## **1RP-400**

4th Quarter 2008 Groundwater Monitoring

Work Plan

# DATE: 02.17.09



2009 FEB 19 PM 12 03

February 17, 2009

Mr. Wayne Price Environmental Bureau Chief New Mexico Oil Conservation Division 1220 S. St. Francis Dr. Santa Fe, NM 87505

#### RE: 4th Quarter 2008 Groundwater Monitoring Results DCP X-Line Pipeline Release (1RP-400-0) Unit B, Section 7, T15S, R34E (Lat 33° 02' 11", Long 103° 32' 48")

Dear Mr. Price:

DCP Midstream, LP (DCP) is pleased to submit for your review, one copy of the 4th Quarter 2008 Groundwater Monitoring Results for the DCP X-Line Pipeline Release located within the Etcheverry Ranch, Lea County, New Mexico.

If you have any questions regarding the report, please call at 303-605-1718 or e-mail me <u>swweathers@dcpmidstream.com</u>.

Sincerely

**DCP Midstream, LP** 

Stephen Weathers, PG Principal Environmental Specialist

cc: Mrs. Etcheverry, Landowner - Certified Mail 91 7108 2133 3932 9094 2963 Larry Johnson, OCD Hobbs District Office (Copy on CD) Environmental Files

#### AEC AMERICAN ENVIRONMENTAL CONSULTING, LLC

January 15, 2009

Mr. Stephen Weathers DCP Midstream, LP 370 Seventeenth Street, Suite 2500 Denver, Colorado 80202

Re: Fourth Quarter 2008 Groundwater Monitoring Summary at the X-Line Pipeline Release, Etcheverry Ranch, Lea County, New Mexico **Unit B, Section 7, Township 15 South, Range 34 East (1RP-400-0)** 

Dear Mr. Weathers:

This letter summarizes the results of the fourth quarter 2008 groundwater monitoring activities completed December 1, 2008 for DCP Midstream, LP (DCP) at the X-Line Pipeline Release on the Etcheverry Ranch at 33.0364° north, 103.5467° west (Figure 1).

The eight monitoring well locations are shown on Figure 2. Wells MW-1 through MW-7 were sampled. MW-8 contained 0.33 feet of free phase hydrocarbons (FPH). Monitoring well construction information is summarized in Table 1.

The depths to water were initially measured in each well. This data was used to calculate well casing-volume storage. The wells were then purged and sampled using dedicated bailers. Well purging consisted of removing a minimum of three casing volumes of water and, as necessary, continuing bailing until the field parameters temperature, pH and conductivity stabilized. The field sampling forms are attached.

Unfiltered samples were collected from each well upon stabilization. Each sample was analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX). A field duplicate was collected from well MW-3. A matrix spike/matrix spike duplicate was analyzed from MW-7.

The samples were placed in an ice-filled chest immediately upon collection and documented using standard chain-of-custody protocol. The samples were delivered via Federal Express to ACCUTEST Laboratories in Houston, Texas. All affected purge water was stored on site for ultimate disposal.

The groundwater elevation measurements for all sampling episodes are summarized in Table 2. Hydrographs for wells MW-1 through MW-7 are shown on Figure 3. Figure 3 shows that the water-table elevations increased across the site in a generally uniform fashion. The water-table elevations are approaching the upper end of the fluctuation range established over the duration of this project. Well MW-8 is not included because its casing elevation is not established.

6885 South Marshall St., Suite 3, Littleton, CO 80128 phone 303-948-7733 fax 303-948-7739

Mr. Stephen Weathers January 16, 2009 Page 2

A water-table contour map based upon the fourth quarter 2008 measurements was generated using the Surfer program with a kriging option (Figure 4). The water-table configuration reflects the historical conditions of general eastward flow.

Approximately 0.33 feet (4 inches) of FPH was measured in MW-8 for the first time in a year. The vapor extraction system was restarted as has been done in the past. The system will be run until the 1 week before the next monitoring episode when it will be turned off to ensure accurate FPH evaluation. The FPH thicknesses measured during the entire monitoring program is summarized in Table 3.

Table 4 summarizes the fourth quarter 2008 sampling results. A copy of the laboratory report is attached. Examination of Table 4 indicates that:

- 1. No benzene was detected above the method reporting limit in wells MW-1 through MW-7.
- 2. Toluene, ethylbenzene and xylenes were not measured in MW-1 and MW-3 through MW-7.
- 3. MW-2 contained concentrations of toluene, ethylbenzene and xylenes at concentrations that were well below their respective New Mexico Water Quality Control Commission (NMWQCC) groundwater standards.

The field duplicate and matrix spike-matrix spike duplicate information are summarized in Table 5. Important quality assurance/quality control evaluations include:

- 1. The BTEX constituents were not detected in either the primary or the duplicate sample
- 2. The matrix spike and the matrix spike duplicate results for MW-7 were all within their acceptable ranges.
- 3. The samples were all analyzed within the 14 day holding time
- 4. All but two of the surrogate spikes were all within their respective control ranges.
- 5. The laboratory blanks and blank spikes were within acceptable ranges.
- 6. The trip blank did not contain any BTEX.

The above results establish that the samples are suitable for routine groundwater monitoring evaluation.

The fourth quarter 2008 benzene distribution is shown on Figure 5. Any BTEX constituents in MW-8 and the toluene, ethylbenzene and xylenes in MW-2 attenuated to below the method reporting limit before migrating downgradient to MW-7.

All of the historical data for benzene, toluene, ethylbenzene and total xylenes are summarized in Tables 6, 7, 8, and 9 respectively. There have been no exceedances of the NMWQCC Groundwater Standards since October 2004 for MW-2 and March 2005 for MW-3. There have never been any exceedances in MW-1, MW-4, MW-5, MW-6 and MW-7.

Mr. Stephen Weathers January 16, 2009 Page 3

The iSOC® (short for in-situ Submerged Oxygen Curtain) device that was installed in April 2007 in MW-8 to increase the dissolved oxygen in the groundwater continues to operate. The system is checked periodically to ensure that it is intact and still functioning. The oxygen bottle is changed out as necessary.

The next monitoring episode is scheduled for the first quarter of 2009. Do not hesitate to contact me if you have any questions or comments on this report.

Respectfully submitted, AMERICAN ENVIRONMENTAL CONSULTING, LLC

///

Michael H. Stewart, P.E. Principal Engineer

MHS:tbm

## TABLES

I

T

ł

ł

	Date	Well	Completion	Top of
Well	Installed	Depth	Interval	Sand
				•
MW-1	3/02	91	71-91	68
MW-2	3/02	88	68-88	. 62
MW-3	3/02	91	71-91	61
MW-4	4/02	91	71-91	68
MW-5	4/02	89	69-89	56
MW-6	4/02	90	70-90	68
MW-7	5/02	85	65-85	59

## Table 1 – Monitoring Well Completions

Notes: Units are Feet

Hydrocarbon extraction well (MW-8) completed between approximately 80 and 100 feet

Table 2 – Measured Water Table Elevations

·	 		-		_	_	·	
3/3/05	4089.34	4089.68	4089.24	4088.79	4088.73	4088.83	4087.78	
12/09/04	4089.18	4089.03	4088.82	4088.71	4088.62	4088.68	4087.65	
10/18/04	4089.22	4089.06	4088.84	4088.73	4088.63	4088.71	4087.68	
6/25/04	4089.12	4089.03	4088.81	4088.70	4088.60	4088.66	4087.63	
2/18/04	4089.19	4088.90	4088.82	4088.74	4088.65	4088.69	4087.66	
11/20/03	4088.59	4089.13	4088.95	4088.78	4088.70	4088.74	4088.08	
10/29/03	4088.60	4089.11	4088.90	4088.78	4088.70	4088.74	4088.08	
9/22/03	4088.53	4089.06	4088.84	4088.71	4088.65	4088.68	4088.03	
8/20/03	4088.54	4089.09	4088.87	4088.72	4088.66	4088.70	4088.04	
7/17/03	4088.52	4089.04	4088.82	4088.70	4088.63	4088.66	4088.01	
6/19/03	4088.55	4089.07	4088.85	4088.73	4088.65	4088.69	4088.04	
4/28/03	 4088.55	4089.05	4088.86	4088.73	4088.67	4088.70		
9/6/02	4088.53	4089.03	4088.86	4088.73	4088.68	4088.71		
5/1/02	4088.54	4089.02	4088.83	4088.63	4088.60	4088.69		
Well	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	7-WM	

9/15/08	4089.28	4089.14	4088.92	4088.82	4088.72	4088.77	4087.75
6/27/08	4089.36	4089.21	4089.00	4088.84	4088.76	4088.89	4087.81
3/20/08	4089.37	4089.22	4089.01	4088.88	4088.76	4088.84	4087.79
12/27/07	4089.27	4089.11	4088.86	4088.75	4088.66	4088.71	4087.70
9/5/07	4089.26	4089.10	4088.89	4088.77	4088.68	4088.74	4087.71
6/26/07	4089.24	4089.08	4088.87	4088.75	4088.66	4088.73	4087.71
3/13/07	4089.20	4089.05	4088.85	4088.72	4088.62	4088.70	4087.66
12/21/06	 4089.24	4089.09	4088.88	4088.76	4088.66	4088.73	4087.69
9/28/06	4089.16	4089.00	4088.84	4088.73	4088.62	4088.66	4087.62
6/26/06	4089.22	4089.05	4088.85	4088.73	4088.63	4088.70	4087.67
3/1/06	4089.23	4089.08	4088.88	4088.75	4088.66	4088.72	4087.70
12/12/05	4089.23	4089.07	4088.88	4088.76	4088.66	4088.73	4087.70
9/28/05	4089.25	4089.10	4088.89	4088.77	4088.67	4088.74	4087.70
6/3/05	4089.26	4089.10	4088.91	4088.79	4088.68	4088.75	4087.71
Well	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7

									t installed
12/1/08	4089.37	4089.19	4088.99	4088.84	4088.77	4088.84	4087.82	feet	ls: Wells no
Well	MW-1	<b>MW-2</b>	MW-3	MW-4	MW-5	9-WM	MW-7	Units are	Blank cell

	Draduat
Maagumanaat	Thiolmoor
Measurement	I nickness
Date	(reet)
00/06/02	5.20
09/06/02	5.20
04/28/03	5.65
06/19/03	4.01
07/17/03	3.93
09/22/03	3.42
10/29/03	1.42
11/20/03	0.79
06/25/04	0.03
10/18/04	3.26
12/09/04	2.71
03/03/05	0.00
06/03/05	0.12
09/28/05	1.01
12/12/05	0.00
03/01/06	0.04
06/26/06	0.03
09/28/06	0.00
12/21/06	0.28
03/13/07	0.01
06/26/07	1.22
09/05/07	0.40
12/27/07	0.03
03/20/08	0.00
06/27/08	0.00
09/15/08	0.00
12/01/08	0.33

Table 3 – Summary of Product Thickness in MW-8

Units are feet

				Xylene
Well	Benzene	Toluene	Ethlbenzene	(total)
NMWQCC Standards	0.01	0.75	0.75	0.62
MW-1	< 0.002	< 0.002	< 0.002	< 0.006
MW-2	< 0.002	0.0135	0.0147	0.143
MW-3	< 0.002	< 0.002	< 0.002	< 0.006
MW-3 Dup	< 0.002	< 0.002	< 0.002	< 0.006
MW-4	< 0.002	< 0.002	< 0.002	< 0.006
MW-5	< 0.002	< 0.002	< 0.002	< 0.006
MW-6	< 0.002	< 0.002	< 0.002	< 0.006
MW-7	< 0.002	< 0.002	< 0.002	< 0.006
Trip Blank	< 0.002	< 0.002	< 0.002	< 0.006

Table 4 – Fourth Quarter 2008 Groundwater Monitoring Results

.

Notes: Units are mg/l NMWQCC Standards: New Mexico Water Quality Control Commission Groundwater Standards

#### Table 5 – Fourth Quarter 2008 Quality Assurance and Quality Control Results

			y X	Xylenes
·	Benzene	Toluene	Ethyl Benzene	(total)
RPD (%)	NA	NA	NA	NA

Field Duplicate Relative Percentage Difference Values for MW-3

NA: analysis not applicable because the constituents were not detected

#### MW-7 Matrix Spike/Matrix Spike Duplicate Results

	Benzene	Toluene	Ethylbenzene	Xylenes (total)
Matrix Spike	113	102	103	99
Matrix Spike Duplicate	113	101	102	99

Note: Units are percent recovery

12/12/05	121121	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.561
0/26/05	C0/07/C	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	FPH.
6/2/05		<0.001	<0.001	0.00332	<0.001	<0.001	<0.001	<0.001	FPH
2/12/05	cnicic	<0.001	<0.001	0.00167	<0.001	<0.001	<0.001	<0.001	NS
17/0/04	12/2/04	<0.001	0.00342	0.006137	<0.001	<0.001	<0.001	<0.001	FPH
10/18/04	10/10/04	<0.001	0.0103	.00584	<0.001	<0.001	<0.001	<0.001	FPH
10/20/9	+0/07/0	<0.001	0.00156	0.0173	<0.001	<0.001	<0.001	<0.001	FPH
118/04	710/04	< 0.001	<0.001	0.0280	<0.001	<0.001	<0.001	<0.001	FPH
11/20/03	C0/07/11	<0.001	0.013	0.048	<0.001	<0.001	<0.001	0.001	FPH
10/20/03	C0/67/01	<0.001	0.001	0.044	<0.001	<0.001	<0.001	0.001	FPH
2/22/02	CU1221C	<0.001	0.022	0.049	<0.001	<0.001	<0.001	<0.001	FPH
20/06/8	CD/07/0	<0.001	0.024	0.017	<0.001	<0.001	<0.001	<0.001	FPH
20/21/2	C0//1//	<0.001	0.155	0.063	<0.001	<0.001	<0.001	<0.001	FPH
6/10/03	CONCIN	<0.001	0.074	0.047	<0.001	<0.001	<0.001	<0.001	FPH
1/28/03	CO 107 14	<0.001	0.182	0.099	<0.001	0.005	0.003	<0.001	FPH
5/21/02	70/17/0	0.002	0.145	0.176	<0.002	<0.002	0.002		
CU/VC/V	7014714	<0.002	0.0255	0.061	<0.002	<0.002	<0.002		
Wall		MW-1	<b>MW-2</b>	MW-3	MW-4	MW-5	MW-6	MW-7	8-WM

										÷		
Well	3/1/06	6/26/06	9/28/06	12/21/06	3/13/07	6/26/07	9/5/07	12/27/07	3/20/08	6/27/08	9/12/08	12/1/08
MW-1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	0.00093	<0.002	<0.002	<0.002	<0.002
MW-2	<0.001	0.0006	0.0007	<0.001	0.000674	<0.001	<0.002	0.00057	<0.002	0.00096	0.00096	<0.002
MW-3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	0.00053	<0.002	<0.002	<0.002	<0.002
MW-5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-6	<0.001	<0.001	<0.001	<0.001	<0:001	<0.001	<0.002	0.00074	<0.002	<0.002	<0.002	<0.002
MW-7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-8	FPH	FPH	0.24	FPH	0.42	FPH	FPH	НdЭ	0.28	0.18	0.14	FPH
Notes.	I Inite are r	na/1										

Notes:

Units are mg/l. Duplicate sample results were averaged together Indicators for estimated (J) values not shown FPH: Free phase hydrocarbons present, no sample collected

Table 6 - Summary of Laboratory Data for Benzene

12/12/05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	2.98
9/28/05	<0.001	<0.001	0.000482	<0.001	<0.001	<0.001	<0.001	FPH
6/3/05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	FPH
3/3/05	<0.001	< 0.001	<0.001	< 0.001	<0.001	<0.001	< 0.001	NS
12/9/04	<0.001	0.00206	<0.001	<0.001	<0.001	<0.001	<0.001	FPH
10/18/04	<0.001	0.00648	<0.001	<0.001	<0.001	<0.001	< 0.001	FPH
6/25/04	<0.001	0.00108	0.000158	<0.001	<0.001	<0.001	<0.001	FPH
2/18/04	<0.001	0.00652	<0.001	<0.001	<0.001	<0.001	<0.001	FPH
11/20/03	<0.001	0.017	0.003	<0.001	<0.001	<0.001	<0.001	FPH
10/29/03	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	0.001	FPH
9/22/03	<0.001	0.051	<0.001	<0.001	<0.001	<0.001	<0.001	FPH
8/20/03	<0.001	0.092	<0.001	<0.001	<0.001	<0.001	<0.001	FPH
7/17/03	<0.001	0.15	0.002	<0.001	<0.001	<0.001	<0.001	FPH
6/19/03	<0.001	0.066	<0.001	<0.001	<0.001	<0.001	<0.001	FРН
4/28/03	<0.001	0.092	0.005	<0.001	<0.001	<0.001	<0.001	HGH
5/21/02	0.003	0.833	0.004	<0.002	<0.002	<0.002	;	
4/24/02	<0.002	0.107	<0.002	<0.002	<0.002	<0.002		1
Well	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8

Well         3/1/06         6/26/06         9/28/06         12           MW-1         <0.001         <0.001         <0.001         <           MW-2         <0.001         <0.001         <         <           MW-3         <0.001         <0.001         <         <         <           MW-3         <0.001         <0.001         <         <         <         <           MW-3         <0.001         <0.001         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <         <           <
Well         3/1/06         6/26/06         9/28/06         12/21/06         3/13/07         6/26/07         9/5/07           MW-1         <0.001
Well         3/1/06         6/26/06         9/28/06         12/21/06         3/13/07         6/26/07           MW-1         <0.001
Well         3/1/06         6/26/06         9/28/06         12/21/06         3/13/07           MW-1         <0.001
Well         3/1/06         6/26/06         9/28/06         12/21/06           MW-1         <0.001
Well         3/1/06         6/26/06         9/28/06           MW-1         <0.001
Well         3/1/06         6/26/06           MW-1         <0.001
Well         3/1/06           MW-1         <0.001
Well MW-1 MW-2 MW-3 MW-3 MW-4 MW-4 MW-5 MW-5 MW-7 MW-8

Duplicate sample results were averaged together Indicators for estimated (J) values not shown FPH: Free phase hydrocarbons present, no sample collected

Table 7 - Summary of Laboratory Data for Toluene

•

12/12/05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.928
9/28/05	<0.001	<0.001	0.00101	<0.001	<0.001	<0.001	<0.001	FPH
6/3/05	<0.001	<0.001	0.00574	<0.001	<0.001	<0.001	<0.001	FPH
3/3/05	<0.001	<0.001	0.00167	<0.001	<0.001	<0.001	<0.001	NS
12/9/04	<0.001	0.00122	0.00884	<0.001	<0.001	<0.001	<0.001	FPH
10/18/04	<0.001	0.00336	0.00692	<0.001	<0.001	<0.001	<0.001	HdF
6/25/04	<0.001	0.0005	0.0136	<0.001	<0.001	<0.001	<0.001	FPH
2/18/04	<0.001	0.00301	0.0138	<0.001	<0.001	<0.001	<0.001	FPH
11/20/03	<0.001	0.005	0.017	<0.001	<0.001	<0.001	<0.001	FPH
10/29/03	<0.001	0.002	0.018	<0.001	<0.001	<0.001	0.001	FPH
9/22/03	<0.001	0.012	0.02	<0.001	<0.001	<0.001	<0.001	FPH
8/20/03	<0.001	0.012	0.006	<0.001	<0.001	<0.001	<0.001	FPH
7/17/03	<0.001	0.112	0.023	<0.001	<0.001	0.004	<0.001	FPH
6/19/03	<0.001	0.069	0.02	<0.001	<0.001	<0.001	<0.001	FPH
4/28/03	<0.001	0.121	0.03	<0.001	<0.001	0.002	<0.001	FPH
5/21/02	<0.002	0.062	0.023	<0.002	<0.002	0.002		
4/24/02	<0.002	0.013	0.023	<0.002	<0.002	0.004	1	
Well	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8

Well	3/1/06	6/26/06	9/28/06	12/21/06	3/13/07	6/26/07	9/5/07	12/27/07	3/20/08	6/27/08	9/15/08	12/1/08
MW-1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-2	<0.001	<0.001	0.0003	<0.001	0.00120	0.0024	<0.002	0.00076J	0.01	0.0229	0.02	0.0147
MW-3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-6	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.002	0.0033	<0.002	<0.002	0.0031	<0.002
MW-7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-8	FPH	. HdŦ	0.239	FPH	0.437	FPH	FPH	FPH	0.15	0.0971	0.17	FPH
Notes:	Units ar	e mg/l.										

Duplicate sample results were averaged together Indicators for estimated (J) values not shown FPH: Free phase hydrocarbons present, no sample collected

Table 8 - Summary of Laboratory Data for Ethylbenzene

Table 9 ~ Summary of Laboratory Data for Xylenes

12/12/05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	9.89
9/28/05	<0.001	<0.001	0.000997	<0.001	<0.001	<0.001	<0.001	FPH
6/3/05	<0.001	<0.001	0.00173	<0.001	<0.001	< 0.001	<0.001	FPH
3/3/05	<0.001	<0.001	0.00044	<0.001	<0.001	<0.001	<0.001	NS
12/9/04	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	FPH
10/18/04	<0.001	0.0052	0.0015	<0.001	< 0.001	<0.001	<0.001	FPH
6/25/04	<0.001	0.00106	0.000118	<0.001	<0.001	<0.001	<0.001	FPH
2/18/04	0.0514	0.00067	<0.001	<0.001	<0.001	<0.001	<0.001	FPH
11/20/03	<0.001	0.034	0.004	<0.001	<0.001	<0.001	0.001	FPH
10/29/03	<0.001	0.017	0.001	<0.001	<0.001	0.003	0.006	FPH
9/22/03	<0.001	0.079	0.001	<0.001	<0.001	<0.001	<0.001	FPH
8/20/03	<0.001	0.179	0.001	<0.001	<0.001	<0.001	<0.001	FPH
7/17/03	<0.001	0.186	0.007	<0.001	0.002	0.004	<0.001	FPH
6/19/03	<0.001	0.103	0.006	<0.001	0.003	<0.001	<0.001	FPH
4/28/03	<0.001	0.133	0.039	<0.001	0.003	0.01	<0.001	FPH
5/21/02	<0.006	1.27	0.451	<0.006	<0.006	0.047	;	;
4/24/02	<0.006	0.38	0.189	<0.006	0.011	0.123	-	-
Well	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8

					•							
Well	3/1/06	6/26/06	9/28/06	12/21/06	3/13/07	6/26/07	9/5/07	12/27/07	3/20/08	6/27/08	9/12/08	12/1/08
-WM	1 <0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	0.0028J	<0.006	<0.002	<0.006	<0.006
MW-	2 <0.001	0.00125J	0.0014	<0.001	0.00770	0.013	0.0078	0.0051J	0.06	0.0229	0.12	0.143
-WM	3 <0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.006	<0.006	<0.002	<0.006	<0.006
-wM	4 <0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	0.0016J	<0.006	<0.002	<0.006	<0.006
MW-	5 <0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.006	<0.006	<0.002	<0.006	<0.006
MW-(	6 <0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.006	<0.006	<0.002	<0.006	<0.006
MW-	7 <0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.006	·<0.006	<0.002	<0.006	<0.006
}-WM	8 FPH	НdЭ	2.27	FPH	3.35	FPH	FPH	НЧЭ	2.80	0.388	2.42	FPH
Notec.	I Inits ar	l/om a.										

Notes: Units are mg/l. Duplicate sample results were averaged together Indicators for estimated (J) values not shown FPH: Free phase hydrocarbons present, no sample collected

## FIGURES

.











	CLIENT:	DC	P Midstre	am	_	WELL ID:	MW-1			
S	ITE NAME:	X Line (	Etcheverry	Ranch)	_	DATE:	12/1/2008			
PRO	DJECT NO.					SAMPLER:	M Stewart/A Taylor			
	•									
PURGIN	G METHOD:	:	Hand Bai	led 🗌 Pu	mp If Pu	mp, Type:	Dedicated Bailer			
SAMPLIN		D:	Dedicate	d Bailer	] Direct fr	om Discha	rge Hose			
DESCRIE	BE EQUIPM	ENT DECO	NTAMINATI	ON METH	OD BEFC	RE SAMP	LING THE WELL:			
🗹 Glove	es 🗆 Alcono	x 🗌 Distill	ed Water Ri	nse 🗆 C	Other:	<u> </u>				
		•								
TOTAL D DEPTH T HEIGHT	EPTH OF W O WATER: OF WATER	VELL: COLUMN:	94.30 77.32 16.98	Feet Feet Feet		8.3	_Minimum Gallons to			
WELL DI	AMETER:	2.0	. Inch				purge 3 well volumes (Water Column Height x 0 49)			
TIME	VOLUME	TEMP.	COND.	Ηα	DO	Turb	PHYSICAL APPEARANCE AND			
	PURGED	°C	<i>m</i> S/cm		mg\L		REMARKS			
	27		0.75	7 12						
<u> </u>	5.1	17.7	0.75	7.12						
	9.1	17.5	0.00	7.30	<u> </u>					
8.1 17.5 0.68 7.36										
· · · ·										
							· · · · · · · · · · · · · · · · · · ·			
					<u> </u>					
							·····			
							······································			
	<u> </u>			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·					
							·····			
							· · · · · · · · · · · · · · · · · · ·			
		·			<u> </u>					
						L	<u> </u>			
SAMF				<u>IVIVV-1</u>						
ANA		BIEX (826	0)			<u></u>	···			
COM	MENTS:		<u> </u>							

	CLIENT:	DC	P Midstre	am	-	WELL ID:	MW-2
S	ITE NAME:	X Line (	Etcheverry	Ranch)	_	DATE:	12/1/2008
PRO	DJECT NO.				. 9	SAMPLER:	M Stewart/A Taylor
PURGIN	G METHOD:	:	🖸 Hand Bai	led 🛛 Pu	mp If Pur	np, Type:	Dedicated Bailer
SAMPLIN		D:	Dedicate	d Bailer	Direct fr	om Discha	rge Hose □Other:
DESCRIE	BE EQUIPM	ENT DECO	NTAMINATI	ON METH	OD BEFO	RE SAMP	LING THE WELL:
Glove	es 🗆 Alcono	ox 🛛 Distill	ed Water Ri	nse 🗆 C	Other:		
DEPTH T	OEPTH OF V	VELL:	89.90	Feet Feet			
HEIGHT	OF WATER	COLUMN:	12.57	Feet		6.2	_Minimum Gallons to
WELL DI	AMETER:	2.0	Inch				purge 3 well volumes (Water Column Height x 0.49)
TIME	VOLUME	TEMP.	COND.	pН	DO	Turb	PHYSICAL APPEARANCE AND
}	PURGED	°C	S/cm		mg∖∟		
	2.1	17.7	0.89	6.97			
	4.2	17.8	0.85	7.06			
	6.3	17.8	0.86	7.10			· · ·
					· · ·		
		· · · · · · · · · · · · · · · · · · ·					
							· · ·
		· ·					
L							
					:		
SAMF	PLE NO.:	Collected S	ample No.:	MW-2			
	LYSES:	BTEX (826	0)				;
COM	MENTS:					······	·

R

	CLIENT:	DC	P Midstre	am	_	WELL ID:	MW-3			
S	ITE NAME:	X Line (	Etcheverry	Ranch)	_	DATE:	12/1/2008			
PRC	DJECT NO.					SAMPLER:	M Stewart/A Taylor			
					-					
PURGINO	G METHOD:		🗹 Hand Bai	led 🗆 Pu	imp_lf Pu	тр, Туре:	Dedicated Bailer			
SAMPLIN	IG METHOE	D:	Dedicated	d Bailer	Direct fi	rom Dischai	rge Hose □Other:			
DESCRIE		ENT DECO	NTAMINATI	ON METH	OD BEFC	RE SAMPL	ING THE WELL:			
☑ Glove	s 🗆 Alcono	x 🗋 Distill	ed Water Ri	nse 🗆 C	Other:					
TOTAL D DEPTH T HEIGHT ( WELL DI/	EPTH OF W O WATER: OF WATER AMETER:	VELL: COLUMN: 2.0	92.80 77.34 15.46 Inch	Feet Feet Feet		7.6	Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)			
TIME		TEMP.	COND.	pН		Turb	PHYSICAL APPEARANCE AND REMARKS			
	2.7	17.1	0.79							
	5.4	17.9	0.79	•.						
8.1 18.0 0.77										
SAMP	LE NO.:	Collected S	ample No.:	MW-3						
ANAL	YSES:	BTEX (826	0)							
COM	MENTS:	Collected d	uplicate sam	nple						

Ĩ

	CLIENT:	DC	P Midstre	am		WELL ID:	MW-4		
SI	TE NAME:	X Line (	Etcheverry	Ranch)		DATE:	12/1/2008		
PRC	JECT NO.					SAMPLER:	M Stewart/A Taylor		
PURGING	METHOD:		🖸 Hand Bai	led 🗆 Pu	mp If Pu	mp, Type:	Dedicated Bailer		
SAMPLIN	G METHOD	D:	Dedicate	d Bailer	Direct f	rom Discha	rge Hose □Other:		
DESCRIB	E EQUIPM	ENT DECO	NTAMINATI	ON METHO	OD BEFC	RE SAMP	LING THE WELL:		
Glove:	s 🗹 Alcono	x 🗹 Distill	ed Water Ri	nse 🗆 C	Other:				
DEPTH T	EPTH OF V O WATER:	VELL:	93.40	Feet Feet					
HEIGHT (	OF WATER	COLUMN:	15.91	Feet		7.8	_Minimum Gallons to		
WELL DIA	METER:	2.0	Inch				purge 3 well volumes (Water Column Height x 0 49)		
	VOLUME	TEMP.	COND.	nH	DO	Turb	PHYSICAL APPEARANCE AND		
	PURGED	°C	<b>m</b> S/cm		mg\L		REMARKS		
		-					· · · · · · · · · · · · · · · · · · ·		
ļ	2.7	17.3	0.63	7.38					
	5.4	17.6	0.62	7.39					
8.1 17.5 0.62 7.42									
			·	<u>-</u>					
L				L					
SAMP	LE NO.:	Collected S	Sample No.:	MW-4			·		
ANAL	YSES:	BTEX (826	0)						
COM	IENTS:								

	CLIENT:	DC	P Midstre	am	_	WELL ID:	MW-5		
S		X Line (	Etcheverry	Ranch)	<u> </u>	DATE:	12/1/2008		
PRC	JECT NO.					SAMPLER:	M Stewart/A Taylor		
PURGING	G METHOD:	:	🗹 Hand Bai	led 🗌 Pu	mp If Pu	mp, Type:	Dedicated Bailer		
SAMPLIN	G METHO	D:	Dedicate	d Bailer	Direct fr	om Discha	rge Hose		
DESCRIB	E EQUIPM	ENT DECO	NTAMINATI	ON METH	OD BEFC	RE SAMPL	ING THE WELL:		
☑ Glove	s 🗆 Alcono	x 🛛 Distill	ed Water Ri	nse 🗆 C	Other:	<u> </u>	· · · · · · · · · · · · · · · · · · ·		
TOTAL D	EPTH OF V O WATER	VELL:	91.10	Feet					
HEIGHT	OF WATER	COLUMN:	13.97	Feet		6.8	Minimum Gallons to		
WELL DIA	AMETER:	2.0	Inch				purge 3 well volumes (Water Column Height x 0.49)		
TIME	VOLUME	TEMP.	COND.	рН	DO	Turb	PHYSICAL APPEARANCE AND		
	PURGED	O	<u><i>m</i>S/</u> cm	,	<u>mg\L</u>		REMARKS		
· · · · · · · · · · · · · · · · · · ·						·····	<u>.</u>		
.	2.3	16.9	0.72	7.25			· · · · · · · · · · · · · · · · · · ·		
	4.6	17.4	0.71	7.26	<u> </u>	·			
6.9 17.2 0.69 7.33									
							<u> </u>		
	·						· · · · · · · · · · · · · · · · · · ·		
	. <u> </u>								
	<u> </u>		·						
					<u> </u>		· · · · · · · · · · · · · · · · · · ·		
							· · · · · · · · · · · · · · · · · · ·		
	<u> </u>						· · · · · · · · · · · · · · · · · · ·		
							·		
SAMP	LE NO.:	Collected S	ample No.:	MW-5					
ANAL	YSES:	BTEX (826	0)				······		
COM	MENTS:								

ĺ

	CLIENT:	DC	P Midstre	am		WELL ID:	MW-6	
SI	TE NAME:	X Line (	Etcheverry	Ranch)		DATE:	12/1/2008	
PRC	JECT NO.					SAMPLER:	M Stewart/A Taylor	
		·				·		
PURGING	METHOD:		Hand Bai	led 🗌 Pu	mp If Pu	mp, Type:	Dedicated Bailer	
SAMPLIN	G METHOD	D:	☑ Dedicated	d Bailer 🛛	] Direct fr	om Dischar	ge Hose □Other:	
DESCRIB	E EQUIPM	ENT DECO	NTAMINATI	ON METHO	DD BEFC	RE SAMPL	ING THE WELL:	
Glove:	s 🗌 Alcono	x 🗌 Distill	ed Water Ri	nse 🗆 C	Other:			
TOTAL D	EPTH OF W	VELL:	92.90	Feet				
	O WATER:		77.05	Feet		70	Minimum Collons to	
WELL DIA	METER:	2.0	Inch	1 661		7.0	purge 3 well volumes	
<b></b>						<u></u>	(Water Column Height x 0.49)	
TIME		° <b>C</b>	COND. mS/cm	- pH	ma\L	Turb	PHYSICAL APPEARANCE AND REMARKS	
		·•					· · · · · · · · · · · · · · · · · · ·	
	2.7	17.0	0.60	7.23				
	5.4	17.6	0.58	7.32				
8.1 17.3 0.57 7.45								
			· · · · · · · · · · · · · · · · · · ·					
SAMP	LE NO.:	Collected S	ample No.:	 MW-6	:			
ANAL	YSES:	BTEX (826	0)					
COM	MENTS:	·····						
		<u></u>						

ł

Į

l

I

J

ſ

	CLIENT:	DC	P Midstrea	am	_	WELL ID:	MW-7		
S	TE NAME:	X Line (	Etcheverry	Ranch)	_	DATE:	12/1/2008		
PRC	JECT NO.				-	SAMPLER:	M Stewart/A Taylor		
				1 10 <u>00</u>	-				
PURGING	METHOD:	:	🖸 Hand Bai	led 🗆 Pu	mp If Pu	mp, Type:	Dedicated Bailer		
SAMPLIN	G METHO	D:	Dedicated	d Bailer 🛛	Direct fr	om Discha	rge Hose		
DESCRIB	E EQUIPM	ENT DECO	NTAMINATI	ON METH	OD BEFO	RE SAMPL	ING THE WELL:		
☑ Glove	s 🗆 Alcono	x 🗋 Distill	ed Water Rii	nse 🗆 C	Other:				
	EPTH OF V	VELL:	87.40	Feet					
HEIGHT	OF WATER	COLUMN:	10.79	Feet		5.3	Minimum Gallons to		
WELL DIA	METER:	2.0	Inch			•	purge 3 well volumes		
TIME	VOLUME	TEMP.	COND.	nH	DO	Turb	PHYSICAL APPEARANCE AND		
	PURGED	°C	<u>m S/cm</u>		mg\L		REMARKS		
	1.8	17.0	0.68	7.25					
	3.6	17.3	0.64	7.25					
5.4 17.6 0.63 7.35									
							· · · · · · · · · · · · · · · · · · ·		
					ļ				
							· · · · · · · · · · · · · · · · · · ·		
ļ									
L									
SAMP	LE NO.:	Collected S	ample No.:	MW-7					
ANAL	YSES:	BTEX (826	0)						
COM	IENTS:	Collected M	IS/MSD San	nples					

	CLIENT:	DC	P Midstre	am		WELL ID:	<u>MW-8</u>
S	ITE NAME:	X Line (	Etcheverry	Ranch)		DATE:	12/1/2008
PRO	DJECT NO.			-	. 9	SAMPLER:	M Stewart/A Taylor
PURGING	G METHOD	:	🗹 Hand Bai	led 🗆 Pu	mp If Pu	mp, Type:	
SAMPLIN	IG METHO	D:	🗹 Disposab	le Bailer	Direct	from Discha	arge Hose 🛛 Other:
DESCRIE	BE EQUIPM	ENT DECO	NTAMINATI	ON METHO	DD BEFO	RE SAMPL	ING THE WELL:
🗹 Glove	s 🗆 Alcond	x 🗋 Distill	ed Water Ri	nse 🗆 C	Other:		
TOTAL D	EPTH OF V	VELL:	<u>85.10</u>	Feet Feet			
HEIGHT	OF WATER	COLUMN:	85.10	Feet		166.6	Minimum Gallons to
WELL DI	AMETER:	4.0	Inch				purge 3 well volumes (Water Column Height x 1 96)
	VOLUME	TEMP.	COND.	ъН	DO	Turb	PHYSICAL APPEARANCE AND
	PURGED	°C	<u><i>m</i> S/cm</u>		_mg\L		REMARKS
	<u> </u>						-
		· · ·					
						·	
	<u> </u>						· · · · · · · · · · · · · · · · · · ·
					·		· · · · · · · · · · · · · · · · · · ·
- <u> </u>	· · · · · ·	· · · ·					
ļ	· · ·						· 
			- <u> </u>				
ļ		·	,				
					<u> </u>	, 	
			· · · ·			· · –	
			·				
L							
SAMF	PLE NO.:	Collected S	ample No.:				
ANAI	_YSES:	BTEX (826	0)		· · · · · · · · · · · · · · · · · · ·		
COMI	MENTS:	Not sample	d because c	of 0.33 feet	of free ph	ase hydroc	carbons

J

Į

f



01/14/09

## Technical Report for

#### DCP Midstream, LLC

X-Line

Accutest Job Number: T24836

Sampling Date: 12/01/08

Report to:

American Environmental Consulting

mstewart@aecdenver.com

ATTN: Mike Stewart

Total number of pages in report: 25



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro Laboratory Director



Client Service contact: William Reeves 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories. Test results relate only to samples analyzed.

Gulf Coast • 10165 Harwin Drive • Suite 150 • Houston, TX 77036 • tel: 713-271-4700 • fax: 713-271-4770 • http://www.accutest.com



Note: This report is password protected to disallow document modification or assembly. A password to unlock this report is available from your client service representative.

## **Table of Contents**

1

ß

ලා

⊜

## -1-

Section 1: Sample Summary	3
Section 2: Sample Results	4
<b>2.1:</b> T24836-1: MW-1	5
<b>2.2:</b> T24836-2: MW-2	6
<b>2.3:</b> T24836-3: MW-3	7
<b>2.4:</b> T24836-4: MW-4	8
<b>2.5:</b> T24836-5: MW-5	9
<b>2.6:</b> T24836-6: MW-6	10
<b>2.7:</b> T24836-7: MW-7	11
<b>2.8:</b> T24836-8: DUP	12
<b>2.9:</b> T24836-9: TRIP BLANK	13
Section 3: Mise. Forms	14
3.1: Chain of Custody	15
Section 4: GC/MS Volatiles - QC Data Summaries	18
4.1: Method Blank Summary	19
4.2: Blank Spike Summary	22
4.3: Matrix Spike/Matrix Spike Duplicate Summary	25
	- · ·



## Sample Summary

## DCP Midstream, LLC

Job No: T24836

X-Line

Sample Number	Collected Date Time By	M Received Co	atrix de Type	Client Sample ID
T24836-1	12/01/08 14:20 AEC	C 12/03/08 AC	) Ground Water	MW-1
T24836-2	12/01/08 14:25 AEC	2 12/03/08 AC	) Ground Water	MW-2
T24836-3	12/01/08 16:30 AEC	C 12/03/08 A0	Q Ground Water	MW-3
T24836-4 <sup>·</sup>	12/01/08 15:45 AEC	C 12/03/08 A0	) Ground Water	MW-4
T24836-5	12/01/08 15:50 AEC	C 12/03/08 AG	Q Ground Water	MW-5
T24836-6	12/01/08 15:10 AEC	C 12/03/08 AG	Q Ground Water	MW-6
T24836-7	12/01/08 15:10 AEC	C 12/03/08 A0	Q Ground Water	MW-7
T24836-7D	12/01/08 15:10 AEC	C 12/03/08 AG	Water Dup/MSD	MW-7 MSD
T24836-7S	12/01/08 15:10 AEC	C 12/03/08 A0	Q Water Matrix Spike	MW-7 MS
T24836-8	12/01/08 00:00 AEC	C 12/03/08 A	Ground Water	DUP
T24836-9	12/01/08 00:00 AEC	C 12/03/08 A	Q Trip Blank Water	TRIP BLANK







ß



## Report of Analysis

·

. .

> 4 of 25 CACCUTEST. T24836 Laboratories

Report of Analysis

Client Sam	ple ID: MW-1						10/01/00	
Lab Sampl	e ID: 124836-1	1 117. 4			Date S	ampled	12/01/08	
Matrix:	AQ - Ground	1 water			Date K	eceived	: 12/03/08	
Method:	SW846 8260	IR			Percen	t Solids	: n/a	
Project:	X-Line							
	File ID DF		Analyzed	By	Prep Da	ate	Prep Batch	Analytical Batch
Run #1	Z0046426.D 1	]	2/07/08	JĹ	n/a		n/a	VZ2312
Run #2								
Г								
	Purge Volume							
Run #1	5.0 ml							
Run #2								
Purgeable	Aromatics						,	
CAS No.	Compound		Result	RL	MDL	Units	Q	• •
71-43-2	Benzene		ND	0.0020	0.00046	mg/l		
108-88-3	Toluene		ND	0.0020	0.00048	mg/l		
100-41-4	Ethylbenzene		ND	0.0020	0.00045	mg/l		
1330-20-7	Xvlene (total)		ND	0.0060	0.0014	mg/l		
1000 -0 .			· • • • • • • •			8		
CAS No.	Surrogate Recover:	ies	<b>Run#</b> 1	Run# 2	Limi	ts		
1868-53-7	Dibromofluorometh	ane	107%	÷	79-12	22%		
17060-07-0	1,2-Dichloroethane-	D4	116%	i	75-12	21%		
2037-26-5	Toluene-D8		97%		87-11	19%		

93%

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

4-Bromofluorobenzene

460-00-4

J = Indicates an estimated value

80-133%

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Client Sam Lab Sample Matrix: Method: Project:	ple ID: e ID:	MW-2 T2483 AQ - 0 SW840 X-Line	6-2 Ground Water 5 8260B e			Date Sa Date R Percen	ampled: eceived t Solids	12/01/08 12/03/08 n/a	
Run #1 Run #2	File ID Z00464	27.D	DF 1	Analyzed 12/07/08	By JL	Prep Da n/a	te	Prep Batch n/a	Analytical Batch VZ2312
Run #1 Run #2	Purge 5.0 ml	Volume							
Purgeable	Aromati	cs							
CAS No.	Comp	ound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzer Toluer Ethylb Xylene	ne ne enzene e (total)		ND 0.0135 0.0147 0.143	0.0020 0.0020 0.0020 0.0060	0.00046 0.00048 0.00045 0.0014	mg/l mg/l mg/l mg/l		
CAS No.	Surro	gate Re	coveries	Run# 1	Run# 2	Limi	ts		
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibror 1,2-Di Toluer 4-Bror	nofluor chloroe 1e-D8 nofluor	omethane thane-D4 obenzene	106% 118% 98% 95%		79-12 75-12 87-11 80-13	22% 21% .9% 33%		

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



T24836-3

4-Bromofluorobenzene

Client Sample ID: MW-3

Lab Sample ID:

460-00-4

Report of Analysis

Date Sampled:

80-133%

12/01/08

Date Received: 12/03/08 AQ - Ground Water Matrix: Percent Solids: n/a SW846 8260B Method: X-Line Project: Prep Date Analytical Batch File ID DF Analyzed By Prep Batch Run #1 Z0046428.D 12/07/08 JL VZ2312 1 n/a n/a Run #2 Purge Volume Run #1 5.0 ml Run #2 **Purgeable Aromatics** CAS No. Compound Result RL MDL Units Q 71-43-2 Benzene ND. 0.0020 0.00046 mg/l 0.00048 mg/l 108-88-3 Toluene ND 0.0020 100-41-4 Ethylbenzene ND 0.0020 0.00045 mg/l 0.0060 1330-20-7 Xylene (total) ND 0.0014 mg/l CAS No. Surrogate Recoveries Run#1 Run#2 Limits 108% 79-122% 1868-53-7 Dibromofluoromethane 117% 17060-07-0 1,2-Dichloroethane-D4 75-121% 2037-26-5 **Toluene-D8** 96% 87-119%

92%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



**Report of Analysis** 

Client Sam Lab Sample Matrix: Method: Project:	ple ID: e ID:	MW-4 T24836 AQ - G SW846 X-Line	-4 round Water 8260B			Date Sa Date R Percent	ampled: eccived: t Solids:	12/01/08 12/03/08 n/a	
Run #1 Run #2	File ID Z00464	92.D	DF 1	Analyzed 12/09/08	By JL	Prep Da n/a	te	Prep Batch n/a	Analytical Batch VZ2315
Run #1 Run #2	Purge V 5.0 ml	Volume				•			
Purgeable	Aromati	cs							
CAS No.	Comp	ound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzer Toluer Ethylb Xylene	ne ne enzene e (total)		ND ND ND ND	0.0020 0.0020 0.0020 0.0060	0.00046 0.00048 0.00045 0.0014	· mg/l mg/l mg/l mg/l		
CAS No.	Surrog	gate Rec	overies	Run# 1	Run# 2	Limit	ts		
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibror 1,2-Di Toluer 4-Bror	nofluoro chloroet 1e-D8 nofluoro	methane hane-D4 benzene	107% 120% 96% 95%	··· ·	79-12 75-12 87-11 80-13	22% 21% 9% 33%		

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





		Repo	Report of Analysis										
Client Sam Lab Sampl Matrix: Method: Project:	ple ID: MW-5 e ID: T24836-5 AQ - Ground Wa SW846 8260B X-Line	ter		Date Sampled: Date Received Percent Solids	12/01/08 : 12/03/08 : n/a								
Run #1 Run #2	File ID         DF           Z0046493.D         1	Analyzed 12/09/08	By JL	Prep Date n/a	Prep Batch n/a	Analytical Batch VZ2315							
Run #1 Run #2	Purge Volume 5.0 ml					·							
Purgeable	Aromatics												
CAS No.	Compound	Result	RL	MDL Units	Q								
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	ND ND ND ND	0.0020 0.0020 0.0020 0.0060	0.00046 mg/l 0.00048 mg/l 0.00045 mg/l 0.0014 mg/l		· .							
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits									
1868-53-7 17060-07-0	Dibromofluoromethane	109% 122% <sup>a</sup>		79-122% 75-121%									

(a) Outside of control limits biased high. Data is acceptable for all ND results.

95%

96%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

2037-26-5

460-00-4

Toluene-D8

4-Bromofluorobenzene

E = Indicates value exceeds calibration range

J = Indicates an estimated value

87-119%

80-133%

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



2.5

		Repo	rt of An	alysis		Page 1 of 1
Client Sample Lab Sample Matrix: Method: Project:	ple ID: MW-6 e ID: T24836-6 AQ - Ground W SW846 8260B X-Line	ater		Date Sampl Date Receiv Percent Sol		
Run #1 Run #2	File ID DF Z0046494.D 1	Analyzed 12/09/08	By JL	Prep Date n/a	Prep Batch n/a	Analytical Batch VZ2315
Run #1 Run #2	Purge Volume 5.0 ml	· ·				
Purgeable	Aromatics					
CAS No.	Compound	Result	RL	MDL Uni	its Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	ND ND ND ND	0.0020 0.0020 0.0020 0.0060	0.00046 mg/ 0.00048 mg/ 0.00045 mg/ 0.0014 mg/	/1 /1 /1 /1	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7 17060-07-0 2037-26-5	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8	109% 119% 96%		79-122% 75-121% 87-119%		

**93**%

ND = Not detected MDL - Method Detection Limit

4-Bromofluorobenzene

RL = Reporting Limit

460-00-4

E = Indicates value exceeds calibration range

J = Indicates an estimated value

80-133%

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





		Kepo	rt of An	alysis		Page 1 of 1
Client Sam Lab Sample Matrix: Method: Project:	ple ID: MW-7 e ID: T24836-7 AQ - Ground W SW846 8260B X-Line	/ater		Date Sampled Date Received Percent Solid	l: 12/01/08 1: 12/03/08 s: n/a	
Run #1 Run #2	File ID         DF           F012731.D         1	Analyzed 12/11/08	By JL	Prep Date n/a	Prep Batch n/a	Analytical Batch VF3228
Run.#1 Run #2	Purge Volume 5.0 ml					
Purgeable A	Aromatics	·-			·	
CAS No.	Compound	Result	RL	MDL Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	ND ND ND ND	0.0020 0.0020 0.0020 0.0060	0.00046 mg/l 0.00048 mg/l 0.00045 mg/l 0.0014 mg/l	·	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7 17060-07-0 2037-26-5	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8	102% 92% 112%	·	79-122% 75-121% 87-119%		

**c** .

'n

101%

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

4-Bromofluorobenzene

460-00-4

J = Indicates an estimated value

80-133%

- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound





Report of Analysis

Client Samj Lab Sample Matrix: Method: Project:	ple ID: DUP e ID: T24836 AQ - G SW846 X-Line	5-8 Ground Water 5 8260B			Date Sa Date Re Percent	mpled: eceived: Solids:	12/01/08 12/03/08 n/a	
Run #1 Run #2	File ID Z0046496.D	DF 1	Analyzed 12/09/08	By JL	Prep Da n/a	te	Prep Batch n/a	Analytical Batch VZ2315
Run #1 Run #2	Purge Volume 5.0 ml							
Purgeable A	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)		ND ND ND ND	0.0020 0.0020 0.0020 0.0060	0.00046 0.00048 0.00045 0.0014	mg/l mg/l mg/l mg/l		. ·
CAS No.	Surrogate Red	coveries	Run# 1	Run# 2	Limit	S		
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoro 1,2-Dichloroe Toluene-D8 4-Bromofluoro	omethane thane-D4 obenzene	111% 122% a 95% 94%	!	79-12 75-12 87-11 80-13	2% 1% 9% <sup>.</sup> 3%		

(a) Outside of control limits biased high. Data is acceptable for all ND results.

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

- J = Indicates an estimated value.
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



			Repor	rt of Ana	alysis			Page 1 of 1
Client Sam Lab Sampl Matrix: Method: Project:	iple ID: TRIP le ID: T2483 AQ - 7 SW84 X-Lind	BLANK 6-9 Frip Blank 6 8260B e	Water					
Run #1 Run #2	File ID Z0046418.D	DF 1	Analyzed 12/07/08	By JL	Prep Da n/a	te	Prep Batch n/a	Analytical Batch VZ2312
Run #1 Run #2	Purge Volume 5.0 ml	;						
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)		ND ND ND ND	0.0020 0.0020 0.0020 0.0060	0.00046 0.00048 0.00045 0.0014	mg/l mg/l mg/l mg/l		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Limit	s		

Toluene-D897%4-Bromofluorobenzene93%

107%

114%

Dibromofluoromethane

1,2-Dichloroethane-D4

1868-53-7

2037-26-5

460-00-4

17060-07-0

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

79-122%

75-121%

87-119%

80-133%

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



2.9 2



Section 3

ලා

Misc.	Forms	e Na Stati	*	
				· · ·

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody



					Ac 10 71	cutest La 165 Harw 3-271-47	boratori vin Drive 00 F	es Gu e, Sui ax: 7	lf Ca te 15 13-21	5ast 10 H 177-4	ousic 770	on, TX 77	036			Accutest Accutest	Job #: Quote #:	T 2	-48	36			
Client Information					Facil	ty Inform	ation							Ana	ytical inf	ormation			1	·			
DCP_Midstream			An	erica	ın Envi	ronment	Consul	ting,	LLC														
ame 370 Seventeenth Street. Su	ite 2	2500	Project Nan	16		Xline					1								-				
dress			Location							_	-1			1	1						m		
Denver CO	802	202			Etch	everry	Ranch														260		- A
ity State Stenhen Weathers	Zip		Project/PO ;	¥:			Xiine				- 1	1		( ·	Í	1	í l	(	(	1 I	× I	1	í í
and Report to:							2000					8		1	1			1			Ш		
hone #: 303.605.1718			FAX #:									260								ļ	8		
			Collection	)				Pre	sen	vatio	'n	X 8			1	1			1	1	MS.		
Field ID / Daint of Collection		D-4-	Time	Sa	smpled	Matrix	# of	5	₹ Ş	Sof	1 g	3TE				1			1		VSV		
FIELD ID / POINT OF CONECTION	5			1	By	Maunx	2	<del>اڭ ا</del>	ਟ  <del>ਹ</del> ੋ	Ŧ	<del>اگرا</del>				<u> </u>			+		+	<u>†</u>	+	
1W-1	F	103	11900	1.15	<u> </u>	GW	3	<del>[ ]</del>	+	+-	+	· *		<del> </del>	┝──			+	+	+			} 📕
1W-2		-	1122		<u> </u>	GW	3		+	╋	+	<u>×</u>		╂		<del> </del>	+		+	+	+	+	
W-3	-		1650			GW	3	X	-	┢	┼-┤	<u>X</u>			<u> </u>	+							
W-4		—	1242		<u> </u>	GW	3	×	+	╀	+	<u>×</u>		ł	<u> </u>	+		+	+			-	
IW-5	· · ·		1220	$\vdash$		GW	3	X		+-	$\left  \right $	X			┣───				+		+		
W-6			11210			GW	3	¥۱		+	$\square$	<u>x</u>		<b> </b>				+		+		+	
1W-7			11.510			GW	3	×	_	-	$\square$	X		·	<b> </b>			+	<u> </u>	+			
DUP	$\square$		000	<b> </b>		GW	3	<b> ×</b>	4-	+	$\square$	X		ļ		<u> </u>	<b></b>		<u> </u>		<u> </u>	l	
RIP			000	1	<u> </u>	GW	3	×		+	$\square$	X			L	L	<u> </u>	∔	·	<b></b>	-		• 11 a. a
IW- MS/MSD MW-7	$\square$	_	1510	1	<u> </u>	GW	6	X		1.	Ŀŀ						I			1	X		
							L	11												<u> </u>			
Turnaround Information				ŀ.			Data	Deliv	erabl	le In	form	ation			- موتخر، 	Comm	ents / Re	marks	2.4		<u>.                                    </u>	. A.	
21 Day Standard	A	pprove	d By:		NJ Red	luced			Сот	ımer	ciał "	A"											
14 Day				ΙĒ	NJ Ful	1		Ī	Com	ımer	cial "	в"											
				Ы	51017			님	ISP (	Cate		a		1									
				님				<u>ا</u>	-ar (		9019	-											
(Days)				님	UISK D	enverable	•	ப	State	e Fo	1113	•											
KUSH LAT IS for FAX data				IП	Other	(Specify)				-													· .
Sampl	e Cu	stody n	ust be docu	mente	d below	each tin	ie sampl	es ch	ange	pos	sesio	m, includi	ng courie	r deilvery.		1		Τ		ic			
Relinquished by Simpler.	Date	Time:	1470	Rec	elved By	TOF	<		-	Re	linqui	shed By:			Date Time	r:		Received	By:				
1 WW///////////////////////////////////	( Date	Time:	170	11 Ref	NINGO BY	-16th	<u> </u>			2	lingui	shed By:			Date Time	N.		Received	By:				
3	٦ <sub>1</sub>	1,5,	B 9/1~	γS	7 1	VC.	$\sim$	$\checkmark$		4								4	-				
Relinquished by Sampler:	Date	Time:		Re	elyéd By			ſſ		Se	a #			Preserved w	here applic	2		On Ice:			1 11	1	
5				5				$\underline{\smile}$									_			//_	al K	$\overline{v}$	

ļ

T24836: Chain of Custody Page 1 of 3



Date/Time Received:	Date/Time Received:       1.0.3.0.9.0	Date/Time Received:       14.3.3.9.90       # of Coolers Received:       Thermometer #	Accutest Job Number: 124836	Client: AECILC	Froject: C
Couler Temps: #1:       2°C       #2:       #3:	Couler Temps:       #1:       2 <sup>2</sup> #2:       #3:	Cooler Temps:       #1:	Date/Time Received: " 12-3-6 9	# of Coolers Received:	Thermometer #1
Method of Delivery:       FEDEX       UPS       Accutest Courier       Greyhound       Delivery       Other         Mrbiil Numbers:	Method of Delivery:       FEDEX       UPS       Accutest Courier       Greyhound       Delivery       Other         Mrbill Numbers:	Method of Delivery:       FEDEX       UPS       Accutest Courier       Greyhound       Delivery       Other         Arbill Numbers:       COLER INFORMATION       Sample Zondations received broken       Trip Black in COCC but not received         Costady seal nussing or not infact Temperature criteria not met Wer ice received in cooler       Sample zontaines received broken       Trip Black in COC but not received         Chain of Custody not received Sample D/T unclear or missing Analyses unclear or missing CoC not property executed       Sample zont indice not on CoC Sample Black in cole received in adalysis       Number of Eucores7 Number of Eucores8 Number of Eucores7 Number of Eucores7	Cooler Temps: #1: $2^{\circ}$ #2:	#3: #4: #5:	#6: #7: #8:
Aurbill Numbers:       COULER INFORMATION       SamPLE INFORMATION       TRIP.BLANK INFORMATION         Costody seal mussing or nut intact were ice received in cooler       Sample containers received broken by the received in cooler       Trip Blank on COC but not received Sample labels inissing or illegible iD on COC does not match label[s]       Trip Blank on COC but not received Biol D on COC does not match label[s]         Chain of Custody not received Sample D/T unclear or missing COC not properly executed       Sample received but in or analysis on COC Sample fabel on COC, but not received Bottles missing for requested analysis Insufficient volume for analysis Sample received inproperly preserved       Number of Encores? Number of 5035 kits?         Number of Discrepancies:       Number of Sample fabel D/T       Number of Sample fabel D/T         CECHNICIAN SIGNATURE/DATE:       Match index       Match index         VFORMATION AND SAMPLE LABELING VERIFIED BY:       Match index       Match index         VFORMATION AND SAMPLE LABELING VERIFIED BY:       Match index       Date:         y Accutest Representative Notified:       Date:       Yea:         y Accutest Representative:       Via:       Phone       Email	Aurbill Numbers:	Aurbill Numbers:       COULER INFORMATION       SAMPLE INFORMATION       TRIP BLANK INFORMATION         Costody seal insisting or not intract       Sample containes received broken       Trip Blank on COC but not received         Wer ice received in cooler       Sample insisting or not intract       Trip Blank on COC but not received         CHAIN OF CUSTODY       Sample insisting or not insisting       Trip Blank methods         Chain of Custody not received       Sample insisting or requested analysis       Received Water Trip Blank         Analyses unclear or missing       Sample inside on COC, but not received       Number of Eucores7         Sample DJT unclear or missing       Sample received improperty preserved       Number of Eucores7         Sample instel on COC, but not received       Bottles missing or requested analysis       Number of Eucores7         Sample instel on COC, but not received       Sample instel on COC, but not received       Number of Eucores7         Sample instel on COC, but not received       Sample instel on COC, but not received       Number of Eucores7         Sample instel on COC, but not received       Sample instel on COC, but not received       Number of Eucores7         Sample instel on COC, but not received       Sample instel on COC, but not received       Number of Eucores7         Work of Disorpancies:       Via Core Bottles       Number of Eucores7       Number of Eucores7 </td <td>vethod of Delivery: FEDEX UPS</td> <td>Accutest Courier Greyhound</td> <td>Delivery Other</td>	vethod of Delivery: FEDEX UPS	Accutest Courier Greyhound	Delivery Other
COULER INFORMATION       SAMPLE INFORMATION       TRUE BLANK INFORMATION         Custody seal meshing or nut intext       Sample containters received broken       Titp Blank net received in at our coce well         Wet here received in cooler       Sample tabels missing or illegible       Titp Blank net indext       Titp Blank net indext         Chain of Custody not received       Sample Idebis missing or illegible       D/T on COC does not match label(s)       Received Water Trip Blank         Chain of Custody not received       Sample Idebis missing or illegible       D/T on COC does not match label(s)       Number of Encores?         Sample Idebis missing or missing       Buttles missing for requered analysis       Number of Encores?       Number of 5035 kits?         Summary of Discrepancies:       Sample received inproperty preserved       Number of lab-filtered metals?       Number of lab-filtered metals?         TECHNICIAN SIGNATURE/DATE:       CORRECTIVE ACTIONS       CORRECTIVE ACTIONS	COULER INFORMATION       SAMPLE INFORMATION       TRP BLANK INFORMATION         Custody seal missing or not intact Inperature criteria not net Wet ice received in cooler       Sample containers received broken Wet ice received in cooler       Trip Blank on COC but not received Trip Blank necessed Sample labels missing or filegible D/T on COC does not match label[s] D/T on COC does not match label[s] Number of Encores? Number of Encores? Number of Encores? Number of label[met on triats? Number of label[m	COULER INFORMATION       SAMPLE INFORMATION       TRP BLANK INFORMATION         Custody seal mussing or not intact       Sample containes received broken       Trip Blank on COC but not received         Wer ice received in cooler       Sample integlible       Trip Blank on COC but not Received but not on COC         Chain of Custody not received       Sample labels nussing or Highle       Trip Blank not Intact         D on COC does not match labels!       D/T on COC does not match labels!       Received State Trip Blank         Chain of Custody not received       Sample fabtes root but no analysis on COC       Received State Trip Blank         Sample sector or missing       Sample received in the or COC but not received       Received State Trip Blank         Summary of Discrepancies:       Bottles missing for requested analysis       Number of Encores?         Number of Discrepancies:       Sample received Improperty preserved       Number of State?         Vol Core Not property executed       Sample received Improperty preserved       Number of State?         Summary of Discrepancies:       Sample received Improperty preserved       Number of State?         Viscrepancies:       CORRECTIVE ACTIONS       Viscrepancies:         Certain SignArture/Darte:       Corrective Actions       Viscrepancies:         Certain SignArture/Darte:       Corrective Actions       Viscrepancies:	Alrbill Numbers:		
I- TC R Binxt VAA -Boxen         FECHNICIAN SIGNATURE/DATE:         FIGURATION AND SAMPLE LABELING VERIFIED BY:         VAL         VIA         CORRECTIVE ACTIONS         VIA:         Phone         Email         Xient Instructions:	I- TC-R       Biont Van       -So ven         ECHNICIAN SIGNATURE/DATE:	I- Trip Binx Jak -Boxen         ECHNICIAN SIGNATURE/DATE:         FORMATION AND SAMPLE LABELING VERIFIED BY:         VIL         VIL         VIL         VIL         VIL         VIL         VIL         VIL         VIL         VIa:         Phone         Email	Custody seal missing or not intact Temperature criteria not net Wet ice received in cooler CHAIN OF CUSTODY Chain of Custody not received Sample D/T unclear or missing COC not properly executed Summary of Discrepancies:	Sample containers received broken         VOC vtals have headspace         Sample labels missing or illegible         ID on COC does not match label(s)         D/T on COC does not match label(s)         Sample listed on COC, but not received         Bottles missing for requested analysis         Insufficient volume for analysis         Sample received improperty preserved	Trip Blank on COC but not received         Trip Blank received but not on COC         Trip Blank not intact         Received Water Trip Blank         Received Soil TB         Number of Encores?         Number of 5035 kHs?         Number of lab-filtered metals?
Image: Stank for -150	Image: Construction signature/date:     Image: Construction signature/date:       Image: Construction signature     Image: Construction signature       Image: Construction signature     Image: Construction signature       Image: Construction signature     Image: Construction signature	Image: Control of the second secon		· · · · · · · · · · · · · · · · · · ·	
Ilent Representative:	ECHNICIAN SIGNATURE/DATE:   PFORMATION AND SAMPLE LABELING VERIFIED BY:   VAL     Ilent Representative Notified:   y Accutest Representative:   Via:   Phone   Email	ECHNICIAN SIGNATURE/DATE:	1- TC-P ISLANX	LaA -150 ver	<u>_</u>
• • • • • • • • • • • • • • • • • • •	*       *	* * * * * * * * * * * * * * * * * * *	TECHNICIAN SIGNATURE/DATE:	RIFIED BY: VALTO	-3-8
Client Representative Notified:     Date:       Dy Accutest Representative:     Vin:       Phone     Email       Ment Instructions:     Email	Client Representative Notified: Date:	Client Representative Notified:       Date:         by Accutest Representative:       Via:         Phone       Email         Alent Instructions:       Via:	* * * * * * * * *	• • CORRECTIVE ACTION	<u>IS</u> • • • • • • • • • •
By Accutest Representative:	y Accutest Representative:	iy Accutest Representative:	Client Representative Notified:		Date:
			By Accutest Representative:	· .	Via: Phone Email

ľ

T24836: Chain of Custody Page 2 of 3



Às							in a second s		
	ic le			INITIALS:		<u> </u>	FC		
AMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	F	РН
_	mw 1	12-1-6 172	LU .	40ml	1-3	VOA	5 6 7 8	<2	>12
2	22	1 H2	1			_}	5 6 7 B	<2	>12
3		1632					5 6 7 8	<2	>12
4	Y	1242	<u> </u>	<b> </b>		<b> </b>	5 6 7 B	<2	>12
<u> </u>	<u> </u>	1550	P	<del> </del>	-		5678	<2	>12
6	6	1510	<u>p.                                    </u>				5 6 7 8	<2	>12
7	7`	1519	<u> </u>		- [-7		5 6 7 8	<2	>12
SE C	ECAMISTM	D- 15		`	429	127	5 6 7 8	· <2	. >12
Y0	D	00			1-3		5 6 7 8	<2	>12
Deg_	TON BLONK	00			1-2	<b> </b>	5 6 7 8	<2	>12
						<u>ا</u>	5 6 7 8	<2	>12
·							5 6 7 8	<2	>12
	······································						5 6 7 8	<2	>12
	· · · · · · · · · · · · · · · · · · ·						<u> </u>		>12
							5 6 7 8	<2	>12
			7 7	-3-			5 6 7 8	<2	>12
	· · · · · · · · · · · · · · · · · · ·	-/11-(-1	12-2				5 6 7 8	<2	>12
		21-					5 6 7 8	<2	>12
							<u>5678</u> 1234	<2	>12
							5 6 7 8 1 2 3 4	<z< td=""><td>&gt;12</td></z<>	>12
							<u>5678</u>		-12
	1 2 3 4 2 3 4 5 6 7 5 6 7 5 6 7 5 6 7 5 6 7 7 5 6 7 7 8 8 6 7 7 8 8 7 7 7 7 7 7 7 7 7 7	$\frac{1}{2}$ $\frac{1}$	$ \frac{1}{2} \qquad 1$	$ \frac{1}{2} \qquad 1$	$ \frac{1}{2} \qquad 1$	$ \frac{1}{1200} = \frac{11200}{11200} = \frac{11200}{11200$	$ \frac{1}{1} + 1$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

Ì

T24836: Chain of Custody Page 3 of 3





GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

Method Blank Summaries

Blank Spike Summaries

Matrix Spike and Duplicate Summaries



## Method Blank Summary

Job Number:	124836
Account:	DUKE DCP Midstream, LLC
Project:	X-Line
	•

		•					
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ2312-MB	Z0046417.D	1	12/07/08	JL	n/a	n/a	VZ2312

80-133%

The QC reported here applies to the following samples:

Method: SW846 8260B

T24836-1, T24836-2, T24836-3, T24836-9

4-Bromofluorobenzene

460-00-4

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2	Benzene	ND	c <b>2.0</b>	0.46	ug/l
100-41-4	Ethylbenzene	' ND	2.0	0.45	ug/l
108-88-3	Toluene	ND	2.0	0.48	ug/l
1330-20-7	Xylene (total)	ND	6.0	1.4	ug/l
CAS No.	Surrogate Recoveries		Limi	ts	
1868-53-7	Dibromofluoromethane	106%	79-12	22%	
17060-07-0	1,2-Dichloroethane-D4	111%	75-12	21%	
2037-26-5	Toluene-D8	95%	87-11	19%	

93%





## Method Blank Summary

Job Number:	T24836
Account:	DUKE DCP Midstream, LLC
Project:	X-Line

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ2315-MB	Z0046491.D	1	12/09/08	JL	n/a	n/a	VZ2315

•

The QC reported here applies to the following samples:

Method: SW846 8260B

T24836-4, T24836-5, T24836-6, T24836-8

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2	Benzene	ND	2.0	0.46	ug/l
100-41-4	Ethylbenzene	ND	2.0	0.45	ug/l
108-88-3	Toluene	ND	2.0	0.48	ug/l
1330-20-7	Xylene (total)	ND	6.0	1.4	ug/1

CAS NO.	Surrogate Recoveries		Limits	
1868-53-7	Dibromofluoromethane	110%	79-122%	
17060-07-0	1,2-Dichloroethane-D4	121%	75-121%	
2037-26-5	Toluene-D8	97%	87-119%	
460-00-4	4-Bromofluorobenzene	95%	80-133%	

20 of 25 **ACCUTEST.** T24836 Laboratories



## Method Blank Summary

° F -

Job Number Account: Project:	T24836 DUKE DCP X-Line	Midstream,	LLC					
Sample VF3228-MB	File ID F012730.D	DF 1	Analyzed 12/11/08	By JL	Prep I n/a	Date	Prep Batch n/a	Analytical Batch VF3228
Гhe QC rep	orted here applie	es to the fol	llowing sam	ples:			Method: SW	/846 8260B
Г24836-7								
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2	Benzene		ND	2.0	0.46	ug/l		
00-41-4	Ethylbenzene		ND	2.0	0.45	ug/l		
08-88-3	Toluene		ND	2.0	0.48	ug/l		
330-20-7	Xylene (total)			6.0	1.4	ug/l		
CAS No.	Surrogate Recov	veries		Limi	ts			
1868-53-7	Dibromofluorom	ethane	99%	79-12	2%			
17060-07-0	1,2-Dichloroetha	ne-D4	89%	75-12	21%			
2037-26-5	Toluene-D8		115%	87-11	.9%			
460-00-4	4-Bromofluorobe	nzene	105%	80-13	3%			



Page 1 of 1

4.1

•

## Blank Spike Summary

Job Number: Account: Project:	T24836 DUKE DCP X-Line	Midstrea	nm, LLC				
Sample VZ2312-BS <sup>a</sup> .	File ID Z0046415.D	DF 1	Analyzed 12/07/08	By JL	Prep Date n/a	Prep Batch n/a	Analytical Batch VZ2312
The QC report	ted here appli 836-2, T24836	es to the	following sam	ples:		Method: SW	/846 8260B

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	20.9	84	
100-41-4	Ethvlbenzene	25	20.9	84	75-112
108-88-3	Toluene	25	21.8	87	77-114
1330-20-7	Xylene (total)	75	65.6	87	75-111
CAS No.	Surrogate Recoveries	BSP	Li	mits	
1868-53-7	Dibromofluoromethane	100%	79	-122%	
17060-07-0	1,2-Dichloroethane-D4	96%	75	-121%	
2037-26-5	Toluene-D8	106%	· 87	-119%	
460-00-4	4-Bromofluorobenzene	104%	80	-133%	

(a) No MS/MSD data available due to autosampler failure.



Page 1 of 1

4.2

## Blank Spike Summary

Job Number:	T24836									
Account:	DUKE DCP Midstream, LLC									
Project:	X-Line									
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch			
VZ2315-BS <sup>a</sup>	Z0046489.D	1	12/09/08	JL	n/a	n/a	VZ2315			

The QC reported here applies to the following samples:

Method: SW846 8260B

T24836-4, T24836-5, T24836-6, T24836-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	23.0	92	76-118
100-41-4	Ethylbenzene	25	23.4	94	75-112
108-88-3	Toluene	25	22.4	90	77-114
1330-20-7	Xylene (total)	75	68.3	91	5-111
CAS No.	Surrogate Recoveries	BSP	Limits		
1868-53-7	Dibromofluoromethane	109%	79-122%		
17060-07-0	1,2-Dichloroethane-D4	119%	: 75-	121%	
2037-26-5	Toluene-D8	95%	87	-119%	
460-00-4	4-Bromofluorobenzene	94%	80	133%	

(a) No MS/MSD data available due to autosampler failure.





## Blank Spike Summary

1.

Job Number Account: Project:	T24836 DUKE DCP X-Line	Midstrea	am, LLC		· .		
Sample VF3228-BS	File ID F012728.D	DF 1	Analyzed 12/11/08	By JL	Prep Date n/a	Prep Batch n/a	Analytical Batch VF3228
The QC rep T24836-7	orted here appl	ies to the	following san	nples:		Method: SW	/846 8260B
CAS No.	Compound		Spike ug/l	BSP ug/l	BSP % Limits		
71-43-2	Benzene		25	25.0	100 76-118		

CAS No.	Compound	Spike ug/l	BSP ug/1	88P % Limits
71-43-2	Benzene	25	25.0	100 76-118
100-41-4	Ethylbenzene	25	22.5	90 75-112
108-88-3	Toluene	25	22.8	91 77-114
1330-20-7	Xylene (total)	75	65.7	88 75-111
CAS No	Surrogate Recoveries	BSD	T ii	mits
CAS NO.	Sull ogate Recoveries	0.51		mus
1868-53-7	Dibromofluoromethane	99%	79	-122%
17060-07-0	1,2-Dichloroethane-D4	89%	75	-121%
2037-26-5	Toluene-D8	116%	: 87	-119%
460-00-4	4-Bromofluorobenzene	104%	80	-133%



Page 1 of 1

4.2

#### Matrix Spike/Matrix Spike Duplicate Summary Page 1 of 1 Job Number: T24836 Account: DUKE DCP Midstream, LLC Project: X-Line Analytical Batch Sample File ID DF Analyzed By Prep Date Prep Batch 12/11/08 JĹ n/a n/a VF3228 T24836-7MS F012732.D 1 T24836-7MSD F012733.D 1 12/11/08 JL n/a n/a VF3228 VF3228 F012731.D 1 12/11/08 JL n/a n/a T24836-7

The QC reported here applies to the following samples:

Method: SW846 8260B

4.3

T24836-7

CAS No.	Compound	T24836-7 ug/l Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	25	28.3	113	28.2	113	0	76-118/16
100-41-4	Ethylbenzene	ND	25	25.6	102	25.2	101	2	75-112/12
108-88-3	Toluene	ND	25	25.8	103	25.4	102	2	77-114/12
1330-20-7	Xylene (total)	ND	75	74.6	99	74.4	99	0	75-111/12
CAS No.	Surrogate Recoveries	MS	MSD	T24	4836-7	Limits			
1868-53-7	Dibromofluoromethane	102%	101%	102	2%	79-1229	%		
17060-07-0	1,2-Dichloroethane-D4	92%	93%	929	%	75-1219	%		
2037-26-5	Toluene-D8	112%	,112%	- 112	2%	87-1199	%		
460-00-4	4-Bromofluorobenzene	102%	102%	101	۱%	80-1339	%		

25 of 25 **ACCUTEST** T24836 Laboratories