1R - 400

REPORTS

DATE:

1/30/2007

Chavez, Carl J, EMNRD

From: Weathers, Stephen W [SWWeathers@dcpmidstream.com]
Sent: Tuesday, January 30, 2007 10:57 AM
To: Chavez, Carl J, EMNRD
Cc: Ward, Lynn C
Subject: DCP Midstream, LP X-Line Pipeline Release Groundwater Monitoring Report

Mr. Chavez

Attached you will find the 4th Quarter 2006 groundwater monitoring report for the DCP X-Line Pipeline Release located in Lea, New Mexico (Unit B, Section 7, Township 15 South, Range 34 East).

I will be sending a CD of this report to Larry Johnson at the Hobbs District Office.

If you have any questions, please give me a call at 303-605-1718.

Thanks

Stephen Weathers
Sr. Environmental Specialist
DCP Midstream
303-605-1718 (Office)
303-619-3042 (Cell)

Effective 1/1/07 my email address has changed to swweathers@dcpmidstream.com

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

January 30, 2007

Mr. Carl Chavez
Environmental Bureau
New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RE: 4th Quarter 2006 Groundwater Monitoring Results
DCP X-Line Pipeline Release (1RP-400-0)
Unit B, Section 7, T15S, R34E (Lat 33° 02' 11", Long 103° 32' 48")

Dear Mr. Chavez:

DCP Midstream, LP (DCP) formerly Duke Energy Field Services, LP is pleased to submit for your review, an electronic copy of the 4th Quarter 2006 Groundwater Monitoring Results for the DCP X-Line Pipeline Release located within the Etcheverry Ranch, Lea County, New Mexico.

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

Sincerely

DCP Midstream, LP

Stephen Weathers, PG
Sr. Environmental Specialist

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

AEC AMERICAN ENVIRONMENTAL CONSULTING, LLC

January 30, 2007

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

Re: Fourth Quarter 2006 Groundwater Monitoring Summary at the X-Line Pipeline Release, Etcheverry Ranch, Lea County, New Mexico
Unit B, Section 7, Township 15 South, Range 34 East (1RP-400-0)

Dear Mr. Weathers:

This letter summarizes the results of the fourth quarter 2006 groundwater monitoring activities completed December 21, 2006 for DCP Midstream, LP (DCP, previously known as Duke Energy Field Services) at the X-Line Pipeline Release on the Etcheverry Ranch at latitude 33 degrees 02 minutes 11 seconds, longitude 103 degrees 32 minutes 48 seconds (Figure 1).

Eight groundwater-monitoring wells, MW-1 through MW-7, were sampled at the site. The well locations are shown on Figure 2. Monitoring well construction information is summarized in Table 1.

The depths to water were initially measured in each well. This data was used to calculate well casing-volume storage.

The wells were then purged and sampled using disposable bailers. Well purging consisted of removing a minimum of three casing volumes of water and then continue bailing until the field parameters temperature, pH and conductivity stabilized. The field sampling forms are attached.

Unfiltered samples were collected from each well upon stabilization. Each sample was analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX). A field duplicate was collected from well MW-3. A matrix spike/matrix spike duplicate was also collected from MW-5. The laboratory also provided a trip blank as the final quality assurance/quality control measure.

The samples were placed in an ice-filled chest immediately upon collection and documented using standard chain-of-custody protocol. The samples were delivered directly to the Environmental Labs of Texas in Midland Texas. All affected development and purge water was disposed of at the DCP Linam Ranch facility

The groundwater elevation measurements for all sampling episodes are summarized in Table 2. Hydrographs for wells MW-1 through MW-7 are shown on Figure 3. Well MW-8 is not included because its casing elevation is not established.

Figure 3 shows that the water-table elevations have remained essentially constant in all seven wells since June 2005. A water-table contour map based upon the December 2006 measurements was generated using the Surfer program with a kriging option (Figure 4). The water-table configuration reflects the historical conditions because of the consistent groundwater elevations.

The Free Phase Hydrocarbon (FPH) thickness values measured in MW-8 during the monitoring program are summarized in Table 3. 0.28 feet (3 inches) of FPH were present in the well. The SVE system was restarted in January 2007 to continue FPH removal from this well. The system will be run until the first quarter 2007 monitoring event.

Table 4 summarizes the December 2006 sampling results. A copy of the laboratory report is attached. None of the BTEX constituents were detected above the method reporting limits in wells MW-1 through MW-7.

The quality assurance/quality control evaluation is summarized on Table 5. Important facts include:

1. The sample temperature was measured at 2.0° C upon receipt by the laboratory

2. There were no BTEX constituents detected in the trip blank.

3. All of the surrogate spikes fell within their respective control ranges.

4. The duplicate samples from MW-3 could not be evaluated because the measured concentrations in both samples were below the method reporting limits.

5. The matrix spike and the matrix spike duplicate results contained in the attached laboratory report were all within their acceptable ranges.

The above results establish that the samples are suitable for their intended uses.

The December 2006 benzene distribution is shown on Figure 5. The area with FPH is confined to a small area in the center of the site. None of the BTEX constituents were detected in the site monitoring wells.

All of the historical data for benzene, toluene, ethylbenzene and total xylenes are summarized in Tables 6, 7, 8, and 9 respectively. Important facts resulting from the evaluation of the data include:

- None of the seven historic monitoring wells MW-1 through MW-7 contained benzene above the 0.001 mg/l method reporting limit. This is the eighth consecutive sampling episode for MW-2 and the sixth consecutive sampling episode for MW-3 that met this condition. Figure 6 graphs their attenuation histories.

- Ten consecutive monitoring episodes (2.5 years) have elapsed since benzene was measured above the 0.010 mg/l New Mexico Water Quality Control Commission groundwater standard in historic monitoring wells MW-1 through MW-7 (Figure 6).

AEC recommends that soil vapor extraction (SVE) operation and air sparging (AS) be re-evaluated following receipt of the first quarter 2007 monitoring results. SVE system operation should continue if either: 1) FPH is still present in MW-8; or 2) substantial changes in BTEX concentrations are measured in any of the historic monitoring wells MW-1 through MW-7. The use of the AS system in MW-8 should be evaluated if no FPH are measured during the first quarter 2007 monitoring event.

The next monitoring episode is scheduled for the first quarter of 2007. AEC recommends that the SVE system be shut down approximately one week prior to sampling to allow sufficient time for FPH recovery and any potential dissolved phase rebound.

Thank you for allowing me to complete these activities. Do not hesitate to contact me if you have any questions or comments on this report.

Respectfully Submitted,
AMERICAN ENVIRONMENTAL CONSULTING, LLC

Michael H. Stewart

Michael H. Stewart, P.E.
Principal Engineer

MHS:tbm

TABLES

Table 1 – Monitoring Well Completions

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

Notes: Units are Feet
Hydrocarbon extraction well (MW-8) completed between approximately 80 and 100 feet

Table 2- Measured Water Table Elevations

Well	5/1/02	9/6/02	4/28/03	6/19/03	7/17/03	8/20/03	9/22/03	10/29/03	11/20/03	2/18/04	6/25/04	10/18/04	12/09/04	3/3/05
MW-1	4,088.54	4088.53	4,088.55	4,088.55	4,088.52	4,088.54	4,088.53	4,088.60	4,088.59	4,089.19	4,089.12	4,089.22	4,089.18	4,089.34
MW-2	4,089.02	4089.03	4,089.05	4,089.07	4,089.04	4,089.09	4,089.06	4,089.11	4,089.13	4,088.90	4,089.03	4,089.06	4,089.03	4,089.68
MW-3	4,088.83	4088.86	4,088.86	4,088.85	4,088.82	4,088.87	4,088.84	4,088.90	4,088.95	4,088.82	4,088.81	4,088.84	4,088.82	4,089.24
MW-4	4,088.63	4088.73	4,088.73	4,088.73	4,088.70	4,088.72	4,088.71	4,088.78	4,088.78	4,088.74	4,088.70	4,088.73	4,088.71	4,088.79
MW-5	4,088.60	4088.68	4,088.67	4,088.65	4,088.63	4,088.66	4,088.65	4,088.70	4,088.70	4,088.65	4,088.60	4,088.63	4,088.62	4,088.73
MW-6	4,088.69	4088.71	4,088.70	4,088.69	4,088.66	4,088.70	4,088.68	4,088.74	4,088.74	4,088.69	4,088.66	4,088.71	4,088.68	4,088.83
MW-7	----	----	----	4,088.04	4,088.01	4,088.04	4,088.03	4,088.08	4,088.08	4,087.66	4,087.63	4,087.68	4,087.65	4,087.78

Well	6/3/05	9/28/05	12/12/05	3/1/06	6/26/06	9/28/06	12/21/06
MW-1	4,089.26	4,089.25	4,089.23	4,089.23	4,089.22	4,089.16	4,089.24
MW-2	4,089.10	4,089.10	4,089.07	4,089.08	4,089.05	4,089.00	4,089.09
MW-3	4,088.91	4,088.89	4,088.88	4,088.88	4,088.85	4,088.84	4,088.88
MW-4	4,088.79	4,088.77	4,088.76	4,088.75	4,088.73	4,088.73	4,088.76
MW-5	4,088.68	4,088.67	4,088.66	4,088.66	4,088.63	4,088.62	4,088.66
MW-6	4,088.75	4,088.74	4,088.73	4,088.72	4,088.70	4,088.66	4,088.73
MW-7	4,087.71	4,087.70	4,087.70	4,087.70	4,087.67	4,087.62	4,087.69

Units are feet

Table 3 – Summary of Product Thickness in MW-8

Measurement Date	Product Thickness (feet)
09/06/02	5.20
04/28/03	5.65
06/19/03	4.01
07/17/03	3.93
09/22/03	3.42
10/29/03	1.42
11/20/03	0.79
06/25/04	0.03
10/18/04	3.26
12/09/04	2.71
03/03/05	0.00
06/03/05	0.12
09/28/05	1.01
12/12/05	0.00
03/1/06	0.04
06/26/06	0.03
09/28/06	0.00
12/21/06	0.28

Table 4 – December 21, 2006 Groundwater Monitoring Results

Well	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-1	<0.001	<0.001	<0.001	<0.001
MW-2	<0.001	<0.001	<0.001	<0.001
MW-3	<0.001	<0.001	<0.001	<0.001
MW-3 (duplicate)	<0.001	<0.001	<0.001	<0.001
MW-4	<0.001	<0.001	<0.001	<0.001
MW-5	<0.001	<0.001	<0.001	<0.001
MW-6	<0.001	<0.001	<0.001	<0.001
MW-7	<0.001	<0.001	<0.001	<0.001
Trip blank	<0.001	<0.001	<0.001	<0.001

Notes: Units are mg/l

J modifier is for estimated values whose measured concentrations fall between the method detection limit and the method reporting limit.

Table 5 – December 21, 2006 Quality Assurance and Quality Control Results

Field Duplicate Relative Percentage Difference Values for MW-3

	Benzene	Toluene	Ethyl Benzene	Xylenes p,m/o
RPD (%)	NA	NA	NA	NA

NA: Calculation could not be completed because constituent was not detected above method reporting limits..

MW-5 Matrix Spike/Matrix Spike Duplicate Results

	Benzene	Toluene	Ethyl Benzene	Xylenes p,m	Xylenes o
Matrix Spike	116	117	110	106	92.2
Matrix Spike Duplicate	109	107	105	99.7	88.6

Note: Units are percent recovered

Table 6 – Summary of Laboratory Data for Benzene

Well	4/24/02	5/21/02	4/28/03	6/19/03	7/17/03	8/20/03	9/22/03	10/29/03	11/20/03	2/18/04	6/25/04	10/18/04	12/9/04	3/3/05	6/3/05	9/28/05	12/12/05
MW-1	<0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-2	0.0255	0.145	0.182	0.074	0.155	0.024	0.022	0.001	0.013	<0.001	0.00156	0.0103	0.00342	<0.001	<0.001	<0.001	<0.001
MW-3	0.061	0.176	0.099	0.047	0.063	0.017	0.049	0.044	0.048	0.0280	0.0173	.00584	0.006137	0.00167	0.00332	<0.001	<0.001
MW-4	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-5	<0.002	<0.002	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-6	<0.002	0.002	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-7	---	---	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-8	---	---	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	NS	FPH	FPH	0.561

Well	3/1/06	6/26/06	9/28/06	12/21/06
MW-1	<0.001	<0.001	<0.001	<0.001
MW-2	<0.001	0.0006	0.0007	<0.001
MW-3	<0.001	<0.001	<0.001	<0.001
MW-4	<0.001	<0.001	<0.001	<0.001
MW-5	<0.001	<0.001	<0.001	<0.001
MW-6	<0.001	<0.001	<0.001	<0.001
MW-7	<0.001	<0.001	<0.001	<0.001
MW-8	FPH	FPH	0.235	FPH

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

Table 7 – Summary of Laboratory Data for Toluene

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

Well	3/1/06	6/26/06	9/28/06	12/21/06
MW-1	<0.001	<0.001	<0.001	<0.001
MW-2	<0.001	0.00114	0.00137	<0.001
MW-3	<0.001	<0.001	<0.001	<0.001
MW-4	<0.001	<0.001	<0.001	<0.001
MW-5	<0.001	<0.001	<0.001	<0.001
MW-6	<0.001	<0.001	<0.001	<0.001
MW-7	<0.001	<0.001	<0.001	<0.001
MW-8	FPH	FPH	0.791	FPH

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

Table 8 – Summary of Laboratory Data for Ethylbenzene

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

Well	3/1/06	6/26/06	9/28/06	12/21/06
MW-1	<0.001	<0.001	<0.001	<0.001
MW-2	<0.001	<0.001	0.0003	<0.001
MW-3	<0.001	<0.001	<0.001	<0.001
MW-4	<0.001	<0.001	<0.001	<0.001
MW-5	<0.001	<0.001	<0.001	<0.001
MW-6	<0.001	<0.001	0.001	<0.001
MW-7	<0.001	<0.001	<0.001	<0.001
MW-8	FPH	FPH	0.239	FPH

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

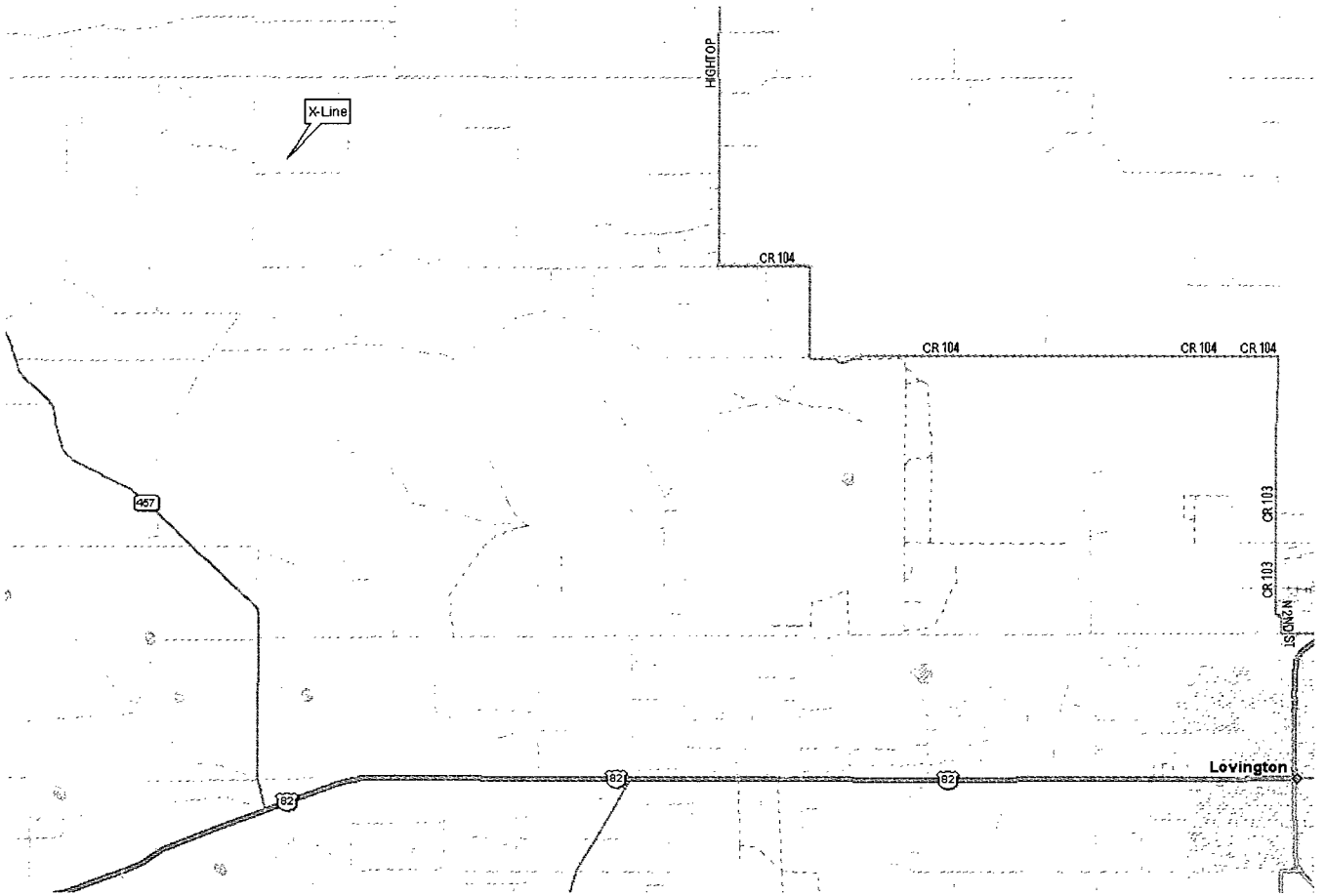
Table 9 – Summary of Laboratory Data for Xylenes

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

Well	3/1/06	6/26/06	9/28/06	12/21/06
MW-1	<0.001	<0.001	<0.001	<0.001
MW-2	<0.001	0.00125J	0.0014	<0.001
MW-3	<0.001	<0.001	<0.001	<0.001
MW-4	<0.001	<0.001	<0.001	<0.001
MW-5	<0.001	<0.001	<0.001	<0.001
MW-6	<0.001	<0.001	<0.001	<0.001
MW-7	<0.001	<0.001	<0.001	<0.001
MW-8	FPH	FPH	2.27	FPH

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

FIGURES



Scale

0 2 miles

N

Figure 1 - X-Line Location
(33.036°N, 103.547 °W)

X-Line Remediation

dcp Midstream.

DRAWN BY: MHS

DATE: 1/07

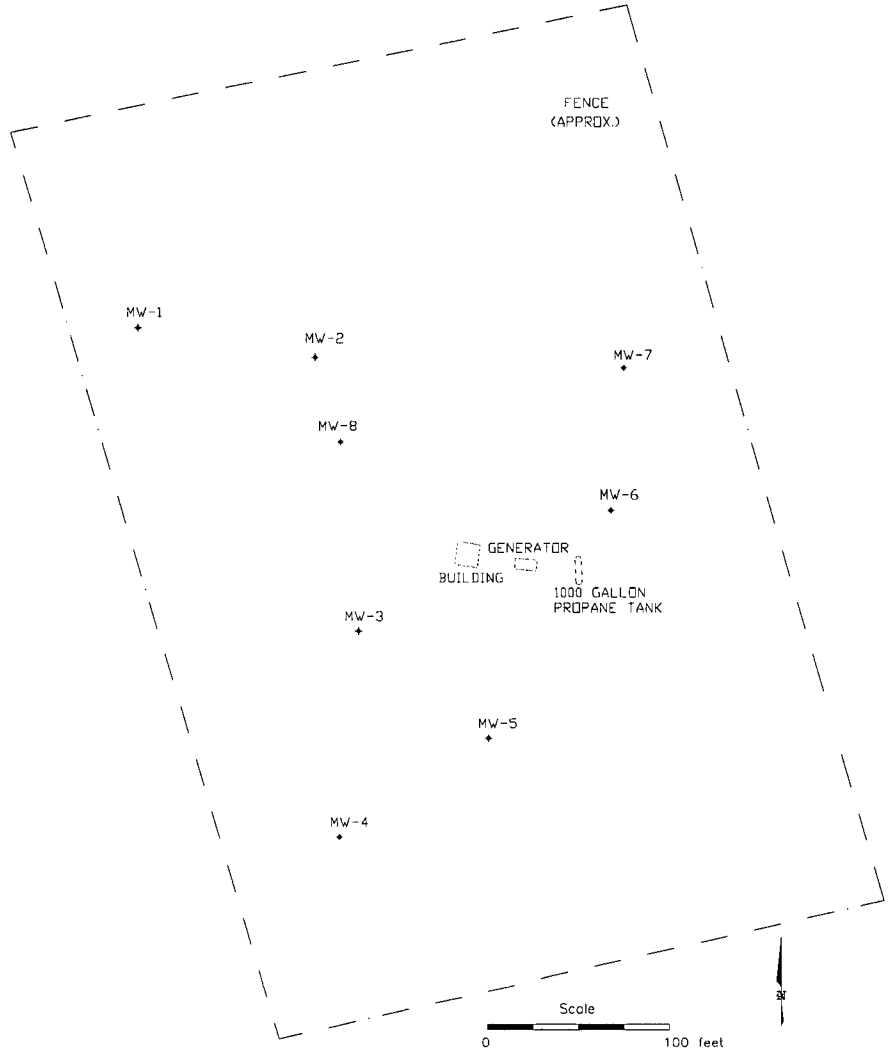


Figure 2 – Facility Configuration
X-Linc Remediation

dcp Midstream.

DRAWN BY: MHS
REVISED:
DATE: 1/07

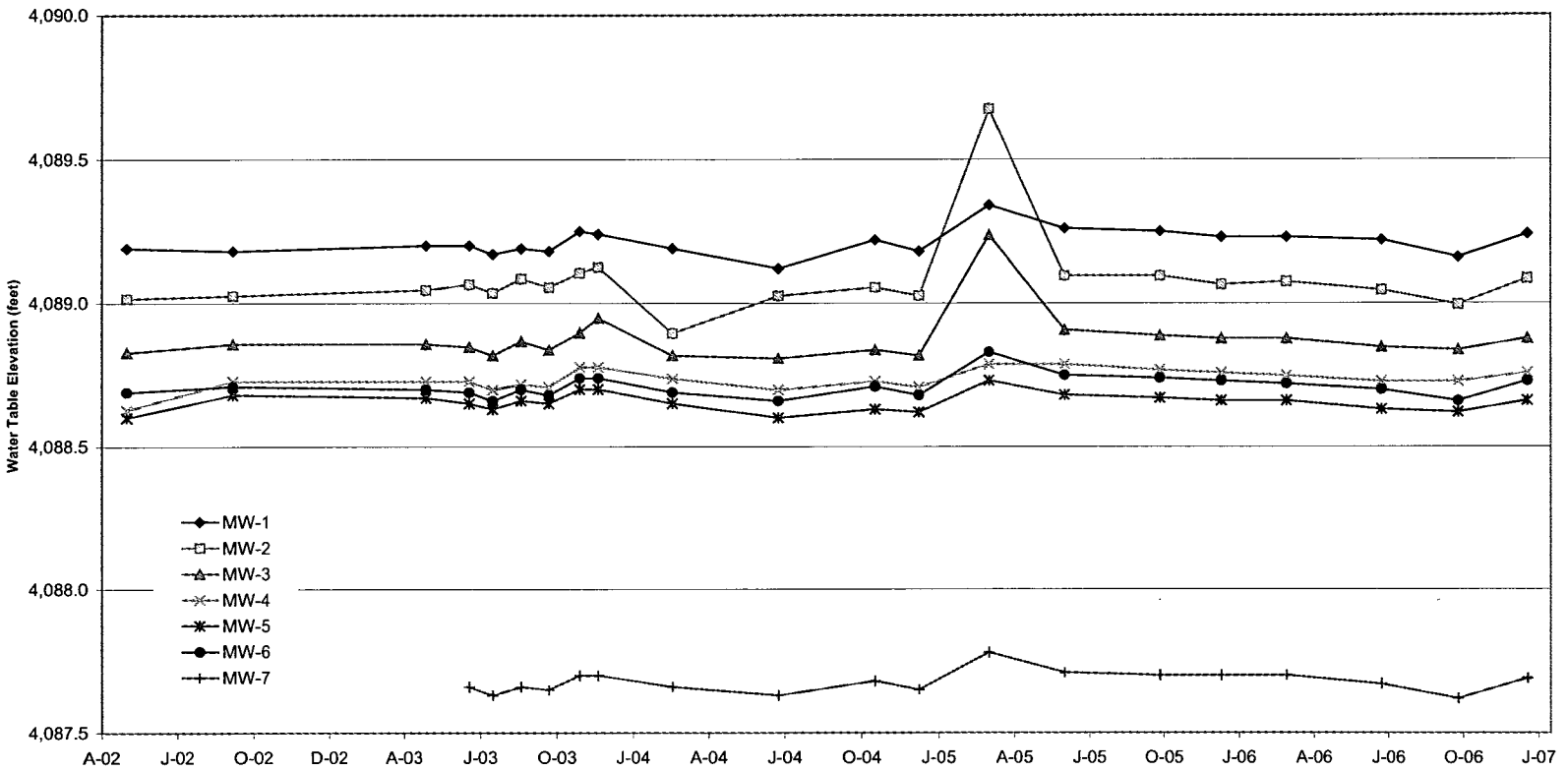


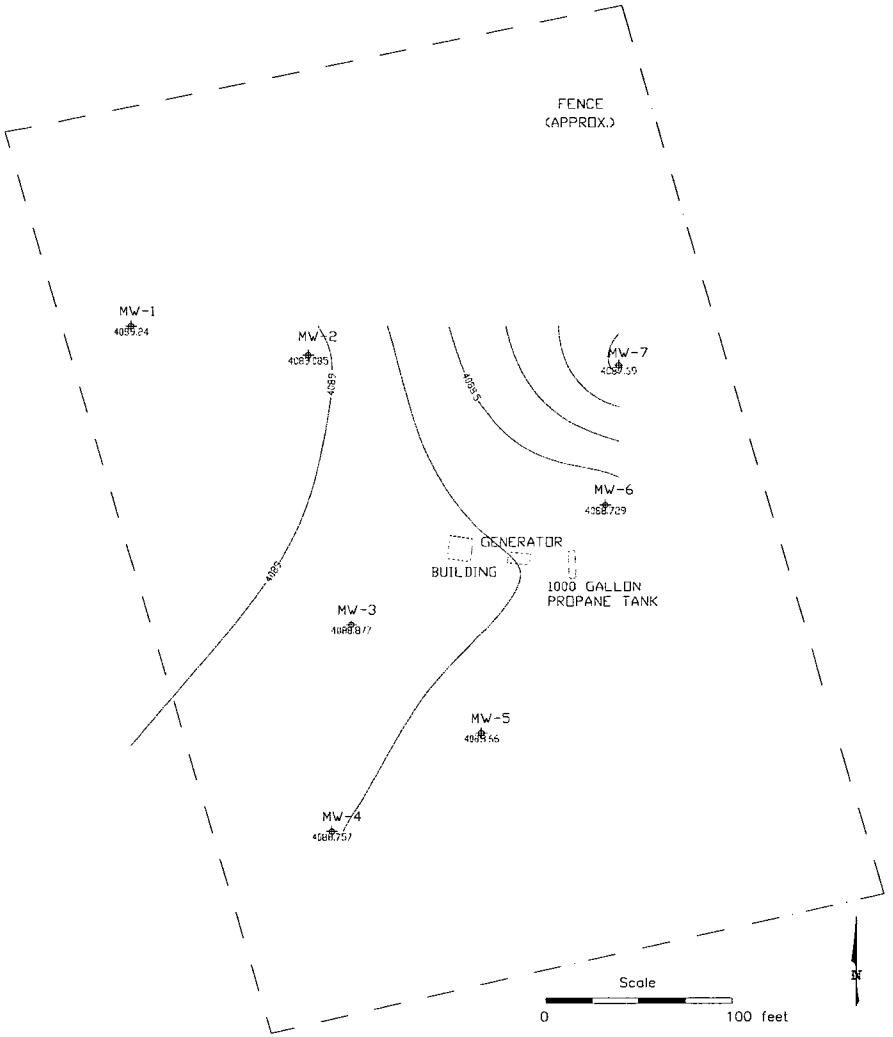
Figure 3 – Well Hydrographs

X-Line Remediation

dcp Midstream.

DRAWN BY: MHS

DATE:1/07



Contour interval is 0.25 feet

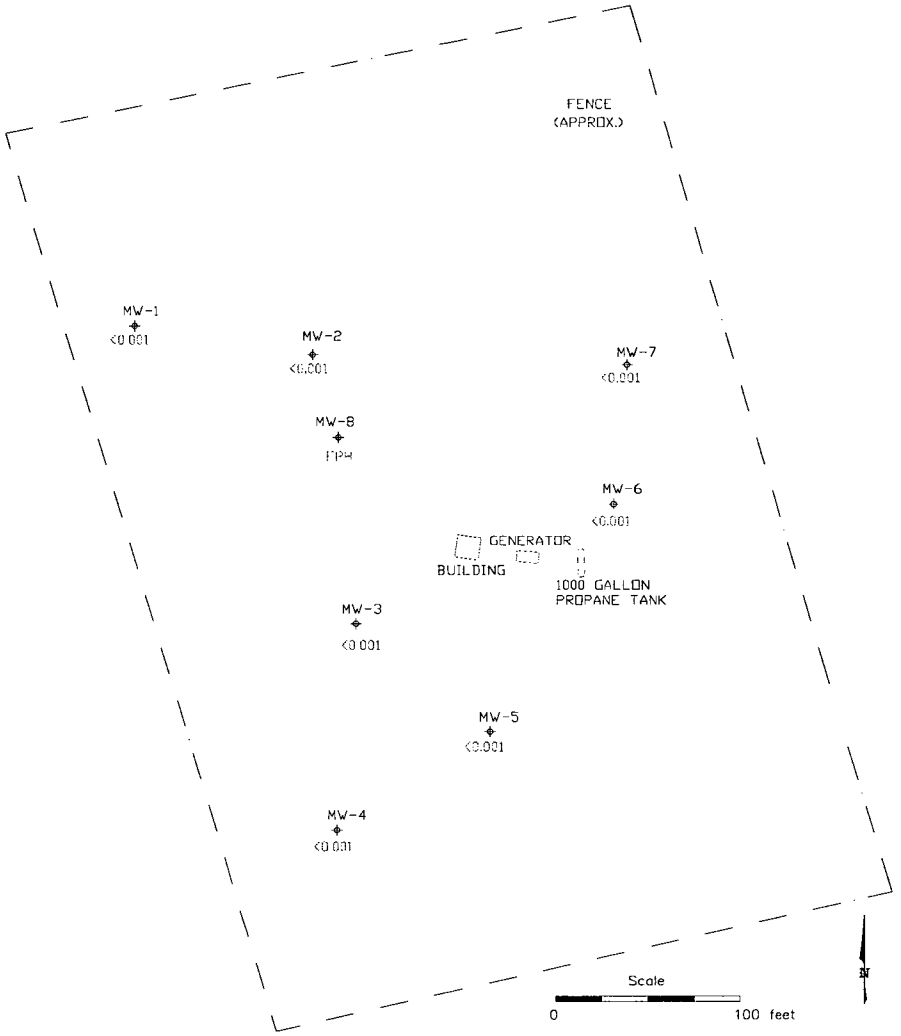
Figure 4 – Sep. 2006 Water Table Contours

X-Line Remediation

dcp Midstream.

DRAWN BY: MHS

DATE: 1/07



Units are mg/l

Figure 5 – Dec. 2006 Benzene Concentrations

X-Line Remediation

dcp Midstream.

DRAWN BY: MHS

DATE: 1/07

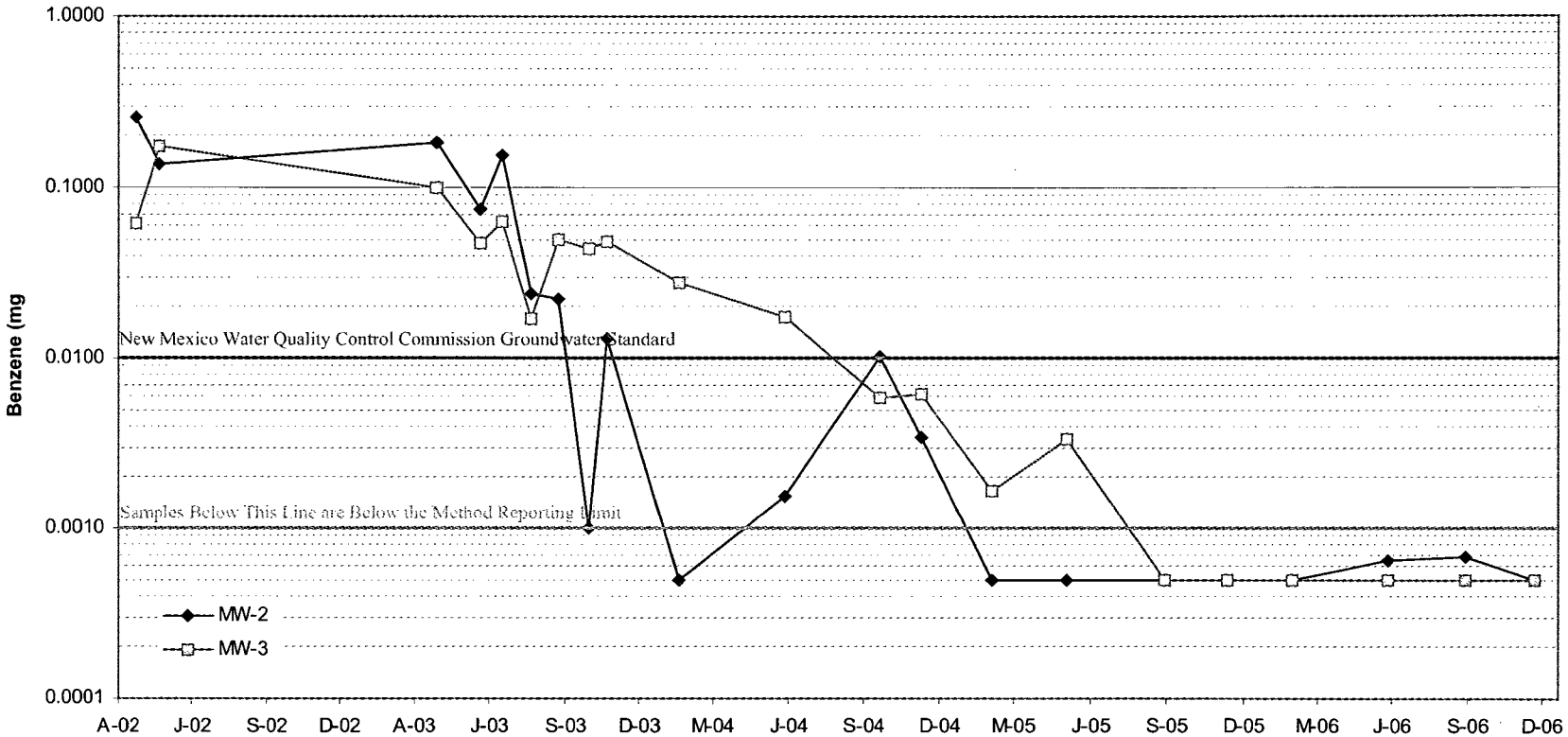


Figure 6 – Benzene Concentrations in MW-2 and MW-3

X-Line Remediation

dcp Midstream

DRAWN BY: MHS

DATE: 1/07

FIELD SAMPLING FORMS

AND

LABORATORY ANALYTICAL REPORT

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-1**
SITE NAME: X Line (Etcheverry Ranch)
DATE: 12/21/2006
PROJECT NO. F-106
SAMPLER: J. Fergerson

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: _____

DISPOSAL METHOD OF PURGE WATER: ☑ Surface Discharge ☐ Drums ☐ Disposal Facility

TOTAL DEPTH OF WELL: 94.30 Feet
DEPTH TO WATER: 77.45 Feet
HEIGHT OF WATER COLUMN: 16.85 Feet
WELL DIAMETER: 2.0 Inch

8.2 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
8:14	0.0	-	-	-	-	-	Begin Hand Bailing
8:23	3.0	14.1	0.56	7.80	-	-	
8:32	6.0	13.8	0.55	7.78	-	-	
8:40	9.0	13.4	0.54	7.69	-	-	
0:26	:Total Time (hr:min)		**9**	:Total Vol (gal)		**0.34**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 061221 0842

ANALYSES: BTEX (8021-B)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-2**
SITE NAME: X Line (Etcheverry Ranch)
DATE: 12/21/2006
PROJECT NO. F-106
SAMPLER: J. Fergerson

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: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 89.90 Feet
DEPTH TO WATER: 77.43 Feet
HEIGHT OF WATER COLUMN: 12.47 Feet
WELL DIAMETER: 2.0 Inch

6.1 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
8:06	0.0	-	-	-	-	-	Begin Hand Bailing
8:13	2.1	18.2	0.93	7.07	-	-	
8:21	4.2	18.2	0.92	7.10	-	-	
8:30	6.3	18.2	0.90	7.12	-	-	
0:24	:Total Time (hr:min)		**6.3**	:Total Vol (gal)		**0.26**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 061221 0835

ANALYSES: BTEX (8021-B)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-3**
SITE NAME: *X Line (Etcheverry Ranch)*
DATE: 12/21/2006
PROJECT NO. F-106
SAMPLER: J. Fergerson

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: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 92.80 Feet
DEPTH TO WATER: 77.45 Feet
HEIGHT OF WATER COLUMN: 15.35 Feet
WELL DIAMETER: 2.0 Inch

7.5 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
9:32	*0.0*	-	-	-	-	-	*Begin Hand Bailing*
9:41	2.7	17.9	0.97	6.98	-	-	
9:50	5.4	18.1	0.96	7.01	-	-	
9:59	8.1	17.7	0.94	7.04	-	-	
0:27	:Total Time (hr:min)		**8.1**	:Total Vol (gal)		**0.30**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 061221 1005
ANALYSES: BTEX (8021-B)
COMMENTS: Collected Duplicate Sample No.: 0612211300

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-4**
SITE NAME: X Line (Etcheverry Ranch)
DATE: 12/21/2006
PROJECT NO. F-106
SAMPLER: J. Fergerson

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: _____

DISPOSAL METHOD OF PURGE WATER: ☑ Surface Discharge ☐ Drums ☐ Disposal Facility

TOTAL DEPTH OF WELL: 93.40 Feet
DEPTH TO WATER: 77.57 Feet
HEIGHT OF WATER COLUMN: 15.83 Feet
WELL DIAMETER: 2.0 Inch

7.7 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
10:21	0.0	-	-	-	-	-	Begin Hand Bailing
10:30	2.7	16.0	0.57	7.61	-	-	
10:37	5.3	16.3	0.57	7.62	-	-	
10:45	8.0	15.7	0.56	7.63	-	-	
0:24	:Total Time (hr:min)		**8**	:Total Vol (gal)		**0.33**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 061221 1040
ANALYSES: BTEX (8021-B)
COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-5**
SITE NAME: X Line (Etcheverry Ranch)
DATE: 12/21/2006
PROJECT NO. F-106
SAMPLER: J. Fergerson

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: _____

DISPOSAL METHOD OF PURGE WATER: ☑ Surface Discharge ☐ Drums ☐ Disposal Facility

TOTAL DEPTH OF WELL: 91.10 Feet
DEPTH TO WATER: 77.24 Feet
HEIGHT OF WATER COLUMN: 13.86 Feet
WELL DIAMETER: 2.0 Inch

6.8 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
9:36	0.0	-	-	-	-	-	Begin Hand Bailing
9:42	2.3	14.9	0.59	7.53	-	-	
9:50	4.7	14.4	0.57	7.57	-	-	
9:55	7.0	14.5	0.57	7.55	-	-	
0:19 :Total Time (hr:min)			**7** :Total Vol (gal)			**0.37**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 061221 0957

ANALYSES: BTEX (8021-B)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-6**
SITE NAME: X Line (Etcheverry Ranch)
DATE: 12/21/2006
PROJECT NO. F-106
SAMPLER: J. Fergerson

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: _____

DISPOSAL METHOD OF PURGE WATER: ☑ Surface Discharge ☐ Drums ☐ Disposal Facility

TOTAL DEPTH OF WELL: 92.90 Feet
DEPTH TO WATER: 77.16 Feet
HEIGHT OF WATER COLUMN: 15.74 Feet
WELL DIAMETER: 2.0 Inch

7.7 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
8:54	0.0	-	-	-	-	-	Begin Hand Bailing
9:01	2.7	14.6	0.54	7.58	-	-	
9:09	5.3	14.3	0.54	7.47	-	-	
9:17	8.0	14.0	0.54	7.46	-	-	
0:23	:Total Time (hr:min)		**8**	:Total Vol (gal)		**0.35**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 061221 0919

ANALYSES: BTEX (8021-B)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-7**
SITE NAME: X Line (Etcheverry Ranch)
DATE: 12/21/2006
PROJECT NO. F-106
SAMPLER: J. Fergerson

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: _____

DISPOSAL METHOD OF PURGE WATER: ☑ Surface Discharge ☐ Drums ☐ Disposal Facility

TOTAL DEPTH OF WELL: 92.80 Feet
DEPTH TO WATER: 76.74 Feet
HEIGHT OF WATER COLUMN: 16.06 Feet
WELL DIAMETER: 2.0 Inch

7.9 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
8:49	0.0	-	-	-	-	-	Begin Hand Bailing
8:57	2.7	18.2	0.63	7.30	-	-	
9:07	5.4	18.2	0.62	7.36	-	-	
9:16	8.1	18.2	0.62	7.34	-	-	
0:27 :Total Time (hr:min)			**8.1** :Total Vol (gal)			**0.30** :Flow Rate (gal/min)	

SAMPLE NO.: Collected Sample No.: 061221 0920

ANALYSES: BTEX (8021-B)

COMMENTS: _____

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Michael Stewart

American Envionmental Consultants

6885 South Marshall St., Ste. 3

Littleton, CO 80128

Project: DEFS X-Line (Etcheverry Ranch)

Project Number: None Given

Location: Lea County, NM

Lab Order Number: 6L22001

Report Date: 12/28/06

American Envionmental Consultants
6885 South Marshall St., Ste. 3
Littleton CO, 80128

Project: DEFS X-Line (Etcheverry Ranch)
Project Number: None Given
Project Manager: Michael Stewart

Fax: (303) 948-7793

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2 (0612210835)	6L22001-01	Water	12/21/06 08:35	12-22-2006 08:00
MW-1 (0612210842)	6L22001-02	Water	12/21/06 08:42	12-22-2006 08:00
MW-6 (0612210919)	6L22001-03	Water	12/21/06 09:19	12-22-2006 08:00
MW-7 (0612210920)	6L22001-04	Water	12/21/06 09:20	12-22-2006 08:00
MW-5 (0612210957)	6L22001-05	Water	12/21/06 09:57	12-22-2006 08:00
MW-3 (0612211005)	6L22001-06	Water	12/21/06 10:05	12-22-2006 08:00
MW-4 (0612211040)	6L22001-07	Water	12/21/06 10:40	12-22-2006 08:00
Duplicate (0612211300)	6L22001-08	Water	12/21/06 13:00	12-22-2006 08:00
Trip Blank	6L22001-09	Water	12/21/06 00:00	12-22-2006 08:00

American Envionmental Consultants	Project: DEFS X-Line (Etcheverry Ranch)	Fax: (303) 948-7793
6885 South Marshall St., Ste. 3	Project Number: None Given	
Littleton CO, 80128	Project Manager: Michael Stewart	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (0612210835) (6L22001-01) Water									
Benzene	ND	0.00100	mg/L	1	EL62216	12/22/06	12/28/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*112 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*114 %*	*80-120*		"	"	"	"	
MW-1 (0612210842) (6L22001-02) Water									
Benzene	ND	0.00100	mg/L	1	EL62216	12/22/06	12/23/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*98.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*80-120*		"	"	"	"	
MW-6 (0612210919) (6L22001-03) Water									
Benzene	ND	0.00100	mg/L	1	EL62216	12/22/06	12/23/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*88.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*	*80-120*		"	"	"	"	
MW-7 (0612210920) (6L22001-04) Water									
Benzene	ND	0.00100	mg/L	1	EL62216	12/22/06	12/23/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*105 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.5 %*	*80-120*		"	"	"	"	

American Envionmental Consultants
6885 South Marshall St., Ste. 3
Littleton CO, 80128

Project: DEFS X-Line (Etcheverry Ranch)
Project Number: None Given
Project Manager: Michael Stewart

Fax: (303) 948-7793

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (0612210957) (6L22001-05) Water									
Benzene	ND	0.00100	mg/L	1	EL62216	12/22/06	12/26/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.0 %*	*80-120*		"	"	"	"	
MW-3 (0612211005) (6L22001-06) Water									
Benzene	ND	0.00100	mg/L	1	EL62216	12/22/06	12/26/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*109 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*	*80-120*		"	"	"	"	
MW-4 (0612211040) (6L22001-07) Water									
Benzene	ND	0.00100	mg/L	1	EL62216	12/22/06	12/26/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*109 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*80-120*		"	"	"	"	
Duplicate (0612211300) (6L22001-08) Water									
Benzene	ND	0.00100	mg/L	1	EL62216	12/22/06	12/26/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*114 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*	*80-120*		"	"	"	"	

American Envionmental Consultants	Project: DEFS X-Line (Etcheverry Ranch)	Fax: (303) 948-7793
6885 South Marshall St., Ste. 3	Project Number: None Given	
Littleton CO, 80128	Project Manager: Michael Stewart	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Trip Blank (6L22001-09) Water									
Benzene	ND	0.00100	mg/L	1	EL62216	12/22/06	12/26/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*119 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*80-120*		"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

American Envionmental Consultants
6885 South Marshall St., Ste. 3
Littleton CO, 80128

Project: DEFS X-Line (Etcheverry Ranch)
Project Number: None Given
Project Manager: Michael Stewart

Fax: (303) 948-7793

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL62216 - EPA 5030C (GC)										
Blank (EL62216-BLK1)				Prepared & Analyzed: 12/22/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*37.5*		*ug/l*	*40.0*		*93.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.1*		*"*	*40.0*		*82.8*	*80-120*			
LCS (EL62216-BS1)				Prepared & Analyzed: 12/22/06						
Benzene	0.0471	0.00100	mg/L	0.0500		94.2	80-120			
Toluene	0.0440	0.00100	"	0.0500		88.0	80-120			
Ethylbenzene	0.0530	0.00100	"	0.0500		106	80-120			
Xylene (p/m)	0.0851	0.00100	"	0.100		85.1	80-120			
Xylene (o)	0.0407	0.00100	"	0.0500		81.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.0*		*ug/l*	*40.0*		*92.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.1*		*"*	*40.0*		*82.8*	*80-120*			
Calibration Check (EL62216-CCV1)				Prepared: 12/22/06 Analyzed: 12/26/06						
Benzene	57.9		ug/l	50.0		116	80-120			
Toluene	59.2		"	50.0		118	80-120			
Ethylbenzene	58.1		"	50.0		116	80-120			
Xylene (p/m)	117		"	100		117	80-120			
Xylene (o)	54.1		"	50.0		108	80-120			
Surrogate: a,a,a-Trifluorotoluene	*46.7*		*"*	*40.0*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*41.7*		*"*	*40.0*		*104*	*80-120*			
Matrix Spike (EL62216-MS1)	**Source: 6L22001-05**			Prepared: 12/22/06 Analyzed: 12/27/06						
Benzene	0.0581	0.00100	mg/L	0.0500	ND	116	80-120			
Toluene	0.0584	0.00100	"	0.0500	ND	117	80-120			
Ethylbenzene	0.0550	0.00100	"	0.0500	ND	110	80-120			
Xylene (p/m)	0.106	0.00100	"	0.100	ND	106	80-120			
Xylene (o)	0.0461	0.00100	"	0.0500	ND	92.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*44.6*		*ug/l*	*40.0*		*112*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.7*		*"*	*40.0*		*117*	*80-120*			

American Envionmental Consultants	Project: DEFS X-Line (Etcheverry Ranch)	Fax: (303) 948-7793
6885 South Marshall St., Ste. 3	Project Number: None Given	
Littleton CO, 80128	Project Manager: Michael Stewart	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL62216 - EPA 5030C (GC)										
Matrix Spike Dup (EL62216-MSD1)	**Source: 6L22001-05**			Prepared: 12/22/06 Analyzed: 12/27/06						
Benzene	0.0543	0.00100	mg/L	0.0500	ND	109	80-120	6.22	20	
Toluene	0.0537	0.00100	"	0.0500	ND	107	80-120	8.93	20	
Ethylbenzene	0.0524	0.00100	"	0.0500	ND	105	80-120	4.65	20	
Xylene (p/m)	0.0997	0.00100	"	0.100	ND	99.7	80-120	6.13	20	
Xylene (o)	0.0443	0.00100	"	0.0500	ND	88.6	80-120	3.98	20	
Surrogate: a,a,a-Trifluorotoluene	*46.1*		*ug/l*	*40.0*		*115*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.1*		"	*40.0*		*105*	*80-120*			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

American Envionmental Consultants
6885 South Marshall St., Ste. 3
Littleton CO, 80128

Project: DEFS X-Line (Etcheverry Ranch)
Project Number: None Given
Project Manager: Michael Stewart

Fax: (303) 948-7793

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 12/28/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Michael H. Stewart
Company Name: American Environmental Consulting
Company Address: 6885 South Marshall St., Ste.3
City/State/Zip: Littleton, Colorado 80128
Telephone No: (303) 948-7733
Fax No: (303) 948-7793
Sampler Signature:

Project Name: DEFS X-Line (Etcheverry Ranch)
Project #:
Project Loc: Lea County, New Mexico
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl VOA vial	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B/5030 or ~~GRO~~ TEX 8260	RCI	N.O.R.M.					RUSH TAT (Pre-Schedule)	Standard TAT
01	MW-2 (061221 0835)	12/21/06	0835	2	✓		✓					✓											✓									✓
02	MW-1 (061221 0842)	12/21/06	0842	2	✓		✓					✓											✓									✓
03	MW-6 (061221 0919)	12/21/06	0919	2	✓		✓					✓											✓									✓
04	MW-7 (061221 0920)	12/21/06	~~1000~~ 0920	2	✓		✓					✓											✓									✓
05	MW-5 (061221 0957)	12/21/06	0957	6	✓		✓					✓											✓							✓		✓
06	MW-3 (061221 1005)	12/21/06	1005	2	✓		✓					✓											✓									✓
07	MW-4 (061221 1040)	12/21/06	1040	2	✓		✓					✓											✓									✓
08	Duplicate (061221 1300)	12/21/06	1300	2	✓		✓					✓											✓									✓
09	Trip Blank			2	✓		✓					✓											✓									✓

Special Instructions: Send fax copy of lab report to Michael Stewart, sent original lab report and invoce to Stephen Weathers, Duke Energy Field Services, 303 17th Street, Suite 2500, Denver, CO 80202

Sample Containers Intact? Y N
Temperature Upon Receipt
Laboratory Comments: w/ parseal 2.0 w/ label

Relinquished by:	Date	Time	Received by:	Date	Time
	12/21/06	1300		12/21/06	1300
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
	12/22/06	8:00		12/22/06	8:00

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: American Env. Consul.

Date/ Time: 12/22/08 7:55

Lab ID #: 612201

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	2.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event