	115			
Xylenes, Total	72.7	ug/L	0.50	97	85	115			
Surr: Trifluorotoluene			1.0	105	85	115			
Method: SW8021B									Batch: R165630
Sample ID: LCS_0514PE204r	Laboratory Control Sample				Run: PE2_110514A				05/14/11 17:58
Methyl tert-butyl ether (MTBE)	23.5	ug/L	1.0	94	70	130			
Benzene	23.5	ug/L	0.50	94	70	130			
Toluene	24.0	ug/L	0.50	96	70	130			
Ethylbenzene	23.9	ug/L	0.50	95	70	130			
m+p-Xylenes	48.1	ug/L	0.50	96	70	130			
o-Xylene	24.0	ug/L	0.50	96	70	130			
Xylenes, Total	72.1	ug/L	0.50	96	70	130			
Surr: Trifluorotoluene			1.0	104	80	120			
Sample ID: MBLK_0514PE207r	Method Blank				Run: PE2_110514A				05/14/11 19:46
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			1.0	100	80	120			
Sample ID: B11050715-002FMS	Sample Matrix Spike				Run: PE2_110514A				05/15/11 01:44
Methyl tert-butyl ether (MTBE)	47.2	ug/L	2.0	94	70	130			
Benzene	47.0	ug/L	1.0	94	70	130			
Toluene	48.0	ug/L	1.0	96	70	130			
Ethylbenzene	47.6	ug/L	1.0	95	70	130			
m+p-Xylenes	95.9	ug/L	1.0	96	70	130			
o-Xylene	48.0	ug/L	1.0	96	70	130			
Xylenes, Total	144	ug/L	1.0	96	70	130			
Surr: Trifluorotoluene			2.0	104	80	120			
Sample ID: B11050715-002FMSD	Sample Matrix Spike Duplicate				Run: PE2_110514A				05/15/11 02:55
Methyl tert-butyl ether (MTBE)	45.5	ug/L	2.0	91	70	130	3.7	20	
Benzene	44.7	ug/L	1.0	89	70	130	5.1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Batch: R165630
Sample ID: B11050715-002FMSD	Sample Matrix Spike Duplicate				Run: PE2_110514A			05/15/11 02:55	
Toluene	45.8	ug/L	1.0	92	70	130	4.7	20	
Ethylbenzene	45.5	ug/L	1.0	91	70	130	4.5	20	
m+p-Xylenes	91.7	ug/L	1.0	92	70	130	4.5	20	
o-Xylene	46.1	ug/L	1.0	92	70	130	3.9	20	
Xylenes, Total	138	ug/L	1.0	92	70	130			
Surr: Trifluorotoluene			2.0	98	80	120	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: R165711	
Sample ID: CCV_0516PE203r-W	Continuing Calibration Verification Standard							05/16/11 11:39	
Methyl tert-butyl ether (MTBE)	22.7	ug/L	1.0	91	85	115			
Benzene	23.0	ug/L	0.50	92	85	115			
Toluene	23.2	ug/L	0.50	93	85	115			
Ethylbenzene	23.3	ug/L	0.50	93	85	115			
m+p-Xylenes	46.5	ug/L	0.50	93	85	115			
o-Xylene	23.2	ug/L	0.50	93	85	115			
Xylenes, Total	69.7	ug/L	0.50	93	85	115			
Surr: Trifluorotoluene			1.0	98	85	115			
Method: SW8021B								Batch: R165711	
Sample ID: LCS_0516PE204r	Laboratory Control Sample				Run: PE2_110516A			05/16/11 12:15	
Methyl tert-butyl ether (MTBE)	22.1	ug/L	1.0	88	70	130			
Benzene	22.7	ug/L	0.50	91	70	130			
Toluene	23.3	ug/L	0.50	93	70	130			
Ethylbenzene	23.3	ug/L	0.50	93	70	130			
m+p-Xylenes	46.9	ug/L	0.50	94	70	130			
o-Xylene	23.4	ug/L	0.50	94	70	130			
Xylenes, Total	70.3	ug/L	0.50	94	70	130			
Surr: Trifluorotoluene			1.0	99	80	120			
Sample ID: MBLK_0516PE207r	Method Blank				Run: PE2_110516A			05/16/11 14:02	
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			1.0	95	80	120			
Sample ID: B11050715-018BMS	Sample Matrix Spike				Run: PE2_110516A			05/16/11 18:50	
Methyl tert-butyl ether (MTBE)	43.3	ug/L	2.0	87	70	130			
Benzene	51.0	ug/L	1.0	85	70	130			
Toluene	44.8	ug/L	1.0	90	70	130			
Ethylbenzene	44.6	ug/L	1.0	89	70	130			
m+p-Xylenes	90.1	ug/L	1.0	90	70	130			
o-Xylene	45.1	ug/L	1.0	90	70	130			
Xylenes, Total	135	ug/L	1.0	90	70	130			
Surr: Trifluorotoluene			2.0	99	80	120			
Sample ID: B11050715-018BMSD	Sample Matrix Spike Duplicate				Run: PE2_110516A			05/16/11 20:02	
Methyl tert-butyl ether (MTBE)	42.3	ug/L	2.0	85	70	130	2.4	20	
Benzene	49.7	ug/L	1.0	83	70	130	2.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/18/11
Work Order: B11050715

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Batch: R165711
Sample ID: B11050715-018BMSD	Sample Matrix Spike Duplicate				Run: PE2_110516A			05/16/11 20:02	
Toluene	43.5	ug/L	1.0	87	70	130	3.0	20	
Ethylbenzene	43.1	ug/L	1.0	86	70	130	3.4	20	
m+p-Xylenes	86.7	ug/L	1.0	87	70	130	3.8	20	
o-Xylene	43.4	ug/L	1.0	87	70	130	3.8	20	
Xylenes, Total	130	ug/L	1.0	87	70	130			
Surr: Trifluorotoluene			2.0	97	80	120	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

PNR-15

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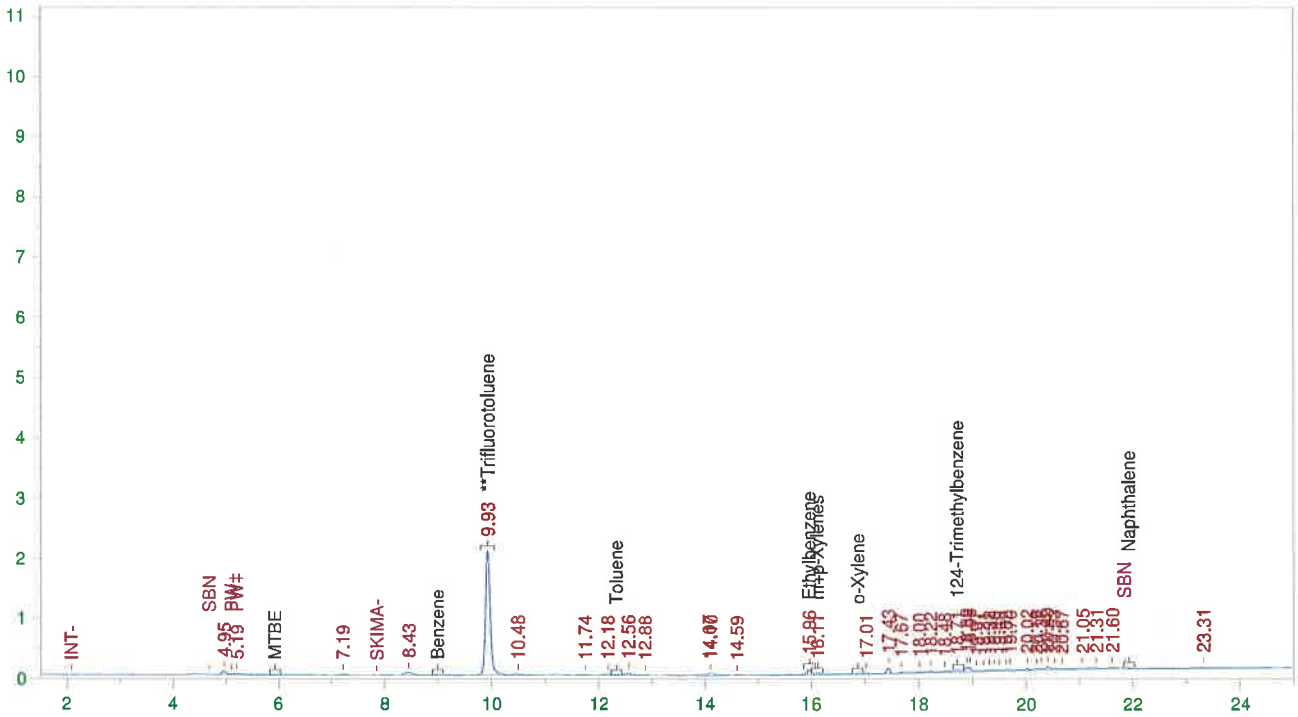

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B11050715-001F ;0516PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051611_b\0516PE2.0008.RAW
Date & Time Acquired: 5/16/2011 2:38:54 PM
Method File: G:\Org\PE2\Methods\051711pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.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	15.964	15.964	15.964	495	.5	U
m+p-Xylenes	16.109	16.109	16.109	126	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.711	18.711	18.711	355	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.931	25.	25.537	102.15	80-120

PNR-14

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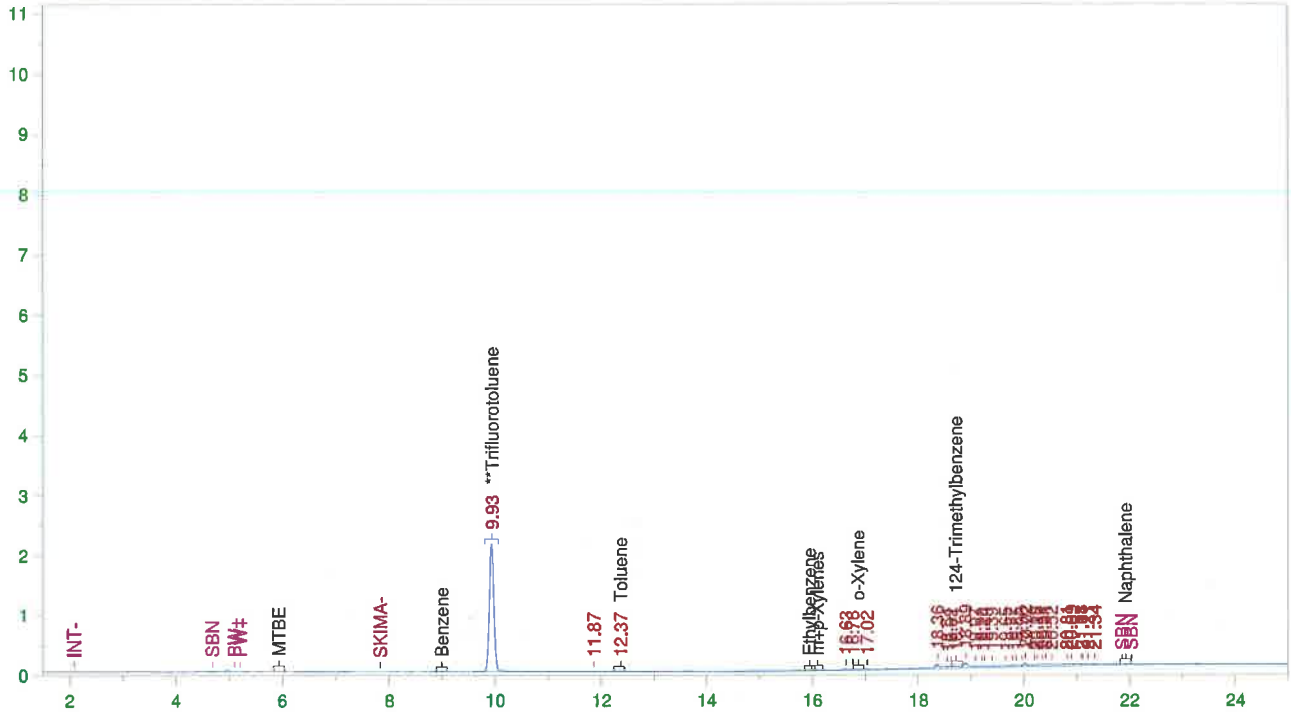

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B11050715-002F ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0013.RAW
Date & Time Acquired: 5/12/2011 6:48:13 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.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	12.369	12.369	12.369	110	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.709	18.709	18.709	315	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.929	25.	25.293	101.17	80-120

PNR-5

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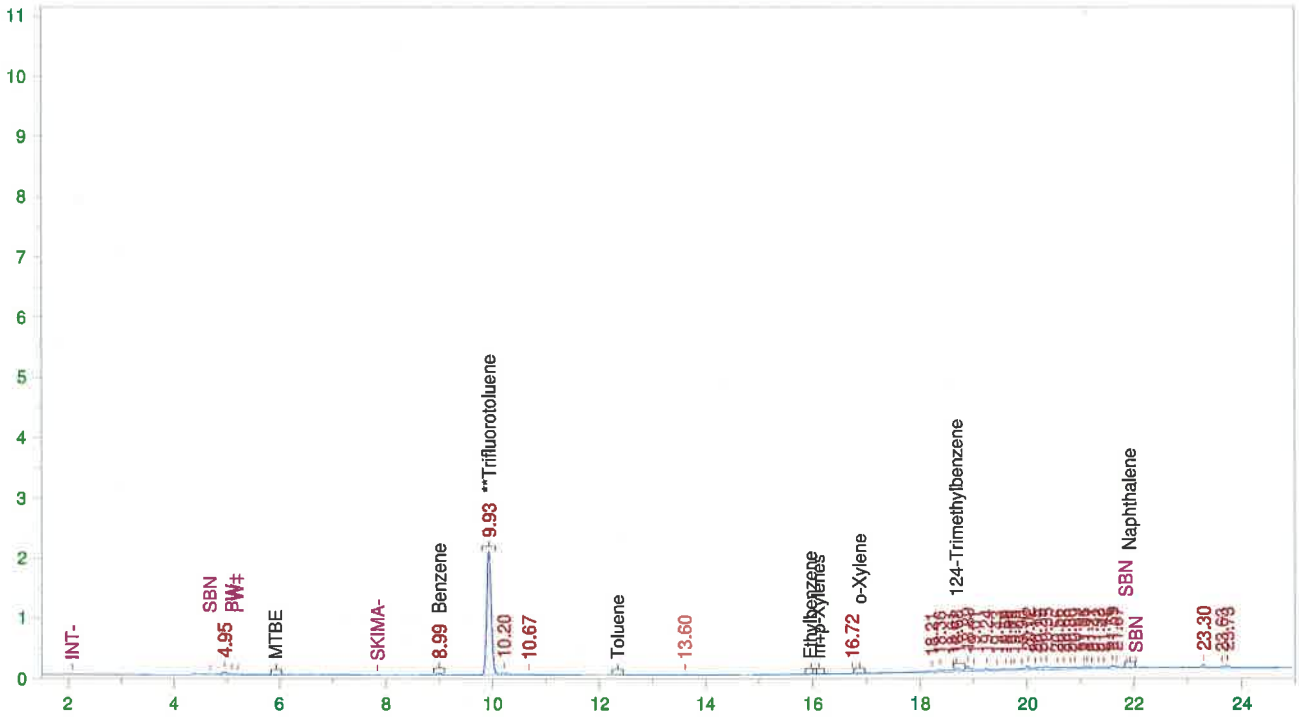


PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

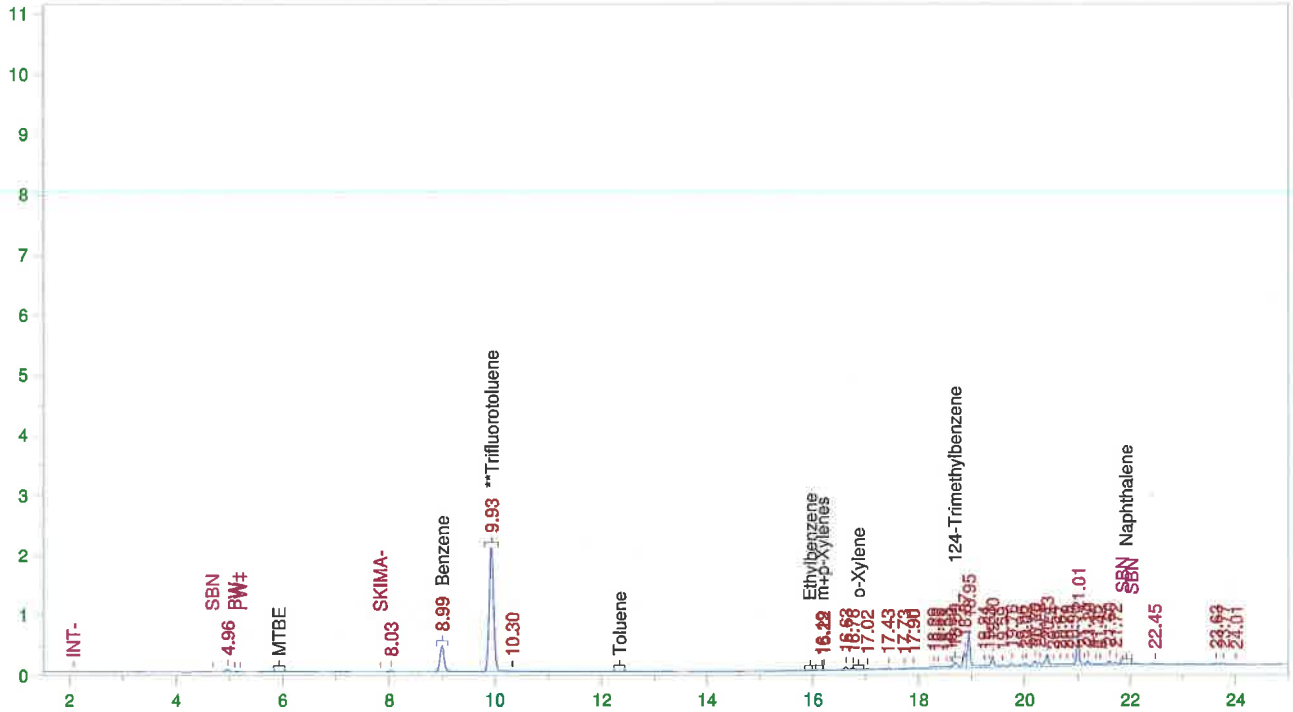
Sample Name: B11050715-003F ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0021.RAW
Date & Time Acquired: 5/12/2011 11:35:32 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.991	8.991	8.991	188	.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.682	18.682	18.682	441	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.931	25.	24.136	96.54	80-120

USGS 93-3

— G:\Org\PE2\DAT\PE2051211_b\0512PE2.0019.RAW B11050715-004F ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

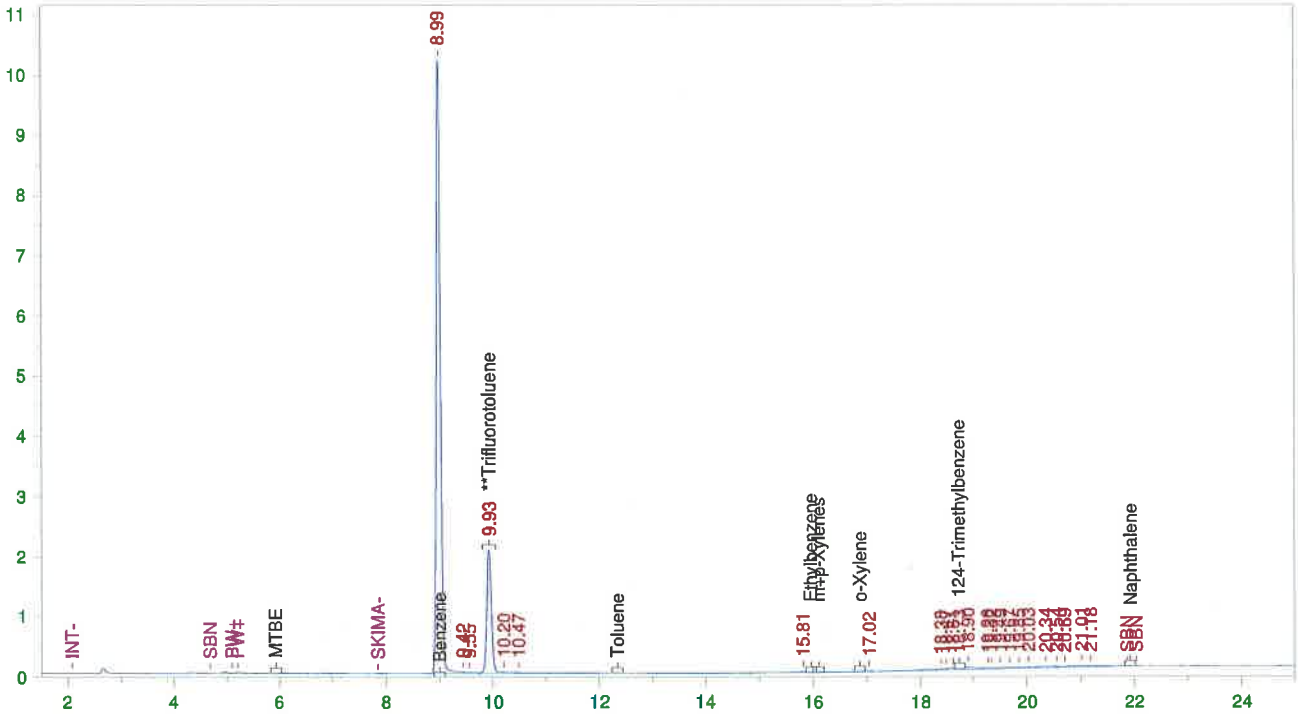
Sample Name: B11050715-004F ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0019.RAW
Date & Time Acquired: 5/12/2011 10:23:40 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.989	.934	.939	2432	1.439	
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.188	16.188	16.188	78	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.689	18.689	18.689	529	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.929	25.	24.587	98.35	80-120

PNR-7

— G:\Org\PE2\DAT\PE2051211_b\0512PE2.0016.RAW B11050715-005F ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

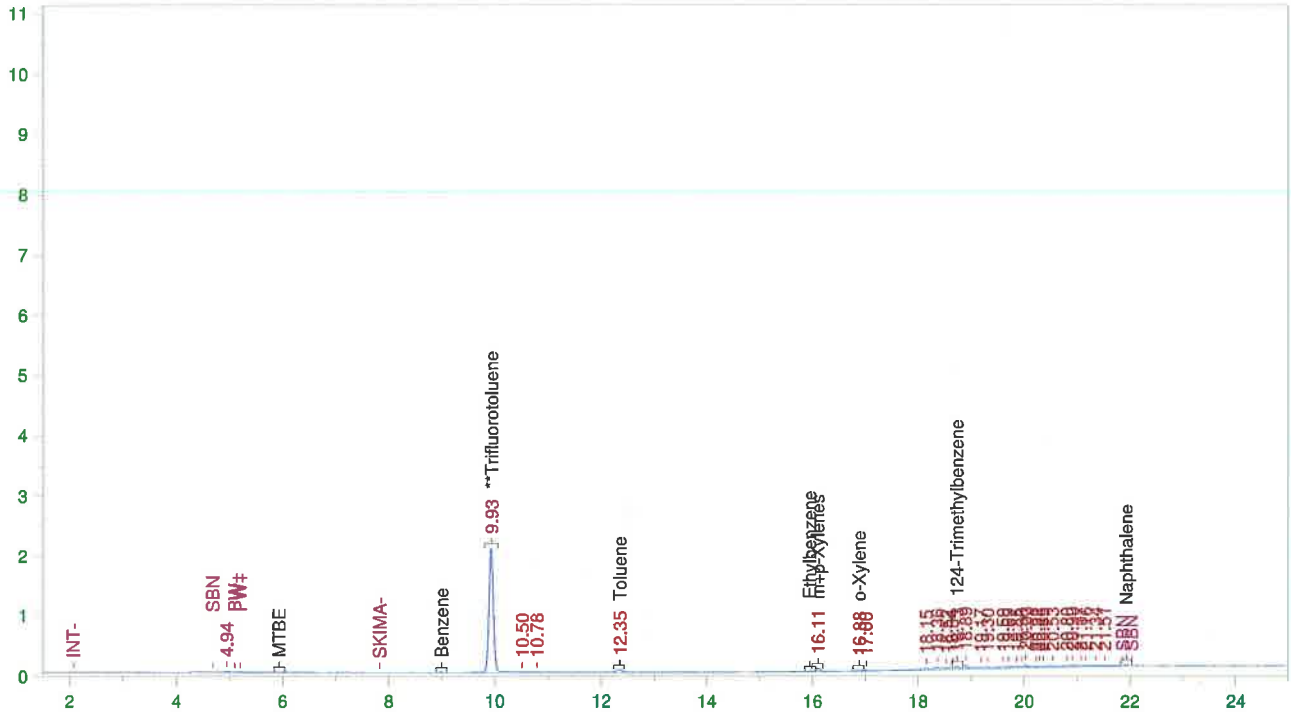
Sample Name: B11050715-005F ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0016.RAW
Date & Time Acquired: 5/12/2011 8:35:53 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.987	.934	.94	54364	32.175	
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.729	18.729	18.729	145	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.926	25.	24.386	97.54	80-120

MOC-2

— G:\Org\PE2\DAT\PE2051211_b\0512PE2.0014.RAW B11050715-006F ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

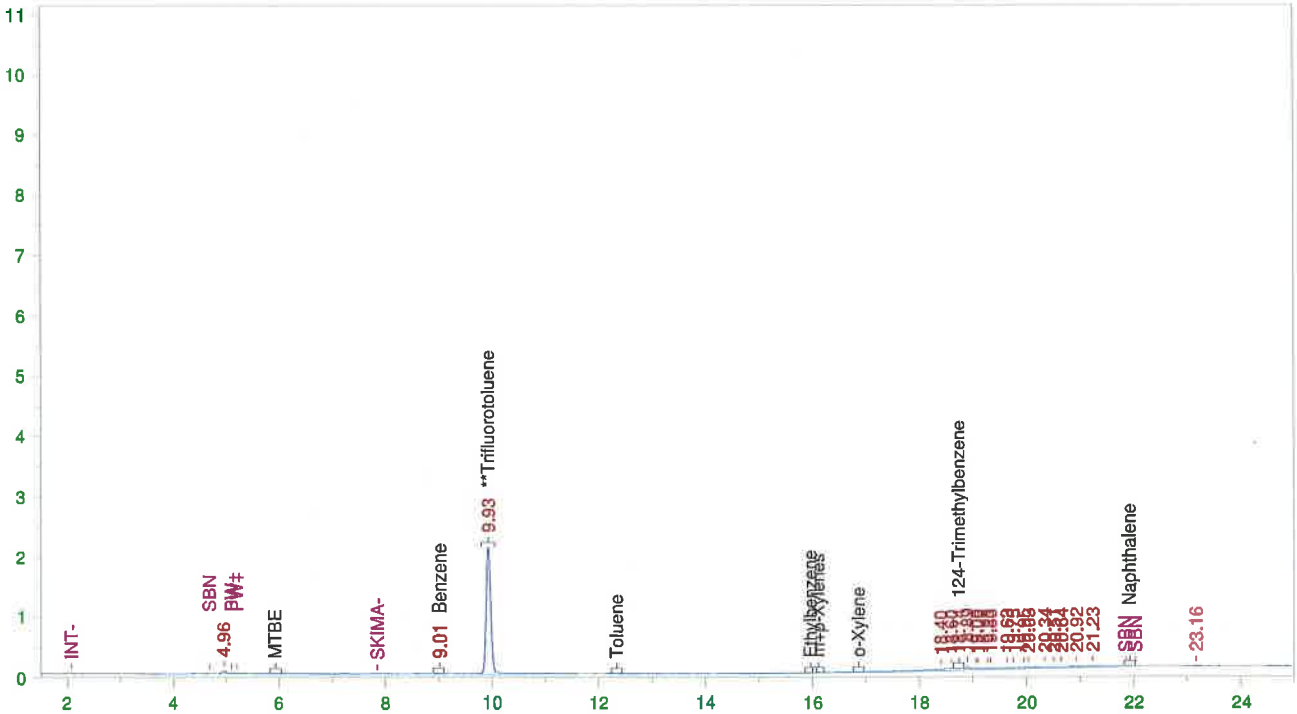
Sample Name: B11050715-006F ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0014.RAW
Date & Time Acquired: 5/12/2011 7:24:03 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.349	12.349	12.349	358	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.109	16.109	16.109	292	1.	U
o-Xylene	16.877	16.877	16.877	90	.5	U
124-Trimethylbenzene	18.728	18.728	18.728	312	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.926	25.	24.939	99.75	80-120

Whitmer

— G:\Org\PE2\DAT\PE2051211_b\0512PE2.0017.RAW B11050715-007F ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

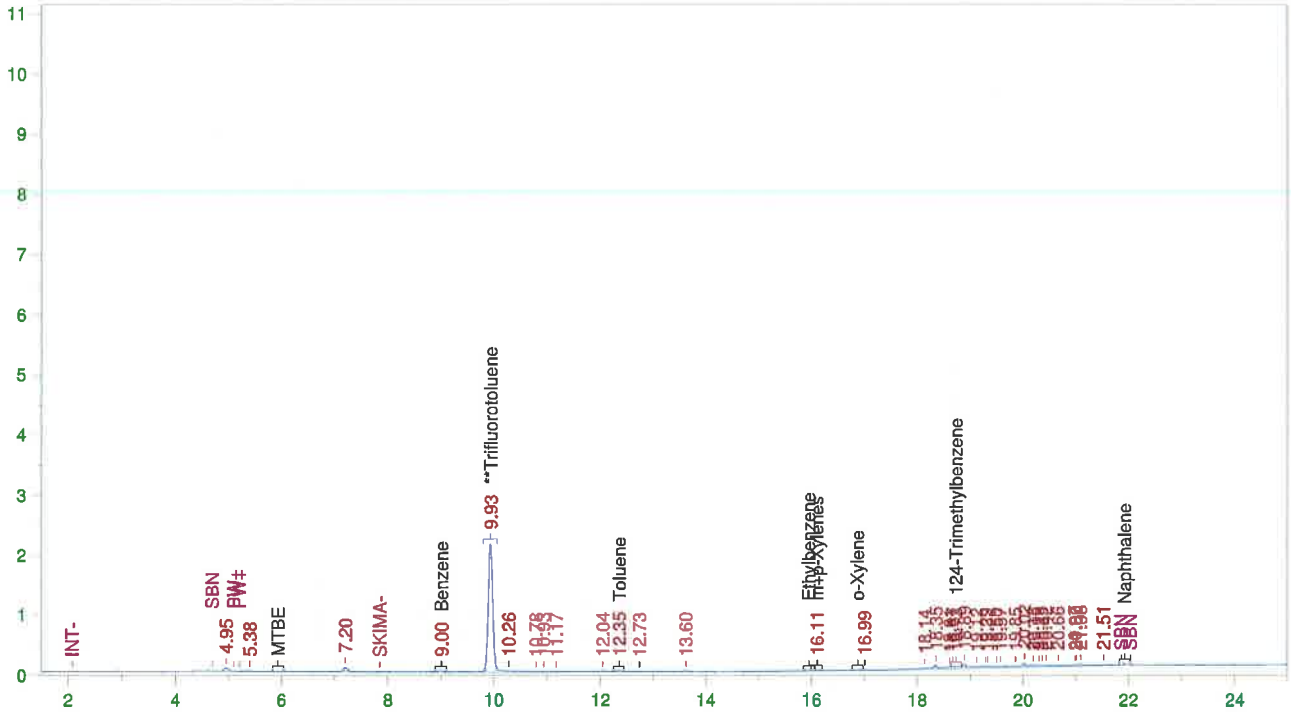
Sample Name: B11050715-007F ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0017.RAW
Date & Time Acquired: 5/12/2011 9:11:52 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	9.005	9.005	9.005	96	.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.741	18.741	18.741	160	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.933	25.	24.888	99.55	80-120

M-18

G:\Org\PE2\DAT\PE2051211_b\0512PE2.0033.RAW B11050715-008F ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

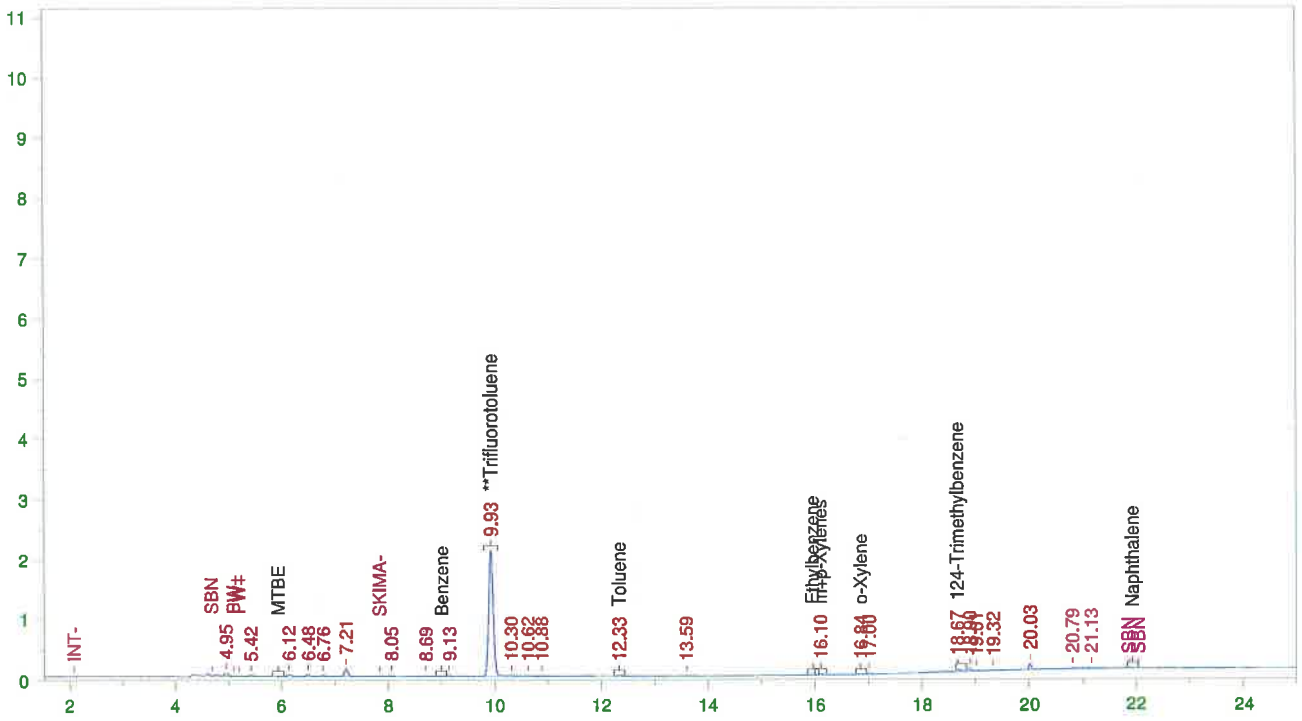
Sample Name: B11050715-008F ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0033.RAW
Date & Time Acquired: 5/13/2011 1:12:42 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.999	8.999	8.999	278	.5	U
Toluene	12.35	12.35	12.35	123	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.108	16.108	16.108	88	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.731	18.731	18.731	187	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.931	25.	25.377	101.51	80-120

M-27

— G:\Org\PE2\DAT\PE2051211_b\0512PE2.0034.RAW B11050715-009F ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

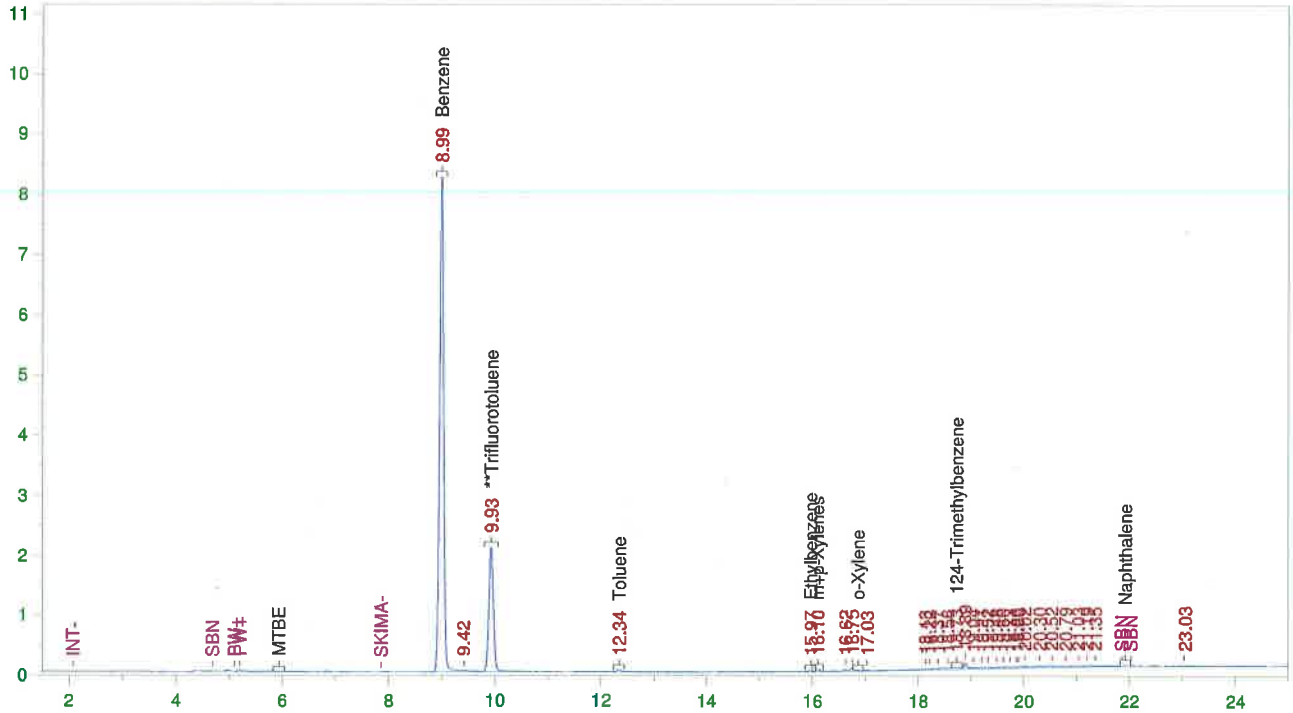
Sample Name: B11050715-009F ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0034.RAW
Date & Time Acquired: 5/13/2011 1:48:37 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.332	12.332	12.332	76	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.103	16.103	16.103	133	1.	U
o-Xylene	16.842	16.842	16.842	95	.5	U
124-Trimethylbenzene	18.669	18.669	18.669	289	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.927	25.	24.794	99.18	80-120

M-31

G:\Org\PE2\DAT\PE2051211_b\0512PE2.0036.RAW B11050715-010F ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

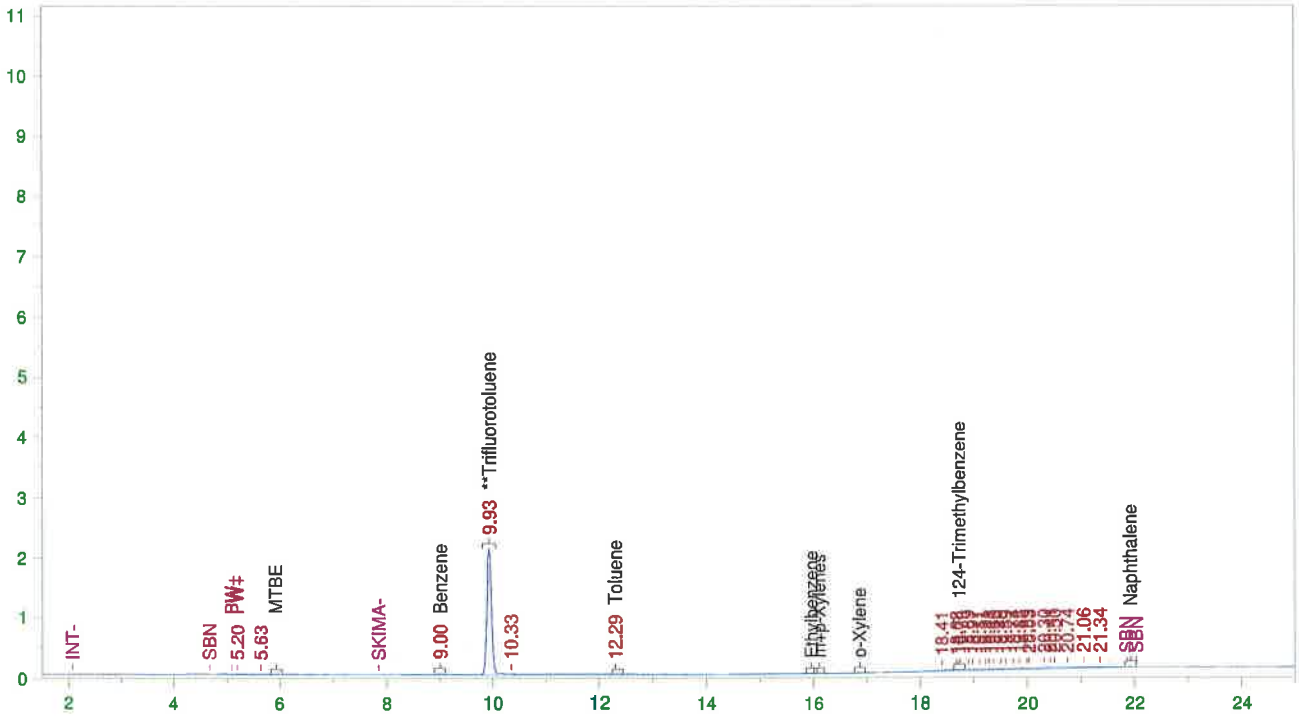
Sample Name: B11050715-010F ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0036.RAW
Date & Time Acquired: 5/13/2011 3:00:31 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.99	.934	.938	43724	25.877	
Toluene	12.342	12.342	12.342	237	.5	U
Ethylbenzene	15.968	15.968	15.968	97	.5	U
m+p-Xylenes	16.101	16.101	16.101	163	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.727	18.727	18.727	307	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.928	25.	24.578	98.31	80-120

PNR-RW-6

— G:\Org\PE2\DAT\PE2051211_b\0512PE2.0037.RAW B11050715-011B ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

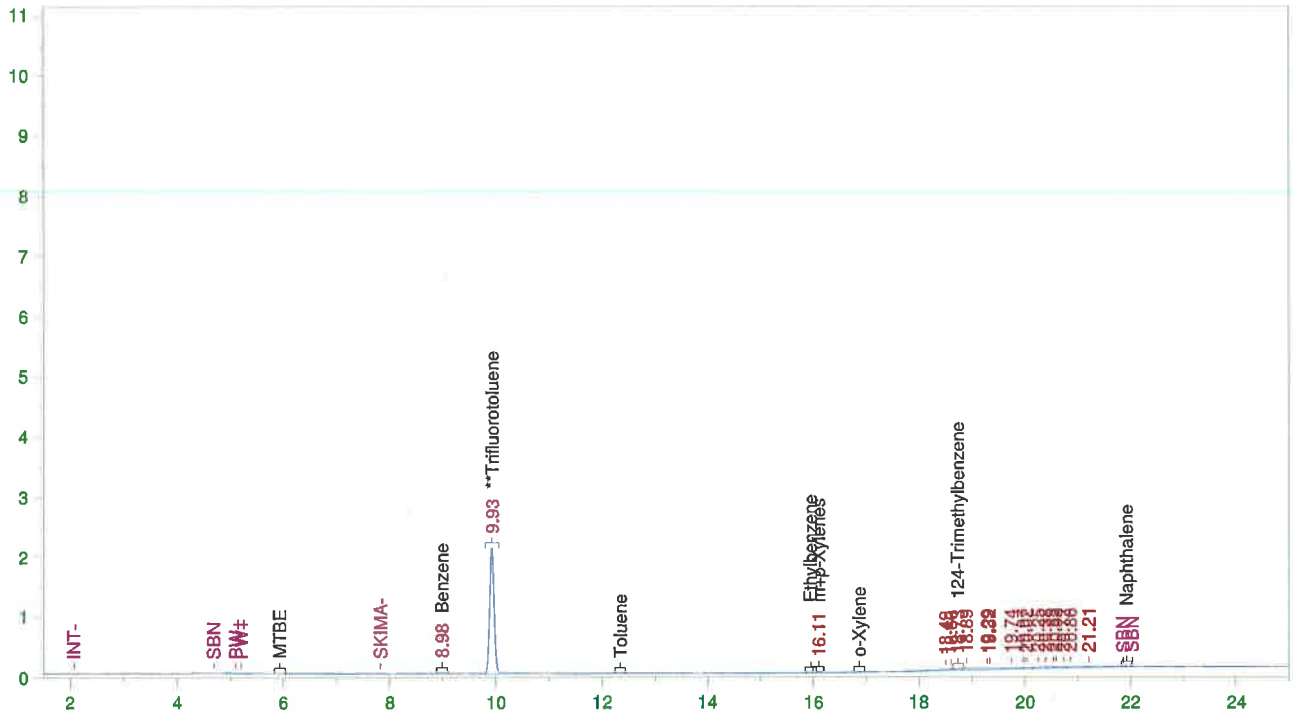
Sample Name: B11050715-011B ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0037.RAW
Date & Time Acquired: 5/13/2011 3:36:23 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.999	8.999	8.999	101	.5	U
Toluene	12.292	12.292	12.292	90	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.736	18.736	18.736	189	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.93	25.	24.841	99.36	80-120

PNR-RW-12

— G:\Org\PE2\DAT\PE2051411_b\0514PE2.0008.RAW B11050715-012B ;0514PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

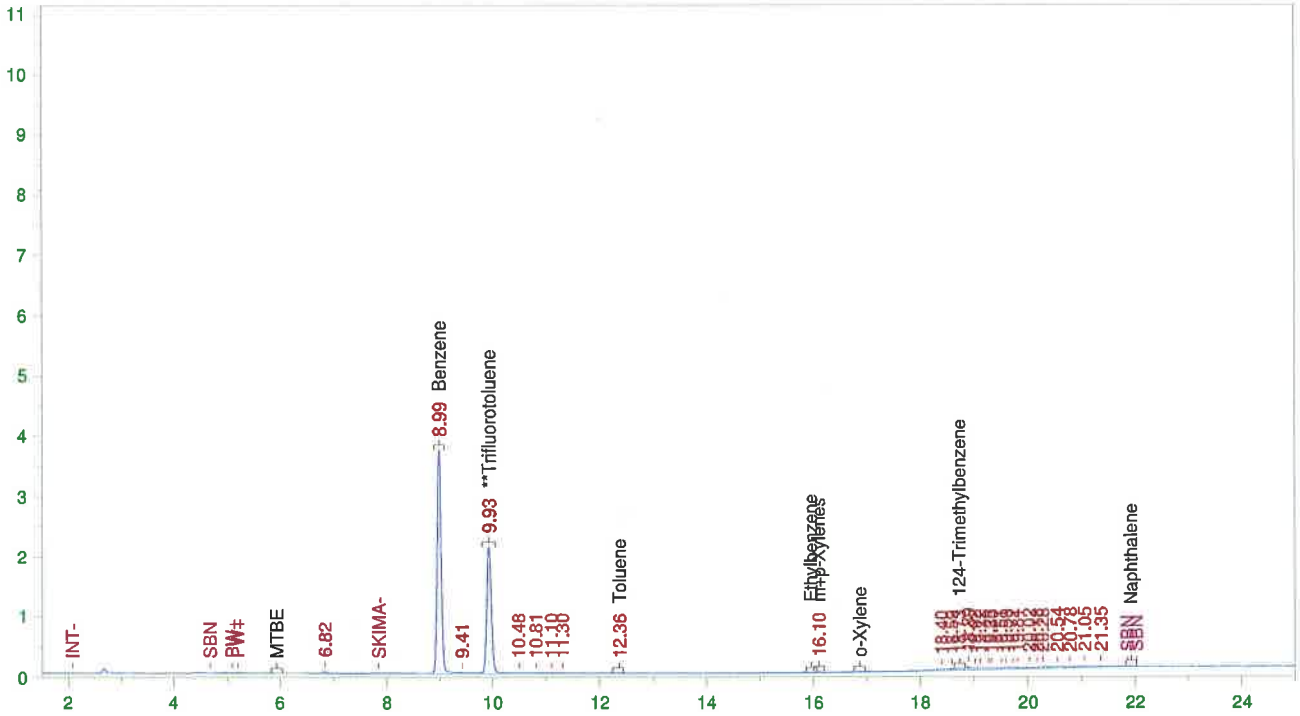
Sample Name: B11050715-012B ;0514PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051411_b\0514PE2.0008.RAW
Date & Time Acquired: 5/14/2011 8:21:47 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.981	8.981	8.981	116	.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.109	16.109	16.109	89	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.729	18.729	18.729	148	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.925	25.	24.653	98.61	80-120

PNR-RW-3

— G:\Org\PE2\DAT\PE2051411_b\0514PE2.0009.RAW B11050715-013B ;0514PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

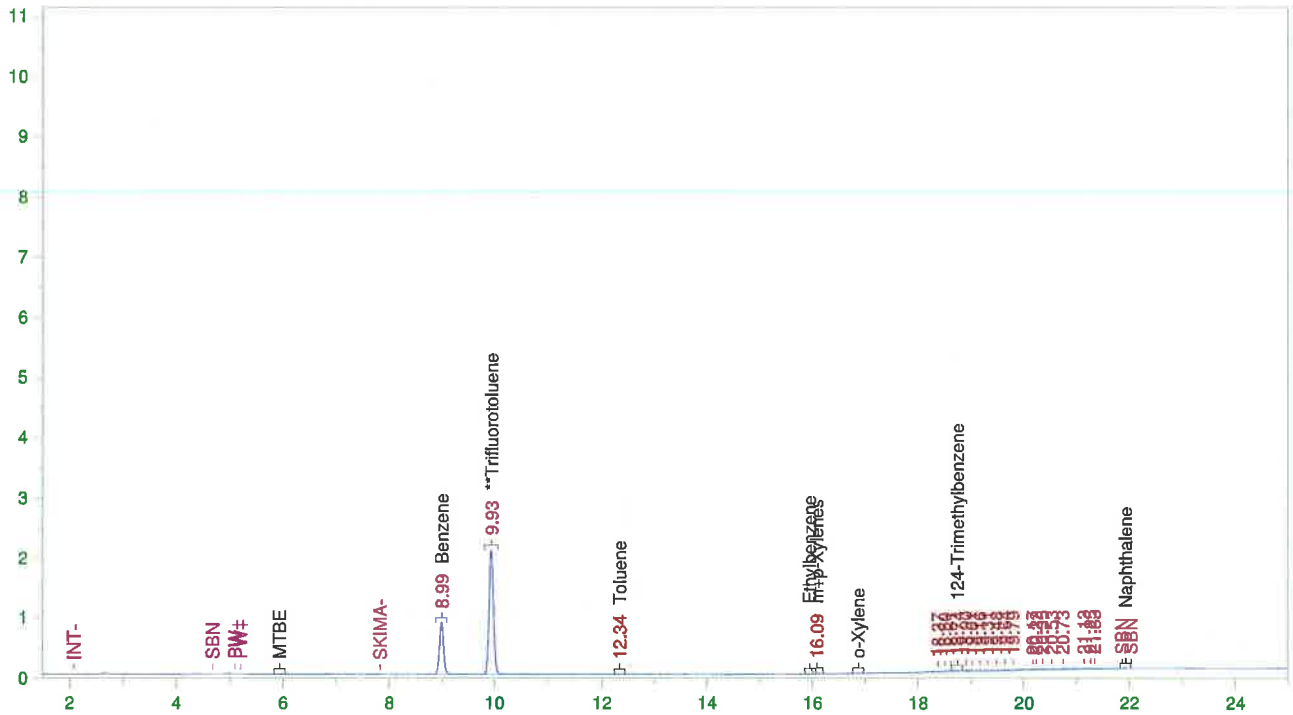
Sample Name: B11050715-013B ;0514PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051411_b\0514PE2.0009.RAW
Date & Time Acquired: 5/14/2011 8:57:37 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.992	.934	.939	19704	11.662	
Toluene	12.363	12.363	12.363	83	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.105	16.105	16.105	84	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.735	18.735	18.735	153	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.931	25.	25.013	100.05	80-120

PNR-RW-4

— G:\Org\PE2\DAT\PE2051411_b\0514PE2.0010.RAW B11050715-014B ;0514PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

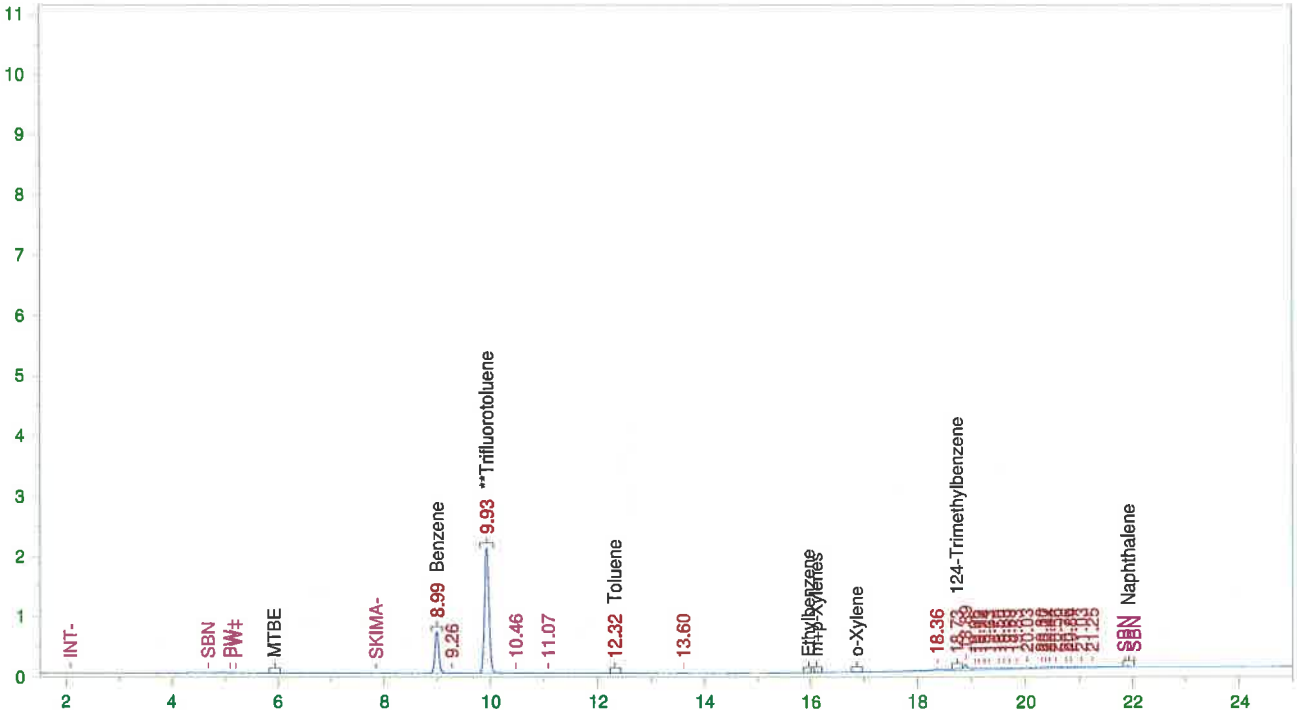
Sample Name: B11050715-014B ;0514PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051411_b\0514PE2.0010.RAW
Date & Time Acquired: 5/14/2011 9:33:28 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.993	.934	.939	4643	2.748	
Toluene	12.339	12.339	12.339	83	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.095	16.095	16.095	82	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.739	18.739	18.739	150	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.932	25.	24.719	98.87	80-120

PNR-RW-5

— G:\Org\PE2\DAT\PE2051411_b\0514PE2.0012.RAW B11050715-015B ;0514PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

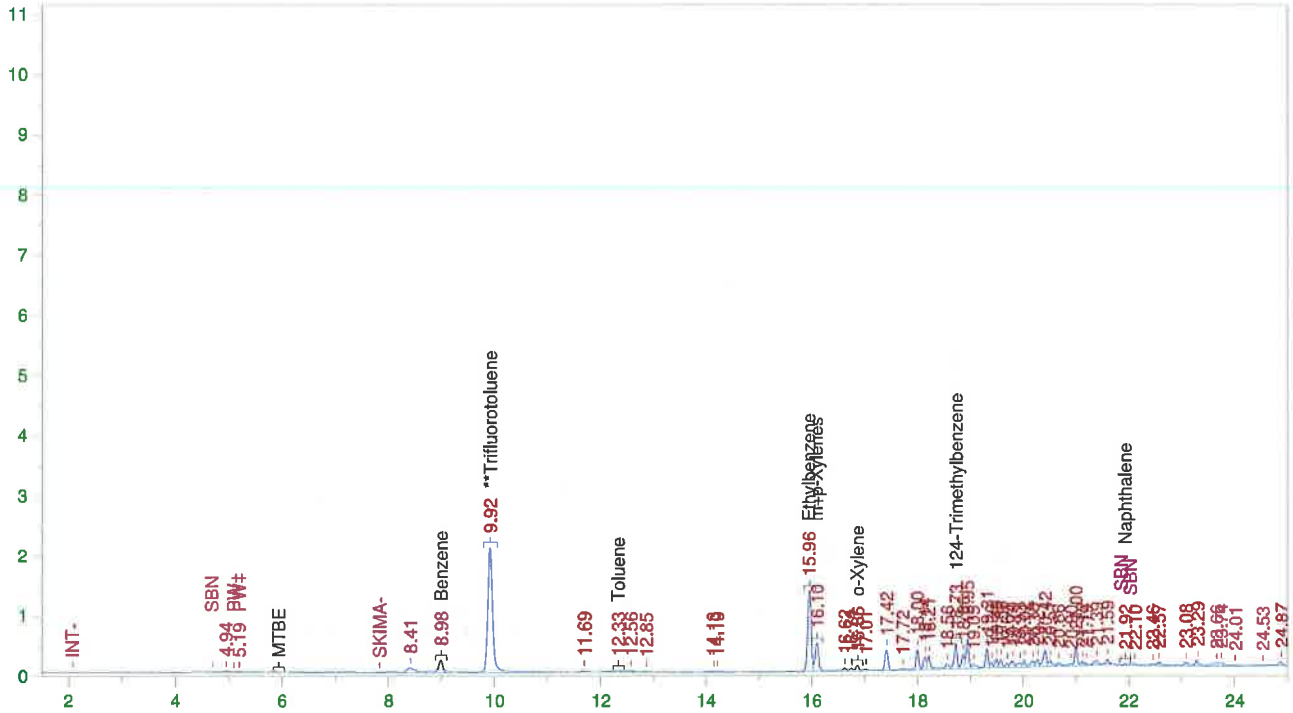
Sample Name: B11050715-015B ;0514PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051411_b\0514PE2.0012.RAW
Date & Time Acquired: 5/14/2011 10:45:09 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.99	.934	.939	3765	2.228	
Toluene	12.324	12.324	12.324	82	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.73	18.73	18.73	189	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.929	25.	24.798	99.19	80-120

PNR-RW-9

— G:\Org\PE2\DAT\PE2051411_b\0514PE2.0015.RAW B11050715-016B ;0514PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

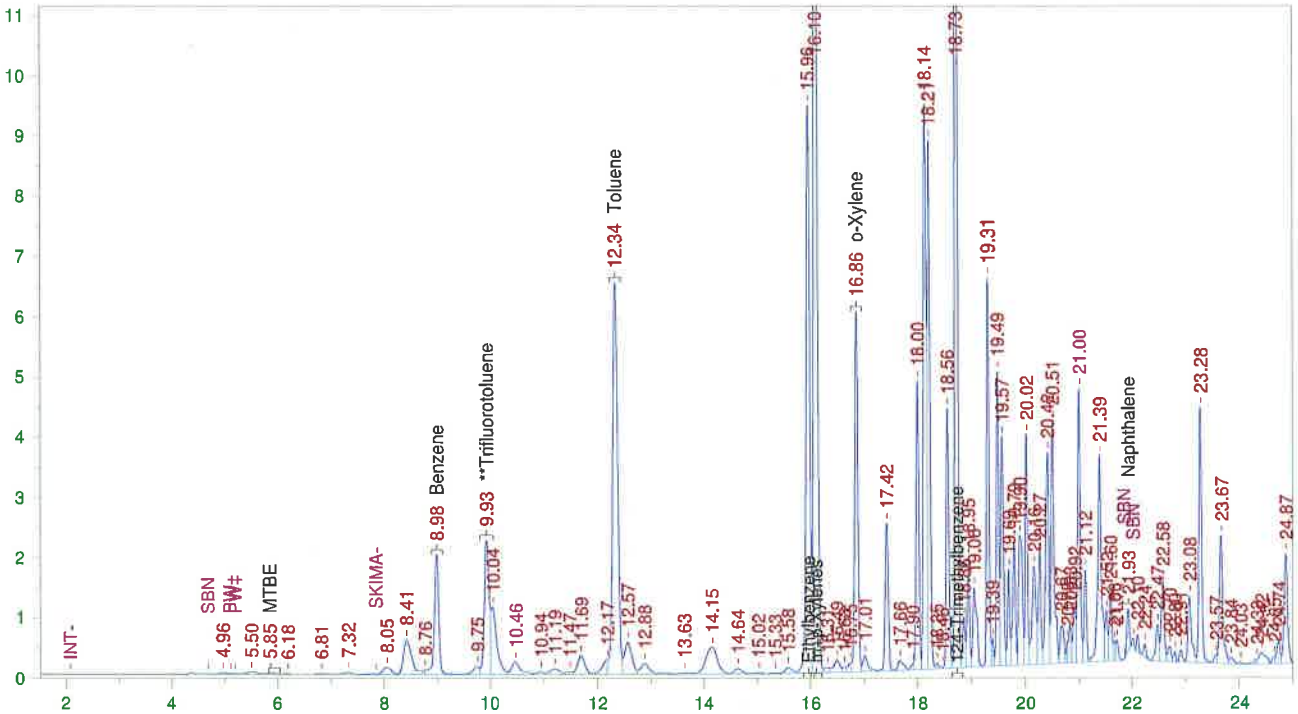
Sample Name: B11050715-016B ;0514PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051411_b\0514PE2.0015.RAW
Date & Time Acquired: 5/15/2011 12:32:32 AM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.983	.934	.939	1094	.648	
Toluene	12.327	12.327	12.327	200	.5	U
Ethylbenzene	15.956	-6.04	-6.034	6296	4.71	
m+p-Xylenes	16.098	-6.18	-6.176	2231	1.454	
o-Xylene	16.86	16.86	16.86	418	.5	U
124-Trimethylbenzene	18.725	-8.81	-8.804	1645	1.272	
Naphthalene	21.924	21.924	21.924	81	1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.921	25.	25.898	103.59	80-120

PNR-RW-10

— G:\Org\PE2\DAT\PE2051411_b\0514PE2.0013.RAW B11050715-017B ;0514PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

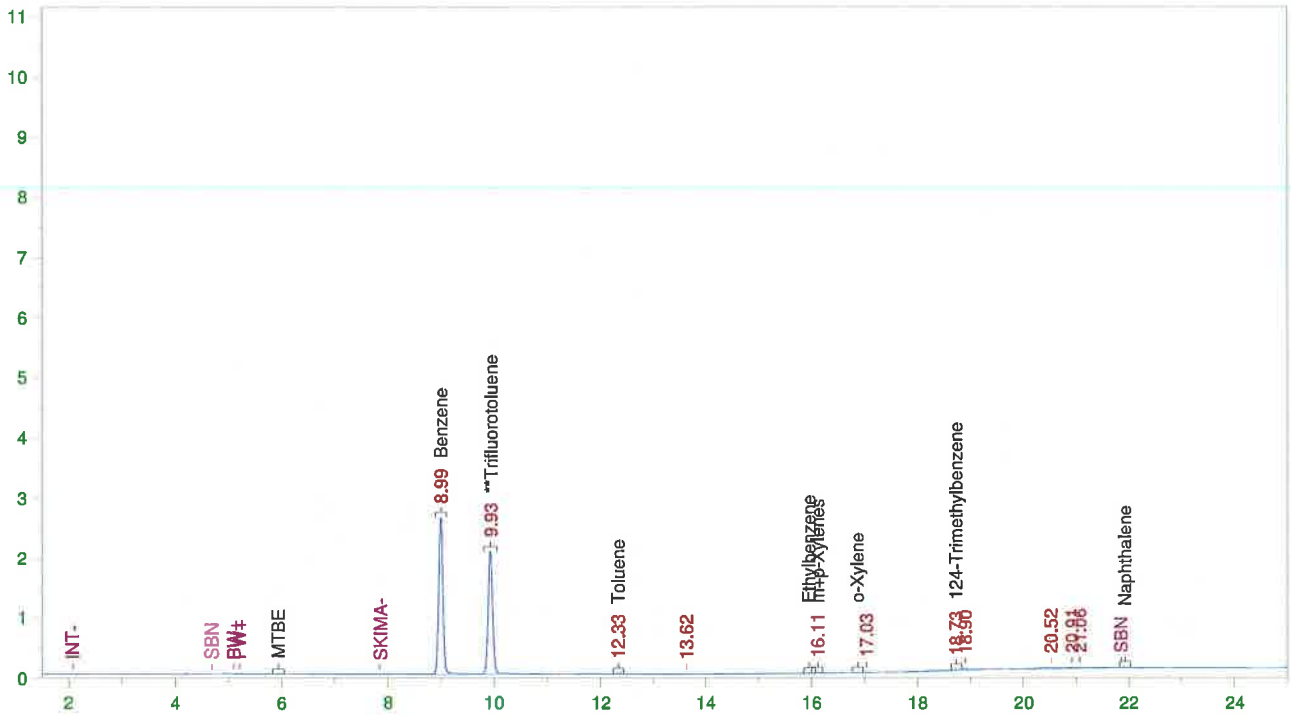
Sample Name: B11050715-017B ;0514PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051411_b\0514PE2.0013.RAW
Date & Time Acquired: 5/14/2011 11:20:58 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	5.851	5.851	5.851	224	1.	U
Benzene	8.985	.934	.941	11429	6.764	
Toluene	12.336	-2.416	-2.41	42857	27.797	
Ethylbenzene	15.958	-6.04	-6.032	44683	33.429	
m+p-Xylenes	16.101	-6.18	-6.175	77170	50.304	
o-Xylene	16.859	-6.941	-6.934	24170	18.227	
124-Trimethylbenzene	18.727	-8.81	-8.801	67122	51.924	
Naphthalene	21.928	-11.997	-12.002	2404	1.739	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.926	25.	29.074	116.3	80-120

PNR-RW-11

— G:\Org\PE2\DAT\PE2051611_b\0516PE2.0010.RAW B11050715-018B ;0516PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

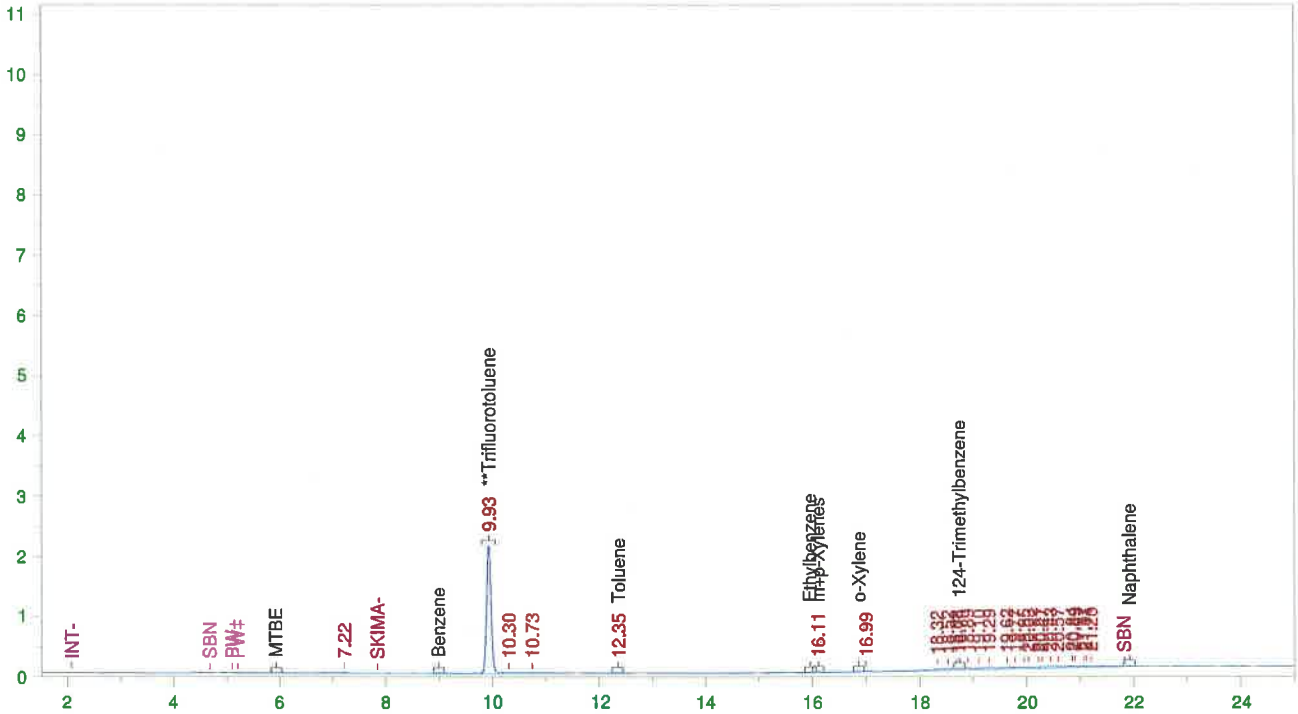
Sample Name: B11050715-018B ;0516PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051611_b\0516PE2.0010.RAW
Date & Time Acquired: 5/16/2011 3:50:43 PM
Method File: G:\Org\PE2\Methods\051711pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	8.99	.934	.94	14061	8.322	
Toluene	12.328	12.328	12.328	85	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.115	16.115	16.115	96	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.73	18.73	18.73	128	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.93	25.	24.335	97.34	80-120

Trip Blank #1 Lot #050511, B-KR 0253

— G:\Org\PE2\DAT\PE2051211_b\0512PE2.0008.RAW B11050715-019A ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

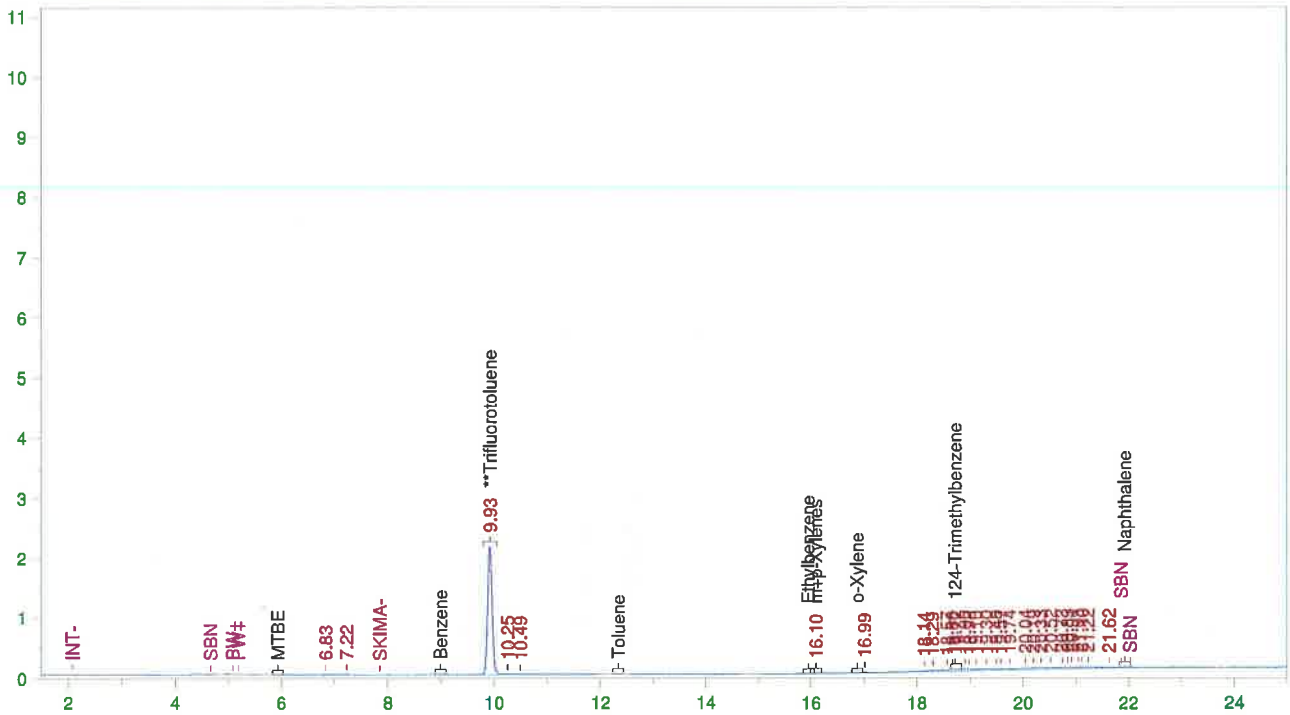
Sample Name: B11050715-019A ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0008.RAW
Date & Time Acquired: 5/12/2011 3:48:41 PM
Method File: G:\Org\PE2\Methods\051611pn1.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.351	12.351	12.351	99	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.108	16.108	16.108	98	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.737	18.737	18.737	200	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.931	25.	25.28	101.12	80-120

Trip Blank #2 Lot #050511, B-KR 0253

— G:\Org\PE2\DAT\PE2051211_b\0512PE2.0009.RAW B11050715-020A ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

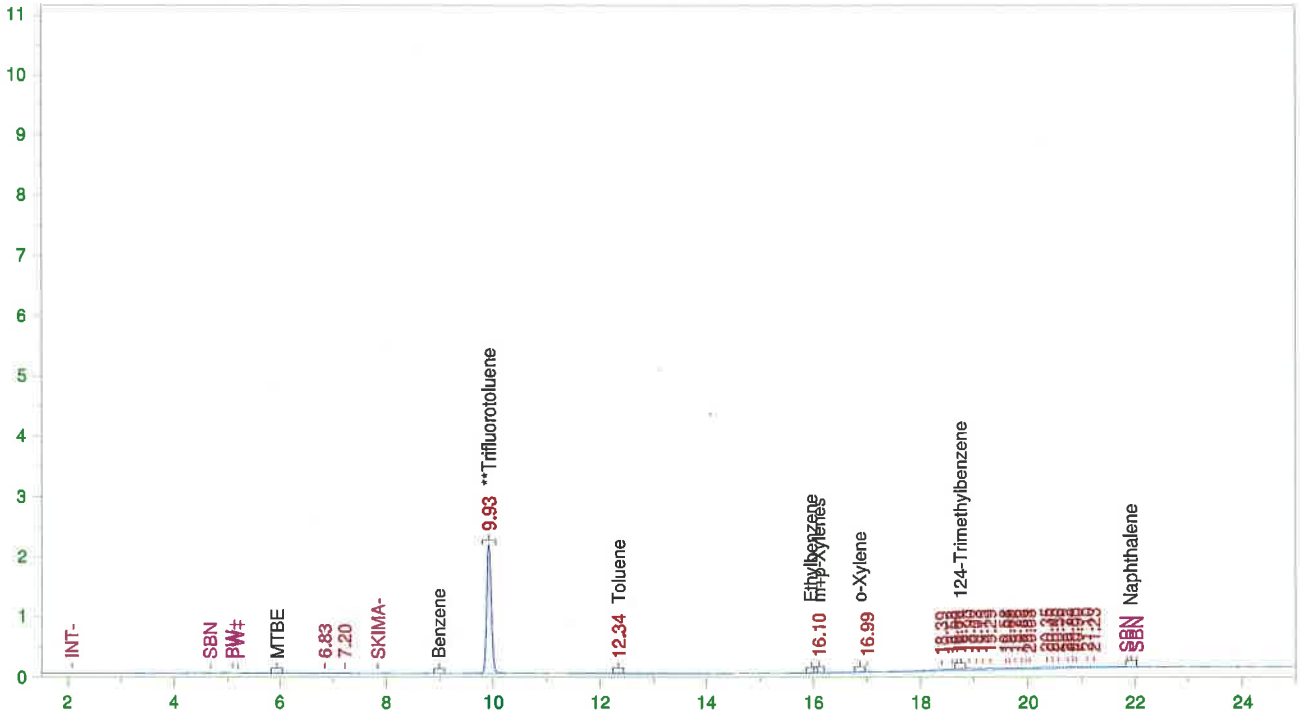
Sample Name: B11050715-020A ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0009.RAW
Date & Time Acquired: 5/12/2011 4:24:38 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.098	16.098	16.098	86	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.719	18.719	18.719	237	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.925	25.	25.267	101.07	80-120

Trip Blank #3 Lot #050511, B-KR 0253

— G:\Org\PE2\DAT\PE2051211_b\0512PE2.0010.RAW B11050715-021A ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

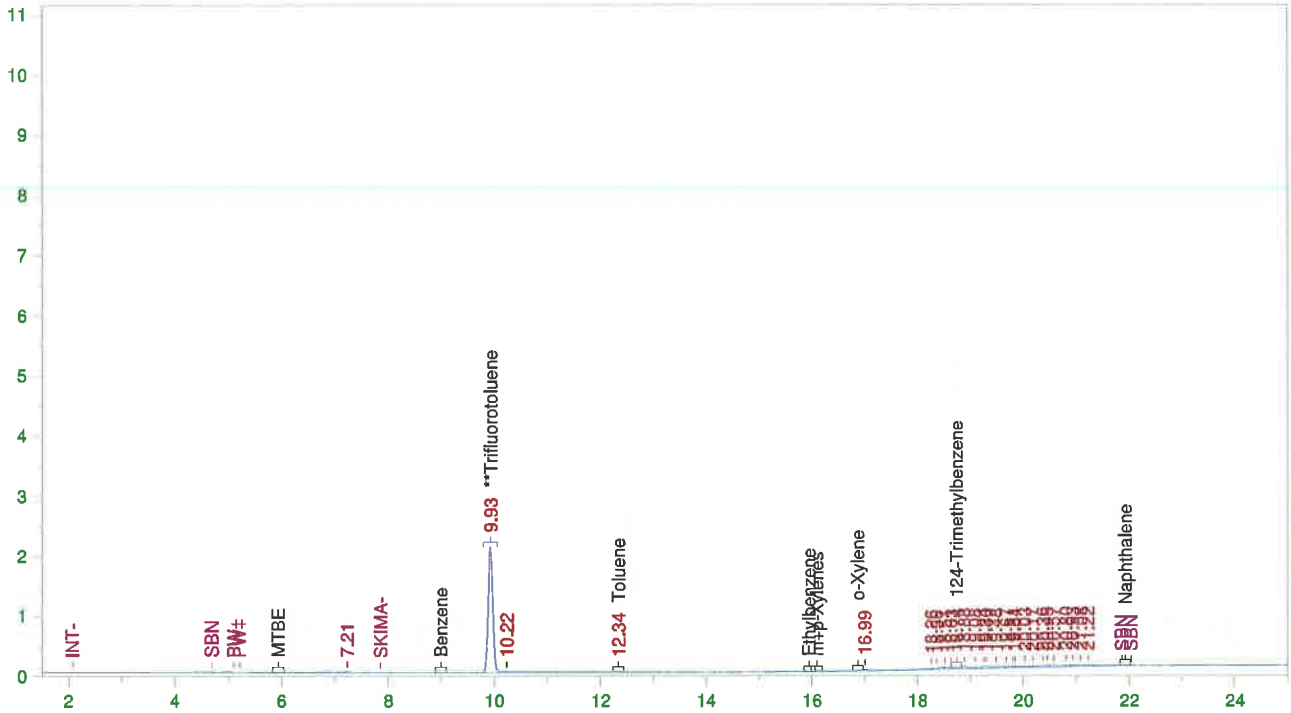
Sample Name: B11050715-021A ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0010.RAW
Date & Time Acquired: 5/12/2011 5:00:29 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	12.337	12.337	12.337	90	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	16.102	16.102	16.102	91	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.743	18.743	18.743	213	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.926	25.	25.062	100.25	80-120

Trip Blank #4 Lot #050511,B-KR 0253

G:\Org\PE2\DAT\PE2051211_b\0512PE2.0011.RAW B11050715-022A ;0512PE2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B11050715-022A ;0512PE2 , $HC-BTEX-8021-W,
Raw File: G:\Org\PE2\DAT\PE2051211_b\0512PE2.0011.RAW
Date & Time Acquired: 5/12/2011 5:36:28 PM
Method File: G:\Org\PE2\Methods\051611pn.MET
Calibration File: G:\Org\PE2\Cals\newMAQ0211.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	12.342	12.342	12.342	144	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	18.741	18.741	18.741	143	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**Trifluorotoluene	9.926	25.	24.693	98.77	80-120

Workorder Receipt Checklist

B11050715

DOWL HKM

Login completed by: Darwin C. Miller
Date Received: 5/9/2011
Reviewed by: BL2000\kmcdonald
Received by: jrz
Reviewed Date: 5/10/2011
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:	0.6°C On Ice		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☑	Not Applicable ☐

Contact and Corrective Action Comments:

Sample PNR-5 for Ammonia and Nitrate + Nitrite was received at pH ~ 5. 2 mL of sulfuric acid was added in the laboratory to preserve to pH < 2.

ENERGY

Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
DOWL HKM	Biere Well Remediation, Poplar	State: MT	Yes ☒ No ☐
Report Mail Address:	**Contact Name:**	**Phone/Fax:**	**Email:** / **Sampler: (Please Print)**
Billings	Charlie Peterson	869-6372	Nate Peterson
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**
Same	Same		78

Special Report/Formats:

- ☐ DW
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

Number of Containers
Sample Type: A W S V B O DW
Air Water Solls/Solids Vegetation Bioassay Other DW - Drinking Water

See quote ID 78

SEE ATTACHED

Standard Turnaround (TAT)

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: Hand

Cooler ID(s):

Receipt Temp 0.6 °C

On Ice: Y N

Custody Seal: On Bottle Y N; On Cooler Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	LABORATORY USE ONLY
1	PNR-15	5/6/11	1020	SW	B1050715-001
2	PNR-14		1030		-002
3	PNR-5		1120		-003
4	USGS93-3		1240		-004
5	PNR-7		1530		-005
6	MOC-2		1610		-006
7	Whitmer	—	1618		-007
8	M-18	5/7/11	9:30		-008
9	M-27		10:15		-009
10	M-31		12:30		-010

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
[signature]	5-9-11	8:30			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory: JR ZORNER	Date/Time: 5/9/11 8:30A	Signature: [signature]

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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, and links.

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Chain of Custody and Analytical Request Record

Page ____ of ____

PLEASE PRINT (Provide as much information as possible.)

Company Name: DOWL HKM	Project Name, PWS, Permit, Etc.: Bierewell Remediation, Poplar	Sample Origin State: MT	EPA/State Compliance: Yes ☒ No ☐
Report Mail Address: Billings	Contact Name: Charlie Peterson Phone/Fax: 869-6372	Email:	Sampler: (Please Print) Timothy L Pierce
Invoice Address: Same	Invoice Contact & Phone: Same	Purchase Order:	Quote/Bottle Order: 78

Special Report/Formats:

☐ DW
☐ POTW/WWTP
☐ State: _____
☐ Other: _____
☐ EDD/EDT (Electronic Data) Format: _____
☐ LEVEL IV
☐ NELAC

Number of Containers
Sample Type: A AWS V B O DW
Air Water Solids/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED

Standard Turnaround (TAT)

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments: ANALYSIS ACC. TO BOTTLE ORDER 48384

Shipped by: Hand
Cooler ID(s):
Receipt Temp: 0.6 °C
On Ice: (Y) N
Custody Seal: On Bottle Y (N); On Cooler Y (N)
Intact Y N
Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	CONDUCTIVITY	pH	~~Metals~~ Chloride	~~Metals~~ BTEX							SEE ATTACHED	LABORATORY USE ONLY
3	1 PNR-RW-6	5/6/11	11:20	4	✓	✓	✓	✓								B1105071 5-011
3	2 PNR-RW-12	5/6/11	11:35	4	✓	✓	✓	✓								-012
3	3 PNR-RW-3	5/6/11	11:45	4	✓	✓	✓	✓								-013
3	4 PNR-RW-4	5/6/11	13:54	4	✓	✓	✓	✓								-014
3	5 PNR-RW-5	5/6/11	14:09	4	✓	✓	✓	✓								-015
3	6 PNR-RW-9	5/6/11	14:24	4	✓	✓	✓	✓								-016
3	7 PNR-RW-10	5/6/11	14:42	4	✓	✓	✓	✓								-017
3	8 PNR-RW-11	5/6/11	14:55	4	✓	✓	✓	✓								-018
	9															
	10															

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Timothy L. Pierce (PNR)	5/6/11 17:03	Timothy L. Pierce	Nate Peterson	5/6/11 1703	[illegible]
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
[illegible]	5/9/11 8:36	[illegible]			
			Received by Laboratory: [illegible]	Date/Time: 5/9/11 8:30A	Signature: [illegible]

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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

ENERGY

Chain of Custody and Analytical Request Record

Page _____ of _____

PLEASE PRINT (Provide as much information as possible.)

Company Name: Dowl HKM	Project Name, PWS, Permit, Etc. Bieve well Remidation	Sample Origin State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address:	Contact Name: Phone/Fax:	Email:	Sampler: (Please Print)
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Special Report/Formats:

☐ DW
☐ POTW/WWTP
☐ State: _____
☐ Other: _____
☐ EDD/EDT (Electronic Data) Format: _____
☐ LEVEL IV
☐ NELAC

ANALYSIS REQUESTED

Number of Containers
Sample Type: A W S V B O DW
Air Water Solls/Solids Vegetation Bioassay Other DW - Drinking Water

SEE ATTACHED

Standard Turnaround (TAT)

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

COC originated in Laboratory

Shipped by: Hand

Cooler ID(s):

Receipt Temp 0.6 °C

On Ice: Y N

Custody Seal
On Bottle Y N
On Cooler Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX		LABORATORY USE ONLY
1	Trip Blank #1	5/5/11	KR 0253		B	1105071501
2	Trip Blank #2	5/5/11	KR 0253			-020
3	Trip Blank #3	5/5/11	KR 0253			-021
4	Trip Blank #4	5/5/11	KR 0253			-022
5						
6						
7						
8						
9						
10						

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Sample Disposal: Return to Client:		Lab Disposal:	Received by Laboratory: R Zormeier	Date/Time: 5/9/11	Signature: 5/9/11 9:30

COC originated in Laboratory

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

ANALYTICAL SUMMARY REPORT

May 27, 2011

DOWL HKM
PO Box 31318
Billings, MT 59107-1318

Workorder No.: B11050651 Quote ID: B78 - Pioneer Natural Resources-Poplar Biere Well Site

Project Name: Biere Well Remediation

Energy Laboratories Inc Billings MT received the following 40 samples for DOWL HKM on 5/6/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B11050651-001	PNR-18	05/03/11 16:45	05/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B11050651-002	USGS 92-12	05/03/11 15:30	05/06/11	Aqueous	Same As Above
B11050651-003	PNR-16	05/04/11 10:30	05/06/11	Aqueous	Same As Above
B11050651-004	PNR-33-06	05/04/11 11:45	05/06/11	Aqueous	Same As Above
B11050651-005	PNR-38-08	05/04/11 13:30	05/06/11	Aqueous	Same As Above
B11050651-006	PNR-39-08	05/04/11 14:30	05/06/11	Aqueous	Same As Above
B11050651-007	PNR-34-07	05/04/11 15:10	05/06/11	Aqueous	Same As Above
B11050651-008	PNR-27	05/04/11 16:10	05/06/11	Aqueous	Same As Above
B11050651-009	PNR-19	05/04/11 17:10	05/06/11	Aqueous	Same As Above
B11050651-010	PNR-20	05/04/11 17:50	05/06/11	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

B11050651-011	PNR-8	05/05/11 10:10 05/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B11050651-012	MOC-20A	05/05/11 10:45 05/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B11050651-013	PNR-13	05/05/11 11:30 05/06/11	Aqueous	Same As Above
B11050651-014	MOC-20B	05/05/11 15:00 05/06/11	Aqueous	Same As Above
B11050651-015	PNR-22	05/05/11 15:30 05/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved

ANALYTICAL SUMMARY REPORT

B11050651-016	PNR-10	05/05/11 16:00 05/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B11050651-017	LAW-M03	05/05/11 16:30 05/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B11050651-018	PNR-9	05/05/11 17:10 05/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B11050651-019	PNR-28	05/05/11 17:40 05/06/11	Aqueous	Same As Above
B11050651-020	PNR-21	05/05/11 18:10 05/06/11	Aqueous	Same As Above
B11050651-021	PNR-6	05/03/11 16:45 05/06/11	Aqueous	Same As Above
B11050651-022	PNR-12	05/03/11 18:00 05/06/11	Aqueous	Same As Above
B11050651-023	MOC-1B	05/04/11 10:45 05/06/11	Aqueous	Same As Above
B11050651-024	MOC-3	05/04/11 12:30 05/06/11	Aqueous	Same As Above
B11050651-025	PNR-29	05/04/11 13:50 05/06/11	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

B11050651-026	PNR-35-07	05/04/11 15:45 05/06/11	Aqueous	Same As Above
B11050651-027	PNR-36-07	05/04/11 16:45 05/06/11	Aqueous	Same As Above
B11050651-028	PNR-23	05/05/11 10:30 05/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B11050651-029	MOC-4	05/05/11 15:30 05/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Mineral Balance Review Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B11050651-030	M-28	05/05/11 17:45 05/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Fluoride Purgeable Aromatics Hydrocarbons, Total Petroleum Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Preparation, Dissolved Filtration Solids, Total Dissolved
B11050651-031	Trip Blank #1 Lot #050511, B-TS 0253	05/03/11 15:30 05/06/11	Trip Blank	Purgeable Aromatics
B11050651-032	Trip Blank #2 Lot #050511, B-TS 0253	05/04/11 10:30 05/06/11	Trip Blank	Same As Above
B11050651-033	Trip Blank #3 Lot #050511, B-TS 0253	05/04/11 14:30 05/06/11	Trip Blank	Same As Above
B11050651-034	Trip Blank #4 Lot #050511, B-TS 0253	05/04/11 17:10 05/06/11	Trip Blank	Same As Above

ANALYTICAL SUMMARY REPORT

B11050651-035	Trip Blank #5 Lot #050511, B-TS 0253	05/05/11 10:45 05/06/11	Trip Blank	Same As Above
B11050651-036	Trip Blank #6 Lot #050511, B-TS 0253	05/05/11 15:30 05/06/11	Trip Blank	Same As Above
B11050651-037	Trip Blank #7 Lot #050511, B-TS 0253	05/05/11 17:10 05/06/11	Trip Blank	Same As Above
B11050651-038	Trip Blank #8 Lot #050511, B-TS 0253	05/03/11 18:00 05/06/11	Trip Blank	Same As Above
B11050651-039	Trip Blank #9 Lot #050511, B-TS 0253	05/04/11 13:50 05/06/11	Trip Blank	Same As Above
B11050651-040	Trip Blank #10 Lot #050511, B-TS 0253	05/05/11 10:30 05/06/11	Trip Blank	Same As Above

This report was prepared by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

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

Report Approved By:

CLIENT: DOWL HKM
Project: Biere Well Remediation
Sample Delivery Group: B11050651

Report Date: 05/27/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-G were subcontracted to Energy Laboratories, 400 W Boxelder Rd, Gillette, WY, EPA Number WY00006.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-001
Client Sample ID PNR-18

Report Date: 05/27/11
Collection Date: 05/03/11 16:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.1	s.u.		0.1		A4500-H B	05/07/11 10:10 / lec
Conductivity @ 25 C	3990	umhos/cm		5		A2510 B	05/07/11 10:10 / lec
Solids, Total Dissolved TDS @ 180 C	3480	mg/L		10		A2540 C	05/09/11 11:38 / jlh
INORGANICS							
Alkalinity, Total as CaCO3	742	mg/L		4		A2320 B	05/12/11 17:46 / sam
Bicarbonate as HCO3	905	mg/L		4		A2320 B	05/12/11 17:46 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 17:46 / sam
Chloride	149	mg/L	D	5		E300.0	05/09/11 23:41 / kh
Sulfate	1780	mg/L	D	20		E300.0	05/09/11 23:41 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/12/11 17:46 / sam
Hardness as CaCO3	1720	mg/L		1		A2340 B	05/09/11 23:22 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	2.36	mg/L		0.05		E350.1	05/09/11 13:01 / jlh
Nitrogen, Nitrate+Nitrite as N	0.03	mg/L		0.01		E353.2	05/09/11 08:24 / bls
METALS, DISSOLVED							
Calcium	301	mg/L		1		E200.7	05/09/11 23:22 / rlh
Magnesium	236	mg/L		1		E200.7	05/09/11 23:22 / rlh
Potassium	8	mg/L		1		E200.7	05/09/11 23:22 / rlh
Silica	26.6	mg/L		0.2		E200.7	05/09/11 23:22 / rlh
Sodium	388	mg/L	D	2		E200.7	05/09/11 23:22 / rlh
METALS, TOTAL							
Silica	81.5	mg/L		0.2		E200.7	05/11/11 21:58 / rlh
QUALITY CONTROL							
A/C Balance Sigma	4.30					Calculation	05/13/11 10:13 / rls
Anions	56.1	meq/L		0.01		Calculation	05/13/11 10:13 / rls
Cations	51.9	meq/L		0.01		Calculation	05/13/11 10:13 / rls
A/C Balance	-3.89	%				Calculation	05/13/11 10:13 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/10/11 19:32 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/10/11 19:32 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/10/11 19:32 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/10/11 19:32 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/10/11 19:32 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/10/11 19:32 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/10/11 19:32 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-001
Client Sample ID PNR-18

Report Date: 05/27/11
Collection Date: 05/03/11 16:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	100	%REC		80-120		SW8021B	05/10/11 19:32 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:46 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-002
Client Sample ID USGS 92-12

Report Date: 05/27/11
Collection Date: 05/03/11 15:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.6	s.u.		0.1		A4500-H B	05/07/11 10:13 / lec
Conductivity @ 25 C	2510	umhos/cm		5		A2510 B	05/07/11 10:13 / lec
Solids, Total Dissolved TDS @ 180 C	2190	mg/L		10		A2540 C	05/09/11 11:40 / jlh
INORGANICS							
Alkalinity, Total as CaCO3	430	mg/L		4		A2320 B	05/10/11 12:14 / sam
Bicarbonate as HCO3	525	mg/L		4		A2320 B	05/10/11 12:14 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 12:14 / sam
Chloride	4	mg/L	D	2		E300.0	05/09/11 23:52 / kh
Sulfate	1290	mg/L	D	10		E300.0	05/09/11 23:52 / kh
Fluoride	0.4	mg/L		0.1		A4500-F C	05/12/11 17:54 / sam
Hardness as CaCO3	1380	mg/L		1		A2340 B	05/09/11 23:25 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:05 / jlh
Nitrogen, Nitrate+Nitrite as N	4.03	mg/L	D	0.06		E353.2	05/09/11 08:25 / bls
METALS, DISSOLVED							
Calcium	194	mg/L		1		E200.7	05/09/11 23:25 / rlh
Magnesium	217	mg/L		1		E200.7	05/09/11 23:25 / rlh
Potassium	14	mg/L		1		E200.7	05/09/11 23:25 / rlh
Silica	25.6	mg/L		0.2		E200.7	05/09/11 23:25 / rlh
Sodium	108	mg/L	D	2		E200.7	05/09/11 23:25 / rlh
METALS, TOTAL							
Silica	36.5	mg/L		0.2		E200.7	05/11/11 22:21 / rlh
QUALITY CONTROL							
A/C Balance Sigma	4.91					Calculation	05/13/11 10:16 / rls
Anions	36.0	meq/L		0.01		Calculation	05/13/11 10:16 / rls
Cations	32.7	meq/L		0.01		Calculation	05/13/11 10:16 / rls
A/C Balance	-4.74	%				Calculation	05/13/11 10:16 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/10/11 20:04 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/10/11 20:04 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/10/11 20:04 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/10/11 20:04 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/10/11 20:04 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/10/11 20:04 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/10/11 20:04 / bjm

Report Definitions:
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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-002
Client Sample ID USGS 92-12

Report Date: 05/27/11
Collection Date: 05/03/11 15:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	108	%REC		80-120		SW8021B	05/10/11 20:04 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 17:24 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-003
Client Sample ID PNR-16

Report Date: 05/27/11
Collection Date: 05/04/11 10:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500-H B	05/07/11 10:15 / lec
Conductivity @ 25 C	4470	umhos/cm		5		A2510 B	05/07/11 10:15 / lec
Solids, Total Dissolved TDS @ 180 C	4550	mg/L		10		A2540 C	05/09/11 11:42 / jlh
INORGANICS							
Alkalinity, Total as CaCO3	487	mg/L		4		A2320 B	05/10/11 12:22 / sam
Bicarbonate as HCO3	595	mg/L		4		A2320 B	05/10/11 12:22 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 12:22 / sam
Chloride	19	mg/L	D	5		E300.0	05/10/11 00:04 / kh
Sulfate	2960	mg/L	D	20		E300.0	05/10/11 00:04 / kh
Fluoride	0.5	mg/L		0.1		A4500-F C	05/12/11 18:09 / sam
Hardness as CaCO3	2620	mg/L		1		A2340 B	05/09/11 23:28 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:06 / jlh
Nitrogen, Nitrate+Nitrite as N	23.3	mg/L	D	0.2		E353.2	05/09/11 08:26 / bls
METALS, DISSOLVED							
Calcium	396	mg/L		1		E200.7	05/09/11 23:28 / rlh
Magnesium	395	mg/L		1		E200.7	05/09/11 23:28 / rlh
Potassium	20	mg/L		1		E200.7	05/09/11 23:28 / rlh
Silica	26.9	mg/L		0.2		E200.7	05/09/11 23:28 / rlh
Sodium	288	mg/L	D	2		E200.7	05/09/11 23:28 / rlh
METALS, TOTAL							
Silica	45.1	mg/L		0.2		E200.7	05/11/11 22:24 / rlh
QUALITY CONTROL							
A/C Balance Sigma	6.51					Calculation	05/13/11 10:19 / rls
Anions	73.7	meq/L		0.01		Calculation	05/13/11 10:19 / rls
Cations	65.5	meq/L		0.01		Calculation	05/13/11 10:19 / rls
A/C Balance	-5.84	%				Calculation	05/13/11 10:19 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/10/11 20:37 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/10/11 20:37 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/10/11 20:37 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/10/11 20:37 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/10/11 20:37 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/10/11 20:37 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/10/11 20:37 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-003
Client Sample ID PNR-16

Report Date: 05/27/11
Collection Date: 05/04/11 10:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	96.0	%REC		80-120		SW8021B	05/10/11 20:37 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:51 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-004
Client Sample ID PNR-33-06

Report Date: 05/27/11
Collection Date: 05/04/11 11:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.3	s.u.		0.1		A4500-H B	05/07/11 10:18 / lec
Conductivity @ 25 C	4730	umhos/cm		5		A2510 B	05/07/11 10:18 / lec
Solids, Total Dissolved TDS @ 180 C	4840	mg/L		10		A2540 C	05/09/11 11:43 / jlh
INORGANICS							
Alkalinity, Total as CaCO3	385	mg/L		4		A2320 B	05/10/11 12:38 / sam
Bicarbonate as HCO3	470	mg/L		4		A2320 B	05/10/11 12:38 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 12:38 / sam
Chloride	109	mg/L	D	5		E300.0	05/10/11 00:16 / kh
Sulfate	2980	mg/L	D	20		E300.0	05/10/11 00:16 / kh
Fluoride	0.3	mg/L		0.1		A4500-F C	05/12/11 18:23 / sam
Hardness as CaCO3	2810	mg/L		1		A2340 B	05/09/11 23:32 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:07 / jlh
Nitrogen, Nitrate+Nitrite as N	52.7	mg/L	D	0.2		E353.2	05/09/11 08:28 / bls
METALS, DISSOLVED							
Calcium	508	mg/L		1		E200.7	05/09/11 23:32 / rlh
Magnesium	375	mg/L		1		E200.7	05/09/11 23:32 / rlh
Potassium	17	mg/L		1		E200.7	05/09/11 23:32 / rlh
Silica	26.0	mg/L		0.2		E200.7	05/09/11 23:32 / rlh
Sodium	296	mg/L	D	2		E200.7	05/09/11 23:32 / rlh
METALS, TOTAL							
Silica	27.8	mg/L		0.2		E200.7	05/11/11 22:28 / rlh
QUALITY CONTROL							
A/C Balance Sigma	5.30					Calculation	05/13/11 10:21 / rls
Anions	76.5	meq/L		0.01		Calculation	05/13/11 10:21 / rls
Cations	69.7	meq/L		0.01		Calculation	05/13/11 10:21 / rls
A/C Balance	-4.68	%				Calculation	05/13/11 10:21 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/10/11 21:41 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/10/11 21:41 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/10/11 21:41 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/10/11 21:41 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/10/11 21:41 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/10/11 21:41 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/10/11 21:41 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-004
Client Sample ID PNR-33-06

Report Date: 05/27/11
Collection Date: 05/04/11 11:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	93.0	%REC		80-120		SW8021B	05/10/11 21:41 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:47 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-005
Client Sample ID PNR-38-08

Report Date: 05/27/11
Collection Date: 05/04/11 13:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.0	s.u.		0.1		A4500-H B	05/07/11 10:20 / lec
Conductivity @ 25 C	6660	umhos/cm		5		A2510 B	05/07/11 10:20 / lec
Solids, Total Dissolved TDS @ 180 C	5340	mg/L		10		A2540 C	05/09/11 15:34 / qed
INORGANICS							
Alkalinity, Total as CaCO3	453	mg/L		4		A2320 B	05/10/11 12:54 / sam
Bicarbonate as HCO3	553	mg/L		4		A2320 B	05/10/11 12:54 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 12:54 / sam
Chloride	1760	mg/L	D	5		E300.0	05/10/11 00:27 / kh
Sulfate	1240	mg/L	D	20		E300.0	05/10/11 00:27 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/12/11 18:36 / sam
Hardness as CaCO3	2310	mg/L		1		A2340 B	05/09/11 23:42 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	1.55	mg/L		0.05		E350.1	05/09/11 13:08 / jlh
Nitrogen, Nitrate+Nitrite as N	0.01	mg/L		0.01		E353.2	05/09/11 08:37 / bls
METALS, DISSOLVED							
Calcium	451	mg/L		1		E200.7	05/09/11 23:42 / rlh
Magnesium	287	mg/L		1		E200.7	05/09/11 23:42 / rlh
Potassium	13	mg/L		1		E200.7	05/09/11 23:42 / rlh
Silica	23.1	mg/L		0.2		E200.7	05/09/11 23:42 / rlh
Sodium	670	mg/L	D	4		E200.7	05/09/11 23:42 / rlh
METALS, TOTAL							
Silica	27.0	mg/L	D	0.3		E200.7	05/09/11 13:35 / rlh
QUALITY CONTROL							
A/C Balance Sigma	5.60					Calculation	05/13/11 10:24 / rls
Anions	84.4	meq/L		0.01		Calculation	05/13/11 10:24 / rls
Cations	76.5	meq/L		0.01		Calculation	05/13/11 10:24 / rls
A/C Balance	-4.92	%				Calculation	05/13/11 10:24 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/10/11 22:13 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/10/11 22:13 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/10/11 22:13 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/10/11 22:13 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/10/11 22:13 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/10/11 22:13 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/10/11 22:13 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-005
Client Sample ID PNR-38-08

Report Date: 05/27/11
Collection Date: 05/04/11 13:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/10/11 22:13 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:52 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-006
Client Sample ID PNR-39-08

Report Date: 05/27/11
Collection Date: 05/04/11 14:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.9	s.u.		0.1		A4500-H B	05/07/11 10:23 / lec
Conductivity @ 25 C	24700	umhos/cm	E	5		A2510 B	05/07/11 10:23 / lec
Solids, Total Dissolved TDS @ 180 C	21200	mg/L		10		A2540 C	05/11/11 18:23 / qed
INORGANICS							
Alkalinity, Total as CaCO3	505	mg/L		4		A2320 B	05/10/11 13:05 / sam
Bicarbonate as HCO3	616	mg/L		4		A2320 B	05/10/11 13:05 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 13:05 / sam
Chloride	10500	mg/L	D	20		E300.0	05/10/11 00:39 / kh
Sulfate	1710	mg/L	D	100		E300.0	05/10/11 00:39 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/12/11 18:44 / sam
Hardness as CaCO3	11200	mg/L		1		A2340 B	05/25/11 14:32 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:09 / jlh
Nitrogen, Nitrate+Nitrite as N	30.8	mg/L	D	0.1		E353.2	05/09/11 08:29 / bls
METALS, DISSOLVED							
Calcium	1980	mg/L	D	2		E200.7	05/25/11 14:32 / tao
Magnesium	1520	mg/L		1		E200.7	05/25/11 14:32 / tao
Potassium	38	mg/L		1		E200.7	05/25/11 14:32 / tao
Silica	28	mg/L	D	2		E200.7	05/25/11 14:32 / tao
Sodium	3180	mg/L	D	20		E200.7	05/25/11 14:32 / tao
METALS, TOTAL							
Silica	22	mg/L	D	2		E200.7	05/11/11 22:31 / rlh
QUALITY CONTROL							
A/C Balance Sigma	-3.47					Calculation	05/26/11 11:02 / klc
Anions	344	meq/L		0.01		Calculation	05/26/11 11:02 / klc
Cations	363	meq/L		0.01		Calculation	05/26/11 11:02 / klc
A/C Balance	2.67	%				Calculation	05/26/11 11:02 / klc
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/10/11 22:45 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/10/11 22:45 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/10/11 22:45 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/10/11 22:45 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/10/11 22:45 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/10/11 22:45 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/10/11 22:45 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-006
Client Sample ID PNR-39-08

Report Date: 05/27/11
Collection Date: 05/04/11 14:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	97.0	%REC		80-120		SW8021B	05/10/11 22:45 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:45 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-007
Client Sample ID PNR-34-07

Report Date: 05/27/11
Collection Date: 05/04/11 15:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.9	s.u.		0.1		A4500-H B	05/07/11 10:26 / lec
Conductivity @ 25 C	35700	umhos/cm	E	5		A2510 B	05/07/11 10:26 / lec
Solids, Total Dissolved TDS @ 180 C	30400	mg/L		10		A2540 C	05/11/11 18:24 / qed
INORGANICS							
Alkalinity, Total as CaCO3	545	mg/L		4		A2320 B	05/10/11 13:15 / sam
Bicarbonate as HCO3	665	mg/L		4		A2320 B	05/10/11 13:15 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 13:15 / sam
Chloride	16600	mg/L	D	50		E300.0	05/10/11 00:50 / kh
Sulfate	1510	mg/L	D	200		E300.0	05/10/11 00:50 / kh
Fluoride	0.1	mg/L		0.1		A4500-F C	05/12/11 18:52 / sam
Hardness as CaCO3	8140	mg/L		1		A2340 B	05/12/11 05:28 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	0.10	mg/L		0.05		E350.1	05/09/11 13:10 / jlh
Nitrogen, Nitrate+Nitrite as N	12.0	mg/L	D	0.06		E353.2	05/09/11 08:30 / bls
METALS, DISSOLVED							
Calcium	1560	mg/L		1		E200.7	05/12/11 05:28 / rlh
Magnesium	1030	mg/L		1		E200.7	05/12/11 05:28 / rlh
Potassium	39	mg/L		1		E200.7	05/12/11 05:28 / rlh
Silica	13	mg/L	D	1		E200.7	05/12/11 05:28 / rlh
Sodium	6080	mg/L	D	20		E200.7	05/12/11 05:28 / rlh
METALS, TOTAL							
Silica	34	mg/L	D	2		E200.7	05/11/11 22:34 / rlh
QUALITY CONTROL							
A/C Balance Sigma	10.2					Calculation	05/13/11 10:50 / rls
Anions	512	meq/L		0.01		Calculation	05/13/11 10:50 / rls
Cations	429	meq/L		0.01		Calculation	05/13/11 10:50 / rls
A/C Balance	-8.74	%				Calculation	05/13/11 10:50 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 12:13 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/11/11 12:13 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 12:13 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 12:13 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 12:13 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 12:13 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 12:13 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-007
Client Sample ID PNR-34-07

Report Date: 05/27/11
Collection Date: 05/04/11 15:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/11/11 12:13 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:50 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-008
Client Sample ID PNR-27

Report Date: 05/27/11
Collection Date: 05/04/11 16:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.9	s.u.		0.1		A4500-H B	05/07/11 10:28 / lec
Conductivity @ 25 C	32700	umhos/cm	E	5		A2510 B	05/07/11 10:28 / lec
Solids, Total Dissolved TDS @ 180 C	27700	mg/L		10		A2540 C	05/09/11 15:44 / qed
INORGANICS							
Alkalinity, Total as CaCO3	599	mg/L		4		A2320 B	05/10/11 13:24 / sam
Bicarbonate as HCO3	731	mg/L		4		A2320 B	05/10/11 13:24 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 13:24 / sam
Chloride	13200	mg/L	D	50		E300.0	05/10/11 01:02 / kh
Sulfate	1850	mg/L	D	200		E300.0	05/10/11 01:02 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/12/11 19:01 / sam
Hardness as CaCO3	9810	mg/L		1		A2340 B	05/25/11 14:35 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:12 / jlh
Nitrogen, Nitrate+Nitrite as N	40.2	mg/L	D	0.1		E353.2	05/09/11 08:31 / bls
METALS, DISSOLVED							
Calcium	1850	mg/L	D	2		E200.7	05/25/11 14:35 / tao
Magnesium	1260	mg/L		1		E200.7	05/25/11 14:35 / tao
Potassium	44	mg/L		1		E200.7	05/25/11 14:35 / tao
Silica	33	mg/L	D	2		E200.7	05/25/11 14:35 / tao
Sodium	5420	mg/L	D	20		E200.7	05/25/11 14:35 / tao
METALS, TOTAL							
Silica	32	mg/L	D	2		E200.7	05/11/11 22:38 / rlh
QUALITY CONTROL							
A/C Balance Sigma	-1.16					Calculation	05/26/11 11:31 / klc
Anions	425	meq/L		0.01		Calculation	05/26/11 11:31 / klc
Cations	433	meq/L		0.01		Calculation	05/26/11 11:31 / klc
A/C Balance	0.91	%				Calculation	05/26/11 11:31 / klc
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 12:46 / bjm
Benzene	1.1	ug/L		0.50		SW8021B	05/11/11 12:46 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 12:46 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 12:46 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 12:46 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 12:46 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 12:46 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-008
Client Sample ID PNR-27

Report Date: 05/27/11
Collection Date: 05/04/11 16:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	96.0	%REC		80-120		SW8021B	05/11/11 12:46 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:40 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-009
Client Sample ID PNR-19

Report Date: 05/27/11
Collection Date: 05/04/11 17:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.3	s.u.		0.1		A4500-H B	05/07/11 10:31 / lec
Conductivity @ 25 C	14600	umhos/cm		5		A2510 B	05/07/11 10:31 / lec
Solids, Total Dissolved TDS @ 180 C	10500	mg/L		10		A2540 C	05/09/11 15:46 / qed
INORGANICS							
Alkalinity, Total as CaCO3	312	mg/L		4		A2320 B	05/10/11 13:31 / sam
Bicarbonate as HCO3	380	mg/L		4		A2320 B	05/10/11 13:31 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 13:31 / sam
Chloride	5130	mg/L	D	20		E300.0	05/10/11 01:37 / kh
Sulfate	1080	mg/L	D	100		E300.0	05/10/11 01:37 / kh
Fluoride	0.4	mg/L		0.1		A4500-F C	05/12/11 19:08 / sam
Hardness as CaCO3	2600	mg/L		1		A2340 B	05/25/11 14:38 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	0.16	mg/L		0.05		E350.1	05/09/11 13:13 / jlh
Nitrogen, Nitrate+Nitrite as N	23.9	mg/L	D	0.1		E353.2	05/09/11 08:32 / bls
METALS, DISSOLVED							
Calcium	479	mg/L		1		E200.7	05/25/11 14:38 / tao
Magnesium	340	mg/L		1		E200.7	05/25/11 14:38 / tao
Potassium	21	mg/L		1		E200.7	05/25/11 14:38 / tao
Silica	23.3	mg/L	D	0.7		E200.7	05/25/11 14:38 / tao
Sodium	2690	mg/L	D	7		E200.7	05/25/11 14:38 / tao
METALS, TOTAL							
Silica	25.2	mg/L	D	0.9		E200.7	05/11/11 22:41 / rlh
QUALITY CONTROL							
A/C Balance Sigma	2.04					Calculation	05/26/11 11:33 / klc
Anions	175	meq/L		0.01		Calculation	05/26/11 11:33 / klc
Cations	169	meq/L		0.01		Calculation	05/26/11 11:33 / klc
A/C Balance	-1.67	%				Calculation	05/26/11 11:33 / klc
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 13:18 / bjm
Benzene	4.7	ug/L		0.50		SW8021B	05/11/11 13:18 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 13:18 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 13:18 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 13:18 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 13:18 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 13:18 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-009
Client Sample ID PNR-19

Report Date: 05/27/11
Collection Date: 05/04/11 17:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	97.0	%REC		80-120		SW8021B	05/11/11 13:18 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:43 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-010
Client Sample ID PNR-20

Report Date: 05/27/11
Collection Date: 05/04/11 17:50
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.0	s.u.		0.1		A4500-H B	05/07/11 10:34 / lec
Conductivity @ 25 C	43500	umhos/cm	E	5		A2510 B	05/07/11 10:34 / lec
Solids, Total Dissolved TDS @ 180 C	35000	mg/L		10		A2540 C	05/09/11 15:47 / qed
INORGANICS							
Alkalinity, Total as CaCO3	451	mg/L		4		A2320 B	05/10/11 13:41 / sam
Bicarbonate as HCO3	550	mg/L		4		A2320 B	05/10/11 13:41 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 13:41 / sam
Chloride	19100	mg/L	D	50		E300.0	05/10/11 02:12 / kh
Sulfate	1680	mg/L	D	200		E300.0	05/10/11 02:12 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/12/11 19:16 / sam
Hardness as CaCO3	7770	mg/L		1		A2340 B	05/10/11 00:05 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	0.12	mg/L		0.05		E350.1	05/09/11 13:14 / jlh
Nitrogen, Nitrate+Nitrite as N	9.16	mg/L	D	0.06		E353.2	05/09/11 08:34 / bls
METALS, DISSOLVED							
Calcium	1540	mg/L		1		E200.7	05/10/11 00:05 / rlh
Magnesium	954	mg/L		1		E200.7	05/10/11 00:05 / rlh
Potassium	43	mg/L		1		E200.7	05/10/11 00:05 / rlh
Silica	22	mg/L	D	1		E200.7	05/10/11 00:05 / rlh
Sodium	8120	mg/L	D	20		E200.7	05/10/11 00:05 / rlh
METALS, TOTAL							
Silica	57	mg/L	D	2		E200.7	05/10/11 14:13 / rlh
QUALITY CONTROL							
A/C Balance Sigma	8.75					Calculation	05/13/11 11:00 / rls
Anions	592	meq/L		0.01		Calculation	05/13/11 11:00 / rls
Cations	511	meq/L		0.01		Calculation	05/13/11 11:00 / rls
A/C Balance	-7.37	%				Calculation	05/13/11 11:00 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 14:23 / bjm
Benzene	16	ug/L		0.50		SW8021B	05/11/11 14:23 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 14:23 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 14:23 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 14:23 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 14:23 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 14:23 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-010
Client Sample ID PNR-20

Report Date: 05/27/11
Collection Date: 05/04/11 17:50
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	95.0	%REC		80-120		SW8021B	05/11/11 14:23 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:45 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-011
Client Sample ID PNR-8

Report Date: 05/27/11
Collection Date: 05/05/11 10:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500-H B	05/07/11 10:36 / lec
Conductivity @ 25 C	6360	umhos/cm		5		A2510 B	05/07/11 10:36 / lec
Solids, Total Dissolved TDS @ 180 C	4890	mg/L		10		A2540 C	05/09/11 15:49 / qed
INORGANICS							
Alkalinity, Total as CaCO3	419	mg/L		4		A2320 B	05/10/11 13:52 / sam
Bicarbonate as HCO3	511	mg/L		4		A2320 B	05/10/11 13:52 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 13:52 / sam
Chloride	1520	mg/L	D	5		E300.0	05/10/11 02:23 / kh
Sulfate	1360	mg/L	D	20		E300.0	05/10/11 02:23 / kh
Fluoride	0.3	mg/L		0.1		A4500-F C	05/12/11 19:19 / sam
Hardness as CaCO3	2450	mg/L		1		A2340 B	05/10/11 00:09 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	0.16	mg/L		0.05		E350.1	05/09/11 13:18 / jlh
Nitrogen, Nitrate+Nitrite as N	3.37	mg/L	D	0.02		E353.2	05/09/11 08:41 / bls
METALS, DISSOLVED							
Calcium	311	mg/L		1		E200.7	05/10/11 00:09 / rlh
Magnesium	406	mg/L		1		E200.7	05/10/11 00:09 / rlh
Potassium	24	mg/L		1		E200.7	05/10/11 00:09 / rlh
Silica	15.8	mg/L		0.2		E200.7	05/10/11 00:09 / rlh
Sodium	597	mg/L	D	4		E200.7	05/10/11 00:09 / rlh
METALS, TOTAL							
Silica	18.5	mg/L	D	0.4		E200.7	05/10/11 14:17 / rlh
QUALITY CONTROL							
A/C Balance Sigma	3.22					Calculation	05/11/11 09:43 / rls
Anions	79.9	meq/L		0.01		Calculation	05/11/11 09:43 / rls
Cations	75.6	meq/L		0.01		Calculation	05/11/11 09:43 / rls
A/C Balance	-2.78	%				Calculation	05/11/11 09:43 / rls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 14:55 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/11/11 14:55 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 14:55 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 14:55 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 14:55 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 14:55 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 14:55 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-011
Client Sample ID PNR-8

Report Date: 05/27/11
Collection Date: 05/05/11 10:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	97.0	%REC		80-120		SW8021B	05/11/11 14:55 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:55 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-012
Client Sample ID MOC-20A

Report Date: 05/27/11
Collection Date: 05/05/11 10:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.5	s.u.		0.1		A4500-H B	05/07/11 10:39 / lec
Conductivity @ 25 C	5270	umhos/cm		5		A2510 B	05/07/11 10:39 / lec
Solids, Total Dissolved TDS @ 180 C	5620	mg/L		10		A2540 C	05/09/11 15:50 / qed
INORGANICS							
Alkalinity, Total as CaCO3	286	mg/L		4		A2320 B	05/10/11 14:02 / sam
Bicarbonate as HCO3	349	mg/L		4		A2320 B	05/10/11 14:02 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 14:02 / sam
Chloride	150	mg/L	D	5		E300.0	05/10/11 02:35 / kh
Sulfate	3570	mg/L	D	20		E300.0	05/10/11 02:35 / kh
Fluoride	0.4	mg/L		0.1		A4500-F C	05/12/11 19:27 / sam
Hardness as CaCO3	2820	mg/L		1		A2340 B	05/10/11 00:12 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:21 / jlh
Nitrogen, Nitrate+Nitrite as N	10.3	mg/L	D	0.06		E353.2	05/09/11 08:42 / bls
METALS, DISSOLVED							
Calcium	450	mg/L		1		E200.7	05/10/11 00:12 / rlh
Magnesium	411	mg/L		1		E200.7	05/10/11 00:12 / rlh
Potassium	22	mg/L		1		E200.7	05/10/11 00:12 / rlh
Silica	28.5	mg/L		0.2		E200.7	05/10/11 00:12 / rlh
Sodium	456	mg/L	D	4		E200.7	05/10/11 00:12 / rlh
METALS, TOTAL							
Silica	30.1	mg/L	D	0.3		E200.7	05/09/11 13:38 / rlh
QUALITY CONTROL							
A/C Balance Sigma	5.69					Calculation	05/13/11 11:02 / rls
Anions	85.0	meq/L		0.01		Calculation	05/13/11 11:02 / rls
Cations	76.9	meq/L		0.01		Calculation	05/13/11 11:02 / rls
A/C Balance	-5.00	%				Calculation	05/13/11 11:02 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 15:27 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/11/11 15:27 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 15:27 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 15:27 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 15:27 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 15:27 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 15:27 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-012
Client Sample ID MOC-20A

Report Date: 05/27/11
Collection Date: 05/05/11 10:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/11/11 15:27 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 17:26 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-013
Client Sample ID PNR-13

Report Date: 05/27/11
Collection Date: 05/05/11 11:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.3	s.u.		0.1		A4500-H B	05/07/11 10:41 / lec
Conductivity @ 25 C	3760	umhos/cm		5		A2510 B	05/07/11 10:41 / lec
Solids, Total Dissolved TDS @ 180 C	3370	mg/L		10		A2540 C	05/09/11 15:51 / qed
INORGANICS							
Alkalinity, Total as CaCO3	474	mg/L		4		A2320 B	05/12/11 19:35 / sam
Bicarbonate as HCO3	578	mg/L		4		A2320 B	05/12/11 19:35 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 19:35 / sam
Chloride	166	mg/L	D	5		E300.0	05/11/11 21:11 / kh
Sulfate	1890	mg/L	D	20		E300.0	05/11/11 21:11 / kh
Fluoride	0.3	mg/L		0.1		A4500-F C	05/12/11 19:35 / sam
Hardness as CaCO3	1660	mg/L		1		A2340 B	05/10/11 00:16 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	0.96	mg/L		0.05		E350.1	05/09/11 13:22 / jlh
Nitrogen, Nitrate+Nitrite as N	0.63	mg/L		0.01		E353.2	05/09/11 08:54 / bls
METALS, DISSOLVED							
Calcium	332	mg/L		1		E200.7	05/10/11 00:16 / rlh
Magnesium	202	mg/L		1		E200.7	05/10/11 00:16 / rlh
Potassium	13	mg/L		1		E200.7	05/10/11 00:16 / rlh
Silica	21.9	mg/L		0.2		E200.7	05/10/11 00:16 / rlh
Sodium	335	mg/L	D	2		E200.7	05/10/11 00:16 / rlh
METALS, TOTAL							
Silica	22.8	mg/L		0.2		E200.7	05/10/11 14:20 / rlh
QUALITY CONTROL							
A/C Balance Sigma	5.53					Calculation	05/13/11 11:05 / rls
Anions	53.6	meq/L		0.01		Calculation	05/13/11 11:05 / rls
Cations	48.4	meq/L		0.01		Calculation	05/13/11 11:05 / rls
A/C Balance	-5.08	%				Calculation	05/13/11 11:05 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 22:27 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/11/11 22:27 / bjm
Toluene	0.74	ug/L		0.50		SW8021B	05/11/11 22:27 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 22:27 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 22:27 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 22:27 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 22:27 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-013
Client Sample ID PNR-13

Report Date: 05/27/11
Collection Date: 05/05/11 11:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/11/11 22:27 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:44 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-014
Client Sample ID MOC-20B

Report Date: 05/27/11
Collection Date: 05/05/11 15:00
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.0	s.u.		0.1		A4500-H B	05/07/11 10:44 / lec
Conductivity @ 25 C	4340	umhos/cm		5		A2510 B	05/07/11 10:44 / lec
Solids, Total Dissolved TDS @ 180 C	3990	mg/L		10		A2540 C	05/09/11 15:53 / qed
INORGANICS							
Alkalinity, Total as CaCO3	410	mg/L		4		A2320 B	05/12/11 19:43 / sam
Bicarbonate as HCO3	500	mg/L		4		A2320 B	05/12/11 19:43 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 19:43 / sam
Chloride	251	mg/L	D	5		E300.0	05/10/11 02:58 / kh
Sulfate	2220	mg/L	D	20		E300.0	05/10/11 02:58 / kh
Fluoride	0.3	mg/L		0.1		A4500-F C	05/12/11 19:43 / sam
Hardness as CaCO3	1670	mg/L		1		A2340 B	05/25/11 14:58 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	0.98	mg/L		0.05		E350.1	05/09/11 13:24 / jlh
Nitrogen, Nitrate+Nitrite as N	0.01	mg/L		0.01		E353.2	05/09/11 08:57 / bls
METALS, DISSOLVED							
Calcium	328	mg/L		1		E200.7	05/25/11 14:58 / tao
Magnesium	206	mg/L		1		E200.7	05/25/11 14:58 / tao
Potassium	9	mg/L		1		E200.7	05/25/11 14:58 / tao
Silica	26.9	mg/L		0.2		E200.7	05/25/11 14:58 / tao
Sodium	504	mg/L	D	2		E200.7	05/25/11 14:58 / tao
METALS, TOTAL							
Silica	32.3	mg/L		0.2		E200.7	05/10/11 14:23 / rlh
QUALITY CONTROL							
A/C Balance Sigma	5.09					Calculation	05/27/11 08:15 / klc
Anions	61.5	meq/L		0.01		Calculation	05/27/11 08:15 / klc
Cations	56.1	meq/L		0.01		Calculation	05/27/11 08:15 / klc
A/C Balance	-4.59	%				Calculation	05/27/11 08:15 / klc
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 21:22 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/11/11 21:22 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 21:22 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 21:22 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 21:22 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 21:22 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 21:22 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-014
Client Sample ID MOC-20B

Report Date: 05/27/11
Collection Date: 05/05/11 15:00
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/11/11 21:22 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/11/11 16:54 / ell-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-015
Client Sample ID PNR-22

Report Date: 05/27/11
Collection Date: 05/05/11 15:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500-H B	05/07/11 10:48 / lec
Conductivity @ 25 C	4310	umhos/cm		5		A2510 B	05/07/11 10:48 / lec
Solids, Total Dissolved TDS @ 180 C	3420	mg/L		10		A2540 C	05/09/11 15:54 / qed
INORGANICS							
Alkalinity, Total as CaCO3	744	mg/L		4		A2320 B	05/10/11 14:35 / sam
Bicarbonate as HCO3	907	mg/L		4		A2320 B	05/10/11 14:35 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 14:35 / sam
Chloride	552	mg/L	D	5		E300.0	05/10/11 03:10 / kh
Sulfate	1250	mg/L	D	20		E300.0	05/10/11 03:10 / kh
Fluoride	0.3	mg/L		0.1		A4500-F C	05/12/11 19:46 / sam
Hardness as CaCO3	1650	mg/L		1		A2340 B	05/10/11 00:39 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	4.4	mg/L	D	0.1		E350.1	05/09/11 13:25 / jlh
Nitrogen, Nitrate+Nitrite as N	0.06	mg/L		0.01		E353.2	05/09/11 08:43 / bls
METALS, DISSOLVED							
Calcium	258	mg/L		1		E200.7	05/10/11 00:39 / rlh
Magnesium	243	mg/L		1		E200.7	05/10/11 00:39 / rlh
Potassium	9	mg/L		1		E200.7	05/10/11 00:39 / rlh
Silica	30.0	mg/L		0.2		E200.7	05/10/11 00:39 / rlh
Sodium	472	mg/L	D	2		E200.7	05/10/11 00:39 / rlh
METALS, TOTAL							
Silica	31.9	mg/L		0.2		E200.7	05/10/11 14:27 / rlh
QUALITY CONTROL							
A/C Balance Sigma	2.48					Calculation	05/11/11 09:43 / rls
Anions	56.4	meq/L		0.01		Calculation	05/11/11 09:43 / rls
Cations	54.0	meq/L		0.01		Calculation	05/11/11 09:43 / rls
A/C Balance	-2.21	%				Calculation	05/11/11 09:43 / rls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 20:50 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/11/11 20:50 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 20:50 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 20:50 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 20:50 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 20:50 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 20:50 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-015
Client Sample ID PNR-22

Report Date: 05/27/11
Collection Date: 05/05/11 15:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/11/11 20:50 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:45 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-016
Client Sample ID PNR-10

Report Date: 05/27/11
Collection Date: 05/05/11 16:00
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.0	s.u.		0.1		A4500-H B	05/07/11 10:51 / lec
Conductivity @ 25 C	6350	umhos/cm		5		A2510 B	05/07/11 10:51 / lec
Solids, Total Dissolved TDS @ 180 C	4960	mg/L		10		A2540 C	05/09/11 15:55 / qed
INORGANICS							
Alkalinity, Total as CaCO3	430	mg/L		4		A2320 B	05/10/11 14:50 / sam
Bicarbonate as HCO3	524	mg/L		4		A2320 B	05/10/11 14:50 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 14:50 / sam
Chloride	1480	mg/L	D	5		E300.0	05/10/11 03:22 / kh
Sulfate	1560	mg/L	D	20		E300.0	05/10/11 03:22 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/12/11 20:00 / sam
Hardness as CaCO3	2160	mg/L		1		A2340 B	05/25/11 15:07 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	1.70	mg/L		0.05		E350.1	05/09/11 13:26 / jlh
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	05/09/11 08:44 / bls
METALS, DISSOLVED							
Calcium	423	mg/L		1		E200.7	05/25/11 15:07 / tao
Magnesium	268	mg/L		1		E200.7	05/25/11 15:07 / tao
Potassium	12	mg/L		1		E200.7	05/25/11 15:07 / tao
Silica	28.0	mg/L	D	0.3		E200.7	05/25/11 15:07 / tao
Sodium	746	mg/L	D	4		E200.7	05/25/11 15:07 / tao
METALS, TOTAL							
Silica	36.4	mg/L	D	0.4		E200.7	05/10/11 14:30 / rlh
QUALITY CONTROL							
A/C Balance Sigma	4.90					Calculation	05/26/11 11:41 / klc
Anions	82.9	meq/L		0.01		Calculation	05/26/11 11:41 / klc
Cations	76.1	meq/L		0.01		Calculation	05/26/11 11:41 / klc
A/C Balance	-4.29	%				Calculation	05/26/11 11:41 / klc
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 20:18 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/11/11 20:18 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 20:18 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 20:18 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 20:18 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 20:18 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 20:18 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-016
Client Sample ID PNR-10

Report Date: 05/27/11
Collection Date: 05/05/11 16:00
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	97.0	%REC		80-120		SW8021B	05/11/11 20:18 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:38 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-017
Client Sample ID LAW-M03

Report Date: 05/27/11
Collection Date: 05/05/11 16:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.0	s.u.		0.1		A4500-H B	05/07/11 10:54 / lec
Conductivity @ 25 C	7540	umhos/cm		5		A2510 B	05/07/11 10:54 / lec
Solids, Total Dissolved TDS @ 180 C	5680	mg/L		10		A2540 C	05/09/11 15:56 / qed
INORGANICS							
Alkalinity, Total as CaCO3	396	mg/L		4		A2320 B	05/10/11 15:40 / sam
Bicarbonate as HCO3	483	mg/L		4		A2320 B	05/10/11 15:40 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 15:40 / sam
Chloride	2040	mg/L	D	10		E300.0	05/10/11 03:33 / kh
Sulfate	1170	mg/L	D	50		E300.0	05/10/11 03:33 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/12/11 20:14 / sam
Hardness as CaCO3	2400	mg/L		1		A2340 B	05/10/11 00:45 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	1.73	mg/L		0.05		E350.1	05/09/11 13:27 / jlh
Nitrogen, Nitrate+Nitrite as N	0.01	mg/L		0.01		E353.2	05/09/11 08:45 / bls
METALS, DISSOLVED							
Calcium	484	mg/L		1		E200.7	05/10/11 00:45 / rlh
Magnesium	289	mg/L		1		E200.7	05/10/11 00:45 / rlh
Potassium	14	mg/L		1		E200.7	05/10/11 00:45 / rlh
Silica	24.1	mg/L		0.2		E200.7	05/10/11 00:45 / rlh
Sodium	831	mg/L	D	4		E200.7	05/10/11 00:45 / rlh
METALS, TOTAL							
Silica	29.0	mg/L	D	0.4		E200.7	05/10/11 14:33 / rlh
QUALITY CONTROL							
A/C Balance Sigma	3.47					Calculation	05/11/11 09:43 / rls
Anions	89.8	meq/L		0.01		Calculation	05/11/11 09:43 / rls
Cations	84.6	meq/L		0.01		Calculation	05/11/11 09:43 / rls
A/C Balance	-2.98	%				Calculation	05/11/11 09:43 / rls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 19:46 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/11/11 19:46 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 19:46 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 19:46 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 19:46 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 19:46 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 19:46 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-017
Client Sample ID LAW-M03

Report Date: 05/27/11
Collection Date: 05/05/11 16:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/11/11 19:46 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:33 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-018
Client Sample ID PNR-9

Report Date: 05/27/11
Collection Date: 05/05/11 17:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.9	s.u.		0.1		A4500-H B	05/07/11 10:56 / lec
Conductivity @ 25 C	13700	umhos/cm		5		A2510 B	05/07/11 10:56 / lec
Solids, Total Dissolved TDS @ 180 C	10900	mg/L		10		A2540 C	05/09/11 15:57 / qed
INORGANICS							
Alkalinity, Total as CaCO3	291	mg/L		4		A2320 B	05/10/11 15:56 / sam
Bicarbonate as HCO3	354	mg/L		4		A2320 B	05/10/11 15:56 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 15:56 / sam
Chloride	5160	mg/L	D	20		E300.0	05/10/11 03:45 / kh
Sulfate	1030	mg/L	D	100		E300.0	05/10/11 03:45 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/12/11 20:27 / sam
Hardness as CaCO3	4080	mg/L		1		A2340 B	05/25/11 15:11 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	2.27	mg/L		0.05		E350.1	05/09/11 13:28 / jlh
Nitrogen, Nitrate+Nitrite as N	0.02	mg/L		0.01		E353.2	05/09/11 08:47 / bls
METALS, DISSOLVED							
Calcium	839	mg/L		1		E200.7	05/25/11 15:11 / tao
Magnesium	482	mg/L		1		E200.7	05/25/11 15:11 / tao
Potassium	22	mg/L		1		E200.7	05/25/11 15:11 / tao
Silica	22.0	mg/L	D	0.7		E200.7	05/25/11 15:11 / tao
Sodium	1830	mg/L	D	7		E200.7	05/25/11 15:11 / tao
METALS, TOTAL							
Silica	38.1	mg/L	D	0.9		E200.7	05/10/11 14:36 / rlh
QUALITY CONTROL							
A/C Balance Sigma	3.90					Calculation	05/26/11 11:43 / klc
Anions	173	meq/L		0.01		Calculation	05/26/11 11:43 / klc
Cations	162	meq/L		0.01		Calculation	05/26/11 11:43 / klc
A/C Balance	-3.24	%				Calculation	05/26/11 11:43 / klc
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 01:38 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 01:38 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 01:38 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 01:38 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 01:38 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 01:38 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 01:38 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-018
Client Sample ID PNR-9

Report Date: 05/27/11
Collection Date: 05/05/11 17:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	97.0	%REC		80-120		SW8021B	05/12/11 01:38 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/17/11 17:09 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-019
Client Sample ID PNR-28

Report Date: 05/27/11
Collection Date: 05/05/11 17:40
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500-H B	05/07/11 10:59 / lec
Conductivity @ 25 C	31400	umhos/cm	E	5		A2510 B	05/07/11 10:59 / lec
Solids, Total Dissolved TDS @ 180 C	26200	mg/L		10		A2540 C	05/11/11 18:26 / qed
INORGANICS							
Alkalinity, Total as CaCO3	540	mg/L		4		A2320 B	05/12/11 21:27 / sam
Bicarbonate as HCO3	658	mg/L		4		A2320 B	05/12/11 21:27 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 21:27 / sam
Chloride	13200	mg/L	D	50		E300.0	05/10/11 04:20 / kh
Sulfate	1670	mg/L	D	200		E300.0	05/10/11 04:20 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/16/11 16:24 / sam
Hardness as CaCO3	11300	mg/L		1		A2340 B	05/25/11 15:14 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:30 / jlh
Nitrogen, Nitrate+Nitrite as N	39.5	mg/L	D	0.2		E353.2	05/09/11 09:14 / bls
METALS, DISSOLVED							
Calcium	2060	mg/L	D	2		E200.7	05/25/11 15:14 / tao
Magnesium	1500	mg/L		1		E200.7	05/25/11 15:14 / tao
Potassium	46	mg/L		1		E200.7	05/25/11 15:14 / tao
Silica	32	mg/L	D	2		E200.7	05/25/11 15:14 / tao
Sodium	4620	mg/L	D	20		E200.7	05/25/11 15:14 / tao
METALS, TOTAL							
Silica	33	mg/L	D	2		E200.7	05/10/11 14:40 / rlh
QUALITY CONTROL							
A/C Balance Sigma	-1.21					Calculation	05/26/11 11:46 / klc
Anions	420	meq/L		0.01		Calculation	05/26/11 11:46 / klc
Cations	428	meq/L		0.01		Calculation	05/26/11 11:46 / klc
A/C Balance	0.94	%				Calculation	05/26/11 11:46 / klc
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 01:07 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 01:07 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 01:07 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 01:07 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 01:07 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 01:07 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 01:07 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-019
Client Sample ID PNR-28

Report Date: 05/27/11
Collection Date: 05/05/11 17:40
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	95.0	%REC		80-120		SW8021B	05/12/11 01:07 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:37 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-020
Client Sample ID PNR-21

Report Date: 05/27/11
Collection Date: 05/05/11 18:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500-H B	05/12/11 11:39 / sam
Conductivity @ 25 C	28400	umhos/cm	E	5		A2510 B	05/12/11 11:39 / sam
Solids, Total Dissolved TDS @ 180 C	18100	mg/L		10		A2540 C	05/09/11 16:01 / qed
INORGANICS							
Alkalinity, Total as CaCO3	731	mg/L		4		A2320 B	05/10/11 16:28 / sam
Bicarbonate as HCO3	892	mg/L		4		A2320 B	05/10/11 16:28 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 16:28 / sam
Chloride	9910	mg/L	D	50		E300.0	05/10/11 08:34 / kh
Sulfate	1680	mg/L	D	200		E300.0	05/10/11 08:34 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/12/11 20:37 / sam
Hardness as CaCO3	3380	mg/L		1		A2340 B	05/25/11 15:17 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	1	mg/L	D	1		E350.1	05/09/11 13:31 / jlh
Nitrogen, Nitrate+Nitrite as N	9	mg/L	D	1		E353.2	05/09/11 08:59 / bls
Diluted due to sample color matrix. JLH							
METALS, DISSOLVED							
Calcium	699	mg/L		1		E200.7	05/25/11 15:17 / tao
Magnesium	396	mg/L		1		E200.7	05/25/11 15:17 / tao
Potassium	30	mg/L		1		E200.7	05/25/11 15:17 / tao
Silica	25.0	mg/L	D	0.7		E200.7	05/25/11 15:17 / tao
Sodium	5850	mg/L	D	7		E200.7	05/25/11 15:17 / tao
METALS, TOTAL							
Silica	31	mg/L	D	2		E200.7	05/10/11 14:43 / rlh
QUALITY CONTROL							
A/C Balance Sigma	2.68					Calculation	05/26/11 11:47 / klc
Anions	337	meq/L		0.01		Calculation	05/26/11 11:47 / klc
Cations	323	meq/L		0.01		Calculation	05/26/11 11:47 / klc
A/C Balance	-2.16	%				Calculation	05/26/11 11:47 / klc
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 16:18 / bjm
Benzene	0.75	ug/L		0.50		SW8021B	05/13/11 16:18 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 16:18 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 16:18 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 16:18 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 16:18 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 16:18 / bjm

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-020
Client Sample ID PNR-21

Report Date: 05/27/11
Collection Date: 05/05/11 18:10
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	96.0	%REC		80-120		SW8021B	05/13/11 16:18 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	1.3	mg/L		1.0		E1664A	05/16/11 14:47 / eli-g
- The TPH value was confirmed by re-analysis.							

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-021
Client Sample ID PNR-6

Report Date: 05/27/11
Collection Date: 05/03/11 16:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.4	s.u.		0.1		A4500-H B	05/10/11 10:33 / sam
Conductivity @ 25 C	8100	umhos/cm		5		A2510 B	05/10/11 10:33 / sam
Solids, Total Dissolved TDS @ 180 C	8470	mg/L		10		A2540 C	05/09/11 16:04 / qed
INORGANICS							
Alkalinity, Total as CaCO3	401	mg/L		4		A2320 B	05/12/11 21:38 / sam
Bicarbonate as HCO3	489	mg/L		4		A2320 B	05/12/11 21:38 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 21:38 / sam
Chloride	117	mg/L	D	10		E300.0	05/10/11 08:44 / kh
Sulfate	5640	mg/L	D	50		E300.0	05/10/11 08:44 / kh
Fluoride	0.4	mg/L		0.1		A4500-F C	05/11/11 21:16 / sam
Hardness as CaCO3	4720	mg/L		1		A2340 B	05/22/11 05:06 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:34 / jlh
Nitrogen, Nitrate+Nitrite as N	6.63	mg/L	D	0.06		E353.2	05/09/11 08:49 / bls
METALS, DISSOLVED							
Calcium	465	mg/L		1		E200.8	05/22/11 05:06 / jjw
Magnesium	864	mg/L		1		E200.8	05/22/11 05:06 / jjw
Potassium	12	mg/L		1		E200.8	05/22/11 05:06 / jjw
Silica	25	mg/L	D	1		E200.7	05/10/11 00:59 / rlh
Sodium	753	mg/L		1		E200.8	05/22/11 05:06 / jjw
METALS, TOTAL							
Silica	29.4	mg/L		0.2		E200.7	05/10/11 14:53 / rlh
QUALITY CONTROL							
A/C Balance Sigma	0.80					Calculation	05/26/11 11:51 / klc
Anions	129	meq/L		0.01		Calculation	05/26/11 11:51 / klc
Cations	127	meq/L		0.01		Calculation	05/26/11 11:51 / klc
A/C Balance	-0.74	%				Calculation	05/26/11 11:51 / klc
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 00:03 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 00:03 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 00:03 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 00:03 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 00:03 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 00:03 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 00:03 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-021
Client Sample ID PNR-6

Report Date: 05/27/11
Collection Date: 05/03/11 16:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/12/11 00:03 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:36 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-022
Client Sample ID PNR-12

Report Date: 05/27/11
Collection Date: 05/03/11 18:00
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500-H B	05/10/11 10:35 / sam
Conductivity @ 25 C	4880	umhos/cm		5		A2510 B	05/10/11 10:35 / sam
Solids, Total Dissolved TDS @ 180 C	4490	mg/L		10		A2540 C	05/09/11 16:05 / qed
INORGANICS							
Alkalinity, Total as CaCO3	605	mg/L		4		A2320 B	05/10/11 16:47 / sam
Bicarbonate as HCO3	738	mg/L		4		A2320 B	05/10/11 16:47 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 16:47 / sam
Chloride	57	mg/L	D	5		E300.0	05/10/11 08:55 / kh
Sulfate	2150	mg/L	D	20		E300.0	05/10/11 08:55 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/11/11 21:19 / sam
Hardness as CaCO3	2240	mg/L		1		A2340 B	05/10/11 01:02 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	0.11	mg/L		0.05		E350.1	05/09/11 13:38 / jlh
Nitrogen, Nitrate+Nitrite as N	142	mg/L	D	1		E353.2	05/09/11 08:50 / bls
METALS, DISSOLVED							
Calcium	339	mg/L		1		E200.7	05/10/11 01:02 / rlh
Magnesium	339	mg/L		1		E200.7	05/10/11 01:02 / rlh
Potassium	11	mg/L		1		E200.7	05/10/11 01:02 / rlh
Silica	23	mg/L	D	1		E200.7	05/10/11 01:02 / rlh
Sodium	342	mg/L		1		E200.7	05/10/11 01:02 / rlh
METALS, TOTAL							
Silica	71.6	mg/L		0.2		E200.7	05/10/11 14:57 / rlh
QUALITY CONTROL							
A/C Balance Sigma	7.25					Calculation	05/13/11 11:21 / rls
Anions	68.7	meq/L		0.01		Calculation	05/13/11 11:21 / rls
Cations	60.2	meq/L		0.01		Calculation	05/13/11 11:21 / rls
A/C Balance	-6.59	%				Calculation	05/13/11 11:21 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 23:31 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/11/11 23:31 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 23:31 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 23:31 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 23:31 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 23:31 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 23:31 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-022
Client Sample ID PNR-12

Report Date: 05/27/11
Collection Date: 05/03/11 18:00
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/11/11 23:31 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/17/11 17:10 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-023
Client Sample ID MOC-1B

Report Date: 05/27/11
Collection Date: 05/04/11 10:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.3	s.u.		0.1		A4500-H B	05/10/11 10:40 / sam
Conductivity @ 25 C	4350	umhos/cm		5		A2510 B	05/10/11 10:40 / sam
Solids, Total Dissolved TDS @ 180 C	4150	mg/L		10		A2540 C	05/09/11 16:17 / qed
INORGANICS							
Alkalinity, Total as CaCO3	436	mg/L		4		A2320 B	05/12/11 22:03 / sam
Bicarbonate as HCO3	532	mg/L		4		A2320 B	05/12/11 22:03 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 22:03 / sam
Chloride	66	mg/L	D	5		E300.0	05/10/11 09:07 / kh
Sulfate	2310	mg/L	D	20		E300.0	05/10/11 09:07 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/11/11 21:27 / sam
Hardness as CaCO3	2020	mg/L		1		A2340 B	05/25/11 15:24 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:39 / jlh
Nitrogen, Nitrate+Nitrite as N	27.3	mg/L	D	0.2		E353.2	05/09/11 09:00 / bls
METALS, DISSOLVED							
Calcium	345	mg/L		1		E200.7	05/25/11 15:24 / tao
Magnesium	282	mg/L		1		E200.7	05/25/11 15:24 / tao
Potassium	9	mg/L		1		E200.7	05/25/11 15:24 / tao
Silica	23	mg/L	D	1		E200.7	05/10/11 01:06 / rlh
Sodium	354	mg/L	D	2		E200.7	05/25/11 15:24 / tao
METALS, TOTAL							
Silica	25.2	mg/L		0.2		E200.7	05/10/11 15:07 / rlh
QUALITY CONTROL							
A/C Balance Sigma	4.30					Calculation	05/27/11 08:29 / klc
Anions	60.6	meq/L		0.01		Calculation	05/27/11 08:29 / klc
Cations	56.1	meq/L		0.01		Calculation	05/27/11 08:29 / klc
A/C Balance	-3.85	%				Calculation	05/27/11 08:29 / klc
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/11/11 22:59 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/11/11 22:59 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/11/11 22:59 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/11/11 22:59 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/11/11 22:59 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/11/11 22:59 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/11/11 22:59 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-023
Client Sample ID MOC-1B

Report Date: 05/27/11
Collection Date: 05/04/11 10:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/11/11 22:59 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:38 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-024
Client Sample ID MOC-3

Report Date: 05/27/11
Collection Date: 05/04/11 12:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.4	s.u.		0.1		A4500-H B	05/10/11 10:43 / sam
Conductivity @ 25 C	3130	umhos/cm		5		A2510 B	05/10/11 10:43 / sam
Solids, Total Dissolved TDS @ 180 C	2680	mg/L		10		A2540 C	05/09/11 16:21 / qed
INORGANICS							
Alkalinity, Total as CaCO3	318	mg/L		4		A2320 B	05/12/11 22:09 / sam
Bicarbonate as HCO3	388	mg/L		4		A2320 B	05/12/11 22:09 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 22:09 / sam
Chloride	56	mg/L	D	2		E300.0	05/10/11 09:17 / kh
Sulfate	1530	mg/L	D	10		E300.0	05/10/11 09:17 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/11/11 21:30 / sam
Hardness as CaCO3	1330	mg/L		1		A2340 B	05/10/11 01:15 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:40 / jlh
Nitrogen, Nitrate+Nitrite as N	26.2	mg/L	D	0.2		E353.2	05/09/11 09:01 / bls
METALS, DISSOLVED							
Calcium	320	mg/L		1		E200.7	05/10/11 01:15 / rlh
Magnesium	128	mg/L		1		E200.7	05/10/11 01:15 / rlh
Potassium	13	mg/L		1		E200.7	05/10/11 01:15 / rlh
Silica	20	mg/L	D	1		E200.7	05/10/11 01:15 / rlh
Sodium	244	mg/L		1		E200.7	05/10/11 01:15 / rlh
METALS, TOTAL							
Silica	27.3	mg/L		0.2		E200.7	05/10/11 15:23 / rlh
QUALITY CONTROL							
A/C Balance Sigma	5.37					Calculation	05/13/11 11:25 / rls
Anions	41.6	meq/L		0.01		Calculation	05/13/11 11:25 / rls
Cations	37.5	meq/L		0.01		Calculation	05/13/11 11:25 / rls
A/C Balance	-5.10	%				Calculation	05/13/11 11:25 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 14:54 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 14:54 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 14:54 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 14:54 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 14:54 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 14:54 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 14:54 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-024
Client Sample ID MOC-3

Report Date: 05/27/11
Collection Date: 05/04/11 12:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/12/11 14:54 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:35 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-025
Client Sample ID PNR-29

Report Date: 05/27/11
Collection Date: 05/04/11 13:50
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500-H B	05/10/11 10:46 / sam
Conductivity @ 25 C	5600	umhos/cm		5		A2510 B	05/10/11 10:46 / sam
Solids, Total Dissolved TDS @ 180 C	4910	mg/L		10		A2540 C	05/09/11 16:22 / qed
INORGANICS							
Alkalinity, Total as CaCO3	705	mg/L		4		A2320 B	05/12/11 22:16 / sam
Bicarbonate as HCO3	860	mg/L		4		A2320 B	05/12/11 22:16 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 22:16 / sam
Chloride	90	mg/L	D	5		E300.0	05/10/11 09:28 / kh
Sulfate	2210	mg/L	D	20		E300.0	05/10/11 09:28 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/11/11 21:33 / sam
Hardness as CaCO3	2340	mg/L		1		A2340 B	05/10/11 01:25 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:41 / jlh
Nitrogen, Nitrate+Nitrite as N	186	mg/L	D	1		E353.2	05/09/11 09:02 / bls
METALS, DISSOLVED							
Calcium	439	mg/L		1		E200.7	05/10/11 01:25 / rlh
Magnesium	302	mg/L		1		E200.7	05/10/11 01:25 / rlh
Potassium	13	mg/L		1		E200.7	05/10/11 01:25 / rlh
Silica	29	mg/L	D	1		E200.7	05/10/11 01:25 / rlh
Sodium	504	mg/L	D	20		E200.7	05/10/11 01:25 / rlh
METALS, TOTAL							
Silica	30.3	mg/L		0.2		E200.7	05/10/11 15:33 / rlh
QUALITY CONTROL							
A/C Balance Sigma	5.28					Calculation	05/13/11 11:28 / rls
Anions	76.0	meq/L		0.01		Calculation	05/13/11 11:28 / rls
Cations	69.2	meq/L		0.01		Calculation	05/13/11 11:28 / rls
A/C Balance	-4.67	%				Calculation	05/13/11 11:28 / rls
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 21:38 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 21:38 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 21:38 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 21:38 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 21:38 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 21:38 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 21:38 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-025
Client Sample ID PNR-29

Report Date: 05/27/11
Collection Date: 05/04/11 13:50
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/12/11 21:38 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:43 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-026
Client Sample ID PNR-35-07

Report Date: 05/27/11
Collection Date: 05/04/11 15:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.3	s.u.		0.1		A4500-H B	05/10/11 10:48 / sam
Conductivity @ 25 C	4100	umhos/cm		5		A2510 B	05/10/11 10:48 / sam
Solids, Total Dissolved TDS @ 180 C	3390	mg/L		10		A2540 C	05/09/11 16:24 / qed
INORGANICS							
Alkalinity, Total as CaCO3	690	mg/L		4		A2320 B	05/12/11 22:22 / sam
Bicarbonate as HCO3	841	mg/L		4		A2320 B	05/12/11 22:22 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 22:22 / sam
Chloride	118	mg/L	D	5		E300.0	05/10/11 09:39 / kh
Sulfate	1660	mg/L	D	20		E300.0	05/10/11 09:39 / kh
Fluoride	0.3	mg/L		0.1		A4500-F C	05/11/11 21:36 / sam
Hardness as CaCO3	1300	mg/L		1		A2340 B	05/25/11 15:33 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	0.38	mg/L		0.05		E350.1	05/09/11 13:43 / jlh
Nitrogen, Nitrate+Nitrite as N	0.04	mg/L		0.01		E353.2	05/09/11 09:03 / bls
METALS, DISSOLVED							
Calcium	232	mg/L		1		E200.7	05/25/11 15:33 / tao
Magnesium	174	mg/L		1		E200.7	05/25/11 15:33 / tao
Potassium	9	mg/L		1		E200.7	05/25/11 15:33 / tao
Silica	23.1	mg/L		0.2		E200.7	05/25/11 15:33 / tao
Sodium	504	mg/L	D	2		E200.7	05/25/11 15:33 / tao
METALS, TOTAL							
Silica	68.0	mg/L		0.2		E200.7	05/10/11 15:36 / rlh
QUALITY CONTROL							
A/C Balance Sigma	3.84					Calculation	05/26/11 16:02 / klc
Anions	51.8	meq/L		0.01		Calculation	05/26/11 16:02 / klc
Cations	48.3	meq/L		0.01		Calculation	05/26/11 16:02 / klc
A/C Balance	-3.49	%				Calculation	05/26/11 16:02 / klc
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 21:05 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 21:05 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 21:05 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 21:05 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 21:05 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 21:05 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 21:05 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-026
Client Sample ID PNR-35-07

Report Date: 05/27/11
Collection Date: 05/04/11 15:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	95.0	%REC		80-120		SW8021B	05/12/11 21:05 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	1.1	mg/L		1.0		E1664A	05/16/11 14:45 / eli-g
- The TPH value was confirmed by re-analysis.							

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-027
Client Sample ID PNR-36-07

Report Date: 05/27/11
Collection Date: 05/04/11 16:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500-H B	05/10/11 10:51 / sam
Conductivity @ 25 C	3760	umhos/cm		5		A2510 B	05/10/11 10:51 / sam
Solids, Total Dissolved TDS @ 180 C	3230	mg/L		10		A2540 C	05/09/11 16:25 / qed
INORGANICS							
Alkalinity, Total as CaCO3	455	mg/L		4		A2320 B	05/12/11 22:29 / sam
Bicarbonate as HCO3	555	mg/L		4		A2320 B	05/12/11 22:29 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 22:29 / sam
Chloride	123	mg/L	D	5		E300.0	05/10/11 09:49 / kh
Sulfate	1660	mg/L	D	20		E300.0	05/10/11 09:49 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/11/11 21:38 / sam
Hardness as CaCO3	1760	mg/L		1		A2340 B	05/25/11 16:09 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/09/11 13:44 / jlh
Nitrogen, Nitrate+Nitrite as N	42	mg/L	D	1		E353.2	05/09/11 09:05 / bls
METALS, DISSOLVED							
Calcium	329	mg/L		1		E200.7	05/25/11 16:09 / tao
Magnesium	227	mg/L		1		E200.7	05/25/11 16:09 / tao
Potassium	11	mg/L		1		E200.7	05/25/11 16:09 / tao
Silica	21.3	mg/L		0.2		E200.7	05/25/11 16:09 / tao
Sodium	252	mg/L	D	2		E200.7	05/25/11 16:09 / tao
METALS, TOTAL							
Silica	22.3	mg/L		0.2		E200.7	05/10/11 15:40 / rlh
QUALITY CONTROL							
A/C Balance Sigma	4.24					Calculation	05/27/11 07:51 / klc
Anions	50.1	meq/L		0.01		Calculation	05/27/11 07:51 / klc
Cations	46.3	meq/L		0.01		Calculation	05/27/11 07:51 / klc
A/C Balance	-3.88	%				Calculation	05/27/11 07:51 / klc
- The Balance was confirmed by re-analysis of anions, cations, and alkalinity.							
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 20:01 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 20:01 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 20:01 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 20:01 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 20:01 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 20:01 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 20:01 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-027
Client Sample ID PNR-36-07

Report Date: 05/27/11
Collection Date: 05/04/11 16:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/12/11 20:01 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 14:46 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-028
Client Sample ID PNR-23

Report Date: 05/27/11
Collection Date: 05/05/11 10:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.9	s.u.		0.1		A4500-H B	05/12/11 11:42 / sam
Conductivity @ 25 C	8280	umhos/cm		5		A2510 B	05/10/11 10:54 / sam
Solids, Total Dissolved TDS @ 180 C	5210	mg/L		10		A2540 C	05/09/11 16:26 / qed
INORGANICS							
Alkalinity, Total as CaCO3	1020	mg/L		4		A2320 B	05/10/11 17:50 / sam
Bicarbonate as HCO3	1240	mg/L		4		A2320 B	05/10/11 17:50 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 17:50 / sam
Chloride	1500	mg/L	D	10		E300.0	05/10/11 10:00 / kh
Sulfate	1070	mg/L	D	50		E300.0	05/10/11 10:00 / kh
Fluoride	2.4	mg/L		0.1		A4500-F C	05/11/11 21:41 / sam
Hardness as CaCO3	109	mg/L		1		A2340 B	05/10/11 01:35 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	0.72	mg/L		0.05		E350.1	05/09/11 14:18 / jlh
Nitrogen, Nitrate+Nitrite as N	0.03	mg/L		0.01		E353.2	05/09/11 09:06 / bls
METALS, DISSOLVED							
Calcium	25	mg/L		1		E200.7	05/10/11 01:35 / rlh
Magnesium	12	mg/L		1		E200.7	05/10/11 01:35 / rlh
Potassium	20	mg/L		1		E200.7	05/10/11 01:35 / rlh
Silica	31	mg/L	D	1		E200.7	05/10/11 01:35 / rlh
Sodium	1800	mg/L	D	20		E200.7	05/10/11 01:35 / rlh
METALS, TOTAL							
Silica	34.7	mg/L		0.2		E200.7	05/10/11 15:43 / rlh
QUALITY CONTROL							
A/C Balance Sigma	2.79					Calculation	05/18/11 11:31 / rls
Anions	85.0	meq/L		0.01		Calculation	05/18/11 11:31 / rls
Cations	81.0	meq/L		0.01		Calculation	05/18/11 11:31 / rls
A/C Balance	-2.40	%				Calculation	05/18/11 11:31 / rls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 22:10 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 22:10 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 22:10 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 22:10 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 22:10 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 22:10 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 22:10 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-028
Client Sample ID PNR-23

Report Date: 05/27/11
Collection Date: 05/05/11 10:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/12/11 22:10 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:42 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-029
Client Sample ID MOC-4

Report Date: 05/27/11
Collection Date: 05/05/11 15:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.3	s.u.		0.1		A4500-H B	05/09/11 10:58 / sam
Conductivity @ 25 C	8410	umhos/cm		5		A2510 B	05/09/11 10:58 / sam
Solids, Total Dissolved TDS @ 180 C	5350	mg/L		10		A2540 C	05/09/11 16:27 / qed
INORGANICS							
Alkalinity, Total as CaCO3	356	mg/L		4		A2320 B	05/12/11 22:34 / sam
Bicarbonate as HCO3	435	mg/L		4		A2320 B	05/12/11 22:34 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/12/11 22:34 / sam
Chloride	2410	mg/L	D	10		E300.0	05/10/11 10:32 / kh
Sulfate	835	mg/L	D	50		E300.0	05/10/11 10:32 / kh
Fluoride	0.2	mg/L		0.1		A4500-F C	05/11/11 21:44 / sam
Hardness as CaCO3	1920	mg/L		1		A2340 B	05/25/11 16:12 / klc
NUTRIENTS							
Nitrogen, Ammonia as N	1.09	mg/L		0.05		E350.1	05/09/11 13:46 / jlh
Nitrogen, Nitrate+Nitrite as N	0.02	mg/L		0.01		E353.2	05/09/11 09:10 / bls
METALS, DISSOLVED							
Calcium	375	mg/L		1		E200.7	05/25/11 16:12 / tao
Magnesium	238	mg/L		1		E200.7	05/25/11 16:12 / tao
Potassium	15	mg/L		1		E200.7	05/25/11 16:12 / tao
Silica	18.3	mg/L	D	0.3		E200.7	05/25/11 16:12 / tao
Sodium	1170	mg/L	D	4		E200.7	05/25/11 16:12 / tao
METALS, TOTAL							
Silica	21.0	mg/L	D	0.4		E200.7	05/10/11 15:47 / rlh
QUALITY CONTROL							
A/C Balance Sigma	2.00					Calculation	05/27/11 07:53 / klc
Anions	92.6	meq/L		0.01		Calculation	05/27/11 07:53 / klc
Cations	89.5	meq/L		0.01		Calculation	05/27/11 07:53 / klc
A/C Balance	-1.69	%				Calculation	05/27/11 07:53 / klc
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 23:14 / bjm
Benzene	1.7	ug/L		0.50		SW8021B	05/12/11 23:14 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 23:14 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 23:14 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 23:14 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 23:14 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 23:14 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-029
Client Sample ID MOC-4

Report Date: 05/27/11
Collection Date: 05/05/11 15:30
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	96.0	%REC		80-120		SW8021B	05/12/11 23:14 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:43 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-030
Client Sample ID M-28

Report Date: 05/27/11
Collection Date: 05/05/11 17:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.4	s.u.		0.1		A4500-H B	05/09/11 11:01 / sam
Conductivity @ 25 C	9760	umhos/cm		5		A2510 B	05/09/11 11:01 / sam
Solids, Total Dissolved TDS @ 180 C	6700	mg/L		10		A2540 C	05/09/11 16:28 / qed
INORGANICS							
Alkalinity, Total as CaCO3	846	mg/L		4		A2320 B	05/10/11 18:10 / sam
Bicarbonate as HCO3	1030	mg/L		4		A2320 B	05/10/11 18:10 / sam
Carbonate as CO3	ND	mg/L		4		A2320 B	05/10/11 18:10 / sam
Chloride	1930	mg/L	D	10		E300.0	05/10/11 13:44 / kh
Sulfate	1950	mg/L	D	50		E300.0	05/10/11 13:44 / kh
Fluoride	0.3	mg/L		0.1		A4500-F C	05/11/11 21:47 / sam
Hardness as CaCO3	1030	mg/L		1		A2340 B	05/10/11 01:42 / rls
NUTRIENTS							
Nitrogen, Ammonia as N	0.45	mg/L		0.05		E350.1	05/09/11 13:47 / jlh
Nitrogen, Nitrate+Nitrite as N	1.88	mg/L		0.01		E353.2	05/09/11 09:07 / bls
METALS, DISSOLVED							
Calcium	176	mg/L		1		E200.7	05/10/11 01:42 / rlh
Magnesium	144	mg/L		1		E200.7	05/10/11 01:42 / rlh
Potassium	20	mg/L		1		E200.7	05/10/11 01:42 / rlh
Silica	24	mg/L	D	1		E200.7	05/10/11 01:42 / rlh
Sodium	2010	mg/L	D	20		E200.7	05/10/11 01:42 / rlh
METALS, TOTAL							
Silica	23.8	mg/L	D	0.4		E200.7	05/10/11 15:50 / rlh
QUALITY CONTROL							
A/C Balance Sigma	1.81					Calculation	05/11/11 09:44 / rls
Anions	112	meq/L		0.01		Calculation	05/11/11 09:44 / rls
Cations	109	meq/L		0.01		Calculation	05/11/11 09:44 / rls
A/C Balance	-1.51	%				Calculation	05/11/11 09:44 / rls
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 23:47 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 23:47 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 23:47 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 23:47 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 23:47 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 23:47 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 23:47 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-030
Client Sample ID M-28

Report Date: 05/27/11
Collection Date: 05/05/11 17:45
DateReceived: 05/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Trifluorotoluene	95.0	%REC		80-120		SW8021B	05/12/11 23:47 / bjm
ORGANIC CHARACTERISTICS							
Total Petroleum Hydrocarbons	ND	mg/L		1.0		E1664A	05/16/11 13:39 / eli-g

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-031
Client Sample ID Trip Blank #1 Lot #050511, B-TS 0253

Report Date: 05/27/11
Collection Date: 05/03/11 15:30
DateReceived: 05/06/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 18:24 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 18:24 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 18:24 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 18:24 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 18:24 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 18:24 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 18:24 / bjm
Surr: Trifluorotoluene	96.0	%REC		80-120		SW8021B	05/12/11 18:24 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-032
Client Sample ID Trip Blank #2 Lot #050511, B-TS 0253

Report Date: 05/27/11
Collection Date: 05/04/11 10:30
DateReceived: 05/06/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 18:57 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 18:57 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 18:57 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 18:57 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 18:57 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 18:57 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 18:57 / bjm
Surr: Trifluorotoluene	95.0	%REC		80-120		SW8021B	05/12/11 18:57 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-033
Client Sample ID Trip Blank #3 Lot #050511, B-TS 0253

Report Date: 05/27/11
Collection Date: 05/04/11 14:30
DateReceived: 05/06/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/12/11 19:29 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/12/11 19:29 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/12/11 19:29 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/12/11 19:29 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/12/11 19:29 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/12/11 19:29 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/12/11 19:29 / bjm
Surr: Trifluorotoluene	96.0	%REC		80-120		SW8021B	05/12/11 19:29 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-034
Client Sample ID Trip Blank #4 Lot #050511, B-TS 0253

Report Date: 05/27/11
Collection Date: 05/04/11 17:10
DateReceived: 05/06/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 11:27 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/13/11 11:27 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 11:27 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 11:27 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 11:27 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 11:27 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 11:27 / bjm
Surr: Trifluorotoluene	101	%REC		80-120		SW8021B	05/13/11 11:27 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-035
Client Sample ID Trip Blank #5 Lot #050511, B-TS 0253

Report Date: 05/27/11
Collection Date: 05/05/11 10:45
DateReceived: 05/06/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 12:00 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/13/11 12:00 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 12:00 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 12:00 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 12:00 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 12:00 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 12:00 / bjm
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	05/13/11 12:00 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-036
Client Sample ID Trip Blank #6 Lot #050511, B-TS 0253

Report Date: 05/27/11
Collection Date: 05/05/11 15:30
DateReceived: 05/06/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 12:32 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/13/11 12:32 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 12:32 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 12:32 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 12:32 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 12:32 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 12:32 / bjm
Surr: Trifluorotoluene	101	%REC		80-120		SW8021B	05/13/11 12:32 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-037
Client Sample ID Trip Blank #7 Lot #050511, B-TS 0253

Report Date: 05/27/11
Collection Date: 05/05/11 17:10
DateReceived: 05/06/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 13:04 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/13/11 13:04 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 13:04 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 13:04 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 13:04 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 13:04 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 13:04 / bjm
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/13/11 13:04 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-038
Client Sample ID Trip Blank #8 Lot #050511, B-TS 0253

Report Date: 05/27/11
Collection Date: 05/03/11 18:00
DateReceived: 05/06/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 14:08 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/13/11 14:08 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 14:08 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 14:08 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 14:08 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 14:08 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 14:08 / bjm
Surr: Trifluorotoluene	100	%REC		80-120		SW8021B	05/13/11 14:08 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-039
Client Sample ID Trip Blank #9 Lot #050511, B-TS 0253

Report Date: 05/27/11
Collection Date: 05/04/11 13:50
DateReceived: 05/06/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 14:41 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/13/11 14:41 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 14:41 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 14:41 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 14:41 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 14:41 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 14:41 / bjm
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	05/13/11 14:41 / bjm

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

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation
Lab ID: B11050651-040
Client Sample ID Trip Blank #10 Lot #050511, B-TS 0253

Report Date: 05/27/11
Collection Date: 05/05/11 10:30
DateReceived: 05/06/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		1.0		SW8021B	05/13/11 15:13 / bjm
Benzene	ND	ug/L		0.50		SW8021B	05/13/11 15:13 / bjm
Toluene	ND	ug/L		0.50		SW8021B	05/13/11 15:13 / bjm
Ethylbenzene	ND	ug/L		0.50		SW8021B	05/13/11 15:13 / bjm
m+p-Xylenes	ND	ug/L		0.50		SW8021B	05/13/11 15:13 / bjm
o-Xylene	ND	ug/L		0.50		SW8021B	05/13/11 15:13 / bjm
Xylenes, Total	ND	ug/L		0.50		SW8021B	05/13/11 15:13 / bjm
Surr: Trifluorotoluene	97.0	%REC		80-120		SW8021B	05/13/11 15:13 / bjm

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

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP202-B_110509A	
Sample ID: ICV		Continuing Calibration Verification Standard							05/09/11 12:13	
Silicon		5.01	mg/L	0.10	100	95	105			
Method: E200.7									Batch: R165281	
Sample ID: MB-SPDIS110509A		Method Blank				Run: ICP202-B_110509A			05/09/11 12:53	
Silicon		0.06	mg/L	0.02						
Sample ID: LFB-SPDIS110509A		Laboratory Fortified Blank				Run: ICP202-B_110509A			05/09/11 12:56	
Silicon		10.8	mg/L	0.10	107	85	115			
Sample ID: B11050647-001AMS2	2	Sample Matrix Spike				Run: ICP202-B_110509A			05/09/11 13:51	
Silicon		10.4	mg/L	0.10	103	70	130			
Silica		22.2	mg/L	0.21	103	70	130			
Sample ID: B11050647-001AMSD2	2	Sample Matrix Spike Duplicate				Run: ICP202-B_110509A			05/09/11 13:55	
Silicon		10.4	mg/L	0.10	104	70	130	0.3	20	
Silica		22.3	mg/L	0.21	104	70	130	0.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP202-B_110525A	
Sample ID: ICV	5	Continuing Calibration Verification Standard							05/25/11 13:10	
Calcium		24.8	mg/L	1.0	99	95	105			
Magnesium		24.0	mg/L	1.0	96	95	105			
Potassium		25.1	mg/L	1.0	100	95	105			
Sodium		24.3	mg/L	1.0	97	95	105			
Silicon		4.99	mg/L	0.10	100	95	105			
Method: E200.7										Batch: R166164
Sample ID: MB-SPDIS110525A	5	Method Blank				Run: ICP202-B_110525A			05/25/11 13:50	
Calcium		ND	mg/L	0.04						
Magnesium		ND	mg/L	0.01						
Potassium		0.02	mg/L	0.004						
Sodium		ND	mg/L	0.006						
Silicon		0.03	mg/L	0.02						
Sample ID: LFB-SPDIS110525A	5	Laboratory Fortified Blank				Run: ICP202-B_110525A			05/25/11 13:53	
Calcium		49.6	mg/L	1.0	99	85	115			
Magnesium		50.3	mg/L	1.0	101	85	115			
Potassium		45.8	mg/L	1.8	92	85	115			
Sodium		53.0	mg/L	1.0	106	85	115			
Silicon		10.8	mg/L	0.10	107	85	115			
Sample ID: MB-53807	6	Method Blank				Run: ICP202-B_110525A			05/25/11 13:56	
Calcium		ND	mg/L	0.04						
Magnesium		ND	mg/L	0.01						
Potassium		0.02	mg/L	0.004						
Silicon		0.03	mg/L	0.02						
Sodium		ND	mg/L	0.006						
Silica		0.07	mg/L	0.03						
Sample ID: B11050651-001BMS2	6	Sample Matrix Spike				Run: ICP202-B_110525A			05/25/11 14:06	
Calcium		552	mg/L	1.0	104	70	130			
Magnesium		490	mg/L	1.0	102	70	130			
Potassium		262	mg/L	8.8	102	70	130			
Silicon		66.2	mg/L	0.10	107	70	130			
Sodium		658	mg/L	1.9	103	70	130			
Silica		142	mg/L	0.21	107	70	130			
Sample ID: B11050651-001BMSD2	6	Sample Matrix Spike Duplicate				Run: ICP202-B_110525A			05/25/11 14:09	
Calcium		541	mg/L	1.0	99	70	130	2.1	20	
Magnesium		488	mg/L	1.0	101	70	130	0.5	20	
Potassium		250	mg/L	8.8	97	70	130	4.7	20	
Silicon		66.6	mg/L	0.10	108	70	130	0.6	20	
Sodium		659	mg/L	1.9	104	70	130	0.2	20	
Silica		143	mg/L	0.21	108	70	130	0.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R166164	
Sample ID: B11050651-013BMS2	6	Sample Matrix Spike				Run: ICP202-B_110525A			05/25/11 14:51	
Calcium		582	mg/L	1.0	102	70	130			
Magnesium		459	mg/L	1.0	102	70	130			
Potassium		247	mg/L	8.8	94	70	130			
Silicon		50.9	mg/L	0.10	80	70	130			
Sodium		609	mg/L	1.9	106	70	130			
Silica		109	mg/L	0.21	80	70	130			
Sample ID: B11050651-013BMSD2	6	Sample Matrix Spike Duplicate				Run: ICP202-B_110525A			05/25/11 14:54	
Calcium		571	mg/L	1.0	98	70	130	1.9	20	
Magnesium		455	mg/L	1.0	100	70	130	0.9	20	
Potassium		246	mg/L	8.8	94	70	130	0.4	20	
Silicon		63.8	mg/L	0.10	106	70	130	23	20	R
Sodium		578	mg/L	1.9	94	70	130	5.2	20	
Silica		136	mg/L	0.21	106	70	130	23	20	R
Sample ID: B11050651-026BMS2	6	Sample Matrix Spike				Run: ICP202-B_110525A			05/25/11 16:02	
Calcium		464	mg/L	1.0	93	70	130			
Magnesium		415	mg/L	1.0	96	70	130			
Potassium		242	mg/L	8.8	93	70	130			
Silicon		65.6	mg/L	0.10	110	70	130			
Sodium		771	mg/L	1.9	107	70	130			
Silica		140	mg/L	0.21	110	70	130			
Sample ID: B11050651-026BMSD2	6	Sample Matrix Spike Duplicate				Run: ICP202-B_110525A			05/25/11 16:06	
Calcium		454	mg/L	1.0	89	70	130	2.0	20	
Magnesium		410	mg/L	1.0	95	70	130	1.1	20	
Potassium		235	mg/L	8.8	90	70	130	3.1	20	
Silicon		65.3	mg/L	0.10	109	70	130	0.5	20	
Sodium		778	mg/L	1.9	110	70	130	0.9	20	
Silica		140	mg/L	0.21	109	70	130	0.5	20	

Qualifiers:

RL - Analyte reporting limit.
R - RPD exceeds advisory limit.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP203-B_110509A	
Sample ID: ICV	5	Continuing Calibration Verification Standard							05/09/11 12:35	
Calcium		25.1	mg/L	1.0	100	95	105			
Magnesium		23.9	mg/L	1.0	96	95	105			
Potassium		24.7	mg/L	1.0	99	95	105			
Sodium		25.3	mg/L	1.0	101	95	105			
Silicon		5.08	mg/L	0.10	102	95	105			
Method: E200.7									Batch: R165284	
Sample ID: MB-6500DIS110509A	5	Method Blank				Run: ICP203-B_110509A			05/09/11 12:15	
Calcium		ND	mg/L	0.01						
Magnesium		ND	mg/L	0.008						
Potassium		0.03	mg/L	0.02						
Sodium		ND	mg/L	0.01						
Silicon		ND	mg/L	0.009						
Sample ID: LFB-6500DIS110509A	5	Laboratory Fortified Blank				Run: ICP203-B_110509A			05/09/11 12:18	
Calcium		49.6	mg/L	1.0	99	85	115			
Magnesium		48.0	mg/L	1.0	96	85	115			
Potassium		48.2	mg/L	1.0	96	85	115			
Sodium		49.2	mg/L	1.0	98	85	115			
Silicon		10.4	mg/L	0.10	104	85	115			
Sample ID: MB-53807	6	Method Blank				Run: ICP203-B_110509A			05/09/11 22:11	
Calcium		0.04	mg/L	0.01						
Magnesium		0.01	mg/L	0.007						
Potassium		0.5	mg/L	0.02						
Silicon		0.04	mg/L	0.009						
Sodium		ND	mg/L	0.4						
Silica		0.08	mg/L	0.02						
Sample ID: B11050651-004BMS2	6	Sample Matrix Spike				Run: ICP203-B_110509A			05/09/11 23:35	
Calcium		761	mg/L	1.0	101	70	130			
Magnesium		640	mg/L	1.0	106	70	130			
Potassium		278	mg/L	1.0	104	70	130			
Silicon		66.3	mg/L	0.10	108	70	130			
Sodium		553	mg/L	2.1	103	70	130			
Silica		142	mg/L	0.21	108	70	130			
Sample ID: B11050651-004BMSD2	6	Sample Matrix Spike Duplicate				Run: ICP203-B_110509A			05/09/11 23:38	
Calcium		737	mg/L	1.0	92	70	130	3.1	20	
Magnesium		618	mg/L	1.0	97	70	130	3.4	20	
Potassium		275	mg/L	1.0	103	70	130	1.1	20	
Silicon		64.0	mg/L	0.10	104	70	130	3.5	20	
Sodium		549	mg/L	2.1	101	70	130	0.8	20	
Silica		137	mg/L	0.21	104	70	130	3.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R165284	
Sample ID: B11050651-014BMS2	6	Sample Matrix Spike				Run: ICP203-B_110509A			05/10/11 00:26	
Calcium		575	mg/L	1.0	100	70	130			
Magnesium		442	mg/L	1.0	98	70	130			
Potassium		270	mg/L	1.0	104	70	130			
Silicon		63.1	mg/L	0.10	102	70	130			
Sodium		739	mg/L	2.1	104	70	130			
Silica		135	mg/L	0.21	102	70	130			
Sample ID: B11050651-014BMSD2	6	Sample Matrix Spike Duplicate				Run: ICP203-B_110509A			05/10/11 00:35	
Calcium		571	mg/L	1.0	98	70	130	0.7	20	
Magnesium		440	mg/L	1.0	97	70	130	0.6	20	
Potassium		268	mg/L	1.0	104	70	130	0.7	20	
Silicon		62.3	mg/L	0.10	101	70	130	1.3	20	
Sodium		739	mg/L	2.1	104	70	130	0.1	20	
Silica		133	mg/L	0.21	101	70	130	1.3	20	
Sample ID: B11050651-024BMS2	6	Sample Matrix Spike				Run: ICP203-B_110509A			05/10/11 01:19	
Calcium		2770	mg/L	1.0	98	70	130			
Magnesium		2490	mg/L	1.0	95	70	130			
Potassium		2500	mg/L	1.0	99	70	130			
Silicon		521	mg/L	0.46	102	70	130			
Sodium		2710	mg/L	21	99	70	130			
Silica		1110	mg/L	0.99	102	70	130			
Sample ID: B11050651-024BMSD2	6	Sample Matrix Spike Duplicate				Run: ICP203-B_110509A			05/10/11 01:22	
Calcium		2850	mg/L	1.0	101	70	130	2.8	20	
Magnesium		2580	mg/L	1.0	98	70	130	3.2	20	
Potassium		2490	mg/L	1.0	99	70	130	0.2	20	
Silicon		530	mg/L	0.46	104	70	130	1.8	20	
Sodium		2710	mg/L	21	99	70	130	0.2	20	
Silica		1130	mg/L	0.99	104	70	130	1.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Report Date: 05/27/11
Project: Biere Well Remediation
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP203-B_110510A	
Sample ID: ICV		Continuing Calibration Verification Standard							05/10/11 12:18	
Silicon		4.98	mg/L	0.10	100	95	105			
Method: E200.7									Batch: 53851	
Sample ID: MB-53851	2	Method Blank				Run: ICP203-B_110510A			05/10/11 12:45	
Silicon		0.04	mg/L	0.02						
Silica		0.08	mg/L	0.03						
Method: E200.7									Batch: 53852	
Sample ID: MB-53852	2	Method Blank				Run: ICP203-B_110510A			05/10/11 15:00	
Silicon		0.03	mg/L	0.02						
Silica		0.07	mg/L	0.03						
Sample ID: LCS-53852	2	Laboratory Control Sample				Run: ICP203-B_110510A			05/10/11 15:03	
Silicon		5.40	mg/L	0.10	107	85	115			
Silica		11.6	mg/L	0.21	107	85	115			
Sample ID: B11050651-023CMS3	2	Sample Matrix Spike				Run: ICP203-B_110510A			05/10/11 15:17	
Silicon		17.4	mg/L	0.10	113	70	130			
Silica		37.2	mg/L	0.21	113	70	130			
Sample ID: B11050651-023CMSD3	2	Sample Matrix Spike Duplicate				Run: ICP203-B_110510A			05/10/11 15:20	
Silicon		17.5	mg/L	0.10	115	70	130	0.8	20	
Silica		37.5	mg/L	0.21	115	70	130	0.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM **Report Date:** 05/27/11
Project: Biere Well Remediation **Work Order:** B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP203-B_110511A	
Sample ID: ICV	5	Continuing Calibration Verification Standard							05/11/11 14:03	
Calcium		24.9	mg/L	1.0	100	95	105			
Magnesium		23.9	mg/L	1.0	96	95	105			
Potassium		25.3	mg/L	1.0	101	95	105			
Sodium		25.2	mg/L	1.0	101	95	105			
Silicon		5.09	mg/L	0.10	102	95	105			
Method: E200.7									Batch: 53851	
Sample ID: MB-53851	2	Method Blank				Run: ICP203-B_110511A			05/11/11 21:52	
Silicon		ND	mg/L	0.02						
Silica		ND	mg/L	0.03						
Sample ID: LCS-53851	2	Laboratory Control Sample				Run: ICP203-B_110511A			05/11/11 21:55	
Silicon		5.60	mg/L	0.10	112	85	115			
Silica		12.0	mg/L	0.21	112	85	115			
Sample ID: B11050651-001CMS3	2	Sample Matrix Spike				Run: ICP203-B_110511A			05/11/11 22:15	
Silicon		49.1	mg/L	0.10		70	130			A
Silica		105	mg/L	0.21		70	130			A
Sample ID: B11050651-001CMSD3	2	Sample Matrix Spike Duplicate				Run: ICP203-B_110511A			05/11/11 22:18	
Silicon		52.2	mg/L	0.10		70	130	6.1	20	A
Silica		112	mg/L	0.21		70	130	6.1	20	A
Method: E200.7									Batch: R165443	
Sample ID: MB-6500DIS110511A	4	Method Blank				Run: ICP203-B_110511A			05/11/11 13:04	
Calcium		0.2	mg/L	0.01						
Magnesium		ND	mg/L	0.007						
Potassium		ND	mg/L	0.02						
Sodium		ND	mg/L	0.01						
Sample ID: LFB-6500DIS110511A	4	Laboratory Fortified Blank				Run: ICP203-B_110511A			05/11/11 13:07	
Calcium		49.2	mg/L	1.0	98	85	115			
Magnesium		47.7	mg/L	1.0	95	85	115			
Potassium		49.0	mg/L	1.0	98	85	115			
Sodium		49.5	mg/L	1.0	99	85	115			
Sample ID: MB-53807	4	Method Blank				Run: ICP203-B_110511A			05/12/11 04:48	
Calcium		0.05	mg/L	0.01						
Magnesium		0.009	mg/L	0.007						
Potassium		0.5	mg/L	0.02						
Sodium		0.06	mg/L	0.01						
Sample ID: B11050651-001BMS2	4	Sample Matrix Spike				Run: ICP203-B_110511A			05/12/11 04:58	
Calcium		497	mg/L	1.0	90	70	130			
Magnesium		432	mg/L	1.0	88	70	130			
Potassium		254	mg/L	1.0	99	70	130			
Sodium		593	mg/L	2.1	94	70	130			

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.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Report Date: 05/27/11
Project: Biere Well Remediation
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R165443
Sample ID: B11050651-001BMS2	4	Sample Matrix Spike				Run: ICP203-B_110511A				05/12/11 04:58
Sample ID: B11050651-001BMSD2	4	Sample Matrix Spike Duplicate				Run: ICP203-B_110511A				05/12/11 05:02
Calcium		510	mg/L	1.0	95	70	130	2.7	20	
Magnesium		445	mg/L	1.0	93	70	130	2.9	20	
Potassium		267	mg/L	1.0	104	70	130	4.9	20	
Sodium		605	mg/L	2.1	99	70	130	2.1	20	
Sample ID: B11050651-012BMS2	4	Sample Matrix Spike				Run: ICP203-B_110511A				05/12/11 05:52
Calcium		894	mg/L	1.0	96	70	130			
Magnesium		847	mg/L	1.0	95	70	130			
Potassium		516	mg/L	1.0	99	70	130			
Sodium		906	mg/L	4.1	96	70	130			
Sample ID: B11050651-012BMSD2	4	Sample Matrix Spike Duplicate				Run: ICP203-B_110511A				05/12/11 05:55
Calcium		895	mg/L	1.0	96	70	130	0.2	20	
Magnesium		850	mg/L	1.0	95	70	130	0.3	20	
Potassium		511	mg/L	1.0	98	70	130	1.0	20	
Sodium		899	mg/L	4.1	95	70	130	0.7	20	
Sample ID: B11050651-024BMS2	4	Sample Matrix Spike				Run: ICP203-B_110511A				05/12/11 06:42
Calcium		536	mg/L	1.0	93	70	130			
Magnesium		348	mg/L	1.0	90	70	130			
Potassium		260	mg/L	1.0	99	70	130			
Sodium		471	mg/L	2.1	94	70	130			
Sample ID: B11050651-024BMSD2	4	Sample Matrix Spike Duplicate				Run: ICP203-B_110511A				05/12/11 06:45
Calcium		525	mg/L	1.0	88	70	130	2.2	20	
Magnesium		341	mg/L	1.0	88	70	130	1.9	20	
Potassium		270	mg/L	1.0	103	70	130	3.4	20	
Sodium		474	mg/L	2.1	95	70	130	0.7	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS203-B_110520A		
Sample ID: QCS-090929A,091215	4	Initial Calibration Verification Standard								05/21/11 20:31
Calcium		2.53	mg/L	0.50	101	90	110			
Magnesium		2.40	mg/L	0.50	96	90	110			
Potassium		2.26	mg/L	0.50	90	90	110			
Sodium		2.47	mg/L	0.50	99	90	110			
Method: E200.8										Batch: R165972
Sample ID: LFB	4	Laboratory Fortified Blank				Run: ICPMS203-B_110520A				05/20/11 13:03
Calcium		51.1	mg/L	0.50	102	85	115			
Magnesium		49.2	mg/L	0.50	98	85	115			
Potassium		51.4	mg/L	0.50	103	85	115			
Sodium		48.9	mg/L	0.50	98	85	115			
Sample ID: LRB	4	Method Blank				Run: ICPMS203-B_110520A				05/20/11 13:50
Calcium		0.02	mg/L	0.02						
Magnesium		ND	mg/L	0.004						
Potassium		ND	mg/L	0.010						
Sodium		ND	mg/L	0.006						
Sample ID: B11051690-002BMS	4	Sample Matrix Spike				Run: ICPMS203-B_110520A				05/22/11 01:14
Calcium		426	mg/L	1.0	81	70	130			
Magnesium		335	mg/L	1.0	82	70	130			
Potassium		231	mg/L	1.0	89	70	130			
Sodium		346	mg/L	1.0	84	70	130			
Sample ID: B11051690-002BMSD	4	Sample Matrix Spike Duplicate				Run: ICPMS203-B_110520A				05/22/11 01:18
Calcium		496	mg/L	1.0	109	70	130	15	20	
Magnesium		389	mg/L	1.0	103	70	130	15	20	
Potassium		271	mg/L	1.0	105	70	130	16	20	
Sodium		400	mg/L	1.0	105	70	130	15	20	
Sample ID: MB-53807	4	Method Blank				Run: ICPMS203-B_110520A				05/22/11 04:34
Calcium		0.3	mg/L	0.02						
Magnesium		0.3	mg/L	0.004						
Potassium		0.02	mg/L	0.010						
Sodium		0.3	mg/L	0.006						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R165377
Sample ID: MBLK	3	Method Blank				Run: MAN-TECH_110510A			05/10/11 11:11	
Alkalinity, Total as CaCO3		ND	mg/L	3						
Bicarbonate as HCO3		ND	mg/L	3						
Carbonate as CO3		ND	mg/L	4						
Sample ID: LCS		Laboratory Control Sample				Run: MAN-TECH_110510A			05/10/11 11:17	
Alkalinity, Total as CaCO3		101	mg/L	4.0	101	90	110			
Sample ID: B11050651-003ADUP	3	Sample Duplicate				Run: MAN-TECH_110510A			05/10/11 12:28	
Alkalinity, Total as CaCO3		478	mg/L	4.0				1.9	20	
Bicarbonate as HCO3		583	mg/L	4.0				1.9	20	
Carbonate as CO3		ND	mg/L	4.0					20	
Sample ID: B11050651-004AMS		Sample Matrix Spike				Run: MAN-TECH_110510A			05/10/11 12:47	
Alkalinity, Total as CaCO3		550	mg/L	4.0	97	80	120			
Sample ID: B11050651-015ADUP	3	Sample Duplicate				Run: MAN-TECH_110510A			05/10/11 14:42	
Alkalinity, Total as CaCO3		749	mg/L	4.0				0.7	20	
Bicarbonate as HCO3		914	mg/L	4.0				0.7	20	
Carbonate as CO3		ND	mg/L	4.0					20	
Sample ID: MBLK	3	Method Blank				Run: MAN-TECH_110510A			05/10/11 15:27	
Alkalinity, Total as CaCO3		ND	mg/L	3						
Bicarbonate as HCO3		ND	mg/L	3						
Carbonate as CO3		ND	mg/L	4						
Sample ID: LCS		Laboratory Control Sample				Run: MAN-TECH_110510A			05/10/11 15:33	
Alkalinity, Total as CaCO3		100	mg/L	4.0	100	90	110			
Sample ID: B11050651-017ADUP	3	Sample Duplicate				Run: MAN-TECH_110510A			05/10/11 15:47	
Alkalinity, Total as CaCO3		406	mg/L	4.0				2.5	20	
Bicarbonate as HCO3		495	mg/L	4.0				2.5	20	
Carbonate as CO3		ND	mg/L	4.0					20	
Sample ID: B11050651-018AMS		Sample Matrix Spike				Run: MAN-TECH_110510A			05/10/11 16:01	
Alkalinity, Total as CaCO3		443	mg/L	4.0	89	80	120			
Sample ID: B11050715-001ADUP	3	Sample Duplicate				Run: MAN-TECH_110510A			05/10/11 18:26	
Alkalinity, Total as CaCO3		646	mg/L	4.0				0.1	20	
Bicarbonate as HCO3		788	mg/L	4.0				0.1	20	
Carbonate as CO3		ND	mg/L	4.0					20	
Sample ID: B11050715-002AMS		Sample Matrix Spike				Run: MAN-TECH_110510A			05/10/11 18:43	
Alkalinity, Total as CaCO3		899	mg/L	4.0	87	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM **Report Date:** 05/27/11
Project: Biere Well Remediation **Work Order:** B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R165512
Sample ID: MBLK	3	Method Blank				Run: MAN-TECH_110512A			05/12/11 17:14	
Alkalinity, Total as CaCO3		ND	mg/L	3						
Bicarbonate as HCO3		ND	mg/L	3						
Carbonate as CO3		ND	mg/L	4						
Sample ID: LCS		Laboratory Control Sample				Run: MAN-TECH_110512A			05/12/11 17:20	
Alkalinity, Total as CaCO3		99.5	mg/L	4.0	100	90	110			
Sample ID: B11050651-003ADUP	3	Sample Duplicate				Run: MAN-TECH_110512A			05/12/11 18:14	
Alkalinity, Total as CaCO3		478	mg/L	4.0				2.1	20	
Bicarbonate as HCO3		583	mg/L	4.0				2.1	20	
Carbonate as CO3		ND	mg/L	4.0					20	
Sample ID: B11050651-004AMS		Sample Matrix Spike				Run: MAN-TECH_110512A			05/12/11 18:28	
Alkalinity, Total as CaCO3		535	mg/L	4.0	84	80	120			
Sample ID: B11050651-016ADUP	3	Sample Duplicate				Run: MAN-TECH_110512A			05/12/11 20:05	
Alkalinity, Total as CaCO3		429	mg/L	4.0				0.5	20	
Bicarbonate as HCO3		524	mg/L	4.0				0.5	20	
Carbonate as CO3		ND	mg/L	4.0					20	
Sample ID: B11050651-017AMS		Sample Matrix Spike				Run: MAN-TECH_110512A			05/12/11 20:20	
Alkalinity, Total as CaCO3		545	mg/L	4.0	82	80	120			
Sample ID: MBLK	3	Method Blank				Run: MAN-TECH_110512A			05/12/11 21:12	
Alkalinity, Total as CaCO3		ND	mg/L	3						
Bicarbonate as HCO3		ND	mg/L	3						
Carbonate as CO3		ND	mg/L	4						
Sample ID: LCS		Laboratory Control Sample				Run: MAN-TECH_110512A			05/12/11 21:18	
Alkalinity, Total as CaCO3		101	mg/L	4.0	101	90	110			
Sample ID: B11050651-021ADUP	3	Sample Duplicate				Run: MAN-TECH_110512A			05/12/11 21:44	
Alkalinity, Total as CaCO3		399	mg/L	4.0				0.3	20	
Bicarbonate as HCO3		487	mg/L	4.0				0.3	20	
Carbonate as CO3		ND	mg/L	4.0					20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B										Batch: R165236
Sample ID: SC 2ND 1413		Laboratory Control Sample				Run: PHSC _101-B_110507A				05/07/11 07:30
Conductivity @ 25 C		1440	umhos/cm	5.0	102	90	110			
Sample ID: MBLK		Method Blank				Run: PHSC _101-B_110507A				05/07/11 10:01
Conductivity @ 25 C		2	umhos/cm							
Sample ID: B11050651-014ADUP		Sample Duplicate				Run: PHSC _101-B_110507A				05/07/11 10:46
Conductivity @ 25 C		4340	umhos/cm	5.0				0.0	10	
Method: A2510 B										Batch: R165252
Sample ID: SC 2ND 1413		Laboratory Control Sample				Run: PHSC _101-B_110509A				05/09/11 08:46
Conductivity @ 25 C		1460	umhos/cm	5.0	103	90	110			
Sample ID: MBLK		Method Blank				Run: PHSC _101-B_110509A				05/09/11 10:55
Conductivity @ 25 C		2	umhos/cm							
Sample ID: B11050715-002ADUP		Sample Duplicate				Run: PHSC _101-B_110509A				05/09/11 14:28
Conductivity @ 25 C		14200	umhos/cm	5.0				1.0	10	
Method: A2510 B										Batch: R165300
Sample ID: SC 2ND 1413		Laboratory Control Sample				Run: PHSC _101-B_110510A				05/10/11 08:36
Conductivity @ 25 C		1440	umhos/cm	5.0	102	90	110			
Sample ID: MBLK		Method Blank				Run: PHSC _101-B_110510A				05/10/11 08:42
Conductivity @ 25 C		2	umhos/cm							
Sample ID: B11050651-022ADUP		Sample Duplicate				Run: PHSC _101-B_110510A				05/10/11 10:38
Conductivity @ 25 C		4880	umhos/cm	5.0				0.1	10	
Method: A2510 B										Batch: R165444
Sample ID: SC 2ND 1413		Laboratory Control Sample				Run: PHSC _101-B_110512A				05/12/11 09:01
Conductivity @ 25 C		1430	umhos/cm	5.0	101	90	110			
Sample ID: MBLK		Method Blank				Run: PHSC _101-B_110512A				05/12/11 09:06
Conductivity @ 25 C		1	umhos/cm							
Sample ID: B11050607-001ADUP		Sample Duplicate				Run: PHSC _101-B_110512A				05/12/11 11:33
Conductivity @ 25 C		792	umhos/cm	5.0				2.4	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: TDS110509A	
Sample ID: B11050637-032A MS		Sample Matrix Spike				Run: CPA124S_110509A			05/09/11 11:11	
Solids, Total Dissolved TDS @ 180 C		7760	mg/L	10	98	90	110			
Sample ID: MBLK1		Method Blank				Run: CPA124S_110509A			05/09/11 11:11	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	9						
Sample ID: LCS1		Laboratory Control Sample				Run: CPA124S_110509A			05/09/11 11:11	
Solids, Total Dissolved TDS @ 180 C		1680	mg/L	10	101	90	110			
Sample ID: B11050637-041A DUP		Sample Duplicate				Run: CPA124S_110509A			05/09/11 11:30	
Solids, Total Dissolved TDS @ 180 C		2820	mg/L	10		90	110	0.8	5	
Method: A2540 C									Batch: TDS110509B	
Sample ID: MBLK1		Method Blank				Run: CPA124S_110509B			05/09/11 15:29	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	9						
Sample ID: LCS1		Laboratory Control Sample				Run: CPA124S_110509B			05/09/11 15:32	
Solids, Total Dissolved TDS @ 180 C		1670	mg/L	10	100	90	110			
Sample ID: B11050651-005A MS		Sample Matrix Spike				Run: CPA124S_110509B			05/09/11 15:35	
Solids, Total Dissolved TDS @ 180 C		11400	mg/L	10	121	90	110			S
Sample ID: B11050651-006A DUP		Sample Duplicate				Run: CPA124S_110509B			05/09/11 15:37	
Solids, Total Dissolved TDS @ 180 C		23000	mg/L	10		90	110	1.1	5	
Sample ID: B11050651-015A DUP		Sample Duplicate				Run: CPA124S_110509B			05/09/11 15:54	
Solids, Total Dissolved TDS @ 180 C		3410	mg/L	10		90	110	0.1	5	
Sample ID: MBLK2		Method Blank				Run: CPA124S_110509B			05/09/11 16:14	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	9						
Sample ID: LCS2		Laboratory Control Sample				Run: CPA124S_110509B			05/09/11 16:15	
Solids, Total Dissolved TDS @ 180 C		1680	mg/L	10	101	90	110			
Sample ID: B11050651-023A MS		Sample Matrix Spike				Run: CPA124S_110509B			05/09/11 16:19	
Solids, Total Dissolved TDS @ 180 C		9390	mg/L	10	105	90	110			
Sample ID: B11050651-024A DUP		Sample Duplicate				Run: CPA124S_110509B			05/09/11 16:21	
Solids, Total Dissolved TDS @ 180 C		2790	mg/L	10		90	110	3.8	5	

Qualifiers:

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

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: TDS110511A	
Sample ID: MBLK2		Method Blank				Run: CPA124S_110511B			05/11/11 18:15	
Solids, Total Dissolved TDS @ 180 C		9	mg/L	9						
Sample ID: LCS2		Laboratory Control Sample				Run: CPA124S_110511B			05/11/11 18:16	
Solids, Total Dissolved TDS @ 180 C		1650	mg/L	10	99	90	110			
Sample ID: B11050976-004A MS		Sample Matrix Spike				Run: CPA124S_110511B			05/11/11 18:19	
Solids, Total Dissolved TDS @ 180 C		2230	mg/L	10	94	90	110			
Sample ID: B11050976-005A DUP		Sample Duplicate				Run: CPA124S_110511B			05/11/11 18:20	
Solids, Total Dissolved TDS @ 180 C		295	mg/L	10		90	110	9.4	5	R

Qualifiers:

RL - Analyte reporting limit.
R - RPD exceeds advisory limit.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM **Report Date:** 05/27/11
Project: Biere Well Remediation **Work Order:** B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C									Analytical Run: MAN-TECH_110511A	
Sample ID: ICV		Initial Calibration Verification Standard							05/11/11 16:35	
Fluoride		1.02	mg/L	0.10	102	90	110			
Method: A4500-F C									Batch: R165446	
Sample ID: MBLK		Method Blank				Run: MAN-TECH_110511A			05/11/11 16:29	
Fluoride		ND	mg/L	0.01						
Sample ID: LFB		Laboratory Fortified Blank				Run: MAN-TECH_110511A			05/11/11 16:32	
Fluoride		0.960	mg/L	0.10	96	90	110			
Sample ID: B11050651-022AMS		Sample Matrix Spike				Run: MAN-TECH_110511A			05/11/11 21:22	
Fluoride		1.10	mg/L	0.10	92	80	120			
Sample ID: B11050651-022AMSD		Sample Matrix Spike Duplicate				Run: MAN-TECH_110511A			05/11/11 21:24	
Fluoride		1.09	mg/L	0.10	91	80	120	0.9	10	
Sample ID: B11050715-006AMS		Sample Matrix Spike				Run: MAN-TECH_110511A			05/11/11 22:07	
Fluoride		0.970	mg/L	0.10	82	80	120			
Sample ID: B11050715-006AMSD		Sample Matrix Spike Duplicate				Run: MAN-TECH_110511A			05/11/11 22:09	
Fluoride		0.990	mg/L	0.10	84	80	120	2.0	10	
Method: A4500-F C									Analytical Run: MAN-TECH_110512A	
Sample ID: ICV		Initial Calibration Verification Standard							05/12/11 17:37	
Fluoride		1.04	mg/L	0.10	104	90	110			
Method: A4500-F C									Batch: R165512	
Sample ID: MBLK		Method Blank				Run: MAN-TECH_110512A			05/12/11 17:31	
Fluoride		ND	mg/L	0.01						
Sample ID: LFB		Laboratory Fortified Blank				Run: MAN-TECH_110512A			05/12/11 17:34	
Fluoride		0.980	mg/L	0.10	98	90	110			
Sample ID: B11050651-002AMS		Sample Matrix Spike				Run: MAN-TECH_110512A			05/12/11 17:57	
Fluoride		1.06	mg/L	0.10	61	80	120			S
Sample ID: B11050651-002AMSD		Sample Matrix Spike Duplicate				Run: MAN-TECH_110512A			05/12/11 18:00	
Fluoride		1.33	mg/L	0.10	88	80	120	23	10	R
Sample ID: B11050651-015AMS		Sample Matrix Spike				Run: MAN-TECH_110512A			05/12/11 19:49	
Fluoride		1.19	mg/L	0.10	92	80	120			
Sample ID: B11050651-015AMSD		Sample Matrix Spike Duplicate				Run: MAN-TECH_110512A			05/12/11 19:52	
Fluoride		1.19	mg/L	0.10	92	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
R - RPD exceeds advisory limit.
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Report Date: 05/27/11
Project: Biere Well Remediation
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C									Analytical Run: MAN-TECH_110516B	
Sample ID: ICV		Initial Calibration Verification Standard							05/16/11 15:47	
Fluoride		1.04	mg/L	0.10	104	90	110			
Method: A4500-F C									Batch: R165669	
Sample ID: MBLK		Method Blank				Run: MAN-TECH_110516B			05/16/11 15:38	
Fluoride		ND	mg/L	0.01						
Sample ID: LFB		Laboratory Fortified Blank				Run: MAN-TECH_110516B			05/16/11 15:42	
Fluoride		0.990	mg/L	0.10	99	90	110			
Sample ID: B11051181-003AMS		Sample Matrix Spike				Run: MAN-TECH_110516B			05/16/11 16:04	
Fluoride		2.76	mg/L	0.10	89	80	120			
Sample ID: B11051181-003AMSD		Sample Matrix Spike Duplicate				Run: MAN-TECH_110516B			05/16/11 16:09	
Fluoride		2.74	mg/L	0.10	87	80	120	0.7	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: PHSC _101-B_110507A		
Sample ID: pH 8		Initial Calibration Verification Standard							05/07/11 07:19	
pH		7.95	s.u.	0.10	99	98	102			
Method: A4500-H B									Batch: R165236	
Sample ID: B11050651-014ADUP		Sample Duplicate				Run: PHSC _101-B_110507A			05/07/11 10:46	
pH		7.02	s.u.	0.10				0.1	3	
Method: A4500-H B								Analytical Run: PHSC _101-B_110509A		
Sample ID: pH 8		Initial Calibration Verification Standard							05/09/11 08:36	
pH		7.95	s.u.	0.10	99	98	102			
Method: A4500-H B									Batch: R165252	
Sample ID: B11050715-002ADUP		Sample Duplicate				Run: PHSC _101-B_110509A			05/09/11 14:28	
pH		6.85	s.u.	0.10				0.1	3	
Method: A4500-H B								Analytical Run: PHSC _101-B_110510A		
Sample ID: pH 8		Initial Calibration Verification Standard							05/10/11 08:24	
pH		7.95	s.u.	0.10	99	98	102			
Method: A4500-H B									Batch: R165300	
Sample ID: B11050651-022ADUP		Sample Duplicate				Run: PHSC _101-B_110510A			05/10/11 10:38	
pH		7.21	s.u.	0.10				0.0	3	
Method: A4500-H B								Analytical Run: PHSC _101-B_110512A		
Sample ID: pH 8		Initial Calibration Verification Standard							05/12/11 08:50	
pH		7.94	s.u.	0.10	99	98	102			
Method: A4500-H B									Batch: R165444	
Sample ID: B11050607-001ADUP		Sample Duplicate				Run: PHSC _101-B_110512A			05/12/11 11:33	
pH		7.95	s.u.	0.10				0.9	3	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E1664A									Batch: G_TPH110511B	
Sample ID: B11050651-008E		Sample Matrix Spike				Run: SUB-G185421			05/11/11 16:41	
Total Petroleum Hydrocarbons		15	mg/L	1.0	70	64	132			
Sample ID: MBLK1105110000		Method Blank				Run: SUB-G185421			05/11/11 16:32	
Total Petroleum Hydrocarbons		ND	mg/L	0.4						
Sample ID: LCS1105110000		Laboratory Control Sample				Run: SUB-G185421			05/11/11 16:33	
Total Petroleum Hydrocarbons		16	mg/L	1.0	79	64	132			
Sample ID: LCSD1105110000		Laboratory Control Sample Duplicate				Run: SUB-G185421			05/11/11 16:34	
Total Petroleum Hydrocarbons		16	mg/L	1.0	80	64	132	1.3	34	
Method: E1664A									Batch: G_TPH110516A	
Sample ID: B11050651-017E		Sample Matrix Spike				Run: SUB-G185490			05/16/11 13:34	
Total Petroleum Hydrocarbons		17	mg/L	1.0	80	64	132			
Sample ID: LCSD1105160000		Laboratory Control Sample Duplicate				Run: SUB-G185490			05/16/11 13:32	
Total Petroleum Hydrocarbons		16	mg/L	1.0	80	64	132	1.2	34	
Sample ID: LCS1105160000		Laboratory Control Sample				Run: SUB-G185490			05/16/11 13:31	
Total Petroleum Hydrocarbons		16	mg/L	1.0	81	64	132			
Sample ID: MBLK1105160000		Method Blank				Run: SUB-G185490			05/16/11 13:30	
Total Petroleum Hydrocarbons		ND	mg/L	0.4						
Method: E1664A									Batch: G_TPH110517A	
Sample ID: G11050416-006AMS		Sample Matrix Spike				Run: SUB-G185518			05/17/11 16:39	
Total Petroleum Hydrocarbons		18	mg/L	1.0	82	64	132			
Sample ID: MBLK1105170000		Method Blank				Run: SUB-G185518			05/17/11 16:35	
Total Petroleum Hydrocarbons		ND	mg/L	0.4						
Sample ID: LCS1105170000		Laboratory Control Sample				Run: SUB-G185518			05/17/11 16:36	
Total Petroleum Hydrocarbons		14	mg/L	1.0	71	64	132			
Sample ID: LCSD1105170000		Laboratory Control Sample Duplicate				Run: SUB-G185518			05/17/11 16:37	
Total Petroleum Hydrocarbons		15	mg/L	1.0	75	64	132	4.8	34	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC202-B_110509A	
Sample ID: ICV050911-11	2	Initial Calibration Verification Standard							05/09/11 11:18	
Chloride		24.2	mg/L	1.0	97	90	110			
Sulfate		103	mg/L	1.0	103	90	110			
Method: E300.0									Batch: R165306	
Sample ID: ICB050911-12	2	Method Blank				Run: IC202-B_110509A			05/09/11 11:28	
Chloride		0.04	mg/L	0.02						
Sulfate		ND	mg/L	0.2						
Sample ID: LFB050911-13	2	Laboratory Fortified Blank				Run: IC202-B_110509A			05/09/11 11:39	
Chloride		23.9	mg/L	1.0	96	90	110			
Sulfate		102	mg/L	1.1	102	90	110			
Sample ID: B11050461-003AMS	2	Sample Matrix Spike				Run: IC202-B_110509A			05/09/11 23:06	
Chloride		571	mg/L	2.7	103	90	110			
Sulfate		1720	mg/L	11	109	90	110			
Sample ID: B11050461-003AMSD	2	Sample Matrix Spike Duplicate				Run: IC202-B_110509A			05/09/11 23:17	
Chloride		574	mg/L	2.7	105	90	110	0.5	20	
Sulfate		1730	mg/L	11	109	90	110	0.3	20	
Sample ID: B11050651-009AMS	2	Sample Matrix Spike				Run: IC202-B_110509A			05/10/11 01:49	
Chloride		7540	mg/L	27	96	90	110			
Sulfate		11800	mg/L	110	107	90	110			
Sample ID: B11050651-009AMSD	2	Sample Matrix Spike Duplicate				Run: IC202-B_110509A			05/10/11 02:00	
Chloride		7580	mg/L	27	98	90	110	0.6	20	
Sulfate		11700	mg/L	110	106	90	110	1.0	20	
Sample ID: B11050651-019AMS	2	Sample Matrix Spike				Run: IC202-B_110509A			05/10/11 08:12	
Chloride		18000	mg/L	54	97	90	110			
Sulfate		22800	mg/L	210	106	90	110			
Sample ID: B11050651-019AMSD	2	Sample Matrix Spike Duplicate				Run: IC202-B_110509A			05/10/11 08:23	
Chloride		18100	mg/L	54	99	90	110	0.5	20	
Sulfate		23000	mg/L	210	106	90	110	0.7	20	
Sample ID: B11050651-029AMS	2	Sample Matrix Spike				Run: IC202-B_110509A			05/10/11 10:42	
Chloride		3640	mg/L	13	98	90	110			
Sulfate		6190	mg/L	54	107	90	110			
Sample ID: B11050651-029AMSD	2	Sample Matrix Spike Duplicate				Run: IC202-B_110509A			05/10/11 10:53	
Chloride		3600	mg/L	13	95	90	110	1.0	20	
Sulfate		6120	mg/L	54	106	90	110	1.1	20	
Sample ID: B11050626-002AMS	2	Sample Matrix Spike				Run: IC202-B_110509A			05/10/11 14:04	
Chloride		11800	mg/L	130	95	90	110			
Sulfate		62700	mg/L	540	104	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM **Report Date:** 05/27/11

Project: Biere Well Remediation **Work Order:** B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Batch: R165306	
Sample ID: B11050626-002AMSD	2	Sample Matrix Spike Duplicate				Run: IC202-B_110509A			05/10/11 14:14	
Chloride		11600	mg/L	130	93	90	110	2.2	20	
Sulfate		62300	mg/L	540	103	90	110	0.6	20	
Method: E300.0									Analytical Run: IC202-B_110511A	
Sample ID: ICV051111-11	2	Initial Calibration Verification Standard							05/11/11 13:08	
Chloride		24.5	mg/L	1.0	98	90	110			
Sulfate		106	mg/L	1.0	106	90	110			
Method: E300.0									Batch: R165445	
Sample ID: ICB051111-12	2	Method Blank				Run: IC202-B_110511A			05/11/11 13:18	
Chloride		0.04	mg/L	0.02						
Sulfate		ND	mg/L	0.2						
Sample ID: LFB051111-13	2	Laboratory Fortified Blank				Run: IC202-B_110511A			05/11/11 13:28	
Chloride		24.4	mg/L	1.0	97	90	110			
Sulfate		103	mg/L	1.1	103	90	110			
Sample ID: B11050651-002AMS	2	Sample Matrix Spike				Run: IC202-B_110511A			05/11/11 18:39	
Chloride		251	mg/L	2.7	98	90	110			
Sulfate		2440	mg/L	11	109	90	110			
Sample ID: B11050651-002AMSD	2	Sample Matrix Spike Duplicate				Run: IC202-B_110511A			05/11/11 18:51	
Chloride		250	mg/L	2.7	98	90	110	0.3	20	
Sulfate		2450	mg/L	11	110	90	110	0.2	20	
Sample ID: B11050651-013AMS	2	Sample Matrix Spike				Run: IC202-B_110511A			05/11/11 21:22	
Chloride		676	mg/L	5.4	102	90	110			
Sulfate		4040	mg/L	21	108	90	110			
Sample ID: B11050651-013AMSD	2	Sample Matrix Spike Duplicate				Run: IC202-B_110511A			05/11/11 21:34	
Chloride		686	mg/L	5.4	104	90	110	1.5	20	
Sulfate		4060	mg/L	21	109	90	110	0.4	20	
Sample ID: B11050651-025AMS	2	Sample Matrix Spike				Run: IC202-B_110511A			05/12/11 00:05	
Chloride		604	mg/L	5.4	102	90	110			
Sulfate		4460	mg/L	21	110	90	110			
Sample ID: B11050651-025AMSD	2	Sample Matrix Spike Duplicate				Run: IC202-B_110511A			05/12/11 00:16	
Chloride		609	mg/L	5.4	103	90	110	0.9	20	
Sulfate		4500	mg/L	21	112	90	110	0.9	20	S

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E350.1									Analytical Run: FIA203-B_110509B	
Sample ID: ICV		Initial Calibration Verification Standard							05/09/11 12:54	
Nitrogen, Ammonia as N		8.14	mg/L	0.30	100	90	110			
Method: E350.1									Batch: R165271	
Sample ID: MBLK		Method Blank				Run: FIA203-B_110509B			05/09/11 12:55	
Nitrogen, Ammonia as N		ND	mg/L	0.01						
Sample ID: LFB		Laboratory Fortified Blank				Run: FIA203-B_110509B			05/09/11 12:56	
Nitrogen, Ammonia as N		0.992	mg/L	0.050	100	90	110			
Sample ID: B11050651-001DMS		Sample Matrix Spike				Run: FIA203-B_110509B			05/09/11 13:02	
Nitrogen, Ammonia as N		3.39	mg/L	0.050	105	90	110			
Sample ID: B11050651-001DMSD		Sample Matrix Spike Duplicate				Run: FIA203-B_110509B			05/09/11 13:03	
Nitrogen, Ammonia as N		3.28	mg/L	0.050	94	90	110	3.3	10	
Sample ID: B11050651-011DMS		Sample Matrix Spike				Run: FIA203-B_110509B			05/09/11 13:19	
Nitrogen, Ammonia as N		1.03	mg/L	0.050	89	90	110			S
Sample ID: B11050651-011DMSD		Sample Matrix Spike Duplicate				Run: FIA203-B_110509B			05/09/11 13:20	
Nitrogen, Ammonia as N		1.04	mg/L	0.050	89	90	110	0.5	10	S
Sample ID: B11050651-021DMS		Sample Matrix Spike				Run: FIA203-B_110509B			05/09/11 13:36	
Nitrogen, Ammonia as N		0.853	mg/L	0.050	87	90	110			S
Sample ID: B11050651-021DMSD		Sample Matrix Spike Duplicate				Run: FIA203-B_110509B			05/09/11 13:37	
Nitrogen, Ammonia as N		0.871	mg/L	0.050	89	90	110	2.1	10	S
Sample ID: B11050715-001DMS		Sample Matrix Spike				Run: FIA203-B_110509B			05/09/11 13:52	
Nitrogen, Ammonia as N		7.34	mg/L	0.30	98	90	110			
Sample ID: B11050715-001DMSD		Sample Matrix Spike Duplicate				Run: FIA203-B_110509B			05/09/11 13:53	
Nitrogen, Ammonia as N		7.28	mg/L	0.30	97	90	110	0.8	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/27/11
Work Order: B11050651

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2									Analytical Run: FIA203-B_110509A	
Sample ID: ICV		Initial Calibration Verification Standard							05/09/11 06:31	
Nitrogen, Nitrate+Nitrite as N		22.1	mg/L	0.060	101	90	110			
Method: E353.2									Batch: R165241	
Sample ID: MBLK		Method Blank				Run: FIA203-B_110509A			05/09/11 06:32	
Nitrogen, Nitrate+Nitrite as N		0.007	mg/L	0.004						
Sample ID: LFB		Laboratory Fortified Blank				Run: FIA203-B_110509A			05/09/11 06:34	
Nitrogen, Nitrate+Nitrite as N		1.04	mg/L	0.010	105	90	110			
Sample ID: B11050639-001CMS		Sample Matrix Spike				Run: FIA203-B_110509A			05/09/11 08:22	
Nitrogen, Nitrate+Nitrite as N		1.06	mg/L	0.010	102	90	110			
Sample ID: B11050639-001CMSD		Sample Matrix Spike Duplicate				Run: FIA203-B_110509A			05/09/11 08:23	
Nitrogen, Nitrate+Nitrite as N		1.06	mg/L	0.010	102	90	110	0.0	10	
Sample ID: B11050651-005DMS		Sample Matrix Spike				Run: FIA203-B_110509A			05/09/11 08:38	
Nitrogen, Nitrate+Nitrite as N		0.580	mg/L	0.010	58	90	110			S
Sample ID: B11050651-005DMSD		Sample Matrix Spike Duplicate				Run: FIA203-B_110509A			05/09/11 08:39	
Nitrogen, Nitrate+Nitrite as N		0.569	mg/L	0.010	57	90	110	1.9	10	S
Sample ID: B11050651-013DMS		Sample Matrix Spike				Run: FIA203-B_110509A			05/09/11 08:55	
Nitrogen, Nitrate+Nitrite as N		1.61	mg/L	0.010	100	90	110			
Sample ID: B11050651-013DMSD		Sample Matrix Spike Duplicate				Run: FIA203-B_110509A			05/09/11 08:56	
Nitrogen, Nitrate+Nitrite as N		1.61	mg/L	0.010	100	90	110	0.1	10	
Sample ID: B11050651-029DMS		Sample Matrix Spike				Run: FIA203-B_110509A			05/09/11 09:12	
Nitrogen, Nitrate+Nitrite as N		0.744	mg/L	0.010	74	90	110			S
Sample ID: B11050651-029DMSD		Sample Matrix Spike Duplicate				Run: FIA203-B_110509A			05/09/11 09:13	
Nitrogen, Nitrate+Nitrite as N		0.741	mg/L	0.010	73	90	110	0.4	10	S

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/19/11
Work Order: B11050651

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Analytical Run: R165470
Sample ID: CCV_0510VA203r-W	Continuing Calibration Verification Standard								05/10/11 13:38
Methyl tert-butyl ether (MTBE)	22.7	ug/L	1.0	91	85	115			
Benzene	23.1	ug/L	0.50	93	85	115			
Toluene	22.5	ug/L	0.50	90	85	115			
Ethylbenzene	23.5	ug/L	0.50	94	85	115			
m+p-Xylenes	47.1	ug/L	0.50	94	85	115			
o-Xylene	23.5	ug/L	0.50	94	85	115			
Xylenes, Total	70.6	ug/L	0.50	94	85	115			
Surr: Trifluorotoluene			1.0	95	85	115			
Sample ID: CCV_0510VA222r-W	Continuing Calibration Verification Standard								05/10/11 23:50
Methyl tert-butyl ether (MTBE)	24.5	ug/L	1.0	98	85	115			
Benzene	24.1	ug/L	0.50	96	85	115			
Toluene	23.5	ug/L	0.50	94	85	115			
Ethylbenzene	24.4	ug/L	0.50	97	85	115			
m+p-Xylenes	48.9	ug/L	0.50	98	85	115			
o-Xylene	24.4	ug/L	0.50	98	85	115			
Xylenes, Total	73.3	ug/L	0.50	98	85	115			
Surr: Trifluorotoluene			1.0	101	85	115			
Method: SW8021B									Batch: R165470
Sample ID: LCS_0510VA204r	Laboratory Control Sample				Run: VARIAN2_110510A				05/10/11 14:10
Methyl tert-butyl ether (MTBE)	22.1	ug/L	1.0	88	70	130			
Benzene	22.6	ug/L	0.50	90	70	130			
Toluene	22.4	ug/L	0.50	89	70	130			
Ethylbenzene	22.9	ug/L	0.50	92	70	130			
m+p-Xylenes	46.3	ug/L	0.50	93	70	130			
o-Xylene	23.1	ug/L	0.50	92	70	130			
Xylenes, Total	69.4	ug/L	0.50	93	70	130			
Surr: Trifluorotoluene			1.0	97	80	120			
Sample ID: MBLK_0510VA209r	Method Blank				Run: VARIAN2_110510A				05/10/11 16:51
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			1.0	97	80	120			
Sample ID: B11050075-001AMS	Sample Matrix Spike				Run: VARIAN2_110510A				05/09/11 20:37
Methyl tert-butyl ether (MTBE)	117	ug/L	5.0	94	70	130			
Benzene	117	ug/L	2.5	94	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/19/11
Work Order: B11050651

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Batch: R165470
Sample ID: B11050075-001AMS	Sample Matrix Spike				Run: VARIAN2_110510A				05/09/11 20:37
Toluene	115	ug/L	2.5	91	70	130			
Ethylbenzene	118	ug/L	2.5	94	70	130			
m+p-Xylenes	238	ug/L	2.5	95	70	130			
o-Xylene	119	ug/L	2.5	95	70	130			
Xylenes, Total	357	ug/L	2.5	95	70	130			
Surr: Trifluorotoluene			5.0	98	80	120			
Sample ID: B11050075-001AMSD	Sample Matrix Spike Duplicate				Run: VARIAN2_110510A				05/09/11 21:41
Methyl tert-butyl ether (MTBE)	114	ug/L	5.0	91	70	130	2.7	20	
Benzene	118	ug/L	2.5	94	70	130	0.5	20	
Toluene	116	ug/L	2.5	92	70	130	0.3	20	
Ethylbenzene	117	ug/L	2.5	94	70	130	0.2	20	
m+p-Xylenes	238	ug/L	2.5	95	70	130	0.0	20	
o-Xylene	119	ug/L	2.5	95	70	130	0.1	20	
Xylenes, Total	357	ug/L	2.5	95	70	130			
Surr: Trifluorotoluene			5.0	96	80	120	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/19/11
Work Order: B11050651

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Analytical Run: R165593
Sample ID: CCV_0512VA201r-W	Continuing Calibration Verification Standard								05/12/11 15:43
Methyl tert-butyl ether (MTBE)	23.2	ug/L	1.0	93	85	115			
Benzene	23.9	ug/L	0.50	96	85	115			
Toluene	23.3	ug/L	0.50	93	85	115			
Ethylbenzene	24.2	ug/L	0.50	97	85	115			
m+p-Xylenes	48.3	ug/L	0.50	97	85	115			
o-Xylene	24.0	ug/L	0.50	96	85	115			
Xylenes, Total	72.3	ug/L	0.50	96	85	115			
Surr: Trifluorotoluene			1.0	102	85	115			
Sample ID: CCV_0512VA226r-W	Continuing Calibration Verification Standard								05/13/11 05:08
Methyl tert-butyl ether (MTBE)	23.6	ug/L	1.0	94	85	115			
Benzene	23.6	ug/L	0.50	94	85	115			
Toluene	23.1	ug/L	0.50	92	85	115			
Ethylbenzene	23.9	ug/L	0.50	95	85	115			
m+p-Xylenes	47.6	ug/L	0.50	95	85	115			
o-Xylene	24.0	ug/L	0.50	96	85	115			
Xylenes, Total	71.5	ug/L	0.50	95	85	115			
Surr: Trifluorotoluene			1.0	96	85	115			
Method: SW8021B									Batch: R165593
Sample ID: LCS_0512VA202r	Laboratory Control Sample				Run: VARIAN2_110512A				05/12/11 16:15
Methyl tert-butyl ether (MTBE)	21.7	ug/L	1.0	87	70	130			
Benzene	22.5	ug/L	0.50	90	70	130			
Toluene	22.5	ug/L	0.50	90	70	130			
Ethylbenzene	23.1	ug/L	0.50	93	70	130			
m+p-Xylenes	46.8	ug/L	0.50	94	70	130			
o-Xylene	23.6	ug/L	0.50	94	70	130			
Xylenes, Total	70.4	ug/L	0.50	94	70	130			
Surr: Trifluorotoluene			1.0	98	80	120			
Sample ID: MBLK_0512VA205r	Method Blank				Run: VARIAN2_110512A				05/12/11 17:52
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			1.0	95	80	120			
Sample ID: B11050651-025FMS	Sample Matrix Spike				Run: VARIAN2_110514A				05/14/11 20:29
Methyl tert-butyl ether (MTBE)	45.1	ug/L	2.0	90	70	130			
Benzene	46.3	ug/L	1.0	93	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/19/11
Work Order: B11050651

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Batch: R165593
Sample ID: B11050651-025FMS	Sample Matrix Spike				Run: VARIAN2_110514A				05/14/11 20:29
Toluene	45.9	ug/L	1.0	92	70	130			
Ethylbenzene	46.8	ug/L	1.0	94	70	130			
m+p-Xylenes	95.0	ug/L	1.0	95	70	130			
o-Xylene	47.4	ug/L	1.0	95	70	130			
Xylenes, Total	142	ug/L	1.0	95	70	130			
Surr: Trifluorotoluene			2.0	98	80	120			
Sample ID: B11050651-025FMSD	Sample Matrix Spike Duplicate				Run: VARIAN2_110514A				05/14/11 21:34
Methyl tert-butyl ether (MTBE)	44.8	ug/L	2.0	90	70	130	0.7	20	
Benzene	45.3	ug/L	1.0	91	70	130	2.2	20	
Toluene	45.0	ug/L	1.0	90	70	130	2.1	20	
Ethylbenzene	45.9	ug/L	1.0	92	70	130	1.9	20	
m+p-Xylenes	92.7	ug/L	1.0	93	70	130	2.5	20	
o-Xylene	46.3	ug/L	1.0	93	70	130	2.4	20	
Xylenes, Total	139	ug/L	1.0	93	70	130			
Surr: Trifluorotoluene			2.0	93	80	120	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/19/11
Work Order: B11050651

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Analytical Run: R165595
Sample ID: CCV_0511VA201r-W	Continuing Calibration Verification Standard								05/11/11 17:06
Methyl tert-butyl ether (MTBE)	23.4	ug/L	1.0	93	85	115			
Benzene	24.7	ug/L	0.50	99	85	115			
Toluene	24.3	ug/L	0.50	97	85	115			
Ethylbenzene	25.1	ug/L	0.50	101	85	115			
m+p-Xylenes	50.3	ug/L	0.50	101	85	115			
o-Xylene	25.0	ug/L	0.50	100	85	115			
Xylenes, Total	75.4	ug/L	0.50	100	85	115			
Surr: Trifluorotoluene			1.0	107	85	115			
Sample ID: CCV_0511VA221r-W	Continuing Calibration Verification Standard								05/12/11 03:47
Methyl tert-butyl ether (MTBE)	24.8	ug/L	1.0	99	85	115			
Benzene	24.2	ug/L	0.50	97	85	115			
Toluene	23.8	ug/L	0.50	95	85	115			
Ethylbenzene	24.6	ug/L	0.50	99	85	115			
m+p-Xylenes	49.5	ug/L	0.50	99	85	115			
o-Xylene	24.8	ug/L	0.50	99	85	115			
Xylenes, Total	74.3	ug/L	0.50	99	85	115			
Surr: Trifluorotoluene			1.0	98	85	115			
Method: SW8021B									Batch: R165595
Sample ID: LCS_0511VA202r	Laboratory Control Sample				Run: VARIAN2_110511A				05/11/11 17:38
Methyl tert-butyl ether (MTBE)	23.2	ug/L	1.0	93	70	130			
Benzene	22.8	ug/L	0.50	91	70	130			
Toluene	22.6	ug/L	0.50	90	70	130			
Ethylbenzene	23.1	ug/L	0.50	93	70	130			
m+p-Xylenes	46.8	ug/L	0.50	94	70	130			
o-Xylene	23.4	ug/L	0.50	93	70	130			
Xylenes, Total	70.2	ug/L	0.50	94	70	130			
Surr: Trifluorotoluene			1.0	94	80	120			
Sample ID: MBLK_0511VA205r	Method Blank				Run: VARIAN2_110511A				05/11/11 19:14
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			1.0	96	80	120			
Sample ID: B11050651-017FMS	Sample Matrix Spike				Run: VARIAN2_110511A				05/12/11 11:40
Methyl tert-butyl ether (MTBE)	45.5	ug/L	2.0	91	70	130			
Benzene	46.0	ug/L	1.0	92	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: DOWL HKM
Project: Biere Well Remediation

Report Date: 05/19/11
Work Order: B11050651

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B									Batch: R165595
Sample ID: B11050651-017FMS	Sample Matrix Spike				Run: VARIAN2_110511A				05/12/11 11:40
Toluene	46.2	ug/L	1.0	92	70	130			
Ethylbenzene	46.9	ug/L	1.0	94	70	130			
m+p-Xylenes	95.2	ug/L	1.0	95	70	130			
o-Xylene	47.5	ug/L	1.0	95	70	130			
Xylenes, Total	143	ug/L	1.0	95	70	130			
Surr: Trifluorotoluene			2.0	100	80	120			
Sample ID: B11050651-017FMSD	Sample Matrix Spike Duplicate				Run: VARIAN2_110511A				05/12/11 12:45
Methyl tert-butyl ether (MTBE)	43.9	ug/L	2.0	88	70	130	3.6	20	
Benzene	43.9	ug/L	1.0	88	70	130	4.6	20	
Toluene	43.9	ug/L	1.0	88	70	130	5.1	20	
Ethylbenzene	44.6	ug/L	1.0	89	70	130	5.1	20	
m+p-Xylenes	90.4	ug/L	1.0	90	70	130	5.1	20	
o-Xylene	45.1	ug/L	1.0	90	70	130	5.2	20	
Xylenes, Total	136	ug/L	1.0	90	70	130			
Surr: Trifluorotoluene			2.0	95	80	120	0.0	20	
Method: SW8021B									Analytical Run: R165641
Sample ID: CCV_0514VA203r-W	Continuing Calibration Verification Standard								05/14/11 17:16
Methyl tert-butyl ether (MTBE)	23.6	ug/L	1.0	95	85	115			
Benzene	23.8	ug/L	0.50	95	85	115			
Toluene	23.3	ug/L	0.50	93	85	115			
Ethylbenzene	24.0	ug/L	0.50	96	85	115			
m+p-Xylenes	48.4	ug/L	0.50	97	85	115			
o-Xylene	24.4	ug/L	0.50	98	85	115			
Xylenes, Total	72.8	ug/L	0.50	97	85	115			
Surr: Trifluorotoluene			1.0	96	85	115			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

PNR-18

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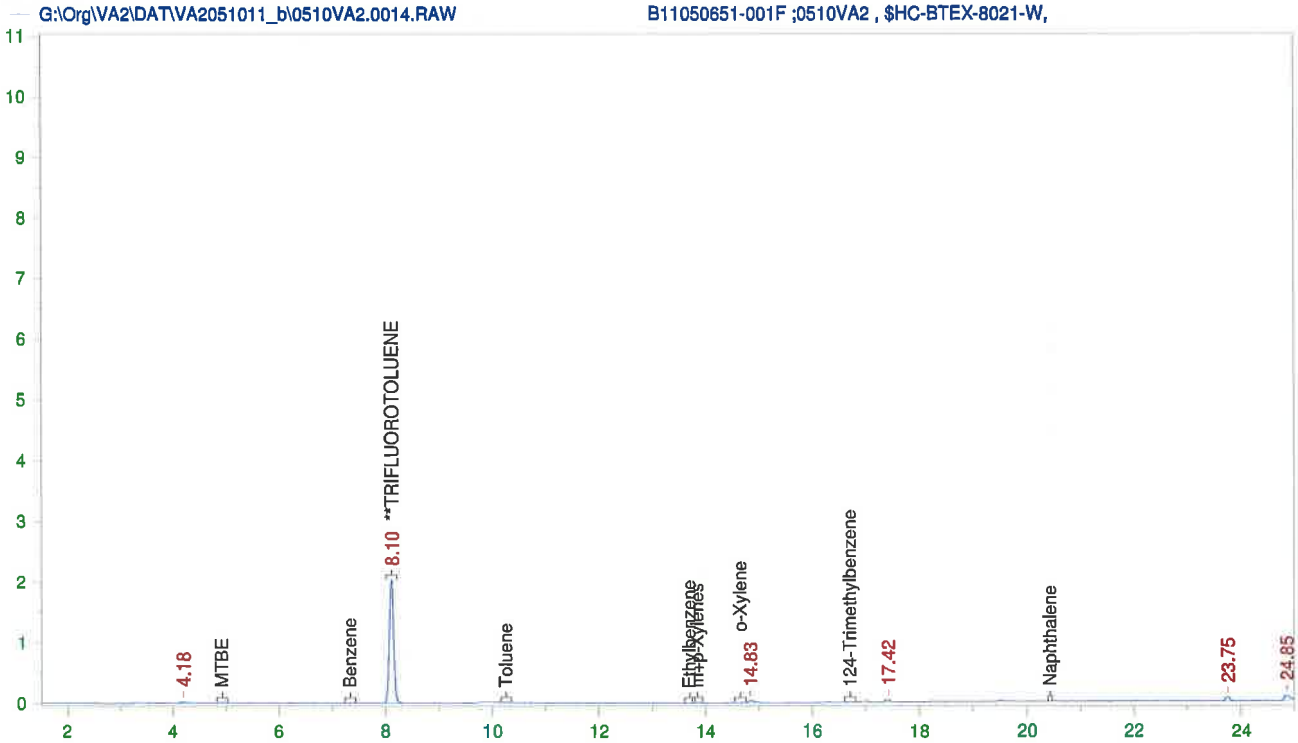


PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

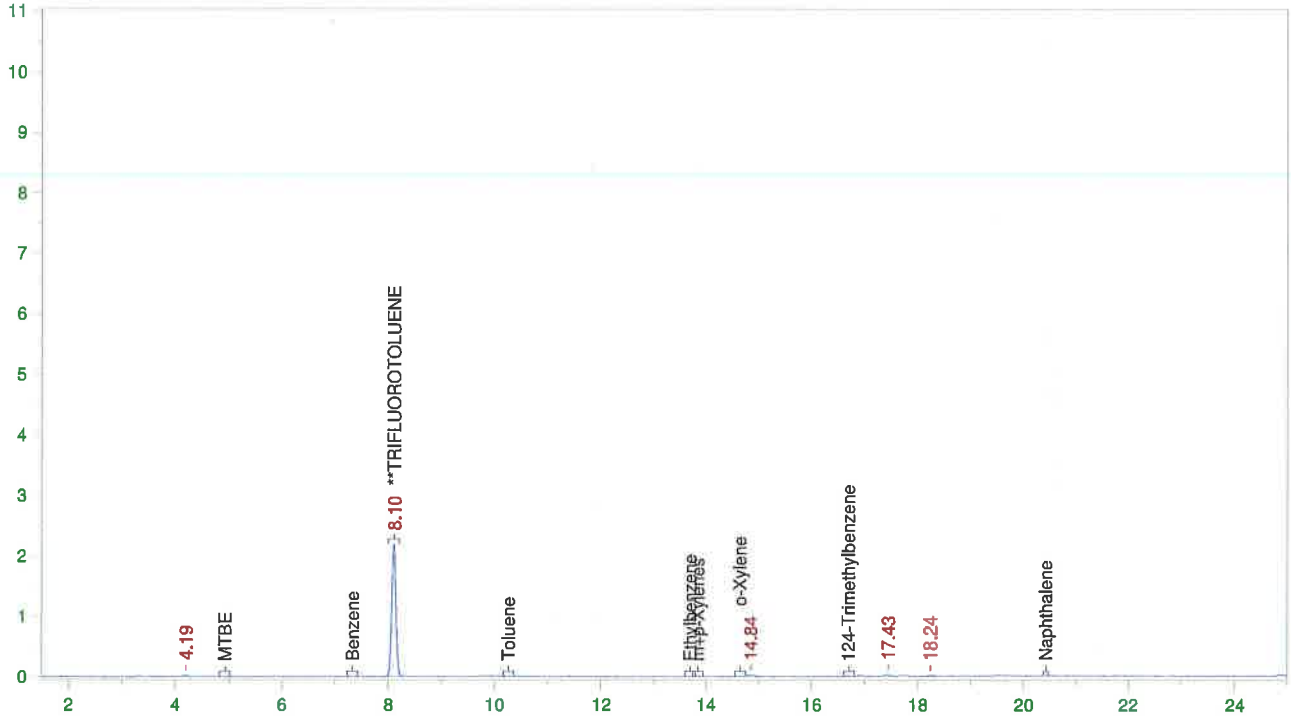
Sample Name: B11050651-001F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0014.RAW
Date & Time Acquired: 5/10/2011 7:32:51 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.104	25.	24.901	99.61	80-120

USGS 92-12

— G:\Org\VA2\DAT\VA2051011_b\0510VA2.0015.RAW B11050651-002F ;0510VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B11050651-002F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0015.RAW
Date & Time Acquired: 5/10/2011 8:04:58 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.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	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.105	25.	26.925	107.7	80-120

PNR-16

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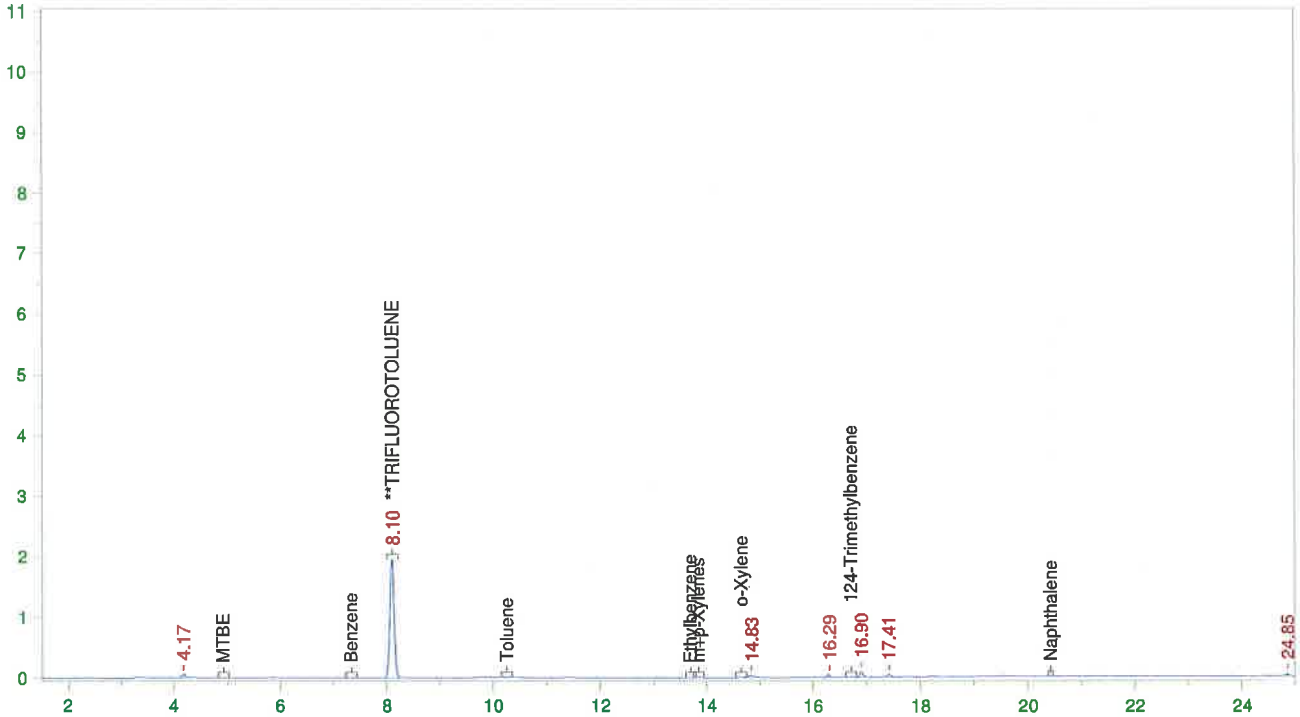

PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B11050651-003F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0016.RAW
Date & Time Acquired: 5/10/2011 8:37:06 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.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	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.098	25.	24.007	96.03	80-120

PNR-33-06

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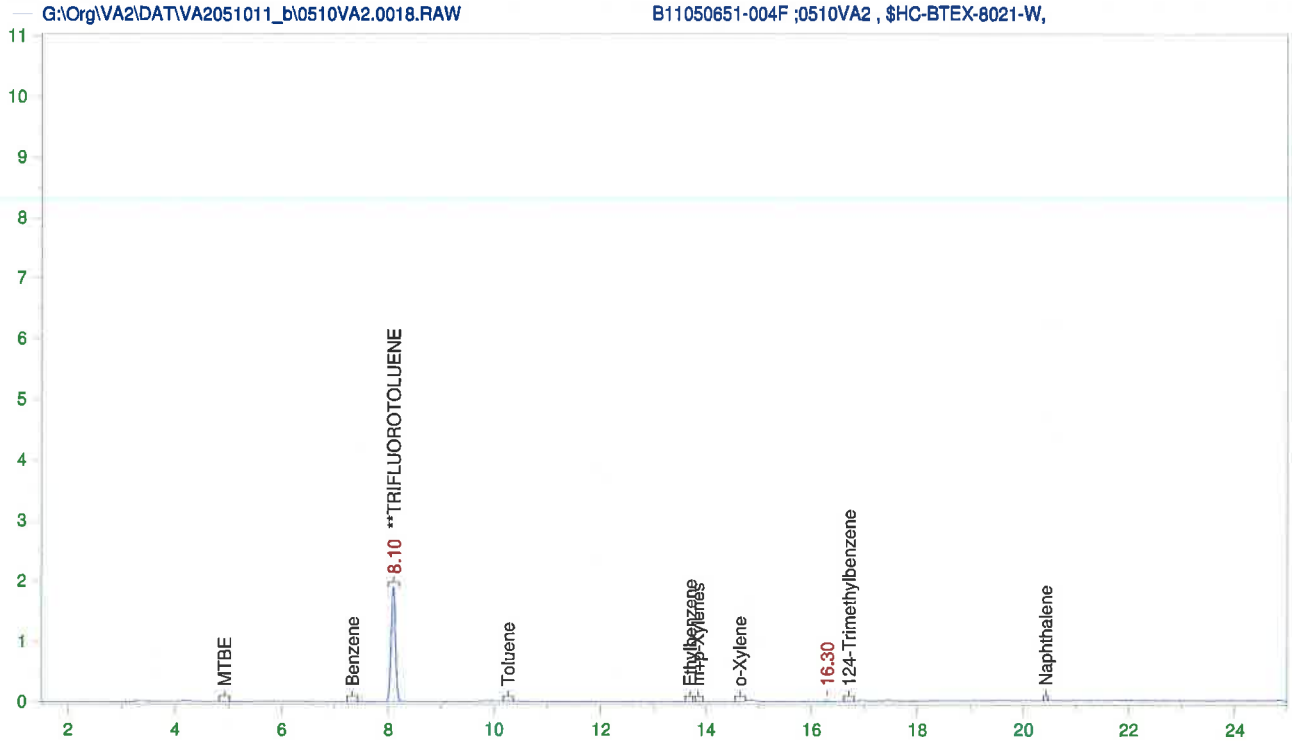


PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

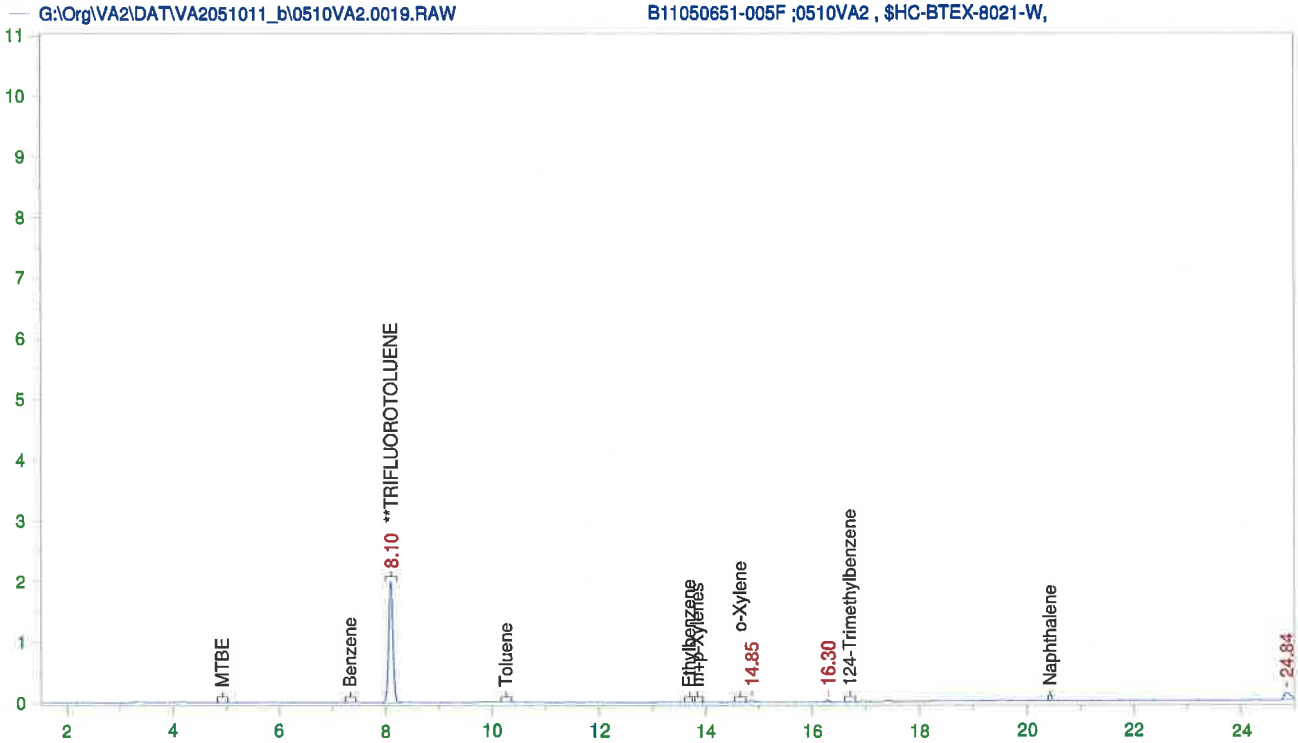
Sample Name: B11050651-004F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0018.RAW
Date & Time Acquired: 5/10/2011 9:41:22 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.098	25.	23.206	92.82	80-120

PNR-38-08

G:\Org\VA2\DAT\VA2051011_b\0510VA2.0019.RAW B11050651-005F ;0510VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

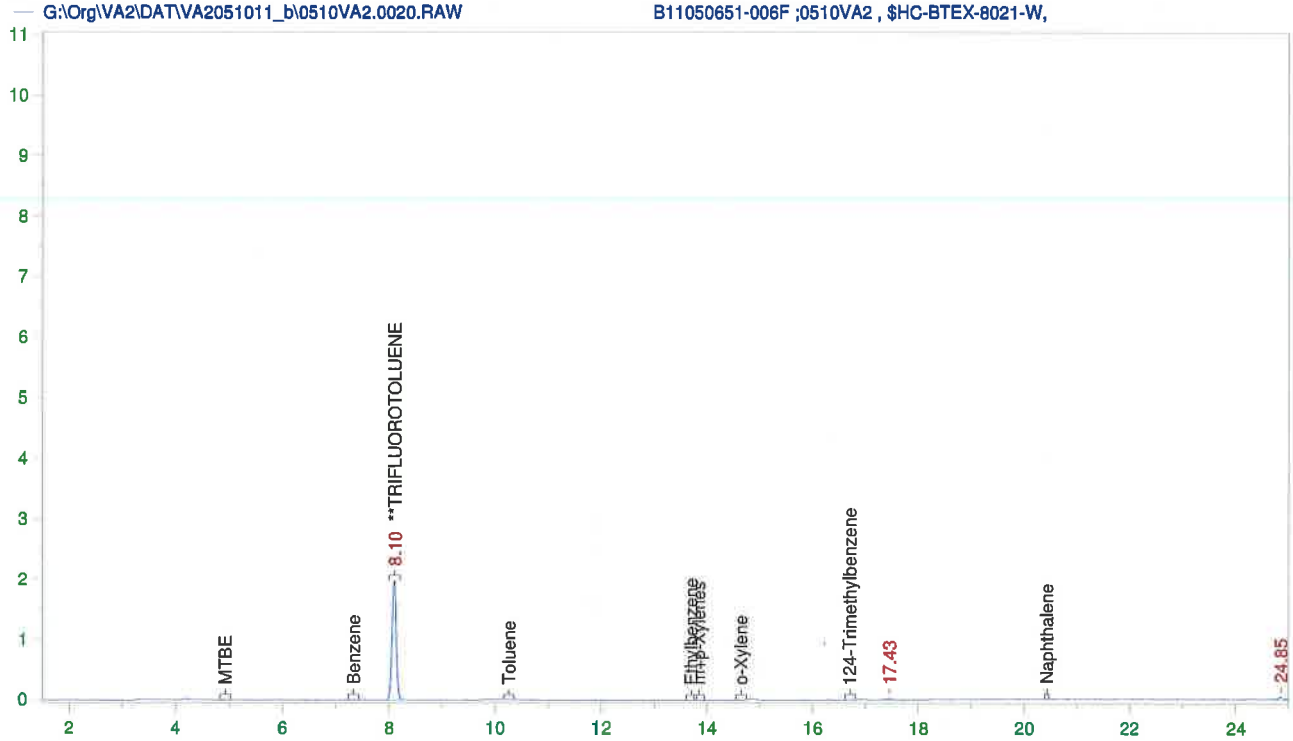
Sample Name: B11050651-005F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0019.RAW
Date & Time Acquired: 5/10/2011 10:13:32 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.098	25.	24.537	98.15	80-120

PNR-39-08

G:\Org\VA2\DAT\VA2051011_b\0510VA2.0020.RAW B11050651-006F ;0510VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

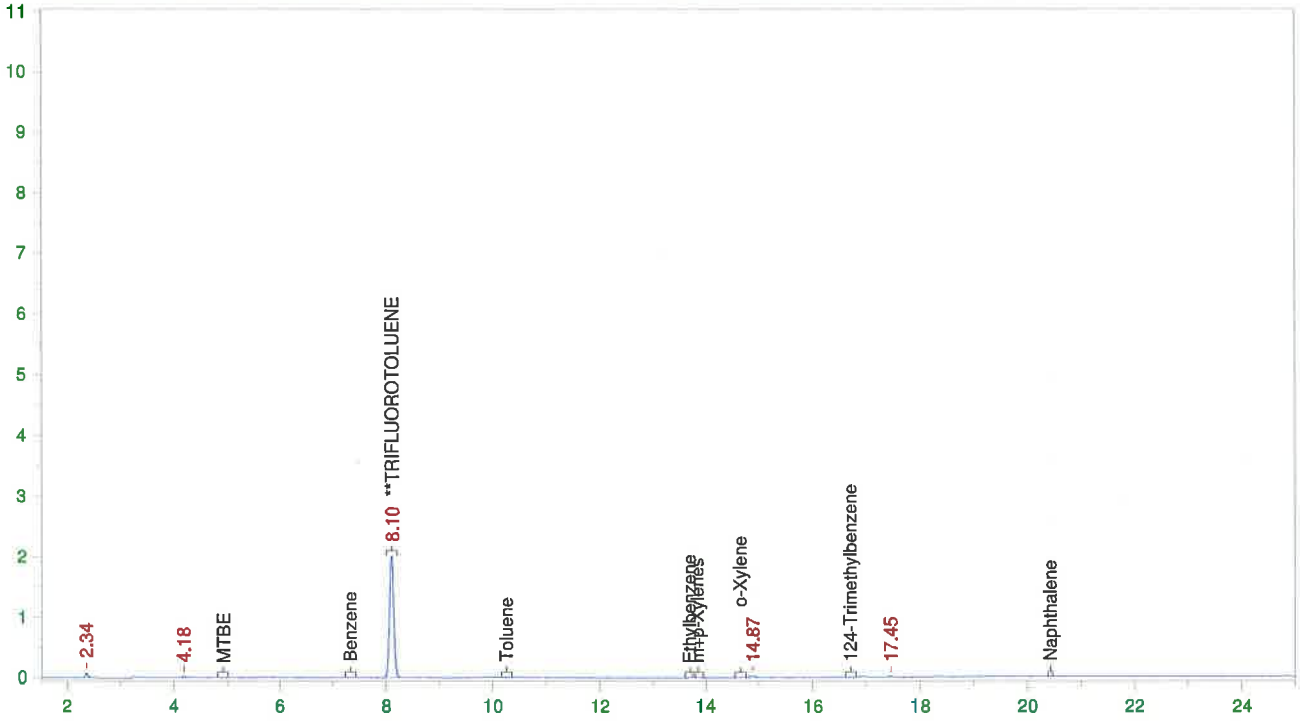
Sample Name: B11050651-006F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0020.RAW
Date & Time Acquired: 5/10/2011 10:45:43 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.095	25.	24.316	97.27	80-120

PNR-34-07

— G:\Org\VA2\DAT\VA2051011_b\0510VA2.0043.RAW B11050651-007F ;0510VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

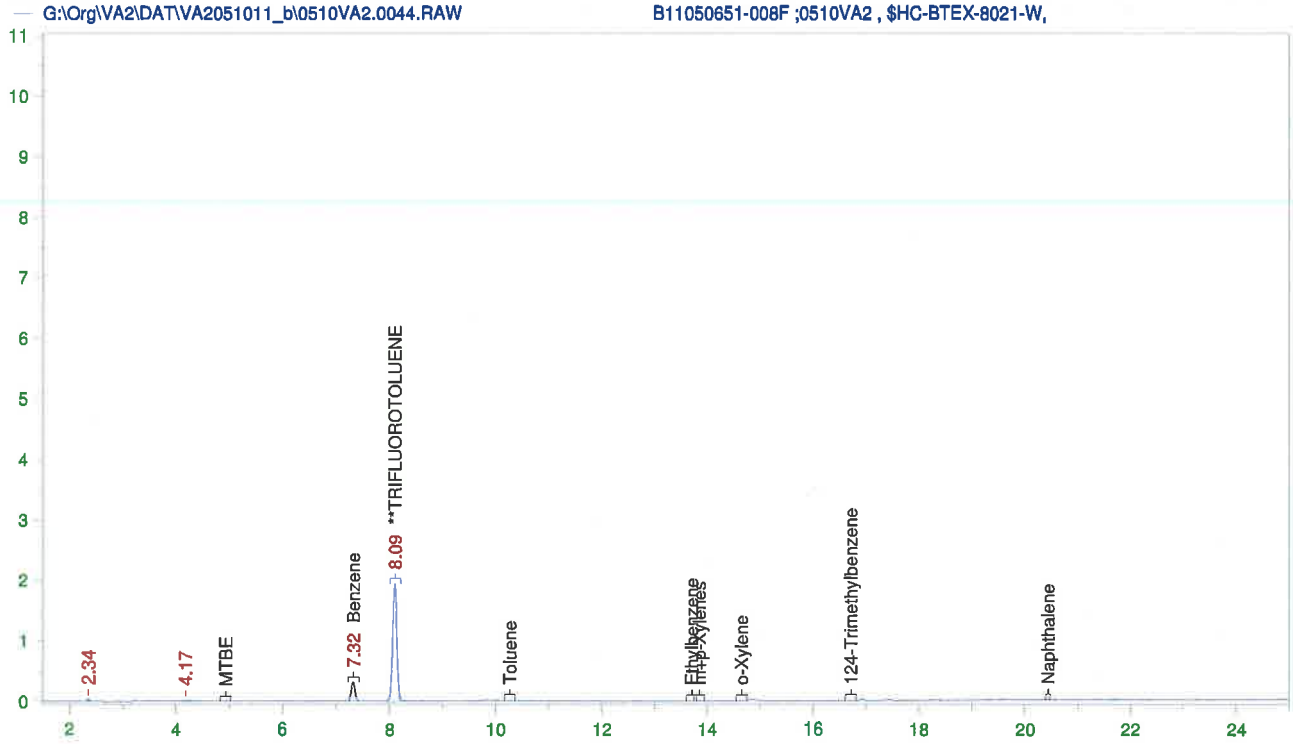
Sample Name: B11050651-007F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0043.RAW
Date & Time Acquired: 5/11/2011 12:13:54 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.103	25.	24.595	98.38	80-120

PNR-27

G:\Org\VA2\DAT\VA2051011_b\0510VA2.0044.RAW B11050651-008F ;0510VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

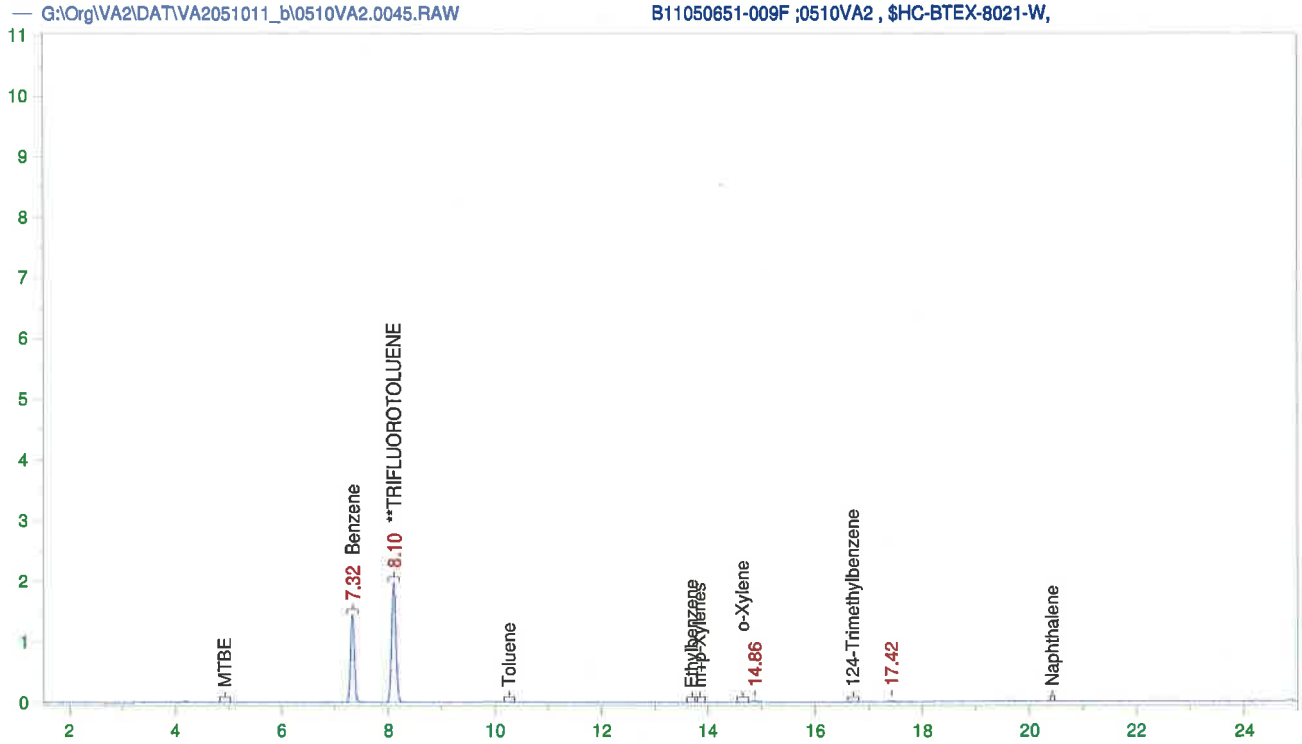
Sample Name: B11050651-008F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0044.RAW
Date & Time Acquired: 5/11/2011 12:46:15 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.318	.779	-7.318	1564	1.062	
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	.	25.	23.929	95.72	80-120

PNR-19

— G:\Org\VA2\DAT\VA2051011_b\0510VA2.0045.RAW B11050651-009F ;0510VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

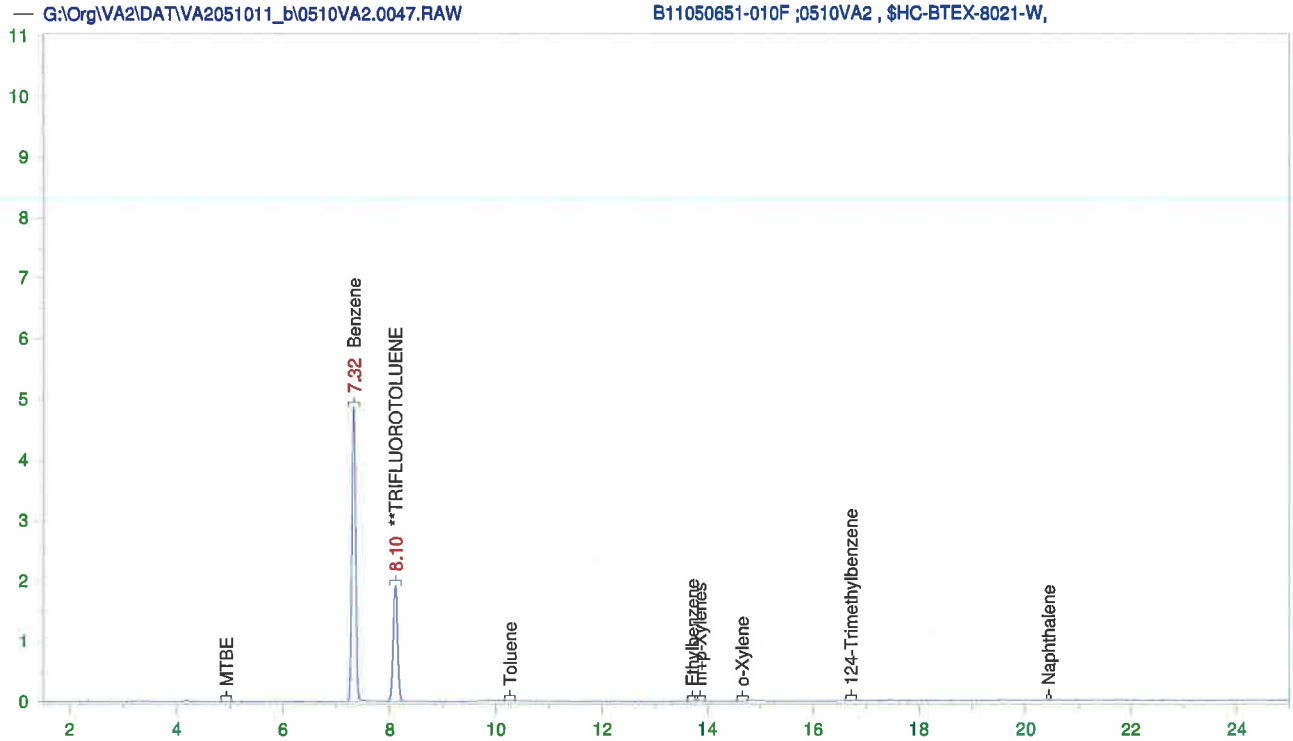
Sample Name: B11050651-009F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0045.RAW
Date & Time Acquired: 5/11/2011 1:18:35 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.324	.779	.777	6963	4.727	
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.102	25.	24.284	97.14	80-120

PNR-20

— G:\Org\VA2\DAT\VA2051011_b\0510VA2.0047.RAW B11050651-010F ;0510VA2 , $HC-BTEX-8021-W,



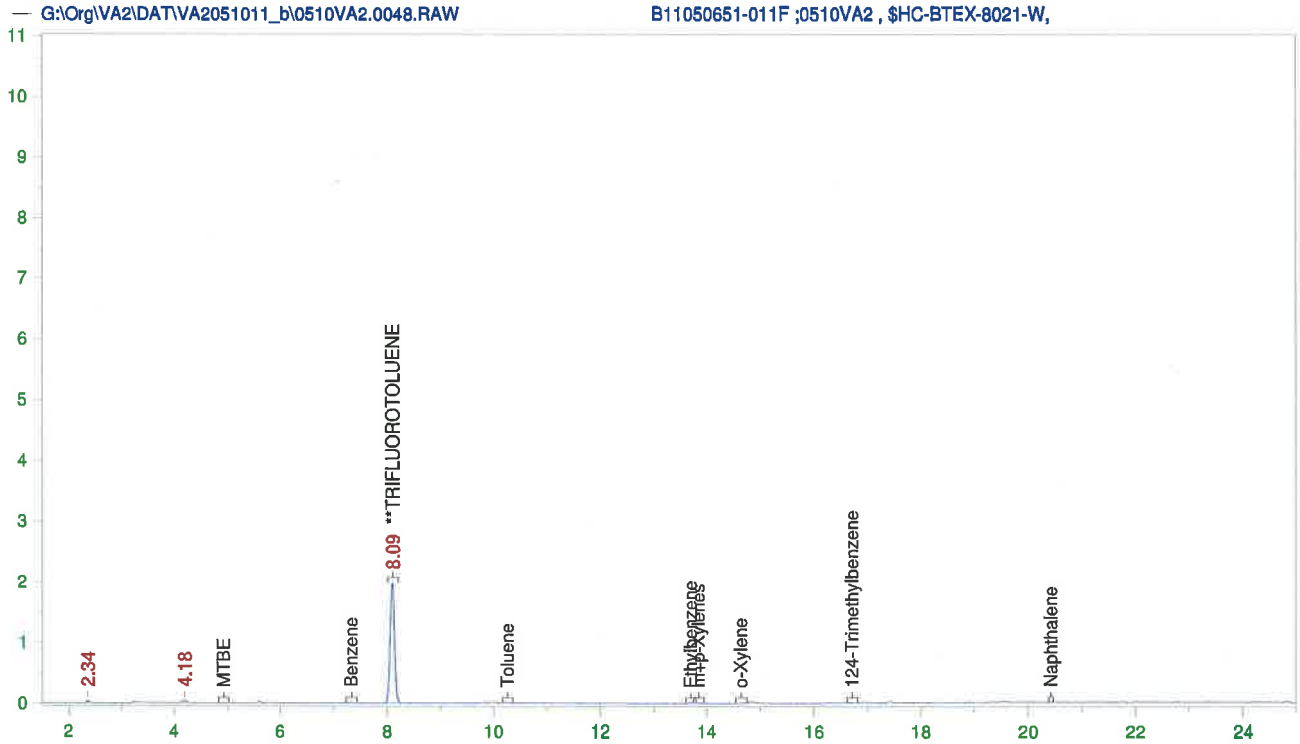
PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B11050651-010F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0047.RAW
Date & Time Acquired: 5/11/2011 2:23:08 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.323	.779	-7.323	23448	15.916	
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	.	25.	23.629	94.52	80-120

PNR-8



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

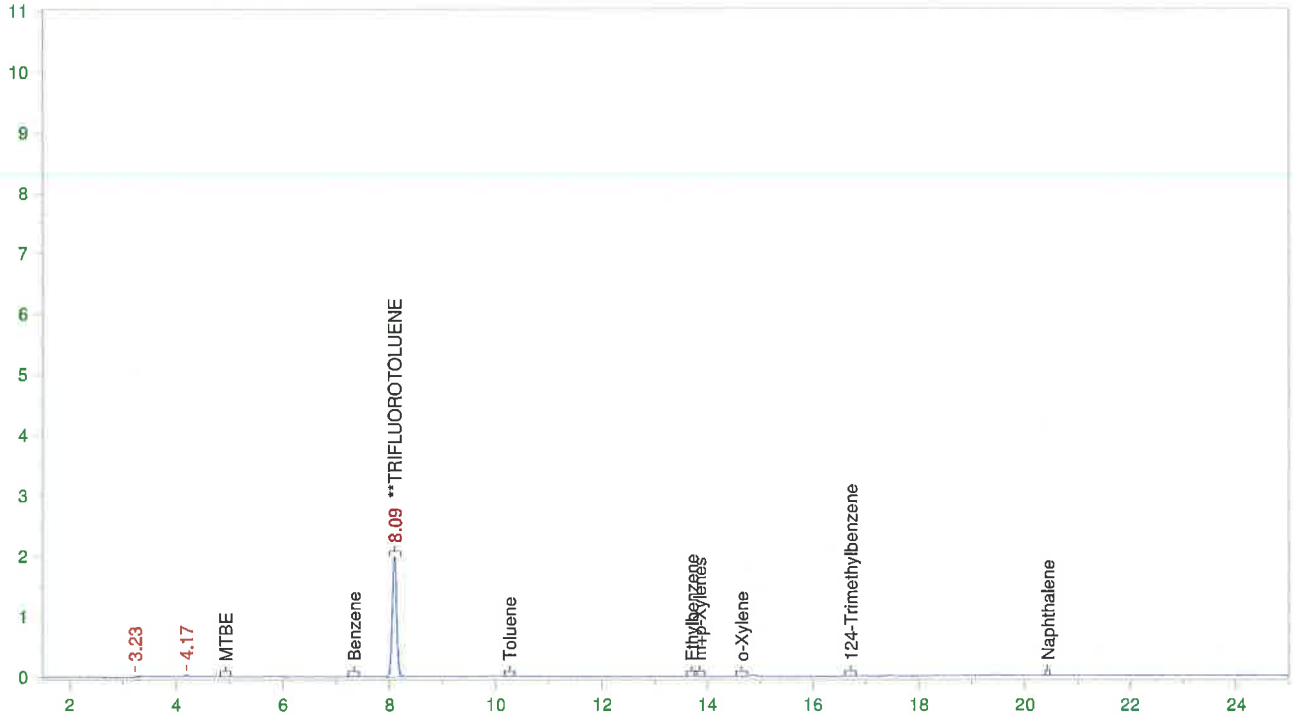
Sample Name: B11050651-011F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0048.RAW
Date & Time Acquired: 5/11/2011 2:55:19 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	.	25.	24.279	97.12	80-120

MOC-20A

G:\Org\VA2\DAT\VA2051011_b\0510VA2.0049.RAW B11050651-012F ;0510VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

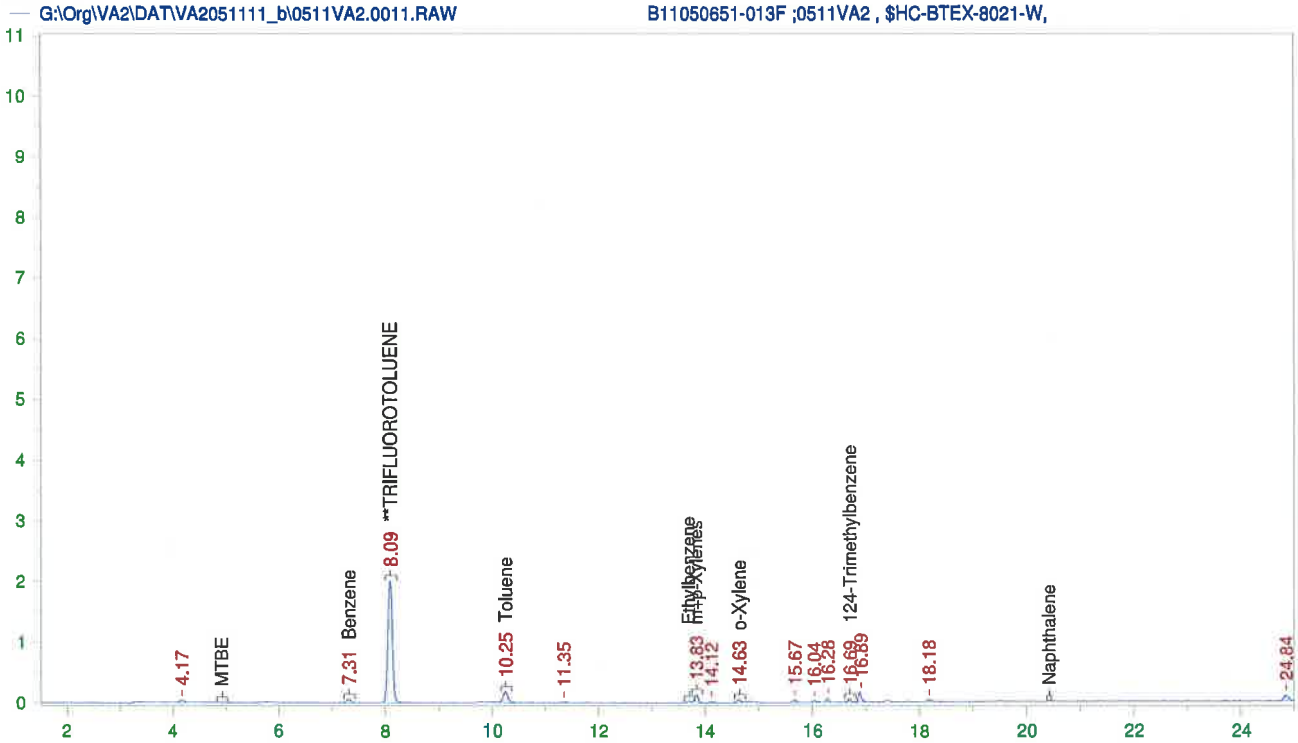
Sample Name: B11050651-012F ;0510VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051011_b\0510VA2.0049.RAW
Date & Time Acquired: 5/11/2011 3:27:29 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	.	25.	24.684	98.74	80-120

PNR-13

G:\Org\VA2\DAT\VA2051111_b\0511VA2.0011.RAW B11050651-013F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

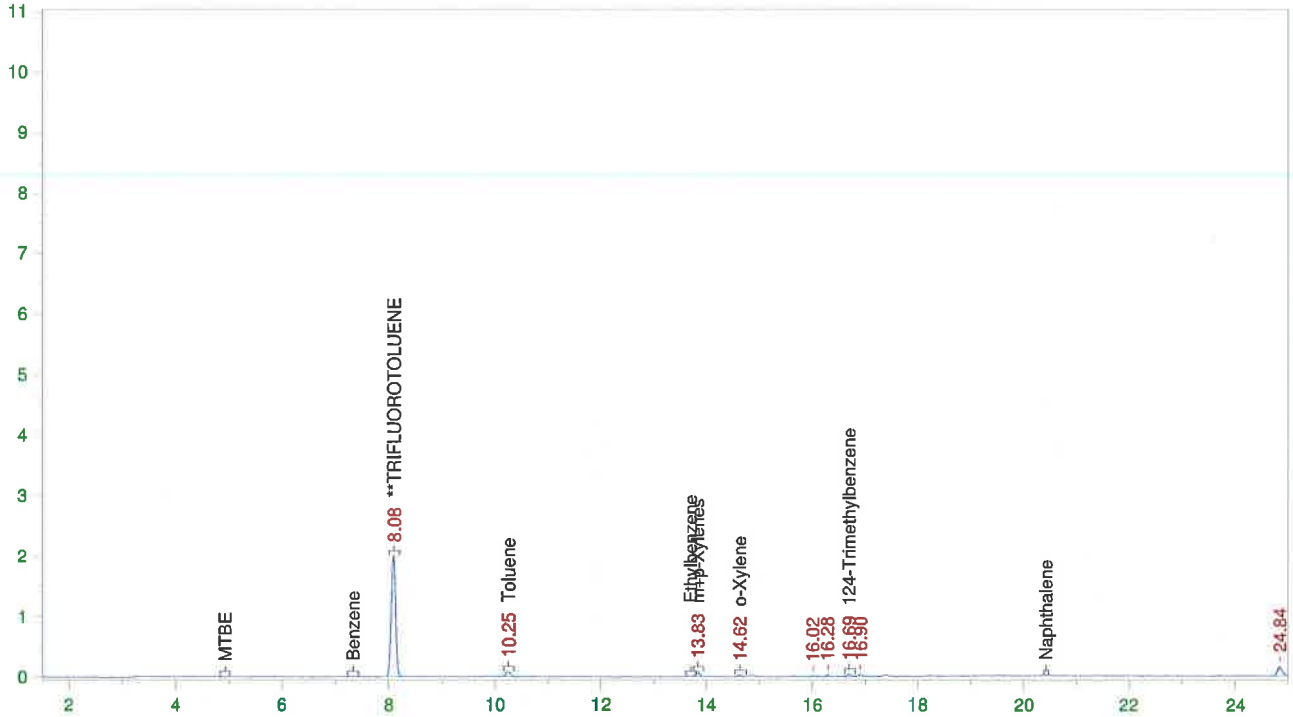
Sample Name: B11050651-013F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0011.RAW
Date & Time Acquired: 5/11/2011 10:27:04 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.308	7.308	7.308	287	.5	U
Toluene	10.245	-2.157	-2.159	1050	.743	
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	13.832	13.832	13.832	594	1.	U
o-Xylene	14.631	14.631	14.631	192	.5	U
124-Trimethylbenzene	16.691	16.691	16.691	250	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.086	25.	24.587	98.35	80-120

MOC-20B

— G:\Org\VA2\DAT\VA2051111_b\0511VA2.0009.RAW B11050651-014F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

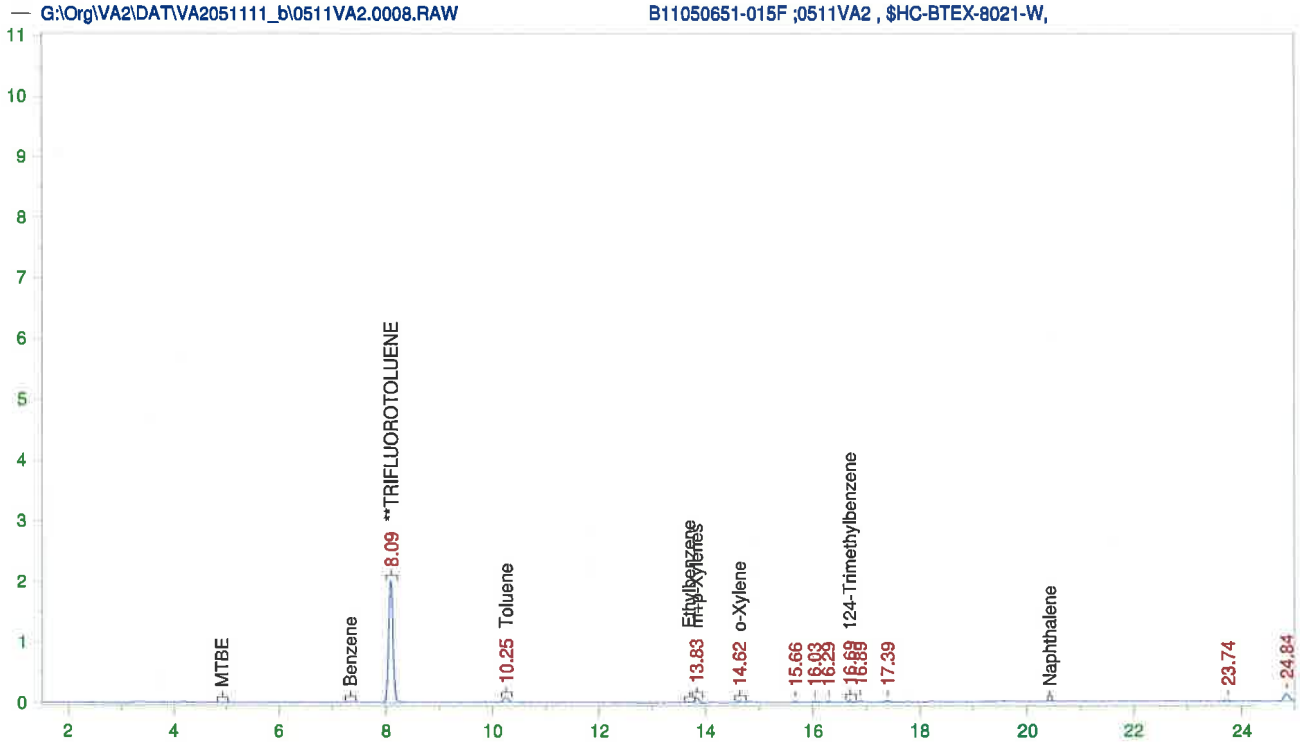
Sample Name: B11050651-014F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0009.RAW
Date & Time Acquired: 5/11/2011 9:22:45 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	10.247	10.247	10.247	487	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	13.827	13.827	13.827	379	1.	U
o-Xylene	14.621	14.621	14.621	111	.5	U
124-Trimethylbenzene	16.687	16.687	16.687	171	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.085	25.	24.561	98.24	80-120

PNR-22

— G:\Org\VA2\DAT\VA2051111_b\0511VA2.0008.RAW B11050651-015F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

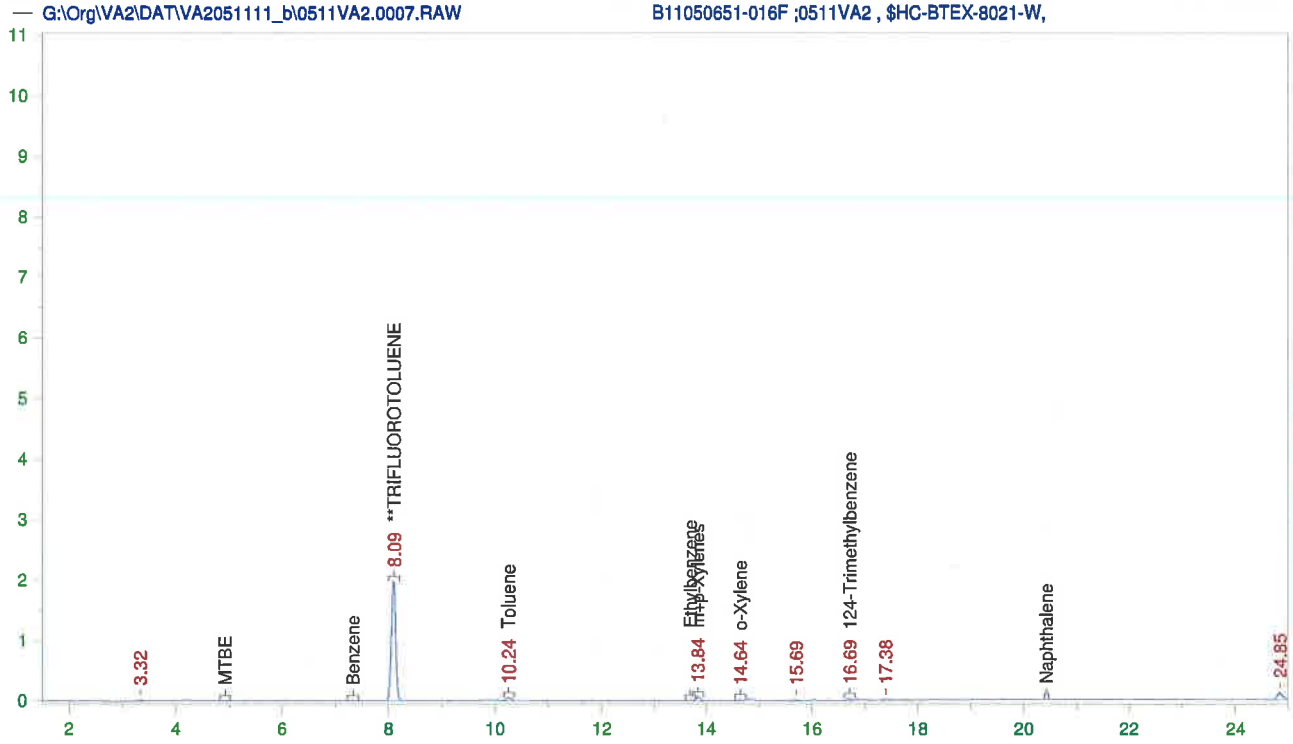
Sample Name: B11050651-015F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0008.RAW
Date & Time Acquired: 5/11/2011 8:50:50 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	10.247	10.247	10.247	505	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	13.827	13.827	13.827	404	1.	U
o-Xylene	14.624	14.624	14.624	114	.5	U
124-Trimethylbenzene	16.692	16.692	16.692	160	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.086	25.	24.829	99.31	80-120

PNR-10

— G:\Org\VA2\DAT\VA2051111_b\0511VA2.0007.RAW B11050651-016F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

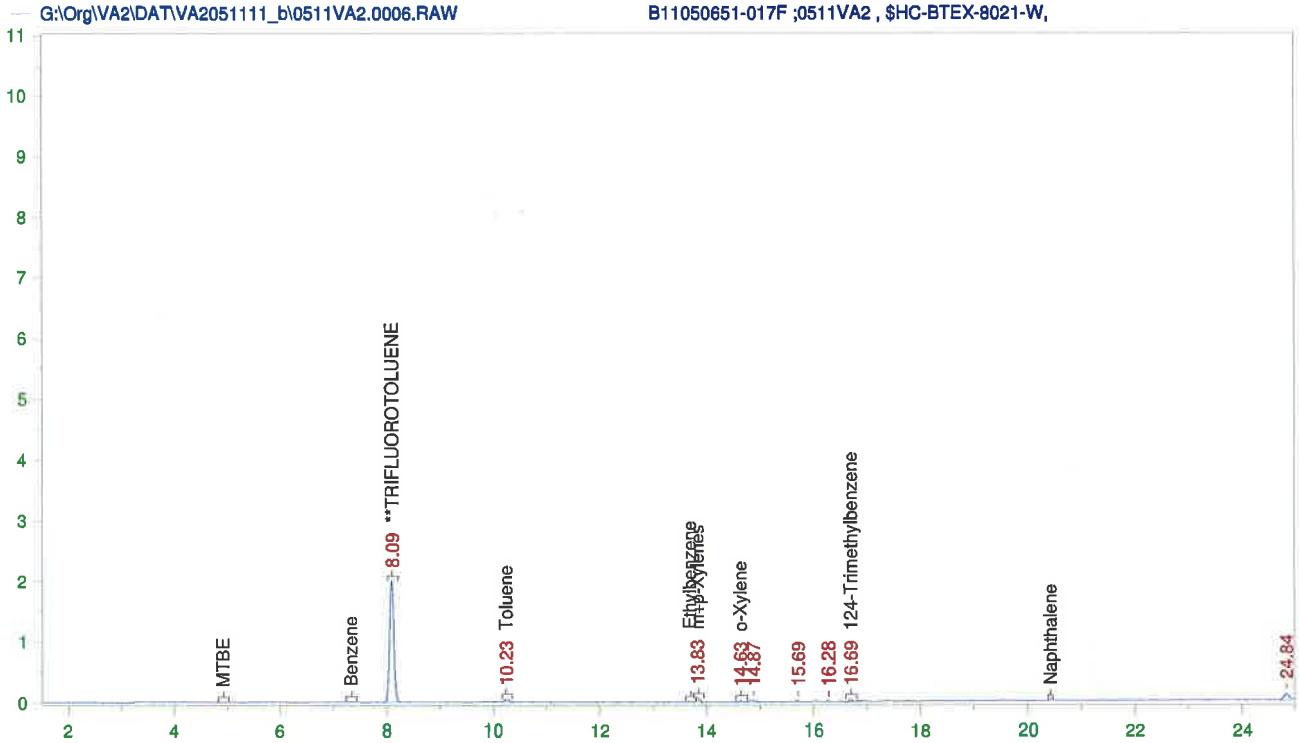
Sample Name: B11050651-016F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0007.RAW
Date & Time Acquired: 5/11/2011 8:18:45 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	10.243	10.243	10.243	266	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	13.836	13.836	13.836	292	1.	U
o-Xylene	14.64	14.64	14.64	89	.5	U
124-Trimethylbenzene	16.695	16.695	16.695	103	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.09	25.	24.199	96.8	80-120

LAW-M03

G:\Org\VA2\DAT\VA2051111_b\0511VA2.0006.RAW B11050651-017F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

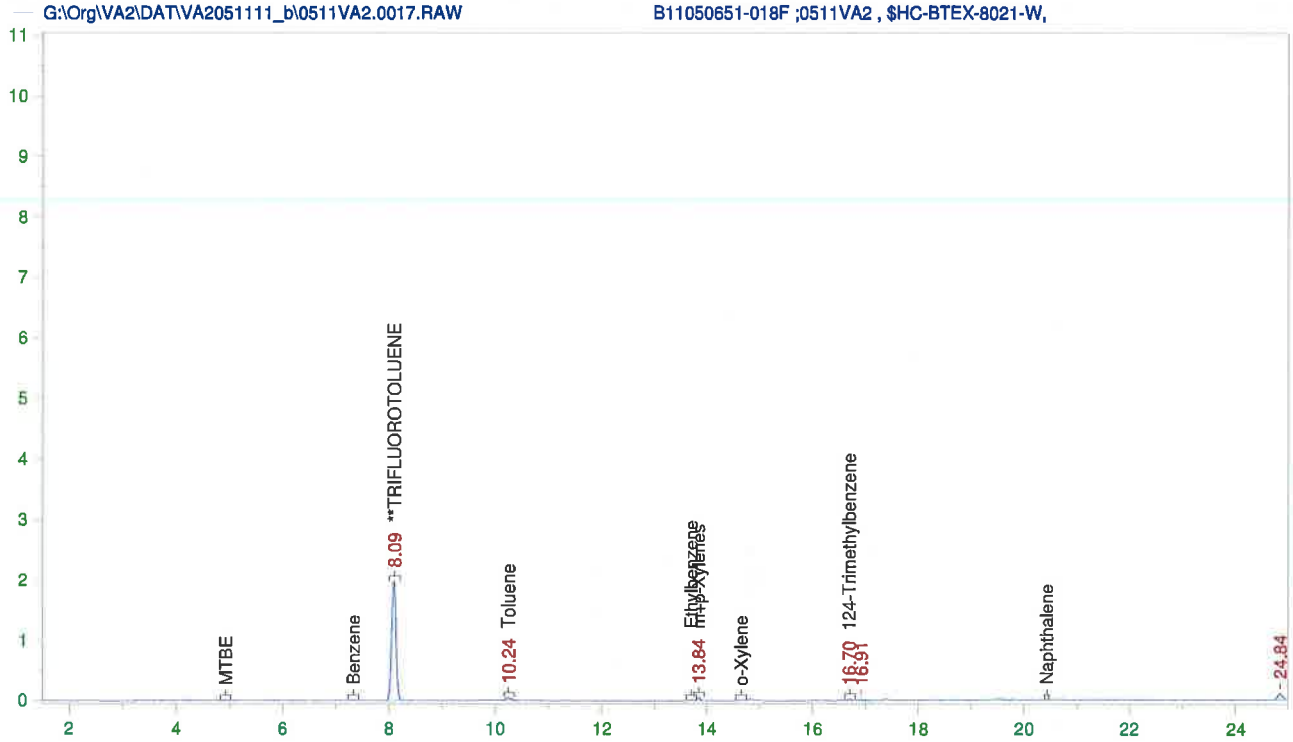
Sample Name: B11050651-017F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0006.RAW
Date & Time Acquired: 5/11/2011 7:46:41 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	10.231	10.231	10.231	266	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	13.834	13.834	13.834	270	1.	U
o-Xylene	14.627	14.627	14.627	106	.5	U
124-Trimethylbenzene	16.694	16.694	16.694	126	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.086	25.	24.422	97.69	80-120

PNR-9

G:\Org\VA2\DAT\VA2051111_b\0511VA2.0017.RAW B11050651-018F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

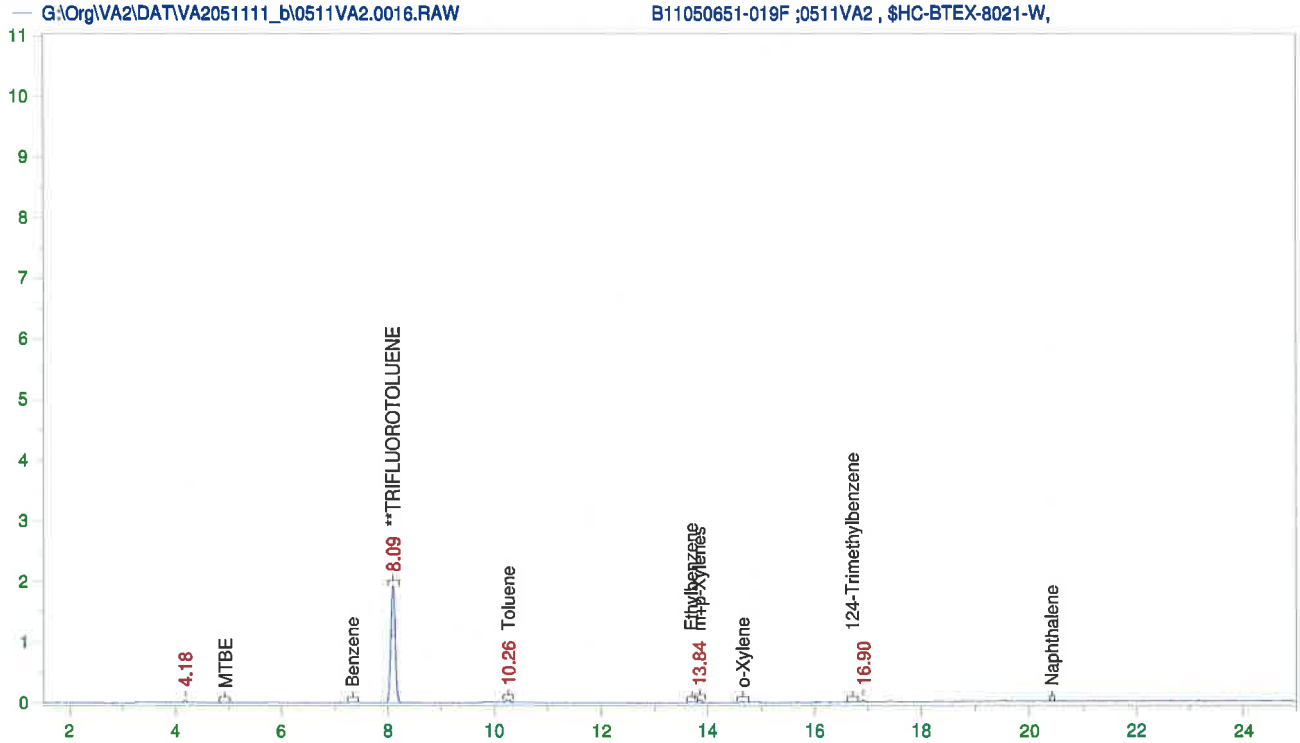
Sample Name: B11050651-018F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0017.RAW
Date & Time Acquired: 5/12/2011 1:38:43 AM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	10.241	10.241	10.241	263	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	13.836	13.836	13.836	260	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	16.696	16.696	16.696	84	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.087	25.	24.303	97.21	80-120

PNR-28

G:\Org\VA2\DAT\VA2051111_b\0511VA2.0016.RAW B11050651-019F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

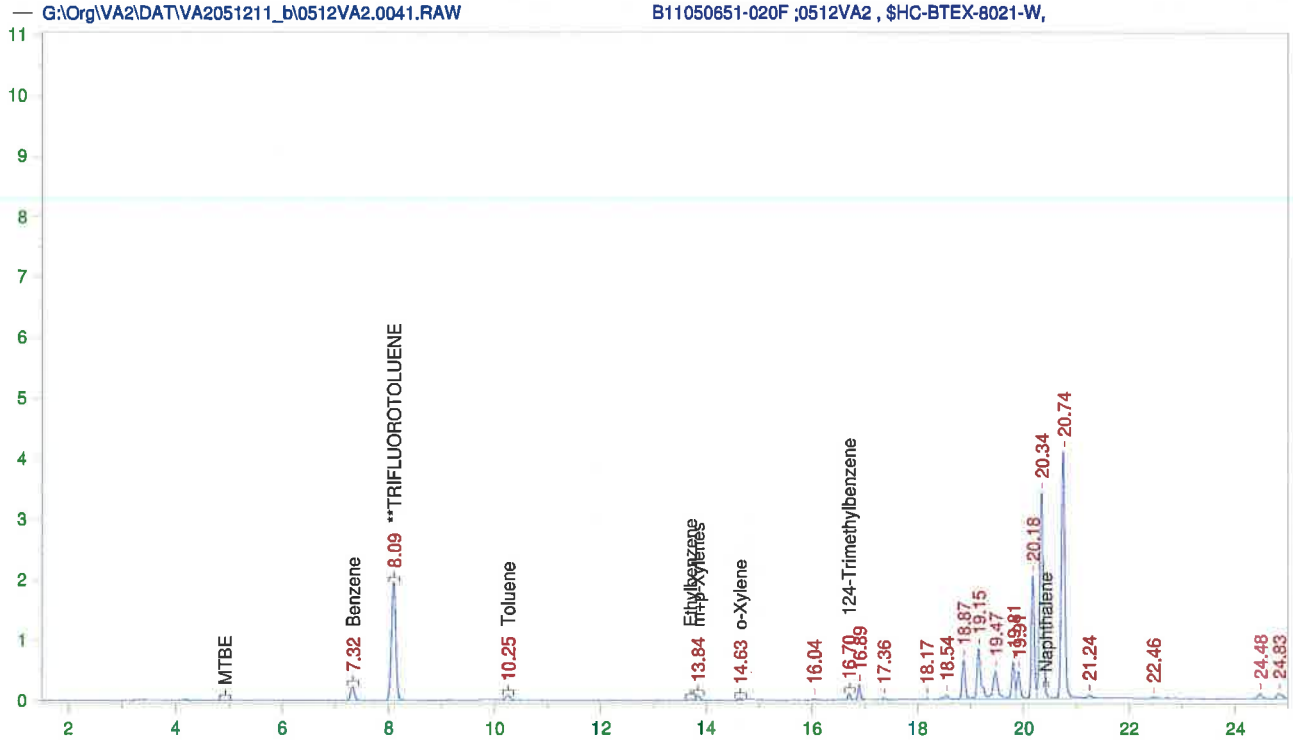
Sample Name: B11050651-019F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0016.RAW
Date & Time Acquired: 5/12/2011 1:07:21 AM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	.	.	.		.5	U
Toluene	10.257	10.257	10.257	232	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	13.839	13.839	13.839	190	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.089	25.	23.766	95.06	80-120

PNR-21

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0041.RAW B11050651-020F ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

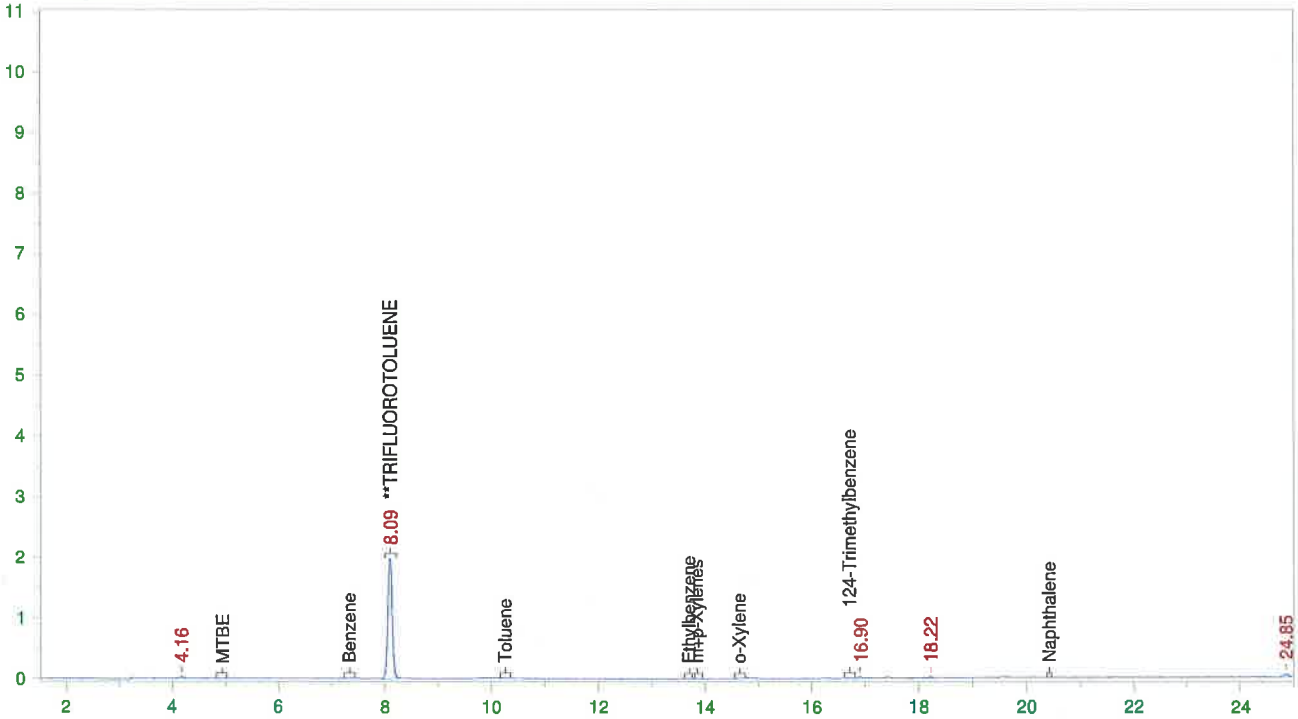
Sample Name: B11050651-020F ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0041.RAW
Date & Time Acquired: 5/13/2011 4:18:09 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.316	.779	.776	1105	.75	
Toluene	10.251	10.251	10.251	421	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	13.835	13.835	13.835	336	1.	U
o-Xylene	14.634	14.634	14.634	131	.5	U
124-Trimethylbenzene	16.697	16.697	16.697	358	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.092	25.	23.946	95.78	80-120

PNR-6

— G:\Org\VA2\DAT\VA2051111_b\0511VA2.0014.RAW B11050651-021F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

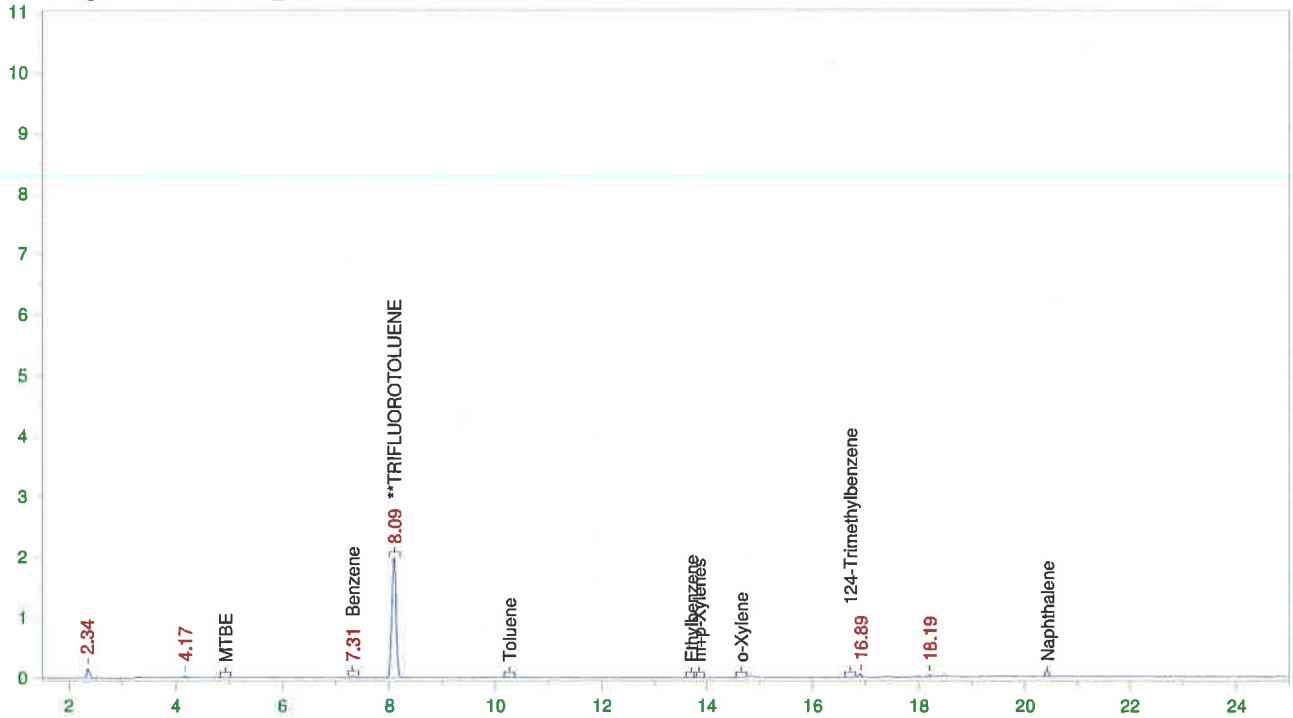
Sample Name: B11050651-021F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0014.RAW
Date & Time Acquired: 5/12/2011 12:03:10 AM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.091	25.	24.383	97.53	80-120

PNR-12

— G:\Org\VA2\DAT\VA2051111_b\0511VA2.0013.RAW B11050651-022F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

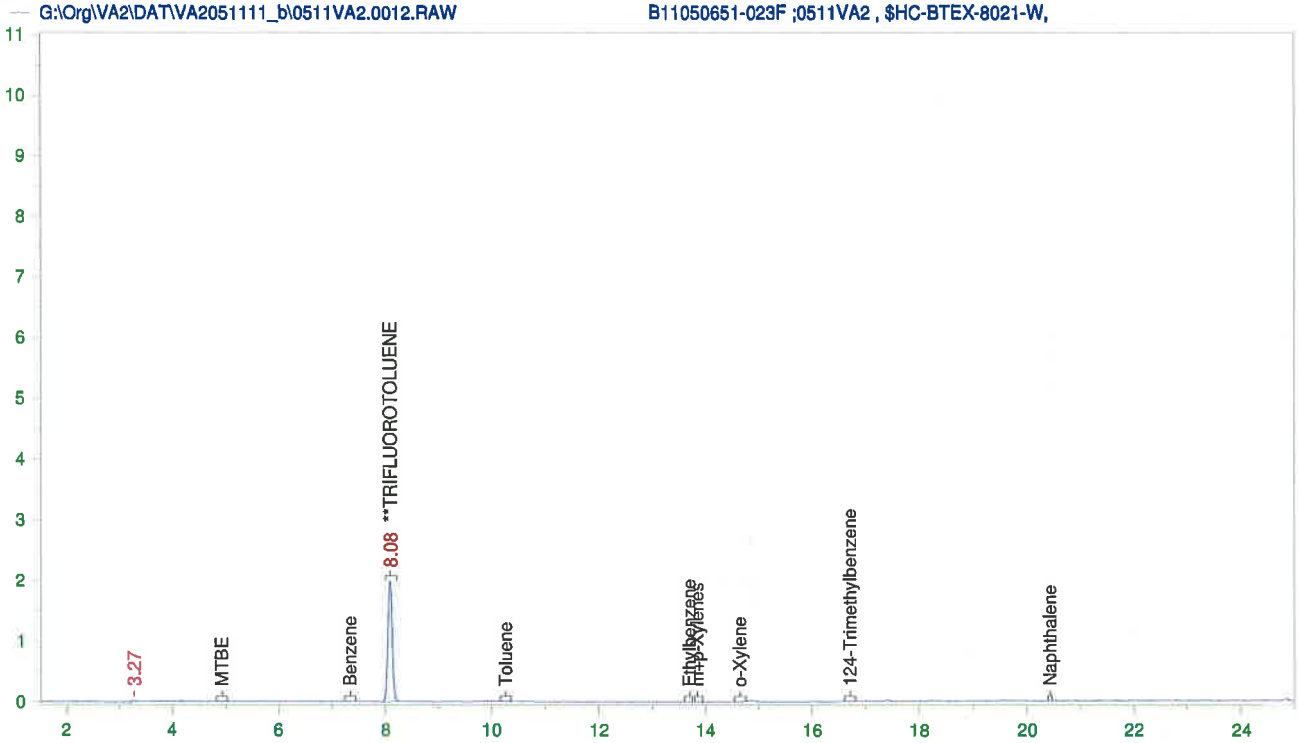
Sample Name: B11050651-022F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0013.RAW
Date & Time Acquired: 5/11/2011 11:31:02 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.308	7.308	7.308	167	.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.087	25.	24.495	97.98	80-120

MOC-1B

G:\Org\VA2\DAT\VA2051111_b\0511VA2.0012.RAW B11050651-023F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

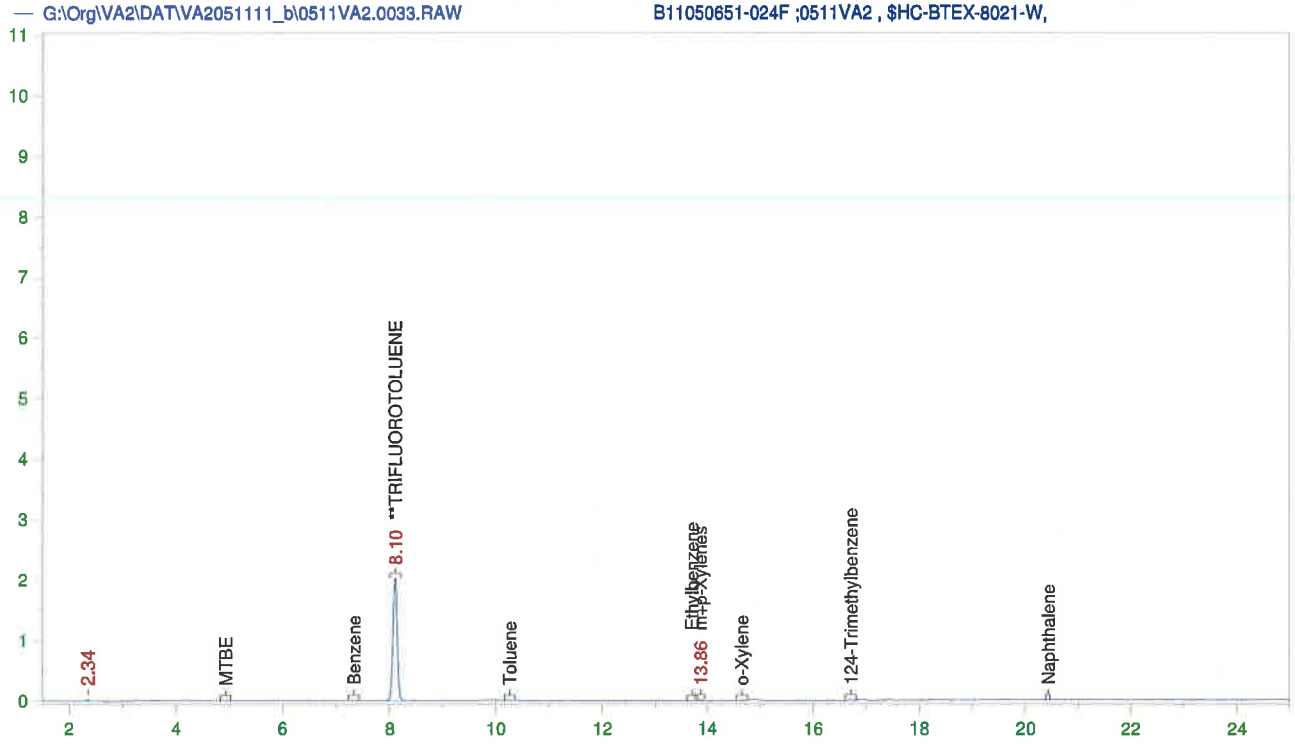
Sample Name: B11050651-023F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0012.RAW
Date & Time Acquired: 5/11/2011 10:59:04 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	.	25.	24.487	97.95	80-120

MOC-3

— G:\Org\VA2\DAT\VA2051111_b\0511VA2.0033.RAW B11050651-024F ;0511VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

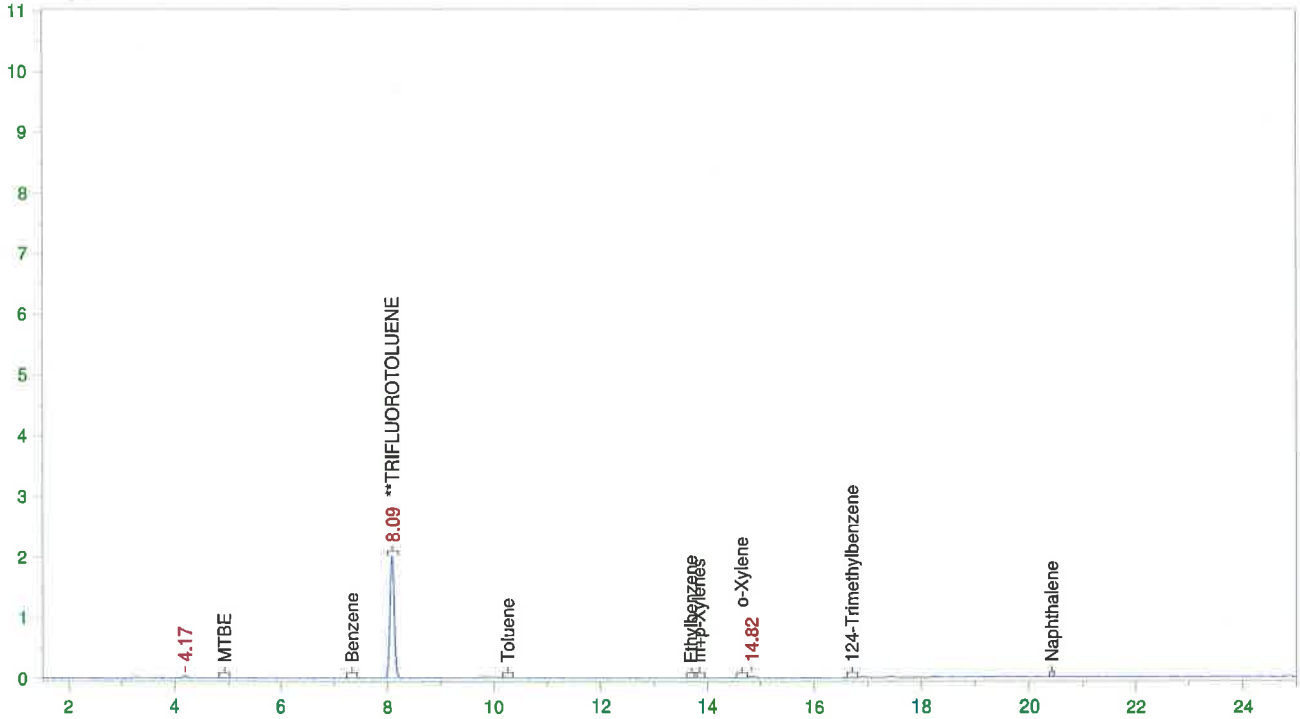
Sample Name: B11050651-024F ;0511VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051111_b\0511VA2.0033.RAW
Date & Time Acquired: 5/12/2011 2:54:40 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.1	25.	24.713	98.85	80-120

PNR-29

G:\Org\VA2\DAT\VA2051211_b\0512VA2.0012.RAW B11050651-025F ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

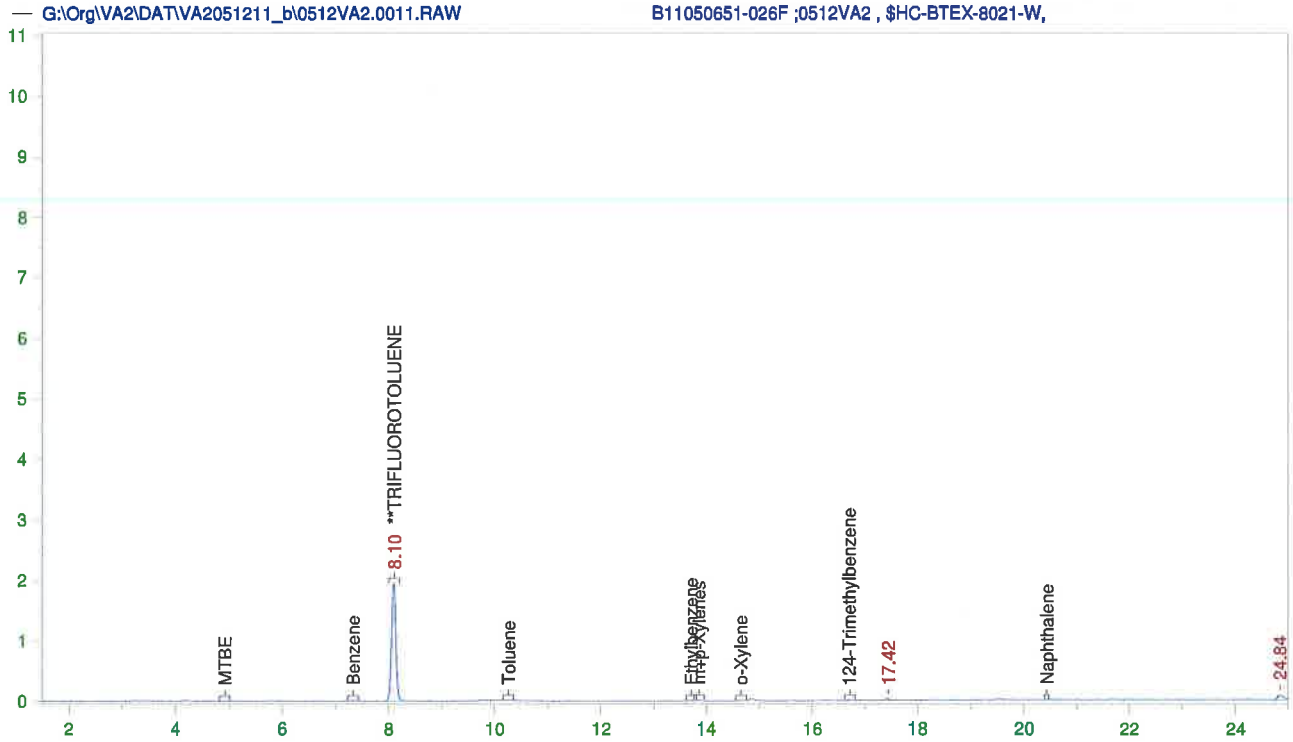
Sample Name: B11050651-025F ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0012.RAW
Date & Time Acquired: 5/12/2011 9:38:09 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.086	25.	24.783	99.13	80-120

PNR-35-07

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0011.RAW B11050651-026F ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

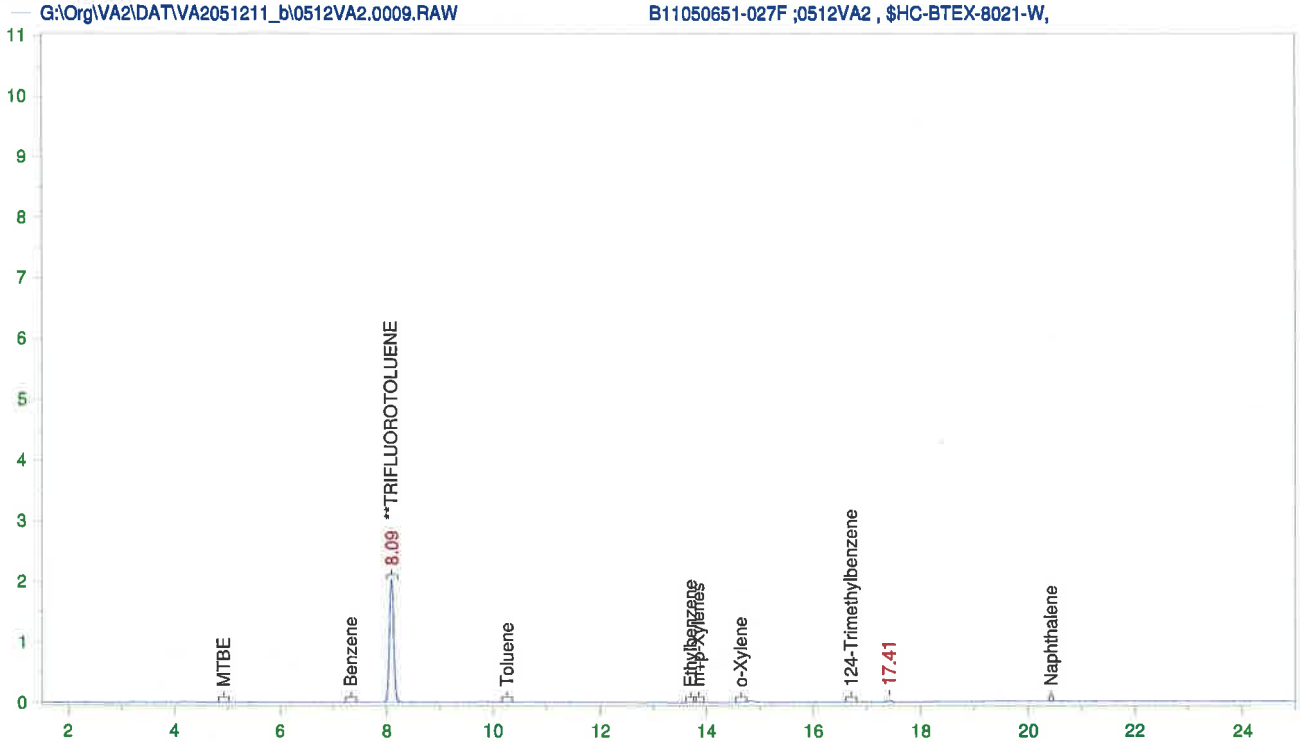
Sample Name: B11050651-026F ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0011.RAW
Date & Time Acquired: 5/12/2011 9:05:55 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.096	25.	23.854	95.42	80-120

PNR-36-07

G:\Org\VA2\DAT\VA2051211_b\0512VA2.0009.RAW B11050651-027F ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

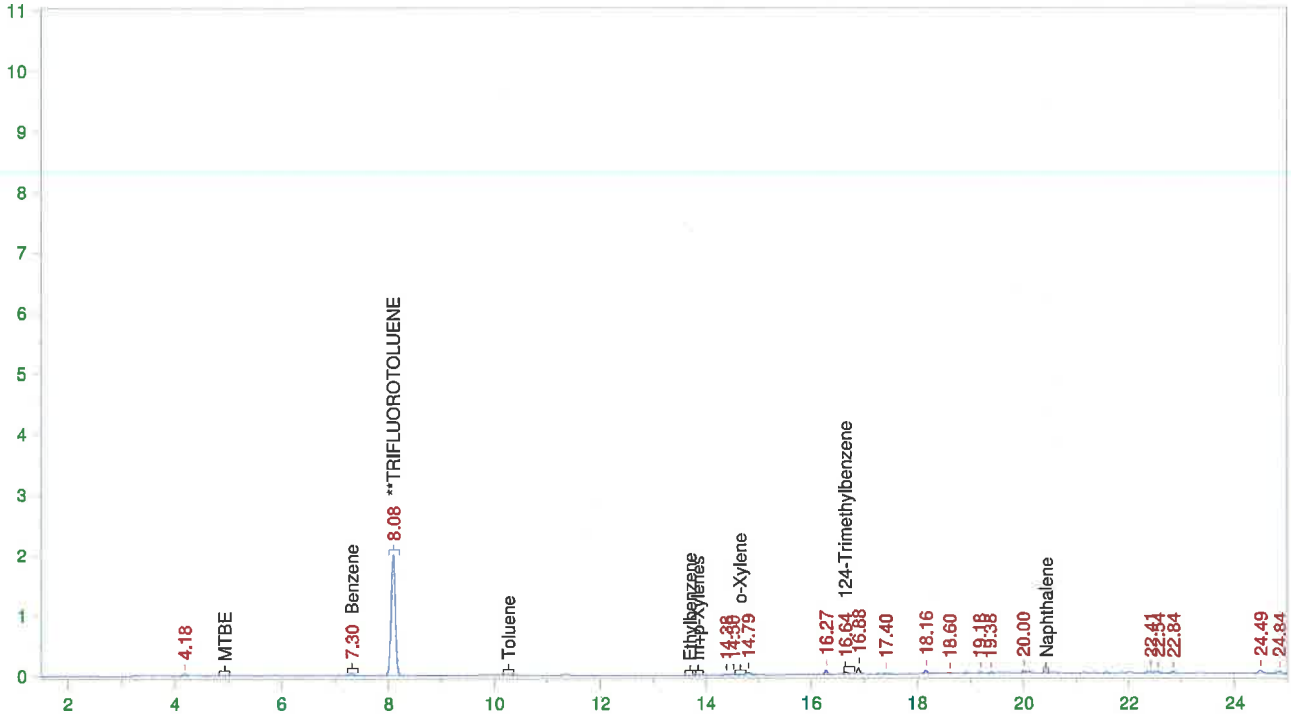
Sample Name: B11050651-027F ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0009.RAW
Date & Time Acquired: 5/12/2011 8:01:34 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.089	25.	24.71	98.84	80-120

PNR-23

G:\Org\VA2\DAT\VA2051211_b\0512VA2.0013.RAW B11050651-028F ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

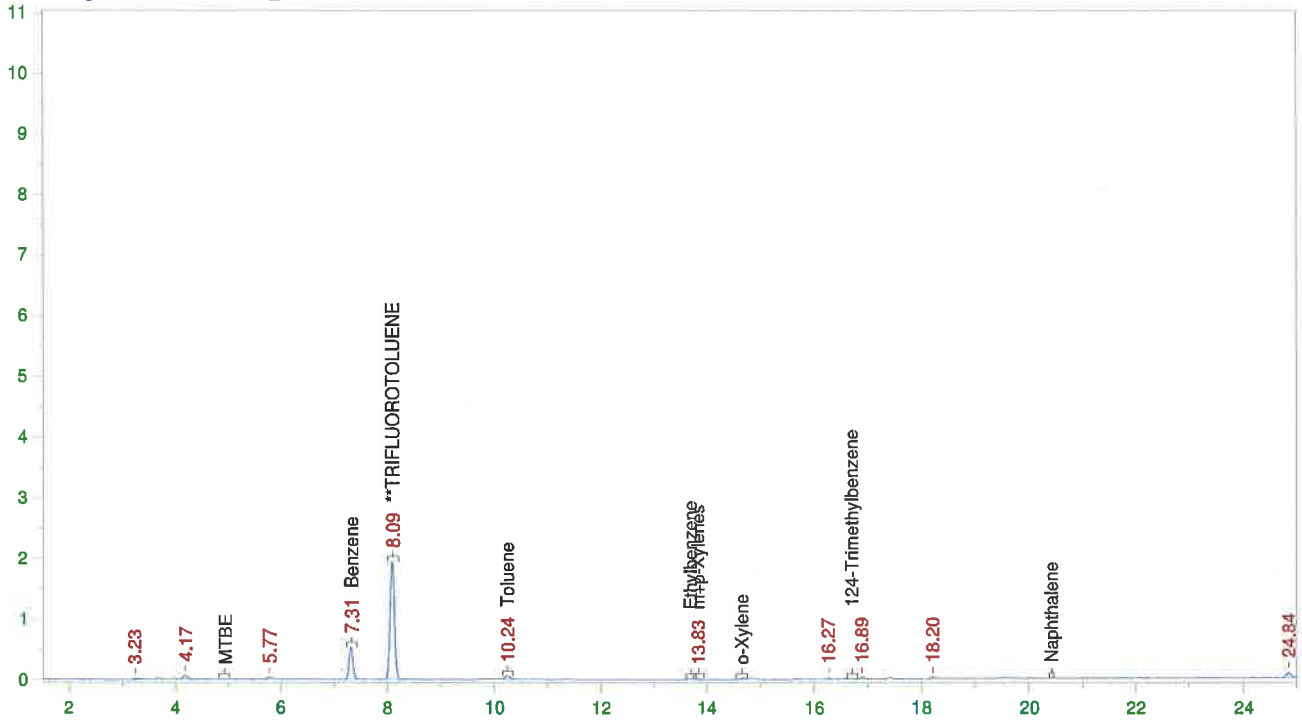
Sample Name: B11050651-028F ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0013.RAW
Date & Time Acquired: 5/12/2011 10:10:24 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.305	7.305	7.305	222	.5	U
Toluene	.	.	.		.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	16.636	16.636	16.636	204	.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.084	25.	24.456	97.82	80-120

MOC-4

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0015.RAW B11050651-029F ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

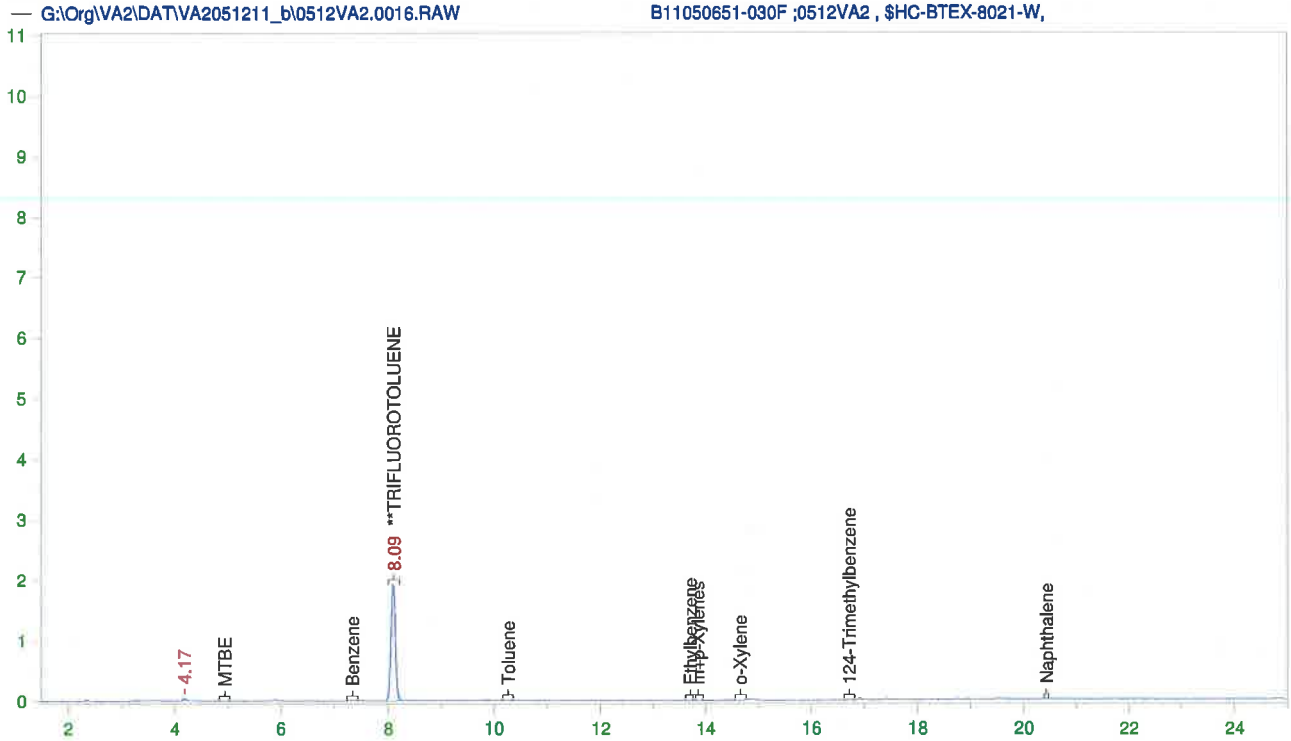
Sample Name: B11050651-029F ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0015.RAW
Date & Time Acquired: 5/12/2011 11:14:46 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

TARGET ANALYTES	RT	CAL RRT	RRT	AREA	AMOUNT	FLAG
MTBE	.	.	.		1.	U
Benzene	7.31	.779	.777	2560	1.737	
Toluene	10.244	10.244	10.244	300	.5	U
Ethylbenzene	.	.	.		.5	U
m+p-Xylenes	13.834	13.834	13.834	73	1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.086	25.	23.977	95.91	80-120

M-28

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0016.RAW B11050651-030F ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

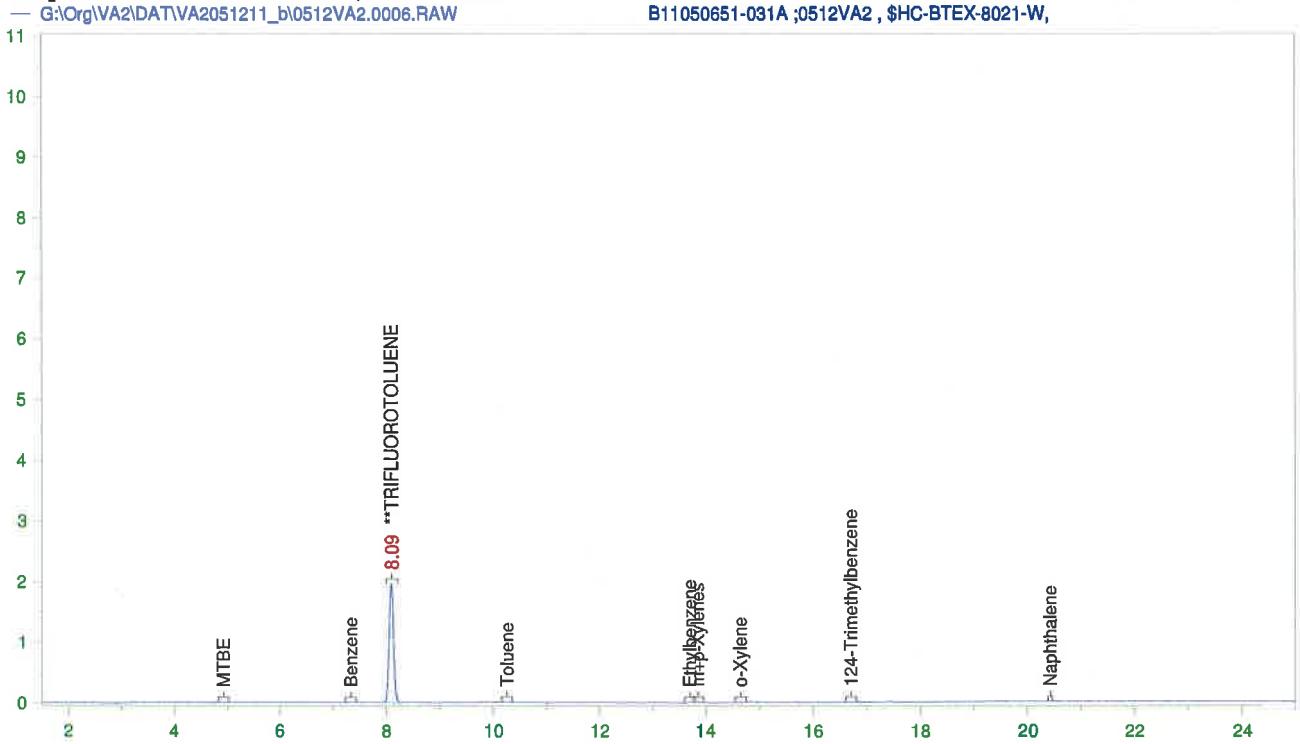
Sample Name: B11050651-030F ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0016.RAW
Date & Time Acquired: 5/12/2011 11:47:01 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	.	25.	23.697	94.79	80-120

Trip Blank #1 Lot #050511, B-TS 0253

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0006.RAW B11050651-031A ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

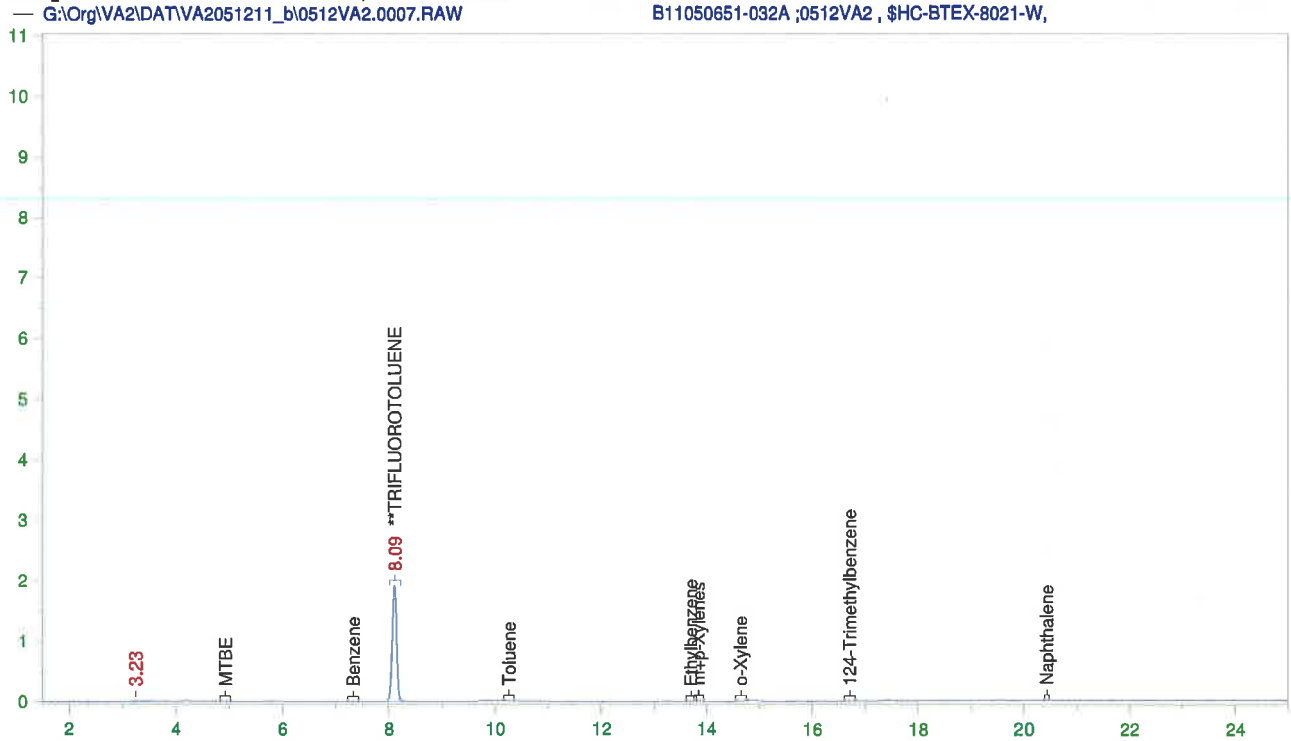
Sample Name: B11050651-031A ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0006.RAW
Date & Time Acquired: 5/12/2011 6:24:44 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.089	25.	23.952	95.81	80-120

Trip Blank #2 Lot #050511, B-TS 0253

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0007.RAW B11050651-032A ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

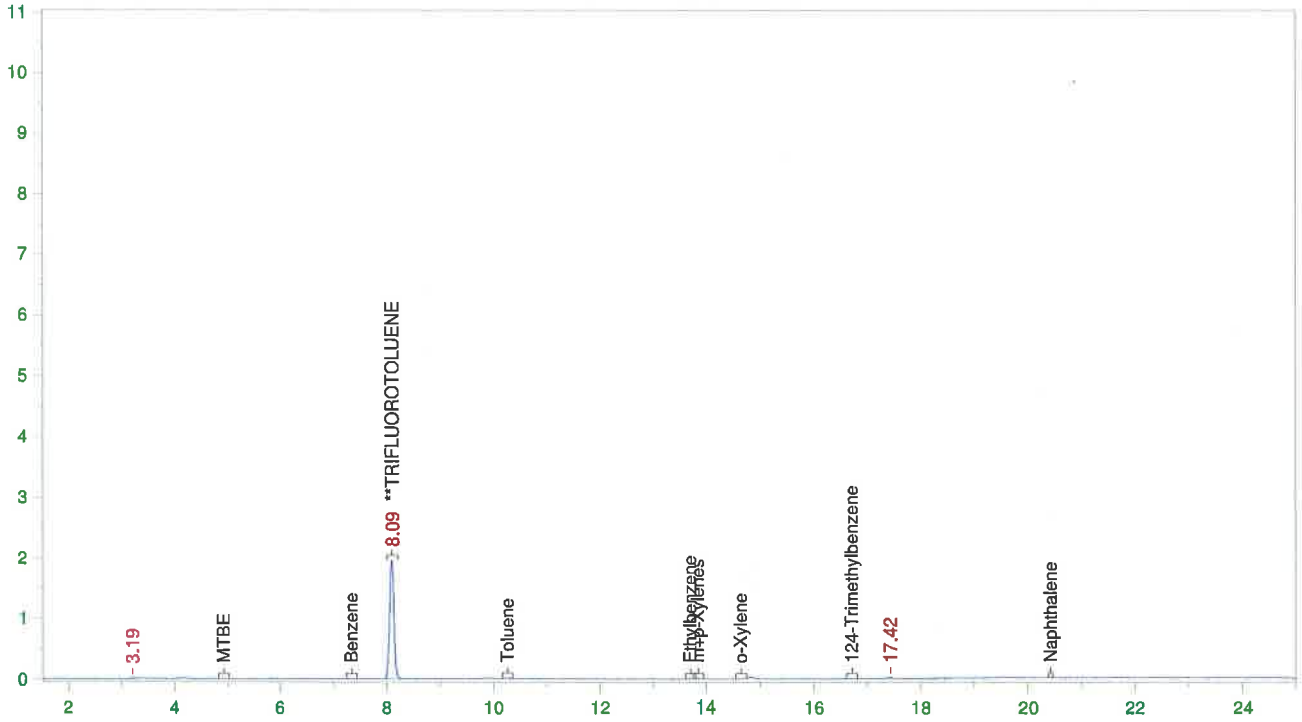
Sample Name: B11050651-032A ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0007.RAW
Date & Time Acquired: 5/12/2011 6:57:05 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	.	25.	23.659	94.64	80-120

Trip Blank #3 Lot #050511, B-TS 0253

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0008.RAW B11050651-033A ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

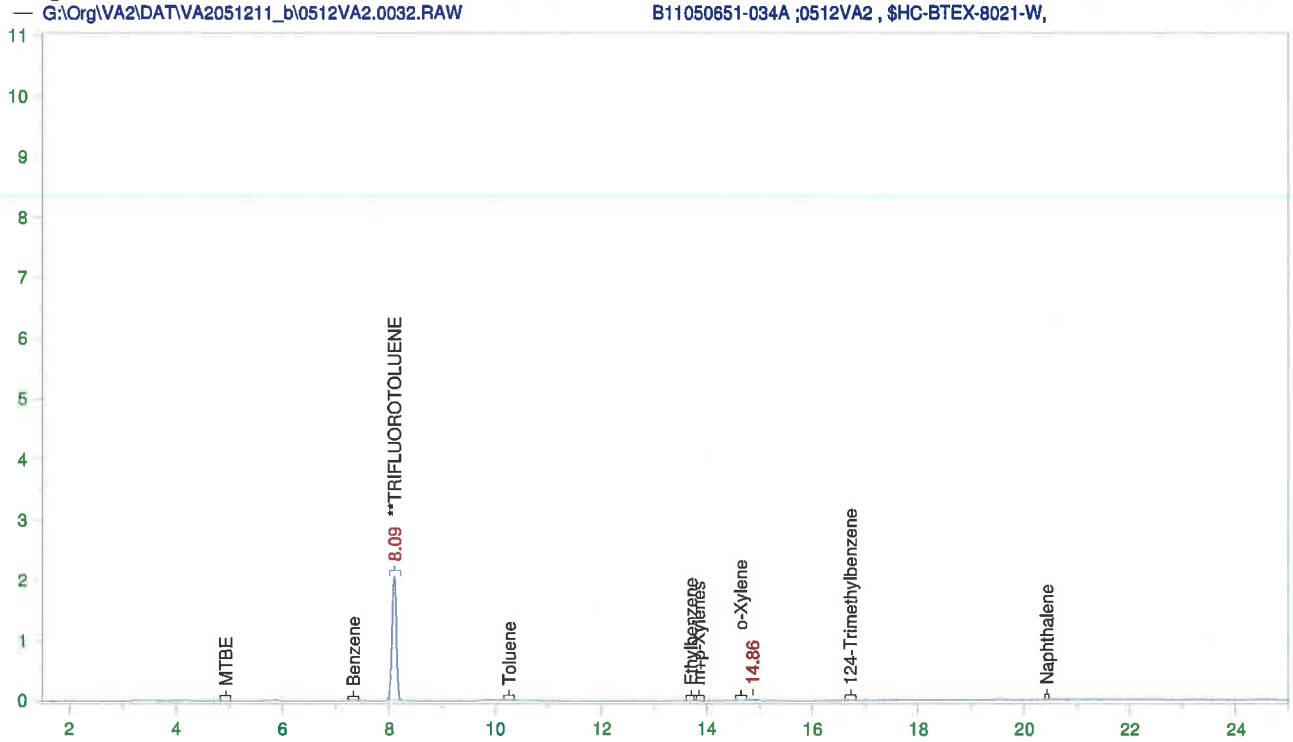
Sample Name: B11050651-033A ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0008.RAW
Date & Time Acquired: 5/12/2011 7:29:15 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.088	25.	24.051	96.21	80-120

Trip Blank #4 Lot #050511, B-TS 0253

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0032.RAW B11050651-034A ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

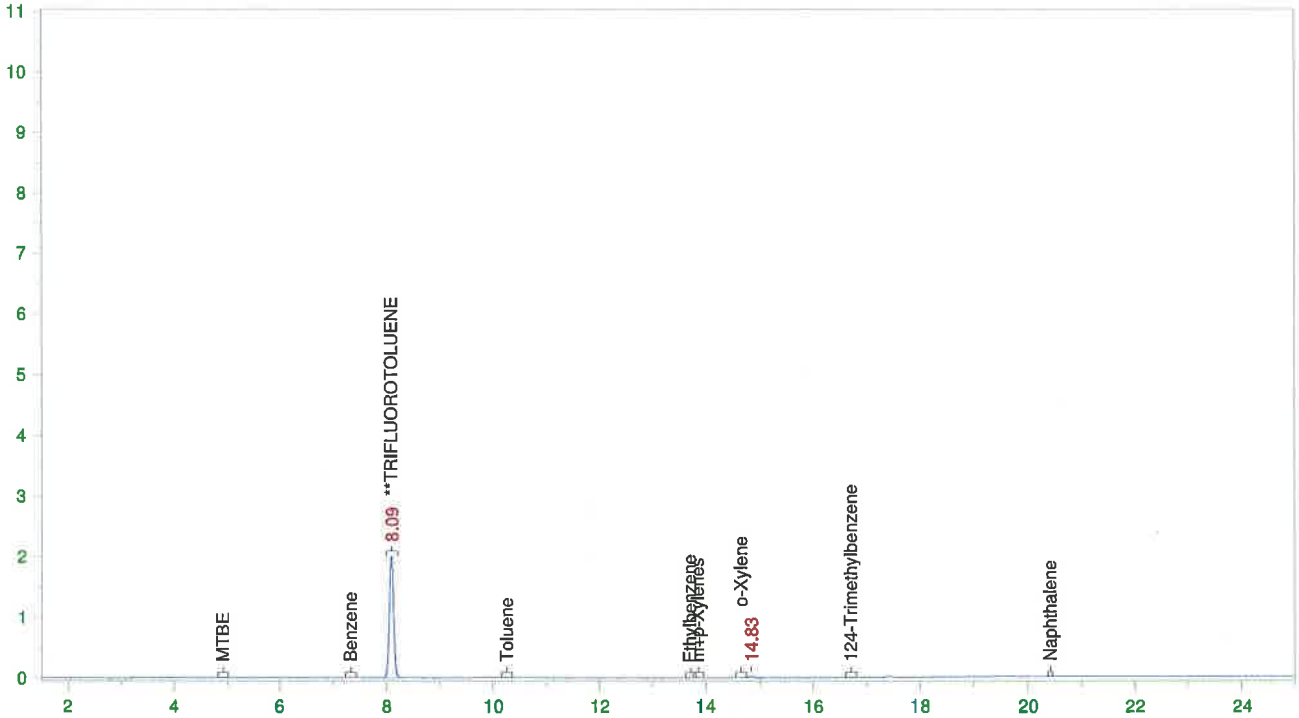
Sample Name: B11050651-034A ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0032.RAW
Date & Time Acquired: 5/13/2011 11:27:42 AM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.085	25.	25.306	101.22	80-120

Trip Blank #5 Lot #050511, B-TS 0253

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0033.RAW B11050651-035A ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

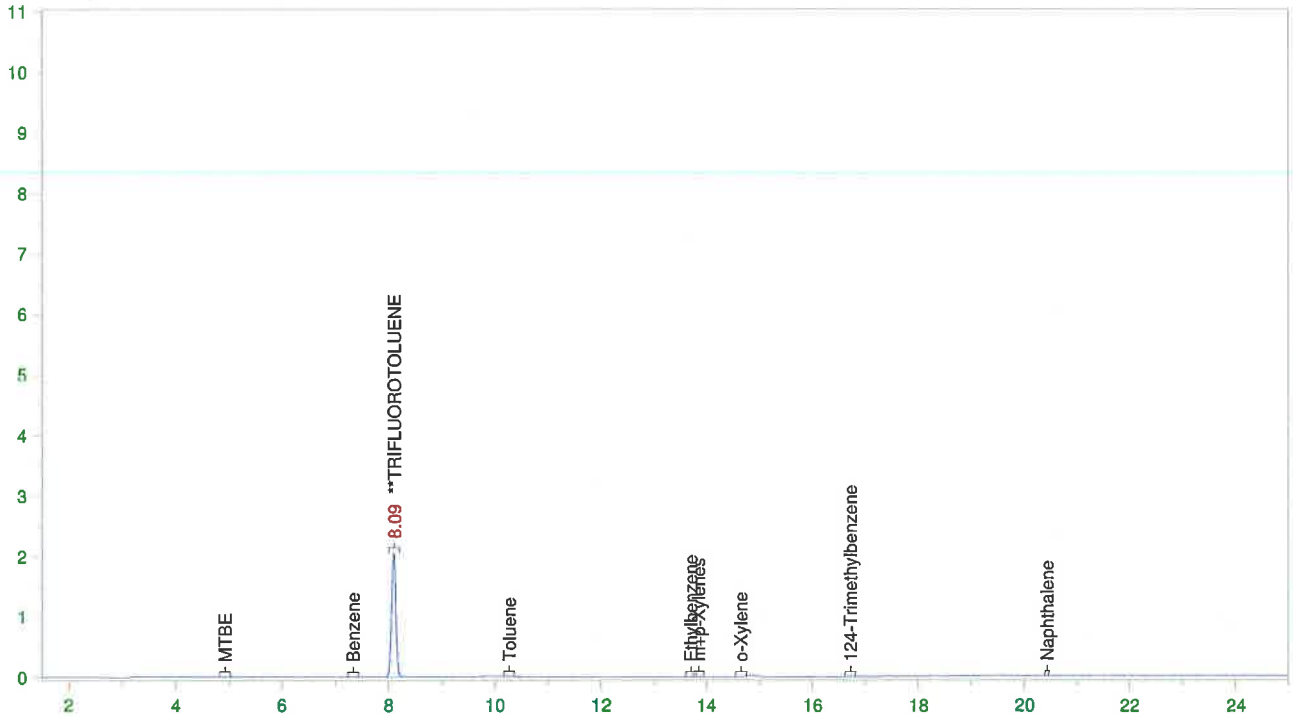
Sample Name: B11050651-035A ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0033.RAW
Date & Time Acquired: 5/13/2011 12:00:02 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.089	25.	24.625	98.5	80-120

Trip Blank #6 Lot #050511, B-TS 0253

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0034.RAW B11050651-036A ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

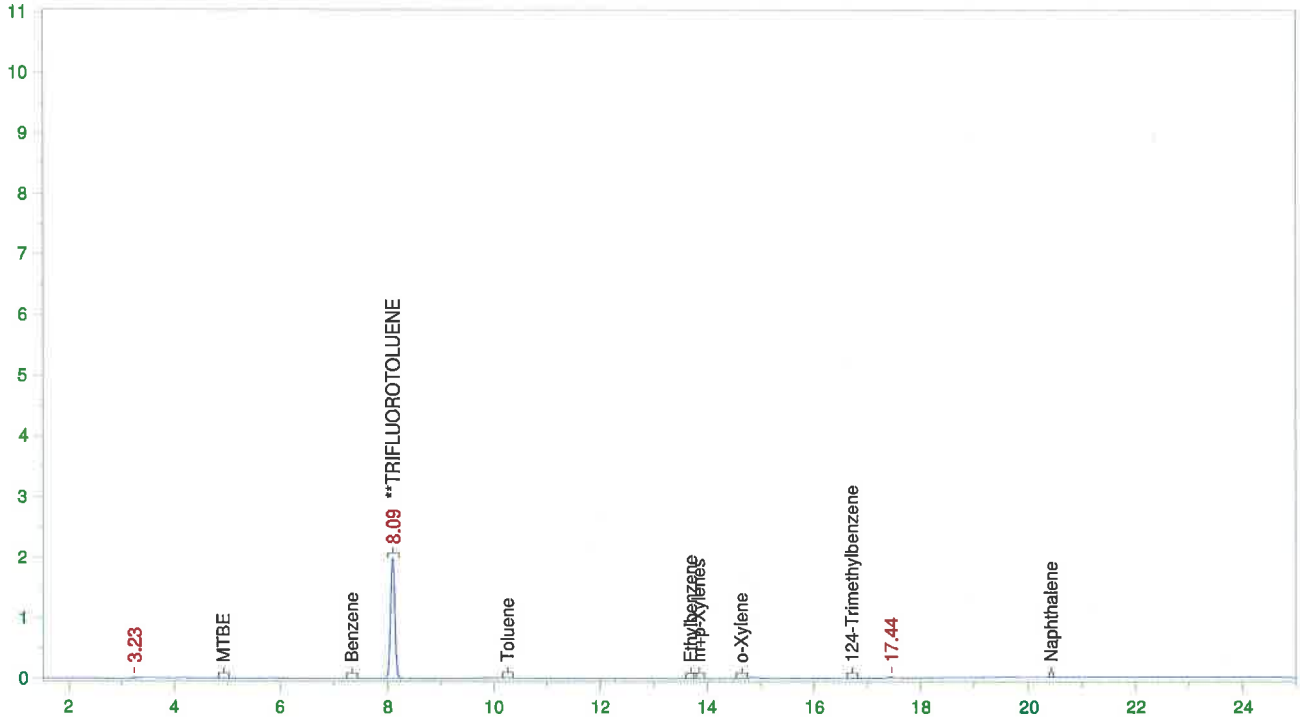
Sample Name: B11050651-036A ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0034.RAW
Date & Time Acquired: 5/13/2011 12:32:08 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	.	25.	25.152	100.61	80-120

Trip Blank #7 Lot #050511, B-TS 0253

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0035.RAW B11050651-037A ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

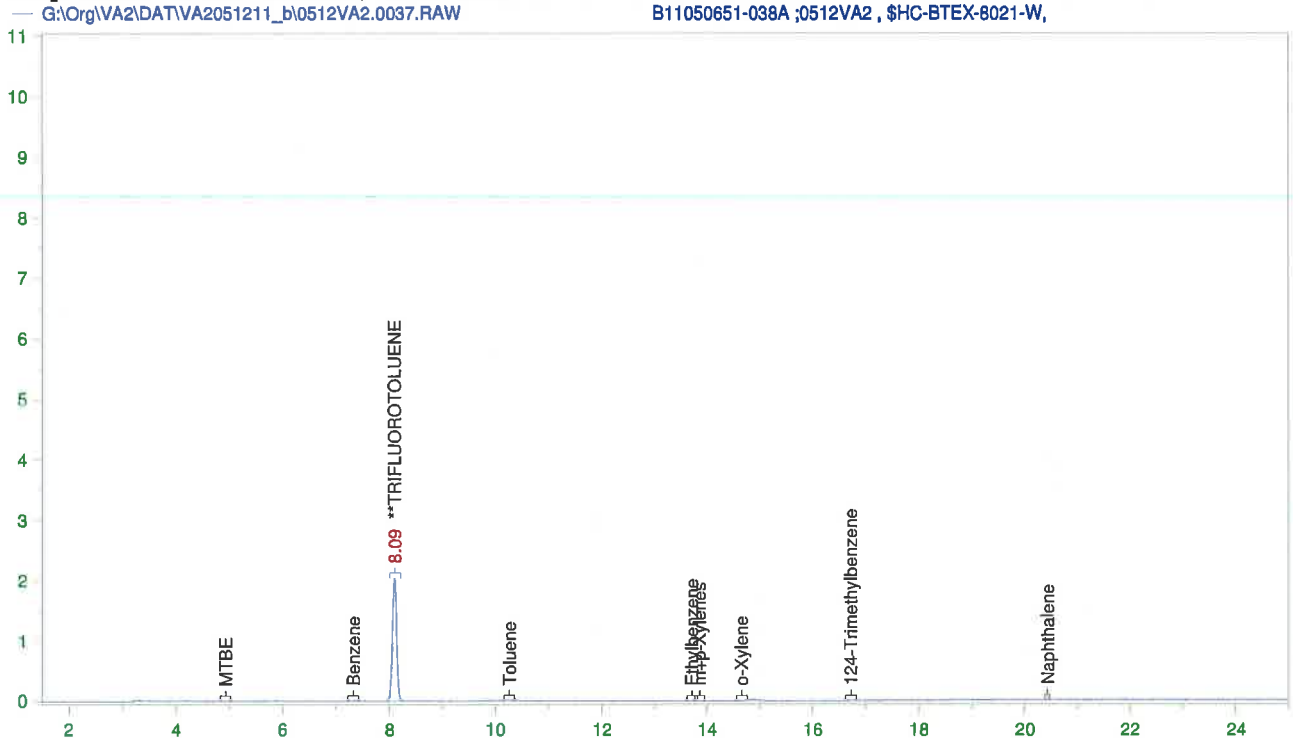
Sample Name: B11050651-037A ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0035.RAW
Date & Time Acquired: 5/13/2011 1:04:28 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.091	25.	24.385	97.54	80-120

Trip Blank #8 Lot #050511, B-TS 0253

G:\Org\VA2\DAT\VA2051211_b\0512VA2.0037.RAW B11050651-038A ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

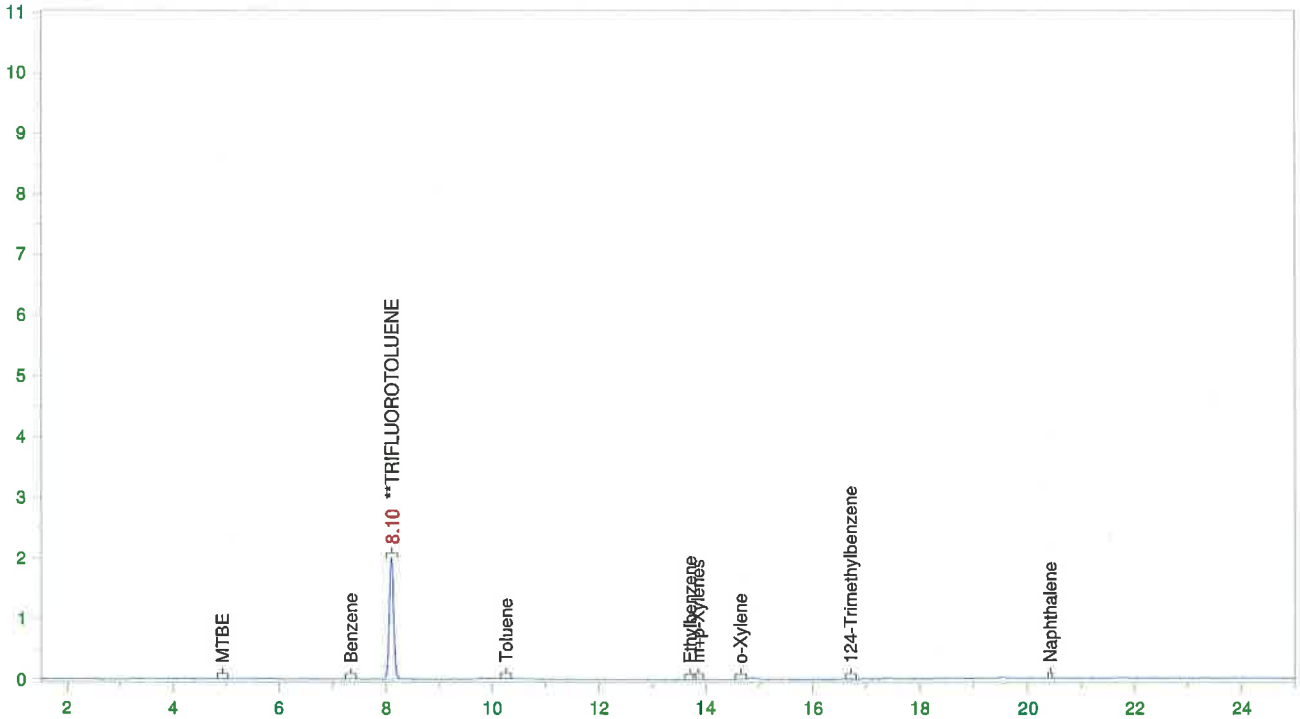
Sample Name: B11050651-038A ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0037.RAW
Date & Time Acquired: 5/13/2011 2:08:57 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	.	25.	25.07	100.28	80-120

Trip Blank #9 Lot #050511, B-TS 0253

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0038.RAW B11050651-039A ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

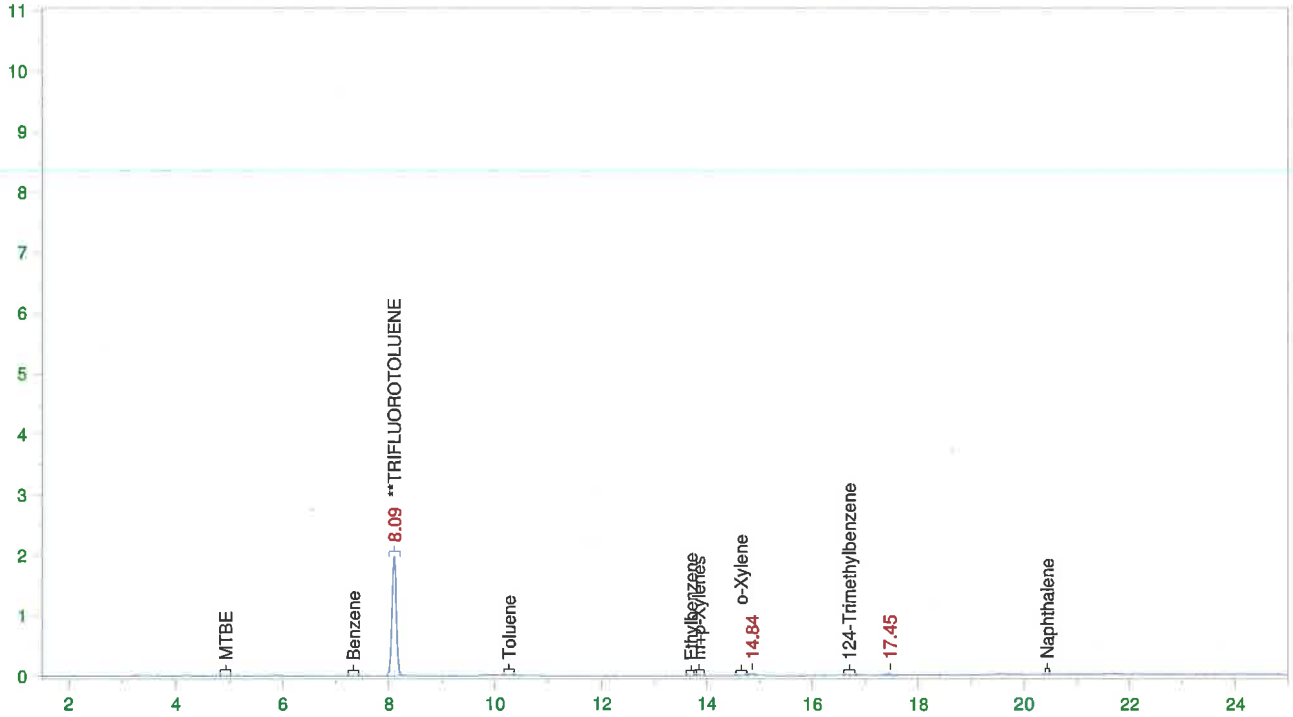
Sample Name: B11050651-039A ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0038.RAW
Date & Time Acquired: 5/13/2011 2:41:21 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	.	25.	24.571	98.28	80-120

Trip Blank #10 Lot #050511, B-TS 0253

— G:\Org\VA2\DAT\VA2051211_b\0512VA2.0039.RAW B11050651-040A ;0512VA2 , $HC-BTEX-8021-W,



PHOTOIONIZATION DETECTOR TARGET COMPOUND CHROMATOGRAM

Sample Name: B11050651-040A ;0512VA2 , $HC-BTEX-8021-W,
Raw File: G:\Org\VA2\DAT\VA2051211_b\0512VA2.0039.RAW
Date & Time Acquired: 5/13/2011 3:13:34 PM
Method File: G:\Org\VA2\Methods\04WLH211.MET
Calibration File: G:\Org\VA2\Cals\new02mas11.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	.	.	.		1.	U
o-Xylene	.	.	.		.5	U
124-Trimethylbenzene	.	.	.		.5	U
Naphthalene	.	.	.		1.	U

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	QC LIMITS
**TRIFLUOROTOLUENE	8.093	25.	24.37	97.48	80-120

Workorder Receipt Checklist

B11050651

DOWL HKM

Login completed by: Darwin C. Miller
Date Received: 5/6/2011
Reviewed by: BL2000\kmcdonald
Received by: jrz
Reviewed Date: 5/9/2011
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:	2.2°C On Ice		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☑	Not Applicable ☐

Contact and Corrective Action Comments:

Samples for Dissolved Metals/Hardness were subsampled, filtered, and preserved to pH <2 with 2 mL of nitric acid per 250 mL in the laboratory. According to 40CFR136, samples for Dissolved Metals should be filtered and preserved within 15 minutes of collection.

ENERGY

Chain of Custody and Analytical Request Record

Page 1 of ____

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
DOWL HKM	Biere Well Remediation, Poplar, MT	State: MT	Yes ☑ No ☐
Report Mail Address:	**Contact Name:** / **Phone/Fax:**	**Email:**	**Sampler: (Please Print)**
PO Box 31318 Billings MT	Charlie Peterson 869-6372		Nate Peterson
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**
Same	Same		78

Special Report/Formats:

☐ DW
☐ POTW/WWTP
☐ State: _____
☐ Other: _____
☐ EDD/EDT (Electronic Data) Format: _____
☐ LEVEL IV
☐ NELAC

ANALYSIS REQUESTED

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water

See Quote ID

SEE ATTACHED

Standard Turnaround (TAT)

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: HAND

Cooler ID(s):

Receipt Temp 2.2 °C

On Ice: Y N

Custody Seal On Bottle Y N; On Cooler Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX		LABORATORY USE ONLY
1	1 PNR-18	5/3/11	1645	SW	B	1050661-001
1	2 USGS 92-12		1530			-002
2	3 PNR-16	5/4/11	10:30			-003
2	4 PNR-33-06		11:45			-004
2	5 PNR-38-08		1330			-005
3	6 PNR-39-08		1430			-006
3	7 PNR-34-07		1510			-007
3	8 PNR-27		1610			-008
4	9 PNR-19		1710			-009
4	10 PNR-20		1750			-010

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Nate Peterson	5/6/11 9:00				
Jim Potts	5/6/11 16:45				

Received by Laboratory: SRZormeier Date/Time: 5/6/11 16:45 pm Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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, and links.

ENERGY

Chain of Custody and Analytical Request Record

Page 2 of ____

PLEASE PRINT (Provide as much information as possible.)

Company Name: DOWL HKM	Project Name, PWS, Permit, Etc.: Biere Well Remediation, Poplar	Sample Origin State: MT	EPA/State Compliance: Yes ☒ No ☐
Report Mail Address: PO 31318 Billings MT	Contact Name: Charlie Peterson Phone/Fax: 869-6372	Email:	Sampler: (Please Print) Nate Peterson
Invoice Address: Same	Invoice Contact & Phone: Same	Purchase Order:	Quote/Bottle Order: 78

Special Report/Formats:

☐ DW ☐ EDD/EDT (Electronic Data)
☐ POTW/WWTP Format: ____
☐ State: ____ ☐ LEVEL IV
☐ Other: ____ ☐ NELAC

ANALYSIS REQUESTED

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

See Quote ID

SEE ATTACHED

Standard Turnaround (TAT)

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: HAND

Cooler ID(s):

Receipt Temp 2.2 °C

On Ice: Y N

Custody Seal On Bottle Y N; On Cooler Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX		LABORATORY USE ONLY
4	1 PNR-8	5/5/11	10:10	GW		B H050651-001
5	2 MOC-20A		10:45			-012
5	3 PNR-13		11:30			-013
5	4 MOC-20B		15:00			-014
6	5 PNR-22		15:30			-015
6	6 PNR-10		16:00			-016
6	7 LAW-M03		16:30			-017
7	8 PNR-9		1710			-018
7	9 PNR-28		1740			-019
7	10 PNR-21		1810			-020

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Nate Peterson	5/6/11 9:00				
Jim Potts	5/6/11 16:45				

Received by Laboratory: JR Zorenzer 5/6/11 16:45pm

Sample Disposal: Return to Client: ____ Lab Disposal: ____

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, and links.

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Chain of Custody and Analytical Request Record

Page 3 of ____

PLEASE PRINT (Provide as much information as possible.)

Company Name: DOWL HKM	Project Name, PWS, Permit, Etc.: Biere Well Remediation, Poplar, MT	Sample Origin State: MT	EPA/State Compliance: Yes ☒ No ☐
Report Mail Address: PO Box 3128 Billings MT	Contact Name: Charlie Peterson Phone/Fax: 869-0372	Email:	Sampler: (Please Print) Jim Potts
Invoice Address: Same	Invoice Contact & Phone: Same	Purchase Order:	Quote/Bottle Order: 78

Special Report/Formats:

☐ DW
☐ POTW/WWTP
☐ State: _____
☐ Other: _____
☐ EDD/EDT (Electronic Data) Format: _____
☐ LEVEL IV
☐ NELAC

ANALYSIS REQUESTED

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	See Quote TO										SEE ATTACHED	Standard Turnaround (TAT)	RUSH	Comments:	LABORATORY USE ONLY
1	PNR-6	5-3-11	16:45	8W	✓														B1050651-021
8	PNR-12	5-3-11	18:00	8W	✓														-022
8	MOC-1B	5-4-11	10:45	8W	✓														-023
8	MOC-3	5-4-11	12:30	8W	✓														-024
9	PNR-29	5-4-11	13:50	8W	✓														-025
9	PNR-35-07	5-4-11	15:45	8W	✓														-026
9	PNR-36-07	5-4-11	16:45	8W	✓														-027
10	PNR-23	5-5-11	10:30	8W	✓														-028
10	MOC-4	5-5-11	15:30	8W	✓														-029
10	M-28	5-5-11	17:45	8W	✓														-030

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Shipped by: Hand
Cooler ID(s):
Receipt Temp 2.2 °C
On Ice: Y N
Custody Seal On Bottle Y N On Cooler Y N
Intact Y N
Signature Match Y N

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Jim Potts	5-6-11 16:45				
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory: SRZ Omaha	Date/Time: 5/6/11 16:45pm	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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ENERGY

Chain of Custody and Analytical Request Record

Page ____ of ____

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address:	Contact Name: Phone/Fax:	Email:	Sampler: (Please Print)
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Special Report/Formats:

- ☐ DW
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

SEE ATTACHED

Standard Turnaround (TAT)

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

COC originated in Laboratory

Shipped by: Hand

Cooler ID(s):

Receipt Temp 2.2 °C

On Ice: (Y) N

Custody Seal On Bottle Y (N) / On Cooler Y

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX		LABORATORY USE ONLY
1	TB #1 5/5/11	KR	0253			B1105065-031
2	TB #2 5/5/11	KR	0253			-032
3	TB #3 5/5/11	KR	0253			-033
4	TB #4 5/5/11	KR	0253			-034
5	TB #5 5/5/11	KR	0253			-035
6	TB #6 5/5/11	KR	0253			-036
7	TB #7 5/5/11	KR	0253			-037
8	TB #8 5/5/11	KR	0253			-038
9	TB #9 5/5/11	KR	0253			-039
10	TB #10 5/5/11	KR	0253			-040

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory: J. ZOPMEIR	Date/Time: 5/6/11 16:45	Signature:

COC originated in Laboratory

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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, and links.