1RP-1728

3rd QTR 2010 GW Monitoring Results

DATE:
December 06, 2010

DCP Midstream
370 17th Street, Suite 2500
Denver, CO 80202
303-595-3331
303-605-2226 *FAX*

December 6, 2010

Mr. Leonard Lowe
Environmental Engineer
New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RE: 3rd Quarter 2010 Groundwater Monitoring Results
DCP Midstream, LP J-4-2 Pipeline Release (1RP-1728)
Unit C, Section 27, Township 19 South, Range 35 East
Lea County, New Mexico

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review, a copy of the 3rd Quarter 2010 Groundwater Monitoring Results for the DCP J-4-2 Pipeline Release located in Lea County, New Mexico (Unit C, Section 27, Township 19 South, Range 35 East).

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

Sincerely

DCP Midstream, LP

Stephen Weathers, PG
Principal Environmental Specialist

cc: Larry Johnson, OCD Hobbs District Office (Copy on CD)
Environmental Files

AEC AMERICAN ENVIRONMENTAL CONSULTING, LLC

November 22, 2010

Mr. Stephen Weathers
DCP Midstream, LP
370 17th Street, Suite 2500
Denver, CO 80202

Re: Summary of the Third Quarter 2010 Groundwater Monitoring Results for the DCP J-4-2 Pipeline Release, Lea County New Mexico **(1RP-1728)**
Unit C, Section 27 Township 19 South, Range 35 East

Dear Mr. Weathers:

This report summarizes the third quarter 2010 groundwater monitoring activities that were completed at the J-4-2 release location on September 29, 2010 for DCP Midstream, LP. The site is located in the northeastern quarter of the northwestern quarter (Unit C) of Section 27, Township 19 South, Range 35 East approximately 3 miles south of the of intersection of US Highway 82 and State Highway 483 in Lea County New Mexico (Figure 1). The approximate coordinates are 32.6386 degrees north and 103.4469 degrees west.

The monitoring network includes the seven groundwater monitoring wells shown on Figure 2. Table 1 summarizes construction information for each well. Monitoring well MW-5 was not installed because of drilling refusal. Five wells were sampled. Wells MW-1 and MW-2 were not sampled because they contained free phase hydrocarbons (FPH).

GROUNDWATER SAMPLING

The depth to water and, if present, the free phase hydrocarbons (FPH), were measured in each well prior to completing the purging and sampling activities. The water-table elevations for the wells containing FPH were adjusted using the following formula:

$GWE_{corr} = MGWE + (PT*PD)$: where

- MGWE is the actual measured groundwater elevation;
- PT is the measured free-phase hydrocarbon thickness; and
- PD is the free phase hydrocarbon density (assumed 0.75)

The fluid measurements for this event are summarized in Table 2. The corrected groundwater elevations for all monitoring episodes are summarized in Table 3. FPH was measured at a thickness of 0.40 feet in MW-1 and 0.20 feet in MW-2. The historic FPH thickness values are summarized in Table 4. The residual FPH thickness of less than 0.5 feet in both wells indicates that the majority of mobile FPH have probably been removed.

Wells MW-3, MW-4, MW-6, MW-7 and MW-8 were purged and sampled with dedicated bailers. Purging continued until a minimum of three casing volumes of water was removed and the field parameters temperature, pH and conductivity stabilized. The well purging forms are attached. The affected purge water was disposed of at the DCP Linam Ranch facility.

Unfiltered samples were collected following stabilization using the dedicated bailers. All samples were placed in an ice-filled chest immediately upon collection and delivered to Accutest Laboratories using standard chain-of-custody protocol. The samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) by method SW846 8260B and chlorides by method SM 4500 CL. The laboratory report is attached.

RESULTS AND INTERPRETATIONS

A field duplicate sample was collected from MW-4. Matrix spike, matrix spike duplicate samples were collected from MW-7. The QA/QC evaluation included:

- All samples were analyzed within the method holding times.
- All of the individual surrogate spikes were within their control limits.
- The method blanks and blank spikes were all within their respective control limits.
- The matrix spike and matrix spike duplicate results from MW-7 and the laboratory-selected sample were all within their respective control limits.
- There were no BTEX detects in the trip blank or the primary and field duplicate samples from MW-8.
- The 3.8 relative percentage difference for chlorides between the primary and duplicate samples from MW-4 is acceptable.

The above information indicates that the data is suitable for evaluating the quarterly groundwater monitoring data.

The laboratory analyses from this sampling event are summarized in Table 5. The New Mexico Water Quality Control Commission (NMWQCC) groundwater standards are reproduced at the top of Table 5. The constituents that exceed these standards are highlighted as bold text. Tables 6, 7, 8 and 9 summarize all of the data collected during this project for benzene, toluene, ethylbenzene and xylenes respectively. Table 10 summarizes the chloride data.

Groundwater Flow

Figure 3 shows the hydrographs for the corrected water-table elevations for the site wells. The water table rose in five wells and declined in MW-6 and MW-8.

The calculated water table elevation contours for this event as generated using the Surfer® program with the kriging option are shown on Figure 4. Groundwater flow is toward the southeast at a consistent gradient. The groundwater flow direction has remained constant over the duration of the project.

Groundwater Chemistry

Examination of Table 5 shows that none of the BTEX constituents were detected in wells MW-3 to MW-8.

The benzene concentrations are plotted on Figure 5 along with wells MW-1 and MW-2 that contained FPH. Comparison of Figure 4 with Figure 5 demonstrates that any dissolved-phase BTEX constituents from MW-1 and MW-2 attenuate to concentrations that are below the method reporting limits before reaching MW-7 or MW-8.

It is also important to note that:

1. The toluene, ethylbenzene and total xylenes concentrations have never exceeded the NMWQCC standards in wells MW-3 through MW-8;
2. Benzene has not been detected in MW-4 since March 2007; and
3. Benzene has never been detected in down-gradient wells MW-6, MW-7 and MW-8.

Examination of Table 10 indicates that the chlorides concentrations in all wells exceed the NMWQCC groundwater standard of 250 mg/l except for the fourth quarter 2008 value from MW-4 which is anomalously low. The chloride concentrations are plotted verses the sampling dates on Figure 6 with the anomalous fourth quarter MW-4 value deleted. The chloride concentration decreased in down-gradient wells MW-6, MW-7 and MW-8 and increased slightly in interior wells MW-3 and MW-4.

A chloride isopleth map generated from data for this event using the Surfer® program is included as Figure 7. The chloride distribution continues to indicate a source to the west and outside of the DCP release area. This pattern has remained constant throughout the duration of the project.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the data collected to date, AEC concludes that:

1. Groundwater flow remains constant toward the southeast;

2. The residual FPH is probably immobile and only a minimal volume remains given the historic remediation activities;

3. The presence of dissolved phase BTEX constituents appears to be limited to the original release area;

4. The dissolved-phase hydrocarbon plume associated with the DCP J-4-2 pipeline release is either stable or contracting;

5. The chloride data from this event continue to confirm that the chlorides that are present in the groundwater did not originate from the DCP release.

The next groundwater-monitoring event is scheduled for the fourth quarter of 2010. Do not hesitate to contact me if you have any questions or comments on this letter.

Sincerely,
AMERICAN ENVIRONMENTAL CONSULTING, LLC

Michael H. Stewart

Michael H. Stewart, P.E., C.P.G.
Principal Engineer

MHS/tbm

attachment

TABLES

Table 1 – Summary of Monitoring Well Completions at the J-4-2 Site

Name	Date Installed	Stickup	Casing Diameter (inches)	Total Depth (btoc)	Screen Interval (ground)	Sand Interval
MW-1	2/06	3.17	2	43.05	19-39	17-39
MW-2	2/06	3.08	4	43.30	19-39	17-39
MW-3	2/06	3.21	2	43.00	19-39	17-39
MW-4	9/06	3.12	2	38.12	20-35	18-35
MW-5	Not installed because of drilling refusal					
MW-6	9/06	3.32	2	38.32	20-35	18-35
MW-7	9/06	2.95	2	39.45	21.5-36.5	19.5-36.5
MW-8	9/06	3.32	2	38.32	20-35	18-35

All units are feet except as noted
btoc: Below top of casing

Table 2 - Summary of September 2010 Fluid Measurements

Well	Depth to Water	Depth to Free Phase Hydrocarbons	Corrected Groundwater Elevation
MW-1	29.10	28.70	3,711.65
MW-2	29.65	29.45	3,711.12
MW-3	28.15		3,711.24
MW-4	28.60		3,711.64
MW-6	29.40		3,710.56
MW-7	32.50		3,708.23
MW-8	30.70		3,706.62

Units are feet

Table 3 - Summary of Water Table Elevations for the J-4-2 Site

Well	2/15/06	9/25/06	12/21/06	3/14/07	6/26/07	9/25/07	11/30/07	3/20/08
MW-1	3713.61	3712.60	3712.63	3712.29	3712.15	3711.86	3712.42	3713.48
MW-2	3713.93	3713.48	3712.49	3712.75	3712.63	3712.34	3712.91	3713.40
MW-3	3713.36	3712.57	3712.57	3712.55	3712.79	3711.50	3712.09	3713.30
MW-4		3712.80	3712.82	3712.78	3713.25	3712.98	3713.48	3713.70
MW-6		3711.76	3712.00	3711.96	3711.87	3711.56	3711.92	3712.53
MW-7		3711.03	3710.80	3710.73	3710.50	3709.87	3710.33	3711.38
MW-8		3709.22	3708.95	3708.79	3708.54	3708.06	3708.33	3709.17

Well	6/27/08	9/16/08	12/3/08	3/11/09	5/18/09	9/24/09	12/20/09	3/10/10	6/13/10
MW-1	NM	NM	3711.94	3712.19	3712.05	3711.48	3711.50	3711.45	3711.31
MW-2	NM	NM	3712.14	3711.99	3711.87	3711.28	3711.17	NM	3710.89
MW-3	3713.09	3712.34	3712.25	3712.10	3711.90	3711.35	3711.28	3711.19	3711.01
MW-4	3713.13	3712.18	3712.10	3712.36	3712.13	3711.69	3711.61	3711.56	3711.41
MW-6	3712.20	3711.86	3711.70	3711.57	3711.42	3711.22	3710.72	3710.67	3710.61
MW-7	3710.95	3710.11	3710.00	3709.84	3709.51	3708.55	3708.37	3708.35	3708.11
MW-8	3708.78	3708.23	3708.13	3707.95	3708.10	3706.79	3706.73	3706.71	3707.46

Well	9/28/10
MW-1	3711.65
MW-2	3711.12
MW-3	3711.24
MW-4	3711.64
MW-6	3710.56
MW-7	3708.23
MW-8	3706.62

Units are feet
Blank cells: wells not installed
NM: Not measured because of probe malfunction.

Table 4 – Summary of Free Phase Hydrocarbon Thickness Values for MW-1 and MW-2

Date	MW-1	MW-2
02/15/06	0.00	0.57
09/25/06	0.00	0.15
12/21/06	0.09	0.13
03/14/07	0.07	0.10
06/26/07	0.09	0.00
09/25/07	0.09	0.03
11/30/07	0.00	0.00
03/20/08	0.00	0.00
06/27/08	0.04	0.01
09/16/08	0.08	0.02
12/03/08	0.21	0.17
03/11/09	0.32	0.27
05/18/09	0.35	0.26
09/24/09	0.29	0.24
12/20/09	0.00	0.05
03/10/10	0.03	0.04
06/13/10	0.00	0.05
09/29/10	0.40	0.20

Units are feet

Table 5 - Summary of Third Quarter 2010 Groundwater Results

Well	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Chlorides
NMWQCC Groundwater Standard	0.01	0.75	0.75	0.62	250
MW-3	<0.001	<0.002	<0.002	<0.004	**2,220**
MW-4	<0.001	<0.002	<0.002	<0.004	**2,090**
MW-4 DUP	<0.001	<0.002	<0.002	<0.004	**2,170**
MW-6	<0.001	<0.002	<0.002	<0.004	**445**
MW-7	<0.001	<0.002	<0.002	<0.004	**1,210**
MW-8	<0.001	<0.002	<0.002	<0.004	**347**
trip	<0.001	<0.002	<0.002	<0.004	NA

Notes: Units are mg/l.
MW-1 and MW-2 were not sampled because free phase hydrocarbons were present
MW-5 was not installed because of drilling refusal
NMWQCC: New Mexico Water Quality Control Commission
Values above the NMWQCC standard are highlighted as bold text.
NA: not analyzed

Table 6 – Summary of Benzene Groundwater Data

Well	2/06	9/06	12/06	3/07	6/07	9/07	11/07	3/08	6/08	9/08	12/08	3/11/09	5/18/09	9/24/09
MW-1	0.139	0.0487	FPH	FPH	FPH	0.011	0.107	0.037	FPH	FPH	FPH	FPH	FPH	FPH
MW-2	0.026	0.0045	0.006	0.188	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH
MW-3	<0.001	<0.002	<0.002	<0.002	0.003	<0.001	0.0011J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-4	NI	0.0086	0.025	0.004	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-6	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-7	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-8	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Well	12/20/09	3/10/10	6/13/10	9/29/10
MW-1	<0.002	FPH	0.0016	FPH
MW-2	FPH	FPH	FPH	FPH
MW-3	<0.002	<0.001	<0.0003	<0.001
MW-4	<0.002	<0.001	<0.0003	<0.001
MW-6	<0.002	NA	<0.0003	<0.001
MW-7	<0.002	<0.001	<0.0003	<0.001
MW-8	<0.002	<0.001	<0.0003	<0.001

Notes: *Units are mg/l,*
MW-5 was not installed
Duplicates are averaged together
J modifiers are not included in this table
FPH: Free phase hydrocarbons present so well not sampled
NI: Well not installed
NA: Not analyzed due to well obstruction

Table 7 – Summary of Toluene Groundwater Data

Well	2/06	9/06	12/06	3/07	6/07	9/07	11/07	3/08	6/08	9/08	12/08	3/11/09	5/18/09	9/24/09
MW-1	0.326	0.0058	FPH	FPH	FPH	0.003	0.024	0.0155	FPH	FPH	FPH	FPH	FPH	FPH
MW-2	0.038	<0.001	0.003	0.006	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH
MW-3	<0.001	<0.002	<0.002	<0.002	0.005	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-4	NI	0.00093J	0.005	6E-04	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-6	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-7	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-8	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Well	12/20/09	3/10/10	6/13/10	9/29/10
MW-1	<0.002	FPH	<0.001	FPH
MW-2	FPH	FPH	FPH	FPH
MW-3	<0.002	<0.002	<0.001	<0.002
MW-4	<0.002	<0.002	<0.001	<0.002
MW-6	<0.002	NA	<0.001	<0.002
MW-7	<0.002	<0.002	<0.001	<0.002
MW-8	<0.002	<0.002	<0.001	<0.002

Notes: Units are mg/l,
MW-5 was not installed
Duplicates are averaged together
J modifiers are not included in this table
FPH: Free phase hydrocarbons present so well not sampled
NI: Well not installed
NA: Not analyzed due to well obstruction

Table 8 -- Summary of Ethylbenzene Groundwater Data

Well	2/06	9/06	12/06	3/07	6/07	9/07	11/07	3/08	6/08	9/08	12/08	3/11/09	5/18/09	9/24/09
MW-1	0.34	0.0284	FPH	FPH	FPH	0.004	0.04	0.014	FPH	FPH	FPH	FPH	FPH	FPH
MW-2	0.04	0.0027	0.003	0.026	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH
MW-3	<0.001	<0.002	<0.002	<0.002	0.002	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-4	NI	0.0092	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-6	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-7	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-8	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Well	12/20/09	3/10/10	6/13/10	9/29/10
MW-1	0.0014J	FPH	<0.0003	FPH
MW-2	FPH	FPH	FPH	FPH
MW-3	<0.002	<0.002	<0.0003	<0.002
MW-4	<0.002	<0.002	<0.0003	<0.002
MW-6	<0.002	NA	<0.0003	<0.002
MW-7	<0.002	<0.002	<0.0003	<0.002
MW-8	<0.002	<0.002	<0.0003	<0.002

Notes: Units are mg/l,
MW-5 was not installed
Duplicates are averaged together
J modifiers are not included in this table
FPH: Free phase hydrocarbons present so well not sampled
NI: Well not installed
NA: Not analyzed due to well obstruction

Table 9 – Summary of Total Xylenes Groundwater Data

Well	2/06	9/06	12/06	3/07	6/07	9/07	11/07	3/08	6/08	9/08	12/08	3/11/09	5/18/09	9/24/09
MW-1	0.31	0.0694	FPH	FPH	FPH	0.098	0.39	0.215	FPH	FPH	FPH	FPH	FPH	FPH
MW-2	0.335	0.0471	0.0613	0.125	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH
MW-3	<0.002	<0.006	<0.006	<0.006	0.01	<0.001	<0.006	<0.006	0.007	<0.006	<0.006	<0.002	<0.002	<0.006
MW-4	NI	0.0061	0.0065	0.003	0.003	<0.001	<0.006	<0.006	<0.006	0.0041J	<0.006	<0.002	<0.002	<0.006
MW-6	NI	<0.006	<0.006	<0.006	<0.001	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.002	<0.002	<0.006
MW-7	NI	<0.006	<0.006	<0.006	0.003	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.002	<0.002	<0.006
MW-8	NI	<0.006	<0.006	<0.006	<0.001	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.002	<0.002	<0.006

Well	12/20/09	3/10/10	6/13/10	9/29/10
MW-1	0.0418	FPH	0.0095	FPH
MW-2	FPH	FPH	FPH	FPH
MW-3	<0.006	<0.004	<0.0006	<0.004
MW-4	<0.006	<0.004	<0.0006	<0.004
MW-6	<0.006	NA	<0.0006	<0.004
MW-7	<0.006	<0.004	<0.0006	<0.004
MW-8	<0.006	<0.004	<0.0006	<0.004

Notes: Units are mg/l,
MW-5 was not installed
Duplicates are averaged together
J modifiers are not included in this table
FPH: Free phase hydrocarbons present so well not sampled
NI: Well not installed
NA: Not analyzed due to well obstruction

Table 10 – Summary of Chlorides Groundwater Data

Well	3/14/07	6/26/07	9/16/08	12/3/08	3/11/09	5/18/09	9/24/09	12/20/09	3/10/10	6/13/10	9/29/10
MW-1	FPH	FPH	FPH	FPH	FPH	FPH	FPH	2,680	FPH	1,800	FPH
MW-3	7,800	10,800	4,070	2,625	2,860	3,270	3,195	3,605	3,030	2,130	2,220
MW-4	1,300	1,380	1,440	70	1,390	1,440	1,490	1,740	1,950	2,150	2,130
MW-6	669	544	537	391	363	383	373	1,090	NA	533	445
MW-7	1,230	1,150	1,180	1,050	944	1,090	1,140	1,440	1,230	1,280	1,210
MW-8	609	617	735	480	417	378	403	308	414	415	347

Notes: Units are mg/l
Duplicates are averaged together
NA: Not analyzed due to well obstruction

FIGURES

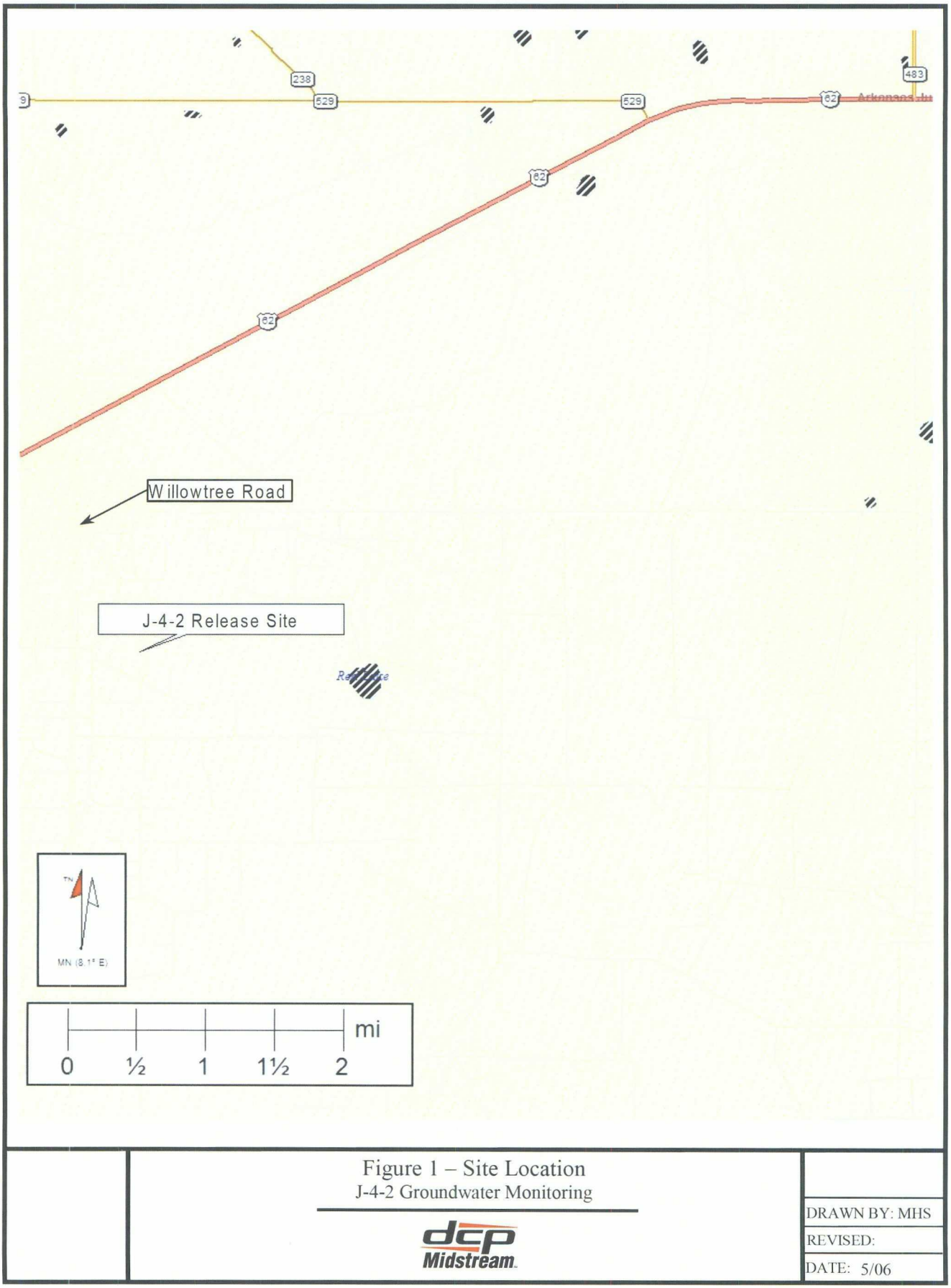


Figure 1 – Site Location
J-4-2 Groundwater Monitoring

dcp Midstream

DRAWN BY:	MHS
REVISED:	
DATE:	5/06

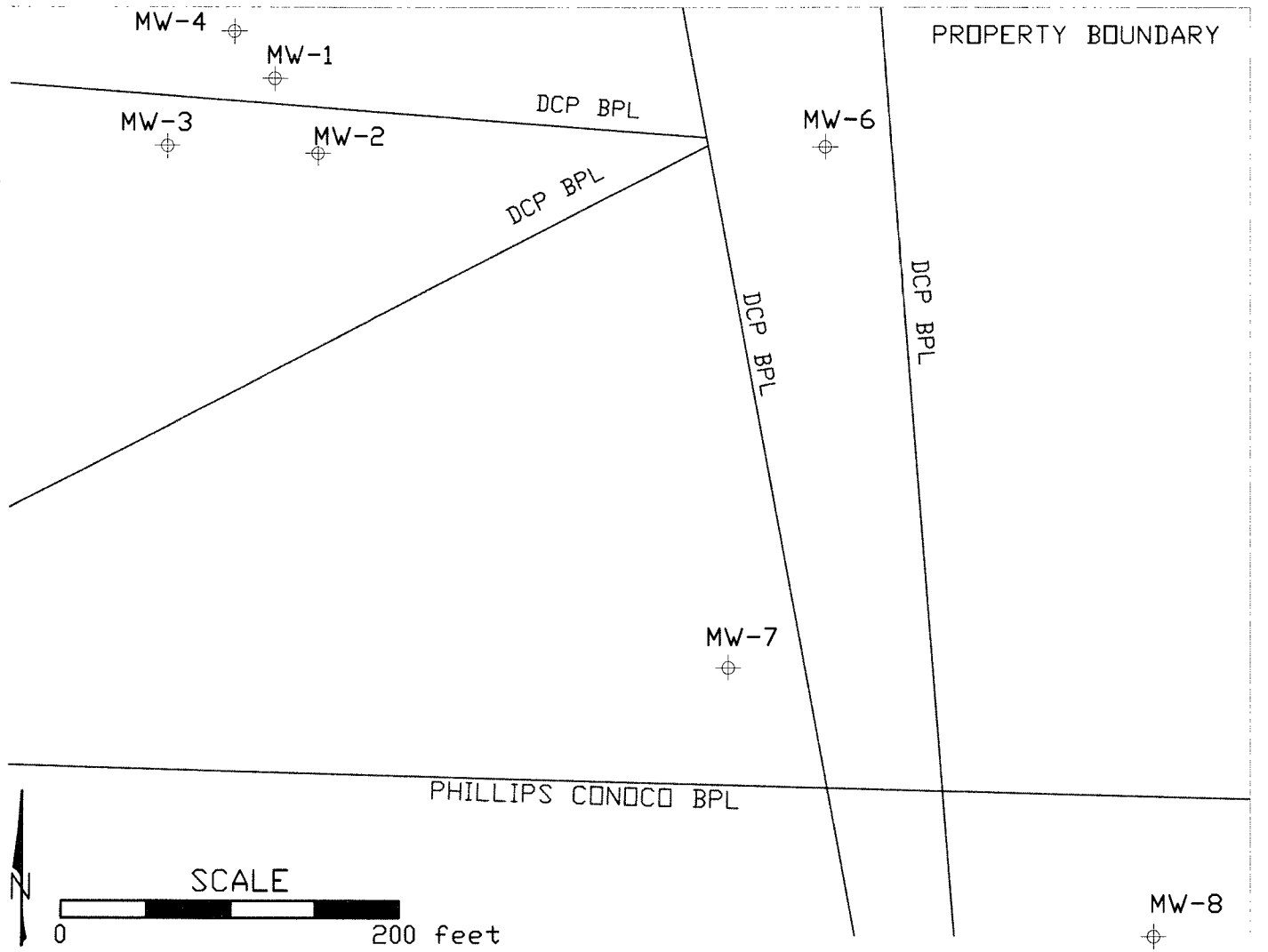


Figure 2 - Site Details

J-4-2 Groundwater Monitoring

dcp Midstream.

DRAWN BY: MHS
REVISED:
DATE: 8/10

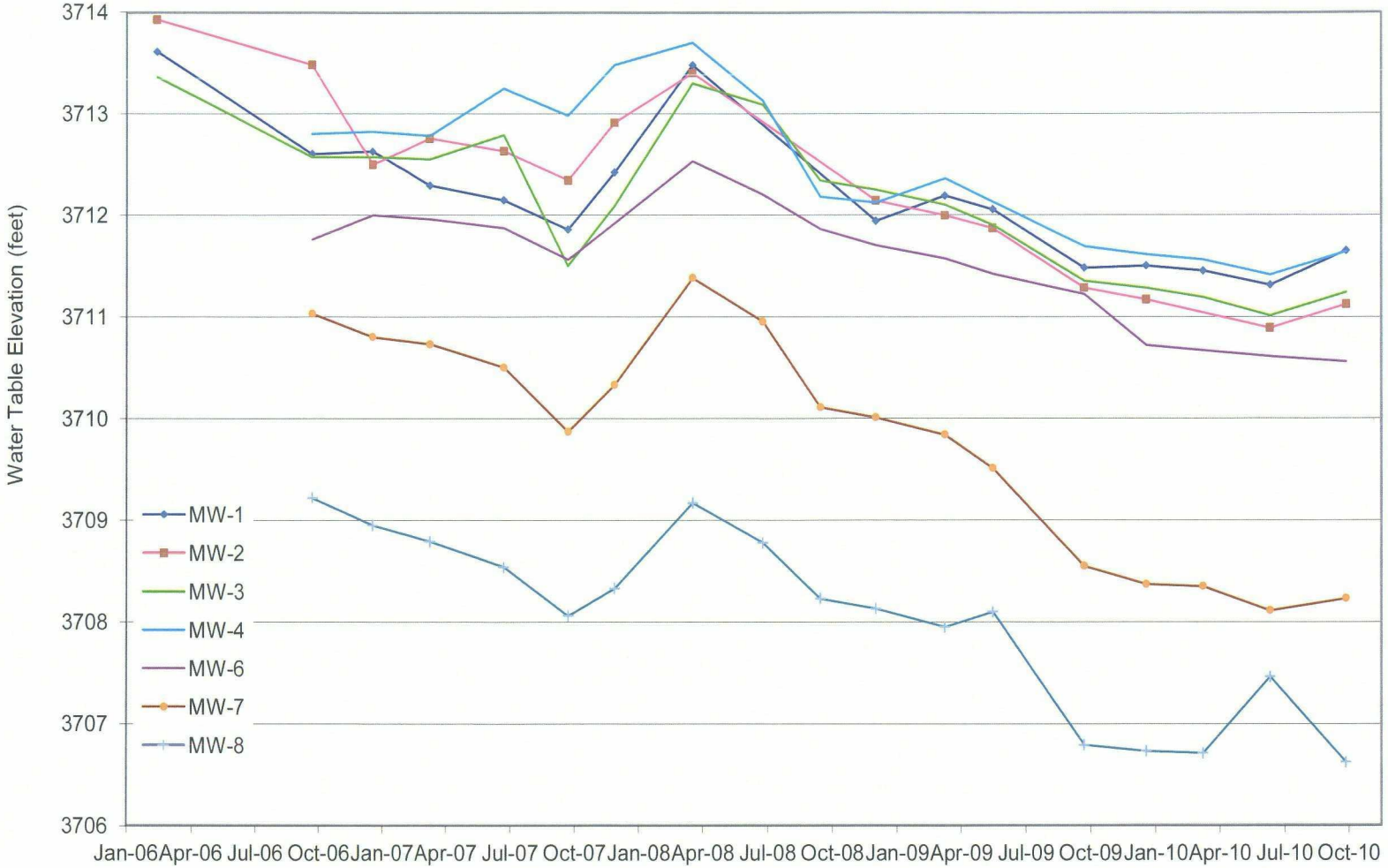


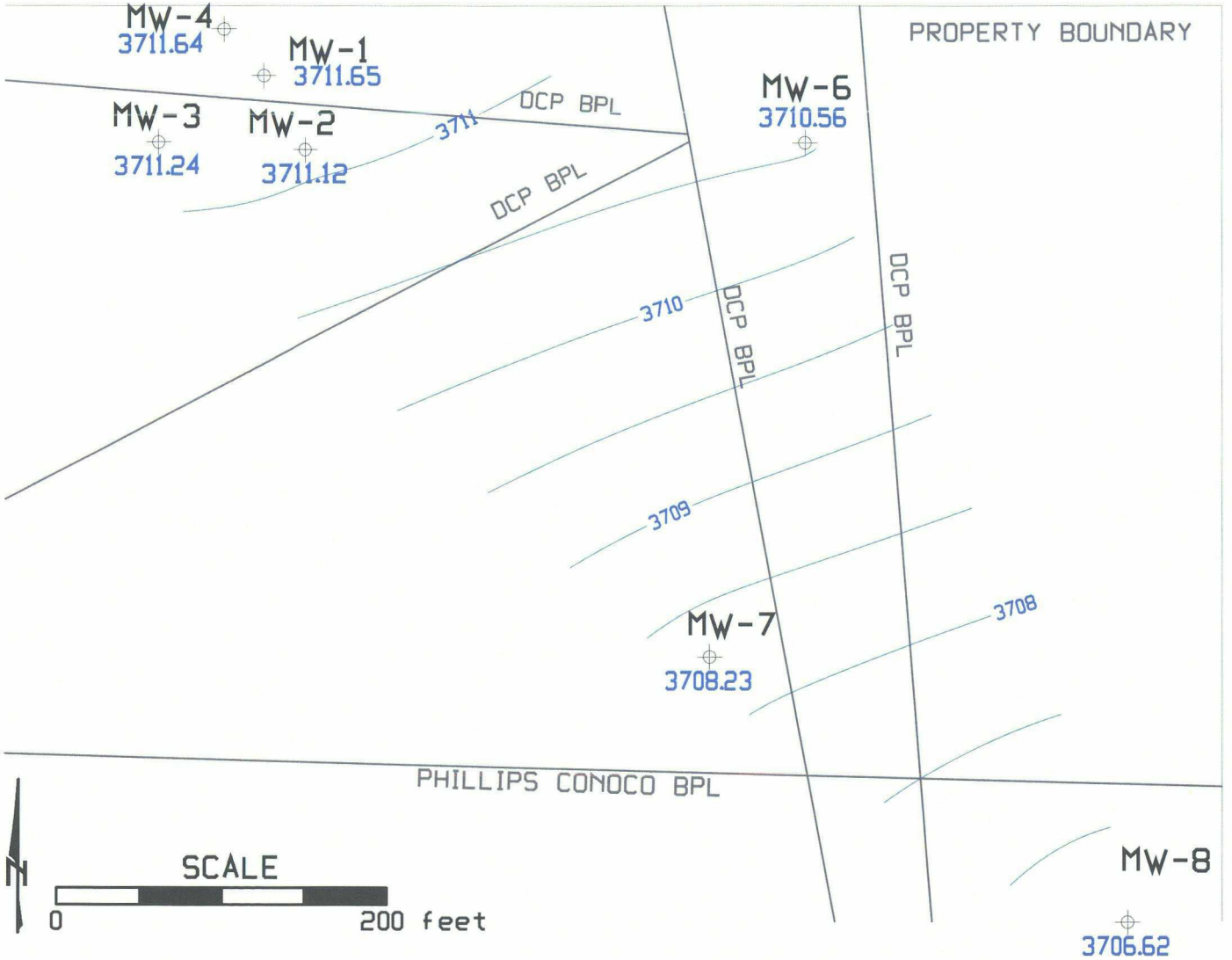
Figure 3 – Monitoring Well Hydrographs

J-4-2 Groundwater Monitoring

dcp Midstream

DRAWN BY: MHS

DATE: 11/10



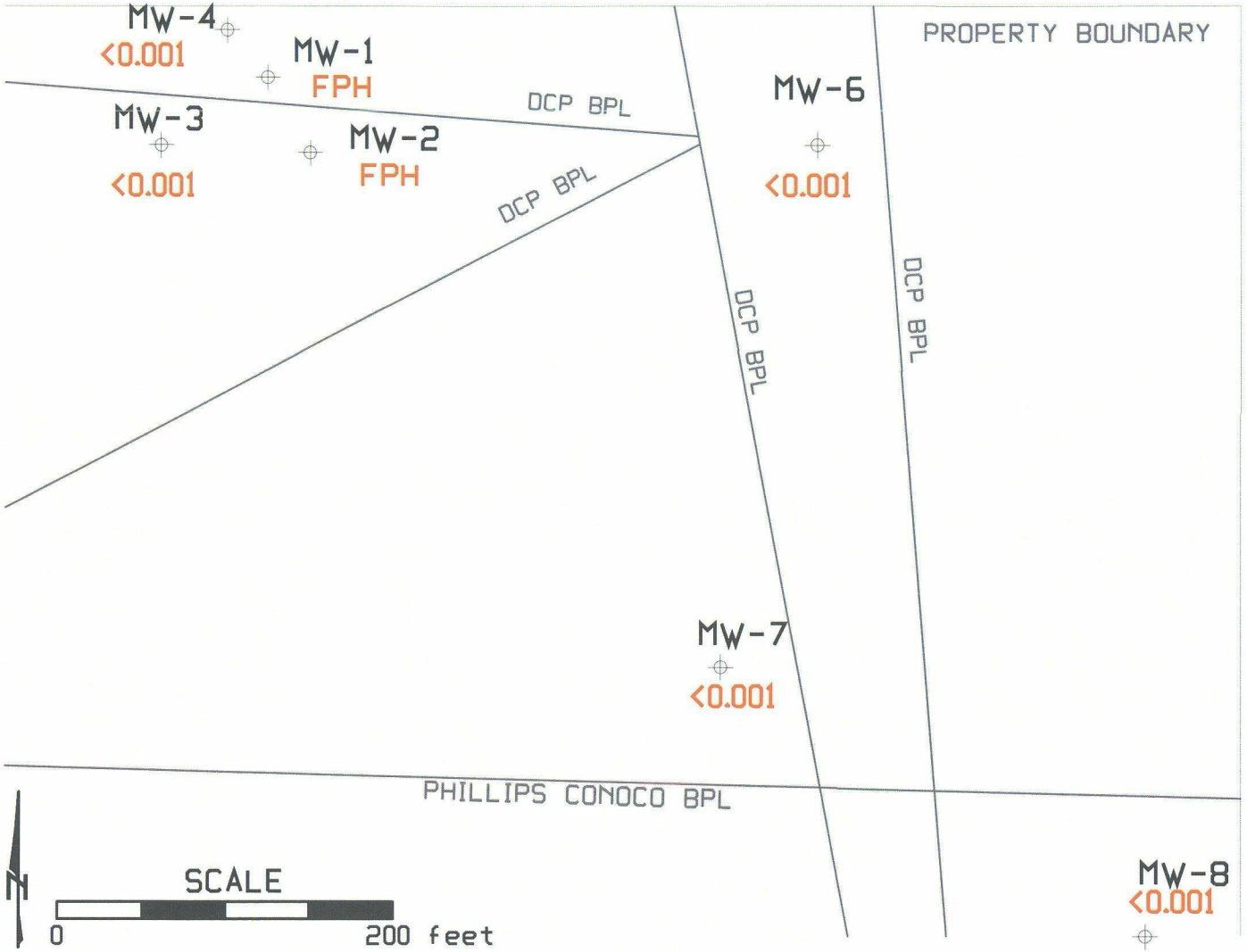
Contour interval is 0.5 feet

Figure 4 - Third Quarter 2010 Water Table Contours

J-4-2 Groundwater Monitoring

dcp Midstream.

DRAWN BY: MHS
REVISED:
DATE: 11/10



Units are mg/l

Figure 5 - Third Quarter 2010 Benzene Concentrations

J-4-2 Groundwater Monitoring

dcp Midstream

DRAWN BY:	MHS
REVISED:	
DATE:	11/10

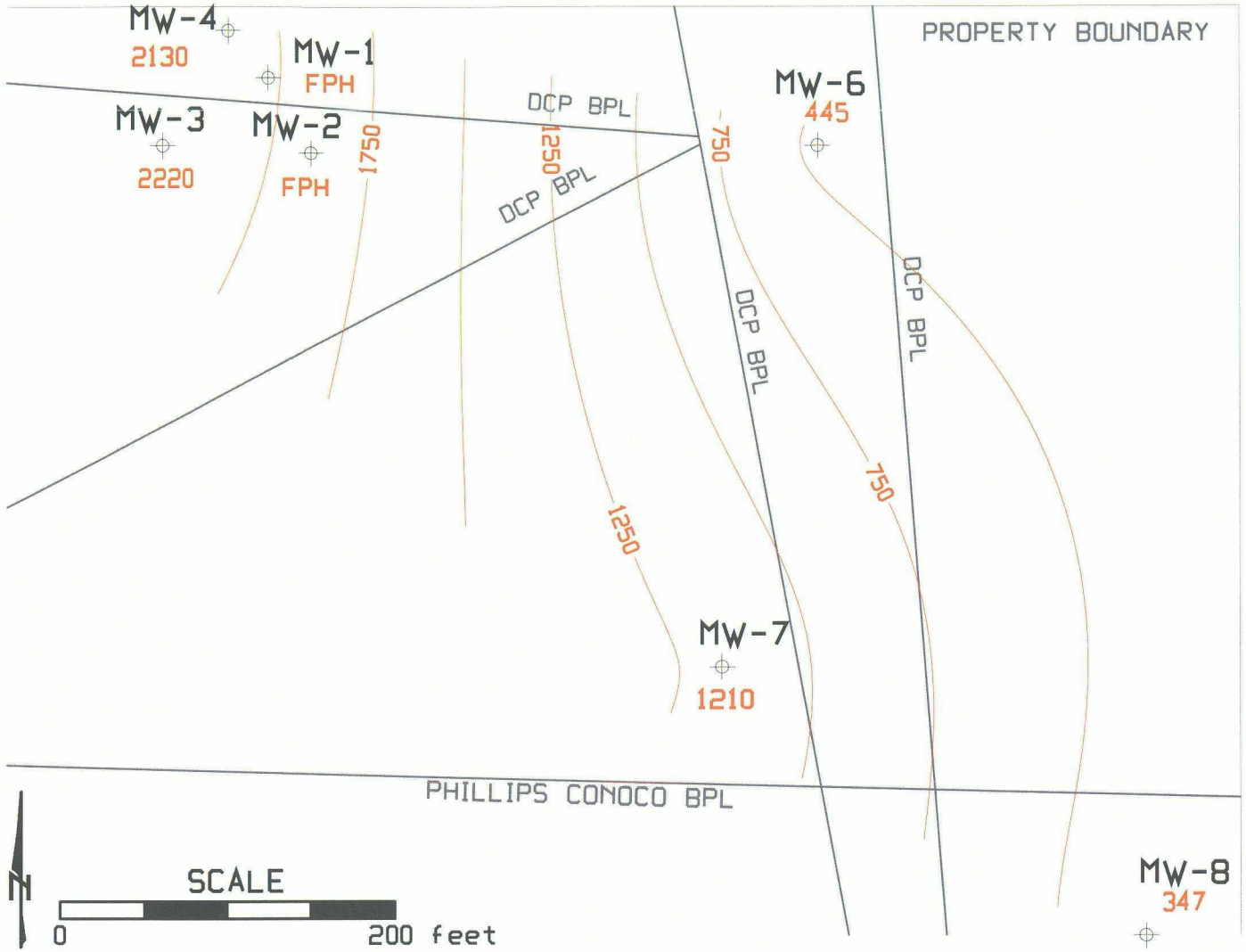
Figure 6 – Chloride Concentrations Verses Sampling Date

J-4-2 Groundwater Monitoring

dcp Midstream

DRAWN BY: MHS

DATE: 11/10



Units are mg/l
FPH No Sample because of free phase hydrocarbons

Figure 7 - Third Quarter 2010 Chloride Isopleths

J-4-2 Groundwater Monitoring

dcp Midstream.

DRAWN BY: MHS
REVISED:
DATE: 8/10

WELL SAMPLING DATA

AND LABORATORY ANALYTICAL REPORT

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-1**

SITE NAME: J 4 2 DATE: 9/29/2010

PROJECT NO. _____ SAMPLER: N. Quevedo

PURGING METHOD: ☐ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other: _____

TOTAL DEPTH OF WELL: 43.30 Feet
DEPTH TO WATER: 29.10 Feet
HEIGHT OF WATER COLUMN: 14.20 Feet
WELL DIAMETER: 2.0 Inch

7.0 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
0.0	: Total volume purged						

SAMPLE NO.: MW-1

ANALYSES: _____

COMMENTS: Not sampled FPH

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-2**

SITE NAME: J 4 2 DATE: 9/29/2010

PROJECT NO. _____ SAMPLER: N. Quevedo

PURGING METHOD: ☐ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☐ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other: _____

TOTAL DEPTH OF WELL: 43.05 Feet
DEPTH TO WATER: 29.50 Feet
HEIGHT OF WATER COLUMN: 13.55 Feet
WELL DIAMETER: 4.0 Inch

26.5 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °F	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
0.0 : Total volume purged							

SAMPLE NO.: MW-2

ANALYSES: _____

COMMENTS: Not sampled FPH

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-3**

SITE NAME: J 4 2 DATE: 9/29/2010

PROJECT NO. _____ SAMPLER: N. Quevedo

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other: _____

TOTAL DEPTH OF WELL: 43.00 Feet
DEPTH TO WATER: 28.15 Feet
HEIGHT OF WATER COLUMN: 14.85 Feet
WELL DIAMETER: 2.0 Inch

7.3 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °F	COND. *m* S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	2.5	70.1	6.84	6.77			
	5.0	69.5	6.81	6.78			
	7.5	69.3	6.80	6.77			
7.5	: Total volume purged						

SAMPLE NO.: MW-3

ANALYSES: BTEX (8260).

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-4**

SITE NAME: J 4 2 DATE: 9/29/2010

PROJECT NO. SAMPLER: N. Quevedo

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type:

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 38.12 Feet
DEPTH TO WATER: 28.60 Feet
HEIGHT OF WATER COLUMN: 9.52 Feet
WELL DIAMETER: 2.0 Inch

4.7 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °F	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.6	70.6	6.51	6.81			
	3.2	70.4	6.51	6.80			
	4.8	70.3	6.50	6.78			
4.8	: Total volume purged						

SAMPLE NO.: MW-4

ANALYSES: BTEX (8260)

COMMENTS: Duplicate sample collected

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-6**

SITE NAME: J 4 2 DATE: 9/29/2010

PROJECT NO. _____ SAMPLER: N. Quevedo

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other: _____

TOTAL DEPTH OF WELL: 34.35 Feet
DEPTH TO WATER: 29.40 Feet
HEIGHT OF WATER COLUMN: 4.95 Feet
WELL DIAMETER: 2.0 Inch

2.4 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °F	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.4	70	2	6.8			
	2.8	69.9	2.01	6.81			
	4.2	69.6	2.04	6.82			
4.2	: Total volume purged						

SAMPLE NO.: _____

ANALYSES: BTEX (8260)

COMMENTS: Root matting in well obstructs bailing

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-7**

SITE NAME: J 4 2 DATE: 9/29/2010

PROJECT NO. _____ SAMPLER: N. Quevedo

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other: _____

TOTAL DEPTH OF WELL: 39.45 Feet
DEPTH TO WATER: 32.50 Feet
HEIGHT OF WATER COLUMN: 6.95 Feet
WELL DIAMETER: 2.0 Inch

3.4 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °F	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.2	70.1	6.92				
	2.4	69.8	6.92				
	3.6	69.5	6.93				
3.6	: Total volume purged						

SAMPLE NO.: MW-7

ANALYSES: BTEX (8260)

COMMENTS: Collected MS/MSD

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-8**

SITE NAME: J 4 2 DATE: 9/29/2010

PROJECT NO. SAMPLER: N. Quevedo

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type:

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 38.32 Feet
DEPTH TO WATER: 30.70 Feet
HEIGHT OF WATER COLUMN: 7.62 Feet
WELL DIAMETER: 2.0 Inch

3.7 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °F	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.3	70.4	1.76	7.06			
	2.6	70.3	1.76	7.06			
	3.9	69.5	1.73	7.05			
3.9 : Total volume purged							

SAMPLE NO.: MW-8

ANALYSES: BTEX (8260)

COMMENTS:

Mountain States ACCUTEST LABORATORIES

10/08/10

Technical Report for

DCP Midstream, LP

AECCOL: J-4-2 Proj#390660601

Project #GNOO

Accutest Job Number: D17877

Sampling Date: 09/29/10

Report to:

DCP Midstream, LP
6885 South Marshall Suite 3
Littleton, CO 80128
swweathers@dcpmidstream.com; mhstewart@gmail.com

ATTN: Stephen Weathers

Total number of pages in report: **32**

ACCREDITED IN ACCORDANCE WITH nelac

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.

John Hamilton
Laboratory Director

Client Service contact: Amanda Kissell 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

Test results relate only to samples analyzed.

Sections:

Table of Contents

-1-

Sample Summary

DCP Midstream, LP

Job No: D17877

AECCOL: J-4-2 Proj#390660601
Project No: Project #GNOO

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
D17877-1	09/29/10	14:05	SW	10/01/10	AQ	Ground Water	MW-3
D17877-2	09/29/10	14:35	SW	10/01/10	AQ	Ground Water	MW-4
D17877-3	09/29/10	15:50	SW	10/01/10	AQ	Ground Water	MW-6
D17877-4	09/29/10	16:10	SW	10/01/10	AQ	Ground Water	MW-7
D17877-4D	09/29/10	16:10	SW	10/01/10	AQ	Water Dup/MSD	MW-7
D17877-4M	09/29/10	16:10	SW	10/01/10	AQ	Water Matrix Spike	MW-7
D17877-5	09/29/10	16:30	SW	10/01/10	AQ	Ground Water	MW-8
D17877-6	09/29/10	00:00	SW	10/01/10	AQ	Water Dup/MSD	DUP
D17877-7	09/29/10	00:00	SW	10/01/10	AQ	Trip Blank Water	TRIP BLANK

ACCUTEST Laboratories

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	DCP Midstream, LP	**Job No**	D17877
Site:	AECCOL: J-4-2 Proj#390660601	**Report Dat**	10/8/2010 3:26:46 PM

On 10/01/2010, six (6) samples, 1 Trip Blanks, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 4.7°C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D17877 was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix	AQ	Batch ID:	V3V401

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D17877-4MS and D17877-4MSD were used as the QC samples indicated.

Matrix	AQ	Batch ID:	V5V602

- All samples were analyzed within the recommended method holding time.
- Samples D17907-1MS and D17907-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 300/SW846 9056

Matrix	AQ	Batch ID:	GP2911

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D17904-1MSD and D17904-1MS were used as the QC samples for the Chloride analysis.
- The matrix spike (MS) recovery of Chloride is outside control limits. The spike amount is low relative to the sample amount. Refer to the lab control or spike blank for recovery information.

Matrix	AQ	Batch ID:	GP2915

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D17877-3MS and D17877-3MSD were used as the QC samples for the Chloride analysis.

Matrix	AQ	Batch ID:	GP2923

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D17878-6MS and D17878-6MSD were used as the QC samples for the Chloride analysis.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Mountain States
ACCUTEST
LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	D17877-1	Date Sampled:	09/29/10
Matrix:	AQ - Ground Water	Date Received:	10/01/10
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V07488.D	1	10/04/10	DC	n/a	n/a	V3V401
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	89%		63-130%
2037-26-5	Toluene-D8	90%		68-130%
460-00-4	4-Bromofluorobenzene	87%		61-130%

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	D17877-1	Date Sampled:	09/29/10
Matrix:	AQ - Ground Water	Date Received:	10/01/10
		Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2220	25	mg/l	50	10/06/10 16:00	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	D17877-2	Date Sampled:	09/29/10
Matrix:	AQ - Ground Water	Date Received:	10/01/10
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V07489.D	1	10/04/10	DC	n/a	n/a	V3V401
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	91%		63-130%
2037-26-5	Toluene-D8	90%		68-130%
460-00-4	4-Bromofluorobenzene	87%		61-130%

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	D17877-2	Date Sampled:	09/29/10
Matrix:	AQ - Ground Water	Date Received:	10/01/10
		Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2090	50	mg/l	100	10/06/10 17:08	GH	EPA 300/SW846 9056

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

3.3

Client Sample ID:	MW-6		
Lab Sample ID:	D17877-3	Date Sampled:	09/29/10
Matrix:	AQ - Ground Water	Date Received:	10/01/10
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V07490.D	1	10/04/10	DC	n/a	n/a	V3V401
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	94%		63-130%
2037-26-5	Toluene-D8	89%		68-130%
460-00-4	4-Bromofluorobenzene	89%		61-130%

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	D17877-3	Date Sampled:	09/29/10
Matrix:	AQ - Ground Water	Date Received:	10/01/10
		Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	445	25	mg/l	50	10/06/10 17:19	GH	EPA 300/SW846 9056

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	D17877-4	Date Sampled:	09/29/10
Matrix:	AQ - Ground Water	Date Received:	10/01/10
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V07485.D	1	10/04/10	DC	n/a	n/a	V3V401
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	85%		63-130%
2037-26-5	Toluene-D8	89%		68-130%
460-00-4	4-Bromofluorobenzene	87%		61-130%

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	D17877-4	Date Sampled:	09/29/10
Matrix:	AQ - Ground Water	Date Received:	10/01/10
		Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	1210	50	mg/l	100	10/07/10 10:20	GH	EPA 300/SW846 9056

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	D17877-5	Date Sampled:	09/29/10
Matrix:	AQ - Ground Water	Date Received:	10/01/10
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V07491.D	1	10/04/10	DC	n/a	n/a	V3V401
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	92%		63-130%
2037-26-5	Toluene-D8	90%		68-130%
460-00-4	4-Bromofluorobenzene	88%		61-130%

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	D17877-5	Date Sampled:	09/29/10
Matrix:	AQ - Ground Water	Date Received:	10/01/10
		Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	347	25	mg/l	50	10/06/10 12:50	GH	EPA 300/SW846 9056

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

3.6 (6)

Client Sample ID:	DUP		
Lab Sample ID:	D17877-6	Date Sampled:	09/29/10
Matrix:	AQ - Water Dup/MSD	Date Received:	10/01/10
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V07492.D	1	10/04/10	DC	n/a	n/a	V3V401
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	92%		63-130%
2037-26-5	Toluene-D8	91%		68-130%
460-00-4	4-Bromofluorobenzene	90%		61-130%

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	DUP		
Lab Sample ID:	D17877-6	Date Sampled:	09/29/10
Matrix:	AQ - Water Dup/MSD	Date Received:	10/01/10
		Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2170	50	mg/l	100	10/06/10 13:04	GH	EPA 300/SW846 9056

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

3.7

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	D17877-7	Date Sampled:	09/29/10
Matrix:	AQ - Trip Blank Water	Date Received:	10/01/10
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V10935.D	1	10/06/10	DC	n/a	n/a	V5V602
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	99%		63-130%
2037-26-5	Toluene-D8	94%		68-130%
460-00-4	4-Bromofluorobenzene	87%		61-130%

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

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

D17877

Accutest Mountain States
4036 Youngfield Street Wheat Ridge CO 80033
303-425-6021 phone 303-425-6854 fax

Accutest Job #: 390660601

Accutest Quote #:

Client Information	Facility Information	Analytical Information
DCP Midstream	American Environmental Consulting, LP	
Name: 370 Seventeenth Street, Suite 2500	Project Name: DCP J-4-2	
Address: Denver CO 80202	Location:	
City: Stephen Weathers State: Zip:	Project/PO #: GN00	
Send Report to: Phone #: 303.605.1718	FAX #:	

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	BTEX 8260B	Chlorides	MS/MSD FOR BTEX 8260B								
MW-1	—	—		GW	3	X					X	X									01
MW-2	—	—		GW	3	X					X	X									02
MW-3	9-29	1405		GW	3	X					X	X									01 03
MW-4	9-29	1435		GW	3	X					X	X									02 04
MW-6	9-29	1550		GW	3	X					X	X									03 05
MW-7	9-29	1610		GW	3	X					X	X									04 06
MW-8	9-29	1630		GW	3	X					X	X									05 07
Dup	9-29	000		GW	3	X					X	X									06 08
Trip Blank				GW	1	X					X										07 09
MW-7 MS/MSD	9-29	1610		GW	6	X							X								04 06

Turnaround Information	Data Deliverable Information	Comments / Remarks
☐ 21 Day Standard — Approved By:	☐ NJ Reduced ☐ Commercial "A"	
☐ 14 Day	☐ NJ Full ☒ Commercial "B"	
☒ 7 Days *EMERGENCY*	☐ FULL CLP ☐ ASP Category B	Please send invoice and electronic (PDF) copy of results to Stephen Weathers at DCP (SWWeathers@dcpmidstream.com)
☐ Other _____ (Days)	☐ Disk Deliverable ☐ State Forms	
RUSH TAT is for FAX data unless previously approved.	☐ Other (Specify) _____	

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	10-1	1	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Seal #	Preserved where applica	On Ice:
5		5			4.7

4.1 4

D17877: Chain of Custody
Page 1 of 1

Mountain States ACCUTEST LABORATORIES

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: D17877
Account: DCPMCODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V401-MB	3V07476.D	1	10/04/10	DC	n/a	n/a	V3V401

5.1.1

The QC reported here applies to the following samples: Method: SW846 8260B

D17877-1, D17877-2, D17877-3, D17877-4, D17877-5, D17877-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	83%	63-130%
2037-26-5	Toluene-D8	88%	68-130%
460-00-4	4-Bromofluorobenzene	88%	61-130%

Method Blank Summary

Job Number: D17877
Account: DCPMCODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V602-MB	5V10924.D	1	10/06/10	DC	n/a	n/a	V5V602

The QC reported here applies to the following samples: Method: SW846 8260B

D17877-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	90%	63-130%
2037-26-5	Toluene-D8	88%	68-130%
460-00-4	4-Bromofluorobenzene	83%	61-130%

Blank Spike Summary

Job Number: D17877
Account: DCPMCODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V401-BS	3V07477.D	1	10/04/10	DC	n/a	n/a	V3V401

The QC reported here applies to the following samples: Method: SW846 8260B

D17877-1, D17877-2, D17877-3, D17877-4, D17877-5, D17877-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	50.6	101	70-130
100-41-4	Ethylbenzene	50	53.1	106	70-130
108-88-3	Toluene	50	52.1	104	70-140
	m,p-Xylene	50	48.0	96	55-134
95-47-6	o-Xylene	50	47.6	95	55-134

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	83%	63-130%
2037-26-5	Toluene-D8	86%	68-130%
460-00-4	4-Bromofluorobenzene	89%	61-130%

Blank Spike Summary

Job Number: D17877
Account: DCPMCODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V602-BS	5V10925.D	1	10/06/10	DC	n/a	n/a	V5V602

The QC reported here applies to the following samples: Method: SW846 8260B

D17877-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	52.9	106	70-130
100-41-4	Ethylbenzene	50	56.8	114	70-130
108-88-3	Toluene	50	55.2	110	70-140
	m,p-Xylene	50	51.8	104	55-134
95-47-6	o-Xylene	50	51.3	103	55-134

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	93%	63-130%
2037-26-5	Toluene-D8	95%	68-130%
460-00-4	4-Bromofluorobenzene	101%	61-130%

3.2.2

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D17877
Account: DCPMCODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D17877-4MS	3V07486.D	1	10/04/10	DC	n/a	n/a	V3V401
D17877-4MSD	3V07487.D	1	10/04/10	DC	n/a	n/a	V3V401
D17877-4	3V07485.D	1	10/04/10	DC	n/a	n/a	V3V401

The QC reported here applies to the following samples: Method: SW846 8260B

D17877-1, D17877-2, D17877-3, D17877-4, D17877-5, D17877-6

CAS No.	Compound	D17877-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		50	54.2	108	55.6	111	3	59-132/30
100-41-4	Ethylbenzene	ND		50	56.4	113	58.2	116	3	68-130/30
108-88-3	Toluene	ND		50	55.2	110	56.3	113	2	56-142/30
	m,p-Xylene	ND		50	50.5	101	51.7	103	2	36-146/30
95-47-6	o-Xylene	ND		50	49.5	99	50.9	102	3	36-146/30

CAS No.	Surrogate Recoveries	MS	MSD	D17877-4	Limits
17060-07-0	1,2-Dichloroethane-D4	87%	86%	85%	63-130%
2037-26-5	Toluene-D8	88%	88%	89%	68-130%
460-00-4	4-Bromofluorobenzene	89%	89%	87%	61-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D17877
Account: DCPMCODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D17907-1MS	5V10927.D	1	10/06/10	DC	n/a	n/a	V5V602
D17907-1MSD	5V10928.D	1	10/06/10	DC	n/a	n/a	V5V602
D17907-1	5V10926.D	1	10/06/10	DC	n/a	n/a	V5V602

The QC reported here applies to the following samples: Method: SW846 8260B

D17877-7

CAS No.	Compound	D17907-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		50	51.0	102	48.7	97	5	59-132/30
100-41-4	Ethylbenzene	ND		50	55.3	111	52.7	105	5	68-130/30
108-88-3	Toluene	ND		50	54.0	108	51.0	102	6	56-142/30
	m,p-Xylene	ND		50	51.3	103	48.1	96	6	36-146/30
95-47-6	o-Xylene	ND		50	50.4	101	48.0	96	5	36-146/30

CAS No.	Surrogate Recoveries	MS	MSD	D17907-1	Limits
17060-07-0	1,2-Dichloroethane-D4	91%	84%	99%	63-130%
2037-26-5	Toluene-D8	97%	89%	96%	68-130%
460-00-4	4-Bromofluorobenzene	102%	94%	90%	61-130%

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D17877
Account: DCPMCODN - DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP2923/GN6707	0.20	0.0	mg/l	20	20.0	100.0	90-110%
Chloride	GP2911/GN6689	0.50	0.0	mg/l	20	19.1	95.5	90-110%
Chloride	GP2915/GN6702	0.50	0.0	mg/l	20	21.7	108.5	90-110%
Chloride	GP2923/GN6707	0.50	0.0	mg/l	20	21.8	109.0	90-110%
Fluoride	GP2911/GN6689	0.20	0.0	mg/l	10	9.16	91.6	90-110%
Nitrogen, Nitrate	GP2915/GN6702	0.045	0.0	mg/l	4.52	4.28	94.7	90-110%
Nitrogen, Nitrate	GP2923/GN6707	0.045	0.0	mg/l	4.52	4.24	93.8	90-110%
Nitrogen, Nitrite	GP2915/GN6702	0.061	0.0	mg/l	6.09	6.00	98.5	90-110%
Nitrogen, Nitrite	GP2923/GN6707	0.061	0.0	mg/l	6.09	5.98	98.2	90-110%
Phosphate, Ortho	GP2923/GN6707	0.065	0.0	mg/l	9.78	9.33	95.4	90-110%
Sulfate	GP2915/GN6702	0.50	0.0	mg/l	30	30.7	102.3	90-110%
Sulfate	GP2923/GN6707	0.50	0.0	mg/l	30	30.0	100.0	90-110%

Associated Samples:
Batch GP2911: D17877-1, D17877-5, D17877-6
Batch GP2915: D17877-2, D17877-3
Batch GP2923: D17877-4
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D17877
Account: DCPMCODN - DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP2923/GN6707	D17878-6	mg/l	4.1	125	123	95.1	80-120
Chloride	GP2911/GN6689	D17904-1	mg/l	281	50	342	122.0(a)	80-120*
Chloride	GP2915/GN6702	D17877-3	mg/l	445	500	966	104.2	80-120*
Chloride	GP2923/GN6707	D17878-6	mg/l	345	500	843	99.6	80-120
Fluoride	GP2911/GN6689	D17904-1	mg/l	3.8	12.5	15.4	92.8	80-120
Nitrogen, Nitrate	GP2915/GN6702	D17877-3	mg/l	1.1	28.3	28.7	97.7	80-120
Nitrogen, Nitrate	GP2923/GN6707	D17878-6	mg/l	0.0	28.3	26.8	94.9	80-120
Nitrogen, Nitrite	GP2915/GN6702	D17877-3	mg/l	0.0	15.2	15.0	98.5	80-120
Nitrogen, Nitrite	GP2923/GN6707	D17878-6	mg/l	0.0	15.2	14.4	94.6	80-120
Phosphate, Ortho	GP2923/GN6707	D17878-6	mg/l	0.0	40.8	44.2	108.5	80-120
Sulfate	GP2915/GN6702	D17877-3	mg/l	83.0	500	529	89.2	80-120*
Sulfate	GP2923/GN6707	D17878-6	mg/l	242	500	701	91.8	80-120

6.2

Associated Samples:
Batch GP2911: D17877-1, D17877-5, D17877-6
Batch GP2915: D17877-2, D17877-3
Batch GP2923: D17877-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D17877
Account: DCPMCODN - DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP2923/GN6707	D17878-6	mg/l	4.1	125	124	0.8	20
Chloride	GP2911/GN6689	D17904-1	mg/l	281	50	336	1.8	20
Chloride	GP2915/GN6702	D17877-3	mg/l	445	500	966	0.0	20
Chloride	GP2923/GN6707	D17878-6	mg/l	345	500	843	0.0	20
Fluoride	GP2911/GN6689	D17904-1	mg/l	3.8	12.5	15.2	1.3	20
Nitrogen, Nitrate	GP2915/GN6702	D17877-3	mg/l	1.1	28.3	28.4	1.1	20
Nitrogen, Nitrate	GP2923/GN6707	D17878-6	mg/l	0.0	28.3	26.6	0.7	20
Nitrogen, Nitrite	GP2915/GN6702	D17877-3	mg/l	0.0	15.2	14.8	1.3	20
Nitrogen, Nitrite	GP2923/GN6707	D17878-6	mg/l	0.0	15.2	14.4	0.0	20
Phosphate, Ortho	GP2923/GN6707	D17878-6	mg/l	0.0	40.8	42.8	3.2	20
Sulfate	GP2915/GN6702	D17877-3	mg/l	83.0	500	529	0.0	20
Sulfate	GP2923/GN6707	D17878-6	mg/l	242	500	701	0.0	20

Associated Samples:
Batch GP2911: D17877-1, D17877-5, D17877-6
Batch GP2915: D17877-2, D17877-3
Batch GP2923: D17877-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits