

1RP-1728

**4th QTR 2010 GW Mon.
Results**

**DATE:
03.31.11**



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

March 31, 2011

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

**RE: 4th 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 4th 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

A handwritten signature in black ink, appearing to read "Stephen Weathers", followed by a horizontal line.

Stephen Weathers, PG
Principal Environmental Specialist

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

March 23, 2011

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

Re: Summary of the Fourth Quarter 2010 Groundwater Monitoring Results
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 fourth quarter 2010 groundwater monitoring activities that were completed at the J-4-2 release location on December 8, 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:

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

- 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 0.39 feet in MW-1 and 0.25 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 SW846 9056. 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 0.8 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 slightly in all of the wells.

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 versus the sampling dates on Figure 6 with the anomalous fourth quarter MW-4 value deleted. The chloride concentration decreased in southern down-gradient wells MW-7 and MW-8 and increased slightly in downgradient well MW-6 and 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.

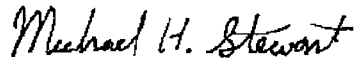
CONCLUSIONS AND RECOMMENDATIONS

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 as approximately defined by MW-1 and MW-2;
4. 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 first quarter of 2011. Do not hesitate to contact me if you have any questions or comments on this letter.

Sincerely,
AMERICAN ENVIRONMENTAL CONSULTING, LLC



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 December 2010 Fluid Measurements

Well	Depth to Water	Depth to Free Phase Hydrocarbons	Corrected Groundwater Elevation
MW-1	29.08	28.69	3,711.66
MW-2	29.67	29.42	3,711.14
MW-3	28.14		3,711.25
MW-4	28.52		3,711.72
MW-6	29.25		3,710.71
MW-7	32.45		3,708.28
MW-8	30.62		3,706.70

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	12/8/10
MW-1	3711.65	3,711.66
MW-2	3711.12	3,711.14
MW-3	3711.24	3,711.25
MW-4	3711.64	3,711.72
MW-6	3710.56	3,710.71
MW-7	3708.23	3,708.28
MW-8	3706.62	3,706.70

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
12/08/10	0.39	0.25

Units are feet

Table 5 - Summary of December 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	2530
MW-4	<0.001	<0.002	<0.002	<0.004	2480
MW-4 DUP	<0.001	<0.002	<0.002	<0.004	2460
MW-6	<0.001	<0.002	<0.002	<0.004	513
MW-7	<0.001	<0.002	<0.002	<0.004	1180
MW-8	<0.001	<0.002	<0.002	<0.004	336
Trip Blank	<0.001	<0.002	<0.002	<0.004	

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	12/8/10
MW-1	<0.002	FPH	0.0016	FPH	FPH
MW-2	FPH	FPH	FPH	FPH	FPH
MW-3	<0.002	<0.001	<0.0003	<0.001	<0.001
MW-4	<0.002	<0.001	<0.0003	<0.001	<0.001
MW-6	<0.002	NA	<0.0003	<0.001	<0.001
MW-7	<0.002	<0.001	<0.0003	<0.001	<0.001
MW-8	<0.002	<0.001	<0.0003	<0.001	<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	12/8/10
MW-1	<0.002	FPH	<0.001	FPH	FPH
MW-2	FPH	FPH	FPH	FPH	FPH
MW-3	<0.002	<0.002	<0.001	<0.002	<0.002
MW-4	<0.002	<0.002	<0.001	<0.002	<0.002
MW-6	<0.002	NA	<0.001	<0.002	<0.002
MW-7	<0.002	<0.002	<0.001	<0.002	<0.002
MW-8	<0.002	<0.002	<0.001	<0.002	<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	12/8/10
MW-1	0.0014J	FPH	<0.0003	FPH	FPH
MW-2	FPH	FPH	FPH	FPH	FPH
MW-3	<0.002	<0.002	<0.0003	<0.002	<0.002
MW-4	<0.002	<0.002	<0.0003	<0.002	<0.002
MW-6	<0.002	NA	<0.0003	<0.002	<0.002
MW-7	<0.002	<0.002	<0.0003	<0.002	<0.002
MW-8	<0.002	<0.002	<0.0003	<0.002	<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	0.0041	<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	12/8/10
MW-1	0.0418	FPH	0.0095	FPH	FPH
MW-2	FPH	FPH	FPH	FPH	FPH
MW-3	<0.006	<0.004	<0.0006	<0.004	<0.004
MW-4	<0.006	<0.004	<0.0006	<0.004	<0.004
MW-6	<0.006	NA	<0.0006	<0.004	<0.004
MW-7	<0.006	<0.004	<0.0006	<0.004	<0.004
MW-8	<0.006	<0.004	<0.0006	<0.004	<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	12/8/10
MW-1	FPH	FPH	FPH	FPH	FPH	FPH	FPH	2,680	FPH	1,800	FPH	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	2,530
MW-4	1,300	1,380	1,440	70	1,390	1,440	1,490	1,740	1,950	2,150	2,130	2,470
MW-6	669	544	537	391	363	383	373	1,090	NA	533	445	513
MW-7	1,230	1,150	1,180	1,050	944	1,090	1,140	1,440	1,230	1,280	1,210	1,180
MW-8	609	617	735	480	417	378	403	308	414	415	347	336

Notes:

Units are mg/l

Duplicates are averaged together

NA: Not analyzed due to well obstruction

FIGURES

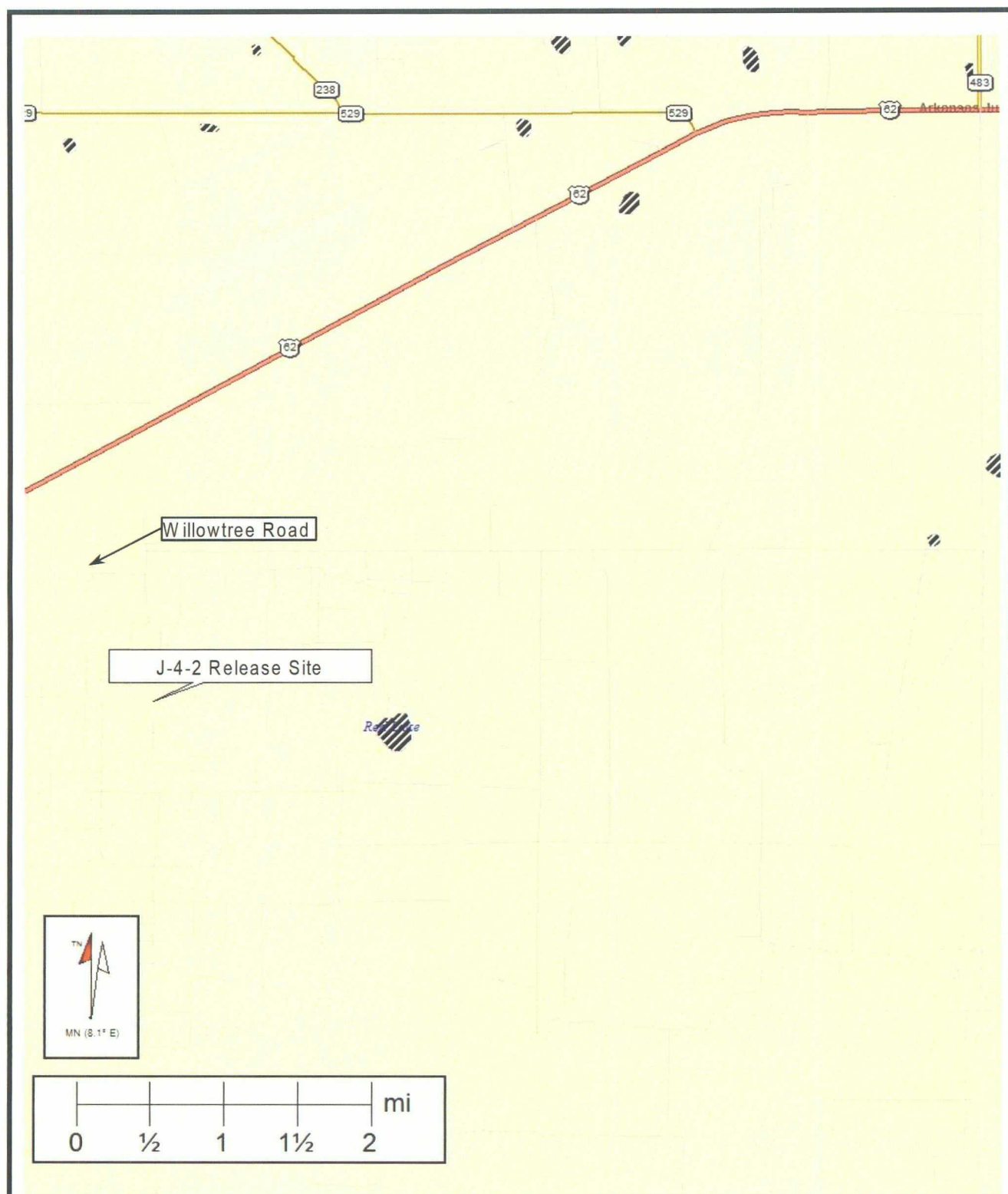


Figure 1 – Site Location
J-4-2 Groundwater Monitoring

dcp
Midstream.

DRAWN BY: MHS

REVISED:

DATE: 5/06

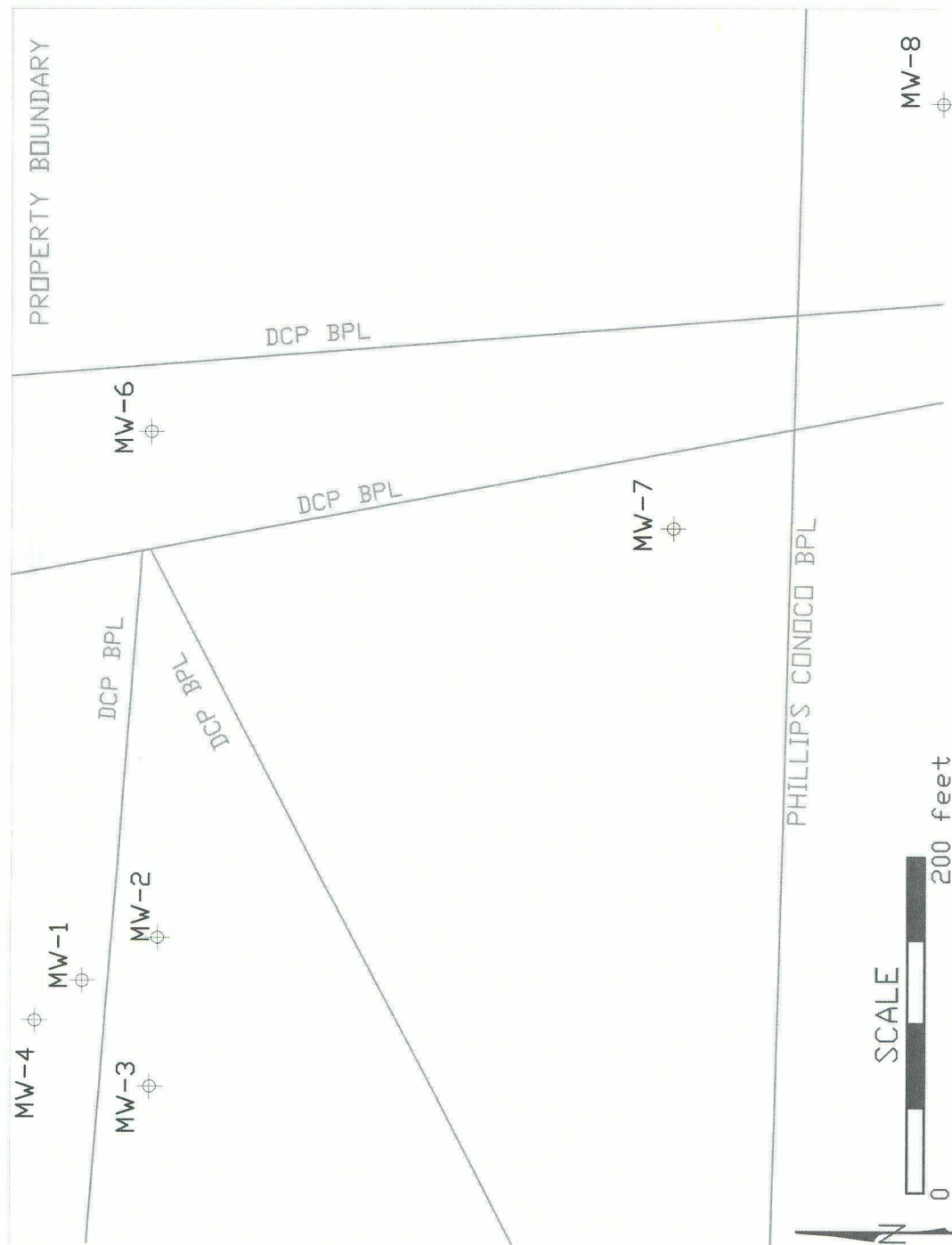


Figure 2 - Site Details

J-4-2 Groundwater Monitoring



DRAWN BY: MHS

REVISED:

DATE: 8/10

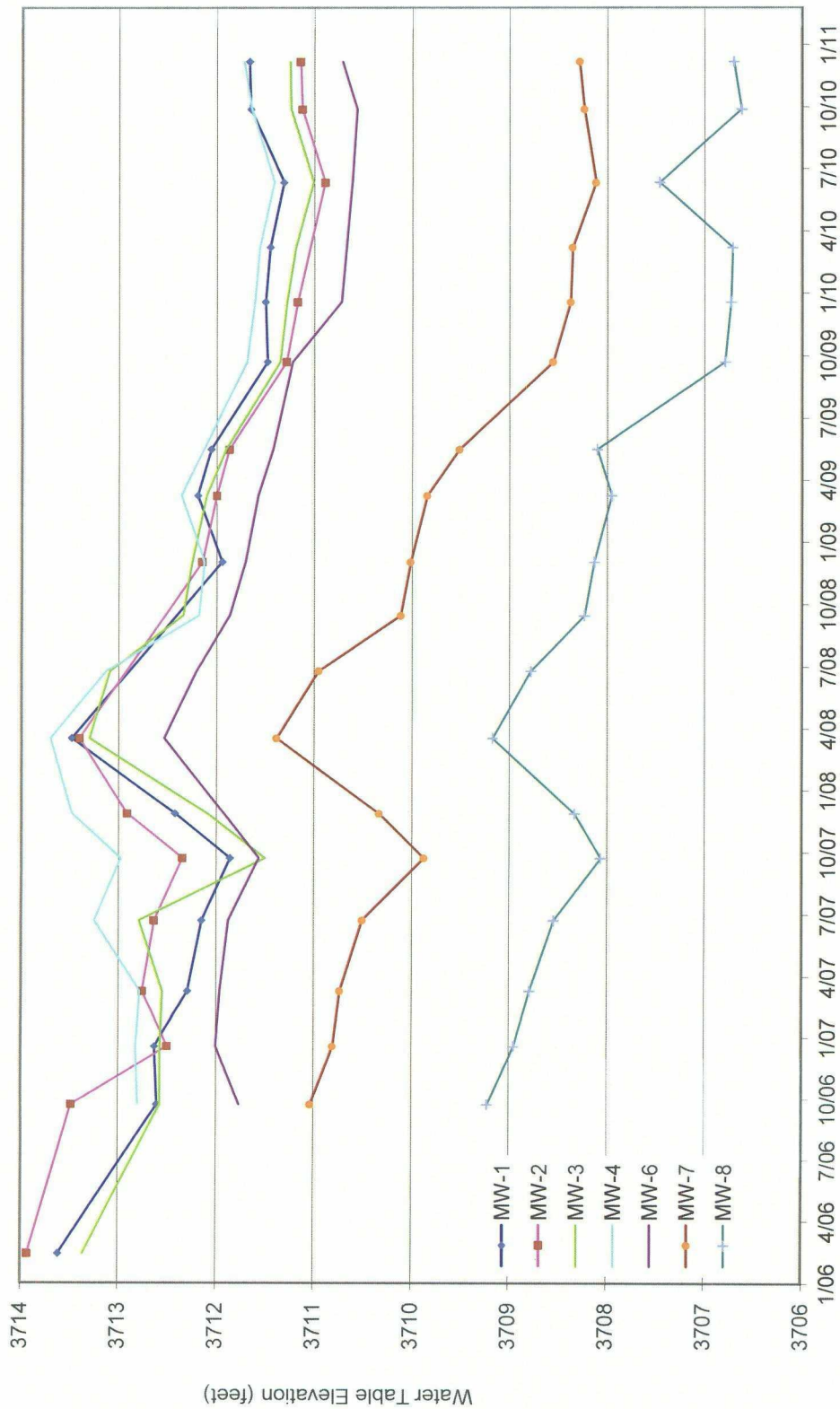


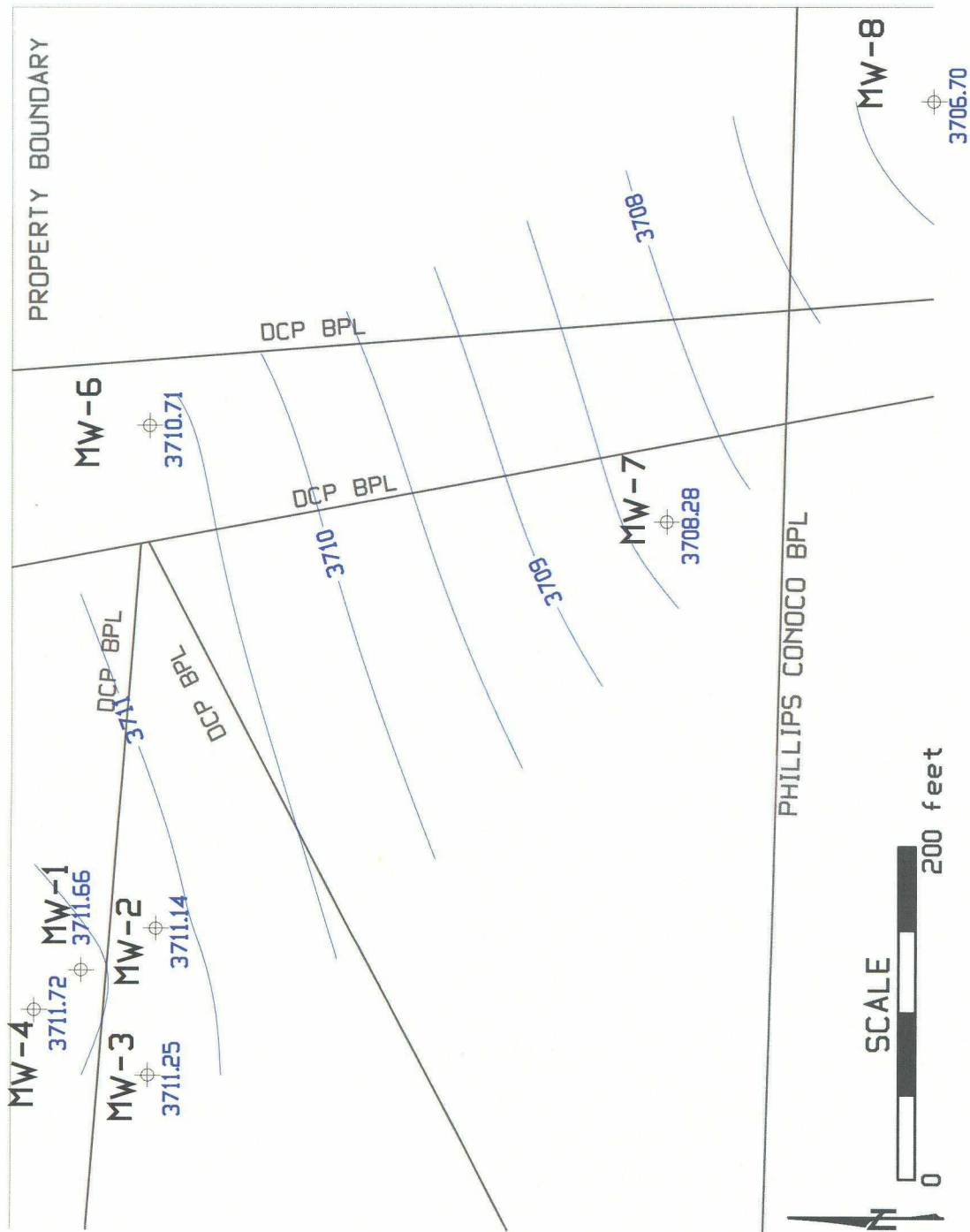
Figure 3 – Monitoring Well Hydrographs

J-4-2 Groundwater Monitoring

DRAWN BY: MHS

DATE: 1/11

dcp
Midstream



Contour interval is 0.5 feet

Figure 4 - Fourth Quarter 2010 Water Table Contours

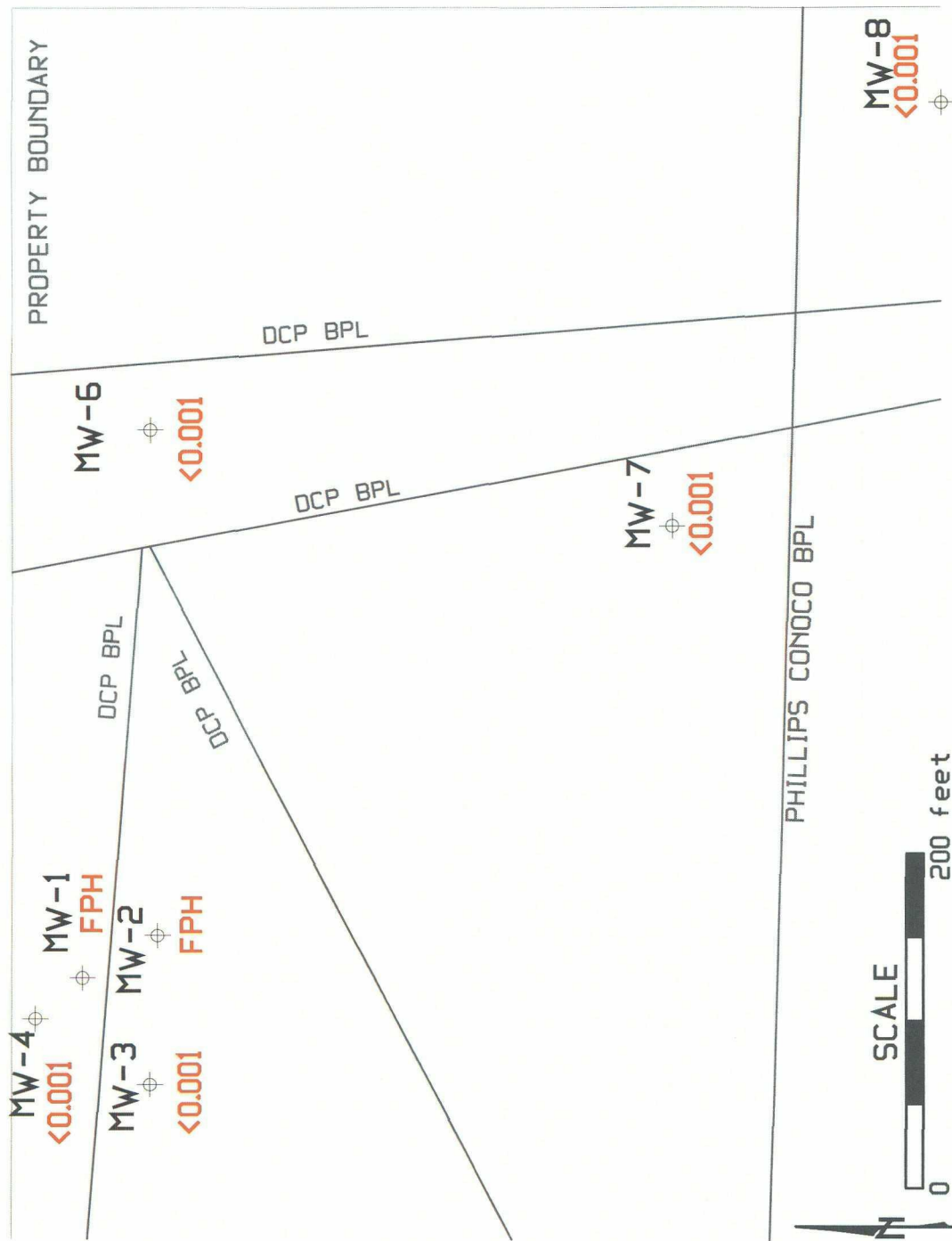
J-4-2 Groundwater Monitoring



DRAWN BY: MHS

REVISED:

DATE: 1/11



Units are mg/l

Figure 5 - Fourth Quarter 2010 Benzene Concentrations

J-4-2 Groundwater Monitoring



DRAWN BY: MHS

REVISED:

DATE: 1/11

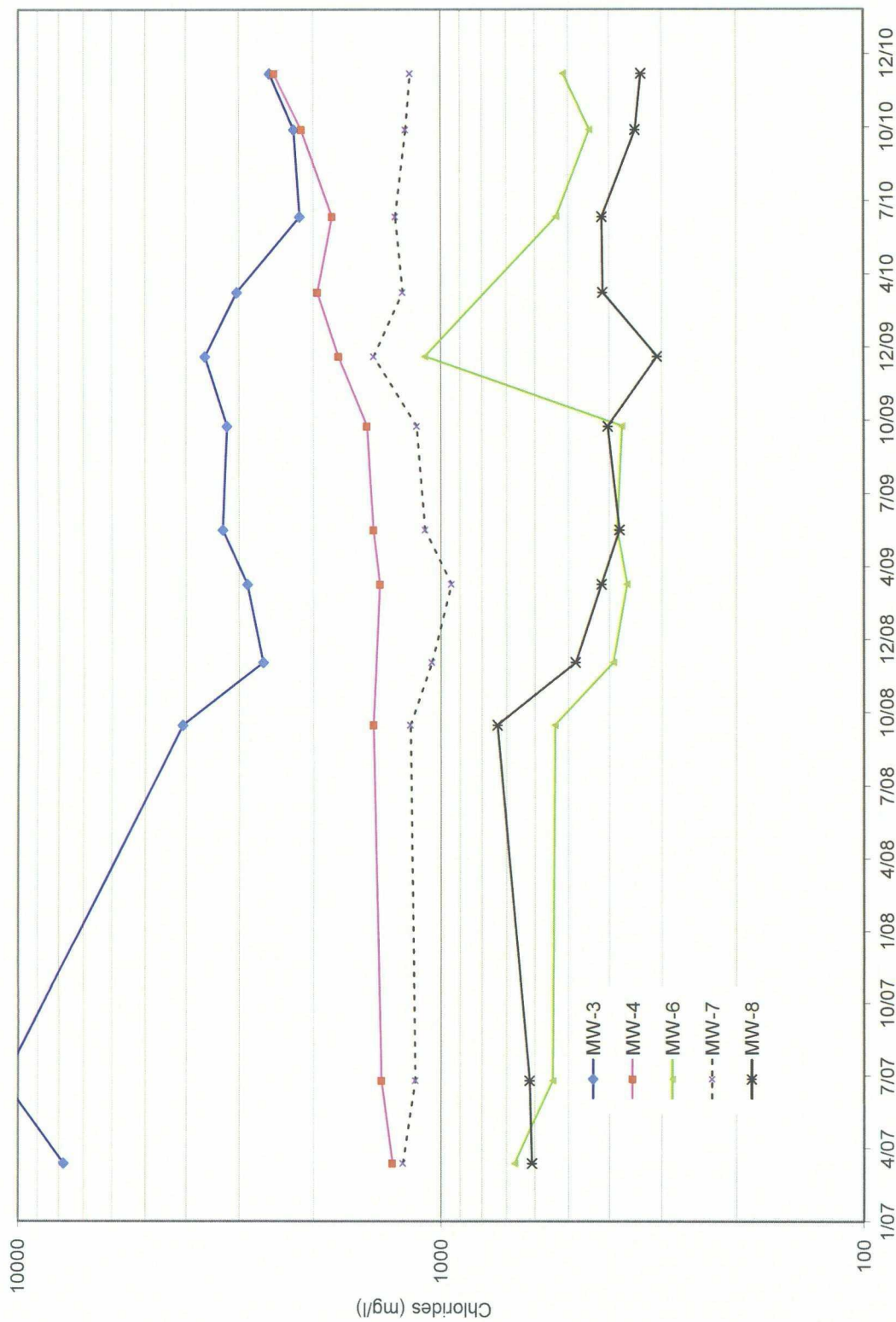


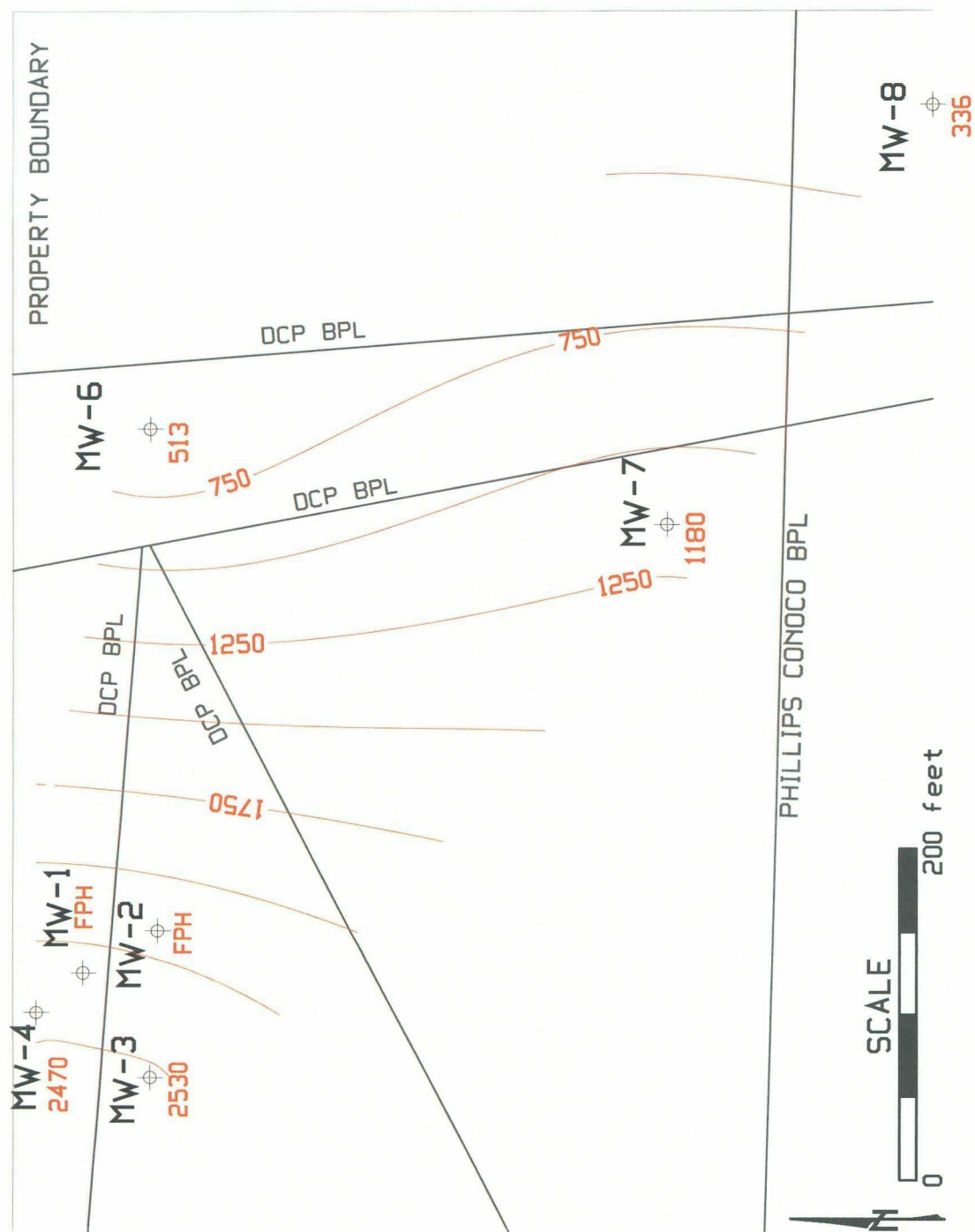
Figure 6 – Chloride Concentrations Verses Sampling Date

J-4-2 Groundwater Monitoring

DRAWN BY: MHS

DATE: 1/11

dcp
Midstream.



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

Figure 7 - Fourth Quarter 2010 Chloride Isopleths

J-4-2 Groundwater Monitoring



DRAWN BY: MHS

REVISED:

DATE: 1/11

**WELL SAMPLING DATA
AND LABORATORY ANALYTICAL REPORT**

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream
 SITE NAME: J 4 2
 PROJECT NO. _____

WELL ID: MW-1
 DATE: 12/8/2010
 SAMPLER: N. Quevedo

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

SAMPLING METHOD: ☐ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: None

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

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

TOTAL DEPTH OF WELL: 43.30 Feet
 DEPTH TO WATER: 29.08 Feet
 HEIGHT OF WATER COLUMN: 14.22 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. °C	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
0.0 : Total volume purged							

SAMPLE NO.: MW-1

ANALYSES: N/A

COMMENTS: No sample free phase hydrocarbons present

WELL SAMPLING DATA FORM

CLIENT:	<u>DCP Midstream</u>	WELL ID:	<u>MW-2</u>
SITE NAME:	<u>J 4 2</u>	DATE:	<u>12/8/2010</u>
PROJECT NO.	<u></u>	SAMPLER:	<u>N. Quevedo</u>

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

SAMPLING METHOD: ☐ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: None

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☐ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 43.05 Feet

DEPTH TO WATER: 29.48 Feet

HEIGHT OF WATER COLUMN: 13.57 Feet

WELL DIAMETER: 4.0 Inch

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

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

SAMPLE NO.: MW-2

ANALYSES:

COMMENTS: No sample free phase hydrocarbons present

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-3
 SITE NAME: J 4 2 DATE: 12/8/2010
 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: 28.14 Feet

HEIGHT OF WATER COLUMN: 14.86 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. °C	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
	2.5	15.2	>4.4	6.89			
	5.0	14.8	>4.4	6.91			
8:45	7.5	14.9	>4.4	6.89			
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: 12/8/2010
 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: 28.52 Feet

HEIGHT OF WATER COLUMN: 9.60 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. °C	COND. m S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.6	15.7	>4.4	7.01			
	3.2	14.9	>4.4	6.93			
9:10	4.8	14.9	>4.4	6.95			
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: 12/8/2010
 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: 29.25 Feet

HEIGHT OF WATER COLUMN: 5.10 Feet

WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.4	16.5	1.38	6.62			
	2.8	16.5	1.38	6.61			
9:55	4.2	15.7	1.38	6.58			
4.2 : Total volume purged							

SAMPLE NO.: _____

ANALYSES: BTEX (8260)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-7
 SITE NAME: J 4 2 DATE: 12/8/2010
 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: 32.45 Feet

HEIGHT OF WATER COLUMN: 7.00 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. °C	COND. m S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.2	18.5	2.5	6.36			
	2.4	18.5	2.50	6.36			
10:30	3.6	18.4	2.50	6.34			
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: 12/8/2010
 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: 30.62 Feet

HEIGHT OF WATER COLUMN: 7.70 Feet

WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. m S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.3	18.1	1.20	6.62			
	2.6	18.1	1.20	6.61			
	3.9	18.5	1.19	6.60			
3.9 : Total volume purged							

SAMPLE NO.: MW-8

ANALYSES: BTEX (8260)

COMMENTS: _____



12/21/10

Technical Report for

DCP Midstream, LP

AECCOL: J-4-2 Proj#390660601

GN00

Accutest Job Number: D19658

Sampling Date: 12/08/10

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: 29



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)

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Test results relate only to samples analyzed.

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Sample Summary

DCP Midstream, LP

Job No: D19658

AECCOL: J-4-2 Proj#390660601

Project No: GN00

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D19658-1	12/08/10	08:45 NQT	12/10/10	AQ	Ground Water	MW-3
D19658-2	12/08/10	09:10 NQT	12/10/10	AQ	Ground Water	MW-4
D19658-3	12/08/10	09:55 NQT	12/10/10	AQ	Ground Water	MW-6
D19658-4	12/08/10	10:30 NQT	12/10/10	AQ	Ground Water	MW-7
D19658-4D	12/08/10	10:30 NQT	12/10/10	AQ	Water Dup/MSD	MW-7
D19658-4M	12/08/10	10:30 NQT	12/10/10	AQ	Water Matrix Spike	MW-7
D19658-5	12/08/10	10:50 NQT	12/10/10	AQ	Ground Water	MW-8
D19658-6	12/08/10	00:00 NQT	12/10/10	AQ	Ground Water	DUPLICATE
D19658-7	12/08/10	00:00 NQT	12/10/10	AQ	Trip Blank Water	TRIP BLANK



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: DCP Midstream, LP

Job No D19658

Site: AECCOL: J-4-2 Proj#390660601

Report Dat 12/21/2010 3:41:46 PM

On 12/10/2010, six (6) samples, one (1) Trip Blank, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 2.2°C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D19658 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: V3V446
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D19658-4MS and D19658-4MSD were used as the QC samples indicated.

Wet Chemistry By Method EPA 300/SW846 9056

Matrix AQ	Batch ID: GP3454
------------------	-------------------------

- All samples were prepared and analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D19658-4DUP, D19658-4MS, and D19658-4MSD were used as the QC samples for the anion 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

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-3	Date Sampled:	12/08/10
Lab Sample ID:	D19658-1	Date Received:	12/10/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOL: J-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V08113.D	1	12/13/10	DC	n/a	n/a	V3V446
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	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00030	mg/l	
	m,p-Xylene	ND	0.0040	0.00060	mg/l	
95-47-6	o-Xylene	ND	0.0020	0.00060	mg/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	88%		68-130%
460-00-4	4-Bromofluorobenzene	84%		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

Report of Analysis

Page 1 of 1

3.1



Client Sample ID: MW-3
Lab Sample ID: D19658-1
Matrix: AQ - Ground Water
Project: AECCOL: J-4-2 Proj#390660601

Date Sampled: 12/08/10
Date Received: 12/10/10
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2530	25	mg/l	50	12/17/10 15:32	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4	Date Sampled:	12/08/10
Lab Sample ID:	D19658-2	Date Received:	12/10/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOL: J-4-2 Proj#390660601		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V08114.D	1	12/13/10	DC	n/a	n/a	V3V446
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00030	mg/l	
	m,p-Xylene	ND	0.0040	0.00060	mg/l	
95-47-6	o-Xylene	ND	0.0020	0.00060	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	97%		63-130%
2037-26-5	Toluene-D8	89%		68-130%
460-00-4	4-Bromofluorobenzene	86%		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

Report of Analysis

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3.2



Client Sample ID:	MW-4	Date Sampled:	12/08/10
Lab Sample ID:	D19658-2	Date Received:	12/10/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2480	25	mg/l	50	12/17/10 16:13	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-6	Date Sampled:	12/08/10
Lab Sample ID:	D19658-3	Date Received:	12/10/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOL: J-4-2 Proj#390660601		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V08115.D	1	12/13/10	DC	n/a	n/a	V3V446
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00030	mg/l	
	m,p-Xylene	ND	0.0040	0.00060	mg/l	
95-47-6	o-Xylene	ND	0.0020	0.00060	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	95%		63-130%
2037-26-5	Toluene-D8	89%		68-130%
460-00-4	4-Bromofluorobenzene	85%		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

Report of Analysis

Page 1 of 1

Client Sample ID: MW-6	Date Sampled: 12/08/10
Lab Sample ID: D19658-3	Date Received: 12/10/10
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: AECCOL: J-4-2 Proj#390660601	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	513	5.0	mg/l	10	12/17/10 16:27	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-7	Date Sampled:	12/08/10
Lab Sample ID:	D19658-4	Date Received:	12/10/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOL: J-4-2 Proj#390660601		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V08110.D	1	12/13/10	DC	n/a	n/a	V3V446
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00030	mg/l	
	m,p-Xylene	ND	0.0040	0.00060	mg/l	
95-47-6	o-Xylene	ND	0.0020	0.00060	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	96%		63-130%
2037-26-5	Toluene-D8	87%		68-130%
460-00-4	4-Bromofluorobenzene	84%		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

Report of Analysis

Page 1 of 1

3.4



Client Sample ID:	MW-7	Date Sampled:	12/08/10
Lab Sample ID:	D19658-4	Date Received:	12/10/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	1180	25	mg/l	50	12/17/10 13:30	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-8	Date Sampled:	12/08/10
Lab Sample ID:	D19658-5	Date Received:	12/10/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOL: J-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V08118.D	1	12/13/10	DC	n/a	n/a	V3V446
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	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00030	mg/l	
	m,p-Xylene	ND	0.0040	0.00060	mg/l	
95-47-6	o-Xylene	ND	0.0020	0.00060	mg/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	87%		68-130%
460-00-4	4-Bromofluorobenzene	82%		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

Report of Analysis

Page 1 of 1

3.5



Client Sample ID: MW-8

Lab Sample ID: D19658-5

Matrix: AQ - Ground Water

Project: AECCOL: J-4-2 Proj#390660601

Date Sampled: 12/08/10

Date Received: 12/10/10

Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	336	25	mg/l	50	12/17/10 13:57	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	DUPLICATE	Date Sampled:	12/08/10
Lab Sample ID:	D19658-6	Date Received:	12/10/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOL: J-4-2 Proj#390660601		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V08119.D	1	12/13/10	DC	n/a	n/a	V3V446
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00030	mg/l	
	m,p-Xylene	ND	0.0040	0.00060	mg/l	
95-47-6	o-Xylene	ND	0.0020	0.00060	mg/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	87%		68-130%
460-00-4	4-Bromofluorobenzene	82%		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

Report of Analysis

Client Sample ID:	DUPLICATE	Date Sampled:	12/08/10
Lab Sample ID:	D19658-6	Date Received:	12/10/10
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	AECCOL: J-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2460	25	mg/l	50	12/17/10 14:11	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	TRIP BLANK	Date Sampled:	12/08/10
Lab Sample ID:	D19658-7	Date Received:	12/10/10
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOL: J-4-2 Proj#390660601		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V08120.D	1	12/13/10	DC	n/a	n/a	V3V446
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00030	mg/l	
	m,p-Xylene	ND	0.0040	0.00060	mg/l	
95-47-6	o-Xylene	ND	0.0020	0.00060	mg/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	88%		68-130%
460-00-4	4-Bromofluorobenzene	81%		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



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.bccutest.com

FED-EX Tracking #	Bottle Order Control #
Accufest Quote #	Accufest Job #

[illegible]

D19658: Chain of Custody

Page 1 of 1



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

Page 1 of 1

Job Number: D19658
Account: DCPM CODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V446-MB1	3V08108.D	1	12/13/10	DC	n/a	n/a	V3V446

The QC reported here applies to the following samples:

Method: SW846 8260B

D19658-1, D19658-2, D19658-3, D19658-4, D19658-5, D19658-6, D19658-7

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	86% 63-130%
2037-26-5	Toluene-D8	87% 68-130%
460-00-4	4-Bromofluorobenzene	83% 61-130%

Blank Spike Summary

Page 1 of 1

Job Number: D19658
Account: DCPM CODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V446-BS1	3V08109.D	1	12/13/10	DC	n/a	n/a	V3V446

The QC reported here applies to the following samples:

Method: SW846 8260B

D19658-1, D19658-2, D19658-3, D19658-4, D19658-5, D19658-6, D19658-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	48.7	97	70-130
100-41-4	Ethylbenzene	50	51.5	103	70-130
108-88-3	Toluene	50	49.0	98	70-140
	m,p-Xylene	50	46.0	92	55-134
95-47-6	o-Xylene	50	45.7	91	55-134

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

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D19658
Account: DCPMCO DN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D19658-4MS	3V08111.D	1	12/13/10	DC	n/a	n/a	V3V446
D19658-4MSD	3V08112.D	1	12/13/10	DC	n/a	n/a	V3V446
D19658-4	3V08110.D	1	12/13/10	DC	n/a	n/a	V3V446

The QC reported here applies to the following samples:

Method: SW846 8260B

D19658-1, D19658-2, D19658-3, D19658-4, D19658-5, D19658-6, D19658-7

CAS No.	Compound	D19658-4 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	50	48.4	97	50.1	100	3		59-132/30
100-41-4	Ethylbenzene	ND	50	51.6	103	53.8	108	4		68-130/30
108-88-3	Toluene	ND	50	48.7	97	50.0	100	3		56-142/30
	m,p-Xylene	ND	50	45.7	91	47.8	96	4		36-146/30
95-47-6	o-Xylene	ND	50	46.0	92	47.1	94	2		36-146/30

CAS No.	Surrogate Recoveries	MS	MSD	D19658-4	Limits
17060-07-0	1,2-Dichloroethane-D4	93%	90%	96%	63-130%
2037-26-5	Toluene-D8	88%	89%	87%	68-130%
460-00-4	4-Bromofluorobenzene	87%	90%	84%	61-130%



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: D19658
Account: DCPMCDN - 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
Chloride	GP3454/GN7638	0.50	0.0	mg/l	20	18.6	93.0	90-110%
Fluoride	GP3454/GN7638	0.20	0.0	mg/l	10	9.70	97.0	90-110%
Sulfate	GP3454/GN7638	0.50	0.0	mg/l	30	28.8	96.0	90-110%

Associated Samples:

Batch GP3454: D19658-1, D19658-2, D19658-3, D19658-4, D19658-5, D19658-6

(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D19658
Account: DCPMCOBN - DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP3454/GN7638	D19658-4	mg/l	1180	1190	0.8	0-20%
Fluoride	GP3454/GN7638	D19658-4	mg/l	0.0	0.0	0.0	0-20%
Sulfate	GP3454/GN7638	D19658-4	mg/l	60.3	66.9	10.4	0-20%

Associated Samples:

Batch GP3454: D19658-1, D19658-2, D19658-3, D19658-4, D19658-5, D19658-6

(*) Outside of QC limits

6.2

6

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D19658
Account: DCPMCDN - 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
Chloride	GP3454/GN7638	D19658-4	mg/l	1180	500	1710	106.0	80-120%
Fluoride	GP3454/GN7638	D19658-4	mg/l	0.0	125	130	104.0	80-120%
Sulfate	GP3454/GN7638	D19658-4	mg/l	60.3	500	543	96.5	80-120%

Associated Samples:

Batch GP3454: D19658-1, D19658-2, D19658-3, D19658-4, D19658-5, D19658-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D19658
Account: DCPMCDN - 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
Chloride	GP3454/GN7638	D19658-4	mg/l	1180	500	1730	1.2	20%
Fluoride	GP3454/GN7638	D19658-4	mg/l	0.0	125	130	0.0	20%
Sulfate	GP3454/GN7638	D19658-4	mg/l	60.3	500	542	0.2	20%

Associated Samples:

Batch GP3454: D19658-1, D19658-2, D19658-3, D19658-4, D19658-5, D19658-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

6.4

