GW - 2

MONITORING REPORTS

DATE:

2001-2001

Chavez, Carl J, EMNRD

From: Dick, Daniel I [DIDick@dcpmidstream.com]
Sent: Tuesday, January 30, 2007 10:47 AM
To: Chavez, Carl J, EMNRD
Cc: Ward, Lynn C
Subject: Former Lee Gas Plant - Q3 2006 Groundwater Monitoring Report

Mr. Chavez –

Please find attached the above referenced report and cover letter. Copies have been sent via mail to Larry Johnson with the OCD District 1 office as well.

I look forward to meeting you Thursday morning.

Sincerely,

Daniel Dick
DCP Midstream
Environmental Assurance
370, 17th Street, Suite 2500
Denver, CO 80120
Ph: 303-605-1893
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AEC AMERICAN ENVIRONMENTAL CONSULTING, LLC

January 30, 2007

Mr. Daniel Dick
DCP Midstream, LP
370 Seventeenth Street, Suite 2500
Denver, Colorado 80202

Subject: Third Quarter Groundwater Monitoring Summary for the Former Lee Gas Plant, Lea Count, New Mexico
Unit N, Section 30, Township 17 South, Range 35 East

Dear Daniel:

This letter summarizes the activities completed and data generated during the third quarter 2006 at the DCP Midstream (DCP, formerly known as Duke Energy Field Services) Former Lee Gas Plant in Lea County, New Mexico. An update of the remedition activities is also provided.

BACKGROUND

The facility is located in New Mexico Oil Conservation Division (OCD) designated Unit N, Section 30, Township 17 South, Range 35 East (Figure 1). The coordinates are 32.800 degrees north 103.495 degrees west.

The facility used to be a gas processing and compression plant. The components associated with these operations were removed or demolished in 2003 along with the majority of the other structures. The only remaining site structures are the former office and some warehouse buildings

The current well locations are shown on Figure 2. Construction information is included in Table 1. Wells MW-5, MW-6, MW-8 and MW-15 all contain free-phase hydrocarbons (FPH). Automatic FPH only removal pumps were installed in May 2005 in MW-5, MW-6 and MW-15.

SUMMARY OF MONITORING AND FPH REMOVAL ACTIVITIES

The third quarter 2006 monitoring event included the measurement of fluid levels in all wells and sampling all of the wells that did not contain measurable FPH for benzene, toluene, ethylbenzene and xylenes (BTEX). This activity was completed on September 20, 2006 by Trident Environmental (Trident) of Midland Texas. The field sampling forms are attached.

The FPH collection system is inspected weekly by Environmental Plus Incorporated (EPI) of Eunice, New Mexico. System operation is verified and the FPH removal volumes are measured. The FPH holding containers, all in secondary containment, are emptied as they approach capacity. EPI provides a weekly update of the inspection activities and incremental FPH volumes.

GROUNDWATER FLUCTUATION AND FLOW

The measurement data and corrected groundwater elevations for all monitoring events are shown on Table 2. The water-table elevations for the wells containing free product were estimated 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 0.74 or 0.82 depending upon the well location).

All of the corrected water-table elevations are summarized in Table 3. Hydrographs for select wells located throughout the study area are included on Figure 3. The hydrographs show that the water table has stabilized between March 2006 and September 2006. This stabilization probably resulted from the heavy rains in the summer of 2006 .

A water-table contour map based upon the September 2006 corrected values as generated by the program Surfer using the kriging option is included as Figure 4. The plot indicates that groundwater flow maintained its historic primary direction toward the south.

DISSOLVED PHASE HYDROCARBON DISTRIBUTION AND ATTENUATION

The analytical results for September 2006 are summarized in Table 4. The laboratory report is attached. The quality control data can be summarized as follows:

- There were no BTEX detections in the September 2006 trip blank.
- The relative percentage difference values for the September 2006 MW-10 benzene duplicates was 4.1 percent. The toluene, ethylbenzene and xylene values were below their respective method reporting limits.
- All of the surrogate spikes from both events were within their control limits.
- The laboratory the matrix spike and matrix spike duplicate analysis were within limits.

The above facts establish that the data is suitable for all intended uses.

The New Mexico Water Quality Control Commission groundwater standards are also included in Table 4. The constituents that exceed these standards are bolded. Only benzene exceeded the applicable standard, and it was exceeded in MW-7, MW-9, MW-14, MW-16, MW-21 and slightly in MW-22 (0.0111 verses the 0.01 standard). The toluene, ethylbenzene and xylenes concentrations were at least one order of magnitude lower than the potentially-applicable groundwater standards.

Figure 5 shows the benzene isopleths from the September 2006 data as calculated using Surfer with the kriging option. None of the BTEX constituents were detected in down-gradient boundary wells MW-11, MW-12, MW-13, MW-19 and MW-20. This distribution verifies that the dissolved-phase benzene continues to attenuate to below measurable concentrations a minimum of several hundred feet north of the down-gradient property boundary.

Any dissolved-phase constituents that emanate from the FPH areas in the north of the plant area (MW-5) and north of the road (MW-6 and MW-15) migrate south and mix with the hydrocarbons from the MW-9 and MW-21 areas. They must also then attenuate in the manner described above.

The benzene concentrations in select wells are summarized in Table 5. The wells that were not included in Table 5 either have never contained dissolved-phase hydrocarbons or they have not contained dissolved-phase hydrocarbons for a substantial period of time.

Figure 6 graphs the time-benzene concentration relationship in MW-21. The benzene concentration increased in November 2002 after the air-sparge unit located adjacent to it ceased operating. The concentrations began declining in November 2004, and that trend continues.

FREE PHASE HYDROCARBON REMOVAL

Automatic FPH removal continued in MW-5, MW-6 and MW-15. Removal was discontinued in MW-5 and MW-15 in mid-June 2006 because of the limited volumes removed (6.2 gallons in MW-5 and 1.8 gallons in MW-15). Automatic removal continued in MW-6 thoughout all of 2006, and a total of 130 gallons of FPH were extracted.

Post 2000 measured thickness values for the four wells that contain FPH are summarized in Table 6. The thicknesses in MW-5 and MW-15 have recovered since removal ceased in June 2006; however, the residual FPH appears to be relatively immobile given the limited recovery in the first half of the year. Additional evaluation would be necessary to assess whether product-only systems could effectively remove additional FPH in MW-5, MW-8 and MW-15.

RECOMMENDATIONS

American Environmental Consulting recommends that the following activities be completed:

1. Semiannual monitoring should be completed the first quarter of 2007 on the limited suite of wells that have been sampled in the past.

2. FPH collection should continue in MW-6.

3. FPH collection should be restarted in MW-5 and MW-15 to evaluate whether substantial residual mobile FPH remains.

4. The potential for automatic FPH-only recovery in MW-8 should be evaluated during the first quarter 2007 monitoring event.

Do not hesitate to contact me if you have any questions or comments on this report or any other aspects of the projects.

Sincerely,
AMERICAN ENVIRONMENTAL CONSULTING, LLC

Michael H. Stewart

Michael H. Stewart, PE
Principal Engineer

MHS/tbm

attachments

Tables

Table 1 – Summary of Well Construction Information

Well	Top of Casing Elevation	Total Depth
MW-1	3,979.25	100.83
MW-2	3,980.50	106.72
MW-3	3,980.27	108.84
MW-4	3,980.16	103.60
MW-5	3,979.82	112.64
MW-6	3,981.79	113.20
MW-7	3,978.45	111.70
MW-8	3,979.96	110.82
MW-9	3,980.17	116.95
MW-10	3,979.66	117.50
MW-11	3,978.50	117.98
MW-12	3,978.82	117.35
MW-13	3,980.52	117.28
MW-14	3,982.23	118.56
MW-15	3,981.70	122.70
MW-16	3,980.80	122.97
MW-17	3,981.80	124.12
MW-18	3,983.10	125.50
MW-19	3,980.80	126.56
MW-20	3,983.30	128.21
MW-21	NA	123.59
MW-22	NA	148.68
MW-23	NA	NM

Note: all units in feet.

Table 2 - Summary of September 20, 2006 Gauging Data

Well	Depth to Water	FPH Thickness	Groundwater Elevation
MW-3	107.80	NP	3977.27
MW-5	108.38	3.20	3896.25
MW-6	107.52	0.44	3898.63
MW-7	105.57	NP	3971.45
MW-8	111.46	4.06	3893.33
MW-9	107.11	NP	3971.17
MW-10	106.86	NP	3969.66
MW-11	106.06	NP	3967.50
MW-12	106.49	NP	3966.82
MW-13	108.32	NP	3967.52
MW-14	109.64	NP	3968.23
MW-15	109.20	2.80	3895.11
MW-16	105.61	NP	3964.80
MW-17	108.04	NP	3964.80
MW-18	109.39	NP	3965.10
MW-19	109.32	NP	3961.80
MW-20	111.98	NP	3963.30
MW-21	107.72	NP	NA
MW-22	107.86	NP	NA

Notes: 1) Units are feet
2) NP: no FPH present
3) NA: no casing measured casing elevation

Table 3 - Summary of Historical Water Table Elevations

Date	MW-3	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20
5/13/1988	3886.54																
9/8/1988	3883.56																
3/28/1990	3882.6	3883.66	3883.97	3882.13	3882.25												
8/13/1990	3881.83	3882.97	3883.29	3881.42	3881.44	3881.24	3881.24	3881.19	3881.02								
9/5/1990	3880.75	3879.87	3882.21	3880.3		3881.75	3879.74	3878.95	3878.77								
1/26/1991	3881.71	3882.76	3883.097	3881.3	3881.37	3881.19	3884.12	3880.98	3880.86	3880.7	3880.83						
2/13/1991	3881.67	3882.02	3883.123			3881.18	3884.12	3881.1	3880.96	3880.47	3880.71						
6/27/1991	3881.23	3882.28	3883.048	3879.47		3880.53	3879.16	3880.38	3880.18	3879.97	3880.17						
10/28/1991	3880.49	3881.66	3882.009	3873		3879.73		3879.72	3879.45	3879.26	3879.39	3882.15	3882.9	3880.82	3880.55	3878.47	3878.44
1/23/1992	3880.49	3881.66	3881.743			3879.86		3879.71	3879.5	3879.31	3879.51	3881.77	3882.77	3880.87	3880.68	3878.55	3878.47
4/28/1992	3880.23	3881.37	3881.873			3879.45		3879.38	3879.14	3878.93	3879.06	3881.86	3882.57	3880.49	3880.18	3878.07	3878.07
7/30/1992	3880.01	3881.1	3880.65	3877.8		3879.12		3879.13	3878.87	3878.64	3878.75	3881.62	3882.35	3880.2	3879.86	3877.75	3877.72
10/21/1992	3879.79	3881.14	3880.55	3875.15		3878.99		3878.92	3878.7	3878.47	3878.65	3881.56	3882.28	3880.18	3879.9	3877.66	3877.72
1/20/1993	3879.99	3880.99	3878.67	3877.59		3879.45		3879.14	3878.98	3878.8	3879.05	3881.55	3882.16	3880.4	3880.24	3878.07	3878.11
4/15/1993	3877.27	3878.26	3875.44	3873.89		3879.19		3879.02	3878.8	3878.59	3878.81	3881.4	3882.06	3880.12	3879.88	3877.14	3877.74
7/29/1993	3879.57	3880.45	3877.63	3873.89		3878.77	3878.68	3878.7	3878.46	3878.22	3878.37	3881.12	3881.84	3879.74	3879.42	3877.3	3877.25
10/26/1993	3878.74	3879.34		3874.06		3879.16	3877.99	3878.3	3878.02	3877.74	3878.87	3880.22	3880.98	3878.82	3878.86	3876.77	3876.42
1/7/1994	3878.83		3877.04	3873.61	3877.91	3877.99		3877.92	3877.66	3877.36	3877.51	3880.32	3881.08	3877.04	3876.55	3876.28	3875.75
7/25/1994	3878.19	3879.79			3877.66	3877.37		3876.3	3876.27	3876.8	3876.88	3879.56	3880.36	3878.26	3876.05	3875.83	3875.22
10/11/1994	3877.92	3879.08			3877.46	3877.21		3877.25	3876.94	3876.67	3876.71	3879.28	3880.08	3878.04	3877.68	3875.72	3875.1
3/15/1995	3877.7	3879.11			3877.36	3877.12		3876.98	3876.72	3876.47	3876.61	3877.26	3879.82	3877.95	3877.68	3875.5	3874.92
5/24/1995	3877.57	3879.09			3877.2	3877.01		3876.78	3876.54	3876.27	3876.49	3877.26	3879.65	3877.95	3877.68	3875.36	3874.94
8/9/1995	3877.56	3879.1			3877.21	3877		3876.78	3876.54	3876.27	3876.52	3878.96	3879.68	3877.82	3877.55	3875.36	3874.94
10/10/1995	3877.47	3878.97			3877.14	3876.87		3876.62	3876.4	3876.2	3876.33	3878.97	3879.52	3876.84	3877.56	3875.26	3874.82

Table 3 - Summary of Historical Water Table Elevations (continued)

Date	MW-3	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20
1/16/1996	3877.36	3878.85			3877.06	3876.86		3876.65	3876.41	3876.21	3876.32	3878.82	3879.38	3877.69	3877.44	3875.3	3874.83
4/25/1996	3877.07	3878.64			3876.85	3876.63		3876.45	3876.24	3876.02	3876.1	3878.74	3879.16	3877.56	3877.32	3875.06	3874.6
9/16/1996	3876.86	3878.54			3876.67	3876.38		3876.42	3876.22	3876.01	3875.77	3878.49	3878.99	3877.37	3877.14	3875.1	3875.3
9/19/1996	3876.72	3878.56			3876.37	3876.21		3876.18	3876.02	3875.76	3875.66	3878.12	3878.79	3877.18	3876.95	3874.87	3874.4
11/20/1996	3876.63				3876.32	3876.13		3875.95	3875.69	3875.52	3875.57	3878.11	3878.72	3876	3876.76	3874.63	3874.17
1/21/1997	3876.62	3878.13			3876.32	3876.13		3875.78	3875.52	3875.38	3875.57	3878.12	3878.7	3876.89	3876.65	3874.47	3874.02
4/17/1997	3876.42	3878.05			3876.09	3875.91		3875.67	3875.41	3875.27	3875.34	3878.01	3878.5	3876.92	3876.66	3874.39	3873.89
8/12/1997	3876.08	3877.64			3876.09	3875.56		3875.61	3875.34	3875.22	3874.98	3877.83	3878.2	3876.69	3876.45	3874.3	3873.84
1/19/1998	3875.85	3877.66			3876.15	3875.41		3875.44	3875.15	3874.96	3874.81	3877.54	3877.99	3876.33	3876.11	3874.05	3873.54
8/5/1998	3875.59	3876.68			3875.94	3875.13	3874.87	3875.11	3874.88	3874.66	3874.58	3877.29	3877.7	3876.18	3875.94	3873.72	3873.26
2/15/1999	3875.24	3876.25			3875.42	3874.93	3874.66	3874.87	3874.7	3874.41	3874.4	3877.51	3877.52	3876	3875.85	3873.51	3873.08
8/18/1999	3874.66	3875.78	3876.11	3873.11	3873.31	3874.2	3873.93	3874.64	3874.44	3874.2	3873.84	3876.86	3877.01	3875.84	3875.67	3873.37	3873.09
2/16/2000	3874.51	3875.5	3875.63	3872.69	3874.15	3874.12	3873.89	3874.39	3874.21	3874.01	3873.64	3876.19	3876.6	3875.26	3875.14	3873.19	3872.89
8/15/2000	3874.11	3875.62		3872.59	3872.63	3873.74	3873.47	3873.88	3873.69	3873.51	3873.42	3875.89	3876.48	3874.92	3874.88	3872.69	3872.38
2/15/2001	3874.2	3874.8	3875.31	3872.89	3873.31	3873.81	3873.59	3873.65	3873.49	3873.29	3873.26	3875.68	3876.16	3874.79	3874.72	3872.46	3872.21
7/31/2001	3873.8	3874.56			3872.75	3873.42	3873.18	3873.44	3873.27	3873.12	3873.04	3875.82	3876.13	3874.51	3874.42	3872.4	3872.19
2/11/2002	3873.59	3874.18	3873.56		3872.51	3873.22	3872.98	3873.29	3873.13	3872.93	3872.78	3875.83	3875.88	3874.41	3874.32	3872.1	3871.83
8/13/2002	3873.25	3873.07	3875.01		3872.13	3872.63	3872.57	3873.03	3872.87	3872.7	3872.21	3875.27	3875.23	3874.17	3874.07	3871.92	3871.67
3/8/2003	3873.03	3873.07	3873.69	3872.59	3873.69	3872.63	3872.4	3872.2	3872.03	3871.86	3872.21	3874.54	3875.23	3873.53	3873.44	3871.08	3870.89
9/15/2003	3873.31	3872.79	3874.98	3872.89	3874.98	3872.94	3872.75	3872.51	3872.39	3872.22	3872.57	3874.76	3875.28	3873.76	3873.71	3871.56	3871.4
1/20/2004	3873.44	3874.46	3874.6	3873.04	3872.79	3873.12	3872.92	3872.63	3872.52	3872.39	3872.74	3874.75	3875.38	3873.86	3873.83	3871.67	3871.56
3/15/2004	3873.25	3874.4	3874.41	3872.84	3872.92	3872.93	3872.71	3872.44	3872.32	3872.19	3872.54	3874.65	3875.16	3873.69	3873.67	3871.48	3871.38
9/23/2004	3873.36	3873.73	3874.7	3872.96	3873.17	3873.09	3872.86	3872.54	3872.43	3872.33	3872.66	3874.71	3875.25	3873.82	3873.78	3871.58	3871.48
3/14/2005	3873.83	3874.79	3875.27	3873.44	3874.01	3873.59	3873.36	3873.01	3872.9	3872.76	3873.14	3875.21	3875.72	3874.24	3874.16	3872	3871.83
9/26/2005	3873.36	3874.62	3875.012	3873.32	3873.03	3873.48	3873.24	3872.89	3872.79	3872.67	3873.03	3875.01	3875.54	3874.15	3874.11	3871.91	3871.8
3/2/2006	3872.61	3874.39	3874.29	3873	3873.03	3873.14	3872.89	3872.47	3872.36	3872.22	3872.67	3874.73	3875.23	3873.79	3873.72	3871.49	3871.34
9/20/2006	3977.27	3896.25	3898.63	3971.45	3893.33	3971.17	3969.66	3967.5	3966.82	3967.52	3968.23	3895.11	3964.8	3964.8	3965.1	3961.8	3963.3

Table 4 - Summary of September 2006 Sampling Results

Well	Benzene	Toluene	Ethylbenzene	Total Xylenes
NMWQCC	0.01	0.75	0.75	0.62
MW-7	**0.741**	0.0056	<0.002	0.0086
MW-9	**10.9**	<0.002	<0.002	0.025
MW-10	0.0025	<0.002	<0.002	<0.006
MW-10 DUP	0.0024	<0.002	<0.002	<0.006
MW-11	<0.002	<0.002	<0.002	<0.006
MW-12	<0.002	<0.002	<0.002	<0.006
MW-13	<0.002	<0.002	<0.002	<0.006
MW-14	**0.139**	0.003	<0.002	<0.006
MW-16	**0.204**	0.0035	0.0097	0.0078
MW-17	<0.002	<0.002	<0.002	<0.006
MW-18	<0.002	<0.002	<0.002	<0.006
MW-19	<0.002	<0.002	<0.002	<0.006
MW-20	<0.002	0.0023	<0.002	<0.006
MW-21	**0.481**	0.0228	<0.002	0.0339
MW-22	**0.0111**	<0.002	<0.002	<0.006
TRIP	<0.002	<0.002	<0.002	<0.006

Notes: 1) All units mg/l
2) NMWQCC: New Mexico Water Quality Control Commission groundwater standards.
3) Bolded cells exceed the potentially-applicable NMWQCC standard

Table 5 - Summary of Benzene Concentrations in Selected Wells

Date	MW-3	MW-7	MW-9	MW-10	MW-14	MW-16	MW-17	MW-21	MW-22
03/01/90	0.069								
03/28/90	<0.001	6.1							
06/27/90	0.043								
08/10/90			0.006	1.3					
02/13/91			0.007	0.98	<0.001				
06/26/91		3.2	0.16	9.7	<0.002				
10/17/91			0.002			0.004	0.008		
01/23/92			<0.001						
04/28/92			<0.001						
07/30/92		0.001	0.31			0.42			
10/21/92			3.0		0.043				
01/20/93			5.9		0.019				
04/15/93			2.2		0.013				
07/20/93		0.040	0.673	0.004		1.19		37	0.170
05/03/94								0.517	0.007
07/26/94		0.003	0.495	4.16		3.82		0.078	0.005
03/16/95							0.062		<0.001
06/24/95								0.042	
08/10/95		0.083	5.86	3.66		3.53			
10/10/95								0.092	<0.001
01/16/96							<0.001		
04/25/96					2.22			0.001	<0.001
08/27/96		1.14	0.327	2.98					
11/20/96						0.724		0.010	<0.001
04/17/97					3.79			3.51	
08/12/97	1.990	1.39	0.138	4.71	3.42	0.891	0.002	33	0.002
01/20/98								11	
08/05/98	0.002	1.63	0.892	1.5	0.002	1.95	<0.001	<0.001	<0.001
02/15/99								<0.001	
08/18/99	<0.001	1.5	13.6	1.01	0.024	0.454	0.028	<0.001	<0.005
02/16/00								<0.005	
08/16/00	<0.005	0.036	2.92	3.70	0.284	0.076	0.037	<0.005	<0.005
02/16/01	<0.005							<0.005	
08/01/01	<0.005	0.006	4.88	3.43	1.94	0.018	0.148	<0.005	<0.001
02/11/02	<0.001							<0.005	
08/13/02		0.026	1.57	7.99	<0.001	0.016	0.015	<0.001	<0.001
03/09/03								0.362	
09/16/03		0.008	8.67	2.42	0.002	0.081	0.01	5.58	<0.005
03/15/04	<0.001							<0.001	
09/23/04		<0.002	2.42	0.0219	<0.002	0.012	<0.002	8.5	0.0067
03/14/05								6.72	
09/26/05	<0.002	0.001J	3.43	0.0032	0.0017J	0.016	0.0018J	3.91	<0.002
03/2/06								2.36	
09/26/06		0.741	10.9	0.0025	0.139	0.204	<0.002	0.481	0.0111

Notes: 1) Units are mg/l

2) Wells MW-11, MW-12, MW-13, MW-18, MW-19 & MW-20 were not included because they have either never contained dissolved hydrocarbons or they have not contained them for a substantial period of time.

Table 6 - Summary of Free Phase Hydrocarbon Thickness Since February 2000

Date	MW-5	MW-6	MW-15	MW-8
02/16/00	0.55	4.50	0.41	0.33
08/15/00	1.87		0.42	0.08
02/15/01	0.66	2.78	2.89	0.001
07/31/01	0.11		3.44	0.01
02/11/02	0.03	0.18	1.78	0.01
08/13/02	1.05	4.66	0.39	0.01
03/08/03	0.49	0.18	0.14	0.001
09/15/03	0.88	3.92	0.1	0.001
01/20/04	3.38	4.11	1.21	0.001
03/15/04	2.12	4.04	1.45	0.001
09/23/04	2.2	3.2	3.99	0.84
03/14/05	2.99	2.91	3.07	0.07
09/26/05	2.31	2.20	1.00	2.39
03/02/06	3.02	0.27	0.001	3.77
09/14/06	3.2	0.44	2.80	4.06

Figures

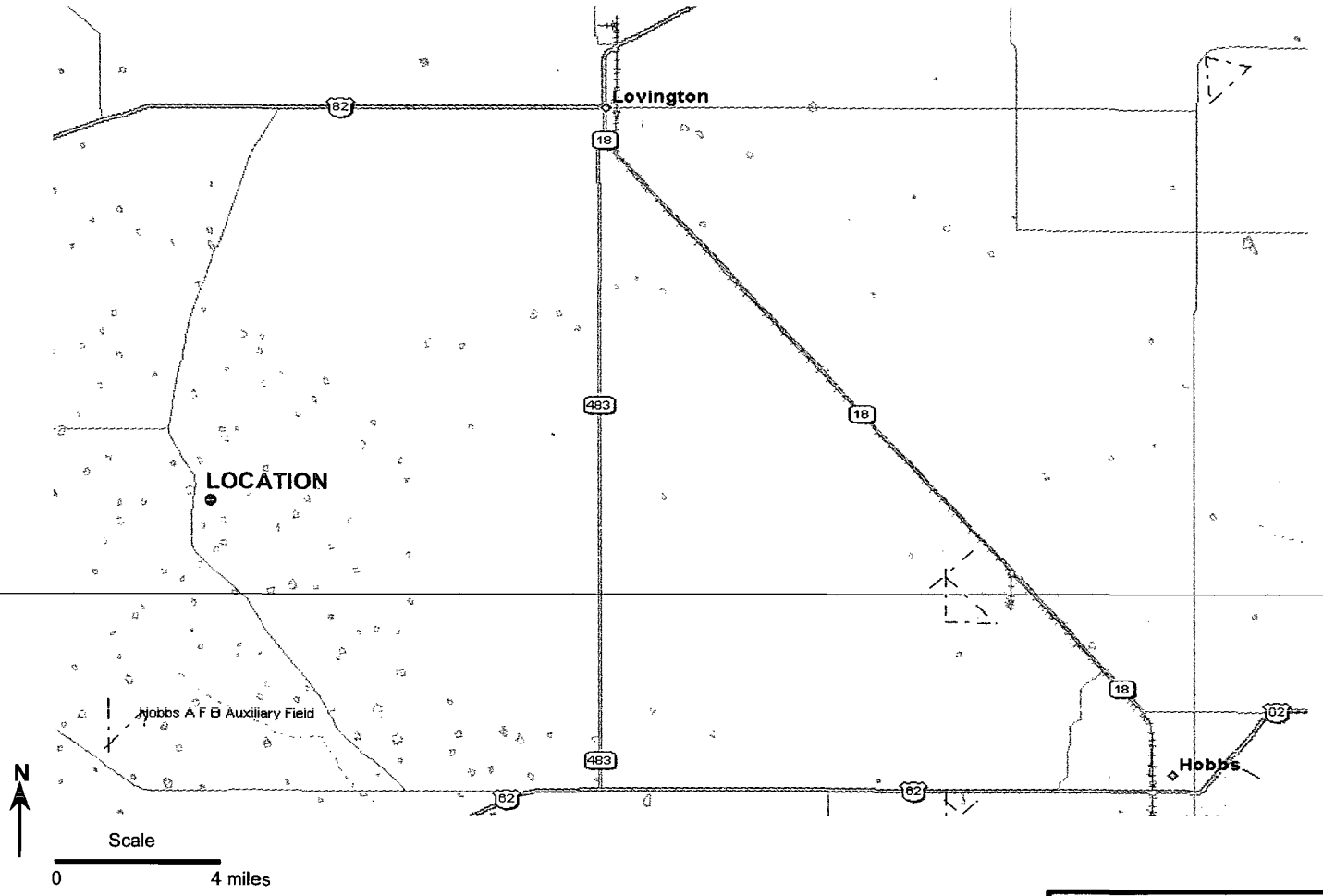


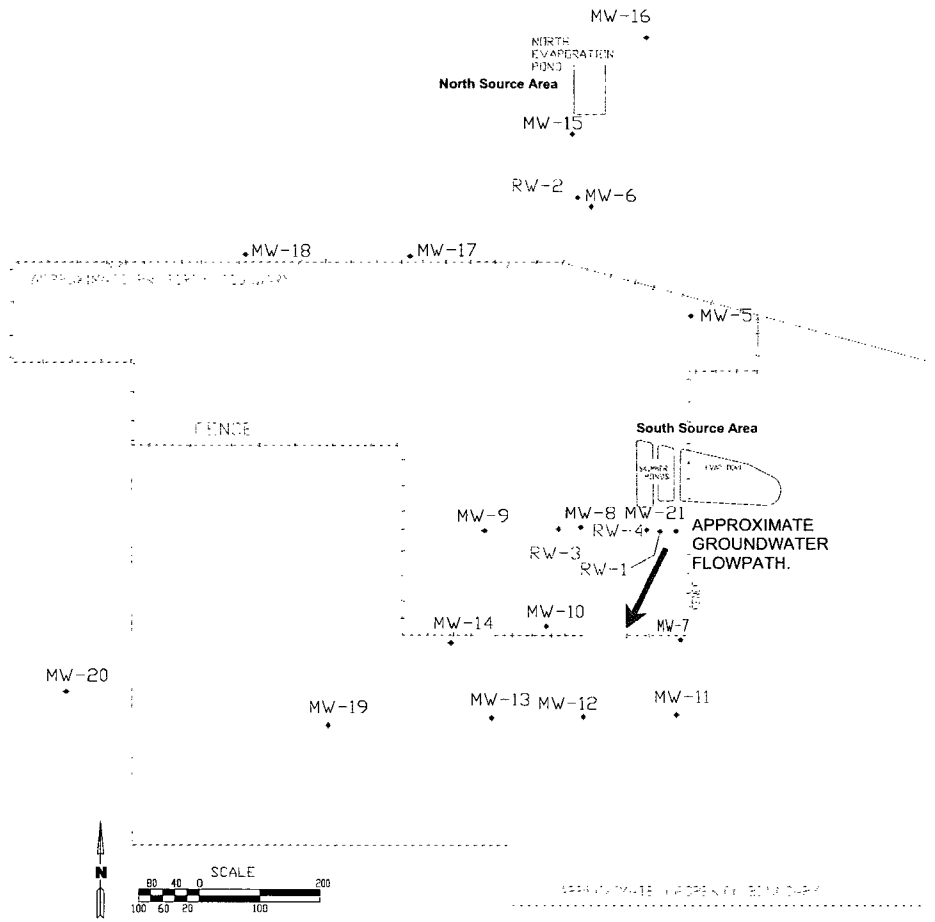
Figure 1 – Former Lee Plant Location

Former Lee Plant Monitoring and Remediation

dcp Midstream.

DRAWN BY: MHS

DATE: 1/05



Notes

1. Green boundary is the approximate property boundary based upon evaluation of aerial photography
2. Black wells are active monitoring wells
3. Red wells are monitor wells that are either dry (MW-1, MW-2, MW-4) or generally contain insufficient water for sampling (MW-3)
4. Blue wells are recovery wells.
5. Red features are closed impoundments that are the presumed hydrocarbon sources based upon conclusions contained in historic, non-AEC reports.
6. Blue arrow denotes approximate groundwater flowpath.

Figure 2 – Site Layout

Former Lee Plant Monitoring and Remediation

dcp Midstream

DRAWN BY: MHS

DATE: 1/05

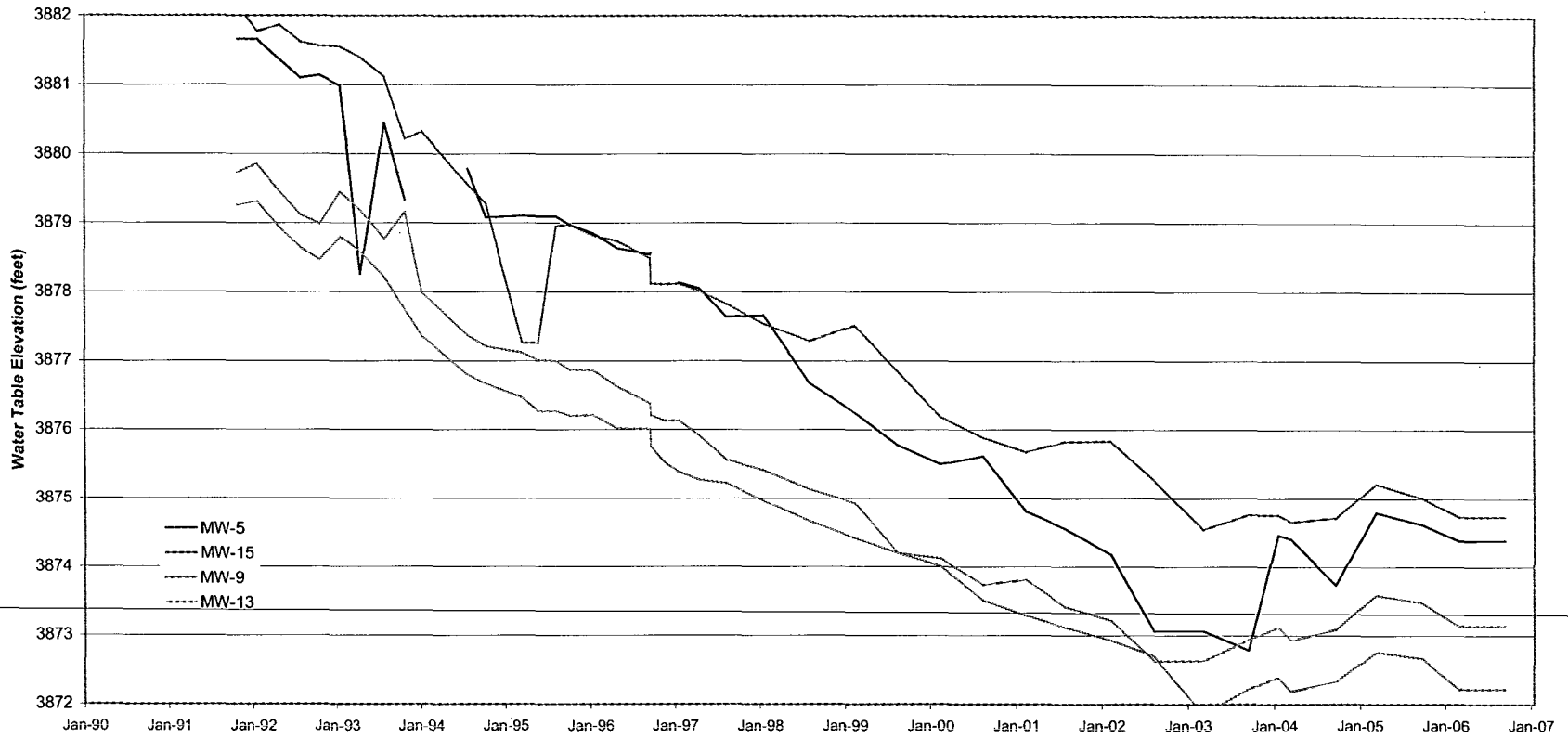


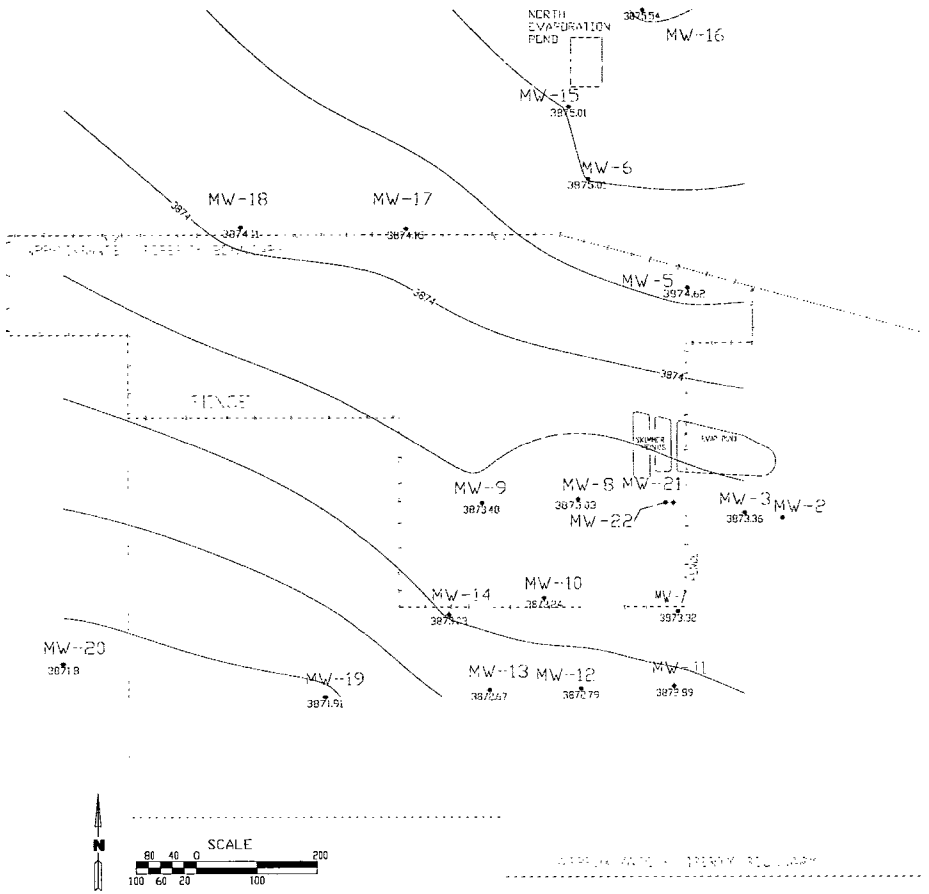
Figure 3 – Hydrographs for Wells Located in Differing Areas of the Site

Former Lee Plant Monitoring and Remediation

dcp Midstream.

DRAWN BY: MHS

DATE: 1/07



Contour interval is 0.5 feet

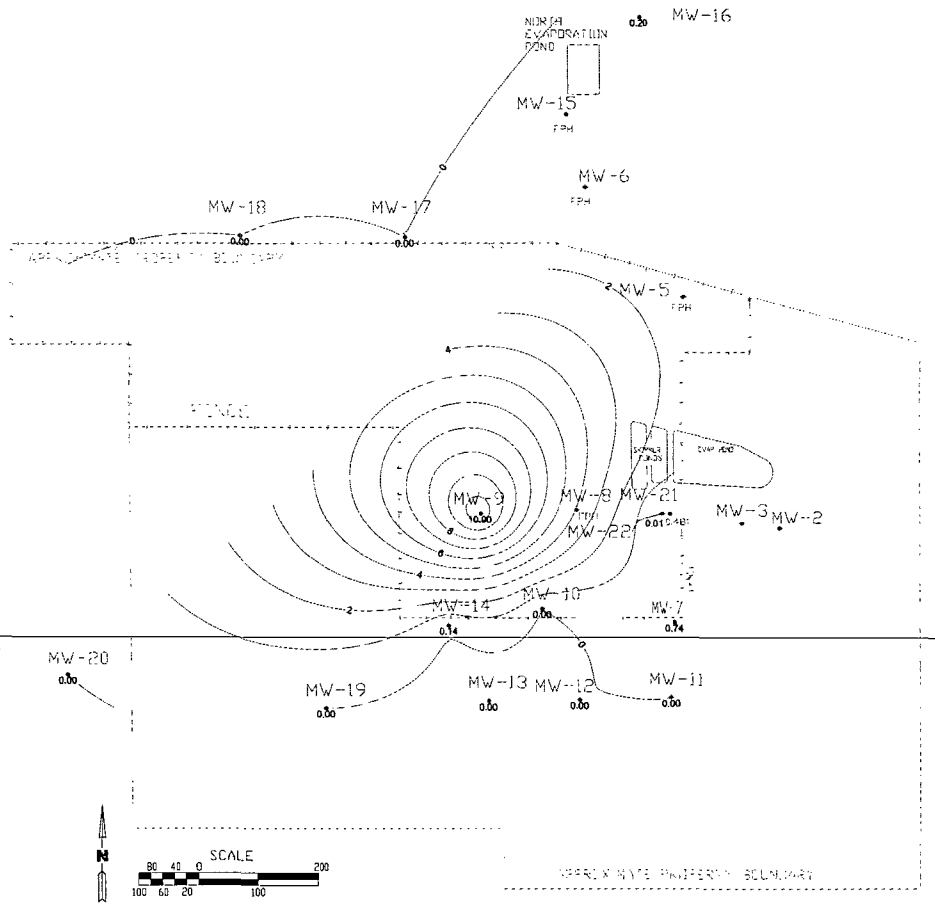
Figure 4 – September 2006 Water-Table Elevations

Former Lee Plant Monitoring and Remediation

DCP Midstream.

DRAWN BY: MHS

DATE: 1/07



NOTES
Contour interval is 1.0 mg/l
Values shown as 0.00 are below their reporting limits. The values (0.001) were used for contouring.

Figure 5 – September 2006 Benzene Isopleths

Former Lee Plant Monitoring and Remediation

dcp Midstream

DRAWN BY: MHS
DATE: 1/07

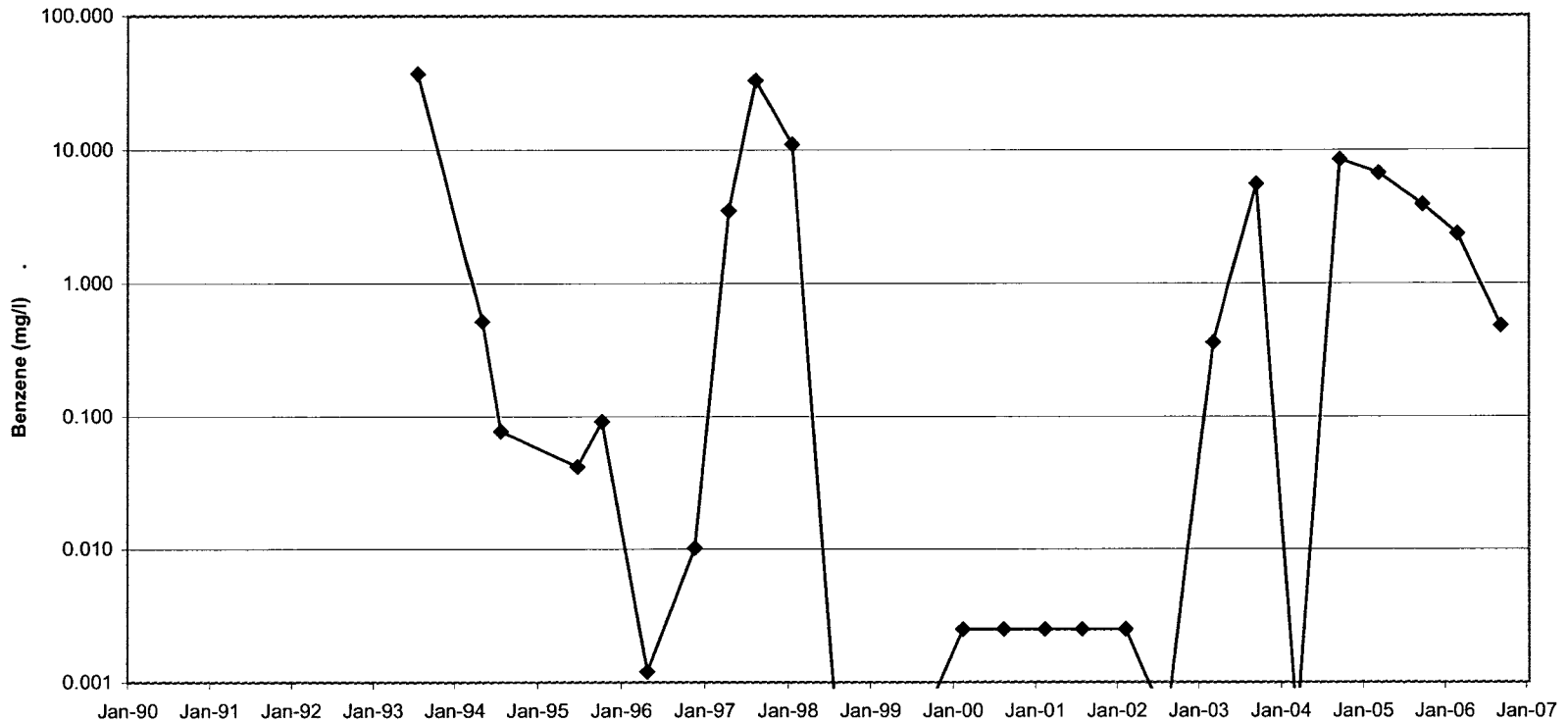


Figure 6 – Temporal Benzene variation in MW-21

Former Lee Plant Monitoring and Remediation

dcp Midstream.

DRAWN BY: MHS

DATE: 1/07

September 2006 Analytical Laboratory Report

and Field Notes

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-3**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

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: 108.84 Feet
DEPTH TO WATER: 107.8 Feet
HEIGHT OF WATER COLUMN: 1.04 Feet
WELL DIAMETER: 2.0 Inch

0.5 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
0:00	0	-	-	-	-	-	Begin Hand Bailing
							Well Bailed Dry.
							Allowed Well Time to Recover
							Before Collecting Sample.
0:00	:Total Time (hr:min)		**0**	:Total Vol (gal)		**#DIV/0!**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060914 1450

ANALYSES: BTEX (8260)

COMMENTS: Collected Duplicate Sample No.: 0603022000 for BTEX (8260)

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-7**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

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: 111.70 Feet
DEPTH TO WATER: 105.57 Feet
HEIGHT OF WATER COLUMN: 6.13 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
8:25	0.0	-	-	-	-	-	Begin Hand Bailing
8:35	4.0	21.0	1.94	7.15	1.9	-	
8:54	8.0	21.7	1.75	7.10	1.8	-	
9:13	12.0	21.7	1.76	7.06	1.3	-	

0:48 :Total Time (hr:min) **12** :Total Vol (gal) **0.25** :Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060915 0920

ANALYSES: BTEX (8260)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-9**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos
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: 116.95 Feet
DEPTH TO WATER: 107.11 Feet
HEIGHT OF WATER COLUMN: 9.84 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
10:42	0.0	-	-	-	-	-	Begin Hand Bailing
10:51	7.0	22.4	1.36	6.97	0.6	-	
10:53	14.0	22.0	1.36	7.00	0.5	-	
10:55	21.0	21.9	1.35	7.01	0.6	-	
0:13	:Total Time (hr:min)		**21**	:Total Vol (gal)		**1.61**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060915 1105
ANALYSES: BTEX (8260)
COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-10**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos
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: 117.50 Feet
DEPTH TO WATER: 106.86 Feet
HEIGHT OF WATER COLUMN: 10.64 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
11:44	0.0	-	-	-	-	-	Begin Hand Bailing
11:47	7.0	22.7	2.22	7.03	2.1	-	
11:50	14.0	22.5	2.22	6.95	2.3	-	
11:52	21.0	22.2	2.23	6.95	2.8	-	

0:08 :Total Time (hr:min) **21** :Total Vol (gal) **2.62** :Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060915 1200
ANALYSES: BTEX (8260)
COMMENTS: Collected Duplicate Sample No.: 0609152000 for BTEX (8260)

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-11**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos
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: 117.98 Feet
DEPTH TO WATER: 106.06 Feet
HEIGHT OF WATER COLUMN: 11.92 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
16:43	0.0	-	-	-	-	-	Begin Hand Bailing
16:47	8.0	22.3	1.29	7.10	0.8	-	
16:50	16.0	21.9	1.24	7.13	0.7	-	
16:53	24.0	21.6	1.22	7.10	1.3	-	

0:10 :Total Time (hr:min) **24** :Total Vol (gal) **2.39** :Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060914 1705
ANALYSES: BTEX (8260)
COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-12**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos
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: 117.35 Feet
DEPTH TO WATER: 106.49 Feet
HEIGHT OF WATER COLUMN: 10.86 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
16:06	0.0	-	-	-	-	-	Begin Hand Bailing
16:09	7.0	22.7	1.08	7.24	1.0	-	
16:11	14.0	22.1	1.03	7.26	1.9	-	
16:13	22.0	21.6	1.04	7.24	2.6	-	

0:07 :Total Time (hr:min) **22** :Total Vol (gal) **3.13** :Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060914 1625
ANALYSES: BTEX (8260)
COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-13**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos
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: 117.28 Feet
DEPTH TO WATER: 108.32 Feet
HEIGHT OF WATER COLUMN: 8.96 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
15:22	0.0	-	-	-	-	-	Begin Hand Bailing
15:26	6.0	22.7	0.92	6.81	0.6	-	
15:32	12.0	23.2	0.96	6.79	3.9	-	
15:38	18.0	23.7	0.97	6.78	4.3	-	
0:16	:Total Time (hr:min)		**18**	:Total Vol (gal)		**1.12**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060914 1545
ANALYSES: BTEX (8260)
COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-14**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos

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: 118.56 Feet
DEPTH TO WATER: 109.64 Feet
HEIGHT OF WATER COLUMN: 8.92 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
11:14	0.0	-	-	-	-	-	Begin Hand Bailing
11:17	6.0	22.6	1.18	7.07	0.9	-	
11:21	12.0	22.2	1.19	7.08	6.0	-	
11:26	18.0	22.6	1.18	7.04	3.8	-	

0:12 :Total Time (hr:min) **18** :Total Vol (gal) **1.49** :Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060915 1130
ANALYSES: BTEX (8260)
COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-16**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos
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: 122.97 Feet
DEPTH TO WATER: 105.61 Feet
HEIGHT OF WATER COLUMN: 17.36 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
18:51	0.0	-	-	-	-	-	Begin Hand Bailing
18:55	12.0	21.4	0.68	6.82	1.4	-	
18:59	24.0	21.0	0.68	6.89	1.8	-	
19:04	36.0	20.8	0.68	6.91	2.2	-	
0:13	:Total Time (hr:min)		**36**	:Total Vol (gal)		**2.76**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060914 1910
ANALYSES: BTEX (8260)
COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-17**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos
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: 124.12 Feet
DEPTH TO WATER: 108.04 Feet
HEIGHT OF WATER COLUMN: 16.08 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
18:16	0.0	-	-	-	-	-	Begin Hand Bailing
18:20	11.0	21.5	0.79	6.81	0.8	-	
18:25	22.0	21.4	0.78	6.88	0.6	-	
18:29	33.0	21.5	0.78	6.95	0.6	-	
0:13	:Total Time (hr:min)		**33**	:Total Vol (gal)		**2.53**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060914 1840
ANALYSES: BTEX (8260)
COMMENTS: Collected MS/MSD Samples!

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services WELL ID: **MW-18**

SITE NAME: Lee Plant DATE: 9/14/2006

PROJECT NO. F-112 SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos

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: 125.50 Feet
DEPTH TO WATER: 109.39 Feet
HEIGHT OF WATER COLUMN: 16.11 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
17:34	0.0	-	-	-	-	-	Begin Hand Bailing
17:38	11.0	22.2	0.51	7.01	0.4	-	
17:42	22.0	21.3	0.49	7.13	0.6	-	
17:47	33.0	21.1	0.49	7.21	0.8	-	
17:51	44.0	21.1	0.49	7.25	0.6	-	
0:17	:Total Time (hr:min)		**44**	:Total Vol (gal)		**2.58**	:Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060914 1805

ANALYSES: BTEX (8260)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-19**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos
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: 126.56 Feet
DEPTH TO WATER: 109.32 Feet
HEIGHT OF WATER COLUMN: 17.24 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
14:44	0.0	-	-	-	-	-	Begin Hand Bailing
14:48	12.0	23.1	1.45	6.56	1.1	-	
14:53	24.0	22.3	1.46	6.54	0.7	-	
14:59	36.0	22.2	1.47	6.55	0.7	-	

0:15 :Total Time (hr:min) **36** :Total Vol (gal) **2.39** :Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060914 1510
ANALYSES: BTEX (8260)
COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-20**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos
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: 128.21 Feet
DEPTH TO WATER: 111.98 Feet
HEIGHT OF WATER COLUMN: 16.23 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
12:18	0.0	-	-	-	-	-	Begin Hand Bailing
12:23	11.0	22.1	0.93	6.78	0.9	-	
12:27	22.0	21.9	0.91	6.80	0.8	-	
12:32	33.0	22.0	0.90	6.81	0.7	-	

0:14 :Total Time (hr:min) **33** :Total Vol (gal) **2.35** :Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060914 1245
ANALYSES: BTEX (8260)
COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-21**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

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: 123.70 Feet
DEPTH TO WATER: 107.72 Feet
HEIGHT OF WATER COLUMN: 15.98 Feet
WELL DIAMETER: 2.0 Inch

7.8 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
9:36	0.0	-	-	-	-	-	Begin Hand Bailing
10:02	2.7	22.5	0.72	7.18	2.0	-	
10:21	5.4	22.9	0.74	7.23	1.8	-	
10:33	8.1	23.3	0.78	7.30	1.8	-	

0:57 :Total Time (hr:min) **8.1** :Total Vol (gal) **0.14** :Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060915 1035

ANALYSES: BTEX (8260)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-22**
SITE NAME: Lee Plant
DATE: 9/14/2006
PROJECT NO. F-112
SAMPLER: J. Fergerson/D. Littlejohn

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

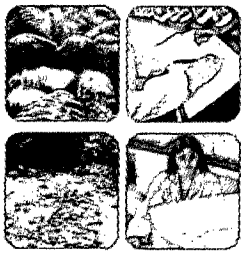
TOTAL DEPTH OF WELL: 148.68 Feet
DEPTH TO WATER: 107.86 Feet
HEIGHT OF WATER COLUMN: 40.82 Feet
WELL DIAMETER: 2.0 Inch

20.0 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
8:32	0.0	-	-	-	-	-	Begin Hand Bailing
8:56	5.0	22.2	0.26	7.68	2.3	-	
9:23	10.0	22.7	0.52	7.68	5.1	-	
9:57	15.0	24.2	0.52	7.61	5.8	-	

1:25 :Total Time (hr:min) **15** :Total Vol (gal) **0.18** :Flow Rate (gal/min)

SAMPLE NO.: Collected Sample No.: 060915 1000
ANALYSES: BTEX (8260)
COMMENTS: _____



Technical Report for

Duke Energy Field Services

AECCOLI: Duke-Lee Plant, Lea County, NM

Accutest Job Number: T14719

Sampling Dates: 09/14/06 - 09/15/06

Report to:

American Environmental Consulting

mstewart@aecdenver.com

ATTN: Total number of pages in report: 35

ACCUTEST LABORATORIES 50 YEARS 1956-2006

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.

Ron Martino
Laboratory Manager

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Accutest Laboratories

Sample Summary

Duke Energy Field Services

Job No: T14719

AECCOLI: Duke-Lee Plant, Lea County, NM

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
T14719-1	09/14/06	12:45	JF	09/19/06	AQ	Ground Water	MW-20 (0609141245)
T14719-2	09/14/06	15:10	JF	09/19/06	AQ	Ground Water	MW-19 (0609141510)
T14719-3	09/14/06	15:45	JF	09/19/06	AQ	Ground Water	MW-13 (0609141545)
T14719-4	09/14/06	16:25	JF	09/19/06	AQ	Ground Water	MW-12 (0609141625)
T14719-5	09/14/06	17:05	JF	09/19/06	AQ	Ground Water	MW-11 (0609141705)
T14719-6	09/14/06	18:05	JF	09/19/06	AQ	Ground Water	MW-18 (0609141805)
T14719-7	09/14/06	18:40	JF	09/19/06	AQ	Ground Water	MW-17 (0609141840)
T14719-7D	09/14/06	18:40	JF	09/19/06	AQ	Water Dup/MSD	MW-17 (0609141840)
T14719-7S	09/14/06	18:40	JF	09/19/06	AQ	Water Matrix Spike	MW-17 (0609141840)
T14719-8	09/14/06	19:10	JF	09/19/06	AQ	Ground Water	MW-16 (0609141910)
T14719-9	09/15/06	09:20	JF	09/19/06	AQ	Ground Water	MW-7 (0609150920)
T14719-10	09/15/06	10:00	JF	09/19/06	AQ	Ground Water	MW-22 (0609151000)
T14719-11	09/15/06	10:35	JF	09/19/06	AQ	Ground Water	MW-21 (0609151035)

Accutest Laboratories

Sample Summary
(continued)

Duke Energy Field Services

Job No: T14719

AECCOLI: Duke-Lee Plant, Lea County, NM

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
T14719-12	09/15/06	11:05 JF	09/19/06	AQ	Ground Water	MW-9 (0609151105)
T14719-13	09/15/06	11:30 JF	09/19/06	AQ	Ground Water	MW-14 (0609151130)
T14719-14	09/15/06	12:00 JF	09/19/06	AQ	Ground Water	MW-10 (0609151200)
T14719-15	09/15/06	20:00 JF	09/19/06	AQ	Ground Water	DUPLICATE (0609152000)
T14719-16	09/14/06	00:00 JF	09/19/06	AQ	Trip Blank Water	TRIP BLANK

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-20 (0609141245)		
Lab Sample ID:	T14719-1	Date Sampled:	09/14/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120034.D	1	09/20/06	LJ	n/a	n/a	VB1304
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	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	2.3	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		73-139%
17060-07-0	1,2-Dichloroethane-D4	114%		66-139%
2037-26-5	Toluene-D8	102%		77-148%
460-00-4	4-Bromofluorobenzene	96%		84-150%

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-19 (0609141510)		
Lab Sample ID:	T14719-2	Date Sampled:	09/14/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120035.D	1	09/20/06	LJ	n/a	n/a	VB1304
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	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		73-139%
17060-07-0	1,2-Dichloroethane-D4	114%		66-139%
2037-26-5	Toluene-D8	99%		77-148%
460-00-4	4-Bromofluorobenzene	98%		84-150%

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-13 (0609141545)		
Lab Sample ID:	T14719-3	Date Sampled:	09/14/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120036.D	1	09/20/06	LJ	n/a	n/a	VB1304
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	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	118%		73-139%
17060-07-0	1,2-Dichloroethane-D4	117%		66-139%
2037-26-5	Toluene-D8	100%		77-148%
460-00-4	4-Bromofluorobenzene	93%		84-150%

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-12 (0609141625)		
Lab Sample ID:	T14719-4	Date Sampled:	09/14/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120037.D	1	09/20/06	LJ	n/a	n/a	VB1304
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	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		73-139%
17060-07-0	1,2-Dichloroethane-D4	112%		66-139%
2037-26-5	Toluene-D8	97%		77-148%
460-00-4	4-Bromofluorobenzene	93%		84-150%

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-11 (0609141705)		
Lab Sample ID:	T14719-5	Date Sampled:	09/14/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120038.D	1	09/20/06	LJ	n/a	n/a	VB1304
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	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%		73-139%
17060-07-0	1,2-Dichloroethane-D4	115%		66-139%
2037-26-5	Toluene-D8	96%		77-148%
460-00-4	4-Bromofluorobenzene	90%		84-150%

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-18 (0609141805)		
Lab Sample ID:	T14719-6	Date Sampled:	09/14/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120039.D	1	09/20/06	LJ	n/a	n/a	VB1304
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	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	121%		73-139%
17060-07-0	1,2-Dichloroethane-D4	118%		66-139%
2037-26-5	Toluene-D8	101%		77-148%
460-00-4	4-Bromofluorobenzene	89%		84-150%

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-17 (0609141840)		
Lab Sample ID:	T14719-7	Date Sampled:	09/14/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120040.D	1	09/20/06	LJ	n/a	n/a	VB1304
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	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	118%		73-139%
17060-07-0	1,2-Dichloroethane-D4	114%		66-139%
2037-26-5	Toluene-D8	102%		77-148%
460-00-4	4-Bromofluorobenzene	93%		84-150%

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-16 (0609141910)		
Lab Sample ID:	T14719-8	Date Sampled:	09/14/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120043.D	1	09/20/06	LJ	n/a	n/a	VB1304
Run #2	B120066.D	5	09/21/06	LJ	n/a	n/a	VB1306

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	204 [a]	10	1.2	ug/l	
108-88-3	Toluene	9.7	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	3.5	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	7.8	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%	100%	73-139%
17060-07-0	1,2-Dichloroethane-D4	109%	99%	66-139%
2037-26-5	Toluene-D8	101%	99%	77-148%
460-00-4	4-Bromofluorobenzene	85%	94%	84-150%

(a) Result is from Run# 2

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 (0609150920)		
Lab Sample ID:	T14719-9	Date Sampled:	09/15/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120044.D	1	09/20/06	LJ	n/a	n/a	VB1304
Run #2	B120067.D	5	09/21/06	LJ	n/a	n/a	VB1306

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	741 [a]	10	1.2	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	5.6	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	8.6	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%	102%	73-139%
17060-07-0	1,2-Dichloroethane-D4	118%	105%	66-139%
2037-26-5	Toluene-D8	102%	101%	77-148%
460-00-4	4-Bromofluorobenzene	89%	97%	84-150%

(a) Result is from Run# 2

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-22 (0609151000)		
Lab Sample ID:	T14719-10	Date Sampled:	09/15/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120045.D	1	09/20/06	LJ	n/a	n/a	VB1304
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	11.1	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	122%		73-139%
17060-07-0	1,2-Dichloroethane-D4	119%		66-139%
2037-26-5	Toluene-D8	99%		77-148%
460-00-4	4-Bromofluorobenzene	93%		84-150%

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-21 (0609151035)		
Lab Sample ID:	T14719-11	Date Sampled:	09/15/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120046.D	1	09/20/06	LJ	n/a	n/a	VB1304
Run #2	B120068.D	5	09/21/06	LJ	n/a	n/a	VB1306

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	481 [a]	10	1.2	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	22.8	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	33.9	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%	105%	73-139%
17060-07-0	1,2-Dichloroethane-D4	112%	105%	66-139%
2037-26-5	Toluene-D8	98%	102%	77-148%
460-00-4	4-Bromofluorobenzene	100%	98%	84-150%

(a) Result is from Run# 2

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-9 (0609151105)		
Lab Sample ID:	T14719-12	Date Sampled:	09/15/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120047.D	1	09/20/06	LJ	n/a	n/a	VB1304
Run #2	B120069.D	25	09/21/06	LJ	n/a	n/a	VB1306
Run #3	B120102.D	100	09/22/06	LJ	n/a	n/a	VB1307

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml
Run #3	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	10900 [a]	200	23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
1330-20-7	Xylene (total)	25.0	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
1868-53-7	Dibromofluoromethane	117%	103%	102%	73-139%
17060-07-0	1,2-Dichloroethane-D4	113%	100%	95%	66-139%
2037-26-5	Toluene-D8	95%	102%	112%	77-148%
460-00-4	4-Bromofluorobenzene	102%	95%	91%	84-150%

(a) Result is from Run# 3

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-14 (0609151130)		
Lab Sample ID:	T14719-13	Date Sampled:	09/15/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120048.D	1	09/20/06	LJ	n/a	n/a	VB1304
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	139	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	3.0	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		73-139%
17060-07-0	1,2-Dichloroethane-D4	118%		66-139%
2037-26-5	Toluene-D8	100%		77-148%
460-00-4	4-Bromofluorobenzene	91%		84-150%

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-10 (0609151200)		
Lab Sample ID:	T14719-14	Date Sampled:	09/15/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120092.D	1	09/22/06	LJ	n/a	n/a	VB1307
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	2.5	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		73-139%
17060-07-0	1,2-Dichloroethane-D4	103%		66-139%
2037-26-5	Toluene-D8	103%		77-148%
460-00-4	4-Bromofluorobenzene	96%		84-150%

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:	DUPLICATE (0609152000)		
Lab Sample ID:	T14719-15	Date Sampled:	09/15/06
Matrix:	AQ - Ground Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120093.D	1	09/22/06	LJ	n/a	n/a	VB1307
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	2.4	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		73-139%
17060-07-0	1,2-Dichloroethane-D4	101%		66-139%
2037-26-5	Toluene-D8	101%		77-148%
460-00-4	4-Bromofluorobenzene	98%		84-150%

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:	TRIP BLANK		
Lab Sample ID:	T14719-16	Date Sampled:	09/14/06
Matrix:	AQ - Trip Blank Water	Date Received:	09/19/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: Duke-Lee Plant, Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B120051.D	1	09/20/06	LJ	n/a	n/a	VB1304
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	2.0	0.23	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	126%		73-139%
17060-07-0	1,2-Dichloroethane-D4	120%		66-139%
2037-26-5	Toluene-D8	102%		77-148%
460-00-4	4-Bromofluorobenzene	90%		84-150%

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

CHAIN OF CUSTODY

ACCUTEST Laboratories

10165 Harwin Drive, Ste. 150, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.accutest.com

Page 1 of 2

FED-EX Tracking # 8586 7885017 | Bottle Order Control # | Accutest Quote # | Accutest Job # T14719

Client / Reporting Information

Company Name: American Environmental Consulting
Address: 6885 South Marshall Suite 3
City: Littleton State: CO Zip: 80128
Project Contact: Mike Stewart E-mail:
Phone #: 303-948-7733
Sampler's Name: Jah Jung

Project Information

Project Name: Duke Energy Field Services
Street:
City: Lea County State: New Mexico
Project #: Lee Plant
Fax #:
Client Purchase Order #:

Requested Analysis

8260 (BTEX)
MS/MSD

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles	8260 (BTEX)	MS/MSD	LAB USE ONLY
1	MW-20 (060914 1245)		9/14/06	1245	JF	GW	3	✓	✓		
2	MW-19 (060914 1510)		9/14/06	1510	JF	GW	3	✓	✓		
3	MW-13 (060914 1545)		9/14/06	1545	JF	GW	3	✓	✓		
4	MW-12 (060914 1625)		9/14/06	1625	JF	GW	3	✓	✓		
5	MW-11 (060914 1705)		9/14/06	1705	JF	GW	3	✓	✓		
6	MW-18 (060914 1805)		9/14/06	1805	JF	GW	3	✓	✓		
7	MW-17 (060914 1840)		9/14/06	1840	JF	GW	9	✓	✓	✓	
8	MW-16 (060914 1910)		9/14/06	1910	JF	GW	3	✓	✓		
9	MW-7 (060915 0920)		9/15/06	0920	JF	GW	3	✓	✓		
10	MW-22 (060915 1000)		9/15/06	1000	JF	GW	3	✓	✓		

Turnaround Time (Business Days)

- [X] 10 Day *STANDARD*
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*
- [ ] Other

Approved By: / Date:

Emergency & Rush T/A data available VIA LabLink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Tier 1
- [ ] TRRP13
- [ ] EDO Format

Commercial "A" = Results Only

Comments / Remarks

Invoice To: Duke Energy Field Svcs
Attn: Daniel Dick

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

	Date Time	Received by:	Relinquished by	Date Time	Received by:
Relinquished by Sampler: 1 Jah Jung	9/15/06 1800	1	2		2
Relinquished by: 3	Date Time:	Received by: 3	Relinquished by: 4	Date Time:	Received by: 4
Relinquished by 5	Date Time: 9/19/06 19:30	Received by: A Rodriguez	Custody Seal #	Preserved where applicable ☐	On Ice ☐ Cooler Temp: 3.7

3.1

T14719: Chain of Custody
Page 1 of 3

ACCUTEST Laboratories

CHAIN OF COUSTODY

10165 Harwin Drive, Ste. 150, Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.accutest.com

Page 2 of 2

FED-EX Tracking #: 858677885017
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: T14719

Client / Reporting Information

Company Name: American Environmental Consulting
Address: 6885 South Marshall Suite 3
City: Littleton State: CO Zip: 80128
Project Contact: Mike Stewart E-mail:
Phone #: 303-948-7733
Sampler's Name: [signature]

Project Information

Project Name: Duke Energy Field Services
Street:
City: Lea County, State: New Mexico
Project #: Lee Plant
Fax #: 303-948-7753
Client Purchase Order #:

Accutest Sample #	Field ID / Point of Collection	SUMMA # MEOH Vial #	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	MeOH	NaHSO4	ENCORE	BTEX 8260	LAB USE ONLY
11	MW-21 (060915 1035)		9/15/06	1035	JF	GW	3	✓								✓	
12	MW-9 (0609151105)		9/15/06	1105	JF	GW	3	✓								✓	
13	MW-14 (0609151130)		9/15/06	1130	JF	GW	3	✓								✓	
14	MW-10 (0609151200)		9/15/06	1200	JF	GW	3	✓								✓	
15	Duplicate (0609152000)		9/15/06	2000	JF	GW	3	✓								✓	
16	Trip Blank						2	✓								✓	
	Temp Blank						1										

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Turnaround Time (Business Days)

- ☒ 10 Day STANDARD
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ Other

Approved By: / Date:

Emergency & Rush T/A data available VIA LabLink

Data Deliverable Information

- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ Reduced Tier 1
- ☐ Full Tier 1
- ☐ TRRP13
- ☐ EDD Format ____

Commercial "A" = Results Only

Comments / Remarks

Invoice To: Duke Energy Field Srvcs
Attn: David Dick

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 [signature]	9/15/06 1800	1	2		2
Relinquished by: 3	Date Time:	Received by: 3	Relinquished by: 4	Date Time:	Received by: 4
Relinquished by: 5	9/19/06 10:30	Received by: a. Rodriguez	Custody Seal #	Preserved where applicable ☐ / On Ice ☐	Cooler Temp. 3.7

T14719: Chain of Custody
Page 2 of 3

ACCUTEST.

SAMPLE RECEIPT LOG

JOB #: T14719 DATE/TIME RECEIVED: 9/19/06/ 10:30

CLIENT: American Env. Consulting INITIALS: AR

Condition/Variance (Circle "Y" for yes and "N" for no or NA. If "N" is circled, see variance for explanation):

1. (Y) N Sample received in undamaged condition.
2. (Y) N Samples received within temp. range.
3. Y (NA) Sample received with proper pH.
4. (Y) N Sample received in proper containers.
5. (Y) N Sample volume sufficient for analysis.
6. (Y) N Sample received with chain of custody.
7. (Y) N Chain of Custody matches **sample IDs and analysis** on containers.
8. (Y) N Samples Headspace acceptable
9. (Y) N NA Custody seal received intact and tamper not evident on cooler.
10. Y N (NA) Custody seal received intact and tamper not evident on bottles.

SAMPLE or FIELD ID	BOTTLE #	DATE SAMPLED	MATRIX	VOLUME	LOCATION	PRESERV.	PH
1-6,8	1-3	9/14	AQ	40ml	VREF	1,(2),3,4,5,6	U, <2, >12, NA
7	1-9	⊥	|	|	|	1,2,3,4,5,6	U, <2, >12, NA
9-15	1-3	9/15	|	|	|	1,2,3,4,5,6	U, <2, >12, NA
16	1-2	N/A	⊥	⊥	⊥	1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA

AR 9-19-06

LOCATION: WI: Walk-In VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

Comments: ____

pH of waters checked excluding volatiles

pH of soils N/A

Delivery method: Courier: FE

COOLER TEMP: 3.7 COOLER TEMP: ____

COOLER TEMP: ____ COOLER TEMP: ____

Form: SM012, Rev.07/28/06, QAO

8 3.1

T14719: Chain of Custody

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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: T14719
Account: DUKE Duke Energy Field Services
Project: AECCOLI: Duke-Lee Plant, Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB1304-MB	B120029.D	1	09/20/06	LJ	n/a	n/a	VB1304

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

T14719-1, T14719-2, T14719-3, T14719-4, T14719-5, T14719-6, T14719-7, T14719-8, T14719-9, T14719-10, T14719-11, T14719-12, T14719-13, T14719-16

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.23	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	110%	73-139%
17060-07-0	1,2-Dichloroethane-D4	115%	66-139%
2037-26-5	Toluene-D8	104%	77-148%
460-00-4	4-Bromofluorobenzene	97%	84-150%

Method Blank Summary

Job Number: T14719
Account: DUKE Duke Energy Field Services
Project: AECCOLI: Duke-Lee Plant, Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB1306-MB	B120065.D	1	09/21/06	LJ	n/a	n/a	VB1306

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

T14719-8, T14719-9, T14719-11, T14719-12

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.23	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	73-139%
17060-07-0	1,2-Dichloroethane-D4	107%	66-139%
2037-26-5	Toluene-D8	103%	77-148%
460-00-4	4-Bromofluorobenzene	99%	84-150%

Method Blank Summary

Job Number: T14719
Account: DUKE Duke Energy Field Services
Project: AECCOLI: Duke-Lee Plant, Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB1307-MB	B120091.D	1	09/22/06	LJ	n/a	n/a	VB1307

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

T14719-12, T14719-14, T14719-15

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.23	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.48	ug/l	
108-88-3	Toluene	ND	2.0	0.54	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.1	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	73-139%
17060-07-0	1,2-Dichloroethane-D4	103%	66-139%
2037-26-5	Toluene-D8	100%	77-148%
460-00-4	4-Bromofluorobenzene	95%	84-150%

Blank Spike Summary

Job Number: T14719
Account: DUKE Duke Energy Field Services
Project: AECCOLI: Duke-Lee Plant, Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB1304-BS	B120028.D	1	09/20/06	LJ	n/a	n/a	VB1304

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

T14719-1, T14719-2, T14719-3, T14719-4, T14719-5, T14719-6, T14719-7, T14719-8, T14719-9, T14719-10, T14719-11, T14719-12, T14719-13, T14719-16

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	23.4	94	67-118
100-41-4	Ethylbenzene	25	22.1	88	71-119
108-88-3	Toluene	25	21.3	85	70-121
1330-20-7	Xylene (total)	75	66.7	89	72-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	73-139%
17060-07-0	1,2-Dichloroethane-D4	110%	66-139%
2037-26-5	Toluene-D8	96%	77-148%
460-00-4	4-Bromofluorobenzene	95%	84-150%

Blank Spike Summary

Job Number: T14719
Account: DUKE Duke Energy Field Services
Project: AECCOLI: Duke-Lee Plant, Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB1306-BS	B120064.D	1	09/21/06	LJ	n/a	n/a	VB1306

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

T14719-8, T14719-9, T14719-11, T14719-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.5	98	67-118

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	73-139%
17060-07-0	1,2-Dichloroethane-D4	103%	66-139%
2037-26-5	Toluene-D8	97%	77-148%
460-00-4	4-Bromofluorobenzene	97%	84-150%

Blank Spike Summary

Job Number: T14719
Account: DUKE Duke Energy Field Services
Project: AECCOLI: Duke-Lee Plant, Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB1307-BS	B120090.D	1	09/22/06	LJ	n/a	n/a	VB1307

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

T14719-12, T14719-14, T14719-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.1	96	67-118
100-41-4	Ethylbenzene	25	22.9	92	71-119
108-88-3	Toluene	25	23.3	93	70-121
1330-20-7	Xylene (total)	75	71.3	95	72-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	73-139%
17060-07-0	1,2-Dichloroethane-D4	98%	66-139%
2037-26-5	Toluene-D8	94%	77-148%
460-00-4	4-Bromofluorobenzene	96%	84-150%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T14719
Account: DUKE Duke Energy Field Services
Project: AECCOLI: Duke-Lee Plant, Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T14719-7MS	B120041.D	1	09/20/06	LJ	n/a	n/a	VB1304
T14719-7MSD	B120042.D	1	09/20/06	LJ	n/a	n/a	VB1304
T14719-7	B120040.D	1	09/20/06	LJ	n/a	n/a	VB1304

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

T14719-1, T14719-2, T14719-3, T14719-4, T14719-5, T14719-6, T14719-7, T14719-8, T14719-9, T14719-10, T14719-11, T14719-12, T14719-13, T14719-16

CAS No.	Compound	T14719-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	29.2	117	29.7	119	2	65-122/15
100-41-4	Ethylbenzene	ND		25	24.1	96	25.6	102	6	70-123/18
108-88-3	Toluene	ND		25	23.9	96	25.9	104	8	70-123/18
1330-20-7	Xylene (total)	ND		75	72.0	96	76.0	101	5	71-122/16

CAS No.	Surrogate Recoveries	MS	MSD	T14719-7	Limits
1868-53-7	Dibromofluoromethane	119%	119%	118%	73-139%
17060-07-0	1,2-Dichloroethane-D4	122%	116%	114%	66-139%
2037-26-5	Toluene-D8	100%	103%	102%	77-148%
460-00-4	4-Bromofluorobenzene	94%	94%	93%	84-150%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T14719
Account: DUKE Duke Energy Field Services
Project: AECCOLI: Duke-Lee Plant, Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T14694-4MS	B120075.D	20	09/21/06	LJ	n/a	n/a	VB1306
T14694-4MSD	B120076.D	20	09/21/06	LJ	n/a	n/a	VB1306
T14694-4	B120074.D	20	09/21/06	LJ	n/a	n/a	VB1306

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

T14719-8, T14719-9, T14719-11, T14719-12

CAS No.	Compound	T14694-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1220		500	1720	100	1750	106	2	65-122/15

CAS No.	Surrogate Recoveries	MS	MSD	T14694-4	Limits
1868-53-7	Dibromofluoromethane	97%	101%	97%	73-139%
17060-07-0	1,2-Dichloroethane-D4	108%	103%	104%	66-139%
2037-26-5	Toluene-D8	101%	101%	100%	77-148%
460-00-4	4-Bromofluorobenzene	104%	103%	100%	84-150%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T14719
Account: DUKE Duke Energy Field Services
Project: AECCOLI: Duke-Lee Plant, Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T14777-2MS	B120105.D	1	09/22/06	LJ	n/a	n/a	VB1307
T14777-2MSD	B120106.D	1	09/22/06	LJ	n/a	n/a	VB1307
T14777-2	B120100.D	1	09/22/06	LJ	n/a	n/a	VB1307

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

T14719-12, T14719-14, T14719-15

CAS No.	Compound	T14777-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	25.4	102	25.2	101	1	65-122/15
100-41-4	Ethylbenzene	ND		25	24.5	98	24.9	100	2	70-123/18
108-88-3	Toluene	ND		25	25.4	102	26.0	104	2	70-123/18
1330-20-7	Xylene (total)	ND		75	73.9	99	76.7	102	4	71-122/16

CAS No.	Surrogate Recoveries	MS	MSD	T14777-2	Limits
1868-53-7	Dibromofluoromethane	93%	95%	105%	73-139%
17060-07-0	1,2-Dichloroethane-D4	98%	96%	102%	66-139%
2037-26-5	Toluene-D8	101%	102%	100%	77-148%
460-00-4	4-Bromofluorobenzene	109%	108%	95%	84-150%

370 17th Street, Suite 2500
Denver, Colorado 80202
303-595-3331 – main
303-605-1957 – fax

January 30, 2007

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

RE: Third Quarter 2006 Groundwater Monitoring Report for the Former Lee Gas Plant
Lea County, New Mexico
Unit N Section 30, Township 17 South, Range 35 East

Dear Mr. Chavez:

DCP Midstream, LP (DCP) is pleased to submit for your review one copy of the Third Quarter Groundwater Monitoring Report for the Former Lee Gas Plant located in Lea County, New Mexico (Unit N Section 30, Township 17 South, Range 35 East).

Groundwater monitoring activities were completed September 20, 2006. The data indicate that the groundwater conditions remain stable. The next groundwater monitoring event is scheduled for the first quarter of 2007. The 2007 annual report will be prepared following the completion of the first quarter 2007 monitoring activities and review and validation of the analytical results.

If you have any questions regarding this report, please call me at 303-605-1893.

Sincerely,

DCP Midstream, LP

Daniel Dick
Environmental Engineer

Enclosure

cc: Larry Johnson – OCD District Office Hobbs
Lynn Ward – DEFS Midland
Environmental Files

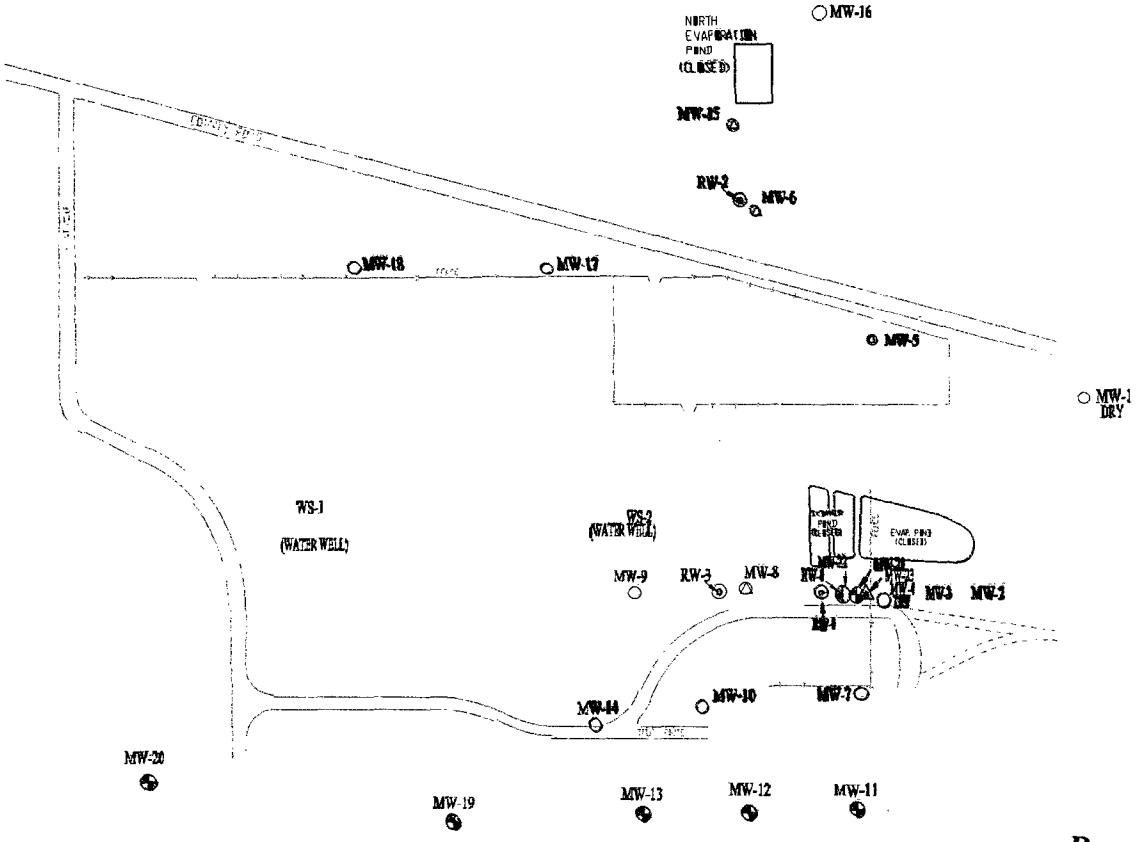
GW-2

2003 Annual Groundwater Monitoring and Sampling Report
Duke Energy Field Services
Lee Gas Plant
Lea County, New Mexico

NOVEMBER 26, 2003

Prepared For:

Duke Energy Field Services
P. O. Box 5493
Denver, Colorado 80217



Prepared By:

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DEC 09 2003

Oil Conservation Division
Environment Bureau

TRIDENT ENVIRONMENTAL

Trident Environmental
P O Box 7624
Midland, Texas 79708

2003 Annual Groundwater Monitoring and Sampling Report
Duke Energy Field Services – Lee Gas Plant
Lea County, New Mexico

Prepared by:

Trident.
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SUBMITTED BY:

Gilbert J. Van Deventer, PG, REM, NMCS
Project Manager

DATE:

11-28-03

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1.0 Executive Summary

Trident Environmental (Trident) was retained by Duke Energy Field Services LP (DEFS) to perform the sampling and monitoring operations at the Lee Gas Plant. The plant is located in sections 30 and 31 of township 17 south and range 35 east in Lea County, New Mexico. This 2003 annual report summarizes the two sampling events performed by Trident at the DEFS Lee Gas Plant on March 9, 2003 and September 15 and 16, 2003.

Based on the sampling and monitoring data to date, the following conclusions relevant to groundwater conditions and remediation system performance at the Lee Gas Plant are evident:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations in monitoring wells (MW-7, MW-11, MW-12, MW-13, MW-14, MW-18, MW-19, MW-20, and MW-22) are currently below the New Mexico Water Quality Control Commission (WQCC) standards.

- Benzene concentrations in the groundwater from wells located within the aerial extent of the dissolved-phase hydrocarbon plume (RW-2, RW-3, MW-9, MW-10, MW-16, MW-17, and MW-21) were above WQCC standards during 2003. Toluene, ethylbenzene, and xylene concentrations in all of the wells were below the WQCC standards with the exception of recovery well RW-3.

- During the September 15, 2003 monitoring event, light non-aqueous phase liquid (LNAPL) was measured in monitoring wells MW-5 (0.88 feet), MW-6 (3.92 feet), and MW-15 (0.10 feet).

- An estimated total of 2.4 million gallons of groundwater was recovered by three recovery wells during the 1-year period of record (January 1, 2003 through December 31, 2003).

- The hydraulic gradient is approximately 0.003 feet/foot and the direction of groundwater flow is to the southwest based on the gauging data obtained on September 15, 2003.

- The average water table elevations across the site have decreased by an average of about 1-foot per year since March 28, 1988.

The following recommendations are proposed for the remediation system and monitoring operations at the Lee Gas Plant.

- Continue LNAPL recovery at MW-6 with the Xitech system.

- Continue free product recovery from MW-5, MW-8, and MW-15 using passive bailers and/or hydrophobic adsorbent socks, and hand bailing methods as appropriate.

- Continue vapor extraction and air sparging operations at RW-1 and MW-23, respectively.

- Continue the program of monitoring natural attenuation that includes the analysis of dissolved oxygen (DO), nitrate (NO_3), sulfate (SO_4), ferric iron (Fe^{3+}), ferrous iron (Fe^{2+}), and manganese (Mn) to assess the efficacy of intrinsic bioremediation processes occurring on site.

- Continue the sampling and monitoring program on a semi-annual basis. The next sampling event is scheduled during the first quarter of 2004.

2.0 Chronology of Events

April 1988	The New Mexico Environmental Improvement Division (NMEID) issued a Compliance Order/Schedule to Phillips 66 Natural Gas Company to install four monitoring wells and sample for groundwater quality to comply with Resource Conservation and Recovery Act (RCRA) monitoring requirements.
June 6, 1988	Four monitoring wells (MW-1, MW-2, MW-3 and MW-4) were installed by Geoscience Consultants Ltd. (GCL) between April 21, 1988 and April 29, 1988. The existing four monitoring wells were plugged and abandoned. Groundwater samples were collected on May 13, 1988.
September 23, 1988	GCL conducted a limited soil vapor survey at Lee Gas Plant. Two potential hydrocarbon sources were identified: the former evaporation pond located east of the main plant, and the small, former evaporation pond located north of the main plant.
January 1990	New Mexico Oil Conservation Division (OCD) takes jurisdiction for groundwater conditions at Lee Gas Plant. GCL submitted a work plan to the OCD for further investigation and implementation of remediation of free product.
May 30, 1990	GCL completed a subsurface investigation to define the limits of the free-phase hydrocarbon plume and to begin recovery of the floating product. The investigation included the installation and sampling of four monitoring wells (MW-5, MW-6, MW-7 and MW-8) and one recovery well (RW-1).
October 9, 1990	GCL completed Phase II of a subsurface investigation to further delineate the dissolved hydrocarbon plume. The investigation included the installation and sampling of four monitoring wells (MW-9, MW-10, MW-11 and MW-12).
March 11, 1991	GCL completed Phase III of a subsurface investigation to delineate the leading edge of the dissolved-phase hydrocarbon plume. The investigation included the installation and sampling of two monitoring wells (MW-13 and MW-14) and the conversion of two existing monitoring wells (MW-7 and MW-8) into recovery wells.
March 18, 1991	The OCD approved the Discharge Plan (GW-2) for Lee Gas Plant.
May 1991	GCL converted MW-10 into a recovery well per the OCD's April 2, 1991 request.
September 5, 1991	GCL completed Phase IV of a subsurface investigation that included the sampling of all on site monitoring wells (MW-1 through MW-14) and two water supply wells (WS-1 and WS-2). Two of the recovery wells (RW-1 and MW-4) and one monitoring well (MW-6) were not sampled due to the presence of free product.

	Prior sampling events were limited to collecting samples from just those wells installed in the current phase of work along with selected wells from previous phases to correlate analytical results.
1992	GCL conducted quarterly sampling activities on January 23, 1992, April 28, 1992, July 30, 1992 and October 21, 1992.
February 24, 1992	GCL completed the Final Phase of a subsurface investigation to complete delineation of the dissolved-phase hydrocarbon plume. The investigation included the installation of six monitoring wells (MW-15, MW-16, MW-17, MW-18, MW-19 and MW-20). Quarterly sampling of the on site monitoring wells was also conducted.
1993	GCL conducted quarterly sampling activities on January 20, 1993, April 15, 1993, July 20, 1993 and October 26, 1993.
April 7, 1993	GCL prepared the "Discharge Plan GW-2 Modification and Remedial Strategy" for Lee Gas Plant.
April 26, 1993	The OCD approved the "Discharge Plan GW-2 Modification and Remedial Strategy" for Lee Gas Plant.
July 1993	GCL completed installation of monitoring wells MW-21, MW-22 and MW-23 between July 19, 1993 and July 27, 1993.
August 3, 1993	GCL completed installation of soil vapor extraction system on recovery well RW-1.
November 15, 1993	GCL completed installation of air sparging injection unit in monitoring well MW-23.
1994	GCL conducted quarterly sampling activities on January 6, 1994, May 3, 1994, July 26, 1994 and October 12, 1994.
March 1994	GCL performed a successful cleanout (well restoration) of recovery well MW-7 during the week of March 21, 1994. However, attempts to restore MW-8 were unsuccessful due to well damage.
1995	BDM International, Inc. (formerly GCL) conducted quarterly sampling activities on March 16, 1995, June 24, 1995, August 10, 1995 and October 10, 1995.
1996	BDM International, Inc. (BDM) conducted quarterly sampling activities on January 16, 1996, April 25, 1996, August 27, 1996 and November 20, 1996.

January 15, 1996	Removed packer from injection well MW-23 and discontinued injection activities.
1997	BDM conducted quarterly sampling activities on January 21, 1997 and April 17, 1997.
June 18, 1997	Mr. Bill Olson (verbal communication) of the OCD approved a request by GPM to change the sampling frequency from a quarterly to semi-annual frequency.
August 12, 1997	BDM conducted annual sampling activities on August 12, 1997.
January 19, 1998	TRW conducted semi-annual sampling activities.
April 1, 1998	TRW replaced the submersible pumps in MW-6 and MW-7 with new pumps. The pump in MW-10 was not replaced due to damaged well conditions.
April 2, 1998	TRW installed a passive skimmer in MW-15.
April 9, 1998	TRW completed installation of Xitech product recovery system at MW-5.
July 10, 1998	TRW completed installation of air sparge system (air compressor) at MW-23.
August 5, 1998	TRW conducted annual sampling activities.
September 17, 1998	TRW replaced the submersible pump in RW-1 with a new pump.
November 18, 1998	Xitech product recovery system was transferred from MW-5 to MW-15.
February 15, 1999	TRW conducted semi-annual sampling activities.
June 16-19, 1999	Recovery wells MW-6, MW-7, and RW-1 were replaced by newly installed deeper wells RW-2, RW-3, and RW-4, respectively.
August 18-20, 1999	TRW conducted annual sampling activities.
October 26, 1999	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
November 22, 1999	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. Also reinstalled compressor at air sparge well (MW-23).
December 20, 1999	TRW conducted O & M vapor extraction, and air sparge systems. Also moved Xitech system from MW-15 to MW-6.
January 25, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.

February 16, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems, semi-annual sampling activities, bailed sand from RW-4, and installed new pump in RW-4.
April 3, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
April 24, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
May 2, 2000	TRW performed repairs of groundwater recovery (installed new pump in RW-2 and used pump in RW-3) and vapor extraction systems.
May 9, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
June 13, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge (installed new compressor) systems.
July 12, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
August 15-17, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems, and annual groundwater sampling activities. The submersible pump in RW-2 was repaired and replaced.
October 24, 2000	TRW replaced the submersible pump in RW-2 with a new pump.
November 6, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. Upon arrival it was determined that the electrical breaker at the main transformer had been thrown. Following the restoration of electrical power the submersible water pump in RW-3 would not operate. All of the other systems were operational.
December 13, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. All of the systems were operational except the water pump in RW-3.
January 23, 2001	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. All of the systems were operational except the water pumps in RW-3 and RW-4.
February 15, 2001	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems, and performed semi-annual sampling activities. A water well contractor installed a new submersible pump in RW-3 and a new relay switch in the breaker box at RW-4. All systems were operational upon completion of the site visit, however the flow meter in RW-4 was not working properly.
March 20, 2001	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. All of the systems were operational except for the flow meters at RW-2 and RW-3, and the submersible pump in RW-4. Field personnel serviced the flow meter,

	replaced the check valve in RW-3, and re-activated the power and replaced the flow meter at RW-4. All systems were operational upon the completion of the site visit; however the flow meters at RW-2 and RW-3 were not working properly.
May 1, 2001	Trident Environmental acquired the assets and staff of the Midland, Texas office of TRW Inc.
May 10, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pump in RW-3 and the flow meter at RW-4 were not operational.
May 23, 2001	Trident replaced an "Airgas-owned" nitrogen bottle with a Trident-owned bottle, replaced a digital "GPI" flow meter in RW-1 with an analog "Neptune" totalizer and installed a stainless steel strainer in line at RW-4 to protect the flow meter. The submersible pump in RW-3 was not operational.
June 18, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pumps in RW-2 and RW-3, and the flow meter at RW-4 were not operational upon arrival. Trident personnel serviced the flow meter and cleaned out the stainless steel strainer at RW-4
June 19, 2001	A water well servicing contractor (W-H-B) bailed 2 gallons of sand and installed a new ¾ hp Myers submersible pump in RW-3, and replaced a relay switch at the breaker for RW-2. Upon completion of the site visit all of the remedial systems were operation, however the flow meter in RW-3 was not working properly.
July 20, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pump in RW-2 and the flow meter at RW-3 were not operational upon arrival. Trident personnel replaced the digital GPI flow meter in RW-3 with an analog Neptune totalizer.
July 25, 2001	Trident personnel attempted to re-start RW-2 by replacing the relay and capacitor, but the submersible pump would not reactivate. The totalizer from RW-2 was moved to RW-3. All other systems were operational upon departure.
July 31, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems, and performed annual sampling activities. The totalizer in RW-3 (used unit) was replaced with a new totalizer.
September 11, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pump in RW-2, the flow meter at RW-3, and the VE unit (RW-1) were not operational upon arrival. Trident personnel restarted the VE unit and replaced the totalizer in RW-3 with a "GPI" meter.
October 10, 2001	A water well servicing contractor (W-H-B) removed old pump and installed a new ½ hp Myers submersible pump in RW-2.

October 11, 2001	Trident installed a sediment trap and digital GPI flowmeter at RW-2. All systems were operational upon departure.
January 10, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. Xitech pump removed and sent to manufacturer for repairs and upgrade.
January 15, 2002	A new Coyote pump off control box was installed at RW-3.
January 23, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. Installed repaired Xitech pump in MW-6 and secondary containment for PRT
February 11-12, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems, and performed semi-annual sampling activities. The flowmeter faceplate at RW-4 was replaced with working unit.
March 6, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. Plugged discharge line at RW-2 was replaced with new HDPE line.
April 9, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems.
May 14, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The flowmeter faceplate and battery at RW-2 were replaced with working units.
July 12, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The flowmeter faceplate and battery at RW-3 were replaced with working units.
August 13-14, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems, and performed annual sampling activities. The flowmeter faceplate at RW-4 was replaced with working unit.
September 20, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. New GPI flowmeters were installed at RW-2, RW-3, and RW-4.
October 18, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. Sand buildup was bailed from RW-2, RW-3 and RW-4. Worn-out pumps were replaced with new Meyers ½ HP submersible pump in RW-3 and RW-4.
October 24, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. Sections of total fluids discharge lines from RW-2 and RW-3 were upgraded with HDPE line and re-routed. Replaced battery for Xitech PRS at MW-6.
November 22, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems.
December 16, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems.

January 14, 2003	Trident conducted O & M on Xitech, vapor extraction, air sparge and groundwater recovery well systems, and recovered product from passive bailers in MW-5 and MW-15.
February 7, 2003	Trident conducted O & M on Xitech, vapor extraction, air sparge and groundwater recovery well systems, and recovered product from passive bailers in MW-5 and MW-15.
March 8-9, 2003	Trident conducted O & M on Xitech, vapor extraction, and air sparge and groundwater recovery well systems, and recovered product from passive bailers in MW-5 and MW-15. Also performed semi-annual groundwater sampling activities.
April 23, 2003	Trident conducted O & M on Xitech, vapor extraction, and air sparge and groundwater recovery well systems, and recovered product from passive bailers in MW-5 and MW-15.
May 29, 2003	Trident conducted O & M on Xitech, vapor extraction, and air sparge and groundwater recovery well systems, and recovered product from passive bailers in MW-5 and MW-15.
June 23, 2003	Trident conducted O & M on Xitech, vapor extraction, and air sparge and groundwater recovery well systems, and recovered product from passive bailers in MW-5 and MW-15.
July 30, 2003	Trident conducted O & M on Xitech, vapor extraction, and air sparge and groundwater recovery well systems, and recovered product from passive bailers in MW-5 and MW-15.
August 21, 2003	Trident conducted O & M on Xitech, vapor extraction, and air sparge and groundwater recovery well systems, and recovered product from passive bailers in MW-5 and MW-15.
September 15-16, 2003	Trident conducted O & M on Xitech, vapor extraction, and air sparge and groundwater recovery well systems, and recovered product from passive bailers in MW-5 and MW-15. Also performed annual groundwater sampling activities.
October 29, 2003	Trident conducted O & M on Xitech, vapor extraction, and air sparge and groundwater recovery well systems, and recovered product from passive bailers in MW-5 and MW-15.

3.0 Procedures

Each monitoring well at the Lee Gas Plant was gauged for depth to groundwater on March 8, 2003 and September 15, 2003, using a Heron H.01L oil/water interface probe or comparable model. The depth to groundwater in the recovery wells was not gauged due to access limitations caused by the presence of downhole pumping equipment.

Immediately prior to collecting groundwater samples, the monitoring wells were purged using a Grundfos submersible pump with the exception of MW-21and MW-22, which were purged using a decontaminated hand bailer. MW-3 was not sampled during either sampling event due to the lack of enough groundwater to obtain a representative groundwater sample (dry well conditions). Purging operations were completed after groundwater parameters (pH, conductivity, dissolved oxygen, turbidity, and temperature) stabilized. Conductivity, pH, dissolved oxygen (DO), turbidity, and temperature readings were measured after every 5 gallons of purging using a Horiba Model U-10 and Hanna Model 9143 DO meter or similar models. A total of 653 gallons of well development water was purged from the monitoring wells during the 2003-sampling year.

Groundwater samples for BTEX analysis were obtained using a new, decontaminated, disposable bailer for each well after purging. Each groundwater sample was transferred into two air-tight, septum-sealed, 40-ml glass volatile organic analysis (VOA) sample vials with zero head space and preserved with hydrochloric acid (HCl) for analysis of BTEX using EPA Method 8021B. The annual sampling event conducted on September 15-16, 2003, included another set of water samples that were transferred into appropriately preserved containers for analysis of nitrate (NO_3), sulfate (SO_4), total iron, and manganese, to assess the efficacy of intrinsic bioremedial activity currently taking place. The iron and manganese samples were filtered in the field with a 45mm element. During the annual sampling event in September 2003, ferrous iron (Fe^{-2}) was also measured in the field using a Hach DR2010 spectrophotometer (Method 8146). Chain-of-custody (COC) forms documenting sample identification numbers, collection times, and delivery times to the laboratory were completed for each set of samples. One duplicate sample and one rinsate sample was collected during each sampling event. The water samples were placed into an ice-filled cooler immediately after collection and shipped next day delivery to Trace Analysis Inc. in Lubbock, Texas for laboratory analysis.

A summary of the monitoring wells sampled, sampling frequency, sampling dates, purge method, sampling method and purge volumes for the 2003 calendar year is presented in Table 1.

4.0 Groundwater Elevations, Hydraulic Gradient and Flow Direction

Based on the most recent gauging data collected by Trident on September 15, 2003, the groundwater conditions at the Lee Gas Plant are characterized below.

- The depth to the water table across the site varies from approximately 105 to 112 feet below ground surface
- The hydraulic gradient is approximately 0.003 feet/foot
- The direction of groundwater flow is to the southwest

Groundwater elevation maps depicting the water table elevation and direction of groundwater flow using the gauging data obtained during the two 2003 sampling events are presented in Figure 1A (March 8, 2003) and Figure 1B (September 15, 2003). Groundwater elevations and depth to water measurements for the year 2003 are summarized in Table 2.

The direction of groundwater flow and hydraulic gradient has remained consistent for the past fifteen years. However, the average water table elevations across the site have decreased by approximately 1 foot per year since March 28, 1988. The historic decline in the average water table elevations is depicted in Figure 2. The historic water table elevations for individual monitoring wells are presented with the hydrocarbon concentration graphs following section 5.0 of this report.

Due to the declining water table elevations over the past thirteen years, MW-1, MW-2, MW-3, and MW-4 no longer extend to the groundwater depth. In addition, MW-5 and MW-8 are approaching their limits of usefulness as monitoring points. Since it is expected that the water table elevation will decrease more in the future, the availability of these wells will diminish.

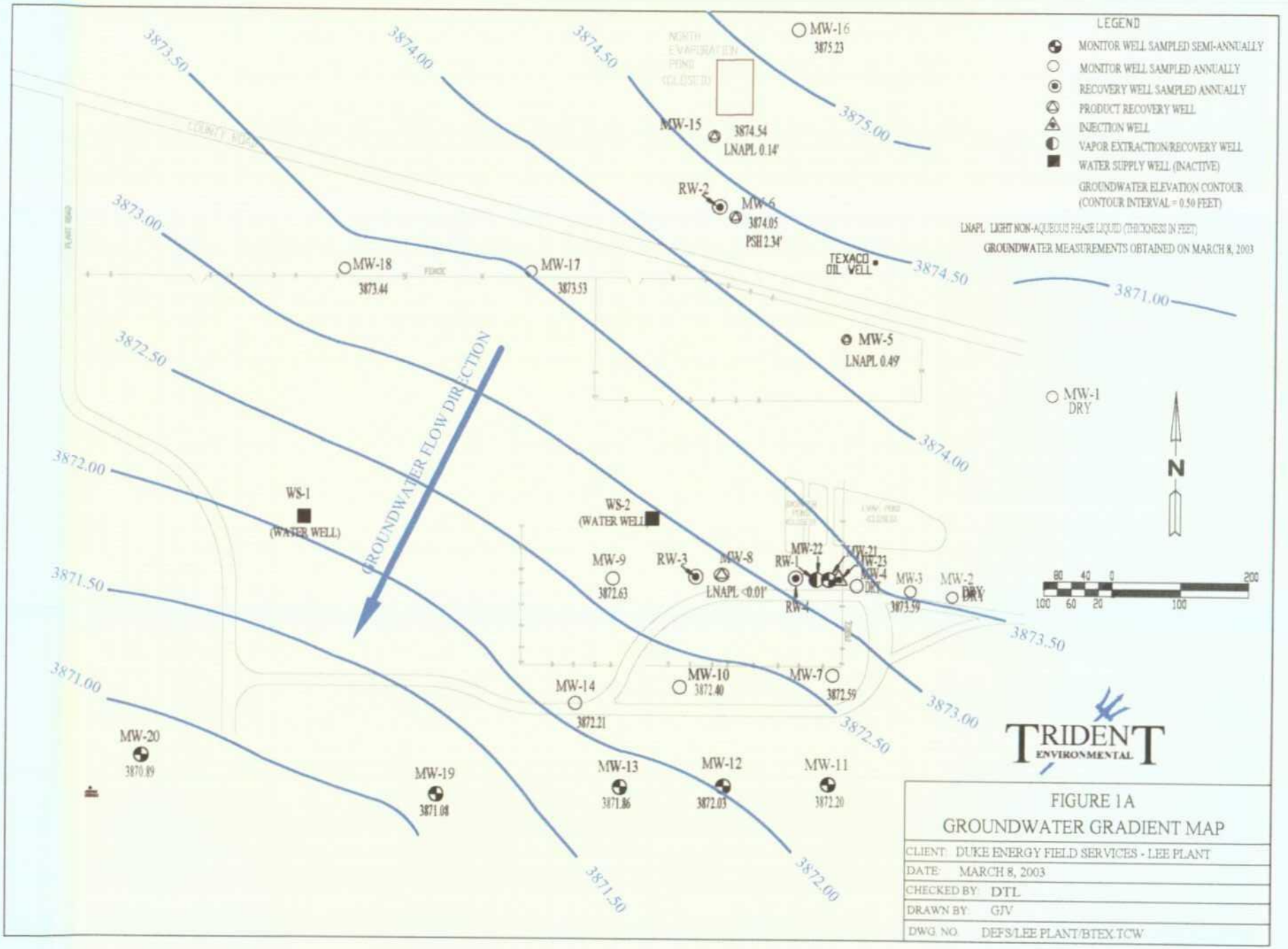
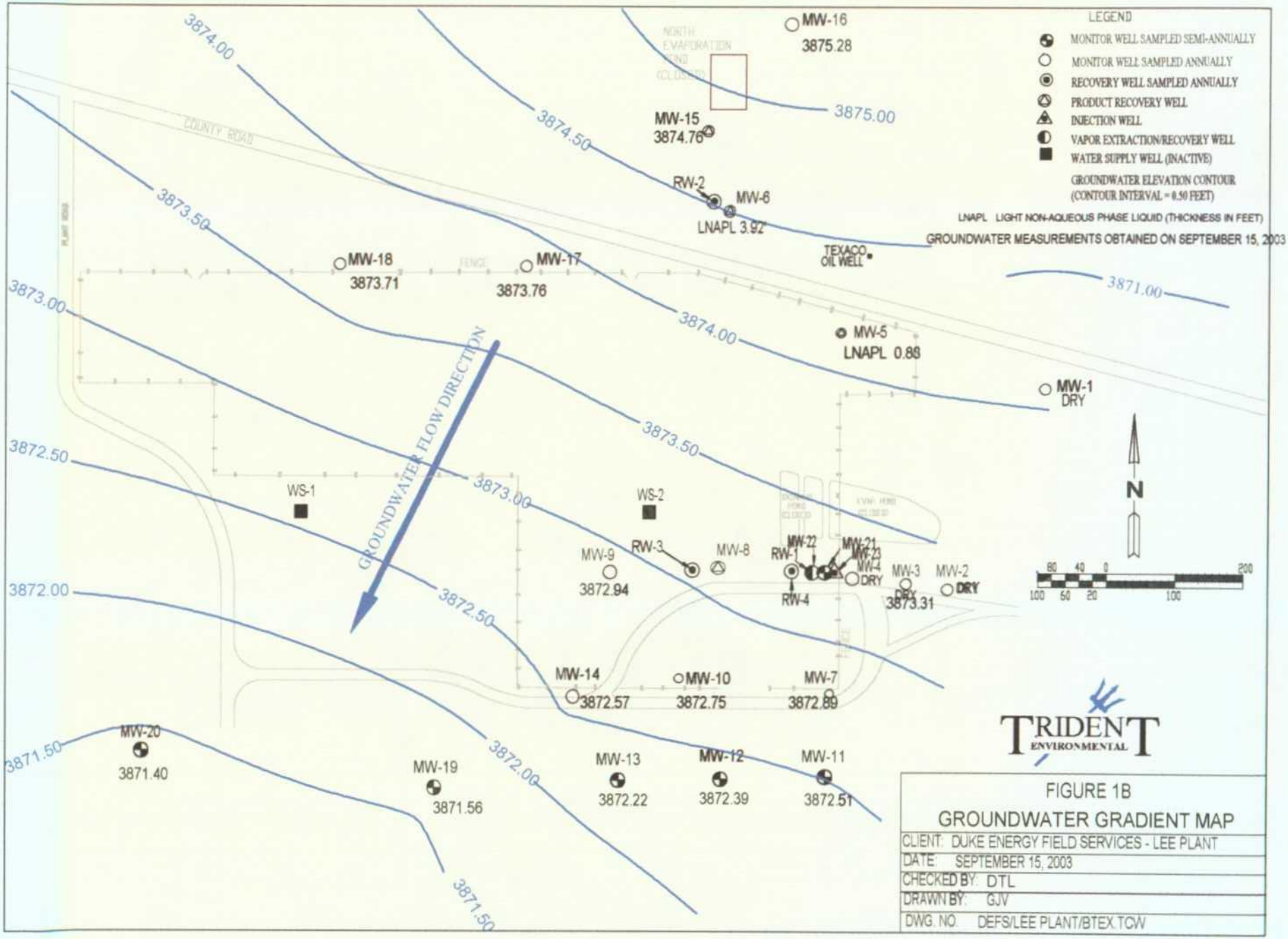


FIGURE 1A
GROUNDWATER GRADIENT MAP

CLIENT:	DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE:	MARCH 8, 2003
CHECKED BY:	DTL
DRAWN BY:	GJV
DWG. NO.	DEFS/LEE PLANT/BTEX.TCW



TRIDENT ENVIRONMENTAL

FIGURE 1B

GROUNDWATER GRADIENT MAP

CLIENT:	DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE:	SEPTEMBER 15, 2003
CHECKED BY:	DTL
DRAWN BY:	GJV
DWG. NO.	DEFS/LEE PLANT/BTEX.TCW

Figure 2
Average Groundwater Elevations

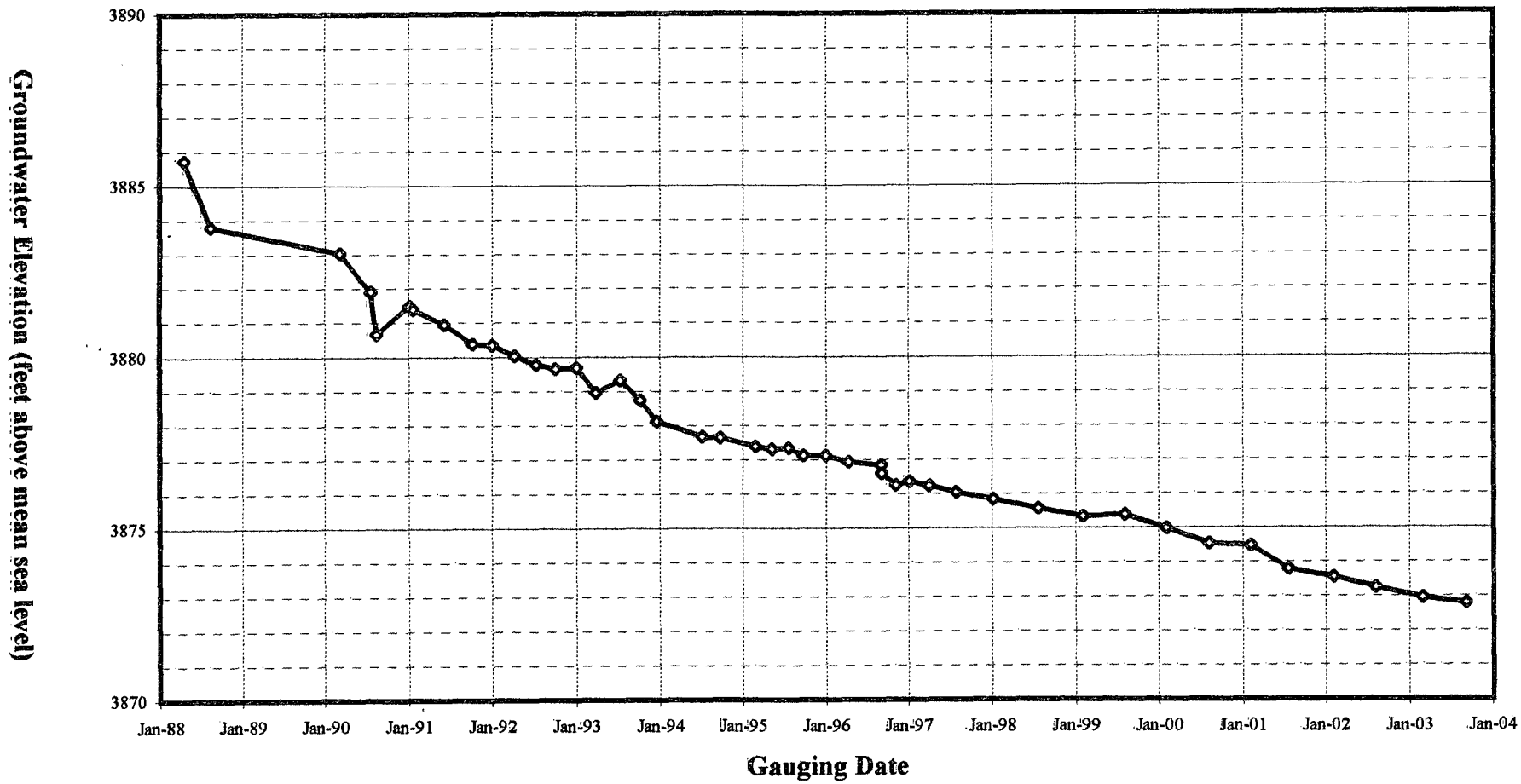


Table 2
2002 Groundwater Elevations
Duke Energy Field Services - Lee Plant

Monitoring Well	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to Groundwater Below Top of Casing (feet)	Relative Groundwater Elevation (feet)**	Phase-Separated Hydrocarbon Thickness (feet)
MW-1	02/11/02	3979.25	Dry	Dry	0.00
	08/13/02	3979.25	Dry	Dry	0.00
MW-2	02/11/02	3980.50	Dry	Dry	0.00
	08/13/02	3980.50	Dry	Dry	0.00
MW-3	02/11/02	3980.27	106.68	3873.59	0.00
	08/13/02	3980.27	107.02	3873.25	0.00
MW-4	02/11/02	3980.16	Dry	Dry	0.00
	08/13/02	3980.16	Dry	Dry	0.00
MW-5	02/11/02	3979.82	105.67	3874.18	0.03
	08/13/02	3979.82	106.79	3873.94	1.05
MW-6	02/11/02	3981.79	108.39	3873.55	0.18
	08/13/02	3981.79	110.83	3874.78	4.66
MW-7	02/11/02	3978.45	105.34	3873.11	0.00
	08/13/02	3978.45	105.76	3872.69	0.00
MW-8	02/11/02	3979.96	107.46	3872.51	0.01
	08/13/02	3979.96	107.29	3872.68	0.01
MW-9	02/11/02	3980.17	106.95	3873.22	0.00
	08/13/02	3980.17	107.38	3872.79	0.00
MW-10	02/11/02	3979.66	106.68	3872.98	0.00
	08/13/02	3979.66	107.09	3872.57	0.00
MW-11	02/11/02	3978.50	105.73	3872.77	0.00
	08/13/02	3978.50	106.16	3872.34	0.00
MW-12	02/11/02	3978.82	106.22	3872.60	0.00
	08/13/02	3978.82	106.66	3872.16	0.00
MW-13	02/11/02	3980.52	108.11	3872.41	0.00
	08/13/02	3980.52	108.54	3871.98	0.00
MW-14	02/11/02	3982.23	109.45	3872.78	0.00
	08/13/02	3982.23	109.87	3872.36	0.00
MW-15	02/11/02	3981.70	107.98	3875.27	1.78
	08/13/02	3981.70	107.27	3874.77	0.39
MW-16	02/11/02	3980.80	104.92	3875.88	0.00
	08/13/02	3980.80	105.38	3875.42	0.00
MW-17	02/11/02	3981.80	107.39	3874.41	0.00
	08/13/02	3981.80	107.63	3874.17	0.00
MW-18	02/11/02	3983.10	109.03	3874.07	0.00
	08/13/02	3983.10	109.53	3873.57	0.00
MW-19	02/11/02	3980.80	109.15	3871.65	0.00
	08/13/02	3980.80	109.66	3871.14	0.00
MW-20	02/11/02	3983.30	111.90	3871.40	0.00
	08/13/02	3983.30	112.44	3870.86	0.00

5.0 Distribution of Hydrocarbons in Groundwater

The BTEX concentration map depicting the March 9, 2003 results are presented in Figure 3A and the BTEX concentration map depicting the September 15 through September 16, 2003 results are presented in Figure 3B. A historical listing of BTEX concentrations obtained from the on site monitoring wells is summarized in Table 3. Hydrocarbon concentration and groundwater elevation versus time graphs are grouped as follows:

Figure	Area	Monitoring Wells
4A	Central Area	MW-2, MW-3, MW-7, MW-8, MW-9, MW-10, MW-14, MW-21, MW-22, MW-23, WS-1, and WS-2
4B	North Area	MW-5, MW-6, MW-15, MW-16, MW-17, and MW-18
4C	Downgradient South Area	MW-11, MW-12, MW-13, MW-19, and MW-20

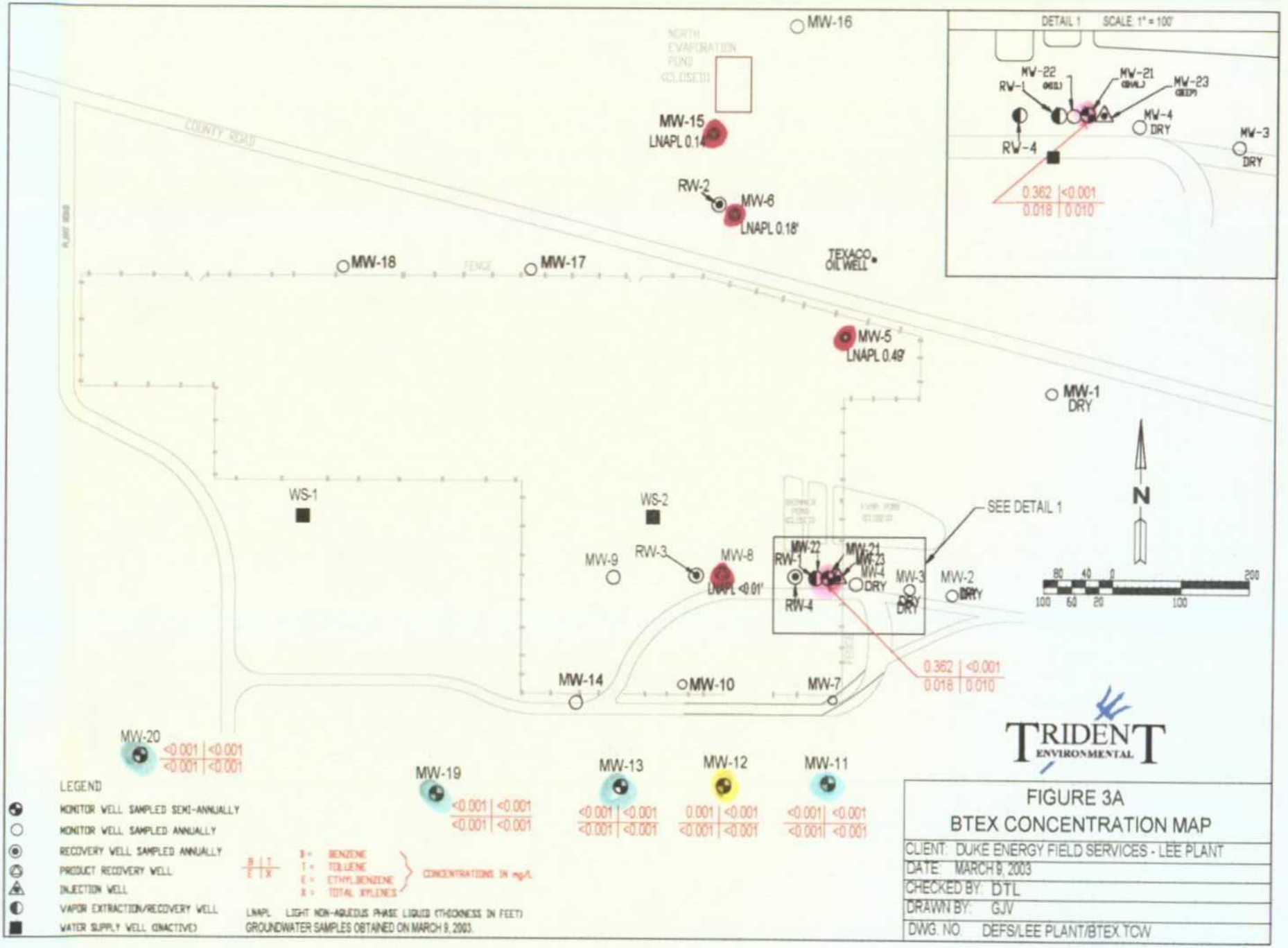
Laboratory analytical reports and chain-of-custody documentation for both the semi-annual and annual sampling events are included in Appendix A.

Based on the most recent analytical data for samples collected by Trident on September 15, 2003, the distribution of hydrocarbons at the Lee Gas Plant is described below.

- BTEX concentrations in monitoring wells (MW-7, MW-11, MW-12, MW-13, MW-14, MW-18, MW-19, MW-20, and MW-22) are currently below the New Mexico Water Quality Control Commission (WQCC) standards.

- Benzene concentrations in the groundwater from wells located within the aerial extent of the dissolved-phase hydrocarbon plume (RW-2, RW-3, MW-9, MW-10, MW-16, MW-17, and MW-21) were above WQCC standards during 2003. Toluene, ethylbenzene, and xylene concentrations in all of the wells were below the WQCC standards with the exception of recovery well RW-3.

- During the September 15, 2003 monitoring event, LNAPL was measured in monitoring wells MW-5 (0.88 feet), MW-6 (3.92 feet), and MW-15 (0.10 feet.



TRIDENT ENVIRONMENTAL

FIGURE 3A
BTEX CONCENTRATION MAP

CLIENT:	DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE:	MARCH 9, 2003
CHECKED BY:	DTL
DRAWN BY:	GJV
DWG. NO.	DEFS/LEE PLANT/BTEX.TCW

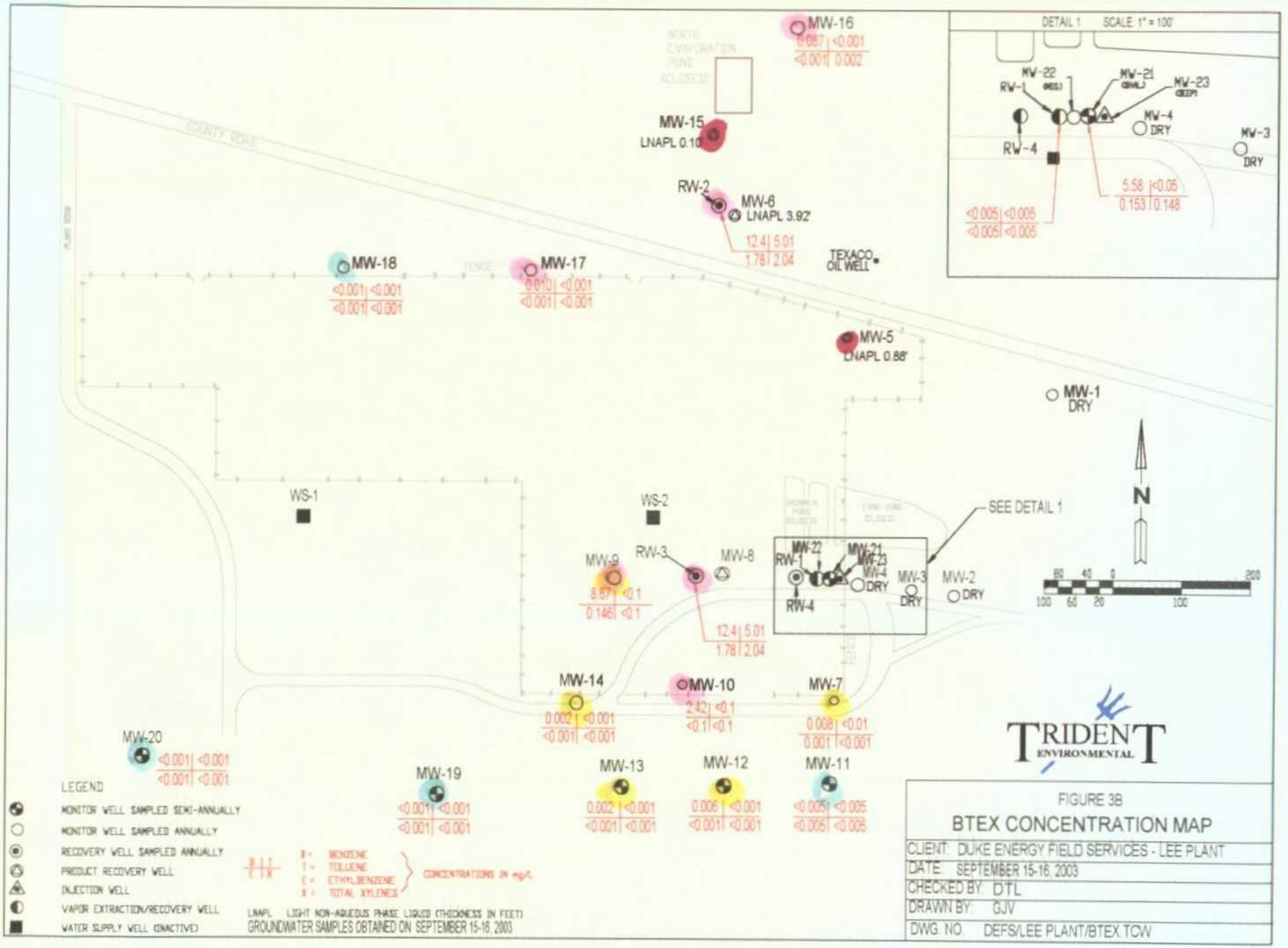

DETAIL 1 SCALE: 1" = 100'
MW-22
MW-21
MW-23
RW-1
MW-4 DRY
MW-3 DRY
RW-4
5.58 | <0.05
0.153 | 0.148
<0.005 | <0.005
<0.005 | <0.005
MW-16
0.087 | <0.001
<0.001 | 0.002
MW-15
LNAPL 0.10'
RW-2
MW-6
LNAPL 3.92'
12.4 | 5.01
1.78 | 2.04
TEXACO OIL WELL
MW-18
<0.001 | <0.001
<0.001 | <0.001
MW-17
0.010 | <0.001
<0.001 | <0.001
MW-5
LNAPL 0.88'
MW-1
DRY
WS-1
WS-2
SEE DETAIL 1
N
MW-9
8.67 | <0.1
0.146 | <0.1
RW-3
MW-8
MW-2 DRY
MW-14
0.002 | <0.001
<0.001 | <0.001
MW-10
2.42 | <0.1
<0.1 | <0.1
MW-7
0.008 | <0.01
0.001 | <0.001
MW-20
<0.001 | <0.001
<0.001 | <0.001
MW-19
<0.001 | <0.001
<0.001 | <0.001
MW-13
0.002 | <0.001
<0.001 | <0.001
MW-12
0.006 | <0.001
<0.001 | <0.001
MW-11
<0.005 | <0.005
<0.005 | <0.005
LEGEND
MONITOR WELL SAMPLED SEMI-ANNUALLY
MONITOR WELL SAMPLED ANNUALLY
RECOVERY WELL SAMPLED ANNUALLY
PRODUCT RECOVERY WELL
INJECTION WELL
VAPOR EXTRACTION/RECOVERY WELL
WATER SUPPLY WELL (INACTIVE)
B = BENZENE
T = TOLUENE
E = ETHYLBENZENE
X = TOTAL XYLENES
CONCENTRATIONS IN ug/L
LNAPL LIGHT NON-AQUEOUS PHASE LIQUID (THICKNESS IN FEET)
GROUNDWATER SAMPLES OBTAINED ON SEPTEMBER 15-16, 2003
TRIDENT ENVIRONMENTAL
FIGURE 3B
BTEX CONCENTRATION MAP
CLIENT: DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE: SEPTEMBER 15-16, 2003
CHECKED BY: DTL
DRAWN BY: GJV
DWG. NO. DEFS/LEE PLANT/BTEX.TCW

Table 3
Summary of Historical Groundwater BTEX Results
DEFS - Lee Gas Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-1	Mar-90	0.004	<0.001	<0.001	<0.001
	03/28/90	0.002	<0.001	<0.001	<0.001
	06/27/91	<0.002	<0.002	<0.002	<0.003
MW-2	Mar-90	<0.001	<0.001	<0.001	<0.001
	03/28/90	0.002	<0.001	<0.001	<0.001
	06/27/90	<0.002	<0.002	<0.002	<0.003
	07/30/92	<0.001	<0.001	<0.001	<0.001
	07/21/93	<0.002	<0.002	<0.002	<0.006
	01/06/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	<0.001	<0.001	<0.001	<0.003
	01/16/96	<0.001	<0.001	<0.001	<0.001
	08/13/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	08/19/99	<0.005	<0.005	<0.005	<0.005
	02/16/00	<0.005	<0.005	<0.005	<0.005
MW-3	Mar-90	**0.069**	0.002	0.001	0.001
	03/28/90	<0.001	0.002	<0.001	<0.001
	06/27/90	**0.043**	0.006	0.002	<0.003
	08/13/97	**1.990**	0.078	0.042	0.061
	08/05/98	0.002	<0.001	0.007	<0.001
	08/19/99	<0.001	<0.001	<0.001	<0.001
	08/16/00	<0.005	<0.005	<0.005	<0.005
	02/16/01	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.005	<0.005	<0.005	<0.005
	02/12/02	<0.001	<0.001	<0.001	<0.001
MW-4	Never analyzed due to presence of phase-separated hydrocarbons or dry well conditions.				
MW-5	03/27/90	<0.001	0.098	<0.001	0.043
	06/27/91	**5.00**	0.570	0.015	0.088
	07/30/92	**10.0**	**1.40**	0.059	0.070
	07/21/93	**22.0**	**7.87**	0.570	**1.27**
	07/01/94	**66.4**	**17.1**	0.630	**<1.5**
MW-6	04/03/90	<0.001	<0.001	<0.001	<0.001
	02/13/91	**72**	**3.0**	**35**	**42**
	03/01/95	**18.8**	**17.0**	**1.76**	**3.10**
	08/13/97	**11.6**	**4.1**	0.49	**0.82**
	08/05/98	**13.7**	**5.96**	<0.500	**0.991**
MW-7	04/03/90	**6.1**	0.36	**3.9**	0.26
	06/27/91	**3.2**	**1.4**	0.023	0.13
	07/30/92	0.001	<0.001	<0.001	<0.001
	07/21/93	**0.040**	0.57	<0.001	**1.27**
	07/25/94	0.003	0.002	0.001	0.005
	08/09/95	**0.083**	0.001	0.002	<0.003
	08/27/96	**1.14**	<0.010	<0.010	<0.010
	08/13/97	**1.39**	<0.025	<0.025	<0.025
	08/05/98	**1.63**	<0.010	<0.010	<0.010
	08/19/99	**1.50**	0.016	0.02	0.016
	08/16/00	**0.036**	0.014	<0.01	0.01
	08/01/01	0.006	<0.005	<0.005	<0.005
	08/13/02	**0.026**	<0.005	<0.005	<0.005
	09/16/03	0.008	<0.001	0.001	<0.001
MW-8	04/06/90	**18**	**0.83**	**7.1**	0.29
	06/27/91	**21**	**1.3**	0.012	0.42
	07/30/92	**13**	0.38	0.37	0.18

Table 3
Summary of Historical Groundwater BTEX Results
DEFS - Lee Gas Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-9	08/11/90	0.006	0.001	0.001	0.002
	01/23/91	0.007	0.001	0.005	0.002
	06/27/91	**0.16**	0.056	0.003	0.004
	10/17/91	0.002	0.003	0.002	<0.001
	01/23/92	<0.001	0.003	0.005	<0.001
	04/28/92	<0.001	0.001	<0.001	<0.001
	07/30/92	**0.31**	0.004	0.010	0.003
	10/21/92	**3.0**	0.28	0.11	0.12
	01/20/93	**5.9**	0.004	0.022	0.011
	04/15/93	**2.2**	0.011	0.020	0.040
	07/21/93	**0.673**	0.314	0.029	0.069
	07/25/94	**0.495**	<0.01	<0.01	<0.03
	08/09/95	**5.86**	<0.025	<0.025	<0.075
	08/27/96	**0.327**	<0.001	<0.001	<0.001
	08/12/97	**0.138**	<0.001	<0.001	<0.001
	08/06/98	**0.892**	<0.010	<0.010	<0.010
	08/19/99	**13.6**	0.25	<0.050	0.073
	08/16/00	**2.92**	<0.005	0.024	<0.005
	08/01/01	**4.88**	<0.1	<0.1	<0.1
	08/14/02	**1.57**	<0.005	0.013	<0.005
	09/16/03	**8.67**	<0.1	0.146	<0.1
MW-10	08/10/90	**1.3**	0.050	0.034	0.016
	01/23/91	**0.98**	0.015	0.016	<0.005
	06/27/91	**9.7**	0.42	0.084	0.039
	07/21/93	0.004	<0.002	<0.002	NS
	07/25/94	**4.16**	0.21	0.23	**0.86**
	08/09/95	**3.66**	0.033	<0.025	<0.075
	08/27/96	**2.98**	0.060	<0.025	<0.025
	08/12/97	**4.71**	<0.050	<0.050	<0.050
	08/06/98	**1.50**	0.011	0.013	0.008
	08/20/99	**1.01**	<0.010	<0.010	<0.010
	08/17/00	**3.70**	<0.005	<0.005	<0.005
	08/01/01	**3.43**	<0.05	<0.05	<0.05
	08/14/02	**7.99**	<0.05	<0.05	<0.05
	09/16/03	**2.42**	<0.1	<0.1	<0.1
MW-11	08/10/90	0.001	0.002	0.003	0.006
	06/26/91	<0.002	<0.002	<0.002	<0.003
	10/17/91	0.002	0.002	<0.001	<0.001
	01/23/92	<0.001	<0.001	<0.001	<0.001
	04/28/92	0.002	<0.001	<0.001	<0.001
	07/30/92	**0.031**	0.007	0.002	0.001
	10/21/92	**0.078**	0.130	0.022	0.051
	01/20/93	0.001	<0.001	<0.001	0.001
	04/15/93	0.001	<0.001	<0.001	0.001
	07/20/93	**0.016**	0.031	<0.002	0.012
	10/26/93	<0.002	<0.002	<0.002	<0.006
	01/06/94	0.004	0.006	<0.001	0.004
	05/03/94	<0.001	<0.001	0.001	0.004
	07/26/94	0.002	0.001	<0.001	<0.003
	10/12/94	<0.001	0.002	<0.001	<0.003
	03/16/95	<0.001	0.002	<0.001	0.003
	06/24/95	<0.001	0.001	<0.001	<0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001

Table 3
Summary of Historical Groundwater BTEX Results
DEFS - Lee Gas Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-11	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/19/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	0.001	<0.001	<0.001	<0.001
	08/16/00	<0.001	<0.001	<0.001	<0.001
	02/16/01	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.001	<0.001	<0.001	<0.001
	02/11/02	<0.001	<0.001	<0.001	<0.001
	08/13/02	<0.001	<0.001	<0.001	<0.001
	03/09/03	<0.001	<0.001	<0.001	<0.001
	09/16/03	<0.005	<0.005	<0.005	<0.005
MW-12	08/10/90	0.001	0.001	0.001	0.003
	01/23/91	**0.12**	0.001	0.004	0.001
	06/26/91	<0.002	0.002	<0.002	<0.003
	10/17/91	0.004	0.003	<0.001	<0.001
	01/23/92	<0.001	<0.001	<0.001	<0.001
	04/28/92	<0.001	<0.001	<0.001	<0.001
	07/30/92	**0.018**	0.004	0.001	0.001
	10/21/92	**0.064**	0.130	0.024	0.056
	01/20/93	**0.067**	0.001	<0.001	<0.001
	04/15/93	**0.030**	<0.001	<0.001	<0.001
	07/20/93	**0.011**	0.029	<0.002	0.012
	10/26/93	<0.002	<0.002	<0.002	<0.006
	01/06/94	0.003	0.004	<0.001	<0.003
	05/03/94	<0.001	0.002	0.001	0.004
	07/26/94	0.004	<0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.003
	03/16/95	<0.001	0.003	<0.001	0.004
	06/24/95	<0.001	<0.001	<0.001	<0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	**0.338**	<0.001	<0.001	<0.001
	08/16/00	<0.005	<0.005	<0.005	<0.005
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
	02/11/02	0.001	<0.001	<0.001	<0.001
	08/13/02	<0.001	<0.001	<0.001	<0.001
	03/09/03	<0.001	<0.001	<0.001	<0.001
	09/15/03	0.006	<0.001	<0.001	<0.001

Table 3
Summary of Historical Groundwater BTEX Results
DEFS - Lee Gas Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-13	01/27/91	**0.016**	0.003	0.019	0.005
	06/26/91	0.002	<0.002	<0.002	<0.003
	10/17/91	0.001	0.001	<0.001	<0.001
	01/23/92	<0.001	<0.001	<0.001	<0.001
	07/30/92	<0.001	<0.001	<0.001	<0.001
	10/21/92	**0.084**	0.150	0.026	0.062
	01/20/93	**0.028**	<0.001	<0.001	<0.001
	04/15/93	**0.013**	<0.001	<0.001	<0.001
	07/20/93	**0.015**	0.034	<0.002	0.013
	10/26/93	**0.029**	0.030	<0.002	0.010
	01/06/94	0.002	0.003	<0.001	<0.003
	05/03/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	0.007	0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.001
	03/16/95	<0.001	0.003	<0.001	<0.003
	06/24/95	<0.001	<0.001	<0.001	0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.001	<0.001	<0.001	<0.001
	08/15/00	<0.001	<0.001	<0.001	<0.001
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
	02/11/02	<0.001	<0.001	<0.001	<0.001
	08/13/02	0.003	<0.001	<0.001	<0.001
	03/09/03	<0.001	<0.001	<0.001	<0.001
	09/15/03	0.002	<0.001	<0.001	<0.001
MW-14	01/27/91	<0.001	<0.001	<0.001	<0.001
	06/27/91	<0.002	<0.002	<0.002	<0.003
	10/21/92	**0.043**	0.099	0.019	0.045
	01/20/93	**0.019**	<0.001	<0.001	0.001
	04/15/93	**0.013**	0.003	0.003	0.006
	04/25/96	**2.22**	<0.010	0.049	<0.010
	04/17/97	**3.79**	<0.025	0.050	<0.025
	08/13/97	**3.42**	<0.050	<0.050	<0.050
	08/06/98	0.002	<0.001	<0.001	<0.001
	08/19/99	**0.024**	<0.001	<0.001	<0.001
	08/17/00	**0.284**	<0.001	<0.001	<0.001
	08/01/01	**1.94**	<0.005	0.006	<0.005
	08/14/02	<0.001	<0.001	<0.001	<0.001
	09/16/03	0.002	<0.001	<0.001	<0.001
MW-15	10/29/91	**4.2**	0.45	0.10	0.10
	03/16/95	**6.24**	**0.981**	0.087	0.214

Table 3
Summary of Historical Groundwater BTEX Results
DEFS - Lee Gas Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-16	10/18/91	0.004	0.002	<0.001	<0.001
	07/30/92	**0.42**	0.077	0.008	0.008
	07/20/93	**1.19**	0.157	0.030	0.048
	07/26/94	**3.82**	**1.66**	0.120	<0.300
	08/10/95	**3.53**	0.540	0.137	0.378
	08/27/96	**0.724**	0.166	0.035	0.021
	08/13/97	**0.891**	0.216	0.042	0.081
	08/06/98	**1.950**	0.304	0.046	0.129
	08/20/99	**0.454**	0.053	<0.005	0.034
	08/17/00	**0.076**	0.003	0.001	0.003
	08/01/01	**0.018**	<0.005	<0.005	<0.005
	08/14/02	**0.016**	<0.001	<0.001	<0.001
	09/16/03	**0.081**	<0.001	<0.001	0.002
MW-17	10/27/91	0.008	0.002	<0.001	<0.001
	03/16/95	**0.062**	0.020	0.004	0.010
	01/16/96	<0.001	<0.001	<0.001	<0.001
	08/13/97	0.002	<0.001	<0.001	<0.001
	08/06/98	<0.001	<0.001	<0.001	<0.001
	08/19/99	**0.028**	0.002	<0.001	<0.001
	08/16/00	**0.037**	<0.005	<0.005	<0.005
	08/01/01	**0.148**	<0.005	<0.005	<0.005
	08/14/02	**0.015**	<0.001	<0.001	<0.001
	09/16/03	**0.010**	<0.001	<0.001	<0.001
MW-18	10/28/91	<0.001	0.001	<0.001	<0.001
	07/30/92	**0.023**	0.006	0.002	0.001
	07/20/93	**0.011**	0.029	<0.002	0.012
	01/06/94	<0.001	0.002	<0.001	<0.003
	07/26/94	**0.057**	0.008	0.002	<0.003
	03/16/95	<0.001	0.002	<0.001	<0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	01/16/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	08/13/97	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	08/19/99	<0.005	<0.005	<0.005	<0.005
	08/16/00	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.005	<0.005	<0.005	<0.005
MW-18	08/13/02	<0.001	<0.001	<0.001	<0.001
	09/16/03	<0.001	<0.001	<0.001	<0.001
MW-19	10/25/91	<0.001	0.001	<0.001	<0.001
	07/30/92	**0.014**	0.004	0.002	0.001
	07/20/93	**0.015**	0.036	<0.002	0.014
	10/26/93	**0.011**	0.012	<0.002	<0.006
	01/06/94	0.003	0.003	<0.001	<0.003
	05/03/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	0.005	<0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.003
	03/16/95	**0.079**	0.028	0.005	0.011
	05/24/95	0.003	0.004	0.002	0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001

Table 3
Summary of Historical Groundwater BTEX Results
DEFS - Lee Gas Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-19	02/15/99	<0.005	<0.005	<0.005	<0.005
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.005	<0.005	<0.005	<0.005
	08/15/00	<0.001	<0.001	<0.001	<0.001
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
	02/11/02	<0.001	<0.001	<0.001	<0.001
	08/13/02	<0.001	<0.001	<0.001	<0.001
	03/09/03	<0.001	<0.001	<0.001	<0.001
	09/15/03	<0.001	<0.001	<0.001	<0.001
MW-20	10/29/91	**0.080**	0.041	0.003	0.003
	01/23/92	<0.001	<0.001	<0.001	<0.001
	07/30/92	**0.22**	0.076	0.006	0.006
	01/20/93	<0.001	<0.001	<0.001	<0.001
	04/15/93	0.001	<0.001	<0.001	0.002
	07/20/93	**0.217**	0.102	0.011	0.034
	10/26/93	**0.018**	0.014	<0.002	<0.006
	01/06/94	0.004	0.005	0.003	0.010
	05/03/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	<0.001	<0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.003
	03/16/95	0.001	0.006	<0.001	0.006
	06/24/95	<0.001	<0.001	<0.001	0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.005	<0.005	<0.005	<0.005
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.005	<0.005	<0.005	<0.005
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.005	<0.005	<0.005	<0.005
	08/15/00	<0.005	<0.005	<0.005	<0.005
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	0.002	0.002
	02/11/02	<0.005	<0.005	<0.005	<0.005
	08/13/02	<0.005	<0.005	<0.005	<0.005
	03/09/03	<0.001	<0.001	<0.001	<0.001
	09/15/03	<0.001	<0.001	<0.001	<0.001
MW-21	07/20/93	**37**	**5**	**<2**	**<6**
	04/23/94	0.007	<0.001	<0.001	<0.003
	05/04/94	**0.517**	0.052	<0.001	<0.003
	07/26/94	**0.078**	0.051	<0.001	0.011
	03/16/95	**0.042**	<0.001	<0.001	<0.003
	10/10/95	**0.092**	<0.001	<0.001	<0.001
	04/25/96	0.001	<0.001	<0.001	<0.001
	11/20/96	**0.010**	<0.001	<0.001	<0.001
	04/17/97	**3.51**	<0.025	<0.025	<0.025
	08/13/97	**33**	0.31	0.73	**0.90**
	01/20/98	**11.0**	<0.100	<0.100	<0.100
	08/06/98	<0.001	<0.001	<0.001	<0.001

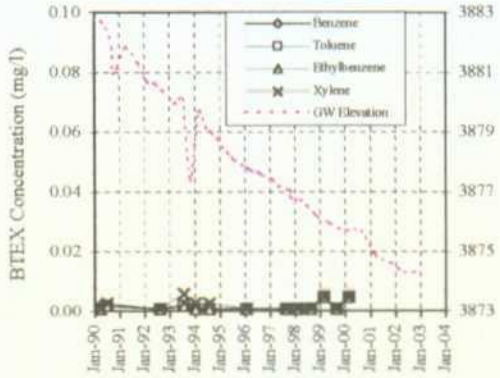
Table 3
Summary of Historical Groundwater BTEX Results
DEFS - Lee Gas Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-21	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/19/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.005	<0.005	<0.005	<0.005
	08/16/00	<0.005	<0.005	<0.005	<0.005
	02/16/01	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.005	<0.005	<0.005	<0.005
	02/11/02	<0.005	<0.005	<0.005	<0.005
	08/14/02	<0.001	<0.001	<0.001	<0.001
	03/09/03	**0.362**	<0.001	0.018	0.010
	09/16/03	**5.580**	<0.005	0.153	0.148
MW-22	07/20/93	**0.170**	0.065	0.036	0.048
	04/23/94	**2.52**	0.26	**<0.10**	**<0.30**
	05/04/94	0.007	0.002	<0.001	0.007
	07/26/94	0.005	0.001	<0.001	<0.003
	03/16/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	08/13/97	0.002	0.001	<0.001	<0.001
	08/06/98	<0.001	0.006	<0.001	<0.001
	08/19/99	<0.005	<0.005	<0.005	<0.005
	08/16/00	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
	08/14/02	<0.001	<0.001	<0.001	<0.001
	09/16/03	<0.005	<0.005	<0.005	<0.005
MW-23	07/20/93	**0.190**	0.130	0.010	0.046
	08/13/97	<0.001	<0.001	<0.001	<0.001
WS-1	Mar-90	**0.015**	0.004	0.002	0.004
	08/10/90	**0.010**	0.001	0.001	0.001
	06/27/91	0.007	<0.002	<0.002	<0.003
	01/23/92	**0.110**	0.020	0.020	0.010
	07/30/92	**0.015**	0.003	0.003	0.002
	04/15/93	0.007	0.003	0.002	0.002
	07/26/94	**0.020**	<0.001	0.002	<0.003
WS-2	Mar-90	0.007	<0.001	0.001	<0.001
	06/27/91	**0.280**	0.027	0.002	0.003
	01/23/92	**0.010**	<0.001	<0.001	<0.001
	07/30/92	**0.46**	0.011	0.005	0.002
	04/15/93	**1.6**	<0.001	0.019	0.014
RW-1	04/04/90	**2.6**	0.32	0.58	0.19
RW-2	09/16/03	**0.625**	<0.01	<0.01	<0.01
RW-3	09/16/03	**12.4**	**5.01**	**1.78**	**2.04**
WQCC Standards (mg/l)		0.010	0.75	0.75	0.62

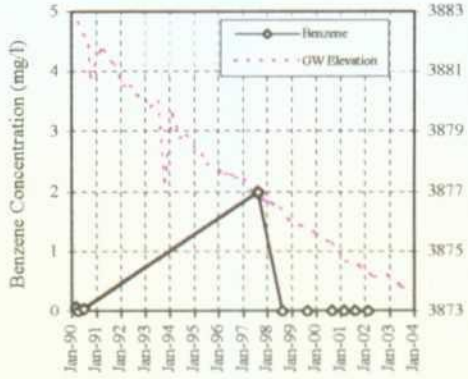
Samples analyzed for BTEX using EPA Method 602/8021B.
New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

Figure 4A
Hydrocarbon Concentration Versus Time (Central Area Wells)

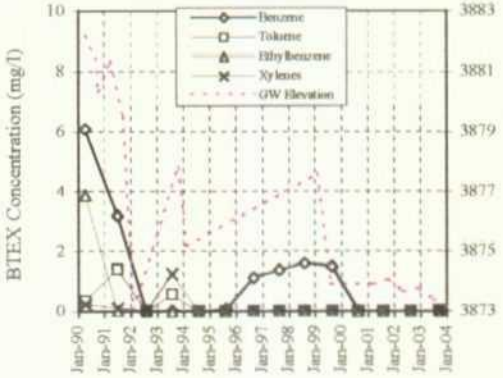
MW-2



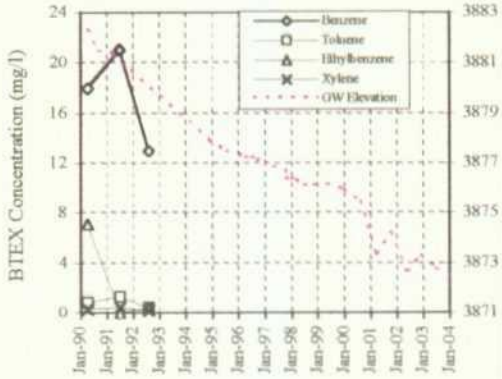
MW-3



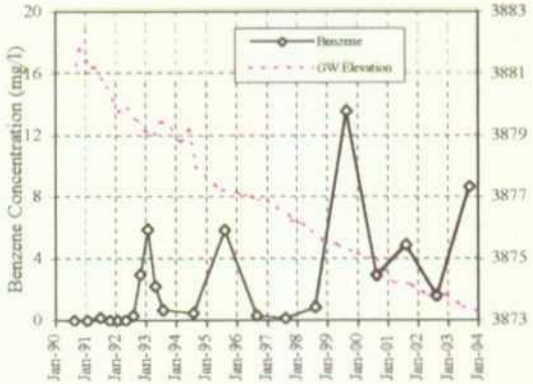
MW-7



MW-8



MW-9



MW-10

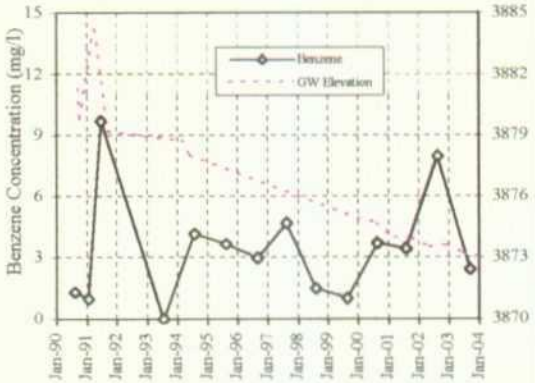
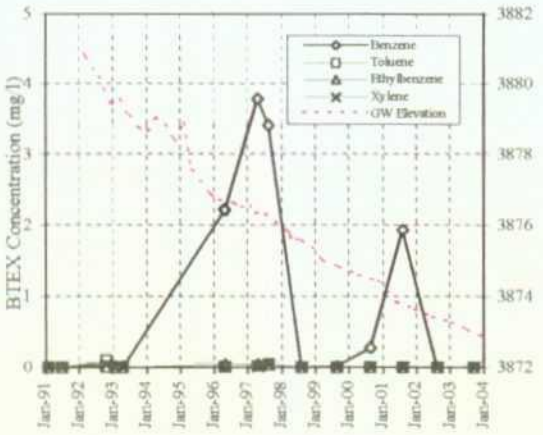
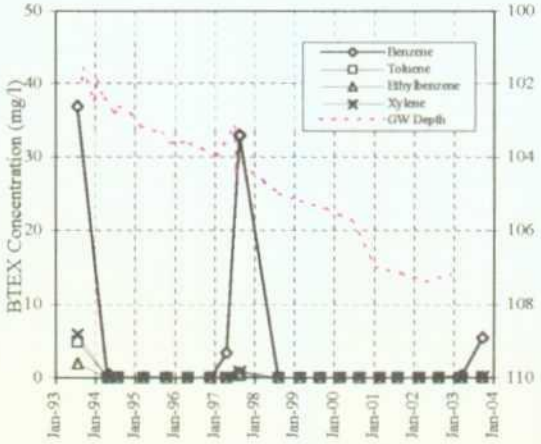


Figure 4A (continued)
Hydrocarbon Concentration Versus Time (Central Area Wells)

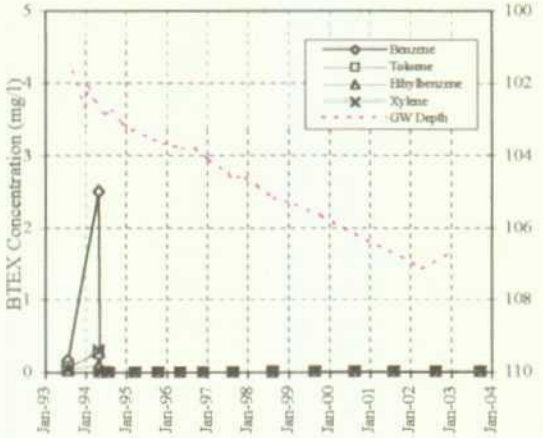
MW-14



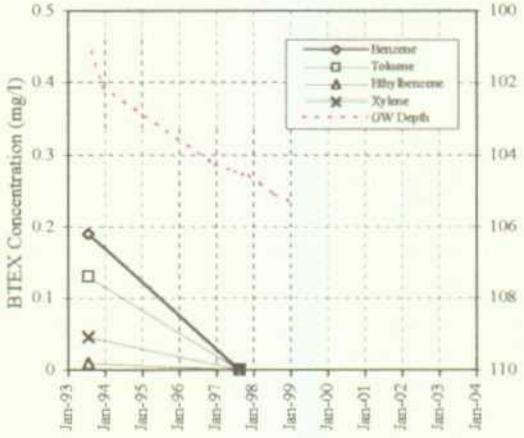
MW-21



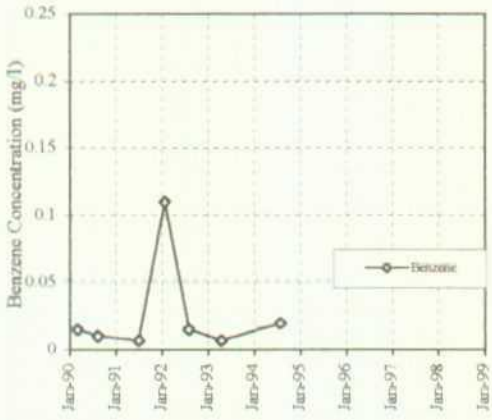
MW-22



MW-23



WS-1



WS-2

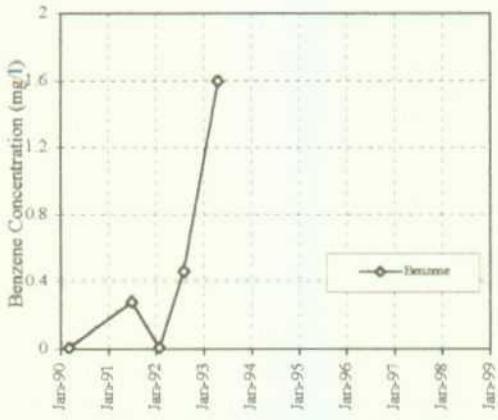


Figure 4B
Hydrocarbon Concentration Versus Time (North Area Wells)

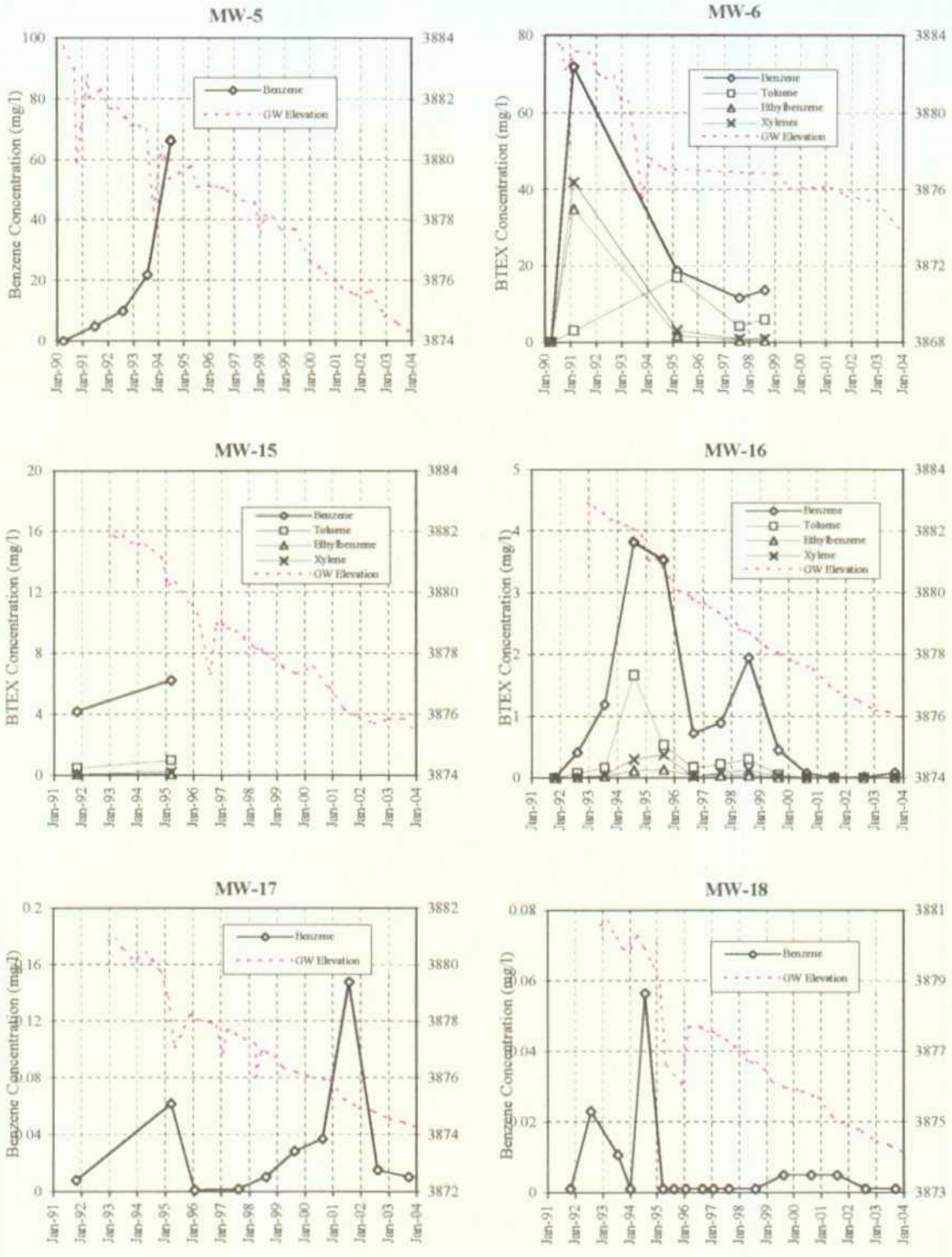
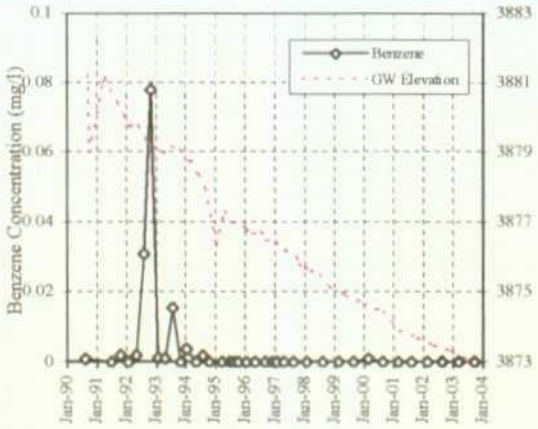
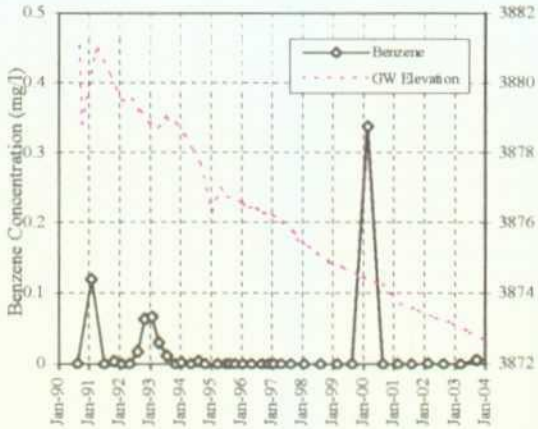


Figure 4C
Hydrocarbon Concentration Versus Time (Downgradient - South Area Wells)

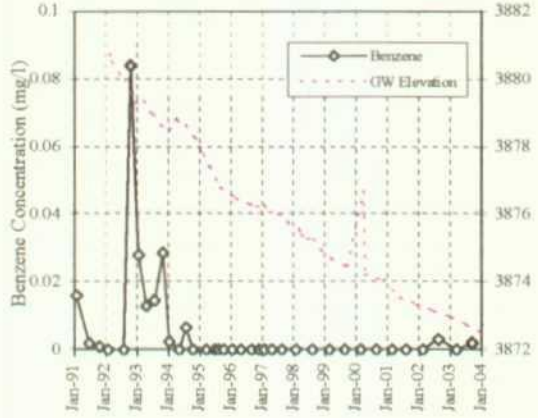
MW-11



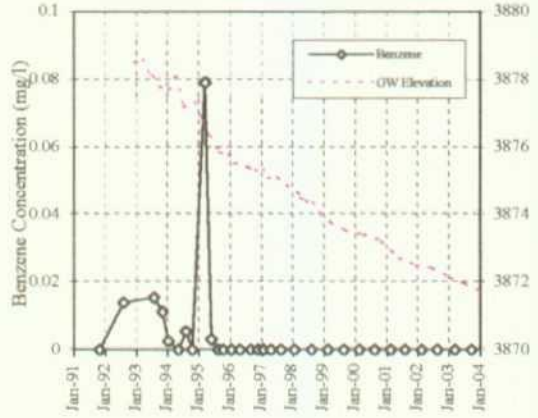
MW-12



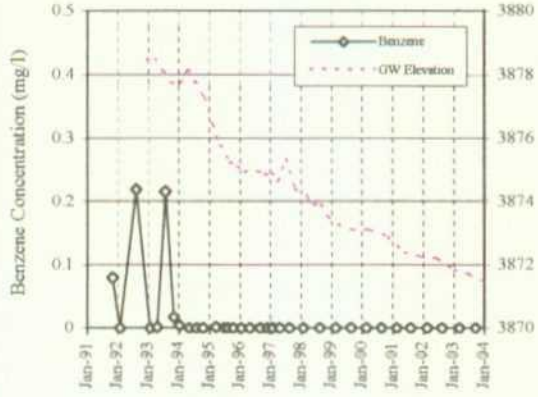
MW-13



MW-19



MW-20



6.0 Monitoring Natural Attenuation

During biodegradation, dissolved BTEX is ultimately transformed into carbon dioxide, methane, and water. Biodegradation of BTEX dissolved in groundwater results in a reduction of contaminant concentration (and mass) and slowing (retardation) of the contaminant relative to the average advective groundwater flow velocity. Indigenous hydrocarbon-degrading microorganisms transform available nutrients into forms useful for energy and cell reproduction by facilitating the transfer of electrons from donors to acceptors. This results in oxidation of the electron donor and reduction of the electron acceptor. Electron donors include natural organic material and petroleum hydrocarbons. Electron acceptors are elements or compounds that occur in relatively oxidized states. The more important electron acceptors in groundwater, in order of utilization, include dissolved oxygen, (DO), nitrate (NO_3), ferric iron (Fe^{3+}), sulfate (SO_4), and carbon dioxide (CO_2).

Biodegradation causes measurable changes in groundwater geochemistry. During aerobic respiration, oxygen is reduced to water, and dissolved oxygen concentrations decrease. In anaerobic systems where nitrate is an electron acceptor, the nitrate is reduced (denitrification) to NO_2^-, N_2O, NO, NH^{4+}, or N_2, and nitrate concentrations decrease. In anaerobic systems where ferric iron (Fe^{3+}) is an electron acceptor, it is reduced (iron reduction) to ferrous iron (Fe^{2+}), and Fe^{2+} concentrations increase. In anaerobic systems where sulfate is an electron acceptor, it is reduced to hydrogen sulfide (H_2S), and sulfate concentrations decrease (sulfate reduction). In anaerobic systems where CO_2 is used as an electron acceptor, methanogenic bacteria reduce it (methanogenosis) to methane (CH_4).

Using the stoichiometric derivations, the mass of benzene degraded per unit mass of electron acceptor utilized and metabolic byproduct produced was calculated to determine the biodegradation capacity of these constituents relative to the average benzene concentration observed on site during the 2003 annual sampling event. A conservative approach was taken in this analysis in that microbial cell mass production was not taken into account for nitrate or sulfate and only average concentrations of electron acceptors and metabolic byproducts were used. The table below summarizes this comparison.

Electron Acceptor/ Byproduct	Terminal Electron Accepting Process (in order of preferred utilization)	Trend in Analyte Concentration During Biodegradation	Mass of benzene Degraded per unit mass of Electron Acceptor Utilized	Mass of benzene Degraded per unit mass of Metabolic Byproduct Produced	Available Concentrations of Electron Acceptors/ Byproducts (mg/L)	Biodegradation Capacity of Electron Acceptors/ Byproducts (mg/L)
DO	Aerobic Respiration	Decreases	0.97	—	1.67	1.62
NO_3*	Denitrification	Decreases	0.21	---	3.48	0.73
Mn^{2+}	Manganese Reduction	Increases	---	0.140	5.80	0.81
Fe^{2+}	Ferric Iron Reduction	Increases	---	0.046	3.22	0.15
SO_4*	Sulfate Reduction	Decreases	0.22	---	41.4	9.11
					Total Biodegradation Capacity	12.42
					Average Benzene Concentration Observed on site During 2003 Annual Sampling Event	5.63

* Concervative assumption (does not take into account microbial cell mass production)

Degradation capacity based on values provided by "*Technical Protocol for Implementing Intrinsic Remediation With Long-Term Monitoring of Natural Attenuation of Fuel-Contamination Dissolved in Groundwater*" (Volume 1, 1995, Air Force Center for Environmental Excellence, Technology Transfer Division)

Our suite of biological parameters included dissolved oxygen, nitrate, sulfate, total dissolved iron, ferrous iron, and manganese. These electron acceptor results are summarized in Table 4 below.

Table 4
Summary of Biological Parameters

Monitoring Well	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Total Iron (mg/L)	Ferrous Iron (mg/L)	Manganese (mg/L)
MW-7	08/13/02	2.86	<1.0	28.2	0.490	0.55	2.07
	09/16/03	0.77	1.61	21.5	2.40	1.22	1.09
MW-9	08/13/02	1.68	3.60	11.0	7.06	9.70	1.68
	09/16/03	0.00	1.53	6.6	6.25	3.22	1.46
MW-10	08/13/02	1.57	4.80	16.5	8.22	8.44	3.27
	09/16/03	0.00	1.88	44.8	13.2	3.04	3.36
MW-11	08/13/02	1.90	2.27	30.3	<0.050	0.03	0.906
	09/16/03	0.60	1.93	19.3	<0.050	0.01	0.783
MW-12	08/13/02	1.58	<1.0	22.4	0.086	0.07	0.494
	09/16/03	0.04	0.12	9.6	0.086	0.05	0.724
MW-13	08/13/02	2.47	<1.0	8.75	0.143	0.10	2.32
	09/16/03	0.44	<0.1	3.38	0.135	0.48	2.32
MW-14	08/13/02	2.21	2.00	79.0	2.93	2.52	7.39
	09/16/03	1.01	1.09	37.2	2.15	1.73	5.80
MW-16	08/13/02	2.53	2.10	59.2	<0.050	0.08	0.062
	09/16/03	1.67	3.05	34.9	<0.050	0.39	0.064
MW-17	08/13/02	1.72	0.60	48.0	0.590	0.68	0.362
	09/16/03	0.00	0.73	24.9	0.704	0.65	0.417
MW-18	08/13/02	1.30	<1.0	61.4	<0.050	0.08	0.387
	09/16/03	0.07	0.45	40.9	<0.050	0.11	0.366
MW-19	08/13/02	2.78	3.19	16.9	<0.050	0.03	0.034
	09/16/03	0.31	3.58	18.3	<0.050	0.00	<0.025
MW-20	08/13/02	5.56	1.67	44.9	<0.050	0.16	<0.025
	09/16/03	0.24	1.95	26.1	<0.050	0.02	<0.025
MW-21	08/13/02	6.45	1.40	13.7	<0.050	0.33	<0.025
	09/16/03	8.15	1.41	11.2	4.99	1.75	0.632
MW-22	08/13/02	7.91	1.50	46.3	0.453	0.72	0.063
	09/16/03	1.38	0.70	25.2	1.29	0.57	0.190
RW-2	09/16/03	1.05	1.93	20.2	3.60	1.64	1.220
RW-3	09/16/03	0.34	1.29	8.4	12.3	2.48	1.070

Monitoring wells not listed above were not analyzed for these constituents due to the presence of light non-aqueous phase liquids (LNAPL).

Generally, hydrocarbon-impacted wells are compared against upgradient and downgradient wells to observe whether or not significant differences are observed in electron acceptor concentrations that may be related to subsurface biodegradation. The relationships in the electron acceptor data are observed:

- Generally, dissolved oxygen levels are lower within the hydrocarbon-impacted plume area compared to the downgradient and upgradient wells indicating active aerobic biodegradation conditions.

- Decreasing trends indicating denitrification and sulfate reduction are not evident due to lack of historical data, however, the presence of nitrate and sulfate as electron acceptors indicate their availability to microorganisms in the course of hydrocarbon degradation.

- Significantly higher concentrations of the metabolic byproducts iron and manganese in hydrocarbon-impacted wells indicates iron and manganese reduction conditions that are the result of anaerobic biodegradation processes.

- The biodegradation capacity of electron acceptors and metabolic byproducts (12.42 mg/L) exceeds the average benzene concentration (5.63 mg/L) observed on site during the 2003 annual groundwater sampling event. This indicates that the biodegradation process will continue.

- Continued monitoring of biological parameters will be necessary to assess the efficacy of intrinsic bioremediation processes occurring on site.

Another approach to analyzing the efficacy of biodegradation is to compare the concentrations of various biological parameters versus the downgradient distance from the source of hydrocarbons. However, at Lee Plant there appears to be four separate or contiguous source areas (RW-1, MW-5, MW-6, and MW-8), therefore there is not a linear arrangement of wells progressing from within the source area to outside of it to make a proper analysis using this technique. Nonetheless, monitoring wells RW-3, MW-9, MW-10, MW-14, MW-13, were plotted in order of their downgradient distance from the nearest source (RW-1) and plotted in Figure 5 to evaluate if any trends were evident. With this analysis the relationships in the electron acceptor data are observed:

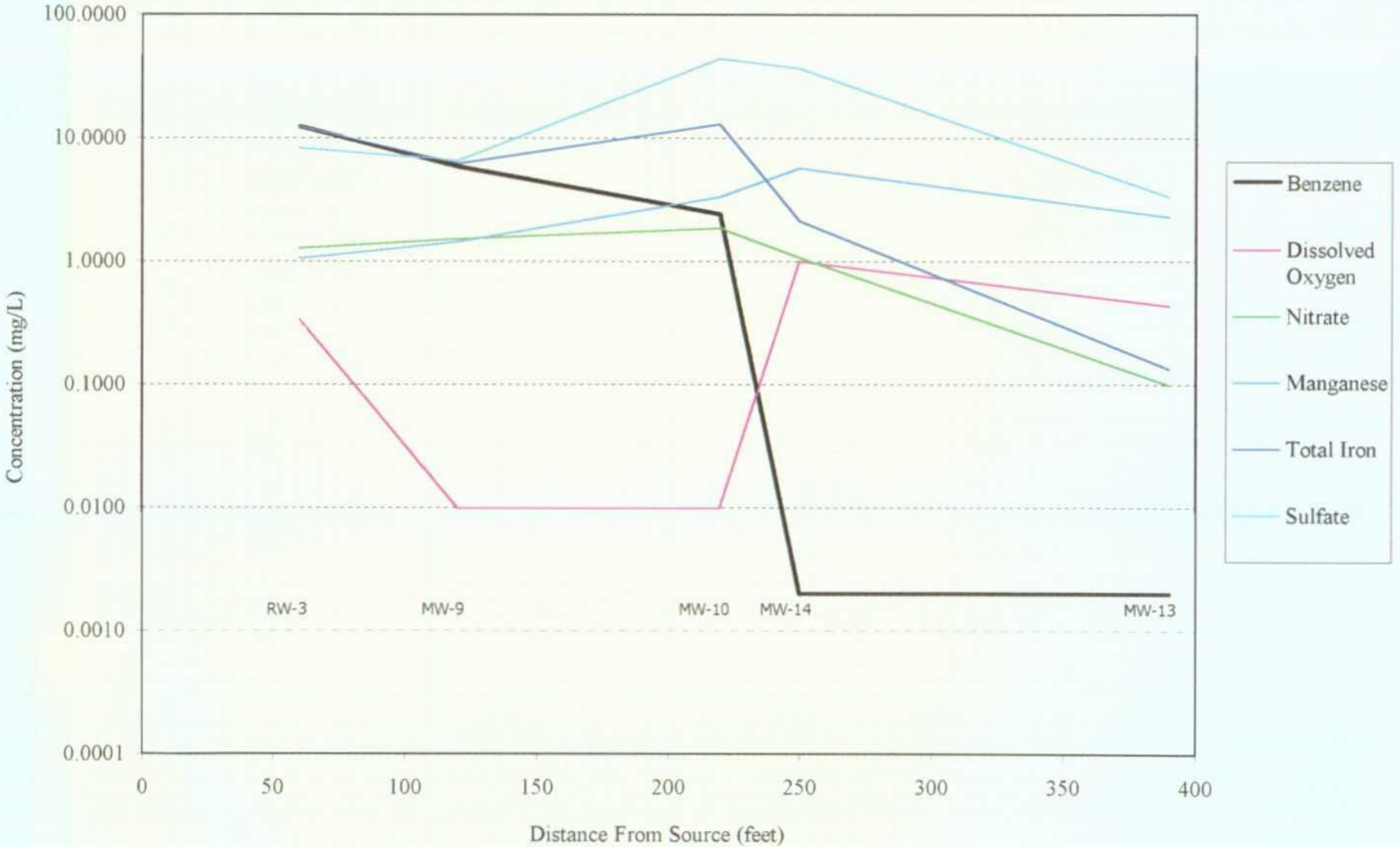
- Generally, DO values are low and benzene values are high within the plume indicating that oxygen is being utilized as an electron acceptor (aerobic respiration).

- Nitrate and sulfate concentrations decrease in the downgradient direction as they are being utilized as electron acceptors, which indicates denitrification and sulfate reduction processes are occurring.

- Managanese concentrations are significantly higher within the plume indicating the availability of manganese as a metabolic byproduct.

- Ferric and ferrous concentrations are significantly higher within the plume indicating the availability of ferric iron as an electron acceptor and ferrous iron being produced as a metabolic byproduct.

Figure 5
Benzene and Biological Parameter Concentrations
Versus Downgradient Distance From Source
(September 15-16, 2003)



7.0 Remediation System Performance

The groundwater recovery, air sparging, vapor extraction, and product recovery systems have been effective in limiting the downgradient migration of the dissolved-phase hydrocarbon plume.

The estimated total fluid extraction volumes from the remediation system recovery wells, for the first quarter of 2003 through the fourth quarter of 2003, are summarized in Table 5. A graphical representation of monthly groundwater recovery volumes for the period of record (January 1, 2003 through December 31, 2003) is depicted in Figure 5. An estimated total of 2.4 million gallons of groundwater will have been recovered by the three recovery wells (RW-2, RW-3, and RW-4) during the period of record. Recovery wells RW-2 and RW-3 have been in pumping throughout 2003 however, the pump in RW-4 has been inoperative since April 23, 2003, and is in need of repair or replacement if pumping is to be resumed at that location.

The Xitech product recovery system has been operational at MW-6 for most of the year and has recovered approximately 139 gallons of free product (condensate) from January through October 2003. Due to the declining water table, MW-6 is no longer is deep enough to accommodate the complete Xitech pump assembly. Therefore, the Xitech pump is now in the well without the lower filter assembly attached and thus is not capable of recovering product to a sheen because the filter cannot float at the product/water interface.

LNAPL has also been observed in monitoring wells MW-5, MW-8, and MW-15, therefore passive bailers, absorbent socks, and hand bailing methods have been implemented to remove the free product from these wells. The lack of LNAPL (less than 0.01 feet) in MW-8 during 2003 can be attributed to the successful performance of total fluid recovery from RW-3, which is adjacent to MW-8. Similarly, the total fluid pumping at RW-2 draws product towards MW-6 allowing increased product recovery rates from the Xitech system in that well. Although the groundwater recovery wells have also been effective in recovering free product, the total amount of free product recovered from these wells is unknown. A summary of the measurable free product recovery volumes from (January 2003 through October 2003 is provided in Table 6. A total of 158.3 gallons of measurable free product was recovered during the 10-month period of record.

Vapor extraction utilizing a Roots positive displacement blower (Model 24URAI – 2 hp) at RW-1 has been in operation since August 1993. Air sparging is accomplished by means of a 1 HP Gast® Piston air compressor, which has been injecting air into MW-23 since July 10, 1998. When in operation, the vapor extraction and air sparge systems has been effective in reducing BTEX concentrations in MW-21 to levels below the laboratory detection for each constituent. However, the air sparge system has been periodically inoperative during 2003, thus BTEX concentrations have shown an increase in MW-21 (benzene level is 5.58 mg/L as of September 16, 2003). Another reason for increased BTEX levels in MW-21 can be attributed to RW-4, which has not been pumping total fluids since April 2003.

Table 5
Total Fluids Extraction Volumes for 1/1/03-12/31/03
Duke Energy Field Services - Lee Gas Plant

Month - Year	Gallons of Groundwater Recovered			
	RW-2	RW-3	RW-4	Monthly Totals
Jan-03	49,085	250,776	186,184	486,045
Feb-03	40,186	159,869	30,931	230,986
Mar-03	48,873	119,938	45,000	213,811
Apr-03	45,360	149,688	0	195,048
May-03	29,808	86,443	0	116,251
Jun-03	41,472	120,269	0	161,741
Jul-03	40,176	111,600	0	151,776
Aug-03	38,880	108,000	0	146,880
Sep-03	22,032	81,518	0	103,550
Oct-03	55,728	180,187	0	235,915
Nov-03	41,472	134,093	0	175,565
Dec-03	40,176	129,902	0	170,078
Well Totals	493,248	1,632,284	262,115	**2,387,647**

Figure 6
Total Fluid Extraction Volumes for 1/1/03-12/31/03

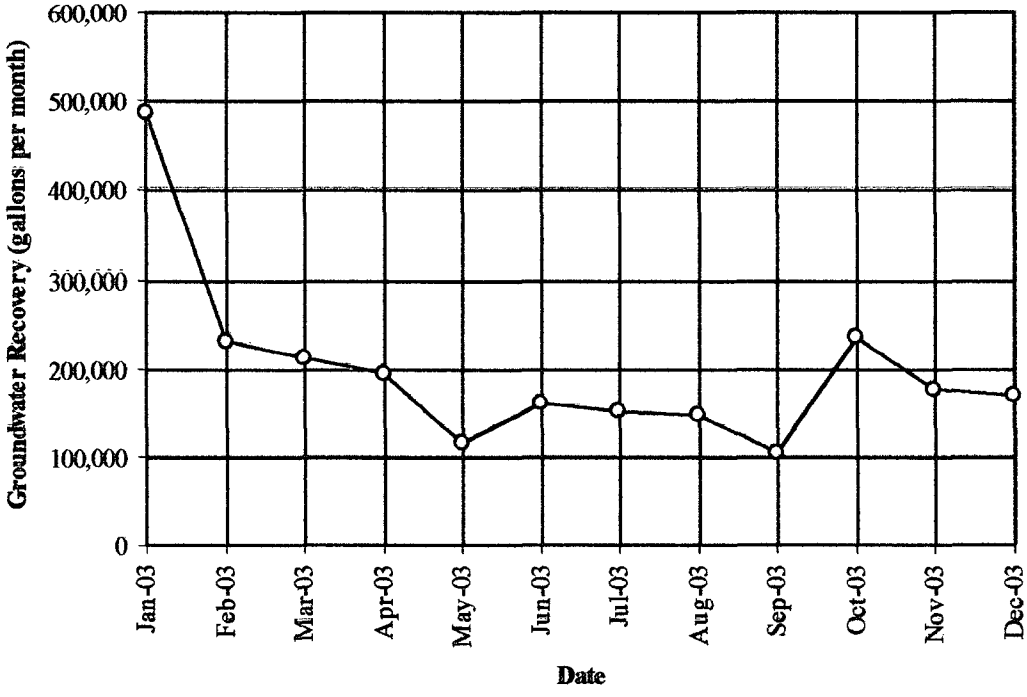


Table 6

Measurable Free Product Recovery Volumes for 01/01/03-12/31/03

Duke Energy Field Services - Lee Gas Plant

Month - Year	Measurable Free Product Recovered (gallons)				
	MW-5	MW-6*	MW-8	MW-15	Monthly Totals
Jan-03	0.67	7.0	0.00	0.33	8.0
Feb-03	0.56	20.0	0.00	0.33	20.9
Mar-03	0.75	7.0	0.00	0.20	8.0
Apr-03	2.23	2.0	0.00	0.37	4.6
May-03	1.56	5.0	0.00	0.37	6.9
Jun-03	1.32	4.0	0.00	0.40	5.7
Jul-03	3.00	30.0	0.00	0.37	33.4
Aug-03	1.45	2.0	0.00	0.33	3.8
Sep-03	1.50	12.0	0.00	0.37	13.9
Oct-03	2.50	50.0	0.00	0.69	53.2
Well Totals	15.5	139.0	0.0	3.8	158.3

* Actual free product recovery volumes are underestimated due to evaporation of product from storage tank which cannot be measured. Also, total fluid recovery from submersible pumps in RW-2, RW-3, & RW-4 recover free product in those wells and also MW-6 & MW-8

8.0 Conclusions

Based on the sampling and monitoring data to date, the following conclusions relevant to groundwater conditions and remediation system performance at the Lee Gas Plant are evident:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations in monitoring wells (MW-7, MW-11, MW-12, MW-13, MW-14, MW-18, MW-19, MW-20, and MW-22) are currently below the New Mexico Water Quality Control Commission (WQCC) standards.

- Benzene concentrations in the groundwater from wells located within the aerial extent of the dissolved-phase hydrocarbon plume (RW-2, RW-3, MW-9, MW-10, MW-16, MW-17, and MW-21) were above WQCC standards during 2003. Toluene, ethylbenzene, and xylene concentrations in all of the wells were below the WQCC standards with the exception of recovery well RW-3.

- During the September 15, 2003 monitoring event, light non-aqueous phase liquid (LNAPL) was measured in monitoring wells MW-5 (0.88 feet), MW-6 (3.92 feet), and MW-15 (0.10 feet).

- An estimated total of 2.4 million gallons of groundwater was recovered by three recovery wells during the 1-year period of record (January 1, 2003 through December 31, 2003).

- The hydraulic gradient is approximately 0.003 feet/foot and the direction of groundwater flow is to the southwest based on the gauging data obtained on September 15, 2003.

- The average water table elevations across the site have decreased by an average of about 1-foot per year since March 28, 1988.

9.0 Recommendations

The following recommendations are proposed for the remediation system and monitoring operations at the Lee Gas Plant.

- Continue LNAPL recovery at MW-6 with the Xitech system.
- Continue free product recovery from MW-5, MW-8, and MW-15 using passive bailers and/or hydrophobic adsorbent socks, and hand bailing methods as appropriate.
- Continue vapor extraction and air sparging operations at RW-1 and MW-23, respectively.
- Continue the program of monitoring natural attenuation that includes the analysis of dissolved oxygen (DO), nitrate (NO_3), sulfate (SO_4), ferric iron (Fe^{3+}), ferrous iron (Fe^{2+}), and manganese (Mn) to assess the efficacy of intrinsic bioremediation processes occurring on site.
- Continue the sampling and monitoring program on a semi-annual basis. The next sampling event is scheduled during the first quarter of 2004.

Appendix A

Laboratory Analytical Reports

and

Chain-of-Custody Documentation

Summary Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, TX 79708

Report Date: March 21, 2003

Work Order: 3031310

Cost Center No.: V-101
Project Location: Lee Gas Plant
Project Name: Duke Energy Field Servieces
Project Number: Lee Gas Plant

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
2280	MW-21	Water	2003-03-09	15:20	2003-03-13
2281	Duplicate	Water	2003-03-09	00:00	2003-03-13
2282	Trip Blank	Water	2003-03-09	00:00	2003-03-13
2275	MW-20	Water	2003-03-09	10:20	2003-03-13
2276	MW-19	Water	2003-03-09	11:20	2003-03-13
2277	MW-13	Water	2003-03-09	12:20	2003-03-13
2278	MW-12	Water	2003-03-09	13:10	2003-03-13
2279	MW-11	Water	2003-03-09	13:46	2003-03-13

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (isomers) (mg/L)
2275 - MW-20	<0.00100	<0.00100	<0.00100	<0.00100
2276 - MW-19	<0.00100	<0.00100	<0.00100	<0.00100
2277 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100
2278 - MW-12	<0.00100	<0.00100	<0.00100	<0.00100
2279 - MW-11	<0.00100	<0.00100	<0.00100	<0.00100
2280 - MW-21	0.362	<0.00100	0.0179	0.0103
2281 - Duplicate	0.916	<0.00500	0.0488	0.0367
2282 - Trip Blank	<0.00100	<0.00100	<0.00100	<0.00100

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, TX 79708

Report Date: March 21, 2003

Work Order: 3031310

Cost Center No.: V-101
Project Location: Lee Gas Plant
Project Name: Duke Energy Field Servieces
Project Number: Lee Gas Plant

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
2275	MW-20	Water	2003-03-09	10:20	2003-03-13
2276	MW-19	Water	2003-03-09	11:20	2003-03-13
2277	MW-13	Water	2003-03-09	12:20	2003-03-13
2278	MW-12	Water	2003-03-09	13:10	2003-03-13
2279	MW-11	Water	2003-03-09	13:46	2003-03-13
2280	MW-21	Water	2003-03-09	15:20	2003-03-13
2281	Duplicate	Water	2003-03-09	00:00	2003-03-13
2282	Trip Blank	Water	2003-03-09	00:00	2003-03-13

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 2275 - MW-20

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	352	Date Analyzed:	2003-03-13	Analyzed By:	DK
Prep Batch:	314	Date Prepared:	2003-03-13	Prepared By:	DK

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0976	mg/L	1	0.100	98	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0957	mg/L	1	0.100	96	77.8 - 110

Sample: 2276 - MW-19

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	352	Date Analyzed:	2003-03-13	Analyzed By:	DK
Prep Batch:	314	Date Prepared:	2003-03-13	Prepared By:	DK

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0999	mg/L	1	0.100	100	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0993	mg/L	1	0.100	99	77.8 - 110

Sample: 2277 - MW-13

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	365	Date Analyzed:	2003-03-13	Analyzed By:	CG
Prep Batch:	325	Date Prepared:	2003-03-13	Prepared By:	CG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.097	mg/L	1	0.100	97	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0968	mg/L	1	0.100	97	77.8 - 110

Sample: 2278 - MW-12

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	365	Date Analyzed:	2003-03-13	Analyzed By:	CG
Prep Batch:	325	Date Prepared:	2003-03-13	Prepared By:	CG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0978	mg/L	1	0.100	98	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0976	mg/L	1	0.100	98	77.8 - 110

Sample: 2279 - MW-11

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	365	Date Analyzed:	2003-03-13	Analyzed By:	CG
Prep Batch:	325	Date Prepared:	2003-03-13	Prepared By:	CG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.1	mg/L	1	0.100	100	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0989	mg/L	1	0.100	99	77.8 - 110

Sample: 2280 - MW-21

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	365	Date Analyzed:	2003-03-13	Analyzed By:	CG
Prep Batch:	325	Date Prepared:	2003-03-13	Prepared By:	CG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		0.362		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		0.0179		mg/L	1	0.00100
Xylene (isomers)		0.0103		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0953	mg/L	1	0.100	95	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.096	mg/L	1	0.100	96	77.8 - 110

Sample: 2281 - Duplicate

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	365	Date Analyzed:	2003-03-13	Analyzed By:	CG
Prep Batch:	325	Date Prepared:	2003-03-13	Prepared By:	CG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.916	mg/L	5	0.00100
Toluene		<0.00500	mg/L	5	0.00100
Ethylbenzene		0.0488	mg/L	5	0.00100
Xylene (isomers)		0.0367	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.457	mg/L	5	0.100	91	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.453	mg/L	5	0.100	91	77.8 - 110

Sample: 2282 - Trip Blank

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	365	Date Analyzed:	2003-03-13	Analyzed By:	CG
Prep Batch:	325	Date Prepared:	2003-03-13	Prepared By:	CG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.097	mg/L	1	0.100	97	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0962	mg/L	1	0.100	96	77.8 - 110

Method Blank (1) QC Batch: 352

Parameter	Flag	Result	Units	Reporting Limits
Benzene		<0.000410	mg/L	0.00041
Toluene		<0.000760	mg/L	0.00076
Ethylbenzene		<0.00120	mg/L	0.0012
Xylene (isomers)		<0.00362	mg/L	0.00183

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0958	mg/L	1	0.100	96	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0942	mg/L	1	0.100	94	77.8 - 110

Method Blank (1) QC Batch: 365

Parameter	Flag	Result	Units	Reporting Limits
Benzene		<0.000410	mg/L	0.00041
Toluene		<0.000760	mg/L	0.00076
Ethylbenzene		<0.00120	mg/L	0.0012
Xylene (isomers)		<0.00362	mg/L	0.00183

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0933	mg/L	1	0.100	93	78.7 - 110

continued ...

method blank continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		0.0943	mg/L	1	0.100	94	77.8 - 110

Laboratory Control Spike (LCS-1) QC Batch: 352

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0938	0.0911	mg/L	1	0.100	<0.000410	94	1	80.5 - 113	5
Toluene	0.0937	0.0922	mg/L	1	0.100	<0.000760	94	1	81.2 - 112	5
Ethylbenzene	0.0925	0.0928	mg/L	1	0.100	<0.00120	92	0	82.2 - 112	6
Xylene (isomers)	0.281	0.282	mg/L	1	0.300	<0.00183	94	0	80.6 - 112	6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0921	0.0936	mg/L	1	0.100	92	94	78.7 - 110
4-Bromofluorobenzene (4-BFB)	0.0929	0.0937	mg/L	1	0.100	93	94	77.8 - 110

Laboratory Control Spike (LCS-1) QC Batch: 365

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0935	0.0921	mg/L	1	0.100	<0.000410	94	1	80.5 - 113	5
Toluene	0.0945	0.0935	mg/L	1	0.100	<0.000760	94	0	81.2 - 112	5
Ethylbenzene	0.0949	0.0939	mg/L	1	0.100	<0.00120	95	0	82.2 - 112	6
Xylene (isomers)	0.288	0.286	mg/L	1	0.300	<0.00183	96	0	80.6 - 112	6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0951	0.0950	mg/L	1	0.100	95	95	78.7 - 110
4-Bromofluorobenzene (4-BFB)	0.0973	0.0963	mg/L	1	0.100	97	96	77.8 - 110

Standard (CCV-1) QC Batch: 352

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0938	94	85 - 115	2003-03-13
Benzene		mg/L	0.100	0.0938	94	85 - 115	2003-03-13
Toluene		mg/L	0.100	0.0957	96	85 - 115	2003-03-13
Toluene		mg/L	0.100	0.0957	96	85 - 115	2003-03-13
Ethylbenzene		mg/L	0.100	0.0952	95	85 - 115	2003-03-13
Ethylbenzene		mg/L	0.100	0.0952	95	85 - 115	2003-03-13
Xylene (isomers)		mg/L	0.300	0.289	96	85 - 115	2003-03-13
Xylene (isomers)		mg/L	0.300	0.289	96	85 - 115	2003-03-13

Standard (CCV-2) QC Batch: 352

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0928	93	85 - 115	2003-03-13

continued ...

standard continued . . .

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0928	93	85 - 115	2003-03-13
Toluene		mg/L	0.100	0.0937	94	85 - 115	2003-03-13
Toluene		mg/L	0.100	0.0937	94	85 - 115	2003-03-13
Ethylbenzene		mg/L	0.100	0.0941	94	85 - 115	2003-03-13
Ethylbenzene		mg/L	0.100	0.0941	94	85 - 115	2003-03-13
Xylene (isomers)		mg/L	0.300	0.285	95	85 - 115	2003-03-13
Xylene (isomers)		mg/L	0.300	0.285	95	85 - 115	2003-03-13

Standard (ICV-1) QC Batch: 365

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0918	92	85 - 115	2003-03-13
Toluene		mg/L	0.100	0.0930	93	85 - 115	2003-03-13
Ethylbenzene		mg/L	0.100	0.0936	94	85 - 115	2003-03-13
Xylene (isomers)		mg/L	0.300	0.284	94	85 - 115	2003-03-13

Standard (CCV-2) QC Batch: 365

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0912	91	85 - 115	2003-03-13
Toluene		mg/L	0.100	0.0923	92	85 - 115	2003-03-13
Ethylbenzene		mg/L	0.100	0.0922	92	85 - 115	2003-03-13
Xylene (isomers)		mg/L	0.300	0.280	93	85 - 115	2003-03-13

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas
(915) 682-0808
(915) 682-0727

V-101-0303-1

Chain of Custody

Date _____ Page _____ of _____

Lab Name: TraceAnalysis Inc.
Address: 6701 Aberdeen, Ste. 9
Lubbock, Texas 79424
Telephone: 806-794-1296

Samplers (SIGNATURES): Gilbert Van Deventer

Sample Identification		Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	TCLP Metals	Total Metals	Ions:						Number of Containers
MW-20	2275	Water	3-9-03	1020		✓																				2
MW-19	2276	Water	3-9-03	1120		✓																				2
MW-13	2277	Water	3-9-03	1220		✓																				2
MW-12	2278	Water	3-9-03	1310		✓																				2
MW-11	2279	Water	3-9-03	1346		✓																				2
MW-21	2280	Water	3-9-03	1520		✓																				2
Duplicate	2281	Water	3-9-03	0000		✓																				2
Trip Blank	2282					✓																				

Analysis Request

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Lee Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	
Cost Center No.:	V-101	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

Relinquished By:	Relinquished By:	Relinquished By:
(1) (Company) Trident Environmental	(2) (Company) Kris James 6:15	(3) (Company)
(Printed Name) Gilbert Van Deventer	(Printed Name) 5/12/03	(Printed Name)
(Signature) Gilbert Van Deventer	(Signature)	(Signature)
(Date) 3-11-03 (Time) 10:00 pm	(Date) (Time)	(Date) (Time)
Received By:	**Received By:**	**Received By:**
(1) (Company)	(2) (Company) Brenda Ward	(3) (Company)
(Printed Name)	(Printed Name) 3M	(Printed Name)
(Signature)	(Signature)	(Signature)
(Date) (Time)	(Date) 3/13/03 (Time) 11:10	(Date) (Time)

Copy signed original form for Trident Environmental records

MS 3/21

Summary Report

Dale Littlejohn
Trident Environmental
P.O. Box 7624
Midland, TX 79708

Report Date: October 8, 2003

Work Order: 3092108

Cost Center #: V-101
Project Location: Lee Gas Plant
Project Name: Duke Energy Field Servieces

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
17809	MW-7	water	2003-09-16	15:00	2003-09-20
17810	MW-9	water	2003-09-16	15:05	2003-09-20
17811	MW-10	water	2003-09-16	16:02	2003-09-20
17812	MW-11	water	2003-09-16	09:10	2003-09-20
17813	MW-12	water	2003-09-15	18:00	2003-09-20
17814	MW-13	water	2003-09-15	17:30	2003-09-20
17815	MW-14	water	2003-09-16	12:20	2003-09-20
17816	MW-16	water	2003-09-16	13:58	2003-09-20
17817	MW-17	water	2003-09-16	10:30	2003-09-20
17818	MW-18	water	2003-09-16	09:45	2003-09-20
17819	MW-19	water	2003-09-15	16:25	2003-09-20
17820	MW-20	water	2003-09-15	15:35	2003-09-20
17821	MW-21	water	2003-09-16	11:50	2003-09-20
17822	MW-22	water	2003-09-16	14:00	2003-09-20
17823	RW-2	water	2003-09-16	17:30	2003-09-20
17824	RW-3	water	2003-09-16	17:00	2003-09-20
17825	Duplicate	water	2003-09-16	00:00	2003-09-20
17826	Rinsate	water	2003-09-16	16:35	2003-09-20
17827	Trip Blank	water	2003-04-18	00:00	2003-09-20

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (isomers) (mg/L)
17809 - MW-7	0.00760	<0.00100	0.00120	<0.00100
17810 - MW-9	8.67	<0.100	0.146	<0.100
17811 - MW-10	2.42	<0.100	<0.100	<0.100
17812 - MW-11	<0.00500	<0.00500	<0.00500	<0.00500
17813 - MW-12	0.00610	<0.00100	<0.00100	<0.00100
17814 - MW-13	0.00170	<0.00100	<0.00100	<0.00100
17815 - MW-14	0.00170	<0.00100	<0.00100	<0.00100
17816 - MW-16	0.0807	<0.00100	<0.00100	0.00220
17817 - MW-17	0.00950	<0.00100	<0.00100	<0.00100
17818 - MW-18	<0.00100	<0.00100	<0.00100	<0.00100
17819 - MW-19	<0.00100	<0.00100	<0.00100	<0.00100
17820 - MW-20	<0.00100	<0.00100	<0.00100	<0.00100
17821 - MW-21	5.58	<0.0500	0.153	0.148

continued ...

... continued

Sample - Field Code	BTEX Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (isomers) (mg/L)
17822 - MW-22	<0.00500	<0.00500	<0.00500	<0.00500
17823 - RW-2	0.625	<0.0100	<0.0100	<0.0100
17824 - RW-3	12.4	5.01	1.78	2.04
17825 - Duplicate	9.20	<0.0500	0.155	<0.0500
17826 - Rinsate	0.0131	<0.00500	<0.00500	<0.00500
17827 - Trip Blank	<0.00100	0.00190	<0.00100	0.00180

Sample: 17809 - MW-7

Param	Flag	Result	Units	RL
Total Iron		2.40	mg/L	0.0500
Total Manganese		1.09	mg/L	0.0250

Sample: 17810 - MW-9

Param	Flag	Result	Units	RL
Total Iron		6.25	mg/L	0.0500
Total Manganese		1.46	mg/L	0.0250

Sample: 17811 - MW-10

Param	Flag	Result	Units	RL
Total Iron		13.2	mg/L	0.0500
Total Manganese		3.36	mg/L	0.0250

Sample: 17812 - MW-11

Param	Flag	Result	Units	RL
Total Iron		<0.0500	mg/L	0.0500
Total Manganese		0.783	mg/L	0.0250

Sample: 17813 - MW-12

Param	Flag	Result	Units	RL
Total Iron		0.0860	mg/L	0.0500
Total Manganese		0.724	mg/L	0.0250

Sample: 17814 - MW-13

Param	Flag	Result	Units	RL
Total Iron		0.135	mg/L	0.0500
Total Manganese		2.32	mg/L	0.0250

Sample: 17815 - MW-14

Param	Flag	Result	Units	RL
Total Iron		2.15	mg/L	0.0500
Total Manganese		5.80	mg/L	0.0250

Sample: 17816 - MW-16

Param	Flag	Result	Units	RL
Total Iron		<0.0500	mg/L	0.0500
Total Manganese		0.0640	mg/L	0.0250

Sample: 17817 - MW-17

Param	Flag	Result	Units	RL
Total Iron		0.704	mg/L	0.0500
Total Manganese		0.417	mg/L	0.0250

Sample: 17818 - MW-18

Param	Flag	Result	Units	RL
Total Iron		<0.0500	mg/L	0.0500
Total Manganese		0.366	mg/L	0.0250

Sample: 17819 - MW-19

Param	Flag	Result	Units	RL
Total Iron		<0.0500	mg/L	0.0500
Total Manganese		<0.0250	mg/L	0.0250

Sample: 17820 - MW-20

Param	Flag	Result	Units	RL
Total Iron		<0.0500	mg/L	0.0500
Total Manganese		<0.0250	mg/L	0.0250

Sample: 17821 - MW-21

Param	Flag	Result	Units	RL
Total Iron		4.99	mg/L	0.0500
Total Manganese		0.632	mg/L	0.0250

Sample: 17822 - MW-22

continued ...

sample 17822 continued ...

Param	Flag	Result	Units	RL

Param	Flag	Result	Units	RL
Total Iron		1.29	mg/L	0.0500
Total Manganese		0.190	mg/L	0.0250

Sample: 17823 - RW-2

Param	Flag	Result	Units	RL
Total Iron		3.60	mg/L	0.0500
Total Manganese		1.22	mg/L	0.0250

Sample: 17824 - RW-3

Param	Flag	Result	Units	RL
Total Iron		12.3	mg/L	0.0500
Total Manganese		1.07	mg/L	0.0250

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Dale Littlejohn
Trident Environmental
P.O. Box 7624
Midland, TX 79708

Report Date: October 8, 2003

Work Order: 3092108

Cost Center #: V-101
Project Location: Lee Gas Plant
Project Name: Duke Energy Field Servieces
Project Number: Lee Gas Plant

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
17809	MW-7	water	2003-09-16	15:00	2003-09-20
17810	MW-9	water	2003-09-16	15:05	2003-09-20
17811	MW-10	water	2003-09-16	16:02	2003-09-20
17812	MW-11	water	2003-09-16	09:10	2003-09-20
17813	MW-12	water	2003-09-15	18:00	2003-09-20
17814	MW-13	water	2003-09-15	17:30	2003-09-20
17815	MW-14	water	2003-09-16	12:20	2003-09-20
17816	MW-16	water	2003-09-16	13:58	2003-09-20
17817	MW-17	water	2003-09-16	10:30	2003-09-20
17818	MW-18	water	2003-09-16	09:45	2003-09-20
17819	MW-19	water	2003-09-15	16:25	2003-09-20
17820	MW-20	water	2003-09-15	15:35	2003-09-20
17821	MW-21	water	2003-09-16	11:50	2003-09-20
17822	MW-22	water	2003-09-16	14:00	2003-09-20
17823	RW-2	water	2003-09-16	17:30	2003-09-20
17824	RW-3	water	2003-09-16	17:00	2003-09-20
17825	Duplicate	water	2003-09-16	00:00	2003-09-20
17826	Rinsate	water	2003-09-16	16:35	2003-09-20
17827	Trip Blank	water	2003-04-18	00:00	2003-09-20

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 17809 - MW-7

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4645	Date Analyzed:	2003-09-23	Analyzed By:	BS
Prep Batch:	4098	Date Prepared:	2003-09-23	Prepared By:	BS

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		0.00760		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		0.00120		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0790	mg/L	1	0.100	79	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0839	mg/L	1	0.100	84	72.6 - 130

Sample: 17809 - MW-7

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Iron		2.40		mg/L	1	0.0500

Sample: 17809 - MW-7

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Manganese		1.09		mg/L	1	0.0250

Sample: 17810 - MW-9

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4700	Date Analyzed:	2003-09-26	Analyzed By:	MT
Prep Batch:	4216	Date Prepared:	2003-09-26	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		8.67		mg/L	100	0.00100
Toluene		<0.100		mg/L	100	0.00100
Ethylbenzene		0.146		mg/L	100	0.00100

continued ...

sample 17810 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Xylene (isomers)		<0.100	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.4	mg/L	100	0.100	104	61 - 127
4-Bromofluorobenzene (4-BFB)		9.38	mg/L	100	0.100	94	72.6 - 130

Sample: 17810 - MW-9

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		6.25	mg/L	1	0.0500

Sample: 17810 - MW-9

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		1.46	mg/L	1	0.0250

Sample: 17811 - MW-10

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4700	Date Analyzed:	2003-09-26	Analyzed By:	MT
Prep Batch:	4216	Date Prepared:	2003-09-26	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		2.42	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		<0.100	mg/L	100	0.00100
Xylene (isomers)		<0.100	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.5	mg/L	100	0.100	105	61 - 127
4-Bromofluorobenzene (4-BFB)		9.42	mg/L	100	0.100	94	72.6 - 130

Sample: 17811 - MW-10

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		13.2	mg/L	1	0.0500

Sample: 17811 - MW-10

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		3.36	mg/L	1	0.0250

Sample: 17812 - MW-11

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4700	Date Analyzed:	2003-09-26	Analyzed By:	MT
Prep Batch:	4216	Date Prepared:	2003-09-26	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00500	mg/L	5	0.00100
Toluene		<0.00500	mg/L	5	0.00100
Ethylbenzene		<0.00500	mg/L	5	0.00100
Xylene (isomers)		<0.00500	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.521	mg/L	5	0.100	104	61 - 127
4-Bromofluorobenzene (4-BFB)		0.458	mg/L	5	0.100	92	72.6 - 130

Sample: 17812 - MW-11

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		<0.0500	mg/L	1	0.0500

Sample: 17812 - MW-11

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Manganese		0.783	mg/L	1	0.0250

Sample: 17813 - MW-12

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4630	Date Analyzed:	2003-09-24	Analyzed By:	MT
Prep Batch:	4153	Date Prepared:	2003-09-24	Prepared By:	MT

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		0.00610	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0825	mg/L	1	0.100	82	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0905	mg/L	1	0.100	90	70 - 130

Sample: 17813 - MW-12

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Iron		0.0860	mg/L	1	0.0500

Sample: 17813 - MW-12

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Manganese		0.724	mg/L	1	0.0250

Sample: 17814 - MW-13

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4630	Date Analyzed:	2003-09-24	Analyzed By:	MT

Prep Batch: 4153 Date Prepared: 2003-09-24 Prepared By: MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		0.00170		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0805	mg/L	1	0.100	80	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0866	mg/L	1	0.100	87	70 - 130

Sample: 17814 - MW-13

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 4893 Date Analyzed: 2003-10-02 Analyzed By: RR
Prep Batch: 4096 Date Prepared: 2003-09-23 Prepared By: TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Iron		0.135		mg/L	1	0.0500

Sample: 17814 - MW-13

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 4893 Date Analyzed: 2003-10-02 Analyzed By: RR
Prep Batch: 4096 Date Prepared: 2003-09-23 Prepared By: TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Manganese		2.32		mg/L	1	0.0250

Sample: 17815 - MW-14

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 4630 Date Analyzed: 2003-09-24 Analyzed By: MT
Prep Batch: 4153 Date Prepared: 2003-09-24 Prepared By: MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		0.00170		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0742	mg/L	1	0.100	74	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0826	mg/L	1	0.100	83	70 - 130

Sample: 17815 - MW-14

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Iron		2.15		mg/L	1	0.0500

Sample: 17815 - MW-14

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Manganese		5.80		mg/L	1	0.0250

Sample: 17816 - MW-16

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4630	Date Analyzed:	2003-09-24	Analyzed By:	MT
Prep Batch:	4153	Date Prepared:	2003-09-24	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		0.0807		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		0.00220		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0714	mg/L	1	0.100	71	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0962	mg/L	1	0.100	96	70 - 130

Sample: 17816 - MW-16

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Iron		<0.0500		mg/L	1	0.0500

Sample: 17816 - MW-16

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Manganese		0.0640		mg/L	1	0.0250

Sample: 17817 - MW-17

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4630	Date Analyzed:	2003-09-24	Analyzed By:	MT
Prep Batch:	4153	Date Prepared:	2003-09-24	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		0.00950		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene (isomers)		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0957	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0979	mg/L	1	0.100	98	70 - 130

Sample: 17817 - MW-17

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Iron		0.704		mg/L	1	0.0500

Sample: 17817 - MW-17

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Manganese		0.417		mg/L	1	0.0250

Sample: 17818 - MW-18

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4630	Date Analyzed:	2003-09-24	Analyzed By:	MT

Prep Batch: 4153 Date Prepared: 2003-09-24 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0880	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0987	mg/L	1	0.100	99	70 - 130

Sample: 17818 - MW-18

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 4893 Date Analyzed: 2003-10-02 Analyzed By: RR
Prep Batch: 4096 Date Prepared: 2003-09-23 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		<0.0500	mg/L	1	0.0500

Sample: 17818 - MW-18

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 4893 Date Analyzed: 2003-10-02 Analyzed By: RR
Prep Batch: 4096 Date Prepared: 2003-09-23 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.366	mg/L	1	0.0250

Sample: 17819 - MW-19

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 4630 Date Analyzed: 2003-09-24 Analyzed By: MT
Prep Batch: 4153 Date Prepared: 2003-09-24 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0877	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0987	mg/L	1	0.100	99	70 - 130

Sample: 17819 - MW-19

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		<0.0500	mg/L	1	0.0500

Sample: 17819 - MW-19

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		<0.0250	mg/L	1	0.0250

Sample: 17820 - MW-20

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4631	Date Analyzed:	2003-09-24	Analyzed By:	MT
Prep Batch:	4154	Date Prepared:	2003-09-24	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0853	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0969	mg/L	1	0.100	97	70 - 130

Sample: 17820 - MW-20

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		<0.0500	mg/L	1	0.0500

Sample: 17820 - MW-20

Analysis: Mn, Total | Analytical Method: S 6010B | Prep Method: S 3010A
QC Batch: 4893 | Date Analyzed: 2003-10-02 | Analyzed By: RR
Prep Batch: 4096 | Date Prepared: 2003-09-23 | Prepared By: TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Manganese		<0.0250	mg/L	1	0.0250

Sample: 17821 - MW-21

Analysis: BTEX | Analytical Method: S 8021B | Prep Method: S 5030B
QC Batch: 4700 | Date Analyzed: 2003-09-26 | Analyzed By: MT
Prep Batch: 4216 | Date Prepared: 2003-09-26 | Prepared By: MT

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		5.58	mg/L	50	0.00100
Toluene		<0.0500	mg/L	50	0.00100
Ethylbenzene		0.153	mg/L	50	0.00100
Xylene (isomers)		0.148	mg/L	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5.27	mg/L	50	0.100	105	61 - 127
4-Bromofluorobenzene (4-BFB)		4.80	mg/L	50	0.100	96	72.6 - 130

Sample: 17821 - MW-21

Analysis: Fe, Total | Analytical Method: S 6010B | Prep Method: S 3010A
QC Batch: 4893 | Date Analyzed: 2003-10-02 | Analyzed By: RR
Prep Batch: 4096 | Date Prepared: 2003-09-23 | Prepared By: TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Iron		4.99	mg/L	1	0.0500

Sample: 17821 - MW-21

Analysis: Mn, Total | Analytical Method: S 6010B | Prep Method: S 3010A
QC Batch: 4893 | Date Analyzed: 2003-10-02 | Analyzed By: RR
Prep Batch: 4096 | Date Prepared: 2003-09-23 | Prepared By: TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Manganese		0.632	mg/L	1	0.0250

Sample: 17822 - MW-22

Analysis: BTEX | Analytical Method: S 8021B | Prep Method: S 5030B
QC Batch: 4700 | Date Analyzed: 2003-09-26 | Analyzed By: MT

Prep Batch: 4216 Date Prepared: 2003-09-26 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00500	mg/L	5	0.00100
Toluene		<0.00500	mg/L	5	0.00100
Ethylbenzene		<0.00500	mg/L	5	0.00100
Xylene (isomers)		<0.00500	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.507	mg/L	5	0.100	101	61 - 127
4-Bromofluorobenzene (4-BFB)		0.459	mg/L	5	0.100	92	72.6 - 130

Sample: 17822 - MW-22

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 4893 Date Analyzed: 2003-10-02 Analyzed By: RR
Prep Batch: 4096 Date Prepared: 2003-09-23 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		1.29	mg/L	1	0.0500

Sample: 17822 - MW-22

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 4893 Date Analyzed: 2003-10-02 Analyzed By: RR
Prep Batch: 4096 Date Prepared: 2003-09-23 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.190	mg/L	1	0.0250

Sample: 17823 - RW-2

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 4700 Date Analyzed: 2003-09-26 Analyzed By: MT
Prep Batch: 4216 Date Prepared: 2003-09-26 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.625	mg/L	10	0.00100
Toluene		<0.0100	mg/L	10	0.00100
Ethylbenzene		<0.0100	mg/L	10	0.00100
Xylene (isomers)		<0.0100	mg/L	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/L	10	0.100	101	61 - 127
4-Bromofluorobenzene (4-BFB)		0.915	mg/L	10	0.100	91	72.6 - 130

Sample: 17823 - RW-2

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		3.60	mg/L	1	0.0500

Sample: 17823 - RW-2

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		1.22	mg/L	1	0.0250

Sample: 17824 - RW-3

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4700	Date Analyzed:	2003-09-26	Analyzed By:	MT
Prep Batch:	4216	Date Prepared:	2003-09-26	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		12.4	mg/L	200	0.00100
Toluene		5.01	mg/L	200	0.00100
Ethylbenzene		1.78	mg/L	200	0.00100
Xylene (isomers)		2.04	mg/L	200	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		21.2	mg/L	200	0.100	106	61 - 127
4-Bromofluorobenzene (4-BFB)		18.8	mg/L	200	0.100	94	72.6 - 130

Sample: 17824 - RW-3

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		12.3	mg/L	1	0.0500

Sample: 17824 - RW-3

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	4893	Date Analyzed:	2003-10-02	Analyzed By:	RR
Prep Batch:	4096	Date Prepared:	2003-09-23	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Manganese		1.07		mg/L	1	0.0250

Sample: 17825 - Duplicate

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4700	Date Analyzed:	2003-09-26	Analyzed By:	MT
Prep Batch:	4216	Date Prepared:	2003-09-26	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		9.20		mg/L	50	0.00100
Toluene		<0.0500		mg/L	50	0.00100
Ethylbenzene		0.155		mg/L	50	0.00100
Xylene (isomers)		<0.0500		mg/L	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5.08	mg/L	50	0.100	102	61 - 127
4-Bromofluorobenzene (4-BFB)		4.60	mg/L	50	0.100	92	72.6 - 130

Sample: 17826 - Rinsate

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4700	Date Analyzed:	2003-09-26	Analyzed By:	MT
Prep Batch:	4216	Date Prepared:	2003-09-26	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		0.0131		mg/L	5	0.00100
Toluene		<0.00500		mg/L	5	0.00100
Ethylbenzene		<0.00500		mg/L	5	0.00100
Xylene (isomers)		<0.00500		mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.516	mg/L	5	0.100	103	61 - 127
4-Bromofluorobenzene (4-BFB)		0.453	mg/L	5	0.100	91	72.6 - 130

Sample: 17827 - Trip Blank

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	4781	Date Analyzed:	2003-10-01	Analyzed By:	MT
Prep Batch:	4291	Date Prepared:	2003-10-01	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		0.00190	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		0.00180	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[1]	0.0624	mg/L	1	0.100	62	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0706	mg/L	1	0.100	71	70 - 130

Method Blank (1) QC Batch: 4630

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene (isomers)		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0869	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0969	mg/L	1	0.100	97	70 - 130

Method Blank (1) QC Batch: 4631

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene (isomers)		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0857	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0971	mg/L	1	0.100	97	70 - 130

Method Blank (1) QC Batch: 4645

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene (isomers)		<0.00100	mg/L	0.001

[1] Low TFT surrogate recovery due to matrix interference. BFB surrogate recovery shows the method to be in control.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.103	mg/L	1	0.100	103	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0940	mg/L	1	0.100	94	72.6 - 130

Method Blank (1) QC Batch: 4700

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene (isomers)		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.107	mg/L	1	0.100	107	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0960	mg/L	1	0.100	96	72.6 - 130

Method Blank (1) QC Batch: 4781

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene (isomers)		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0739	mg/L	1	0.100	74	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0822	mg/L	1	0.100	82	70 - 130

Method Blank (1) QC Batch: 4893

Parameter	Flag	Result	Units	RL
Total Iron		<0.0500	mg/L	0.05

Method Blank (1) QC Batch: 4893

Parameter	Flag	Result	Units	RL
Total Manganese		<0.0250	mg/L	0.025

Laboratory Control Spike (LCS-1) QC Batch: 4630

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.100	0.0989	mg/L	1	0.100	<0.000410	100	1	79.7 - 110	20
Toluene	0.0989	0.0976	mg/L	1	0.100	<0.000760	99	1	81.7 - 108	20
Ethylbenzene	0.0971	0.0957	mg/L	1	0.100	<0.00100	97	1	80.4 - 109	20
Xylene (isomers)	0.281	0.277	mg/L	1	0.300	<0.00100	94	1	81 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0932	0.0943	mg/L	1	0.100	93	94	65.5 - 119
4-Bromofluorobenzene (4-BFB)	0.0936	0.0961	mg/L	1	0.100	94	96	68.6 - 120

Laboratory Control Spike (LCS-1) QC Batch: 4631

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0965	0.0971	mg/L	1	0.100	<0.000410	96	1	79.7 - 110	20
Toluene	0.0951	0.0959	mg/L	1	0.100	<0.000760	95	1	81.7 - 108	20
Ethylbenzene	0.0930	0.0941	mg/L	1	0.100	<0.00100	93	1	80.4 - 109	20
Xylene (isomers)	0.269	0.272	mg/L	1	0.300	<0.00100	90	1	81 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0933	0.0916	mg/L	1	0.100	93	92	65.5 - 119
4-Bromofluorobenzene (4-BFB)	0.0961	0.0956	mg/L	1	0.100	96	96	68.6 - 120

Laboratory Control Spike (LCS-1) QC Batch: 4645

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0976	0.0978	mg/L	1	0.100	<0.000350	98	0	81.2 - 118	20
Toluene	0.0968	0.0974	mg/L	1	0.100	<0.000550	97	1	81.2 - 118	20
Ethylbenzene	0.0964	0.0963	mg/L	1	0.100	<0.000690	96	0	80.7 - 122	20
Xylene (isomers)	0.286	0.286	mg/L	1	0.300	<0.000610	95	0	79.8 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0924	0.0958	mg/L	1	0.100	92	96	69.5 - 125
4-Bromofluorobenzene (4-BFB)	0.0924	0.0926	mg/L	1	0.100	92	93	66.2 - 129

Laboratory Control Spike (LCS-1) QC Batch: 4700

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.103	0.106	mg/L	1	0.100	<0.000350	103	2	81.2 - 118	20
Toluene	0.103	0.106	mg/L	1	0.100	<0.000550	103	3	81.2 - 118	20

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control spikes continued ...

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Ethylbenzene	0.103	0.106	mg/L	1	0.100	<0.000690	103	3	80.7 - 122	20
Xylene (isomers)	0.306	0.313	mg/L	1	0.300	<0.000610	102	2	79.8 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.106	mg/L	1	0.100	101	106	69.5 - 125
4-Bromofluorobenzene (4-BFB)	0.0998	0.105	mg/L	1	0.100	100	105	66.2 - 129

Laboratory Control Spike (LCS-1) QC Batch: 4781

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.103	0.104	mg/L	1	0.100	<0.000410	103	0	79.7 - 110	20
Benzene	0.103	0.104	mg/L	1	0.100	<0.000410	103	0	79.7 - 110	20
Toluene	0.104	0.104	mg/L	1	0.100	<0.000760	104	0	81.7 - 108	20
Toluene	0.104	0.104	mg/L	1	0.100	<0.000760	104	0	81.7 - 108	20
Ethylbenzene	0.103	0.103	mg/L	1	0.100	<0.00100	103	0	80.4 - 109	20
Ethylbenzene	0.103	0.103	mg/L	1	0.100	<0.00100	103	0	80.4 - 109	20
Xylene (isomers)	0.308	0.309	mg/L	1	0.300	<0.00100	102	0	81 - 109	20
Xylene (isomers)	0.308	0.309	mg/L	1	0.300	<0.00100	102	0	81 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0935	0.0912	mg/L	1	0.100	94	91	65.5 - 119
Trifluorotoluene (TFT)	0.0935	0.0912	mg/L	1	0.100	94	91	65.5 - 119
4-Bromofluorobenzene (4-BFB)	0.0937	0.0922	mg/L	1	0.100	94	92	68.6 - 120
4-Bromofluorobenzene (4-BFB)	0.0937	0.0922	mg/L	1	0.100	94	92	68.6 - 120

Laboratory Control Spike (LCS-1) QC Batch: 4893

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron	0.499	0.501	mg/L	1	0.500	<0.00220	100	0	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 4893

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.237	0.237	mg/L	1	0.250	<0.000275	95	0	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 4893

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron	1.24	1.25	mg/L	1	0.500	0.725	103	1	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 4893

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.620	0.624	mg/L	1	0.250	0.377	97	1	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-2) QC Batch: 4893

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron	0.523	0.524	mg/L	1	0.500	0.012	102	0	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-2) QC Batch: 4893

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.301	0.301	mg/L	1	0.250	0.064	95	0	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-1) QC Batch: 4630

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.100	100	85 - 115	2003-09-24
Toluene		mg/L	0.100	0.0995	100	85 - 115	2003-09-24
Ethylbenzene		mg/L	0.100	0.0970	97	85 - 115	2003-09-24
Xylene (isomers)		mg/L	0.300	0.281	94	85 - 115	2003-09-24

Standard (CCV-2) QC Batch: 4630

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0975	98	85 - 115	2003-09-24
Toluene		mg/L	0.100	0.0960	96	85 - 115	2003-09-24
Ethylbenzene		mg/L	0.100	0.0935	94	85 - 115	2003-09-24
Xylene (isomers)		mg/L	0.300	0.271	90	85 - 115	2003-09-24

Standard (CCV-1) QC Batch: 4631

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0985	98	85 - 115	2003-09-24
Toluene		mg/L	0.100	0.0965	96	85 - 115	2003-09-24
Ethylbenzene		mg/L	0.100	0.0944	94	85 - 115	2003-09-24
Xylene (isomers)		mg/L	0.300	0.273	91	85 - 115	2003-09-24

Standard (CCV-2) QC Batch: 4631

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0958	96	85 - 115	2003-09-24
Toluene		mg/L	0.100	0.0945	94	85 - 115	2003-09-24
Ethylbenzene		mg/L	0.100	0.0933	93	85 - 115	2003-09-24
Xylene (isomers)		mg/L	0.300	0.272	91	85 - 115	2003-09-24

Standard (CCV-1) QC Batch: 4645

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.100	100	85 - 115	2003-09-23
Toluene		mg/L	0.100	0.0992	99	85 - 115	2003-09-23
Ethylbenzene		mg/L	0.100	0.0977	98	85 - 115	2003-09-23
Xylene (isomers)		mg/L	0.300	0.289	96	85 - 115	2003-09-23

Standard (CCV-2) QC Batch: 4645

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0978	98	85 - 115	2003-09-23
Toluene		mg/L	0.100	0.0968	97	85 - 115	2003-09-23
Ethylbenzene		mg/L	0.100	0.0982	98	85 - 115	2003-09-23
Xylene (isomers)		mg/L	0.300	0.281	94	85 - 115	2003-09-23

Standard (ICV-1) QC Batch: 4700

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.106	106	85 - 115	2003-09-26
Toluene		mg/L	0.100	0.107	107	85 - 115	2003-09-26
Ethylbenzene		mg/L	0.100	0.107	107	85 - 115	2003-09-26
Xylene (isomers)		mg/L	0.300	0.316	105	85 - 115	2003-09-26

Standard (CCV-1) QC Batch: 4700

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.103	103	85 - 115	2003-09-26
Toluene		mg/L	0.100	0.102	102	85 - 115	2003-09-26
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2003-09-26
Xylene (isomers)		mg/L	0.300	0.300	100	85 - 115	2003-09-26

Standard (CCV-2) QC Batch: 4700

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.103	103	85 - 115	2003-09-26
Toluene		mg/L	0.100	0.103	103	85 - 115	2003-09-26
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2003-09-26
Xylene (isomers)		mg/L	0.300	0.301	100	85 - 115	2003-09-26

Standard (CCV-1) QC Batch: 4781

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.101	101	85 - 115	2003-10-01
Toluene		mg/L	0.100	0.0991	99	85 - 115	2003-10-01
Ethylbenzene		mg/L	0.100	0.101	101	85 - 115	2003-10-01
Xylene (isomers)		mg/L	0.300	0.301	100	85 - 115	2003-10-01

Standard (CCV-2) QC Batch: 4781

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0970	97	85 - 115	2003-10-01
Toluene		mg/L	0.100	0.0969	97	85 - 115	2003-10-01
Ethylbenzene		mg/L	0.100	0.0958	96	85 - 115	2003-10-01
Xylene (isomers)		mg/L	0.300	0.286	95	85 - 115	2003-10-01

Standard (ICV-1) QC Batch: 4893

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.998	100	90 - 110	2003-10-02

Standard (ICV-1) QC Batch: 4893

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.967	97	90 - 110	2003-10-02

Standard (CCV-1) QC Batch: 4893

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.00	100	90 - 110	2003-10-02

Standard (CCV-1) QC Batch: 4893

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.963	96	90 - 110	2003-10-02

Standard (CCV-2) QC Batch: 4893

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.02	102	90 - 110	2003-10-02

Standard (CCV-2) QC Batch: 4893

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.976	98	90 - 110	2003-10-02

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TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

V-101-0903-1

Chain of Custody

Date 9-16-03 Page 1 of 2

Lab Name: TraceAnalysis Inc.
Address: 6701 Aberdeen, Ste. 9
Lubbock, Texas 79424
Telephone: 806-794-1296

Samplers (SIGNATURES) Gil Van Deventer Dale T. Littlejohn

Sample Identification		Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	~~MTBE (EPA 8021B)~~	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	TCLP Metals	Total Metals (Fe & Mn)	Ions:	Nitrate ($N-NO_3$)	Sulate (SO_4)				Number of Containers
MW-7	17809	Water	9-16-03	1500	G	✓	✓												✓							3
MW-9	10	Water	9-16-03	1505	G	✓	✓												✓							3
MW-10	11	Water	9-16-03	1602	G	✓	✓												✓							3
MW-11	12	Water	9-16-03	0910	G	✓	✓												✓							3
MW-12	13	Water	9-15-03	1800	G	✓	✓												✓							3
MW-13	14	Water	9-15-03	1730	G	✓	✓												✓							3
MW-14	15	Water	9-16-03	1220	G	✓	✓												✓							3
MW-16	16	Water	9-16-03	1358	G	✓	✓												✓							3
MW-17	17	Water	9-16-03	1030	G	✓	✓												✓							3
MW-18	18	Water	9-16-03	0945	G	✓	✓												✓							3

Analysis Request

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Lee Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	
Cost Center No.:	V-101	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

	Relinquished By: (1) (Company)	Relinquished By: (2) (Company)	Relinquished By: (3) (Company)
	Trident Environmental	TRACE ANALYSIS	
(Printed Name)	Dale T. Littlejohn	HELEN SHELTON	
(Signature)	Dale T. Littlejohn	Helen Shelton	
(Date) / (Time)	9/19/03 0930	9/19/03 1730	

	Received By: (1) (Company)	Received By: (2) (Company)	Received By: (3) (Company)
	TRACE ANALYSIS	Trace Analysis	
(Printed Name)	HELEN SHELTON	Michael Abel	
(Signature)	Helen Shelton	Michael Abel	
(Date) / (Time)	9/19/03 8930	9/20/03 11:00	

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MA 0°C GLI 166130 4667 2E-HS

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TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

V-101-0903-2

Chain of Custody

Date 9-16-03 Page 2 of 2

Lab Name: TraceAnalysis Inc.
Address: 6701 Aberdeen, Ste. 9
Lubbock, Texas 79424
Telephone: 806-794-1296

Samplers (SIGNATURES)

Sample Identification		Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015C)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	TCLP Metals	Total Metals (Fe & Mn)	Ions:	Nitrate ($N-NO_3$)	Sulate (SO_4)				Number of Containers
MW-19	19	Water	9-15-03	1625	G	✓													✓							3
MW-20	20	Water	9-15-03	1535	G	✓													✓							3
MW-21	21	Water	9-16-03	1150	G	✓													✓							3
MW-22	22	Water	9-16-03	1400	G	✓													✓							3
RW-2	23	Water	9-16-03	1730	G	✓													✓							3
RW-3	24	Water	9-16-03	1700	G	✓													✓							3
Duplicate	25	Water	9-16-03	0000	G	✓																				2
Rinsate	26	Water	9-16-03	1635	G	✓																				2
Trip Blank	27	Water	9-18-03	1224	G	✓																				2

Analysis Request

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Lee Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	
Cost Center No.:	V-101	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

	Relinquished By: (1) (Company)	Received By: (1) (Company)	Relinquished By: (2) (Company)	Received By: (2) (Company)	Relinquished By: (3) (Company)	Received By: (3) (Company)
(Printed Name)	Trident Environmental	TRACE ANALYSIS	TRACE ANALYSIS	Trace Analysis		
(Signature)	Dale T Littlejohn	HELEN SHELTON	HELEN SHELTON	Michael Abel		
(Date)	9/19/03	9/19/03	9/19/03	9/20/03		
(Time)	0930	0930	1730	1100		

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MA 0° GI 166130 4667

24-145

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
TRIDENT ENVIRONMENTAL
ATTN: GIL VAN DEVENTER
P.O. BOX 7624
MIDLAND, TX 79708
FAX TO: (432) 682-0727

Receiving Date: 09/15/03
Reporting Date: 09/16/03
Project Number: V-101
Project Name: DUKE ENERGY FIELD SERVICES
Project Location: LEE GAS PLANT

Sampling Date: 09/15/03
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	SO_4 (mg/L)	NO_3 (mg/L)
ANALYSIS DATE:		09/16/03	09/16/03
H8005-1	MW 12	9.57	0.12
H8005-2	MW 13	3.38	<0.1
H8005-3	MW 19	18.3	3.58
H8005-4	MW 20	26.1	1.95
Quality Control		53.65	2.98
True Value QC		50.00	3.00
% Recovery		107	99.2
Relative Percent Difference		1.5	2.0
METHODS: EPA 600/4-79-020		375.4	353.3

Amy Hill
Chemist

9/16/03
Date

H8005

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

V-101-0903-3

Chain of Custody

Date 9-15-03 Page 1 of 1

Lab Name: Cardinal Laboratories
Address: 101 E. Marland Blvd.
Hobbs, NM 88240
Telephone: 505-393-2326

Samplers (SIGNATURES)

Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	TCLP Metals	Total Metals	Ions:	Nitrate (N-NO$_3$)	Sulate (SO$_4$)				Number of Containers
MW-12 H8005-1	Water	9-15-03	1800																	✓	✓				2
MW-13 -2	Water	9-15-03	1730																	✓	✓				2
MW-19 -3	Water	9-15-03	1625																	✓	✓				2
MW-20 -4	Water	9-15-03	1535																	✓	✓				2

Project Information

Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant
Project Manager: Gil Van Deventer
Cost Center No.: V-101
Shipping ID No.:
Bill to (see below):

Sample Receipt

Total Containers:
COC Seals:
Rec'd Good Cond/Cold:
Conforms to Records:
Lab No.:

Relinquished By: (1) (Company) Trident Environmental
(Printed Name) Gil Van Deventer
(Signature) [signature]
(Date) 9-15-03 (Time) 7:10 pm

Relinquished By: (2) (Company) Received by Cardinal Labs
(Printed Name) BURGESS J.A. COOKE
(Signature) [signature]
(Date) 9/15/03 (Time) 7:07

Relinquished By: (3) (Company)
(Printed Name)
(Signature)
(Date) (Time)

Received By: (1) (Company)
(Printed Name)
(Signature)
(Date) (Time)

Received By: (2) (Company)
(Printed Name)
(Signature)
(Date) (Time)

Received By:
(Signature)
(Date)

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

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CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
TRIDENT ENVIRONMENTAL
ATTN: GIL VAN DEVENTER
P.O. BOX 7624
MIDLAND, TX 79708
FAX TO: (432) 682-0727

Receiving Date: 09/17/03
Reporting Date: 09/17/03
Project Number: V-101
Project Name: DUKE ENERGY FIELD SERVICES
Project Location: LEE GAS PLANT

Sampling Date: 09/16/03
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	SO_4 (mg/L)	NO_3 (mg/L)
ANALYSIS DATE:		09/16/03	09/17/03
H8007-1	MW 11	19.3	1.93
H8007-2	MW 18	40.9	0.45
H8007-3	MW 17	24.9	0.73
H8007-4	MW 7	21.5	1.61
H8007-5	MW 21	11.2	1.41
H8007-6	MW 14	37.2	1.09
H8007-7	MW 16	34.9	3.05
H8007-8	MW 22	25.2	0.70
H8007-9	MW 9	6.64	1.53
H8007-10	MW 10	44.8	1.88
H8007-11	~~MW-3~~ RW-3 BGV	8.38	1.29
H8007-12	~~MW-~~2 RW-2 BGV	20.2	1.93
Quality Control		53.65	2.98
True Value QC		50.00	3.00
% Recovery		107	99.2
Relative Percent Difference		1.5	2.0
METHODS: EPA 600/4-79-020		375.4	353.3

Amy Hill
Chemist

9/17/03
Date

h8007

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

V-101-0903-~~B~~4

Chain of Custody

Date 9/16/03 Page 1 of 2

Lab Name: Cardinal Laboratories
Address: 101 E. Marland Blvd.
Hobbs, NM 88240
Telephone: 505-393-2326

Samplers (SIGNATURES)

Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Composite	Analysis Request: BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	TCLP Metals	Total Metals	Ions:	Nitrate ($N-NO_3$)	Sulate (SO_4)				Number of Containers
MW-11	Water	9/16/03	0910	G																✓	✓				1
MW-18	Water	9/16/03	0945	G																✓	✓				1
MW-17	Water	9/16/03	1030	G																✓	✓				1
MW-7	Water	9/16/03	1500	G																✓	✓				1
MW-21	Water	9/16/03	1150	G																✓	✓				1
MW-14	Water	9/16/03	1220	G																✓	✓				1
MW-16	Water	9/16/03	1358	G																✓	✓				1
MW-22	Water	9/16/03	1400	G																✓	✓				1
MW-9	Water	9/16/03	1505	G																✓	✓				1
MW-10	Water	9/16/03	1635	G																✓	✓				1

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Lee Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	
Cost Center No.:	V-101	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

Relinquished By: (1) (Company)	Relinquished By: (2) (Company)	Relinquished By: (3) (Company)
Trident Environmental		
(Printed Name) Gil Van Deventer	(Printed Name)	(Printed Name)
(Signature)	(Signature)	(Signature)
(Date) 9/16/03 (Time) 0900	(Date) (Time)	(Date) (Time)
Received By: (1) (Company)	**Received By: (2) (Company)**	**Received By: (3) (Company)**
		Cardinal Labs
(Printed Name)	(Printed Name)	(Printed Name) Gayle A. Potter
(Signature)	(Signature)	(Signature)
(Date) (Time)	(Date) (Time)	(Date) 09/17/2003 (Time) 8:10 AM

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TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

V-101-0903-~~B~~5

Chain of Custody

Date 9/16/03 Page 2 of 2

Lab Name: Environmental Lab of Texas
Address: 12600 West I-20 East
Odessa, TX 79765
Telephone: 432-563-1800

Samplers (SIGNATURES)

Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	TCLP Metals	Total Metals	Ions:	Nitrate ($N-NO_3$)	Sulate (SO_4)				Number of Containers
RW-3	Water	9/16/03	1700	G																✓	✓				1
RW-2	Water	9/16/03	1730	G																✓	✓				1

Analysis Request

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Lee Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	
Cost Center No.:	V-101	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

Relinquished By: (1) (Company)	Relinquished By: (2) (Company)	Relinquished By: (3) (Company)
Trident Environmental		
(Printed Name) Gil Van Deventer	(Printed Name)	(Printed Name)
(Signature)	(Signature)	(Signature)
(Date) 9/17/03 (Time) 08:00	(Date) (Time)	(Date) (Time)
Received By: (1) (Company)	**Received By:** (2) (Company)	**Received By:** (3) (Company)
(Printed Name)	(Printed Name)	(Printed Name) GAYLE A POTTS
(Signature)	(Signature)	(Signature)
(Date) (Time)	(Date) (Time)	(Date) 09/17/2003 (Time) 8:10AM

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Appendix B

Well Sampling Data Forms

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-11**
SITE NAME: LEE GAS PLANT
DATE: 3/9/03
PROJECT NO. V-101
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 118.03 Feet
DEPTH TO WATER: 106.30 Feet
HEIGHT OF WATER COLUMN: 11.73 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
1316	0	-	-	-	-	-	Pump On
1319	5	73.6	15.77	7.49		-	
1322	10	70.2	17.61	7.33		-	
1326	15	69.5	17.00	7.35		-	
1330	20	69.4	16.20	7.43		-	
1332	25	69.0	15.87	7.49		-	
1334	30	69.3	15.30	7.51		-	
1337	35	68.5	15.15	7.52		-	
1340	40	68.2	14.85	7.56		-	Pump Off
						1346	= sample collection time (MST)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-12**
SITE NAME: LEE GAS PLANT
DATE: 3/9/03
PROJECT NO. V-101
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.60 Feet
DEPTH TO WATER: 106.79 Feet
HEIGHT OF WATER COLUMN: 10.81 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1249	0	-	-	-	-	-	Pump On
1250	5	70.6	9.87	7.69		-	
1251	10	68.6	9.79	7.70		-	
1253	15	68.7	9.62	7.82		-	
1254	20	68.4	9.27	7.69		-	
1256	25	68.4	9.24	7.88		-	
1257	30	68.3	9.14	7.84		-	
1258	35	68.2	9.10	7.83		-	
1300	40	68.4	9.05	7.88		-	Pump Off
						1310	= sample collection time (MST)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-13**
SITE NAME: LEE GAS PLANT
DATE: 3/9/03
PROJECT NO. V-101
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.40 Feet
DEPTH TO WATER: 108.66 Feet
HEIGHT OF WATER COLUMN: 8.74 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1146	0	-	-	-	-	-	Pump On
1149	5	78.6	12.45	7.02		-	
1153	10	68.9	14.47	7.20		-	
1156	15	69.3	14.50	7.28		-	
1202	20	71.4	15.01	7.19		-	
1210	25	70.8	13.44	7.18		-	
1214	28	70.4	13.20	7.19		-	
1220	30	69.7	13.68	7.22		-	Pump Off
						1220	= sample collection time (MST)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-19**
SITE NAME: LEE GAS PLANT
DATE: 3/9/03
PROJECT NO. V-101
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 126.57 Feet
DEPTH TO WATER: 109.72 Feet
HEIGHT OF WATER COLUMN: 16.85 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1056	0	-	-	-	-	-	Pump On
1058	5	71.4	10.88	9.05		-	
1100	10	68.4	11.90	8.71		-	
1101	15	68.9	11.87	8.69		-	
1103	20	68.3	11.82	8.46		-	
1106	25	67.9	11.72	8.24		-	
1108	30	68.1	11.62	8.09		-	
1109	35	67.3	11.64	8.20		-	
1110	40	67.0	11.76	7.99		-	Pump Off
						1120	= sample collection time (MST)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-20**
SITE NAME: LEE GAS PLANT
DATE: 3/9/03
PROJECT NO. V-101
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 128.05 Feet
DEPTH TO WATER: 112.41 Feet
HEIGHT OF WATER COLUMN: 15.64 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1000	0	-	-	-	-	-	Pump On
1001	5	67.0	5.94	7.51		-	
1002	10	67.0	5.82	7.57		-	
1003	15	67.0	6.04	7.50		-	
1004	20	67.1	5.63	7.58		-	
1006	25	67.1	5.35	7.61		-	
1007	30	67.2	5.19	7.62		-	
1007	35	67.2	5.21	7.63		-	
1008	40	67.2	5.16	7.64		-	Pump off
						1020	= sample collection time (MST)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-21**
SITE NAME: LEE GAS PLANT
DATE: 3/9/03
PROJECT NO. V-101
SAMPLER: Van Deventer

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: 123.48 Feet
DEPTH TO WATER: 108.03 Feet
HEIGHT OF WATER COLUMN: 15.45 Feet
WELL DIAMETER: 2.0 Inch

7.6 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
1430	2	74.1	7.09	7.23			Hand bailed
1441	4	71.6	6.51	7.16			
1501	6	71.4	5.92	7.12			
1509	8	71.5	6.54	7.14			
						1520	= sample collection time (MST)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-7**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

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: 111.65 Feet
DEPTH TO WATER: 105.56 Feet
HEIGHT OF WATER COLUMN: 6.09 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
1100	1.5	75.7	1.55	7.37	-		
1110	2.5	74.5	1.50	7.33	-		Well pumped off. Discontinued pumping.
1500	6.5	70.7	1.01	7.45	-		Hand bailed 4 more gallons.
						1.22	mg/L Ferrous Iron concentration*
					0.77**		DO reading taken on 09/19/03 in the well.
						1500	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-9**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.02 Feet
DEPTH TO WATER: 107.23 Feet
HEIGHT OF WATER COLUMN: 9.79 Feet
WELL DIAMETER: 4.0 Inch

19.2 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		PHYSICAL APPEARANCE AND REMARKS
1449	5	73.4	1.44	7.02	-		Pump On
1451	10	71.9	1.29	7.15	-		
1453	15	71.6	1.3	7.13	-		
1456	20	72.0	1.28	7.11	-		
1459	25	71.7	1.31	7.10	-		
1501	30	71.0	1.36	7.09	-		
1503	35	70.6	1.33	7.10	-		
1505	40	71.9	1.32	7.11	-		Pump Off
						3.22	mg/L Ferrous Iron concentration*
					0.00**		DO reading taken on 09/19/03 in the well.
						1505	= sample collection time (MST)
							Collected duplicate sample for BTEX

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-10**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.50 Feet
DEPTH TO WATER: 106.91 Feet
HEIGHT OF WATER COLUMN: 10.59 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
1548	5	75.3	1.82	7.22	-		Conductivity meter went bad
1550	10	73.4	1.78	7.22	-		
1552	15	72.3	1.74	7.21	-		
1554	20	71.8	1.75	7.22	-		
1556	25	71.3	1.76	7.22	-		
1558	30	71.0	1.76	7.21	-		
1600	35	71.0	1.76	7.21	-		
1602	40	71.0	1.76	7.21	-		Pump Off
						3.04	mg/L Ferrous Iron concentration*
					0.00**		DO reading taken on 09/19/03 in the well.
						1602	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-11**
SITE NAME: LEE GAS PLANT
DATE: 9/15/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump

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: 118.03 Feet
DEPTH TO WATER: 106.16 Feet
HEIGHT OF WATER COLUMN: 11.87 Feet
WELL DIAMETER: 4.0 Inch

23.2 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		PHYSICAL APPEARANCE AND REMARKS
0840	0	-	-	-	-		Pump On
0843	5	69.2	1.73	7.33	-		
0846	10	69.4	1.56	7.46	-		
0848	15	69.4	1.50	7.52	-		
0850	20	69.3	1.53	7.52	-		
0853	25	69.6	1.43	7.58	-		
0856	30	69.8	1.45	7.58	-		
0859	35	69.8	1.49	7.57	-		
0901	40	69.9	1.52	7.57	-		Pump Off
						0.01	mg/L Ferrous Iron concentration*
					0.01**		DO reading taken on 09/19/03 in the well.
						0910	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-12**
SITE NAME: LEE GAS PLANT
DATE: 9/15/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.60 Feet
DEPTH TO WATER: 106.66 Feet
HEIGHT OF WATER COLUMN: 10.94 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1741	0	-	-	-	-	-	Pump On
1744	5	73.7	1.42	7.20	-	-12.2	
1746	10	71.5	1.37	7.21	-	-12.9	
1748	15	71.2	1.31	7.25	-	-14.8	
1751	20	71.0	1.3	7.27	-	-16.3	
1755	25	70.6	1.29	7.29	-	-17.0	
1758	30	70.6	1.3	7.30	-	-17.8	
1800	35	70.4	1.29	7.29	-	-17.3	
1802	40	70.3	1.27	7.30	-	-18.3	Pump Off
						0.05	mg/L Ferrous Iron concentration*
					0.60**		DO reading taken on 09/19/03 in the well.
						1800	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-13**
SITE NAME: LEE GAS PLANT
DATE: 9/15/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.40 Feet
DEPTH TO WATER: 108.30 Feet
HEIGHT OF WATER COLUMN: 9.10 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1644	0	-	-	-	-	-	Pump On
1647	5	72.4	1.35	7.38	-	-	
1650	10	71.9	1.37	7.38	-	-	
1656	15	73.5	1.48	8.00	-	-	
1701	20	72.3	1.45	7.85	-	-	
1706	25	72.3	1.45	8.12	-	-	
1712	30	72.7	1.41	8.27	-	-	
1715	38	75.6	1.37	8.48	-	-	Pump Off
					0.44**		DO reading taken on 09/19/03 in the well.
						0.48	mg/L Ferrous Iron concentration*
						1730	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-14**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 118.49 Feet
DEPTH TO WATER: 109.66 Feet
HEIGHT OF WATER COLUMN: 8.83 Feet
WELL DIAMETER: 4.0 Inch

17.3 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		PHYSICAL APPEARANCE AND REMARKS
1155	0	71.2	1.56	6.95	-		Pump On
1157	5	71.1	1.57	6.99	-		
1200	10	70.9	1.58	6.99	-		
1203	15	70.9	1.58	6.99	-		
1206	20	71.1	1.59	6.96	-		
1209	0	71.1	1.59	6.98	-		
1211	30	71.3	1.59	6.98	-		
1214	35	71.9	1.56	6.97	-		
1217	40	71.8	1.55	6.97	-		Pump Off
						1.73	mg/L Ferrous Iron concentration*
					1.01**		DO reading taken on 09/19/03 in the well.
						1220	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-16**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 125.15 Feet
DEPTH TO WATER: 105.52 Feet
HEIGHT OF WATER COLUMN: 19.63 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
1338	0	-	-	-	-		Pump On
1340	5	74.1	0.76	7.05	-		
1344	10	72.5	0.70	6.99	-		
1346	15	71.6	0.68	7.07	-		
1349	20	71.2	0.65	7.31	-		
1351	25	70.7	0.64	7.35	-		
1354	30	70.6	0.64	7.40	-		
1356	35	70.8	0.64	7.61	-		
1358	40	71.2	0.65	7.79	-		Pump Off
						0.39	mg/L Ferrous Iron concentration*
					1.67**		DO reading taken on 09/19/03 in the well.
						1358	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-17**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 124.09 Feet
DEPTH TO WATER: 108.04 Feet
HEIGHT OF WATER COLUMN: 16.05 Feet
WELL DIAMETER: 4.0 Inch

31.4 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		PHYSICAL APPEARANCE AND REMARKS
1010	5	72.2	1.07	7.05	-		Pump On
1012	10	71.0	1.06	7.04	-		
1015	15	70.8	1.07	7.08	-		
1019	20	70.6	1.05	7.16	-		
1022	25	70.5	1.04	7.20	-		
1024	30	70.5	1.03	7.21	-		
1026	35	70.6	1.03	7.24	-		
1028	40	70.4	1.03	7.25	-		Pump Off
						0.65	mg/L Ferrous Iron concentration*
					0.00**		DO reading taken on 09/19/03 in the well.
						1030	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-18**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 130.02 Feet
DEPTH TO WATER: 109.39 Feet
HEIGHT OF WATER COLUMN: 20.63 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
0924	0	-	-	-	-		Pump On
0926	5	70.2	1.56	7.19	-		
0929	10	69.9	1.55	7.08	-		
0931	15	69.7	1.54	7.22	-		
0934	20	69.6	1.55	7.32	-		
0937	25	69.5	1.55	7.38	-		
0940	30	69.5	1.55	7.41	-		
0943	35	69.5	1.55	7.43	-		
0945	40	69.5	1.55	7.45	-		Pump Off
0947	40	69.1	0.60	7.69	-		
0948	40	70.5	0.59	7.65	-		
						0.11	mg/L Ferrous Iron concentration*
					0.07		DO reading taken on 09/19/03 in the well.
						1750	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-19**
SITE NAME: LEE GAS PLANT
DATE: 9/15/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 126.57 Feet
DEPTH TO WATER: 109.24 Feet
HEIGHT OF WATER COLUMN: 17.33 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1558	5	77.4	1.42	7.19	-	-	Pump On
1602	10	73.8	1.5	7.19	-	-	
1606	15	73.1	1.54	7.22	-	-	
1609	20	72.6	1.55	7.47	-	-	
1612	25	72.8	1.55	7.84	-	-	
1615	30	74.5	1.54	8.12	-	-	
1619	35	73.2	1.55	8.16	-	-	
1622	40	72.4	1.55	8.21	-	-	Pump Off
					0.31**		DO reading taken on 09/19/03 in the well.
						0	mg/L Ferrous Iron concentration*
						1625	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-20**
SITE NAME: LEE GAS PLANT
DATE: 9/15/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 128.05 Feet
DEPTH TO WATER: 111.9 Feet
HEIGHT OF WATER COLUMN: 16.15 Feet
WELL DIAMETER: 4.0 Inch

31.6 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
1504	5	74.8	0.77	7.32	-	-	Pump On
1506	10	72.1	0.78	7.30	-	-	
1509	15	72.3	0.76	7.31	-	-	
1512	20	72.0	0.76	7.46	-	-	
1515	25	72.4	0.72	8.33	-	-	
1519	30	72.4	0.74	8.50	-	-	
1522	35	71.5	0.74	8.45	-	-	
1525	40	72.4	0.72	8.41	-	-	Pump off. Total purge = 40 gallons
					0.24**		
						0.02	mg/L Ferrous Iron concentration*
						1535	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-21**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

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: 123.48 Feet
DEPTH TO WATER: 107.77 Feet
HEIGHT OF WATER COLUMN: 15.71 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. °F	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
1150	8	72.3	0.90	7.38	8.15		DO reading taken on 09/19/03 in the well.
							DO readings affected by MW-23 air sparge
							well located nearby.
						1.75	mg/L Ferrous Iron concentration*
						1150	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-22**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

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: 148.58 Feet
DEPTH TO WATER: 107.92 Feet
HEIGHT OF WATER COLUMN: 40.66 Feet
WELL DIAMETER: 2.0 Inch

19.9 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		PHYSICAL APPEARANCE AND REMARKS
1400	8	72.6	0.59	7.76	1.38		DO reading taken on 09/19/03 in the well.
						0.57	mg/L Ferrous Iron concentration*
							DO reading taken on 09/19/03 in the well.
						1400	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **RW-2**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

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: 140.00 Feet
DEPTH TO WATER: _____ Feet
HEIGHT OF WATER COLUMN: _____ Feet
WELL DIAMETER: 5.0 Inch

_____ Recovery Well pumping continuously (5 gal/1.5 min) with 1/2 hp submersible pump.

TIME	VOLUME PURGED	TEMP. °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1730	N/A	77.0	0.80	7.56	1.05**	-	DO reading taken on 09/19/03 from tap.
						1.64	mg/L Ferrous Iron concentration*

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **RW-3**
SITE NAME: LEE GAS PLANT
DATE: 9/16/03
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

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: 140.00 Feet
DEPTH TO WATER: _____ Feet
HEIGHT OF WATER COLUMN: _____ Feet
WELL DIAMETER: 5.0 Inch

_____ Recovery Well pumping continuously (5 gal/1.5 min) with 1/2 hp submersible pump.

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1700	N/A	77.9	1.33	7.06	0.34**	-	DO reading taken on 09/19/03 from tap.
						2.48	mg/L Ferrous Iron concentration*

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

** Due to malfunctioning DO meter, readings were taken on 09/19/03 with a newly rented Hanna Model 9143 DO meter.

2002 Annual Groundwater Monitoring and Sampling and Remediation System Performance Report
Duke Energy Field Services
Lee Gas Plant
Lea County, New Mexico

MARCH 24, 2003

Prepared For:

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Prepared By:

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2002 Annual Groundwater Monitoring and Sampling Report
Duke Energy Field Services – Lee Gas Plant
Lea County, New Mexico

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ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

SUBMITTED BY:

Gilbert J. Van Deventer, REM
Project Manager

DATE: 03-24-03

Dale T. Littlejohn
Quality Assurance Officer

3/26/03

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1.0 Executive Summary

Trident Environmental (Trident), was retained by Duke Energy Field Services LLP (DEFS) to perform the sampling and monitoring operations at the Lee Gas Plant. The plant is located in sections 30 and 31 of township 17 south and range 35 east in Lea County, New Mexico. This 2002 annual report summarizes the two sampling events performed by Trident at the DEFS Lee Gas Plant on February 11 through 12, 2002 and August 13 through 14, 2002.

Based on the sampling and monitoring data to date, the following conclusions relevant to groundwater conditions and remediation system performance at the Lee Gas Plant are evident:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations in the groundwater from the downgradient monitoring wells (MW-11, MW-12, MW-13, MW-19 and MW-20) are currently below the New Mexico Water Quality Control Commission (WQCC) standards and the laboratory detection limits. It should be noted that, except for a sample from MW-12 recovered during the February 2000 monitoring event (0.338-mg/l benzene), all of the measured hydrocarbon concentrations have remained below the WQCC standards since May 1995.

- BTEX concentrations in the groundwater from crossgradient monitoring wells MW-18, MW-21, and MW-22 are below the WQCC standards and laboratory detection limits. The BTEX concentrations in crossgradient monitoring well MW-3 was also below WQCC standards during the semi-annual sampling event, however no samples could be obtained during the annual event due to lack of enough groundwater to obtain a sample. The hydrocarbon concentrations from these monitoring wells have remained below the WQCC standards since at least August 1998. Decreasing levels observed in MW-2, MW-3, MW-21, and MW-22 are due to the successful air sparge and vapor extraction operations.

- Benzene concentrations in the groundwater from monitoring wells located within the aerial extent of the dissolved-phase hydrocarbon plume (MW-7, MW-9, MW-10, MW-14, MW-16, and MW-17) remain above WQCC standards, with the exception of MW-14, which has decreased to below the WQCC standard for the first time since August 1998. Toluene, ethylbenzene, and xylene concentrations in all of the wells have remained below the WQCC standards since at least August 1995. The benzene concentrations measured over the past six years in MW-7, MW-10, and MW-16 are generally stable to decreasing while those measured in MW-9 and MW-14, appear to be periodically interrupted by isolated spikes of elevated concentrations. The benzene concentration in MW-17 has increased since August of 1997.

- During the August 13, 2002 monitoring event, light non-aqueous phase liquid (LNAPL) was measured in monitoring wells MW-5 (1.05 feet), MW-6 (4.66 feet), MW-8 (0.01 feet), and MW-15 (0.39 feet).

- A total of 5,259,575 gallons of groundwater was recovered by three recovery wells during the 1-year period of record (January 1, 2002 through December 31, 2002).

- The hydraulic gradient is approximately 0.0035 feet/foot and the direction of groundwater flow is to the southwest based on the gauging data obtained on August 13, 2002.

- The average water table elevations across the site have decreased by an average of about 1-foot per year since March 28, 1988.

The following recommendations are proposed for the remediation system and monitoring operations at the Lee Gas Plant.

- Continue groundwater recovery operations since the present system has been effective in limiting the downgradient migration of the dissolved-phase hydrocarbon plume.

- Continue LNAPL recovery at MW-6 with the Xitech system.

- Continue free product recovery from MW-5, MW-8, and MW-15 using passive bailers and/or hydrophobic adsorbent socks, and hand bailing methods as appropriate.

- Continue the program of monitoring natural attenuation that includes the analysis of dissolved oxygen (DO), nitrate (NO_3), sulfate (SO_4), ferric iron (Fe^{3+}), ferrous iron (Fe^{2+}), and manganese (Mn) to assess the efficacy of intrinsic bioremediation processes occurring on site.

- Continue the sampling and monitoring program on a semi-annual basis. The next sampling event is scheduled during the first quarter of 2003.

2.0 Chronology of Events

April 1988	The New Mexico Environmental Improvement Division (NMEID) issued a Compliance Order/Schedule to Phillips 66 Natural Gas Company to install four monitoring wells and sample for groundwater quality to comply with Resource Conservation and Recovery Act (RCRA) monitoring requirements.
June 6, 1988	Four monitoring wells (MW-1, MW-2, MW-3 and MW-4) were installed by Geoscience Consultants Ltd. (GCL) between April 21, 1988 and April 29, 1988. The existing four monitoring wells were plugged and abandoned. Groundwater samples were collected on May 13, 1988.
September 23, 1988	GCL conducted a limited soil vapor survey at Lee Gas Plant. Two potential hydrocarbon sources were identified: the former evaporation pond located east of the main plant, and the small, former evaporation pond located north of the main plant.
January 1990	New Mexico Oil Conservation Division (OCD) takes jurisdiction for groundwater conditions at Lee Gas Plant. GCL submitted a work plan to the OCD for further investigation and implementation of remediation of free product.
May 30, 1990	GCL completed a subsurface investigation to define the limits of the free-phase hydrocarbon plume and to begin recovery of the floating product. The investigation included the installation and sampling of four monitoring wells (MW-5, MW-6, MW-7 and MW-8) and one recovery well (RW-1).
October 9, 1990	GCL completed Phase II of a subsurface investigation to further delineate the dissolved hydrocarbon plume. The investigation included the installation and sampling of four monitoring wells (MW-9, MW-10, MW-11 and MW-12).
March 11, 1991	GCL completed Phase III of a subsurface investigation to delineate the leading edge of the dissolved-phase hydrocarbon plume. The investigation included the installation and sampling of two monitoring wells (MW-13 and MW-14) and the conversion of two existing monitoring wells (MW-7 and MW-8) into recovery wells.
March 18, 1991	The OCD approved the Discharge Plan (GW-2) for Lee Gas Plant.
May 1991	GCL converted MW-10 into a recovery well per the OCD's April 2, 1991 request.
September 5, 1991	GCL completed Phase IV of a subsurface investigation that included the sampling of all on site monitoring wells (MW-1 through MW-14) and two water supply wells (WS-1 and WS-2). Two of the recovery wells (RW-1 and MW-4) and one monitoring well (MW-6) were not sampled due to the presence of free product. Prior sampling events were limited to collecting samples from just those wells

	installed in the current phase of work along with selected wells from previous phases to correlate analytical results.
1992	GCL conducted quarterly sampling activities on January 23, 1992, April 28, 1992, July 30, 1992 and October 21, 1992.
February 24, 1992	GCL completed the Final Phase of a subsurface investigation to complete delineation of the dissolved-phase hydrocarbon plume. The investigation included the installation of six monitoring wells (MW-15, MW-16, MW-17, MW-18, MW-19 and MW-20). Quarterly sampling of the on site monitoring wells was also conducted.
1993	GCL conducted quarterly sampling activities on January 20, 1993, April 15, 1993, July 20, 1993 and October 26, 1993.
April 7, 1993	GCL prepared the "Discharge Plan GW-2 Modification and Remedial Strategy" for Lee Gas Plant.
April 26, 1993	The OCD approved the "Discharge Plan GW-2 Modification and Remedial Strategy" for Lee Gas Plant.
July 1993	GCL completed installation of monitoring wells MW-21, MW-22 and MW-23 between July 19, 1993 and July 27, 1993.
August 3, 1993	GCL completed installation of soil vapor extraction system on recovery well RW-1.
November 15, 1993	GCL completed installation of air sparging injection unit in monitoring well MW-23.
1994	GCL conducted quarterly sampling activities on January 6, 1994, May 3, 1994, July 26, 1994 and October 12, 1994.
March 1994	GCL performed a successful cleanout (well restoration) of recovery well MW-7 during the week of March 21, 1994. However, attempts to restore MW-8 were unsuccessful due to well damage.
1995	BDM International, Inc. (formerly GCL) conducted quarterly sampling activities on March 16, 1995, June 24, 1995, August 10, 1995 and October 10, 1995.
1996	BDM International, Inc. (BDM) conducted quarterly sampling activities on January 16, 1996, April 25, 1996, August 27, 1996 and November 20, 1996.
January 15, 1996	Removed packer from injection well MW-23 and discontinued injection activities.

1997	BDM conducted quarterly sampling activities on January 21, 1997 and April 17, 1997.
June 18, 1997	Mr. Bill Olson (verbal communication) of the OCD approved a request by GPM to change the sampling frequency from a quarterly to semi-annual frequency.
August 12, 1997	BDM conducted annual sampling activities on August 12, 1997.
January 19, 1998	TRW conducted semi-annual sampling activities.
April 1, 1998	TRW replaced the submersible pumps in MW-6 and MW-7 with new pumps. The pump in MW-10 was not replaced due to damaged well conditions.
April 2, 1998	TRW installed a passive skimmer in MW-15.
April 9, 1998	TRW completed installation of Xitech product recovery system at MW-5.
July 10, 1998	TRW completed installation of air sparge system (air compressor) at MW-23.
August 5, 1998	TRW conducted annual sampling activities.
September 17, 1998	TRW replaced the submersible pump in RW-1 with a new pump.
November 18, 1998	Xitech product recovery system was transferred from MW-5 to MW-15.
February 15, 1999	TRW conducted semi-annual sampling activities.
June 16-19, 1999	Recovery wells MW-6, MW-7, and RW-1 were replaced by newly installed deeper wells RW-2, RW-3, and RW-4, respectively.
August 18-20, 1999	TRW conducted annual sampling activities.
October 26, 1999	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
November 22, 1999	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. Also reinstalled compressor at air sparge well (MW-23).
December 20, 1999	TRW conducted O & M vapor extraction, and air sparge systems. Also moved Xitech system from MW-15 to MW-6.
January 25, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
February 16, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems, semi-annual sampling activities, bailed sand from RW-4, and installed new pump in RW-4.

April 3, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
April 24, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
May 2, 2000	TRW performed repairs of groundwater recovery (installed new pump in RW-2 and used pump in RW-3) and vapor extraction systems.
May 9, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
June 13, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge (installed new compressor) systems.
July 12, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
August 15-17, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems, and annual groundwater sampling activities. The submersible pump in RW-2 was repaired and replaced.
October 24, 2000	TRW replaced the submersible pump in RW-2 with a new pump.
November 6, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. Upon arrival it was determined that the electrical breaker at the main transformer had been thrown. Following the restoration of electrical power the submersible water pump in RW-3 would not operate. All of the other systems were operational.
December 13, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. All of the systems were operational except the water pump in RW-3.
January 23, 2001	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. All of the systems were operational except the water pumps in RW-3 and RW-4.
February 15, 2001	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems, and performed semi-annual sampling activities. A water well contractor installed a new submersible pump in RW-3 and a new relay switch in the breaker box at RW-4. All systems were operational upon completion of the site visit, however the flow meter in RW-4 was not working properly.
March 20, 2001	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. All of the systems were operational except for the flow meters at RW-2 and RW-3, and the submersible pump in RW-4. Field personnel serviced the flow meter, replaced the check valve in RW-3, and re-activated the power and replaced the flow meter at RW-4. All systems were operational upon the completion of the site visit; however the flow meters at RW-2 and RW-3 were not working properly.

May 1, 2001	Trident Environmental acquired the assets and staff of the Midland, Texas office of TRW Inc.
May 10, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pump in RW-3 and the flow meter at RW-4 were not operational.
May 23, 2001	Trident replaced an "Airgas-owned" nitrogen bottle with a Trident-owned bottle, replaced a digital "GPI" flow meter in RW-1 with an analog "Neptune" totalizer and installed a stainless steel strainer in line at RW-4 to protect the flow meter. The submersible pump in RW-3 was not operational.
June 18, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pumps in RW-2 and RW-3, and the flow meter at RW-4 were not operational upon arrival. Trident personnel serviced the flow meter and cleaned out the stainless steel strainer at RW-4
June 19, 2001	A water well servicing contractor (W-H-B) bailed 2 gallons of sand and installed a new ¾ hp Myers submersible pump in RW-3, and replaced a relay switch at the breaker for RW-2. Upon completion of the site visit all of the remedial systems were operation, however the flow meter in RW-3 was not working properly.
July 20, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pump in RW-2 and the flow meter at RW-3 were not operational upon arrival. Trident personnel replaced the digital GPI flow meter in RW-3 with an analog Neptune totalizer.
July 25, 2001	Trident personnel attempted to re-start RW-2 by replacing the relay and capacitor, but the submersible pump would not reactivate. The totalizer from RW-2 was moved to RW-3. All other systems were operational upon departure.
July 31, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems, and performed annual sampling activities. The totalizer in RW-3 (used unit) was replaced with a new totalizer.
September 11, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pump in RW-2, the flow meter at RW-3, and the VE unit (RW-1) were not operational upon arrival. Trident personnel restarted the VE unit and replaced the totalizer in RW-3 with a "GPI" meter.
October 10, 2001	A water well servicing contractor (W-H-B) removed old pump and installed a new ½ hp Myers submersible pump in RW-2.
October 11, 2001	Trident installed a sediment trap and digital GPI flowmeter at RW-2. All systems were operational upon departure.

January 10, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. Xitech pump removed and sent to manufacturer for repairs and upgrade.
January 15, 2002	A new Coyote pump off control box was installed at RW-3.
January 23, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. Installed repaired Xitech pump in MW-6 and secondary containment for PRT
February 11-12, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems, and performed semi-annual sampling activities. The flowmeter faceplate at RW-4 was replaced with working unit.
March 6, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. Plugged discharge line at RW-2 was replaced with new HDPE line.
April 9, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems.
May 14, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The flowmeter faceplate and battery at RW-2 were replaced with working units.
July 12, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The flowmeter faceplate and battery at RW-3 were replaced with working units.
August 13-14, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems, and performed annual sampling activities. The flowmeter faceplate at RW-4 was replaced with working unit.
September 20, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. New GPI flowmeters were installed at RW-2, RW-3, and RW-4.
October 18, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. Sand buildup was bailed from RW-2, RW-3 and RW-4. Worn-out pumps were replaced with new Meyers ½ HP submersible pump in RW-3 and RW-4.
October 24, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. Sections of total fluids discharge lines from RW-2 and RW-3 were upgraded with HDPE line and re-routed. Replaced battery for Xitech PRS at MW-6.
November 22, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems.
December 16, 2002	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems.

3.0 Procedures

Each monitoring well at the Lee Gas Plant was gauged for depth to groundwater on February 11, 2002 and August 13, 2002, using a Heron H.01L oil/water interface probe. The depth to groundwater in the recovery wells was not gauged due to access limitations caused by the presence of downhole pumping equipment.

Immediately prior to collecting groundwater samples, the monitoring wells were purged using a Grundfos submersible pump with the exception of MW-3, MW-21, and MW-22, which were purged using a decontaminated hand bailer. MW-3 was not sampled during the annual sampling event due to the lack of enough groundwater to obtain a groundwater sample (dry well conditions). Purging operations were completed after groundwater parameters (pH, conductivity, dissolved oxygen, turbidity, and temperature) stabilized with the exception of MW-3, which was bailed dry. Conductivity, pH, dissolved oxygen (DO), turbidity, and temperature readings were measured after every 5 gallons of purging using a Horiba Model U-10 and Hanna Model 9143 DO meter. A total of 654 gallons of well development water was purged from the monitoring wells during the 2002-sampling year.

Groundwater samples for BTEX analysis were obtained using a new, decontaminated, disposable bailer for each well after purging. Each groundwater sample was transferred into two air-tight, septum-sealed, 40-ml glass volatile organic analysis (VOA) sample vials with zero head space and preserved with hydrochloric acid (HCl) for analysis of BTEX using EPA Method 8021B. The annual sampling event conducted on August 13 and 14, 2002, included another set of water samples that were transferred into appropriately preserved containers for analysis of nitrate (NO_3), sulfate (SO_4), total iron, and manganese, to assess the efficacy of intrinsic bioremedial activity currently taking place. The iron and manganese samples were filtered in the field with a 45mm element. The iron and manganese samples were filtered in the field with a 45mm element. During the annual sampling event in August 2002, ferrous iron (Fe^{-2}) was also measured in the field using a Hach DR2010 spectrophotometer (Method 8146). Chain-of-custody (COC) forms documenting sample identification numbers, collection times, and delivery times to the laboratory were completed for each set of samples. One duplicate sample and one rinsate sample was collected during each sampling event. The water samples were placed into an ice-filled cooler immediately after collection and shipped next day delivery to Trace Analysis Inc. in Lubbock, Texas for laboratory analysis.

A summary of the monitoring wells sampled, sampling frequency, sampling dates, purge method, sampling method and purge volumes for the 2002 calendar year is presented in Table 1.

Table 1
Well Sampling Frequency and Methods

Well No.	Well Type	Sampling Frequency	2002 Sample Date	Purge Method	Sampling Method	Purge Volume
MW-1	Monitoring	Not sampled due to dry well conditions	NS	NS	NS	0 gallons
MW-2	Monitoring	Not sampled due to dry well conditions	NS	NS	NS	0 gallons
MW-3	Monitoring	Semi-annual event	02/12/02	Hand Bailer	Disposable bailer	2 gallons
		Not sampled due to dry well conditions	08/14/02	Not sampled due to dry well conditions		0 gallons
MW-4	Monitoring	Not sampled due to dry well conditions	NS	NS	NS	0 gallons
MW-5	Recovery	Not sampled due to presence of LNAPL	NS	NS	NS	0 gallons
MW-6	Recovery	Not sampled due to presence of LNAPL	NS	NS	NS	0 gallons
MW-7	Monitoring	Annual event	08/14/02	Pump	Disposable bailer	3 gallons
MW-8	Recovery	Not sampled due to presence of LNAPL	NS	NS	NS	0 gallons
MW-9	Monitoring	Annual event	08/14/02	Pump	Disposable bailer	40 gallons
MW-10	Monitoring	Annual event	08/14/02	Pump	Disposable bailer	24 gallons
MW-11	Monitoring	Semi-annual event	02/11/02	Pump	Disposable bailer	40 gallons
		Annual event	08/13/02	Pump	Disposable bailer	40 gallons
MW-12	Monitoring	Semi-annual event	02/11/02	Pump	Disposable bailer	40 gallons
		Annual event	08/13/02	Pump	Disposable bailer	40 gallons
MW-13	Monitoring	Semi-annual event	02/11/02	Pump	Disposable bailer	40 gallons
		Annual event	08/13/02	Pump	Disposable bailer	40 gallons
MW-14	Monitoring	Annual event	08/14/02	Pump	Disposable bailer	40 gallons
MW-15	Recovery	Not sampled due to presence of LNAPL	NS	NS	NS	0 gallons
MW-16	Monitoring	Annual event	08/14/02	Pump	Disposable bailer	40 gallons
MW-17	Monitoring	Annual event	08/14/02	Pump	Disposable bailer	40 gallons
MW-18	Monitoring	Annual event	08/14/02	Pump	Disposable bailer	40 gallons
MW-19	Monitoring	Semi-annual event	02/11/02	Pump	Disposable bailer	40 gallons
		Annual event	08/13/02	Pump	Disposable bailer	40 gallons
MW-20	Monitoring	Semi-annual event	02/11/02	Pump	Disposable bailer	40 gallons
		Annual event	08/13/02	Pump	Disposable bailer	40 gallons
MW-21	Monitoring	Semi-annual event	02/11/02	Hand Bailer	Disposable bailer	8 gallons
		Annual event	08/13/02	Hand Bailer	Disposable bailer	8 gallons
MW-22	Monitoring	Annual event	08/14/02	Hand Bailer	Disposable bailer	9 gallons
MW-23	Injection	Not sampled due to use as air sparge well.	NS	NS	NS	0 gallons
NS indicates well was not sampled.						654 gallons total

4.0 Groundwater Elevations, Hydraulic Gradient and Flow Direction

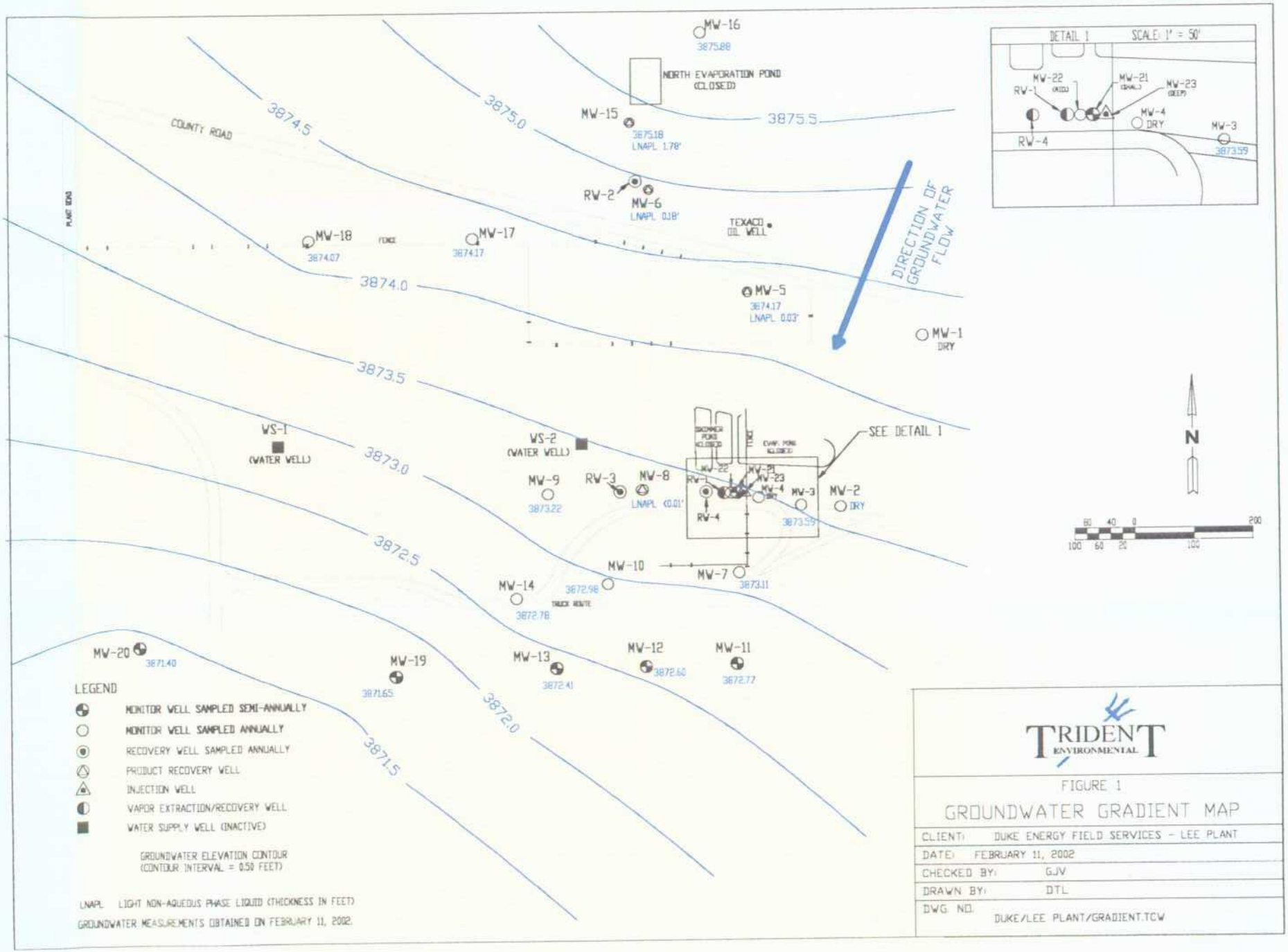
Based on the most recent gauging data collected by Trident on August 13, 2002, the groundwater conditions at the Lee Gas Plant are characterized below.

- The depth to the water table across the site varies from approximately 105 to 112 feet below ground surface
- The hydraulic gradient is approximately 0.0035 feet/foot
- The direction of groundwater flow is to the southwest

Groundwater elevation maps depicting the water table elevation and direction of groundwater flow using the gauging data obtained during the two 2002 sampling events are presented in Figure 1A (February 11, 2002) and Figure 1B (August 13, 2002). Groundwater elevations and depth to water measurements for the year 2002 are summarized in Table 2.

The direction of groundwater flow and hydraulic gradient has remained consistent for the past thirteen years. However, the average water table elevations across the site have decreased by approximately 1 foot per year since March 28, 1988. The historic decline in the average water table elevations is depicted in Figure 2. The historic water table elevations for individual monitoring wells are presented with the hydrocarbon concentration graphs following section 5.0 of this report.

Due to the declining water table elevations over the past thirteen years, MW-1, MW-2, MW-3, and MW-4 no longer extend to the groundwater depth. In addition, MW-5 and MW-8 are approaching their limits of usefulness as monitoring points. Since it is expected that the water table elevation will decrease more in the future, the availability of these wells will diminish.



TRIDENT ENVIRONMENTAL

FIGURE 1

GROUNDWATER GRADIENT MAP

CLIENT:	DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE:	FEBRUARY 11, 2002
CHECKED BY:	GJV
DRAWN BY:	DTL
DWG. NO.	DUKE/LEE PLANT/GRADIENT.TCW

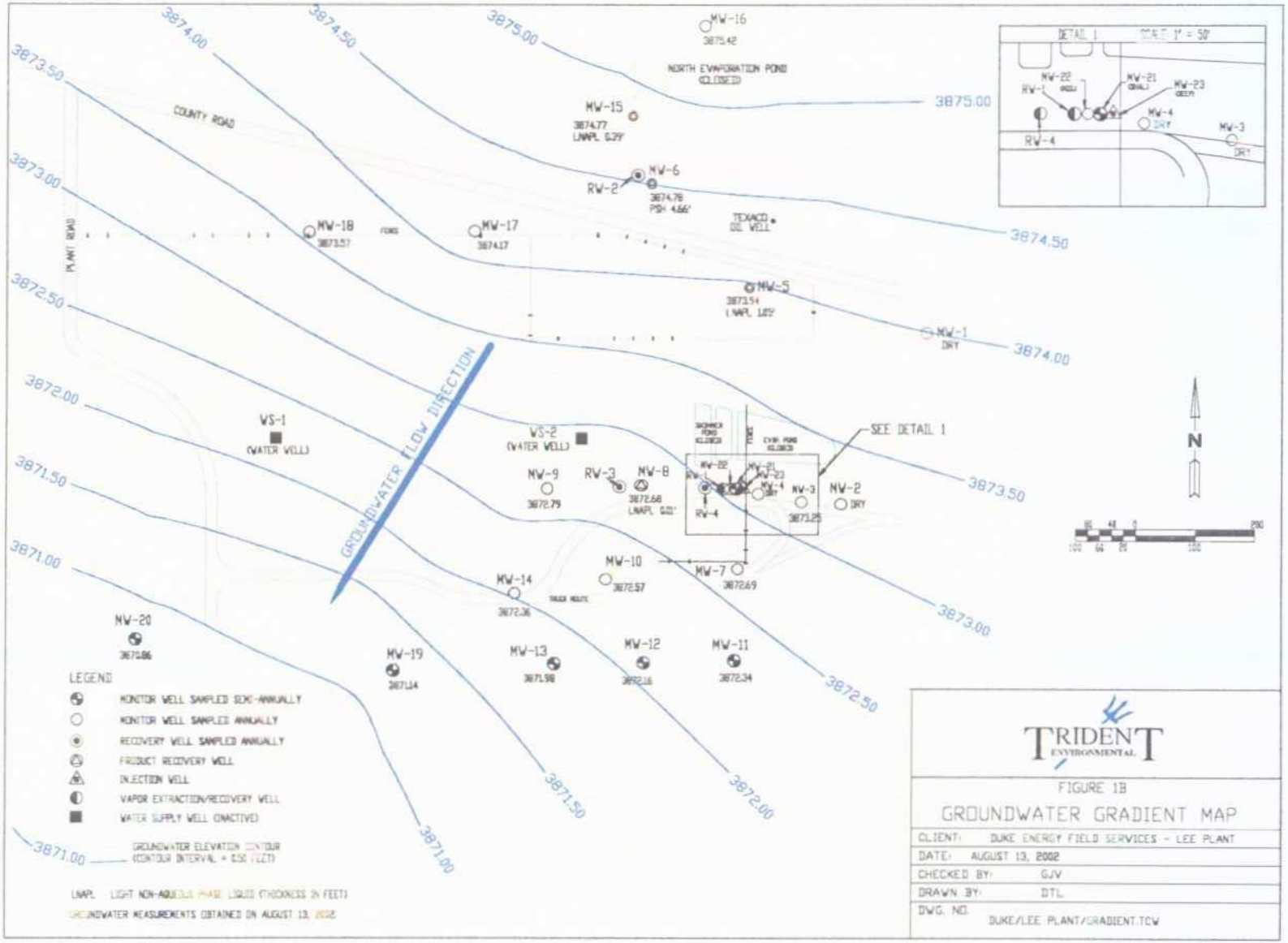
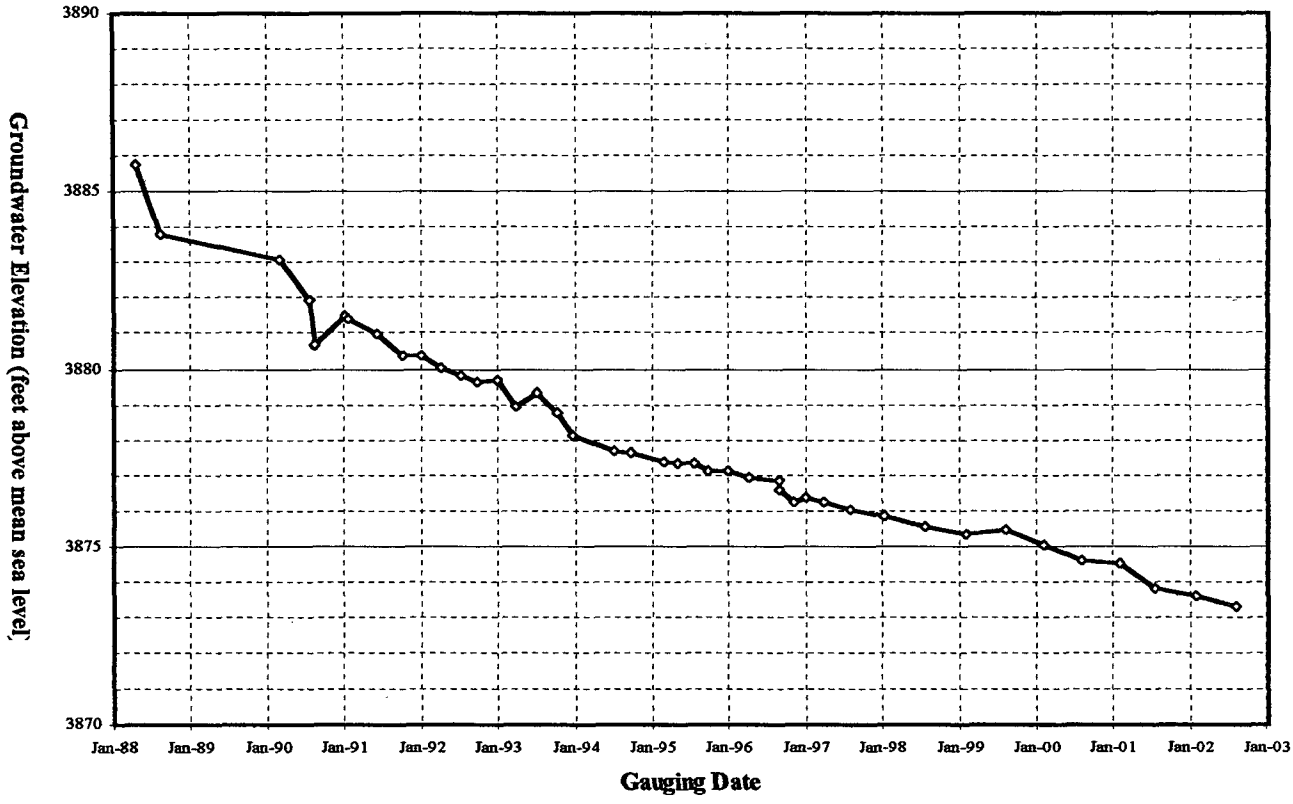

3874.00
3874.50
3875.00
3873.50
3873.00
3872.50
3872.00
3871.50
3871.00
MW-16
3875.42
NORTH EVAPORATION POND
(CLOSED)
MW-15
3874.77
LNAPL 0.29'
MW-6
RW-2
3874.78
PSH 4.66'
TEXACO
OIL WELL
COUNTY ROAD
PLANT ROAD
MW-18
3873.57
MW-17
3874.17
MW-5
3873.54
LNAPL 1.85'
MW-1
DRY
WS-1
(WATER WELL)
WS-2
(WATER WELL)
GROUNDWATER FLOW DIRECTION
MW-9
3872.79
RW-3
MW-8
3872.68
LNAPL 0.01'
SEE DETAIL 1
MW-2
DRY
MW-3
3873.25
RW-4
MW-10
3872.57
MW-7
3872.69
MW-14
3872.36
MW-20
3872.86
MW-19
3871.14
MW-13
3871.98
MW-12
3872.16
MW-11
3872.34
DETAIL 1
SCALE: 1" = 50'
MW-22
MW-21
MW-23
MW-4
DRY
MW-3
DRY
RW-1
RW-4
N
LEGEND
MONITOR WELL SAMPLED SEMI-ANNUALLY
MONITOR WELL SAMPLED ANNUALLY
RECOVERY WELL SAMPLED ANNUALLY
PRODUCT RECOVERY WELL
INJECTION WELL
VAPOR EXTRACTION/RECOVERY WELL
WATER SUPPLY WELL (INACTIVE)
GROUNDWATER ELEVATION CONTOUR
(CONTOUR INTERVAL = 0.50 FEET)
LNAPL LIGHT NON-AQUEOUS PHASE LIQUID (THICKNESS IN FEET)
GROUNDWATER MEASUREMENTS OBTAINED ON AUGUST 13, 2002
TRIDENT
ENVIRONMENTAL
FIGURE 1B
GROUNDWATER GRADIENT MAP
CLIENT: DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE: AUGUST 13, 2002
CHECKED BY: GJV
DRAWN BY: DTL
DWG. NO. DUKE/LEE PLANT/GRADIENT.TCW

Table 2 2002 Groundwater Elevations Duke Energy Field Services - Lee Plant					
Monitoring Well	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to Groundwater Below Top of Casing (feet)	Relative Groundwater Elevation (feet)**	Phase-Separated Hydrocarbon Thickness (feet)
MW-1	02/11/02	3979.25	Dry	Dry	0.00
	08/13/02	3979.25	Dry	Dry	0.00
MW-2	02/11/02	3980.50	Dry	Dry	0.00
	08/13/02	3980.50	Dry	Dry	0.00
MW-3	02/11/02	3980.27	106.68	3873.59	0.00
	08/13/02	3980.27	107.02	3873.25	0.00
MW-4	02/11/02	3980.16	Dry	Dry	0.00
	08/13/02	3980.16	Dry	Dry	0.00
MW-5	02/11/02	3979.82	105.67	3874.18	0.03
	08/13/02	3979.82	106.79	3873.94	1.05
MW-6	02/11/02	3981.79	108.39	3873.55	0.18
	08/13/02	3981.79	110.83	3874.78	4.66
MW-7	02/11/02	3978.45	105.34	3873.11	0.00
	08/13/02	3978.45	105.76	3872.69	0.00
MW-8	02/11/02	3979.96	107.46	3872.51	0.01
	08/13/02	3979.96	107.29	3872.68	0.01
MW-9	02/11/02	3980.17	106.95	3873.22	0.00
	08/13/02	3980.17	107.38	3872.79	0.00
MW-10	02/11/02	3979.66	106.68	3872.98	0.00
	08/13/02	3979.66	107.09	3872.57	0.00
MW-11	02/11/02	3978.50	105.73	3872.77	0.00
	08/13/02	3978.50	106.16	3872.34	0.00
MW-12	02/11/02	3978.82	106.22	3872.60	0.00
	08/13/02	3978.82	106.66	3872.16	0.00
MW-13	02/11/02	3980.52	108.11	3872.41	0.00
	08/13/02	3980.52	108.54	3871.98	0.00
MW-14	02/11/02	3982.23	109.45	3872.78	0.00
	08/13/02	3982.23	109.87	3872.36	0.00
MW-15	02/11/02	3981.70	107.98	3875.27	1.78
	08/13/02	3981.70	107.27	3874.77	0.39
MW-16	02/11/02	3980.80	104.92	3875.88	0.00
	08/13/02	3980.80	105.38	3875.42	0.00
MW-17	02/11/02	3981.80	107.39	3874.41	0.00
	08/13/02	3981.80	107.63	3874.17	0.00
MW-18	02/11/02	3983.10	109.03	3874.07	0.00
	08/13/02	3983.10	109.53	3873.57	0.00
MW-19	02/11/02	3980.80	109.15	3871.65	0.00
	08/13/02	3980.80	109.66	3871.14	0.00
MW-20	02/11/02	3983.30	111.90	3871.40	0.00
	08/13/02	3983.30	112.44	3870.86	0.00

Figure 2
Average Groundwater Elevations



5.0 Distribution of Hydrocarbons in Groundwater

A historical listing of BTEX concentrations obtained from the on site monitoring wells is summarized in Table 3. The BTEX concentration map depicting the February 11, 2002 results are presented in Figure 3A and the BTEX concentration map depicting the August 13 through August 14, 2002 results are presented in Figure 3B. Hydrocarbon concentration and groundwater elevation versus time graphs are grouped as follows:

Figure	Area	Monitoring Wells
4A	Central Area	MW-2, MW-3, MW-7, MW-8, MW-9, MW-10, MW-14, MW-21, MW-22, MW-23, WS-1, and WS-2
4B	North Area	MW-5, MW-6, MW-15, MW-16, MW-17, and MW-18
4C	Downgradient South Area	MW-11, MW-12, MW-13, MW-19, and MW-20

Laboratory analytical reports and chain-of-custody documentation for both the semi-annual and annual sampling events are included in Appendix A.

Based on the most recent analytical data for samples collected by Trident on August 13 and 14, 2002, the distribution of hydrocarbons at the Lee Gas Plant is described below.

- BTEX concentrations in the groundwater from the crossgradient monitoring wells (MW-18, MW-21, and MW-22) are below the WQCC standards and laboratory detection limits. The BTEX concentrations in crossgradient monitoring well MW-3 was also below WQCC standards during the semi-annual sampling event, however no samples could be obtained during the annual event due to lack of enough groundwater to obtain a sample. The hydrocarbon concentrations from these monitoring wells have remained below the WQCC standards since at least August 1998. Decreasing levels observed in MW-21 and MW-22 are due to the successful air sparge and vapor extraction operations.

- Benzene concentrations in the groundwater from monitoring wells located within the aerial extent of the dissolved-phase hydrocarbon plume (MW-7, MW-9, MW-10, MW-14, MW-16, and MW-17) remain above WQCC standards, with the exception of MW-14, which has decreased to below the WQCC standard for the first time since August 1998. Toluene, ethylbenzene, and xylene concentrations in all of the wells have remained below the WQCC standards since at least August 1995. The benzene concentrations measured over the past six years in MW-7, MW-10, and MW-16 are generally stable to decreasing while those measured in MW-9 and MW-14, appear to be periodically interrupted by isolated spikes of elevated concentrations. The benzene concentration in MW-17 has increased since August of 1997.

- During the August 13, 2002 monitoring event, light non-aqueous phase liquid (LNAPL) was measured in monitoring wells MW-5 (1.05 feet), MW-6 (4.66 feet), MW-8 (0.01 feet), and MW-15 (0.39 feet).

Table 3
BTEX Analytical Results In Groundwater

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-1	Mar-90	0.004	<0.001	<0.001	<0.001
	03/28/90	0.002	<0.001	<0.001	<0.001
	06/27/91	<0.002	<0.002	<0.002	<0.003
MW-2	Mar-90	<0.001	<0.001	<0.001	<0.001
	03/28/90	0.002	<0.001	<0.001	<0.001
	06/27/90	<0.002	<0.002	<0.002	<0.003
	07/30/92	<0.001	<0.001	<0.001	<0.001
	07/21/93	<0.002	<0.002	<0.002	<0.006
	01/06/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	<0.001	<0.001	<0.001	<0.003
	01/16/96	<0.001	<0.001	<0.001	<0.001
	08/13/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	08/19/99	<0.005	<0.005	<0.005	<0.005
	02/16/00	<0.005	<0.005	<0.005	<0.005
MW-3	Mar-90	**0.069**	0.002	0.001	0.001
	03/28/90	<0.001	0.002	<0.001	<0.001
	06/27/90	**0.043**	0.006	0.002	<0.003
	08/13/97	**1.990**	0.078	0.042	0.061
	08/05/98	0.002	<0.001	0.007	<0.001
	08/19/99	<0.001	<0.001	<0.001	<0.001
	08/16/00	<0.005	<0.005	<0.005	<0.005
	02/16/01	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.005	<0.005	<0.005	<0.005
	02/12/02	<0.001	<0.001	<0.001	<0.001
MW-4	Never analyzed due to presence of phase-separated hydrocarbons or dry well conditions.				
MW-5	03/27/90	<0.001	0.098	<0.001	0.043
	06/27/91	**5.00**	0.570	0.015	0.088
	07/30/92	**10.0**	**1.40**	0.059	0.070
	07/21/93	**22.0**	**7.87**	0.570	**1.27**
	07/01/94	**66.4**	**17.1**	0.630	**<1.5**
MW-6	04/03/90	<0.001	<0.001	<0.001	<0.001
	02/13/91	**72**	**3.0**	**35**	**42**
	03/01/95	**18.8**	**17.0**	**1.76**	**3.10**
	08/13/97	**11.6**	**4.1**	0.49	**0.82**
	08/05/98	**13.7**	**5.96**	<0.500	**0.991**
MW-7	04/03/90	**6.1**	0.36	**3.9**	0.26
	06/27/91	**3.2**	**1.4**	0.023	0.13
	07/30/92	0.001	<0.001	<0.001	<0.001
	07/21/93	**0.040**	0.57	<0.001	**1.27**
	07/25/94	0.003	0.002	0.001	0.005
	08/09/95	**0.083**	0.001	0.002	<0.003
	08/27/96	**1.14**	<0.010	<0.010	<0.010
	08/13/97	**1.39**	<0.025	<0.025	<0.025
	08/05/98	**1.63**	<0.010	<0.010	<0.010
	08/19/99	**1.50**	0.016	0.02	0.016
	08/16/00	**0.036**	0.014	<0.01	0.01
	08/01/01	0.006	<0.005	<0.005	<0.005
	08/13/02	**0.026**	<0.005	<0.005	<0.005
MW-8	04/06/90	**18**	**0.83**	**7.1**	0.29
	06/27/91	**21**	**1.3**	0.012	0.42
	07/30/92	**13**	0.38	0.37	0.18
MW-9	08/11/90	0.006	0.001	0.001	0.002
	01/23/91	0.007	0.001	0.005	0.002
	06/27/91	**0.16**	0.056	0.003	0.004
	10/17/91	0.002	0.003	0.002	<0.001
	01/23/92	<0.001	0.003	0.005	<0.001
	04/28/92	<0.001	0.001	<0.001	<0.001
	07/30/92	**0.31**	0.004	0.010	0.003
	10/21/92	**3.0**	0.28	0.11	0.12
	01/20/93	**5.9**	0.004	0.022	0.011
	04/15/93	**2.2**	0.011	0.020	0.040

Table 3
BTEX Analytical Results In Groundwater

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-9	07/21/93	**0.673**	0.314	0.029	0.069
	07/25/94	**0.495**	<0.01	<0.01	<0.03
	08/09/95	**5.86**	<0.025	<0.025	<0.075
	08/27/96	**0.327**	<0.001	<0.001	<0.001
	08/12/97	**0.138**	<0.001	<0.001	<0.001
	08/06/98	**0.892**	<0.010	<0.010	<0.010
	08/19/99	**13.6**	0.25	<0.050	0.073
	08/16/00	**2.92**	<0.005	0.024	<0.005
	08/01/01	**4.88**	<0.1	<0.1	<0.1
	08/14/02	**1.57**	<0.005	0.013	<0.005
MW-10	08/10/90	**1.3**	0.050	0.034	0.016
	01/23/91	**0.98**	0.015	0.016	<0.005
	06/27/91	**9.7**	0.42	0.084	0.039
	07/21/93	0.004	<0.002	<0.002	NS
	07/25/94	**4.16**	0.21	0.23	**0.86**
	08/09/95	**3.66**	0.033	<0.025	<0.075
	08/27/96	**2.98**	0.060	<0.025	<0.025
	08/12/97	**4.71**	<0.050	<0.050	<0.050
	08/06/98	**1.50**	0.011	0.013	0.008
	08/20/99	**1.01**	<0.010	<0.010	<0.010
	08/17/00	**3.70**	<0.005	<0.005	<0.005
	08/01/01	**3.43**	<0.05	<0.05	<0.05
	08/14/02	**7.99**	<0.05	<0.05	<0.05
MW-11	08/10/90	0.001	0.002	0.003	0.006
	06/26/91	<0.002	<0.002	<0.002	<0.003
	10/17/91	0.002	0.002	<0.001	<0.001
	01/23/92	<0.001	<0.001	<0.001	<0.001
	04/28/92	0.002	<0.001	<0.001	<0.001
	07/30/92	**0.031**	0.007	0.002	0.001
	10/21/92	**0.078**	0.130	0.022	0.051
	01/20/93	0.001	<0.001	<0.001	0.001
	04/15/93	0.001	<0.001	<0.001	0.001
	07/20/93	**0.016**	0.031	<0.002	0.012
	10/26/93	<0.002	<0.002	<0.002	<0.006
	01/06/94	0.004	0.006	<0.001	0.004
	05/03/94	<0.001	<0.001	0.001	0.004
	07/26/94	0.002	0.001	<0.001	<0.003
	10/12/94	<0.001	0.002	<0.001	<0.003
	03/16/95	<0.001	0.002	<0.001	0.003
	06/24/95	<0.001	0.001	<0.001	<0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/19/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	0.001	<0.001	<0.001	<0.001
	08/16/00	<0.001	<0.001	<0.001	<0.001
	02/16/01	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.001	<0.001	<0.001	<0.001
	02/11/02	<0.001	<0.001	<0.001	<0.001
	08/13/02	<0.001	<0.001	<0.001	<0.001

Table 3 BTEX Analytical Results In Groundwater					
Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-12	08/10/90	0.001	0.001	0.001	0.003
	01/23/91	**0.12**	0.001	0.004	0.001
	06/26/91	<0.002	0.002	<0.002	<0.003
	10/17/91	0.004	0.003	<0.001	<0.001
	01/23/92	<0.001	<0.001	<0.001	<0.001
	04/28/92	<0.001	<0.001	<0.001	<0.001
	07/30/92	**0.018**	0.004	0.001	0.001
	10/21/92	**0.064**	0.130	0.024	0.056
	01/20/93	**0.067**	0.001	<0.001	<0.001
	04/15/93	**0.030**	<0.001	<0.001	<0.001
	07/20/93	**0.011**	0.029	<0.002	0.012
	10/26/93	<0.002	<0.002	<0.002	<0.006
	01/06/94	0.003	0.004	<0.001	<0.003
	05/03/94	<0.001	0.002	0.001	0.004
	07/26/94	0.004	<0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.003
	03/16/95	<0.001	0.003	<0.001	0.004
	06/24/95	<0.001	<0.001	<0.001	<0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	**0.338**	<0.001	<0.001	<0.001
	08/16/00	<0.005	<0.005	<0.005	<0.005
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
	02/11/02	0.001	<0.001	<0.001	<0.001
	08/13/02	<0.001	<0.001	<0.001	<0.001
MW-13	01/27/91	**0.016**	0.003	0.019	0.005
	06/26/91	0.002	<0.002	<0.002	<0.003
	10/17/91	0.001	0.001	<0.001	<0.001
	01/23/92	<0.001	<0.001	<0.001	<0.001
	07/30/92	<0.001	<0.001	<0.001	<0.001
	10/21/92	**0.084**	0.150	0.026	0.062
	01/20/93	**0.028**	<0.001	<0.001	<0.001
	04/15/93	**0.013**	<0.001	<0.001	<0.001
	07/20/93	**0.015**	0.034	<0.002	0.013
	10/26/93	**0.029**	0.030	<0.002	0.010
	01/06/94	0.002	0.003	<0.001	<0.003
	05/03/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	0.007	0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.001
	03/16/95	<0.001	0.003	<0.001	<0.003
	06/24/95	<0.001	<0.001	<0.001	0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001

Table 3 BTEX Analytical Results In Groundwater					
Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-13	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.001	<0.001	<0.001	<0.001
	08/15/00	<0.001	<0.001	<0.001	<0.001
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
	02/11/02	<0.001	<0.001	<0.001	<0.001
	08/13/02	0.003	<0.001	<0.001	<0.001
MW-14	01/27/91	<0.001	<0.001	<0.001	<0.001
	06/27/91	<0.002	<0.002	<0.002	<0.003
	10/21/92	**0.043**	0.099	0.019	0.045
	01/20/93	**0.019**	<0.001	<0.001	0.001
	04/15/93	**0.013**	0.003	0.003	0.006
	04/25/96	**2.22**	<0.010	0.049	<0.010
	04/17/97	**3.79**	<0.025	0.050	<0.025
	08/13/97	**3.42**	<0.050	<0.050	<0.050
	08/06/98	0.002	<0.001	<0.001	<0.001
	08/19/99	**0.024**	<0.001	<0.001	<0.001
	08/17/00	**0.284**	<0.001	<0.001	<0.001
	08/01/01	**1.94**	<0.005	0.006	<0.005
	08/14/02	<0.001	<0.001	<0.001	<0.001
MW-15	10/29/91	**4.2**	0.45	0.10	0.10
	03/16/95	**6.24**	**0.981**	0.087	0.214
MW-16	10/18/91	0.004	0.002	<0.001	<0.001
	07/30/92	**0.42**	0.077	0.008	0.008
	07/20/93	**1.19**	0.157	0.030	0.048
	07/26/94	**3.82**	**1.66**	0.120	<0.300
	08/10/95	**3.53**	0.540	0.137	0.378
	08/27/96	**0.724**	0.166	0.035	0.021
	08/13/97	**0.891**	0.216	0.042	0.081
	08/06/98	**1.950**	0.304	0.046	0.129
	08/20/99	**0.454**	0.053	<0.005	0.034
	08/17/00	**0.076**	0.003	0.001	0.003
	08/01/01	**0.018**	<0.005	<0.005	<0.005
	08/14/02	**0.016**	<0.001	<0.001	<0.001
MW-17	10/27/91	0.008	0.002	<0.001	<0.001
	03/16/95	**0.062**	0.020	0.004	0.010
	01/16/96	<0.001	<0.001	<0.001	<0.001
	08/13/97	0.002	<0.001	<0.001	<0.001
	08/06/98	<0.001	<0.001	<0.001	<0.001
	08/19/99	**0.028**	0.002	<0.001	<0.001
	08/16/00	**0.037**	<0.005	<0.005	<0.005
	08/01/01	**0.148**	<0.005	<0.005	<0.005
	08/14/02	**0.015**	<0.001	<0.001	<0.001
MW-18	10/28/91	<0.001	0.001	<0.001	<0.001
	07/30/92	**0.023**	0.006	0.002	0.001
	07/20/93	**0.011**	0.029	<0.002	0.012
	01/06/94	<0.001	0.002	<0.001	<0.003
	07/26/94	**0.057**	0.008	0.002	<0.003
	03/16/95	<0.001	0.002	<0.001	<0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	01/16/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	08/13/97	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	08/19/99	<0.005	<0.005	<0.005	<0.005
	08/16/00	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.005	<0.005	<0.005	<0.005
	08/13/02	<0.001	<0.001	<0.001	<0.001

Table 3
BTEX Analytical Results In Groundwater

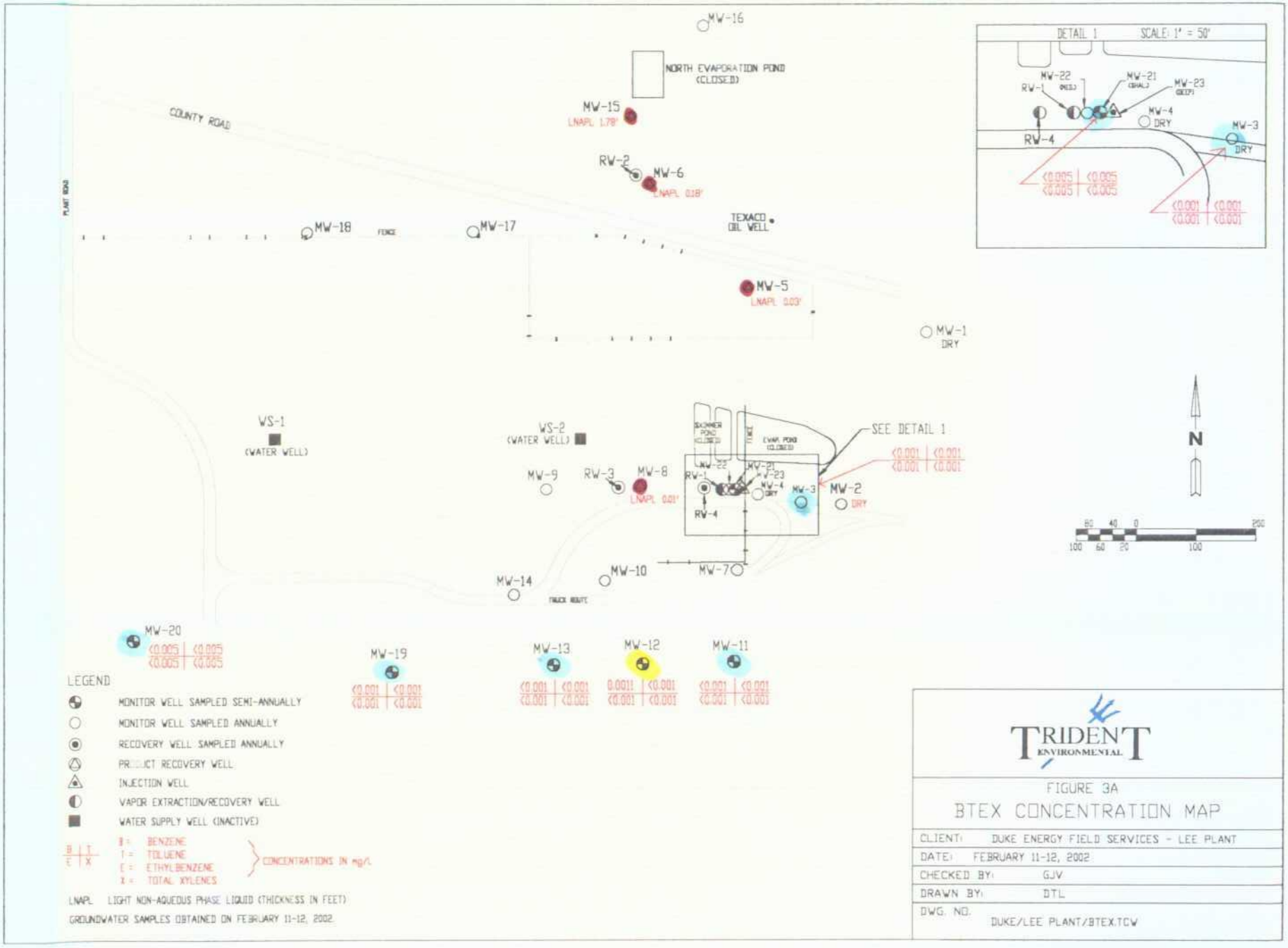
Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-19	10/25/91	<0.001	0.001	<0.001	<0.001
	07/30/92	**0.014**	0.004	0.002	0.001
	07/20/93	**0.015**	0.036	<0.002	0.014
	10/26/93	**0.011**	0.012	<0.002	<0.006
	01/06/94	0.003	0.003	<0.001	<0.003
	05/03/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	0.005	<0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.003
	03/16/95	**0.079**	0.028	0.005	0.011
	05/24/95	0.003	0.004	0.002	0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.005	<0.005	<0.005	<0.005
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.005	<0.005	<0.005	<0.005
	08/15/00	<0.001	<0.001	<0.001	<0.001
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
	02/11/02	<0.001	<0.001	<0.001	<0.001
	08/13/02	<0.001	<0.001	<0.001	<0.001
MW-20	10/29/91	**0.080**	0.041	0.003	0.003
	01/23/92	<0.001	<0.001	<0.001	<0.001
	07/30/92	**0.22**	0.076	0.006	0.006
	01/20/93	<0.001	<0.001	<0.001	<0.001
	04/15/93	0.001	<0.001	<0.001	0.002
	07/20/93	**0.217**	0.102	0.011	0.034
	10/26/93	**0.018**	0.014	<0.002	<0.006
	01/06/94	0.004	0.005	0.003	0.010
	05/03/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	<0.001	<0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.003
	03/16/95	0.001	0.006	<0.001	0.006
	06/24/95	<0.001	<0.001	<0.001	0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.005	<0.005	<0.005	<0.005
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.005	<0.005	<0.005	<0.005
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.005	<0.005	<0.005	<0.005
	08/15/00	<0.005	<0.005	<0.005	<0.005
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	0.002	0.002
	02/11/02	<0.005	<0.005	<0.005	<0.005
	08/13/02	<0.005	<0.005	<0.005	<0.005

Table 3
BTEX Analytical Results In Groundwater

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-21	07/20/93	**37**	**5**	**<2**	**<6**
	04/23/94	0.007	<0.001	<0.001	<0.003
	05/04/94	**0.517**	0.052	<0.001	<0.003
	07/26/94	**0.078**	0.051	<0.001	0.011
	03/16/95	**0.042**	<0.001	<0.001	<0.003
	10/10/95	**0.092**	<0.001	<0.001	<0.001
	04/25/96	0.001	<0.001	<0.001	<0.001
	11/20/96	**0.010**	<0.001	<0.001	<0.001
	04/17/97	**3.51**	<0.025	<0.025	<0.025
	08/13/97	**33**	0.31	0.73	**0.90**
	01/20/98	**11.0**	<0.100	<0.100	<0.100
	08/06/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/19/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.005	<0.005	<0.005	<0.005
	08/16/00	<0.005	<0.005	<0.005	<0.005
	02/16/01	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.005	<0.005	<0.005	<0.005
	02/11/02	<0.005	<0.005	<0.005	<0.005
	08/14/02	<0.001	<0.001	<0.001	<0.001
MW-22	07/20/93	**0.170**	0.065	0.036	0.048
	04/23/94	**2.52**	0.26	**<0.10**	**<0.30**
	05/04/94	0.007	0.002	<0.001	0.007
	07/26/94	0.005	0.001	<0.001	<0.003
	03/16/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	08/13/97	0.002	0.001	<0.001	<0.001
	08/06/98	<0.001	0.006	<0.001	<0.001
	08/19/99	<0.005	<0.005	<0.005	<0.005
	08/16/00	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
	08/14/02	<0.001	<0.001	<0.001	<0.001
MW-23	07/20/93	**0.190**	0.130	0.010	0.046
	08/13/97	<0.001	<0.001	<0.001	<0.001
WS-1	Mar-90	**0.015**	0.004	0.002	0.004
	08/10/90	**0.010**	0.001	0.001	0.001
	06/27/91	0.007	<0.002	<0.002	<0.003
	01/23/92	**0.110**	0.020	0.020	0.010
	07/30/92	**0.015**	0.003	0.003	0.002
	04/15/93	0.007	0.003	0.002	0.002
	07/26/94	**0.020**	<0.001	0.002	<0.003
WS-2	Mar-90	0.007	<0.001	0.001	<0.001
	06/27/91	**0.280**	0.027	0.002	0.003
	01/23/92	**0.010**	<0.001	<0.001	<0.001
	07/30/92	**0.46**	0.011	0.005	0.002
	04/15/93	**1.6**	<0.001	0.019	0.014
RW-1	04/04/90	**2.6**	0.32	0.58	0.19
WQCC Standards (mg/l)		0.010	0.75	0.75	0.62

Samples analyzed for BTEX using EPA Method 602/8021B.

New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.



LEGEND

- MONITOR WELL SAMPLED SEMI-ANNUALLY
- MONITOR WELL SAMPLED ANNUALLY
- RECOVERY WELL SAMPLED ANNUALLY
- PRODUCT RECOVERY WELL
- INJECTION WELL
- VAPOR EXTRACTION/RECOVERY WELL
- WATER SUPPLY WELL (INACTIVE)

B | T
E | X

B = BENZENE
T = TOLUENE
E = ETHYLBENZENE
X = TOTAL XYLENES

} CONCENTRATIONS IN mg/L

LNAPL LIGHT NON-AQUEOUS PHASE LIQUID (THICKNESS IN FEET)

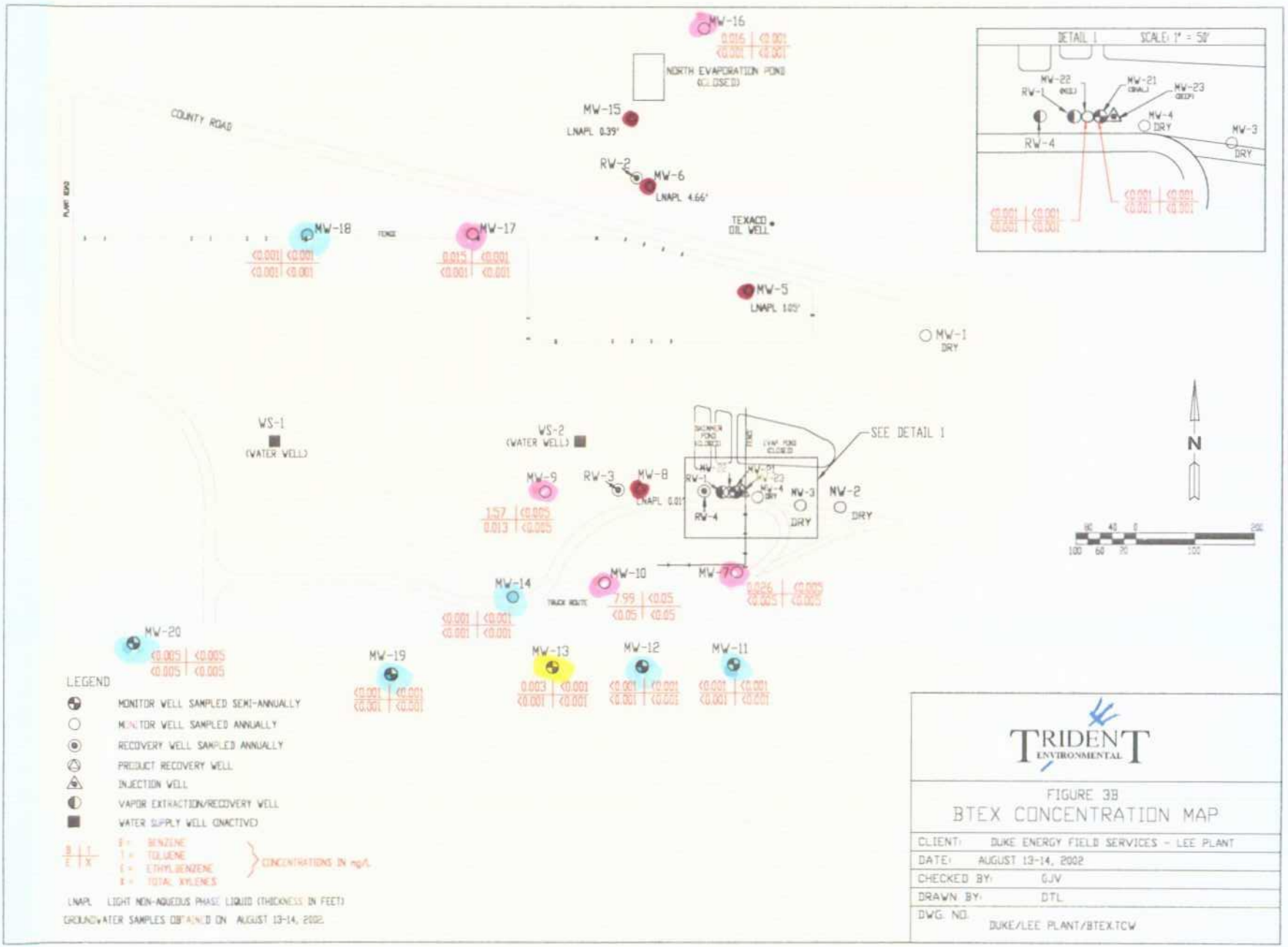
GROUNDWATER SAMPLES OBTAINED ON FEBRUARY 11-12, 2002.

TRIDENT ENVIRONMENTAL

FIGURE 3A

BTEX CONCENTRATION MAP

CLIENT:	DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE:	FEBRUARY 11-12, 2002
CHECKED BY:	GJV
DRAWN BY:	DTL
DWG. NO.	DUKE/LEE PLANT/BTEX.TCW



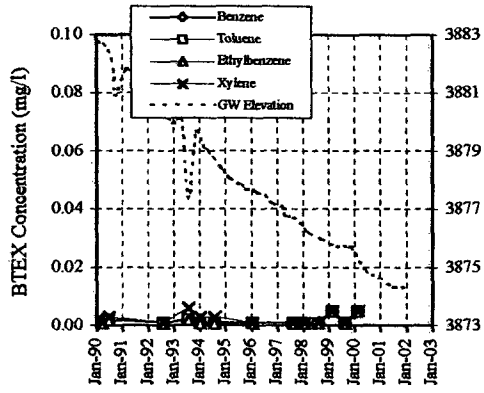
TRIDENT ENVIRONMENTAL

FIGURE 3B
BTEX CONCENTRATION MAP

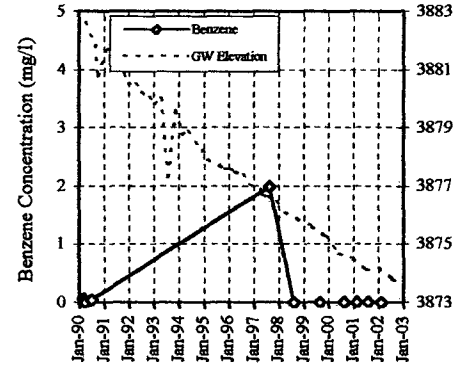
CLIENT:	DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE:	AUGUST 13-14, 2002
CHECKED BY:	GJV
DRAWN BY:	DTL
DWG. NO.	DUKE/LEE PLANT/BTEX.TCW

Figure 4A
Hydrocarbon Concentration Versus Time (Central Area Wells)

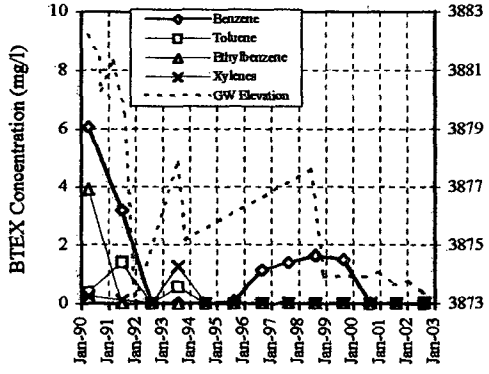
MW-2



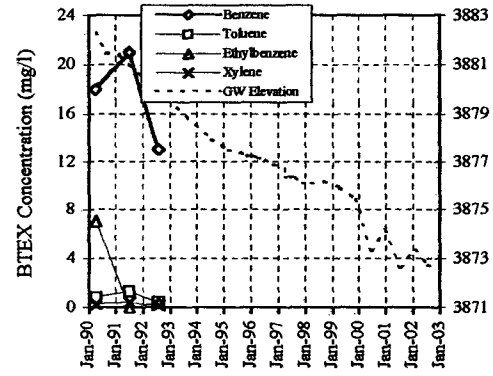
MW-3



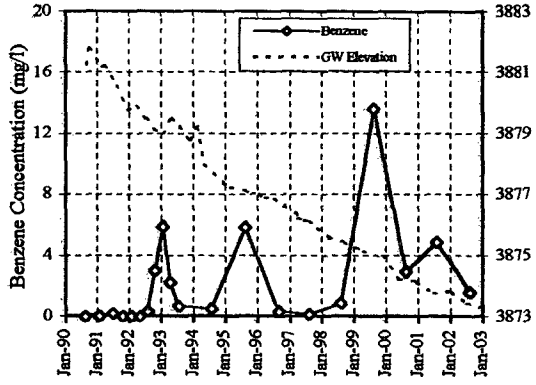
MW-7



MW-8



MW-9



MW-10

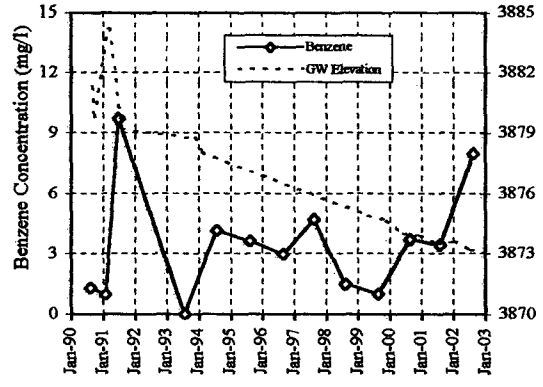
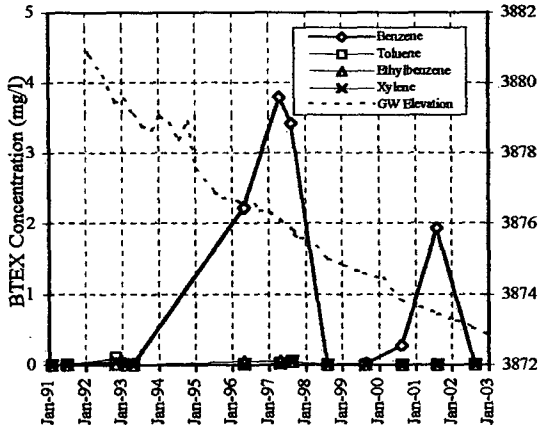
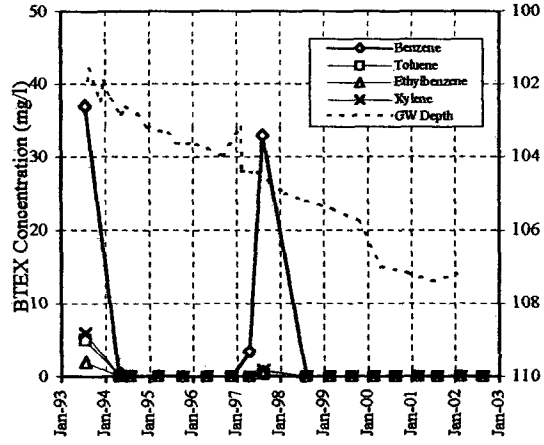


Figure 4A (continued)
Hydrocarbon Concentration Versus Time (Central Area Wells)

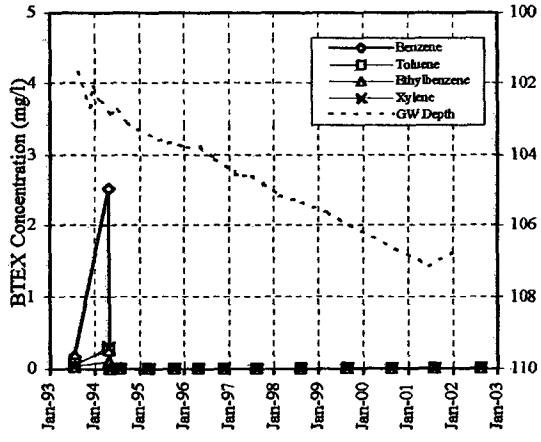
MW-14



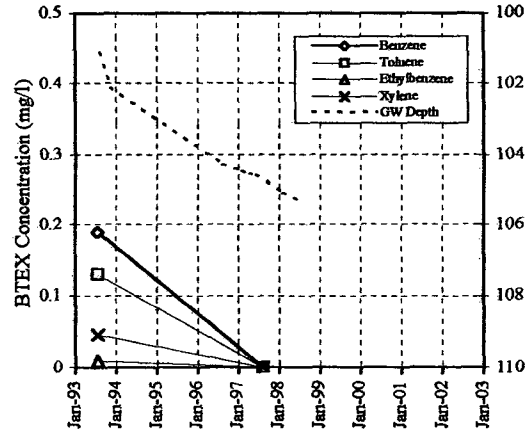
MW-21



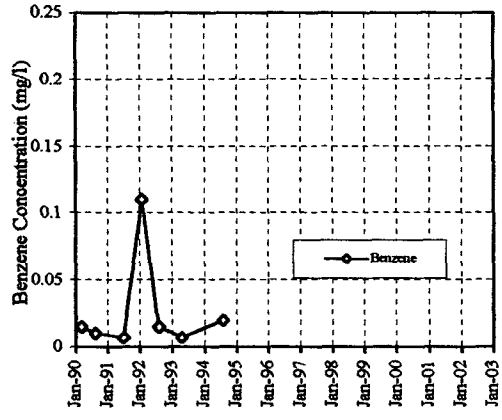
MW-22



MW-23



WS-1



WS-2

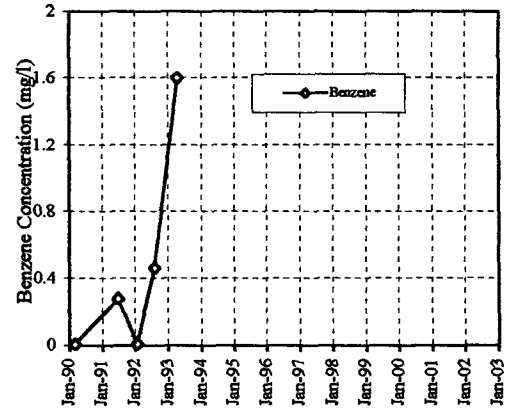


Figure 4B
Hydrocarbon Concentration Versus Time (North Area Wells)

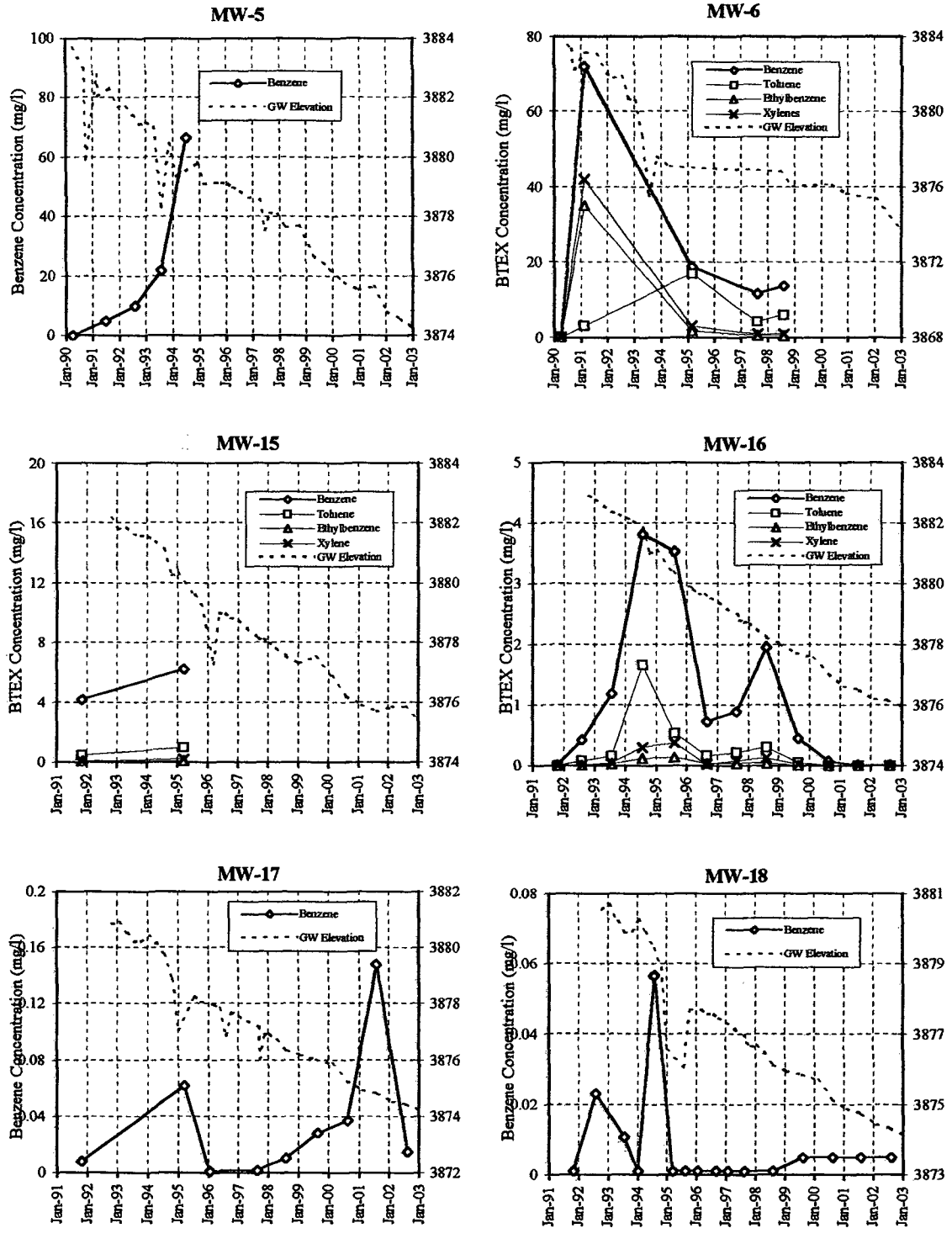
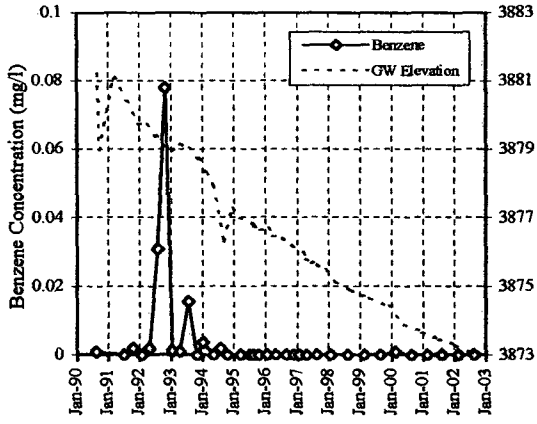
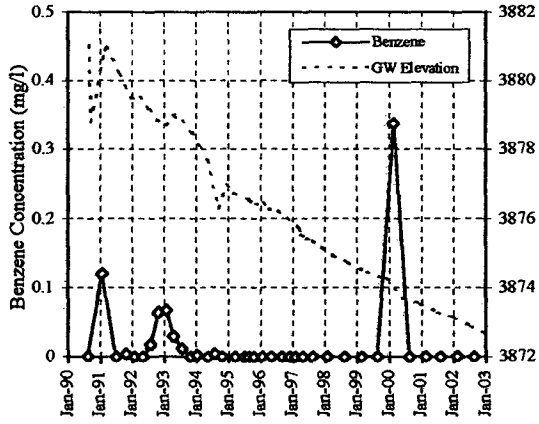


Figure 4C
Hydrocarbon Concentration Versus Time (Downgradient - South Area Wells)

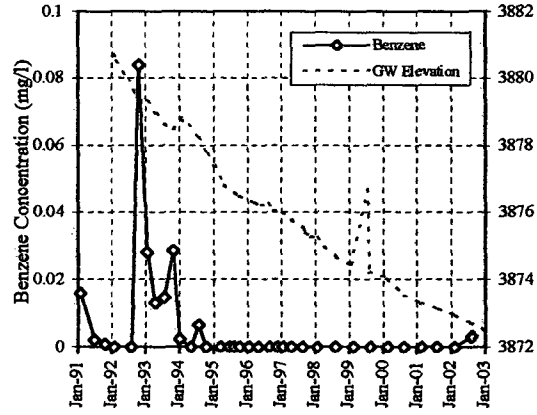
MW-11



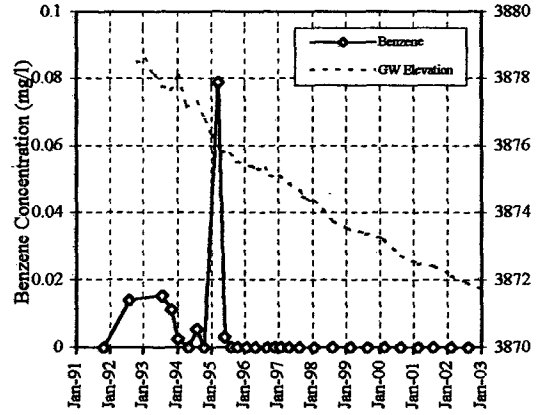
MW-12



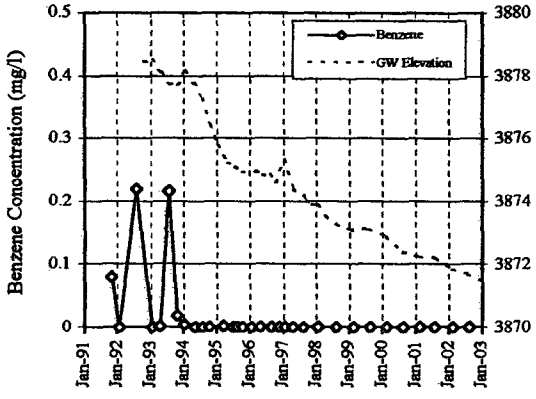
MW-13



MW-19



MW-20



6.0 Monitoring Natural Attenuation

During biodegradation, dissolved BTEX is ultimately transformed into carbon dioxide, methane, and water. Biodegradation of BTEX dissolved in groundwater results in a reduction of contaminant concentration (and mass) and slowing (retardation) of the contaminant relative to the average advective groundwater flow velocity. Indigenous hydrocarbon-degrading microorganisms transform available nutrients into forms useful for energy and cell reproduction by facilitating the transfer of electrons from donors to acceptors. This results in oxidation of the electron donor and reduction of the electron acceptor. Electron donors include natural organic material and petroleum hydrocarbons. Electron acceptors are elements or compounds that occur in relatively oxidized states. The more important electron acceptors in groundwater, in order of utilization, include dissolved oxygen, (DO), nitrate (NO_3), ferric iron (Fe^{3+}), sulfate (SO_4), and carbon dioxide (CO_2).

Biodegradation causes measurable changes in groundwater geochemistry. During aerobic respiration, oxygen is reduced to water, and dissolved oxygen concentrations decrease. In anaerobic systems where nitrate is an electron acceptor, the nitrate is reduced (denitrification) to NO_2^-, N_2O, NO, NH^{4+}, or N_2, and nitrate concentrations decrease. In anaerobic systems where ferric iron (Fe^{3+}) is an electron acceptor, it is reduced (iron reduction) to ferrous iron (Fe^{2+}), and Fe^{2+} concentrations increase. In anaerobic systems where sulfate is an electron acceptor, it is reduced to hydrogen sulfide (H_2S), and sulfate concentrations decrease (sulfate reduction). In anaerobic systems where CO_2 is used as an electron acceptor, methanogenic bacteria reduce it (methanogenosis) to methane (CH_4).

Using the stoichiometric derivations, the mass of benzene degraded per unit mass of electron acceptor utilized and metabolic byproduct produced was calculated to determine the biodegradation capacity of these constituents relative to the highest observed benzene concentration on site. A conservative approach was taken in this analysis in that microbial cell mass production was not taken into account for nitrate or sulfate and only average concentrations of electron acceptors and metabolic byproducts were used. The table below summarizes this comparison.

Electron Acceptor/ Byproduct	Terminal Electron Accepting Process (in order of preferred utilization)	Trend in Analyte Concentration During Biodegradation	Mass of benzene Degraded per unit mass of Electron Acceptor Utilized	Mass of benzene Degraded per unit mass of Metabolic Byproduct Produced	Average Concentrations of Electron Acceptors/ Byproducts (mg/L)	Biodegradation Capacity of Electron Acceptors/ Byproducts (mg/L)
DO	Aerobic Respiration	Decreases	0.97	---	3.04	2.95
NO_3*	Denitrification	Decreases	0.21	---	1.65	0.35
Fe^{2+}	Ferric Iron Reduction	Increases	---	0.046	1.68	0.08
SO_4*	Sulfate Reduction	Decreases	0.22	---	34.8	7.66
					Total Biodegradation Capacity	11.03
					Highest Benzene Concentration Observed on site (MW-7) During 2002 Annual Sampling Event	7.99

* Concervative assumption (does not take into account microbial cell mass production)
Degradation capacity based on values provided by *"Technical Protocol for Implementing Intrinsic Remediation With Long-Term Monitoring of Natural Attenuation of Fuel-Contamination Dissolved in Groundwater"* (Volume 1, 1995, Air Force Center for Environmental Excellence, Technology Transfer Division)

Our suite of biological parameters included dissolved oxygen, nitrate, sulfate, total dissolved iron, ferrous iron, and manganese. These electron acceptor results are summarized in Table 4.

Table 4
Summary of Biological Parameters
Samples Collected on August 13-14, 2002

Monitoring Well	Dissolved Oxygen (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Total Iron (mg/L)	Ferrous Iron (mg/L)	Manganese (mg/L)
MW-7	2.86	<1.0	28.2	0.490	0.55	2.07
MW-9	1.68	3.60	11.0	7.06	9.70	1.68
MW-10	1.57	4.80	16.5	8.22	8.44	3.27
MW-11	1.90	2.27	30.3	<0.050	0.03	0.906
MW-12	1.58	<1.0	22.4	0.086	0.07	0.494
MW-13	2.47	<1.0	8.75	0.143	0.10	2.32
MW-14	2.21	2.00	79.0	2.93	2.52	7.39
MW-16	2.53	2.10	59.2	<0.050	0.08	0.062
MW-17	1.72	0.60	48.0	0.590	0.68	0.362
MW-18	1.30	<1.0	61.4	<0.050	0.08	0.387
MW-19	2.78	3.19	16.9	<0.050	0.03	0.034
MW-20	5.56	1.67	44.9	<0.050	0.16	<0.025
MW-21	6.45	1.40	13.7	<0.050	0.33	<0.025
MW-22	7.91	1.50	46.3	0.453	0.72	0.063

Analyses performed by Trace Analysis, Inc. (Lubbock, Texas).
Dissolved Oxygen (DO) readings obtained with Horiba Model U-10 meter.
Monitoring wells not listed above were not analyzed for these constituents due to the presence of light non-aqueous phase liquids (LNAPL).

Generally, hydrocarbon-impacted wells are compared against upgradient and downgradient wells to observe whether or not significant differences are observed in electron acceptor concentrations that may be related to subsurface biodegradation. The relationships in the electron acceptor data are observed:

- Generally, dissolved oxygen levels are lower within the hydrocarbon-impacted plume area compared to the downgradient and upgradient wells indicating active aerobic biodegradation conditions.
- The presence of nitrate and sulfate as electron acceptors indicate their availability to microorganisms in the course of hydrocarbon degradation.
- Significantly higher concentrations of the metabolic byproducts iron and manganese in hydrocarbon-impacted wells indicates iron and manganese reduction conditions that are the result of anaerobic biodegradation processes.
- The biodegradation capacity of electron acceptors and metabolic byproducts (11.03 mg/L) exceeds the highest benzene concentration (7.99 mg/L) observed on site (MW-7) during the 2002 annual groundwater sampling event. This indicates that the biodegradation process will continue.

7.0 Remediation System Performance

The estimated total fluid extraction volumes from the remediation system recovery wells, for the first quarter of 2002 through the fourth quarter of 2002, are summarized in Table 4. A graphical representation of monthly groundwater recovery volumes for the period of record (January 1, 2002 through December 31, 2002) is depicted in Figure 5. A total of 5,259,575 gallons of groundwater was recovered by the three recovery wells (RW-2, RW-3, and RW-4) during the period of record.

The Xitech product recovery system remains operational at MW-6. LNAPL has also been observed in monitoring wells MW-5, MW-8, and MW-15, therefore passive bailers, absorbent socks, and hand bailing methods have been implemented to remove the free product from these wells.

The soil vapor extraction well system at RW-1 and the air sparge well at MW-23 remain in operation. Vapor extraction utilizing a Roots positive displacement blower (Model 24URAI – 2 hp) at RW-1 has been in operation since August 1993. Air sparging is accomplished by means of a 1 HP Gast® Piston air compressor. Air sparging has been in operation since July 10, 1998. Effectiveness of the vapor extraction and air sparge systems is evidenced by the lack of measurable BTEX concentrations in MW-21, which remain at levels below the laboratory detection limit of 0.005 mg/L for each constituent.

The groundwater recovery, air sparging, and vapor extraction systems have been effective in limiting the downgradient migration of the dissolved-phase hydrocarbon plume. Also, the groundwater recovery system, Xitech product recovery system, passive skimmer, and hand bailing techniques have been effective in recovering free product (condensate), although the total amount of free product recovery is unknown. A summary of the measurable free product recovery volumes for the period of October 2001 through December 2002 is provided in Table 5. A total of 347 gallons of measurable free product was recovered during the period of record.

The following repairs were performed on the remediation system at Lee Gas plant:

- 01-15-02 Installed new Coyote pump off control box at RW-3.
- 01-23-02 Installed repaired Xitech pump in MW-6 and secondary containment for PRT.
- 02-12-02 Replaced faceplate on flow meter at RW-4.
- 03-06-02 Repaired plugged discharge line at RW-2.
- 05-14-02 Replaced faceplate on flow meter at RW-2.
- 07-12-02 Replaced faceplate and battery on flow meter at RW-3.
- 08-14-02 Replaced faceplate on flow meter at RW-4.
- 09-20-02 Installed new GPI flowmeters at RW-2, RW-3, and RW-4. Installed new 2-inch diameter passive bailer in MW-15.
- 10-18-02 Bailed sand buildup from RW-2, RW-3 and RW-4. Replaced worn-out pumps with new Meyers ½ HP submersible pump in RW-3 and RW-4. Installed new 3-inch diameter passive bailer in MW-5.
- 10-24-02 Sections of total fluids discharge lines from RW-2 and RW-3 were upgraded with HDPE line and re-routed. Replaced battery for Xitech PRS at MW-6.

Currently, the air sparging/vapor extraction system at MW-23 and the groundwater recovery system in wells RW-2, RW-3, and RW-4 are operating properly. The Xitech product recovery system in MW-6, the absorbent socks in MW-8, and the passive bailers in MW-5 and MW-15 are also operating properly.

Table 5
Total Fluids Extraction Volumes for 1/1/02-12/31/02
Duke Energy Field Services - Lee Gas Plant

Month - Year	Gallons of Groundwater Recovered			
	RW-2	RW-3	RW-4	Monthly Totals
Jan-02	34,486	145,651	212,414	392,551
Feb-02	49,671	157,755	131,893	339,319
Mar-02	187,929	151,347	125,599	464,875
Apr-02	216,923	86,331	179,461	482,715
May-02	175,637	136,512	169,018	481,167
Jun-02	241,908	157,579	162,558	562,045
Jul-02	110,661	46,570	199,978	357,209
Aug-02	89,290	65,232	161,095	315,617
Sep-02	79,440	46,570	136,338	262,348
Oct-02	28,687	42,487	133,095	204,268
Nov-02	53,296	274,762	342,953	671,011
Dec-02	69,905	281,118	375,426	726,450
Well Totals	1,337,833	1,591,913	2,329,828	**5,259,575**

Figure 5
Total Fluid Extraction Volumes for 1/1/02-12/31/02

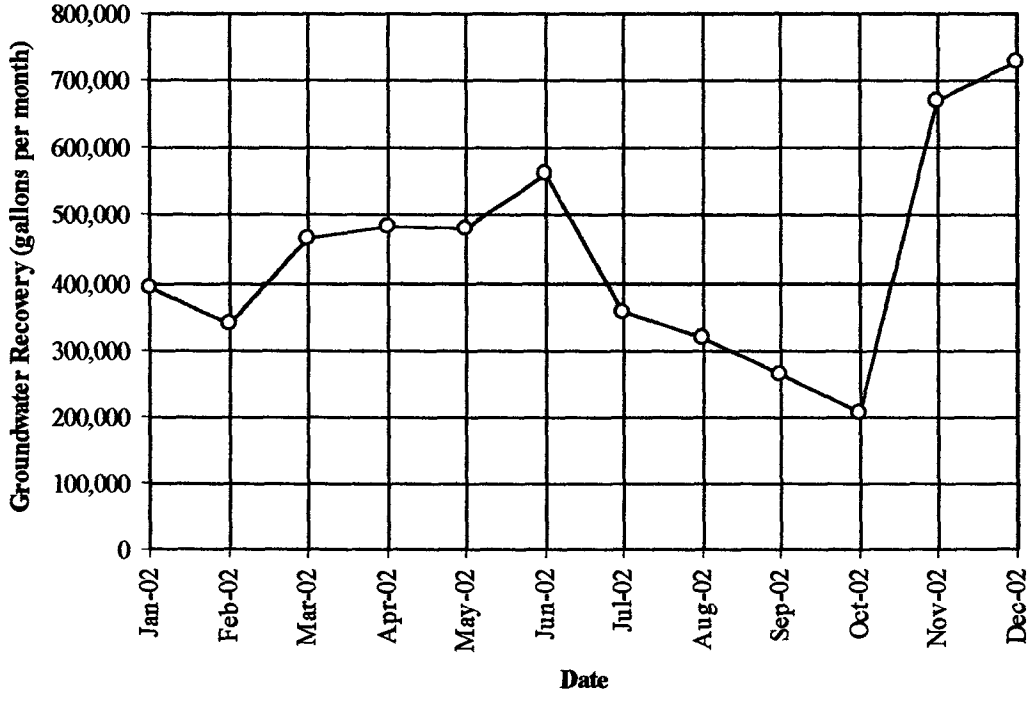


Table 6

Measurable Free Product Recovery Volumes for 10/01/01-12/16/02
Duke Energy Field Services - Lee Gas Plant

Month - Year	Measurable Free Product Recovered (gallons)				
	MW-5	MW-6*	MW-8	MW-15	Monthly Totals
Oct-01	0.60	13.0	0.25	4.12	18.0
Nov-01	0.67	56.0	0.10	0.92	57.7
Dec-02	2.37	49.0	0.12	2.63	54.1
Jan-02	1.05	3.0	0.05	1.49	5.6
Feb-02	0.96	31.0	0.05	1.74	33.7
Mar-02	0.35	0.0	0.12	1.24	1.7
Apr-02	0.00	4.5	0.00	0.80	5.3
May-02	0.83	24.0	0.00	0.70	25.5
Jun-02	0.66	29.0	0.02	0.57	30.2
Jul-02	0.29	21.0	0.00	0.53	21.8
Aug-02	0.71	12.5	0.01	0.39	13.6
Sep-02	0.82	7.0	0.12	0.39	8.3
Oct-02	1.06	53.0	0.11	0.66	54.8
Nov-02	0.92	9.0	0.03	0.39	10.3
Dec-02	0.69	5.0	0.00	0.33	6.0
Well Totals	12.0	317.0	1.0	16.9	347

* Actual free product recovery volumes are underestimated due to evaporation of product from storage tank which cannot be measured.
Also, total fluid recovery from submersible pumps in RW-2, RW-3, & RW-4 recover free product in those wells and also MW-6 & MW-8

8.0 Conclusions

Based on the sampling and monitoring data to date, the following conclusions relevant to groundwater conditions and remediation system performance at the Lee Gas Plant are evident:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations in the groundwater from the downgradient monitoring wells (MW-11, MW-12, MW-13, MW-19 and MW-20) are currently below the New Mexico Water Quality Control Commission (WQCC) standards and the laboratory detection limits. It should be noted that, except for a sample from MW-12 recovered during the February 2000 monitoring event (0.338-mg/l benzene), all of the measured hydrocarbon concentrations have remained below the WQCC standards since May 1995.

- BTEX concentrations in the groundwater from crossgradient monitoring wells MW-18, MW-21, and MW-22 are below the WQCC standards and laboratory detection limits. The BTEX concentrations in crossgradient monitoring well MW-3 was also below WQCC standards during the semi-annual sampling event, however no samples could be obtained during the annual event due to lack of enough groundwater to obtain a sample. The hydrocarbon concentrations from these monitoring wells have remained below the WQCC standards since at least August 1998. Decreasing levels observed in MW-2, MW-3, MW-21, and MW-22 are due to the successful air sparge and vapor extraction operations.

- Benzene concentrations in the groundwater from monitoring wells located within the aerial extent of the dissolved-phase hydrocarbon plume (MW-7, MW-9, MW-10, MW-14, MW-16, and MW-17) remain above WQCC standards, with the exception of MW-14, which has decreased to below the WQCC standard for the first time since August 1998. Toluene, ethylbenzene, and xylene concentrations in all of the wells have remained below the WQCC standards since at least August 1995. The benzene concentrations measured over the past six years in MW-7, MW-10, and MW-16 are generally stable to decreasing while those measured in MW-9 and MW-14, appear to be periodically interrupted by isolated spikes of elevated concentrations. The benzene concentration in MW-17 has increased since August of 1997.

- During the August 13, 2002 monitoring event, light non-aqueous phase liquid (LNAPL) was measured in monitoring wells MW-5 (1.05 feet), MW-6 (4.66 feet), MW-8 (0.01 feet), and MW-15 (0.39 feet).

- A total of 5,259,575 gallons of groundwater was recovered by three recovery wells during the 1-year period of record (January 1, 2002 through December 31, 2002).

- The hydraulic gradient is approximately 0.0035 feet/foot and the direction of groundwater flow is to the southwest, which is consistent with previous gauging data. Average water elevations continue to decrease at a rate of approximately 1 foot/year.

9.0 Recommendations

The following recommendations are proposed for the remediation system and monitoring operations at the Lee Gas Plant.

- Continue groundwater recovery operations since the present system has been effective in limiting the downgradient migration of the dissolved-phase hydrocarbon plume.
- Continue LNAPL recovery at MW-6 with the Xitech system.
- Continue free product recovery from MW-5, MW-8, and MW-15 using passive bailers and/or hydrophobic adsorbent socks, and hand bailing methods as appropriate.
- Continue the program of monitoring natural attenuation that includes the analysis of dissolved oxygen (DO), nitrate (NO_3), sulfate (SO_4), ferric iron (Fe^{3+}), ferrous iron (Fe^{2+}), and manganese (Mn) to assess the efficacy of intrinsic bioremediation processes occurring on site.
- Continue the sampling and monitoring program on a semi-annual basis. The next sampling event is scheduled during the first quarter of 2003.

Appendix A

Laboratory Analytical Reports

and

Chain-of-Custody Documentation

TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Summary Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, Tx. 79708

Report Date: February 18, 2002

Order ID Number: A02021412

Project Number: CC # V-101
Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
190958	MW-20	Water	2/11/02	11:20	2/14/02
190959	MW-19	Water	2/11/02	12:45	2/14/02
190960	MW-13	Water	2/11/02	14:00	2/14/02
190961	MW-12	Water	2/11/02	15:30	2/14/02
190962	MW-11	Water	2/11/02	16:30	2/14/02
190963	MW-21	Water	2/11/02	17:45	2/14/02
190964	MW-3	Water	2/11/02	9:30	2/14/02
190965	Duplicate	Water	2/11/02	:	2/14/02
190966	Rinsate	Water	2/11/02	17:00	2/14/02

0 This report consists of a total of 1 page(s) and is intended only as a summary of results for the sample(s) listed above.

	BTEX				
Sample - Field Code	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
190958 - MW-20	<0.005	<0.005	<0.005	<0.005	<0.005
190959 - MW-19	<0.001	<0.001	<0.001	<0.001	<0.001
190960 - MW-13	<0.001	<0.001	<0.001	<0.001	<0.001
190961 - MW-12	0.0011	<0.001	<0.001	<0.001	0.0011
190962 - MW-11	<0.001	<0.001	<0.001	<0.001	<0.001
190963 - MW-21	<0.005	<0.005	<0.005	<0.005	<0.005
190964 - MW-3	<0.001	<0.001	<0.001	<0.001	<0.001
190965 - Duplicate	<0.001	<0.001	<0.001	<0.001	<0.001
190966 - Rinsate	<0.001	<0.001	<0.001	<0.001	<0.001

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, Tx. 79708

Report Date: February 18, 2002

Order ID Number: A02021412

Project Number: CC # V-101
Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
190958	MW-20	Water	2/11/02	11:20	2/14/02
190959	MW-19	Water	2/11/02	12:45	2/14/02
190960	MW-13	Water	2/11/02	14:00	2/14/02
190961	MW-12	Water	2/11/02	15:30	2/14/02
190962	MW-11	Water	2/11/02	16:30	2/14/02
190963	MW-21	Water	2/11/02	17:45	2/14/02
190964	MW-3	Water	2/11/02	9:30	2/14/02
190965	Duplicate	Water	2/11/02	:	2/14/02
190966	Rinsate	Water	2/11/02	17:00	2/14/02

0
These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed. Note: the RDL is equal to MQL for all organic analytes including TPH.

This report consists of a total of 7 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 190958 - MW-20

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC18147	Date Analyzed:	2/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB17681	Date Prepared:	2/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.093	mg/L	5	0.10	93	70 - 130
4-BFB		0.097	mg/L	5	0.10	97	70 - 130

Sample: 190959 - MW-19

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC18147	Date Analyzed:	2/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB17681	Date Prepared:	2/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.100	mg/L	1	0.10	100	70 - 130
4-BFB		0.102	mg/L	1	0.10	102	70 - 130

Sample: 190960 - MW-13

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC18147	Date Analyzed:	2/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB17681	Date Prepared:	2/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.112	mg/L	1	0.10	112	70 - 130
4-BFB		0.111	mg/L	1	0.10	111	70 - 130

Sample: 190961 - MW-12

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC18147	Date Analyzed:	2/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB17681	Date Prepared:	2/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0011	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		0.0011	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.101	mg/L	1	0.10	101	70 - 130
4-BFB		0.106	mg/L	1	0.10	106	70 - 130

Sample: 190962 - MW-11

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC18147	Date Analyzed:	2/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB17681	Date Prepared:	2/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0995	mg/L	1	0.10	100	70 - 130
4-BFB		0.103	mg/L	1	0.10	103	70 - 130

Sample: 190963 - MW-21

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC18147	Date Analyzed:	2/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB17681	Date Prepared:	2/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001

Continued ...

... Continued Sample: 190963 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.09	mg/L	5	0.10	90	70 - 130
4-BFB		0.094	mg/L	5	0.10	94	70 - 130

Sample: 190964 - MW-3

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC18147	Date Analyzed:	2/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB17681	Date Prepared:	2/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0926	mg/L	1	0.10	93	70 - 130
4-BFB		0.0961	mg/L	1	0.10	96	70 - 130

Sample: 190965 - Duplicate

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC18147	Date Analyzed:	2/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB17681	Date Prepared:	2/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.097	mg/L	1	0.10	97	70 - 130
4-BFB		0.0997	mg/L	1	0.10	100	70 - 130

Sample: 190966 - Rinsate

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC18147	Date Analyzed:	2/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB17681	Date Prepared:	2/14/02

Continued ...

... *Continued* Sample: 190966 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0984	mg/L	1	0.10	98	70 - 130
4-BFB		0.101	mg/L	1	0.10	101	70 - 130

Quality Control Report
Method Blank

Method Blank

QCBatch: QC18147

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.101	mg/L	1	0.10	101	70 - 130
4-BFB		0.107	mg/L	1	0.10	107	70 - 130

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC18147

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0963	0.0971	mg/L	1	0.10	<0.001	96	1	82 - 111	20
Benzene	0.0998	0.101	mg/L	1	0.10	<0.001	100	1	86 - 106	20
Toluene	0.0995	0.101	mg/L	1	0.10	<0.001	100	1	82 - 108	20
Ethylbenzene	0.0959	0.0979	mg/L	1	0.10	<0.001	96	2	86 - 115	20
M,P,O-Xylene	0.273	0.278	mg/L	1	0.30	<0.001	91	2	79 - 122	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.101	0.103	mg/L	1	0.10	101	103	70 - 130
4-BFB	0.126	0.126	mg/L	1	0.10	126	126	70 - 130

Quality Control Report
Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC18147

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0978	98	85 - 115	2/14/02
Benzene		mg/L	0.10	0.101	101	85 - 115	2/14/02

Continued ...

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/L	0.10	0.100	100	85 - 115	2/14/02
Ethylbenzene		mg/L	0.10	0.0969	97	85 - 115	2/14/02
M,P,O-Xylene		mg/L	0.30	0.275	92	85 - 115	2/14/02

CCV (2)

QCBatch: QC18147

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.098	98	85 - 115	2/14/02
Benzene		mg/L	0.10	0.1	100	85 - 115	2/14/02
Toluene		mg/L	0.10	0.099	99	85 - 115	2/14/02
Ethylbenzene		mg/L	0.10	0.096	96	85 - 115	2/14/02
M,P,O-Xylene		mg/L	0.30	0.271	90	85 - 115	2/14/02

ICV (1)

QCBatch: QC18147

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.097	97	85 - 115	2/14/02
Benzene		mg/L	0.10	0.100	100	85 - 115	2/14/02
Toluene		mg/L	0.10	0.100	100	85 - 115	2/14/02
Ethylbenzene		mg/L	0.10	0.0958	96	85 - 115	2/14/02
M,P,O-Xylene		mg/L	0.30	0.273	91	85 - 115	2/14/02

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

V-101-0202

Chain of Custody

Date 2/12/12 Page 1 of 1

Lab Name: TraceAnalysis Inc.
Address: 6701 Aberdeen, Ste. 9
Lubbock, Texas 79424
Telephone: 800-378-1296

Samplers (SIGNATURES) [signature]

Sample Identification		Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Sulfate & Nitrate	Ferric iron, ferrous iron, manganese	Methane							Number of Containers
MW-20	190958	Water	2-11-02	1120		✓																				2
MW-19	59	Water	2-11-02	1245		✓																				2
MW-13	60	Water	2-11-02	1400		✓																				2
MW-12	61	Water	2-11-02	1530		✓																				2
MW-11	62	Water	2-11-02	1630		✓																				2
MW-21	63	Water	2-11-02	1745		✓																				2
MW-3	64	Water	2-12-02	0930		✓																				2
Duplicate	65	Water	2-11-02	0000		✓																				2
Rinsate	66	Water	2-11-02	1700		✓																				2

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Lee Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	
Cost Center No.:	V-101	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

	(1)	(2)	(3)
Relinquished By: (Company)	Trident Environmental	TRACE ANALYSIS	
(Printed Name)	Gil VanDeventer	HELEN SHELTON	
(Signature)	[signature]	[signature]	
(Date) / (Time)	2-12-02 / 8:30 pm	2/13/02 / 1830	
Received By: (Company)	TRACE ANALYSIS		[signature]
(Printed Name)	Helen Shelton		Vicki Hensley
(Signature)	HELEN SHELTON		TraceAnalysis
(Date) / (Time)	2/12/02 / 8:30PM		2-14-02 / 10:00

Copy signed original form for Trident Environmental records

Shipped Greyhound [illegible] samples - HS [illegible]

Summary Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, Tx. 79708

Report Date: August 23, 2002

Order ID Number: A02081620

Project Number: CC # V-101
Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
205425	MW-17	Water	8/14/02	9:12	8/16/02
205426	MW-16	Water	8/14/02	10:10	8/16/02
205427	MW-22	Water	8/14/02	10:50	8/16/02
205428	MW-14	Water	8/14/02	11:15	8/16/02
205429	MW-21	Water	8/14/02	12:00	8/16/02
205430	MW-9	Water	8/14/02	18:05	8/16/02
205431	MW-10	Water	8/14/02	19:10	8/16/02
205432	duplicate	Water	8/14/02	14:14	8/16/02
205433	Rinsate	Water	8/14/02	17:40	8/16/02
205434	Field Blank	Water	8/14/02	9:00	8/16/02

0 This report consists of a total of 2 page(s) and is intended only as a summary of results for the sample(s) listed above.

	BTEX				
Sample - Field Code	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
205425 - MW-17	0.015	<0.001	<0.001	<0.001	0.015
205426 - MW-16	0.0159	<0.001	<0.001	<0.001	0.0159
205427 - MW-22	<0.001	<0.001	<0.001	<0.001	<0.001
205428 - MW-14	<0.001	<0.001	<0.001	<0.001	<0.001
205429 - MW-21	<0.001	<0.001	<0.001	<0.001	<0.001
205430 - MW-9	1.57	<0.005	0.0126	<0.005	1.58
205431 - MW-10	7.99	<0.050	<0.050	<0.050	7.99
205432 - duplicate	<0.005	<0.005	<0.005	<0.005	<0.005
205433 - Rinsate	<0.001	<0.001	<0.001	<0.001	<0.001
205434 - Field Blank	<0.001	<0.001	<0.001	<0.001	<0.001

Sample: 205425 - MW-17

Param	Flag	Result	Units
Total Iron		0.590	mg/L
Total Manganese		0.362	mg/L

This is only a summary. Please, refer to the complete report package for quality control data.

Sample: 205426 - MW-16

Param	Flag	Result	Units
Total Iron		<0.050	mg/L
Total Manganese		0.062	mg/L

Sample: 205427 - MW-22

Param	Flag	Result	Units
Total Iron		0.453	mg/L
Total Manganese		0.0627	mg/L

Sample: 205428 - MW-14

Param	Flag	Result	Units
Total Iron		2.93	mg/L
Total Manganese		7.39	mg/L

Sample: 205429 - MW-21

Param	Flag	Result	Units
Total Iron		<0.050	mg/L
Total Manganese		<0.025	mg/L

Sample: 205430 - MW-9

Param	Flag	Result	Units
Total Iron		7.06	mg/L
Total Manganese		1.68	mg/L

Sample: 205431 - MW-10

Param	Flag	Result	Units
Total Iron		8.22	mg/L
Total Manganese		3.27	mg/L

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, Tx. 79708

Report Date: August 23, 2002

Order ID Number: A02081620

Project Number: CC # V-101
Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
205425	MW-17	Water	8/14/02	9:12	8/16/02
205426	MW-16	Water	8/14/02	10:10	8/16/02
205427	MW-22	Water	8/14/02	10:50	8/16/02
205428	MW-14	Water	8/14/02	11:15	8/16/02
205429	MW-21	Water	8/14/02	12:00	8/16/02
205430	MW-9	Water	8/14/02	18:05	8/16/02
205431	MW-10	Water	8/14/02	19:10	8/16/02
205432	duplicate	Water	8/14/02	14:14	8/16/02
205433	Rinsate	Water	8/14/02	17:40	8/16/02
205434	Field Blank	Water	8/14/02	9:00	8/16/02

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed. Note: the RDL is equal to MQL for all organic analytes including TPH.
The test results contained within this report meet all requirements of LAC 33:I unless otherwise noted.

Note: Samples will be disposed of 30 days from the report date unless the lab is contacted before the 30 days has past.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 205425 - MW-17

Analysis: BTEX | Analytical Method: S 8021B | QC Batch: QC22851 | Date Analyzed: 8/16/02
Analyst: CG | Preparation Method: S 5030B | Prep Batch: PB21497 | Date Prepared: 8/16/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.015	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		0.015	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0908	mg/L	1	0.10	91	70 - 130
4-BFB		0.086	mg/L	1	0.10	86	70 - 130

Sample: 205425 - MW-17

Analysis: Total Metals | Analytical Method: S 6010B | QC Batch: QC23000 | Date Analyzed: 8/22/02
Analyst: RR | Preparation Method: S 3010A | Prep Batch: PB21488 | Date Prepared: 8/19/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		0.590	mg/L	1	0.05
Total Manganese		0.362	mg/L	1	0.02

Sample: 205426 - MW-16

Analysis: BTEX | Analytical Method: S 8021B | QC Batch: QC22851 | Date Analyzed: 8/16/02
Analyst: CG | Preparation Method: S 5030B | Prep Batch: PB21497 | Date Prepared: 8/16/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0159	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		0.0159	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0916	mg/L	1	0.10	92	70 - 130
4-BFB		0.0857	mg/L	1	0.10	86	70 - 130

Sample: 205426 - MW-16

Analysis: Total Metals | Analytical Method: S 6010B | QC Batch: QC23000 | Date Analyzed: 8/22/02
Analyst: RR | Preparation Method: S 3010A | Prep Batch: PB21488 | Date Prepared: 8/19/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		<0.050	mg/L	1	0.05
Total Manganese		0.062	mg/L	1	0.02

Sample: 205427 - MW-22

Analysis: BTEX | Analytical Method: S 8021B | QC Batch: QC22851 | Date Analyzed: 8/16/02
Analyst: CG | Preparation Method: S 5030B | Prep Batch: PB21497 | Date Prepared: 8/16/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	[1]	0.0589	mg/L	1	0.10	58	70 - 130
4-BFB	[2]	0.0588	mg/L	1	0.10	58	70 - 130

Sample: 205427 - MW-22

Analysis: Total Metals | Analytical Method: S 6010B | QC Batch: QC23000 | Date Analyzed: 8/22/02
Analyst: RR | Preparation Method: S 3010A | Prep Batch: PB21488 | Date Prepared: 8/19/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		0.453	mg/L	1	0.05
Total Manganese		0.0627	mg/L	1	0.02

Sample: 205428 - MW-14

Analysis: BTEX | Analytical Method: S 8021B | QC Batch: QC22851 | Date Analyzed: 8/16/02
Analyst: CG | Preparation Method: S 5030B | Prep Batch: PB21497 | Date Prepared: 8/16/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0846	mg/L	1	0.10	85	70 - 130
4-BFB		0.0848	mg/L	1	0.10	85	70 - 130

[1]Low surrogate recovery due to matrix interference. ICV, CCV show the method to be in control.
[2]Low surrogate recovery due to matrix interference. ICV, CCV show the method to be in control.

Sample: 205428 - MW-14

Analysis:	Total Metals	Analytical Method:	S 6010B	QC Batch:	QC23000	Date Analyzed:	8/22/02
Analyst:	RR	Preparation Method:	S 3010A	Prep Batch:	PB21488	Date Prepared:	8/19/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		2.93	mg/L	1	0.05
Total Manganese		7.39	mg/L	1	0.02

Sample: 205429 - MW-21

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC22851	Date Analyzed:	8/16/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB21497	Date Prepared:	8/16/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0842	mg/L	1	0.10	84	70 - 130
4-BFB		0.0841	mg/L	1	0.10	84	70 - 130

Sample: 205429 - MW-21

Analysis:	Total Metals	Analytical Method:	S 6010B	QC Batch:	QC23000	Date Analyzed:	8/22/02
Analyst:	RR	Preparation Method:	S 3010A	Prep Batch:	PB21488	Date Prepared:	8/19/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		<0.050	mg/L	1	0.05
Total Manganese		<0.025	mg/L	1	0.02

Sample: 205430 - MW-9

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC22851	Date Analyzed:	8/16/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB21497	Date Prepared:	8/16/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		1.57	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		0.0126	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		1.58	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0812	mg/L	1	0.10	81	70 - 130
4-BFB		0.0799	mg/L	1	0.10	79	70 - 130

Sample: 205430 - MW-9

Analysis: Total Metals | Analytical Method: S 6010B | QC Batch: QC23000 | Date Analyzed: 8/22/02
Analyst: RR | Preparation Method: S 3010A | Prep Batch: PB21488 | Date Prepared: 8/19/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		7.06	mg/L	1	0.05
Total Manganese		1.68	mg/L	1	0.02

Sample: 205431 - MW-10

Analysis: BTEX | Analytical Method: S 8021B | QC Batch: QC22882 | Date Analyzed: 8/19/02
Analyst: CG | Preparation Method: S 5030B | Prep Batch: PB21525 | Date Prepared: 8/19/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		7.99	mg/L	50	0.001
Toluene		<0.050	mg/L	50	0.001
Ethylbenzene		<0.050	mg/L	50	0.001
M,P,O-Xylene		<0.050	mg/L	50	0.001
Total BTEX		7.99	mg/L	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0939	mg/L	50	0.10	93	70 - 130
4-BFB		0.0907	mg/L	50	0.10	90	70 - 130

Sample: 205431 - MW-10

Analysis: Total Metals | Analytical Method: S 6010B | QC Batch: QC23000 | Date Analyzed: 8/22/02
Analyst: RR | Preparation Method: S 3010A | Prep Batch: PB21488 | Date Prepared: 8/19/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		8.22	mg/L	1	0.05
Total Manganese		3.27	mg/L	1	0.02

Sample: 205432 - duplicate

Analysis: BTEX | Analytical Method: S 8021B | QC Batch: QC22882 | Date Analyzed: 8/19/02
Analyst: CG | Preparation Method: S 5030B | Prep Batch: PB21525 | Date Prepared: 8/19/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0937	mg/L	5	0.10	93	70 - 130
4-BFB		0.089	mg/L	5	0.10	89	70 - 130

Sample: 205433 - Rinsate

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC22851	Date Analyzed:	8/16/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB21497	Date Prepared:	8/16/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0824	mg/L	1	0.10	82	70 - 130
4-BFB		0.0841	mg/L	1	0.10	84	70 - 130

Sample: 205434 - Field Blank

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC22851	Date Analyzed:	8/16/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB21497	Date Prepared:	8/16/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0816	mg/L	1	0.10	82	70 - 130
4-BFB		0.0824	mg/L	1	0.10	82	70 - 130

Quality Control Report
Method Blank

Method Blank

QCBatch: QC22851

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0817	mg/L	1	0.10	82	70 - 130
4-BFB		0.0811	mg/L	1	0.10	81	70 - 130

Method Blank

QCBatch: QC22882

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.090	mg/L	1	0.10	90	70 - 130
4-BFB		0.0882	mg/L	1	0.10	88	70 - 130

Method Blank

QCBatch: QC23000

Param	Flag	Results	Units	Reporting Limit
Total Iron		<0.050	mg/L	0.05
Total Manganese		<0.025	mg/L	0.02

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC22851

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0862	0.0877	mg/L	1	0.10	<0.001	86	2	70 - 130	20
Benzene	0.0899	0.0904	mg/L	1	0.10	<0.001	90	0	70 - 130	20
Toluene	0.0878	0.0884	mg/L	1	0.10	<0.001	88	1	70 - 130	20
Ethylbenzene	0.0904	0.0919	mg/L	1	0.10	<0.001	90	2	70 - 130	20
M,P,O-Xylene	0.273	0.278	mg/L	1	0.30	<0.001	91	2	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.0864	0.0831	mg/L	1	0.10	86	83	70 - 130
4-BFB	0.091	0.0876	mg/L	1	0.10	91	88	70 - 130

Laboratory Control Spikes

QCBatch: QC22882

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0928	0.0947	mg/L	1	0.10	<0.001	93	2	70 - 130	20
Benzene	0.093	0.094	mg/L	1	0.10	<0.001	93	1	70 - 130	20
Toluene	0.0912	0.0927	mg/L	1	0.10	<0.001	91	2	70 - 130	20
Ethylbenzene	0.0906	0.0922	mg/L	1	0.10	<0.001	91	2	70 - 130	20
M,P,O-Xylene	0.262	0.266	mg/L	1	0.30	<0.001	87	2	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.0913	0.0897	mg/L	1	0.10	91	90	70 - 130
4-BFB	0.0894	0.0892	mg/L	1	0.10	89	89	70 - 130

Laboratory Control Spikes

QCBatch: QC23000

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Iron	0.522	0.502	mg/L	1	0.50	<0.050	104	4	75 - 125	20
Total Manganese	0.250	0.252	mg/L	1	0.25	<0.025	100	1	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes

QCBatch: QC23000

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Iron	1.11	1.10	mg/L	1	0.50	0.590	103	1	75 - 125	20
Total Manganese	0.608	0.625	mg/L	1	0.25	0.362	98	6	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC22851

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0923	92	85 - 115	8/16/02
Benzene		mg/L	0.10	0.0923	92	85 - 115	8/16/02
Toluene		mg/L	0.10	0.0912	91	85 - 115	8/16/02
Ethylbenzene		mg/L	0.10	0.0952	95	85 - 115	8/16/02
M,P,O-Xylene		mg/L	0.30	0.284	95	85 - 115	8/16/02

CCV (2)

QCBatch: QC22851

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0854	85	85 - 115	8/16/02
Benzene		mg/L	0.10	0.0906	90	85 - 115	8/16/02
Toluene		mg/L	0.10	0.0879	87	85 - 115	8/16/02
Ethylbenzene		mg/L	0.10	0.0913	91	85 - 115	8/16/02
M,P,O-Xylene		mg/L	0.30	0.274	91	85 - 115	8/16/02

ICV (1)

QCBatch: QC22851

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0874	87	85 - 115	8/16/02
Benzene		mg/L	0.10	0.0909	91	85 - 115	8/16/02
Toluene		mg/L	0.10	0.0892	89	85 - 115	8/16/02
Ethylbenzene		mg/L	0.10	0.0934	93	85 - 115	8/16/02
M,P,O-Xylene		mg/L	0.30	0.281	94	85 - 115	8/16/02

CCV (1)

QCBatch: QC22882

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0977	98	85 - 115	8/19/02
Benzene		mg/L	0.10	0.0959	96	85 - 115	8/19/02
Toluene		mg/L	0.10	0.0943	94	85 - 115	8/19/02
Ethylbenzene		mg/L	0.10	0.0937	94	85 - 115	8/19/02
M,P,O-Xylene		mg/L	0.30	0.270	90	85 - 115	8/19/02

CCV (2)

QCBatch: QC22882

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0979	97	85 - 115	8/19/02
Benzene		mg/L	0.10	0.095	95	85 - 115	8/19/02
Toluene		mg/L	0.10	0.0931	93	85 - 115	8/19/02
Ethylbenzene		mg/L	0.10	0.093	93	85 - 115	8/19/02
M,P,O-Xylene		mg/L	0.30	0.268	89	85 - 115	8/19/02

ICV (1)

QCBatch: QC22882

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0958	96	85 - 115	8/19/02
Benzene		mg/L	0.10	0.0949	95	85 - 115	8/19/02
Toluene		mg/L	0.10	0.0932	93	85 - 115	8/19/02
Ethylbenzene		mg/L	0.10	0.0925	92	85 - 115	8/19/02
M,P,O-Xylene		mg/L	0.30	0.268	89	85 - 115	8/19/02

CCV (1)

QCBatch: QC23000

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1	0.977	98	90 - 110	8/22/02
Total Manganese		mg/L	0.50	0.487	97	90 - 110	8/22/02

ICV (1)

QCBatch: QC23000

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1	0.990	99	95 - 105	8/22/02
Total Manganese		mg/L	0.50	0.500	100	95 - 105	8/22/02

H0208100C

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

V-101-0802-2

Chain of Custody

Date 8-15-02 Page 1 of 1

Lab Name: TraceAnalysis Inc.
Address: 6701 Aberdeen, Ste. 9
Lubbock, Texas 79424
Telephone: 800-378-1296

Samplers (SIGNATURES) [signature]

Sample Identification		Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Sulfate & Nitrate	Ferric iron & manganese								Number of Containers
MW-17	205425 (mult on cont.)	Water	8-14-02	0912		✓												✓								3
MW-16	26	Water	8-14-02	1010		✓												✓								3
MW-22	27	Water	8-14-02	1050		✓												✓								3
MW-14	28	Water	8-14-02	1115		✓												✓								3
MW-21	29	Water	8-14-02	1200		✓												✓								3
MW-9	30	Water	8-14-02	1805		✓												✓								3
MW-10	31	Water	8-14-02	1910		✓												✓								3
Duplicate	32	Water	8-14-02	1414		✓																				2
Rinsate	33	Water	8-14-02	1740		✓																				2
Field Blank	34	Water	8-13-02	0900		✓																				2

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Lee Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	
Project No.:	V-101	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

	Relinquished By: (1)	Relinquished By: (2)	Relinquished By: (3)
(Company)	Trident Environmental	TRACE ANALYSIS	
(Printed Name)	Gilbert VanDeventer	HELEN SHELTON	
(Signature)	[signature]	[signature]	
(Date) (Time)	8-15-02 1420	8/15/02 1830	

	Received By: (1)	Received By: (2)	Received By: (3)
(Company)	TRACE ANALYSIS		[signature]
(Printed Name)	HELEN SHELTON		Vicki Hensley
(Signature)	[signature]		TraceAnalysis
(Date) (Time)	8-15-02 1420		8-16-02 10:00

Copy signed original form for Trident Environmental records

Shipped Greyhound — 27 samples - HS

Summary Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, Tx. 79708

Report Date: August 20, 2002

Order ID Number: A02081421

Project Number: CC # V-101
Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
204970	MW20	Water	8/13/02	10:30	8/14/02
204971	MW-19	Water	8/13/02	11:43	8/14/02
204972	MW-13	Water	8/13/02	12:50	8/14/02
204973	MW-12	Water	8/13/02	15:35	8/14/02
204974	MW-11	Water	8/13/02	16:40	8/14/02
204975	MW-18	Water	8/13/02	17:50	8/14/02
204976	MW-7	Water	8/13/02	18:50	8/14/02

0 This report consists of a total of 3 page(s) and is intended only as a summary of results for the sample(s) listed above.

	BTEX				
Sample - Field Code	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
204970 - MW20	<0.005	<0.005	<0.005	<0.005	<0.005
204971 - MW-19	<0.001	<0.001	<0.001	<0.001	<0.001
204972 - MW-13	0.0031	<0.001	<0.001	<0.001	0.0031
204973 - MW-12	<0.001	<0.001	<0.001	<0.001	<0.001
204974 - MW-11	<0.001	<0.001	<0.001	<0.001	<0.001
204975 - MW-18	<0.001	<0.001	<0.001	<0.001	<0.001
204976 - MW-7	0.0261	<0.005	<0.005	<0.005	0.0261

Sample: 204970 - MW20

Param	Flag	Result	Units
Nitrate-N		1.67	mg/L
Sulfate		44.9	mg/L
Total Iron		<0.050	mg/L
Total Manganese		<0.025	mg/L

This is only a summary. Please, refer to the complete report package for quality control data.

Sample: 204971 - MW-19

Param	Flag	Result	Units
Nitrate-N		3.19	mg/L
Sulfate		16.9	mg/L
Total Iron		<0.050	mg/L
Total Manganese		0.0337	mg/L

Sample: 204972 - MW-13

Param	Flag	Result	Units
Nitrate-N		<1.0	mg/L
Sulfate		8.75	mg/L
Total Iron		0.143	mg/L
Total Manganese		2.32	mg/L

Sample: 204973 - MW-12

Param	Flag	Result	Units
Nitrate-N		<1.0	mg/L
Sulfate		22.4	mg/L
Total Iron		0.086	mg/L
Total Manganese		0.494	mg/L

Sample: 204974 - MW-11

Param	Flag	Result	Units
Nitrate-N		2.27	mg/L
Sulfate		30.3	mg/L
Total Iron		<0.050	mg/L
Total Manganese		0.906	mg/L

Sample: 204975 - MW-18

Param	Flag	Result	Units
Nitrate-N		<1.0	mg/L
Sulfate		61.4	mg/L
Total Iron		<0.050	mg/L
Total Manganese		0.387	mg/L

Sample: 204976 - MW-7

Param	Flag	Result	Units
Nitrate-N		<1.0	mg/L
Sulfate		28.2	mg/L

Continued on next page ...

Sample 204976 continued ...

Param	Flag	Result	Units
Total Iron		0.490	mg/L
Total Manganese		2.07	mg/L

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, Tx. 79708

Report Date: August 20, 2002

Order ID Number: A02081421

Project Number: CC # V-101
Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
204970	MW20	Water	8/13/02	10:30	8/14/02
204971	MW-19	Water	8/13/02	11:43	8/14/02
204972	MW-13	Water	8/13/02	12:50	8/14/02
204973	MW-12	Water	8/13/02	15:35	8/14/02
204974	MW-11	Water	8/13/02	16:40	8/14/02
204975	MW-18	Water	8/13/02	17:50	8/14/02
204976	MW-7	Water	8/13/02	18:50	8/14/02

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed. Note: the RDL is equal to MQL for all organic analytes including TPH.
The test results contained within this report meet all requirements of LAC 33:I unless otherwise noted.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 204970 - MW20

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC22779	Date Analyzed:	8/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB21443	Date Prepared:	8/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0884	mg/L	5	0.10	88	70 - 130
4-BFB		0.0746	mg/L	5	0.10	74	70 - 130

Sample: 204970 - MW20

Analysis:	Ion Chromatography (IC)	Analytical Method:	E 300.0	QC Batch:	QC22778	Date Analyzed:	8/15/02
Analyst:	JSW	Preparation Method:		Prep Batch:	PB21442	Date Prepared:	8/15/02

Param	Flag	Result	Units	Dilution	RDL
Nitrate-N		1.67	mg/L	5	0.20
Sulfate		44.9	mg/L	5	1

Sample: 204970 - MW20

Analysis:	Total Metals	Analytical Method:	S 6010B	QC Batch:	QC22816	Date Analyzed:	8/16/02
Analyst:	RR	Preparation Method:	S 3010A	Prep Batch:	PB21440	Date Prepared:	8/15/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		<0.050	mg/L	1	0.05
Total Manganese		<0.025	mg/L	1	0.02

Sample: 204971 - MW-19

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC22779	Date Analyzed:	8/14/02
Analyst:	CG	Preparation Method:	S 5030B	Prep Batch:	PB21443	Date Prepared:	8/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0918	mg/L	1	0.10	92	70 - 130
4-BFB		0.0803	mg/L	1	0.10	80	70 - 130

Sample: 204971 - MW-19

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC22778 Date Analyzed: 8/15/02
Analyst: JSW Preparation Method: Prep Batch: PB21442 Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Nitrate-N		3.19	mg/L	5	0.20
Sulfate		16.9	mg/L	5	1

Sample: 204971 - MW-19

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC22816 Date Analyzed: 8/16/02
Analyst: RR Preparation Method: S 3010A Prep Batch: PB21440 Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		<0.050	mg/L	1	0.05
Total Manganese		0.0337	mg/L	1	0.02

Sample: 204972 - MW-13

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC22779 Date Analyzed: 8/14/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB21443 Date Prepared: 8/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0031	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		0.0031	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0939	mg/L	1	0.10	94	70 - 130
4-BFB		0.0814	mg/L	1	0.10	81	70 - 130

Sample: 204972 - MW-13

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC22778 Date Analyzed: 8/15/02
Analyst: JSW Preparation Method: Prep Batch: PB21442 Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Nitrate-N		<1.0	mg/L	5	0.20
Sulfate		8.75	mg/L	5	1

Sample: 204972 - MW-13

Analysis: Total Metals | Analytical Method: S 6010B | QC Batch: QC22816 | Date Analyzed: 8/16/02
Analyst: RR | Preparation Method: S 3010A | Prep Batch: PB21440 | Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		0.143	mg/L	1	0.05
Total Manganese		2.32	mg/L	1	0.02

Sample: 204973 - MW-12

Analysis: BTEX | Analytical Method: S 8021B | QC Batch: QC22779 | Date Analyzed: 8/14/02
Analyst: CG | Preparation Method: S 5030B | Prep Batch: PB21443 | Date Prepared: 8/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0902	mg/L	1	0.10	90	70 - 130
4-BFB		0.0784	mg/L	1	0.10	78	70 - 130

Sample: 204973 - MW-12

Analysis: Ion Chromatography (IC) | Analytical Method: E 300.0 | QC Batch: QC22778 | Date Analyzed: 8/15/02
Analyst: JSW | Preparation Method: | Prep Batch: PB21442 | Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Nitrate-N		<1.0	mg/L	5	0.20
Sulfate		22.4	mg/L	5	1

Sample: 204973 - MW-12

Analysis: Total Metals | Analytical Method: S 6010B | QC Batch: QC22816 | Date Analyzed: 8/16/02
Analyst: RR | Preparation Method: S 3010A | Prep Batch: PB21440 | Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		0.086	mg/L	1	0.05
Total Manganese		0.494	mg/L	1	0.02

Sample: 204974 - MW-11

Analysis: BTEX | Analytical Method: S 8021B | QC Batch: QC22779 | Date Analyzed: 8/14/02
Analyst: CG | Preparation Method: S 5030B | Prep Batch: PB21443 | Date Prepared: 8/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001

Continued ...

... Continued Sample: 204974 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.092	mg/L	1	0.10	92	70 - 130
4-BFB		0.0792	mg/L	1	0.10	79	70 - 130

Sample: 204974 - MW-11

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC22778 Date Analyzed: 8/15/02
Analyst: JSW Preparation Method: Prep Batch: PB21442 Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Nitrate-N		2.27	mg/L	5	0.20
Sulfate		30.3	mg/L	5	1

Sample: 204974 - MW-11

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC22816 Date Analyzed: 8/16/02
Analyst: RR Preparation Method: S 3010A Prep Batch: PB21440 Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		<0.050	mg/L	1	0.05
Total Manganese		0.906	mg/L	1	0.02

Sample: 204975 - MW-18

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC22779 Date Analyzed: 8/14/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB21443 Date Prepared: 8/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0901	mg/L	1	0.10	90	70 - 130
4-BFB		0.0782	mg/L	1	0.10	78	70 - 130

Sample: 204975 - MW-18

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC22915 Date Analyzed: 8/15/02
Analyst: JSW Preparation Method: Prep Batch: PB21555 Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Nitrate-N		<1.0	mg/L	5	0.20
Sulfate		61.4	mg/L	5	1

Sample: 204975 - MW-18

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC22816 Date Analyzed: 8/16/02
Analyst: RR Preparation Method: S 3010A Prep Batch: PB21440 Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		<0.050	mg/L	1	0.05
Total Manganese		0.387	mg/L	1	0.02

Sample: 204976 - MW-7

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC22779 Date Analyzed: 8/14/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB21443 Date Prepared: 8/14/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0261	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		0.0261	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0864	mg/L	5	0.10	86	70 - 130
4-BFB		0.0738	mg/L	5	0.10	73	70 - 130

Sample: 204976 - MW-7

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC22915 Date Analyzed: 8/15/02
Analyst: JSW Preparation Method: Prep Batch: PB21555 Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Nitrate-N		<1.0	mg/L	5	0.20
Sulfate		28.2	mg/L	5	1

Sample: 204976 - MW-7

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC22816 Date Analyzed: 8/16/02
Analyst: RR Preparation Method: S 3010A Prep Batch: PB21440 Date Prepared: 8/15/02

Param	Flag	Result	Units	Dilution	RDL
Total Iron		0.490	mg/L	1	0.05

Continued ...

... *Continued* Sample: 204976 Analysis: Total Metals

Param	Flag	Result	Units	Dilution	RDL
Total Manganese		2.07	mg/L	1	0.02

Quality Control Report
Method Blank

Method Blank QCBatch: QC22778

Param	Flag	Results	Units	Reporting Limit
Nitrate-N		<0.2	mg/L	0.20
Sulfate		<1.0	mg/L	1

Method Blank QCBatch: QC22779

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.097	mg/L	1	0.10	97	70 - 130
4-BFB		0.082	mg/L	1	0.10	82	70 - 130

Method Blank QCBatch: QC22816

Param	Flag	Results	Units	Reporting Limit
Total Iron		<0.050	mg/L	0.05
Total Manganese		<0.025	mg/L	0.02

Method Blank QCBatch: QC22915

Param	Flag	Results	Units	Reporting Limit
Nitrate-N		<0.2	mg/L	0.20
Sulfate		<1.0	mg/L	1

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC22778

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Chloride	11.55	11.58	mg/L	1	12.50	<1.0	92	0	90 - 110	20
Fluoride	2.40	2.41	mg/L	1	2.50	<0.2	96	0	90 - 110	20
Nitrate-N	2.37	2.38	mg/L	1	2.50	<0.2	94	0	90 - 110	20
Sulfate	11.90	11.84	mg/L	1	12.50	<1.0	95	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spikes

QCBatch: QC22779

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0984	0.0966	mg/L	1	0.10	<0.001	98	2	70 - 130	20
Benzene	0.0945	0.0934	mg/L	1	0.10	<0.001	94	1	70 - 130	20
Toluene	0.0893	0.0889	mg/L	1	0.10	<0.001	89	0	70 - 130	20
Ethylbenzene	0.0867	0.0859	mg/L	1	0.10	<0.001	87	1	70 - 130	20
M,P,O-Xylene	0.270	0.265	mg/L	1	0.30	<0.001	90	2	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.0965	0.0943	mg/L	1	0.10	96	94	70 - 130
4-BFB	0.0977	0.0949	mg/L	1	0.10	98	95	70 - 130

Laboratory Control Spikes

QCBatch: QC22816

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Iron	0.549	0.579	mg/L	1	0.50	<0.050	110	5	75 - 125	20
Total Manganese	0.258	0.272	mg/L	1	0.25	<0.025	103	5	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spikes

QCBatch: QC22915

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Chloride	11.58	11.6	mg/L	1	12.50	<1.0	92	0	90 - 110	20
Nitrate-N	2.39	2.38	mg/L	1	2.50	<0.2	95	0	90 - 110	20
Sulfate	11.93	12.03	mg/L	1	12.50	<1.0	95	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes

QCBatch: QC22778

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Nitrate-N	252	248	mg/L	1	250	2.03	99	1	87 - 100	20
Sulfate	3620	3640	mg/L	1	1250	2430	95	1	59 - 121	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes

QCBatch: QC22816

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Iron	0.560	0.550	mg/L	1	0.50	<0.050	112	2	75 - 125	20
Total Manganese	0.263	0.266	mg/L	1	0.25	<0.025	105	1	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes

QCBatch: QC22915

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Nitrate-N	2510		mg/L	1	2500	0	100		87 - 100	
Sulfate	13530		mg/L	1	12500	1510	96		59 - 121	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC22778

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.50	11.38	91	90 - 110	8/15/02
Fluoride		mg/L	2.50	2.34	93	90 - 110	8/15/02
Nitrate-N		mg/L	2.50	2.38	95	90 - 110	8/15/02
Sulfate		mg/L	12.50	11.51	92	90 - 110	8/15/02

ICV (1)

QCBatch: QC22778

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.50	11.34	90	90 - 110	8/15/02
Fluoride		mg/L	2.50	2.39	95	90 - 110	8/15/02
Nitrate-N		mg/L	2.50	2.35	94	90 - 110	8/15/02
Sulfate		mg/L	12.50	11.81	94	90 - 110	8/15/02

CCV (1) QCBatch: QC22779

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0914	91	85 - 115	8/14/02
Benzene		mg/L	0.10	0.0886	89	85 - 115	8/14/02
Toluene		mg/L	0.10	0.0839	84	85 - 115	8/14/02
Ethylbenzene		mg/L	0.10	0.0824	82	85 - 115	8/14/02
M,P,O-Xylene		mg/L	0.30	0.252	84	85 - 115	8/14/02

CCV (2) QCBatch: QC22779

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0954	95	85 - 115	8/14/02
Benzene		mg/L	0.10	0.091	91	85 - 115	8/14/02
Toluene		mg/L	0.10	0.0852	85	85 - 115	8/14/02
Ethylbenzene		mg/L	0.10	0.0842	84	85 - 115	8/14/02
M,P,O-Xylene		mg/L	0.30	0.255	85	85 - 115	8/14/02

ICV (1) QCBatch: QC22779

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0984	98	85 - 115	8/14/02
Benzene		mg/L	0.10	0.0959	96	85 - 115	8/14/02
Toluene		mg/L	0.10	0.0896	90	85 - 115	8/14/02
Ethylbenzene		mg/L	0.10	0.0865	86	85 - 115	8/14/02
M,P,O-Xylene		mg/L	0.30	0.276	92	85 - 115	8/14/02

CCV (1) QCBatch: QC22816

Continued ...

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1	1.02	102	90 - 110	8/16/02
Total Manganese		mg/L	0.50	0.507	101	90 - 110	8/16/02

ICV (1)

QCBatch: QC22816

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1	0.992	99	95 - 105	8/16/02
Total Manganese		mg/L	0.50	0.499	99	95 - 105	8/16/02

CCV (1)

QCBatch: QC22915

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.50	11.61	92	90 - 110	8/15/02
Nitrate-N		mg/L	2.50	2.39	95	90 - 110	8/15/02
Sulfate		mg/L	12.50	12.03	96	90 - 110	8/15/02

ICV (1)

QCBatch: QC22915

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.50	11.38	91	90 - 110	8/15/02
Nitrate-N		mg/L	2.50	2.38	95	90 - 110	8/15/02
Sulfate		mg/L	12.50	11.51	92	90 - 110	8/15/02

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

* NO_3 samples enclosed (48 hr. hold time)

V-101-0802-1

Chain of Custody

Date 8-13-02 Page 1 of 1

Lab Name: [redacted] Analysis Inc.
Address: [redacted] Aberdeen, Ste. 9
Lubbock, Texas 79424
Telephone: 800-378-1296

Samplers (SIGNATURES)

Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C - Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Sulfate & Nitrate	Ferric iron & manganese	Number of Containers
MW-20	Water	8/13/02	1030	G	X			204970								X	X	4
MW-19	Water	8/13/02	1143	G	X				971							X	X	4
MW-13 1 vial Broken	Water	8/13/02	1250	G	X				972							X	X	4
MW-12	Water	8/13/02	1535	G	X				973							X	X	4
MW-11	Water	8/13/02	1640	G	X				974							X	X	4
MW-18	Water	8/13/02	1750	G	X				975							X	X	4
MW-7 (MW 8/13/02)	Water	8/13/02	1850	G	X				~~980~~	976						X	X	4
	~~Water~~	~~8/13/02~~		~~G~~	~~X~~											~~X~~	~~X~~	~~4~~
	~~Water~~	~~8/13/02~~		~~G~~	~~X~~											~~X~~	~~X~~	~~4~~
	~~Water~~	~~8/13/02~~		~~G~~	~~X~~											~~X~~	~~X~~	~~4~~

Analysis Request

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Lee Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	-1°
Project No.:	V-101	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

Relinquished By: (1) (Company)	Relinquished By: (2) (Company)	Relinquished By: (3) (Company)
Trident Environmental		
(Printed Name) Gil Van Deventer	(Printed Name)	(Printed Name)
(Signature)	(Signature)	(Signature)
(Date) 8-13-02 (Time) 11:59 pm	(Date) (Time)	(Date) (Time)
Received By: (1) (Company)	**Received By: (2) (Company)**	**Received By: (3) (Company)**
(Printed Name)	(Printed Name)	(Printed Name) Vicki Hinsley
(Signature)	(Signature)	(Signature) Trace Analysis
(Date) (Time)	(Date) (Time)	(Date) 8-13-02 (Time) 10:0

Copy signed original form for Trident Environmental records

-1° TNM 402 822-078-4

8/20 FIP

ANALYTICAL REPORT

Prepared for:

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Project:	Lee Gas Plant
PO#:	V-101
Order#:	G0204229
Report Date:	08/17/2002

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708
682-0727

Order#: G0204229
Project: V-101
Project Name: Lee Gas Plant
Location: DEFS/ Lee Gas Plant

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0204229-01	MW-17	WATER	8/14/02 9:12	8/15/02 13:30	500mL HDPE	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		
	Nitrogen, Nitrate					
	SULFATE, 375.4					
0204229-02	MW-16	WATER	8/14/02 10:10	8/15/02 13:30	500mL HDPE	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		
	Nitrogen, Nitrate					
	SULFATE, 375.4					
0204229-03	MW-22	WATER	8/14/02 10:50	8/15/02 13:30	500mL HDPE	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		
	Nitrogen, Nitrate					
	SULFATE, 375.4					
0204229-04	MW-14	WATER	8/14/02 11:15	8/15/02 13:30	500mL HDPE	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		
	Nitrogen, Nitrate					
	SULFATE, 375.4					
0204229-05	MW-21	WATER	8/14/02 12:00	8/15/02 13:30	500mL HDPE	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		
	Nitrogen, Nitrate					
	SULFATE, 375.4					
0204229-06	MW-9	WATER	8/14/02 18:05	8/15/02 13:30	500mL HDPE	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		
	Nitrogen, Nitrate					
	SULFATE, 375.4					
0204229-07	MW-10	WATER	8/14/02 19:10	8/15/02 13:30	500mL HDPE	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708
682-0727

Order#: G0204229
Project: V-101
Project Name: Lee Gas Plant
Location: DEFS/ Lee Gas Plant

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
	Nitrogen, Nitrate					
	SULFATE, 375.4					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0204229
Project: V-101
Project Name: Lee Gas Plant
Location: DEFS/ Lee Gas Plant

Lab ID: 0204229-01
Sample ID: MW-17

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Nitrogen, Nitrate	0.60	mg/L	1	0.5	353.3	8/15/02	SB
SULFATE, 375.4	48.0	mg/L	1	0.5	375.4	8/16/02	SB

Lab ID: 0204229-02
Sample ID: MW-16

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Nitrogen, Nitrate	2.10	mg/L	1	0.5	353.3	8/15/02	SB
SULFATE, 375.4	59.2	mg/L	1	0.5	375.4	8/16/02	SB

Lab ID: 0204229-03
Sample ID: MW-22

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Nitrogen, Nitrate	1.50	mg/L	1	0.5	353.3	8/15/02	SB
SULFATE, 375.4	46.3	mg/L	1	0.5	375.4	8/16/02	SB

Lab ID: 0204229-04
Sample ID: MW-14

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Nitrogen, Nitrate	2.00	mg/L	1	0.5	353.3	8/15/02	SB
SULFATE, 375.4	79.0	mg/L	1	0.5	375.4	8/16/02	SB

Lab ID: 0204229-05
Sample ID: MW-21

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Nitrogen, Nitrate	1.40	mg/L	1	0.5	353.3	8/15/02	SB
SULFATE, 375.4	13.7	mg/L	1	0.5	375.4	8/16/02	SB

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER		**Order#:**	**G0204229**
TRIDENT ENVIRONMENTAL		**Project:**	**V-101**
P.O. BOX 7624		**Project Name:**	**Lee Gas Plant**
MIDLAND, TX 79708		**Location:**	**DEFS/ Lee Gas Plant**

Lab ID: 0204229-06
Sample ID: MW-9

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Nitrogen, Nitrate	3.60	mg/L	1	0.5	353.3	8/15/02	SB
SULFATE, 375.4	11.0	mg/L	1	0.5	375.4	8/16/02	SB

Lab ID: 0204229-07
Sample ID: MW-10

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Nitrogen, Nitrate	4.80	mg/L	1	0.5	353.3	8/15/02	SB
SULFATE, 375.4	16.5	mg/L	1	0.5	375.4	8/16/02	SB

Approval: Celey D. Keene 8/22/02
Raland K. Tuttle, Lab Director, QA Officer — Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

RL = Reporting Limit **N/A = Not Applicable**

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204229

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Nitrogen, Nitrate-mg/L	0002832-01			<0.10		
SULFATE, 375.4-mg/L	0002859-01			<0.50		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Nitrogen, Nitrate-mg/L	0204229-01	0.6		0.5		18.2%
SULFATE, 375.4-mg/L	0204220-01	110		110		0.%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Nitrogen, Nitrate-mg/L	0002832-04		2	1.9	95.%	
SULFATE, 375.4-mg/L	0002859-04		50	49.4	98.8%	

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

V-101-0802-3

Chain of Custody

Date 8-15-02 Page 1 of 1

Lab Name: Environmental Lab of Texas
Address: 12600 West I-20 East
Odessa, TX 79763
Telephone: 915-563-1800

Samplers (SIGNATURES): Gilbert Van Deventer

Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Sulfate & Nitrate 300 mL HDPE	Ferric iron & manganese	Number of Containers	
MW-17	Water	8-14-02	0912													✓		1	0204229-01
MW-16	Water	8-14-02	1010													✓		1	-02
MW-22	Water	8-14-02	1050													✓		1	-03
MW-14	Water	8-14-02	1115													✓		1	-04
MW-21	Water	8-14-02	1200													✓		1	-05
MW-9	Water	8-14-02	1805													✓		1	-06
MW-10	Water	8-14-02	1910													✓		1	-07

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Lee Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	30°
Project No.:	V-101	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

Relinquished By: (1) (Company)	Relinquished By: (2) (Company)	Relinquished By: (3) (Company)
Trident Environmental		
(Printed Name) Gilbert Van Deventer	(Printed Name)	(Printed Name)
(Signature) Gilbert Van Deventer	(Signature)	(Signature)
(Date) 8-15-02 (Time) 1:30pm	(Date) (Time)	(Date) (Time)
Received By: (1) (Company) ELOT	**Received By: (2) (Company)**	**Received By: (3) (Company)**
(Printed Name) Rueland K Tuttle	(Printed Name)	(Printed Name)
(Signature)	(Signature)	(Signature)
(Date) 8-15-02 (Time) 1830	(Date) (Time)	(Date) (Time)

Copy signed original form for Trident Environmental records

Appendix B

Well Sampling Data Forms

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: MW-3
SITE NAME: LEE GAS PLANT
DATE: 2/12/02
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

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: 109.61 Feet
DEPTH TO WATER: 106.68 Feet
HEIGHT OF WATER COLUMN: 2.93 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
0924	2	12.4	1560	7.36	7.47	19	Hand bailed
						0930	= sample collection time (MST)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-11**
SITE NAME: LEE GAS PLANT
DATE: 2/11/02
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 118.03 Feet
DEPTH TO WATER: 105.73 Feet
HEIGHT OF WATER COLUMN: 12.30 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
1603	0	-	-	-	-	-	Pump On
1607	5	18.9	2050	7.61	5.06	-	
1610	10	19.5	2270	7.52	3.63	-	
1612	15	19.8	2180	7.54	3.29	-	
1614	20	19.9	2000	7.59	3.52	-	
1617	25	20.0	1890	7.63	3.79	-	
1620	30	20.1	1820	7.61	3.18	-	
1624	35	20.3	1750	7.65	3.00	-	
1627	40	20.3	1760	7.66	-	-	Pump Off
						1630	= sample collection time (MST)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-12**
SITE NAME: LEE GAS PLANT
DATE: 2/11/02
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.60 Feet
DEPTH TO WATER: 106.22 Feet
HEIGHT OF WATER COLUMN: 11.38 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1501	0	-	-	-	-	-	Pump On!
1504	5	18.3	842	8.13	5.56	-	
1507	10	19.6	809	8.03	2.96	-	
1510	15	20.0	792	8.10	3.01	-	
1513	20	20.3	793	8.06	2.39	-	
1515	25	20.3	794	8.07	2.99	-	
1518	30	20.3	793	8.06	2.500	-	
1521	35	20.3	790	8.11	2.98	-	
1524	40	20.3	791	8.08	2.75	-	Pump Off
						1530	= sample collection time (MST)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-13**
SITE NAME: LEE GAS PLANT
DATE: 2/11/02
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.40 Feet
DEPTH TO WATER: 108.11 Feet
HEIGHT OF WATER COLUMN: 9.29 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1328	0	-	-	-	-	-	Pump On
1333	5	17.7	1410	7.56	5.58	-	
1337	10	19.9	1550	7.38	2.49	-	
1342	15	20.4	1610	7.37	2.24	-	
1347	20	20.4	1620	7.37	2.76	-	
1352	25	20.5	1630	7.35	2.93	-	
1357	30	20.6	1650	7.34	2.98	-	
1402	35	20.6	1650	7.35	3.04	-	
1407	40	20.0	1660	7.36	3.05		Pump Off
						1400	= sample collection time (MST)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-19**
SITE NAME: LEE GAS PLANT
DATE: 2/11/02
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 126.57 Feet
DEPTH TO WATER: 109.15 Feet
HEIGHT OF WATER COLUMN: 17.42 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1224	0	-	-	-	-	-	Pump On
1226	5	18.5	1270	7.1	4.48	-	
1228	10	19.1	1360	7.02	3.34	-	
1231	15	19.9	1360	6.95	2.81	-	
1235	20	20.2	1360	6.98	2.62	-	
1239	25	20.4	1360	6.96	2.47	-	
1242	30	20.4	1350	6.99	2.76	-	
1246	35	20.5	1350	6.96	2.72	-	
1249	40	20.5	1350	6.98	2.65	-	Pump Off
						1245	= sample collection time (MST)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-20**
SITE NAME: LEE GAS PLANT
DATE: 2/11/02
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump

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: 128.05 Feet
DEPTH TO WATER: 111.9 Feet
HEIGHT OF WATER COLUMN: 16.15 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1053	0	-	-	-	-	-	Pump On
1056	5	18.6	699	6.9	3.99	-	
1104	10	18.9	692	7.41	3.75	-	
1109	15	20.2	669	7.55	3.99	-	
1113	20	20.9	644	7.60	3.16	-	
1116	25	20.6	648	7.58	2.71	-	
1120	30	20.7	651	7.60	2.84	-	
1123	35	20.7	653	7.59	3.08	-	
1127	40	20.7	654	7.58	2.76	-	Pump off
						1130	= sample collection time (MST)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-21**
SITE NAME: LEE GAS PLANT
DATE: 2/11/02
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

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: 123.48 Feet
DEPTH TO WATER: NM Feet
HEIGHT OF WATER COLUMN: NM Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1730	4	17.9	478	8.42	9.90	103	Hand bailed
1757	8	18.4	469	8.38	9.87	424	
						1745	= sample collection time (MST)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-7**
SITE NAME: LEE GAS PLANT
DATE: 8/13/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

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: 111.65 Feet
DEPTH TO WATER: 105.76 Feet
HEIGHT OF WATER COLUMN: 5.89 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
1835	0	-	-	-	-	-	
1839	2	27.6	1099	7.08	3.64	-5.3	
1843	3	25.4	1152	7.10	2.86	-6.2	
						0.55	mg/L Ferrous Iron concentration*
						1850	= sample collection time (MST)
							Well pumped dry early. Discontinued
							purging after pumping 3 gallons so as
							not to risk burning up Grundfos pump

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-9**
SITE NAME: LEE GAS PLANT
DATE: 8/14/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.02 Feet
DEPTH TO WATER: 107.38 Feet
HEIGHT OF WATER COLUMN: 9.64 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
1747	0	-	-	-	-	-	Pump On
1749	5	30.5	-	6.65	2.51	19.1	
1753	15	24.0	1220	6.78	2.09	11.9	
1755	20	23.8	1123	6.77	1.80	12.5	
1752	25	23.7	1109	6.77	1.89	12.6	
1756	30	23.7	803	6.8	1.86	10.8	
1801	35	23.7	805	6.81	1.82	10.4	
1803	40	23.7	776	6.81	1.68	10.6	Pump Off
						9.7	mg/L Ferrous Iron concentration*
						1805	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-10**
SITE NAME: LEE GAS PLANT
DATE: 8/14/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.50 Feet
DEPTH TO WATER: 107.09 Feet
HEIGHT OF WATER COLUMN: 10.41 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
1842	3	25.3	-	6.94	3.51	3.0	Conductivity meter went bad
1846	6	25.2	-	7.00	3.57	-0.4	
1851	9	25.3	-	6.99	2.94	0.0	
1855	12	25.3	-	7.00	4.66	-0.1	
1858	15	25.3	-	6.99	1.81	0.3	
1902	18	25.2	-	6.99	2.33	0.0	
1906	21	25.3	-	6.99	1.57	0.5	
1910	24	25.3	-	6.99	2.00	0.2	Pump Off
						8.44	mg/L Ferrous Iron concentration*
						1910	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-11**
SITE NAME: LEE GAS PLANT
DATE: 8/13/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 118.03 Feet
DEPTH TO WATER: 106.16 Feet
HEIGHT OF WATER COLUMN: 11.87 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
1610	0	-	-	-	-	-	Pump On
1613	5	25.0	1844	7.20	1.92	-12.2	
1616	10	24.3	1518	7.21	1.89	-12.9	
1619	15	24.1	1315	7.25	1.60	-14.8	
1622	20	24.2	1220	7.27	1.82	-16.3	
1626	25	24.2	1168	7.29	1.77	-17.0	
1631	30	24.2	1148	7.30	1.92	-17.8	
1634	35	24.2	1121	7.29	1.77	-17.3	
1638	40	24.2	1053	7.30	1.90	-18.3	Pump Off
						0.03	mg/L Ferrous Iron concentration*
						1640	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-12**
SITE NAME: LEE GAS PLANT
DATE: 8/13/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.60 Feet
DEPTH TO WATER: 106.66 Feet
HEIGHT OF WATER COLUMN: 10.94 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1500	0	-	-	-	-	-	Pump On!
1503	5	22.9	890	7.52	3.35	-	
1505	10	25.9	842	7.53	2.56	-	
1510	15	24.7	805	7.53	1.88	-	
1514	20	24.7	803	7.54	1.76	-	
1519	25	24.7	807	7.52	1.66	-	
1524	30	24.8	799	7.53	1.61	-	
1528	35	24.7	794	7.53	1.58	-	
1532	40	24.7	807	7.52	1.58	-	Pump Off
						0.07	mg/L Ferrous Iron concentration*
						1535	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-13**
SITE NAME: LEE GAS PLANT
DATE: 8/13/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.40 Feet
DEPTH TO WATER: 108.54 Feet
HEIGHT OF WATER COLUMN: 8.86 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1207	0	-	-	-	-	-	Pump On
1210	5	25.9	1260	7.28	2.47	-	
1213	10	24.1	1317	7.03	4.33	-	
1218	15	25.3	1375	6.94	6.17	-	
1225	20	25.2	1353	6.91	6.57	-	
1232	25	25.0	1391	6.91	6.39	-	
1238	30	25.3	1407	6.90	7.03	-	
1244	38	25.3	1401	6.89	6.23	-	Pump Off
						0.10	mg/L Ferrous Iron concentration*
						1250	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-14**
SITE NAME: LEE GAS PLANT
DATE: 8/14/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 118.49 Feet
DEPTH TO WATER: 109.87 Feet
HEIGHT OF WATER COLUMN: 8.62 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
1416	0	-	-	-	-	-	Pump On
1419	5	23.6	1560	7.04	1.62	90	
1422	10	22.6	1490	6.99	1.66	28	
1425	15	21.9	1580	7.01	2.18	28	
1428	20	21.7	1640	6.96	2.33	12	
1431	25	21.8	1640	6.93	2.45	2	
1433	30	21.5	1630	6.92	2.58	2	
1436	35	21.2	1640	6.90	2.39	1	
1439	40	21.2	1640	6.90	2.39	1	Pump Off
							mg/L Ferrous Iron concentration*
							= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-16**
SITE NAME: LEE GAS PLANT
DATE: 8/14/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 125.15 Feet
DEPTH TO WATER: 105.38 Feet
HEIGHT OF WATER COLUMN: 19.77 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
0948	0	-	-	-	-	-	Pump On
0952	5	23.1	601	6.86	2.53	9.9	
0954	10	23.1	588	6.76	2.84	16.9	
0956	15	23.0	583	6.87	4.68	9.4	
0959	20	23.1	548	6.99	5.62	-0.2	
1002	25	23.1	538	7.06	5.92	-4.7	
1005	30	23.1	539	7.08	6.19	-6.9	
1007	35	23.1	540	7.11	6.00	-8.7	
1010	40	23.5	552	7.18	5.64	-10.1	Pump Off
						0.08	mg/L Ferrous Iron concentration*
						1010	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-17**
SITE NAME: LEE GAS PLANT
DATE: 8/14/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 124.09 Feet
DEPTH TO WATER: 108.12 Feet
HEIGHT OF WATER COLUMN: 15.97 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
0846	0	-	-	-	-	-	Pump On
0849	5	22.2	756	6.86	2.71	8.0	
0852	10	22.6	732	6.82	2.17	10.2	
0855	15	22.7	725	6.84	1.88	9.4	
0858	20	22.8	706	6.90	1.91	5.3	
0902	25	22.9	701	6.93	1.66	3.5	
0905	30	22.9	697	6.96	1.32	1.6	
0908	35	22.9	696	6.99	1.72	0.0	
0912	40	22.9	691	6.99	1.72	0.0	Pump Off
						0.68	mg/L Ferrous Iron concentration*
						912	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-18**
SITE NAME: LEE GAS PLANT
DATE: 8/13/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 130.02 Feet
DEPTH TO WATER: 109.53 Feet
HEIGHT OF WATER COLUMN: 20.49 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
1718	0	-	-	-	-	-	Pump On
1722	5	26.7	525	7.19	2.44	-11.1	
1726	10	23.8	466	7.08	1.50	-6.2	
1729	15	23.7	465	7.22	1.42	-13.8	
1734	20	23.7	460	7.32	1.34	-20.5	
1738	25	23.6	454	7.38	1.34	-23.6	
1742	30	23.6	452	7.41	1.35	-25.9	
1745	35	23.5	446	7.43	1.31	-26.9	
1749	40	23.4	444	7.45	1.30	-27.7	Pump Off
						0.08	mg/L Ferrous Iron concentration*
						1750	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-19**
SITE NAME: LEE GAS PLANT
DATE: 8/13/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 126.57 Feet
DEPTH TO WATER: 109.66 Feet
HEIGHT OF WATER COLUMN: 16.91 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1118	0	-	-	-	-	-	Pump On
1120	5	26.0	1041	6.63	3.13	-	
1122	10	23.9	1022	6.62	2.65	-	
1125	15	23.3	1028	6.64	2.62	-	
1128	20	23.3	1028	6.63	2.15	-	
1130	25	23.2	1035	6.62	1.91	-	
1133	30	23.1	1026	6.67	2.63	-	
1136	35	23.1	1024	6.64	2.13	-	
1138	40	23.1	1018	6.68	2.78	-	Pump Off
						0.03	mg/L Ferrous Iron concentration*
						1143	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-21**
SITE NAME: LEE GAS PLANT
DATE: 8/14/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

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: 123.48 Feet
DEPTH TO WATER: NM Feet
HEIGHT OF WATER COLUMN: NM Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
1200	9	27.2	442	6.77	6.45	13.1	Hand bailed
						0.33	mg/L Ferrous Iron concentration*
						1200	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-22**
SITE NAME: LEE GAS PLANT
DATE: 8/14/02
PROJECT NO. V-101
SAMPLER: Littlejohn / Van Deventer

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: 148.58 Feet
DEPTH TO WATER: NM Feet
HEIGHT OF WATER COLUMN: NM Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	ORP mV	PHYSICAL APPEARANCE AND REMARKS
1050	9	24.6	468	7.69	7.91	-45.7	Hand bailed
						0.72	mg/L Ferrous Iron concentration*
						1050	= sample collection time (MST)

COMMENTS: * Hach Model 2010 Spectrophotometer used to measure ferrous iron in the field (Method 8146).

2001 Annual Groundwater Monitoring and Sampling and Remediation System Performance Report
Duke Energy Field Services
Lee Gas Plant
Lea County, New Mexico

NOVEMBER 14, 2001

Prepared For:

Duke Energy Field Services
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Prepared By:

TRIDENT ENVIRONMENTAL

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2001 Annual Groundwater Monitoring and Sampling Report
Duke Energy Field Services – Lee Gas Plant
Lea County, New Mexico

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DATE: 11-14-01

Dale T. Littlejohn
Quality Assurance Officer

11-14-01

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1.0 Executive Summary

Trident Environmental (Trident), was retained by Duke Energy Field Services (DEFS) to perform the sampling and monitoring operations at the Lee Gas Plant. The plant is located in sections 30 and 31 of township 17 south and range 35 east in Lea County, New Mexico. This 2001 annual report summarizes the two sampling events performed by Trident at the DEFS Lee Gas Plant on February 15 through 16, 2001 and July 31 through August 1, 2001.

Based on the sampling and monitoring data to date, the following conclusions relevant to groundwater conditions and remediation system performance at the Lee Gas Plant are evident:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations in the groundwater from the downgradient monitoring wells (MW-11, MW-12, MW-13, MW-19 and MW-20) are currently below the New Mexico Water Quality Control Commission (WQCC) standards and the laboratory detection limits. It should be noted that, except for a sample from MW-12 recovered during the February 2000 monitoring event (0.338-mg/l benzene), all of the measured hydrocarbon concentrations have remained below the WQCC standards since May 1995.

- BTEX concentrations in the groundwater from the crossgradient monitoring wells (MW-2, MW-3, MW-18, MW-21, and MW-22) are below the WQCC standards and laboratory detection limits. The hydrocarbon concentrations from these monitoring wells have remained below the WQCC standards since at least August 1998. Decreasing levels observed in MW-21 and MW-22 are due to the successful air sparge and vapor extraction operations.

- Benzene concentrations in the groundwater from monitoring wells located within the aerial extent of the dissolved-phase hydrocarbon plume (MW-7, MW-9, MW-10, MW-14, MW-16, and MW-17) remain above WQCC standards, with the exception of MW-7, which has decreased to below the WQCC standard for the first time since July 1994. Toluene, ethylbenzene, and xylene concentrations in all of the wells have remained below the WQCC standards since at least August 1995. The benzene concentrations measured over the past six years in MW-7, MW-10, and MW-16 are generally stable to decreasing while those measured in MW-9 and MW-14, appear to be periodically interrupted by isolated spikes of elevated concentrations. The benzene concentration in MW-17 has increased since August of 1997.

- During the July 31 through August 1, 2001 monitoring event, light non-aqueous phase liquid (LNAPL) was measured in monitoring wells MW-5 (0.11 feet), MW-6 (≈3.0 feet), MW-8 (0.01 feet), and MW-15 (3.44 feet).

- A total of 4,765,727 gallons of groundwater was recovered by three recovery wells during the 1-year period of record (October 1, 2000 through September 30, 2001).

- The hydraulic gradient is approximately 0.0035 feet/foot and the direction of groundwater flow is to the southwest based on the gauging data obtained on July 31, 2001.

- The average water table elevations across the site have decreased by an average of about 1-foot per year since March 28, 1988.

The following recommendations are proposed for the remediation system and monitoring operations at the Lee Gas Plant.

- Continue groundwater recovery operations since the present system has been effective in limiting the downgradient migration of the dissolved-phase hydrocarbon plume.
- Continue LNAPL recovery at MW-6 with the Xitech system.
- Continue free product recovery from MW-5, MW-8, and MW-15 using passive bailers and/or hydrophobic adsorbent socks, and hand bailing methods as appropriate.
- Begin a program of monitoring natural attenuation that includes the analysis of dissolved oxygen (DO), nitrate (NO_3), sulfate (SO_4), ferric iron (Fe^{3+}), ferrous iron (Fe^{2+}), and manganese (Mn) to assess the efficacy of intrinsic bioremediation processes occurring on site.
- Continue the sampling and monitoring program on a semi-annual basis. The next sampling event is scheduled during the first quarter of 2002.

2.0 Chronology of Events

April 1988	The New Mexico Environmental Improvement Division (NMEID) issued a Compliance Order/Schedule to Phillips 66 Natural Gas Company to install four monitoring wells and sample for groundwater quality to comply with Resource Conservation and Recovery Act (RCRA) monitoring requirements.
June 6, 1988	Four monitoring wells (MW-1, MW-2, MW-3 and MW-4) were installed by Geoscience Consultants Ltd. (GCL) between April 21, 1988 and April 29, 1988. The existing four monitoring wells were plugged and abandoned. Groundwater samples were collected on May 13, 1988.
September 23, 1988	GCL conducted a limited soil vapor survey at Lee Gas Plant. Two potential hydrocarbon sources were identified: the former evaporation pond located east of the main plant, and the small, former evaporation pond located north of the main plant.
January 1990	New Mexico Oil Conservation Division (OCD) takes jurisdiction for groundwater conditions at Lee Gas Plant. GCL submitted a work plan to the OCD for further investigation and implementation of remediation of free product.
May 30, 1990	GCL completed a subsurface investigation to define the limits of the free-phase hydrocarbon plume and to begin recovery of the floating product. The investigation included the installation and sampling of four monitoring wells (MW-5, MW-6, MW-7 and MW-8) and one recovery well (RW-1).
October 9, 1990	GCL completed Phase II of a subsurface investigation to further delineate the dissolved hydrocarbon plume. The investigation included the installation and sampling of four monitoring wells (MW-9, MW-10, MW-11 and MW-12).
March 11, 1991	GCL completed Phase III of a subsurface investigation to delineate the leading edge of the dissolved-phase hydrocarbon plume. The investigation included the installation and sampling of two monitoring wells (MW-13 and MW-14) and the conversion of two existing monitoring wells (MW-7 and MW-8) into recovery wells.
March 18, 1991	The OCD approved the Discharge Plan (GW-2) for Lee Gas Plant.
May 1991	GCL converted MW-10 into a recovery well per the OCD's April 2, 1991 request.
September 5, 1991	GCL completed Phase IV of a subsurface investigation that included the sampling of all on site monitoring wells (MW-1 through MW-14) and two water supply wells (WS-1 and WS-2). Two of the recovery wells (RW-1 and MW-4) and one monitoring well (MW-6) were not sampled due to the presence of free product. Prior sampling events were limited to collecting samples from just those wells

	installed in the current phase of work along with selected wells from previous phases to correlate analytical results.
1992	GCL conducted quarterly sampling activities on January 23, 1992, April 28, 1992, July 30, 1992 and October 21, 1992.
February 24, 1992	GCL completed the Final Phase of a subsurface investigation to complete delineation of the dissolved-phase hydrocarbon plume. The investigation included the installation of six monitoring wells (MW-15, MW-16, MW-17, MW-18, MW-19 and MW-20). Quarterly sampling of the on site monitoring wells was also conducted.
1993	GCL conducted quarterly sampling activities on January 20, 1993, April 15, 1993, July 20, 1993 and October 26, 1993.
April 7, 1993	GCL prepared the "Discharge Plan GW-2 Modification and Remedial Strategy" for Lee Gas Plant.
April 26, 1993	The OCD approved the "Discharge Plan GW-2 Modification and Remedial Strategy" for Lee Gas Plant.
July 1993	GCL completed installation of monitoring wells MW-21, MW-22 and MW-23 between July 19, 1993 and July 27, 1993.
August 3, 1993	GCL completed installation of soil vapor extraction system on recovery well RW-1.
November 15, 1993	GCL completed installation of air sparging injection unit in monitoring well MW-23.
1994	GCL conducted quarterly sampling activities on January 6, 1994, May 3, 1994, July 26, 1994 and October 12, 1994.
March 1994	GCL performed a successful cleanout (well restoration) of recovery well MW-7 during the week of March 21, 1994. However, attempts to restore MW-8 were unsuccessful due to well damage.
1995	BDM International, Inc. (formerly GCL) conducted quarterly sampling activities on March 16, 1995, June 24, 1995, August 10, 1995 and October 10, 1995.
1996	BDM International, Inc. (BDM) conducted quarterly sampling activities on January 16, 1996, April 25, 1996, August 27, 1996 and November 20, 1996.
January 15, 1996	Removed packer from injection well MW-23 and discontinued injection activities.

1997	BDM conducted quarterly sampling activities on January 21, 1997 and April 17, 1997.
June 18, 1997	Mr. Bill Olson (verbal communication) of the OCD approved a request by GPM to change the sampling frequency from a quarterly to semi-annual frequency.
August 12, 1997	BDM conducted annual sampling activities on August 12, 1997.
January 19, 1998	TRW conducted semi-annual sampling activities.
April 1, 1998	TRW replaced the submersible pumps in MW-6 and MW-7 with new pumps. The pump in MW-10 was not replaced due to damaged well conditions.
April 2, 1998	TRW installed a passive skimmer in MW-15.
April 9, 1998	TRW completed installation of Xitech product recovery system at MW-5.
July 10, 1998	TRW completed installation of air sparge system (air compressor) at MW-23.
August 5, 1998	TRW conducted annual sampling activities.
September 17, 1998	TRW replaced the submersible pump in RW-1 with a new pump.
November 18, 1998	Xitech product recovery system was transferred from MW-5 to MW-15.
February 15, 1999	TRW conducted semi-annual sampling activities.
June 16-19, 1999	Recovery wells MW-6, MW-7, and RW-1 were replaced by newly installed deeper wells RW-2, RW-3, and RW-4, respectively.
August 18-20, 1999	TRW conducted annual sampling activities.
October 26, 1999	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
November 22, 1999	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. Also reinstalled compressor at air sparge well (MW-23).
December 20, 1999	TRW conducted O & M vapor extraction, and air sparge systems. Also moved Xitech system from MW-15 to MW-6.
January 25, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
February 16, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems, semi-annual sampling activities, bailed sand from RW-4, and installed new pump in RW-4.
April 3, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.

April 24, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
May 2, 2000	TRW performed repairs of groundwater recovery (installed new pump in RW-2 and used pump in RW-3) and vapor extraction systems.
May 9, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
June 13, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge (installed new compressor) systems.
July 12, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems.
August 15-17, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems, and annual groundwater sampling activities. The submersible pump in RW-2 was repaired and replaced.
October 24, 2000	TRW replaced the submersible pump in RW-2 with a new pump.
November 6, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. Upon arrival it was determined that the electrical breaker at the main transformer had been thrown. Following the restoration of electrical power the submersible water pump in RW-3 would not operate. All of the other systems were operational.
December 13, 2000	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. All of the systems were operational except the water pump in RW-3.
January 23, 2001	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. All of the systems were operational except the water pumps in RW-3 and RW-4.
February 15, 2001	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems, and performed semi-annual sampling activities. A water well contractor installed a new submersible pump in RW-3 and a new relay switch in the breaker box at RW-4. All systems were operational upon completion of the site visit, however the flow meter in RW-4 was not working properly.
March 20, 2001	TRW conducted O & M on Xitech, vapor extraction, and air sparge systems. All of the systems were operational except for the flow meters at RW-2 and RW-3, and the submersible pump in RW-4. Field personnel serviced the flow meter, replaced the check valve in RW-3, and re-activated the power and replaced the flow meter at RW-4. All systems were operational upon the completion of the site visit; however the flow meters at RW-2 and RW-3 were not working properly.
May 1, 2001	Trident Environmental acquired the assets and staff of the Midland, Texas office of TRW Inc.

May 10, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pump in RW-3 and the flow meter at RW-4 were not operational.
May 23, 2001	Trident replaced an "Airgas-owned" nitrogen bottle with a Trident-owned bottle, replaced a digital "GPI" flow meter in RW-1 with an analog "Neptune" totalizer and installed a stainless steel strainer in line at RW-4 to protect the flow meter. The submersible pump in RW-3 was not operational.
June 18, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pumps in RW-2 and RW-3, and the flow meter at RW-4 were not operational upon arrival. Trident personnel serviced the flow meter and cleaned out the stainless steel strainer at RW-4
June 19, 2001	A water well servicing contractor (W-H-B) bailed 2 gallons of sand and installed a new ¾ hp Myers submersible pump in RW-3, and replaced a relay switch at the breaker for RW-2. Upon completion of the site visit all of the remedial systems were operation, however the flow meter in RW-3 was not working properly.
July 20, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pump in RW-2 and the flow meter at RW-3 were not operational upon arrival. Trident personnel replaced the digital GPI flow meter in RW-3 with an analog Neptune totalizer.
July 25, 2001	Trident personnel attempted to re-start RW-2 by replacing the relay and capacitor, but the submersible pump would not reactivate. The totalizer from RW-2 was moved to RW-3. All other systems were operational upon departure.
July 31, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems, and performed annual sampling activities. The totalizer in RW-3 (used unit) was replaced with a new totalizer.
September 11, 2001	Trident conducted O & M on Xitech, vapor extraction, and air sparge systems. The submersible pump in RW-2, the flow meter at RW-3, and the VE unit (RW-1) were not operational upon arrival. Trident personnel restarted the VE unit and replaced the totalizer in RW-3 with a "GPI" meter.
October 10, 2001	A water well servicing contractor (W-H-B) removed old pump and installed a new ½ hp Myers submersible pump in RW-2.
October 11, 2001	Trident installed a sediment trap and digital GPI flowmeter at RW-2. All systems were operational upon departure.

3.0 Procedures

Each monitoring well at the Lee Gas Plant was gauged for depth to groundwater on February 15, 2001 and July 31, 2001, using a Heron H.01L oil/water interface probe. The depth to groundwater in the recovery wells was not gauged due to access limitations caused by the presence of downhole pumping equipment.

Immediately prior to collecting groundwater samples, the monitoring wells were purged using a Grundfos Redi-Flo2 submersible pump with the exception of MW-3, MW-21, and MW-22, which were purged using a decontaminated hand bailer. Purging operations were completed after groundwater parameters (pH, conductivity, dissolved oxygen, turbidity, and temperature) stabilized with the exception of MW-3, which was bailed dry. Conductivity, pH, dissolved oxygen (DO), turbidity, and temperature readings were measured after every 5 gallons of purging using a Horiba Model U-10 and Hanna Model 9143 DO meter. Approximately 660 gallons of well development water was purged from the monitoring wells during the 2001-sampling year.

Groundwater samples were obtained using a new, decontaminated, disposable bailer for each well after purging. Each groundwater sample was transferred into two air-tight, septum-sealed, 40-ml glass volatile organic analysis (VOA) sample vials with zero head space and preserved with hydrochloric acid (HCl) for analysis of BTEX using EPA Method 8021B. Chain-of-custody (COC) forms documenting sample identification numbers, collection times, and delivery times to the laboratory were completed for each set of samples. One duplicate sample and one rinsate sample was collected during each sampling event. The water samples were placed into an ice-filled cooler immediately after collection and shipped next day delivery to Trace Analysis Inc. in Lubbock, Texas for laboratory analysis.

A summary of the monitoring wells sampled, sampling frequency, sampling dates, purge method, sampling method and purge volumes for the 2001 calendar year is presented in Table 1.

Table 1
Well Sampling Frequency and Methods

Well No.	Well Type	Sampling Frequency	2001 Sample Date	Purge Method	Sampling Method	Purge Volume
MW-1	Monitoring	Not sampled due to dry well conditions	NS	NS	NS	0 gallons
MW-2	Monitoring	Not sampled due to dry well conditions	NS	NS	NS	0 gallons
MW-3	Monitoring	Semi-annual event	02/16/01	Hand Bailer	Disposable bailer	2 gallons
	Monitoring	Annual event	08/01/01	Hand Bailer	Disposable bailer	1.5 gallons
MW-4	Monitoring	Not sampled due to dry well conditions	NS	NS	NS	0 gallons
MW-5	Monitoring	Not sampled due to presence of LNAPL	NS	NS	NS	0 gallons
MW-6	Recovery	Not sampled due to presence of LNAPL	NS	NS	NS	0 gallons
MW-7	Monitoring	Annual event	08/01/01	Pump	Disposable bailer	12 gallons
MW-8	Monitoring	Not sampled due to presence of LNAPL	NS	NS	NS	0 gallons
MW-9	Monitoring	Annual event	08/01/01	Pump	Disposable bailer	40 gallons
MW-10	Monitoring	Annual event	08/01/01	Pump	Disposable bailer	23 gallons
MW-11	Monitoring	Semi-annual event	02/16/01	Pump	Disposable bailer	40 gallons
		Annual event	07/31/01	Pump	Disposable bailer	40 gallons
MW-12	Monitoring	Semi-annual event	02/15/01	Pump	Disposable bailer	30 gallons
		Annual event	07/31/01	Pump	Disposable bailer	35 gallons
MW-13	Monitoring	Semi-annual event	02/15/01	Pump	Disposable bailer	40 gallons
		Annual event	07/31/01	Pump	Disposable bailer	40 gallons
MW-14	Monitoring	Annual event	08/01/01	Pump	Disposable bailer	40 gallons
MW-15	Monitoring	Not sampled due to presence of LNAPL	NS	NS	NS	0 gallons
MW-16	Monitoring	Annual event	08/01/01	Pump	Disposable bailer	40 gallons
MW-17	Monitoring	Annual event	08/01/01	Pump	Disposable bailer	40 gallons
MW-18	Monitoring	Annual event	08/01/01	Pump	Disposable bailer	40 gallons
MW-19	Monitoring	Semi-annual event	02/15/01	Pump	Disposable bailer	30 gallons
		Annual event	07/31/01	Pump	Disposable bailer	40 gallons
MW-20	Monitoring	Semi-annual event	02/15/01	Pump	Disposable bailer	35 gallons
		Annual event	07/31/01	Pump	Disposable bailer	40 gallons
MW-21	Monitoring	Semi-annual event	02/16/01	Hand Bailer	Disposable bailer	8 gallons
		Annual event	07/31/01	Hand Bailer	Disposable bailer	18 gallons
MW-22	Monitoring	Annual event	07/31/01	Hand Bailer	Disposable bailer	27 gallons
MW-23	Injection	Not sampled due to use as air sparge well.	NS	NS	NS	0 gallons

NS indicates well was not sampled.

4.0 Groundwater Elevations, Hydraulic Gradient and Flow Direction

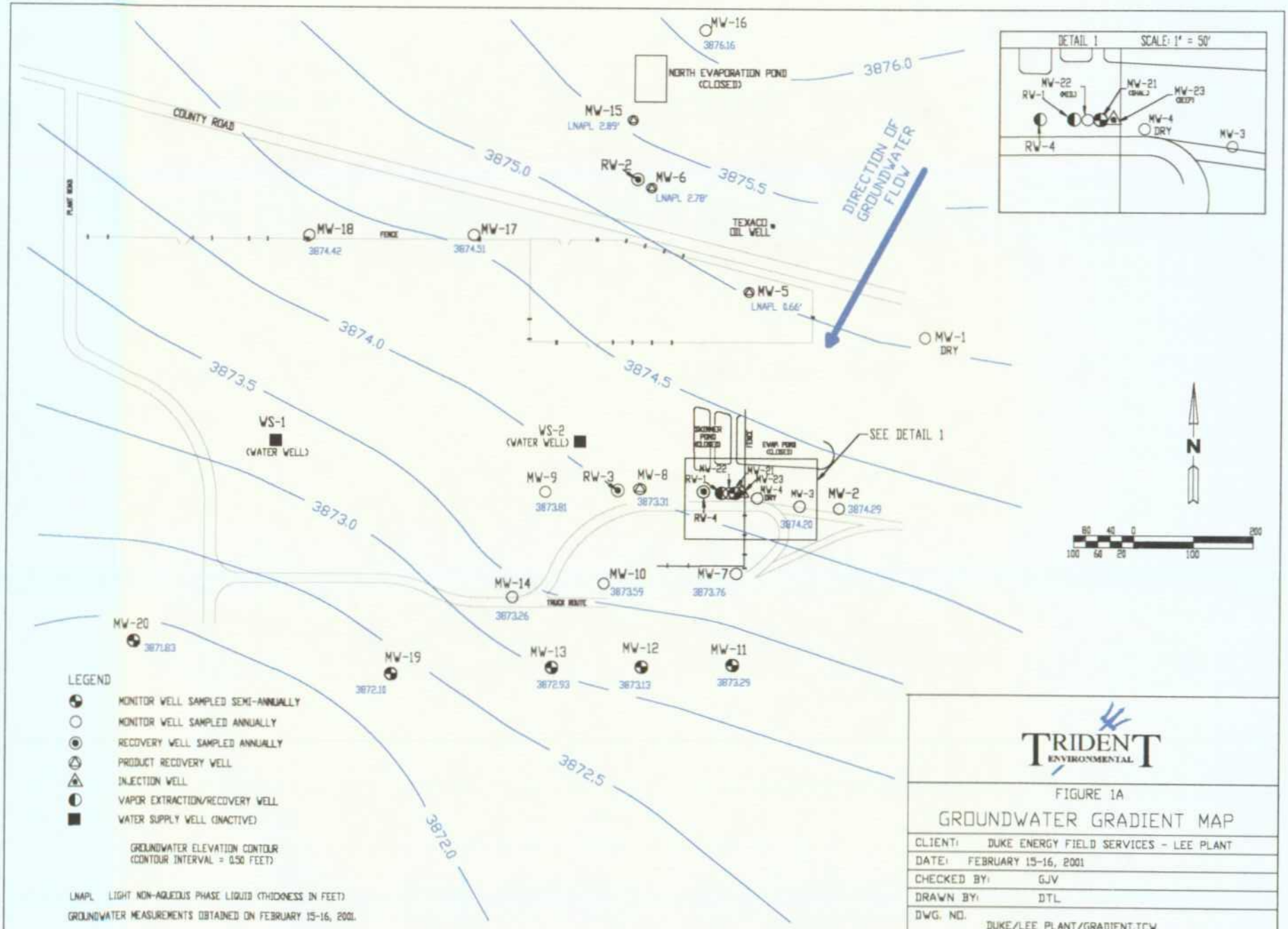
Based on the most recent gauging data collected by Trident on July 31, 2001, the groundwater conditions at the Lee Gas Plant are characterized below.

- The depth to the water table across the site varies from approximately 105 to 112 feet below ground surface
- The hydraulic gradient is approximately 0.0035 feet/foot
- The direction of groundwater flow is to the southwest

Groundwater elevation maps depicting the water table elevation and direction of groundwater flow using the gauging data obtained during the two 2001 sampling events are presented in Figure 1A (February 15, 2001) and Figure 1B (July 31, 2001). Groundwater elevations and depth to water measurements for the year 2001 are summarized in Table 2.

The direction of groundwater flow and hydraulic gradient has remained consistent for the past thirteen years. However, the average water table elevations across the site have decreased by approximately 1 foot per year since March 28, 1988. The historic decline in the average water table elevations is depicted in Figure 2. The historic water table elevations for individual monitoring wells are presented with the hydrocarbon concentration graphs following section 5.0.

Due to the declining water table elevations over the past thirteen years, MW-1, MW-2, and MW-4 no longer extend to the groundwater depth. In addition, MW-3, MW-5, and MW-8 are approaching their limits of usefulness as monitoring points. Since it is expected that the water table elevation will decrease more in the future, the availability of these wells will diminish.

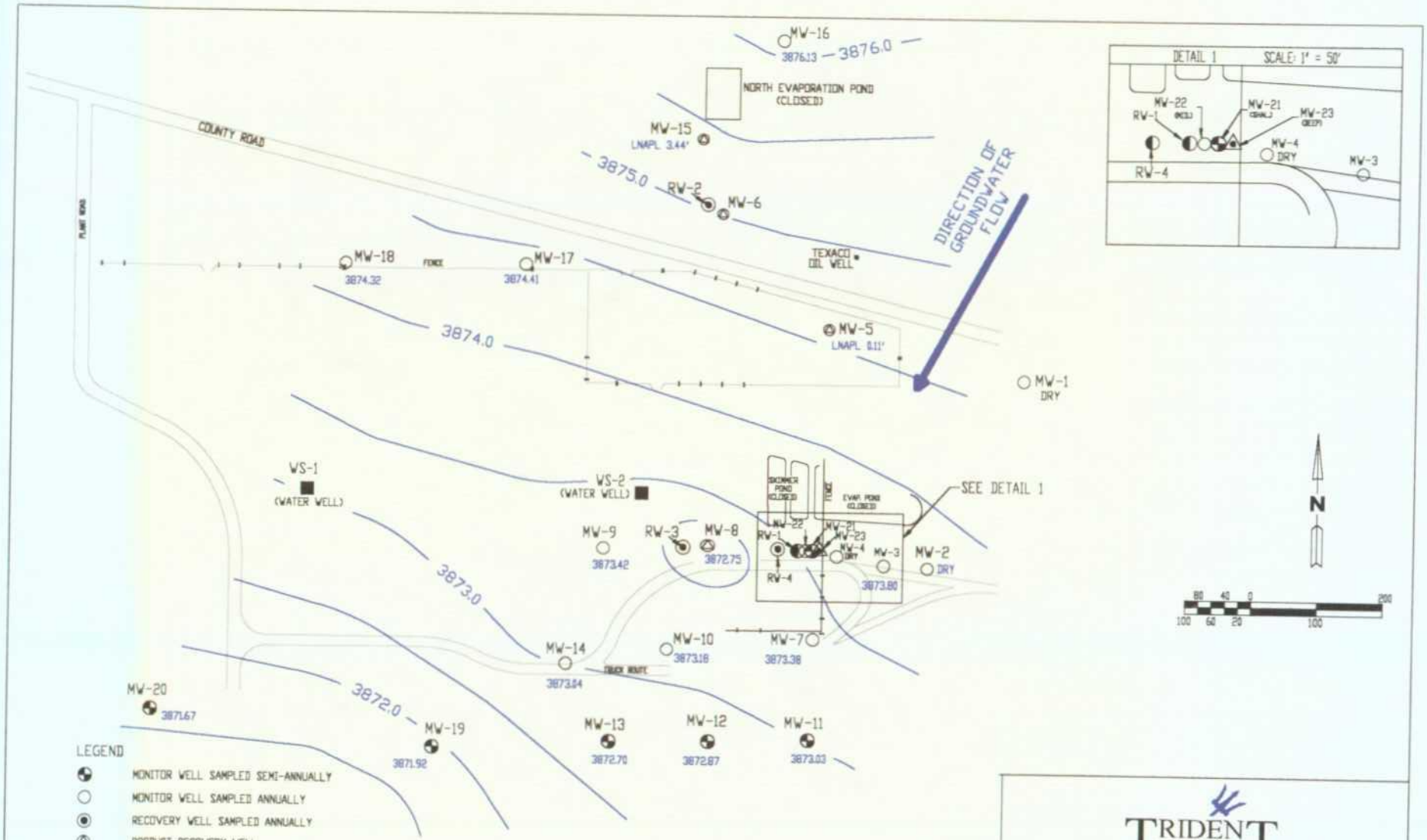


TRIDENT ENVIRONMENTAL

FIGURE 1A

GROUNDWATER GRADIENT MAP

CLIENT:	DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE:	FEBRUARY 15-16, 2001
CHECKED BY:	GJV
DRAWN BY:	DTL
DWG. NO.	DUKE/LEE PLANT/GRADIENT.TCW



LEGEND

- MONITOR WELL SAMPLED SEMI-ANNUALLY
- MONITOR WELL SAMPLED ANNUALLY
- RECOVERY WELL SAMPLED ANNUALLY
- PRODUCT RECOVERY WELL
- INJECTION WELL
- VAPOR EXTRACTION/RECOVERY WELL
- WATER SUPPLY WELL (INACTIVE)

GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL = 0.50 FEET)

LNAPL LIGHT NON-AQUEOUS PHASE LIQUID (THICKNESS IN FEET)

GROUNDWATER MEASUREMENTS OBTAINED ON JULY 31 - AUGUST 1, 2001.

TRIDENT ENVIRONMENTAL

FIGURE 1B

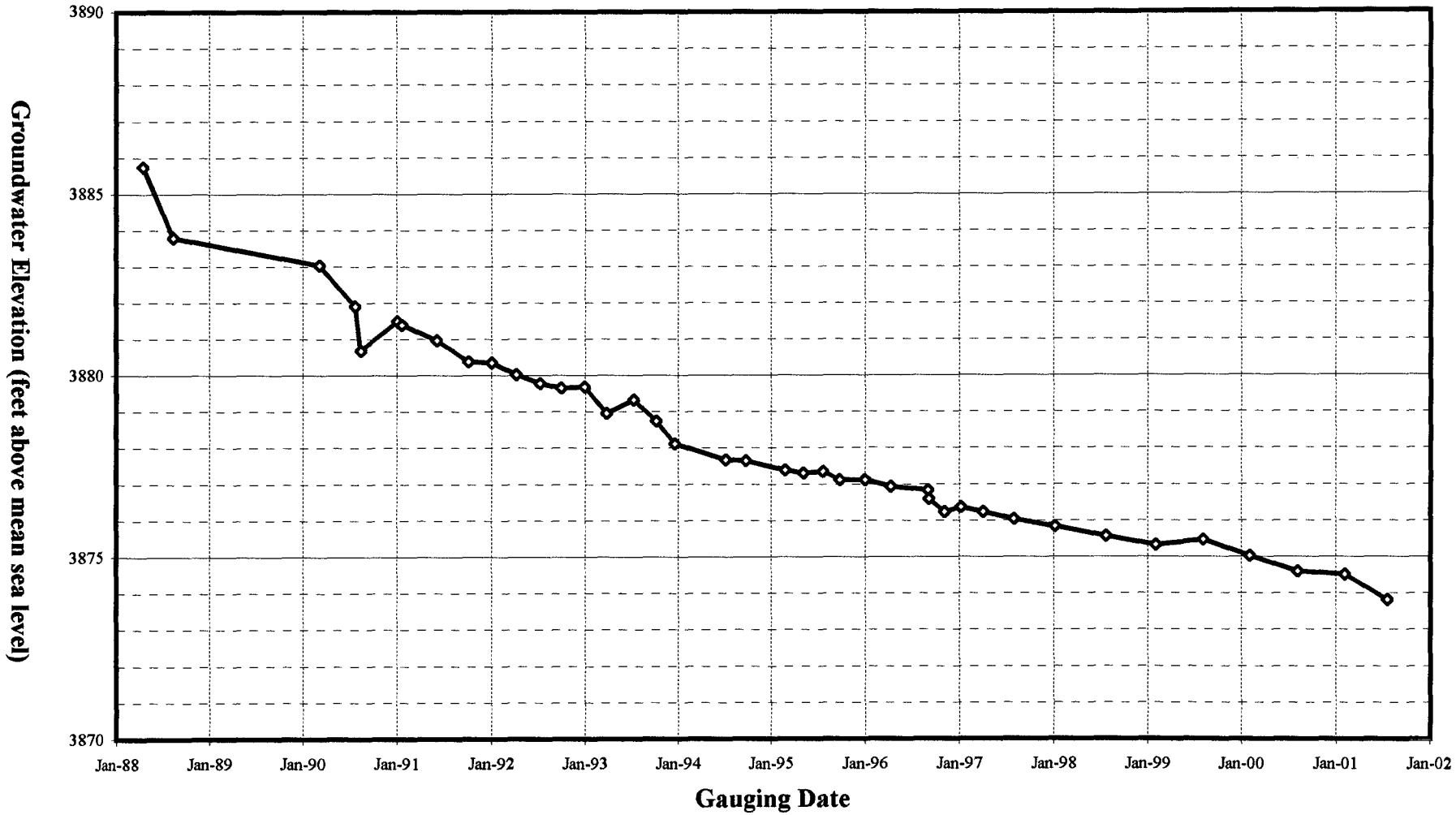
GROUNDWATER GRADIENT MAP

CLIENT:	DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE:	July 31 - August 1, 2001
CHECKED BY:	GJV
DRAWN BY:	DTL
DWG. NO.	DUKE/LEE PLANT/GRADIENT.TCW

Table 2
2001 Groundwater Elevations
Duke Energy Field Services - Lee Plant

Monitoring Well	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to Groundwater Below Top of Casing (feet)	Relative Groundwater Elevation (feet)**	Phase-Separated Hydrocarbon Thickness (feet)
MW-1	02/15/01	3979.25	Dry	Dry	0.00
	07/31/01	3979.25	Dry	Dry	0.00
MW-2	02/15/01	3980.50	106.21	3874.29	0.00
	07/31/01	3980.50	Dry	Dry	0.00
MW-3	02/15/01	3980.27	106.07	3874.20	0.00
	07/31/01	3980.27	106.47	3873.80	0.00
MW-4	02/15/01	3980.16	Dry	Dry	0.00
	07/31/01	3980.16	Dry	Dry	0.00
MW-5	02/15/01	3979.82	105.59	3874.77	0.66
	07/31/01	3979.82	105.36	3874.55	0.11
MW-6	02/15/01	3981.79	108.90	3875.17	2.78
	07/31/01	3981.79	Could not gauge during annual event		
MW-7	02/15/01	3978.45	104.69	3873.76	0.00
	07/31/01	3978.45	105.07	3873.38	0.00
MW-8	02/15/01	3979.96	106.65	3873.31	0.00
	07/31/01	3979.96	107.22	3872.75	0.01
MW-9	02/15/01	3980.17	106.36	3873.81	0.00
	07/31/01	3980.17	106.75	3873.42	0.00
MW-10	02/15/01	3979.66	106.07	3873.59	0.00
	07/31/01	3979.66	106.48	3873.18	0.00
MW-11	02/15/01	3978.50	105.21	3873.29	0.00
	07/31/01	3978.50	105.47	3873.03	0.00
MW-12	02/15/01	3978.82	105.69	3873.13	0.00
	07/31/01	3978.82	105.95	3872.87	0.00
MW-13	02/15/01	3980.52	107.59	3872.93	0.00
	07/31/01	3980.52	107.82	3872.70	0.00
MW-14	02/15/01	3982.23	108.97	3873.26	0.00
	07/31/01	3982.23	109.19	3873.04	0.00
MW-15	02/15/01	3981.70	108.39	3875.68	2.89
	07/31/01	3981.70	108.86	3875.66	3.44
MW-16	02/15/01	3980.80	104.64	3876.16	0.00
	07/31/01	3980.80	104.67	3876.13	0.00
MW-17	02/15/01	3981.80	107.29	3874.51	0.00
	07/31/01	3981.80	107.39	3874.41	0.00
MW-18	02/15/01	3983.10	108.68	3874.42	0.00
	07/31/01	3983.10	108.78	3874.32	0.00
MW-19	02/15/01	3980.80	108.70	3872.10	0.00
	07/31/01	3980.80	108.88	3871.92	0.00
MW-20	02/15/01	3983.30	111.47	3871.83	0.00
	07/31/01	3983.30	111.63	3871.67	0.00

Figure 2
Average Groundwater Elevations



5.0 Distribution of Hydrocarbons in Groundwater

A historical listing of BTEX concentrations obtained from the on site monitoring wells is summarized in Table 3. The BTEX concentration map depicting the February 15 through 16, 2001 results are presented in Figure 3A and the BTEX concentration map depicting the July 31 through August 1, 2001 results are presented in Figure 3B. Hydrocarbon concentration and groundwater elevation versus time graphs are grouped as follows:

Figure	Area	Monitoring Wells
4A	Central Area	MW-2, MW-3, MW-7, MW-8, MW-9, MW-10, MW-14, MW-21, MW-22, MW-23, WS-1, and WS-2
4B	North Area	MW-5, MW-6, MW-15, MW-16, MW-17, and MW-18
4C	Downgradient South Area	MW-11, MW-12, MW-13, MW-19, and MW-20

Laboratory analytical reports and chain-of-custody documentation for both the semi-annual and annual sampling events are included in Appendix A.

Based on the most recent analytical data for samples collected by Trident from July 31 through August 1, 2001, the distribution of hydrocarbons at the Lee Gas Plant is described below.

- BTEX concentrations in the groundwater from the downgradient monitoring wells (MW-11, MW-12, MW-13, MW-19 and MW-20) are currently below the WQCC standards and the laboratory detection limits. It should be noted that, except for a sample from MW-12 recovered during the February 2000 monitoring event (0.338-mg/l benzene), all of the measured hydrocarbon concentrations have remained below the WQCC standards since May 1995.

- BTEX concentrations in the groundwater from the crossgradient monitoring wells (MW-2, MW-3, MW-18, MW-21, and MW-22) are also currently below the WQCC standards and the laboratory detection limits. The hydrocarbon concentrations from these monitoring wells have remained below the WQCC standards since at least August 1998. Decreased levels observed in MW-21 and MW-22 are believed to be due to the successful air sparge and vapor extraction operations.

- Benzene concentrations in the groundwater from monitoring wells located within the aerial extent of the dissolved-phase hydrocarbon plume (MW-7, MW-9, MW-10, MW-14, MW-16, and MW-17) remain above WQCC standards, with the exception of MW-7, which has decreased to below the WQCC standard for the first time since July 1994. Toluene, ethylbenzene, and xylene concentrations in all of the wells have remained below the WQCC standards since at least August 1995. The benzene concentrations measured over the past six years in MW-7, MW-10, and MW-16 are generally stable to decreasing while those measured in MW-9 and MW-14, appear to be periodically interrupted by isolated spikes of elevated concentrations. The benzene concentration in MW-17 has increased since August of 1997.

- During the July 31 through August 1, 2001 monitoring event LNAPL was measured in MW-5 (0.11 feet), MW-6 (≈3.0 feet), MW-8 (0.01 feet), and MW-15 (3.44 feet).

Table 3
BTEX Analytical Results In Groundwater
Duke Energy Field Services - Lee Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-1	Mar-90	0.004	<0.001	<0.001	<0.001
	03/28/90	0.002	<0.001	<0.001	<0.001
	06/27/91	<0.002	<0.002	<0.002	<0.003
MW-2	Mar-90	<0.001	<0.001	<0.001	<0.001
	03/28/90	0.002	<0.001	<0.001	<0.001
	06/27/90	<0.002	<0.002	<0.002	<0.003
	07/30/92	<0.001	<0.001	<0.001	<0.001
	07/21/93	<0.002	<0.002	<0.002	<0.006
	01/06/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	<0.001	<0.001	<0.001	<0.003
	01/16/96	<0.001	<0.001	<0.001	<0.001
	08/13/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	08/19/99	<0.005	<0.005	<0.005	<0.005
	02/16/00	<0.005	<0.005	<0.005	<0.005
MW-3	Mar-90	**0.069**	0.002	0.001	0.001
	03/28/90	<0.001	0.002	<0.001	<0.001
	06/27/90	**0.043**	0.006	0.002	<0.003
	08/13/97	**1.990**	0.078	0.042	0.061
	08/05/98	0.002	<0.001	0.007	<0.001
	08/19/99	<0.001	<0.001	<0.001	<0.001
	08/16/00	<0.005	<0.005	<0.005	<0.005
	02/16/01	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.005	<0.005	<0.005	<0.005
MW-4	Never analyzed due to presence of phase-separated hydrocarbons or dry well conditions.				
MW-5	03/27/90	<0.001	0.098	<0.001	0.043
	06/27/91	**5.00**	0.570	0.015	0.088
	07/30/92	**10.0**	**1.40**	0.059	0.070
	07/21/93	**22.0**	**7.87**	0.570	**1.27**
	07/01/94	**66.4**	**17.1**	0.630	**<1.5**
MW-6	04/03/90	<0.001	<0.001	<0.001	<0.001
	02/13/91	**72**	**3.0**	**35**	**42**
	03/01/95	**18.8**	**17.0**	**1.76**	**3.10**
	08/13/97	**11.6**	**4.1**	0.49	**0.82**
	08/05/98	**13.7**	**5.96**	<0.500	**0.991**
MW-7	04/03/90	**6.1**	0.36	**3.9**	0.26
	06/27/91	**3.2**	**1.4**	0.023	0.13
	07/30/92	0.001	<0.001	<0.001	<0.001
	07/21/93	**0.040**	0.57	<0.001	**1.27**
	07/25/94	0.003	0.002	0.001	0.005
	08/09/95	**0.083**	0.001	0.002	<0.003
	08/27/96	**1.14**	<0.010	<0.010	<0.010
	08/13/97	**1.39**	<0.025	<0.025	<0.025
	08/05/98	**1.63**	<0.010	<0.010	<0.010
	08/19/99	**1.50**	0.016	0.02	0.016
	08/16/00	**0.036**	0.014	<0.01	0.01
	08/01/01	0.006	<0.005	<0.005	<0.005
WQCC Standards (mg/l)		0.010	0.75	0.75	0.62

Samples analyzed for BTEX using EPA Method 602/8021B.
New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

Table 3 (continued)
BTEX Analytical Results In Groundwater
Duke Energy Field Services - Lee Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-8	04/06/90	**18**	**0.83**	**7.1**	0.29
	06/27/91	**21**	**1.3**	0.012	0.42
	07/30/92	**13**	0.38	0.37	0.18
MW-9	08/11/90	0.006	0.001	0.001	0.002
	01/23/91	0.007	0.001	0.005	0.002
	06/27/91	**0.16**	0.056	0.003	0.004
	10/17/91	0.002	0.003	0.002	<0.001
	01/23/92	<0.001	0.003	0.005	<0.001
	04/28/92	<0.001	0.001	<0.001	<0.001
	07/30/92	**0.31**	0.004	0.010	0.003
	10/21/92	**3.0**	0.28	0.11	0.12
	01/20/93	**5.9**	0.004	0.022	0.011
	04/15/93	**2.2**	0.011	0.020	0.040
	07/21/93	**0.673**	0.314	0.029	0.069
	07/25/94	**0.495**	<0.01	<0.01	<0.03
	08/09/95	**5.86**	<0.025	<0.025	<0.075
	08/27/96	**0.327**	<0.001	<0.001	<0.001
	08/12/97	**0.138**	<0.001	<0.001	<0.001
	08/06/98	**0.892**	<0.010	<0.010	<0.010
	08/19/99	**13.6**	0.25	<0.050	0.073
	08/16/00	**2.92**	<0.005	0.024	<0.005
	08/01/01	**4.88**	<0.1	<0.1	<0.1
MW-10	08/10/90	**1.3**	0.050	0.034	0.016
	01/23/91	**0.98**	0.015	0.016	<0.005
	06/27/91	**9.7**	0.42	0.084	0.039
	07/21/93	0.004	<0.002	<0.002	NS
	07/25/94	**4.16**	0.21	0.23	**0.86**
	08/09/95	**3.66**	0.033	<0.025	<0.075
	08/27/96	**2.98**	0.060	<0.025	<0.025
	08/12/97	**4.71**	<0.050	<0.050	<0.050
	08/06/98	**1.50**	0.011	0.013	0.008
	08/20/99	**1.01**	<0.010	<0.010	<0.010
	08/17/00	**3.70**	<0.005	<0.005	<0.005
	08/01/01	**3.43**	<0.05	<0.05	<0.05
MW-11	08/10/90	0.001	0.002	0.003	0.006
	06/26/91	<0.002	<0.002	<0.002	<0.003
	10/17/91	0.002	0.002	<0.001	<0.001
	01/23/92	<0.001	<0.001	<0.001	<0.001
	04/28/92	0.002	<0.001	<0.001	<0.001
	07/30/92	**0.031**	0.007	0.002	0.001
	10/21/92	**0.078**	0.130	0.022	0.051
	01/20/93	0.001	<0.001	<0.001	0.001
	04/15/93	0.001	<0.001	<0.001	0.001
	07/20/93	**0.016**	0.031	<0.002	0.012
	10/26/93	<0.002	<0.002	<0.002	<0.006
	01/06/94	0.004	0.006	<0.001	0.004
	05/03/94	<0.001	<0.001	0.001	0.004
	07/26/94	0.002	0.001	<0.001	<0.003
WQCC Standards (mg/l)		0.010	0.75	0.75	0.62

Samples analyzed for BTEX using EPA Method 602/8021B.
New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

Table 3 (continued)
BTEX Analytical Results In Groundwater
Duke Energy Field Services - Lee Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-11 (con't)	10/12/94	<0.001	0.002	<0.001	<0.003
	03/16/95	<0.001	0.002	<0.001	0.003
	06/24/95	<0.001	0.001	<0.001	<0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/19/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	0.001	<0.001	<0.001	<0.001
	08/16/00	<0.001	<0.001	<0.001	<0.001
	02/16/01	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.001	<0.001	<0.001	<0.001
MW-12	08/10/90	0.001	0.001	0.001	0.003
	01/23/91	**0.12**	0.001	0.004	0.001
	06/26/91	<0.002	0.002	<0.002	<0.003
	10/17/91	0.004	0.003	<0.001	<0.001
	01/23/92	<0.001	<0.001	<0.001	<0.001
	04/28/92	<0.001	<0.001	<0.001	<0.001
	07/30/92	**0.018**	0.004	0.001	0.001
	10/21/92	**0.064**	0.130	0.024	0.056
	01/20/93	**0.067**	0.001	<0.001	<0.001
	04/15/93	**0.030**	<0.001	<0.001	<0.001
	07/20/93	**0.011**	0.029	<0.002	0.012
	10/26/93	<0.002	<0.002	<0.002	<0.006
	01/06/94	0.003	0.004	<0.001	<0.003
	05/03/94	<0.001	0.002	0.001	0.004
	07/26/94	0.004	<0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.003
	03/16/95	<0.001	0.003	<0.001	0.004
	06/24/95	<0.001	<0.001	<0.001	<0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
WQCC Standards (mg/l)		0.010	0.75	0.75	0.62

Samples analyzed for BTEX using EPA Method 602/8021B.
New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

Table 3 (continued)
BTEX Analytical Results In Groundwater
Duke Energy Field Services - Lee Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-12 (con't)	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	**0.338**	<0.001	<0.001	<0.001
	08/16/00	<0.005	<0.005	<0.005	<0.005
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
MW-13	01/27/91	**0.016**	0.003	0.019	0.005
	06/26/91	0.002	<0.002	<0.002	<0.003
	10/17/91	0.001	0.001	<0.001	<0.001
	01/23/92	<0.001	<0.001	<0.001	<0.001
	07/30/92	<0.001	<0.001	<0.001	<0.001
	10/21/92	**0.084**	0.150	0.026	0.062
	01/20/93	**0.028**	<0.001	<0.001	<0.001
	04/15/93	**0.013**	<0.001	<0.001	<0.001
	07/20/93	**0.015**	0.034	<0.002	0.013
	10/26/93	**0.029**	0.030	<0.002	0.010
	01/06/94	0.002	0.003	<0.001	<0.003
	05/03/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	0.007	0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.001
	03/16/95	<0.001	0.003	<0.001	<0.003
	06/24/95	<0.001	<0.001	<0.001	0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.001	<0.001	<0.001	<0.001
	08/15/00	<0.001	<0.001	<0.001	<0.001
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
MW-14	01/27/91	<0.001	<0.001	<0.001	<0.001
	06/27/91	<0.002	<0.002	<0.002	<0.003
	10/21/92	**0.043**	0.099	0.019	0.045
	01/20/93	**0.019**	<0.001	<0.001	0.001
	04/15/93	**0.013**	0.003	0.003	0.006
	04/25/96	**2.22**	<0.010	0.049	<0.010
	04/17/97	**3.79**	<0.025	0.050	<0.025
	08/13/97	**3.42**	<0.050	<0.050	<0.050
WQCC Standards (mg/l)		0.010	0.75	0.75	0.62

Samples analyzed for BTEX using EPA Method 602/8021B.
New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

Table 3 (continued)
BTEX Analytical Results In Groundwater
Duke Energy Field Services - Lee Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-14 (con't)	08/06/98	0.002	<0.001	<0.001	<0.001
	08/19/99	**0.024**	<0.001	<0.001	<0.001
	08/17/00	**0.284**	<0.001	<0.001	<0.001
	08/01/01	**1.940**	<0.005	0.006	<0.005
MW-15	10/29/91	**4.2**	0.45	0.10	0.10
	03/16/95	**6.24**	**0.981**	0.087	0.214
MW-16	10/18/91	0.004	0.002	<0.001	<0.001
	07/30/92	**0.42**	0.077	0.008	0.008
	07/20/93	**1.19**	0.157	0.030	0.048
	07/26/94	**3.82**	**1.66**	0.120	<0.300
	08/10/95	**3.53**	0.540	0.137	0.378
	08/27/96	**0.724**	0.166	0.035	0.021
	08/13/97	**0.891**	0.216	0.042	0.081
	08/06/98	**1.950**	0.304	0.046	0.129
	08/20/99	**0.454**	0.053	<0.005	0.034
	08/17/00	**0.076**	0.003	0.001	0.003
	08/01/01	**0.018**	<0.005	<0.005	<0.005
MW-17	10/27/91	0.008	0.002	<0.001	<0.001
	03/16/95	**0.062**	0.020	0.004	0.010
	01/16/96	<0.001	<0.001	<0.001	<0.001
	08/13/97	0.002	<0.001	<0.001	<0.001
	08/06/98	<0.001	<0.001	<0.001	<0.001
	08/19/99	**0.028**	0.002	<0.001	<0.001
	08/16/00	**0.037**	<0.005	<0.005	<0.005
	08/01/01	**0.148**	<0.005	<0.005	<0.005
MW-18	10/28/91	<0.001	0.001	<0.001	<0.001
	07/30/92	**0.023**	0.006	0.002	0.001
	07/20/93	**0.011**	0.029	<0.002	0.012
	01/06/94	<0.001	0.002	<0.001	<0.003
	07/26/94	**0.057**	0.008	0.002	<0.003
	03/16/95	<0.001	0.002	<0.001	<0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	01/16/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	08/13/97	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	08/19/99	<0.005	<0.005	<0.005	<0.005
	08/16/00	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.005	<0.005	<0.005	<0.005
MW-19	10/25/91	<0.001	0.001	<0.001	<0.001
	07/30/92	**0.014**	0.004	0.002	0.001
	07/20/93	**0.015**	0.036	<0.002	0.014
	10/26/93	**0.011**	0.012	<0.002	<0.006
	01/06/94	0.003	0.003	<0.001	<0.003
	05/03/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	0.005	<0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.003
WQCC Standards (mg/l)		0.010	0.75	0.75	0.62

Samples analyzed for BTEX using EPA Method 602/8021B.
New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

Table 3 (continued)
BTEX Analytical Results In Groundwater
Duke Energy Field Services - Lee Plant

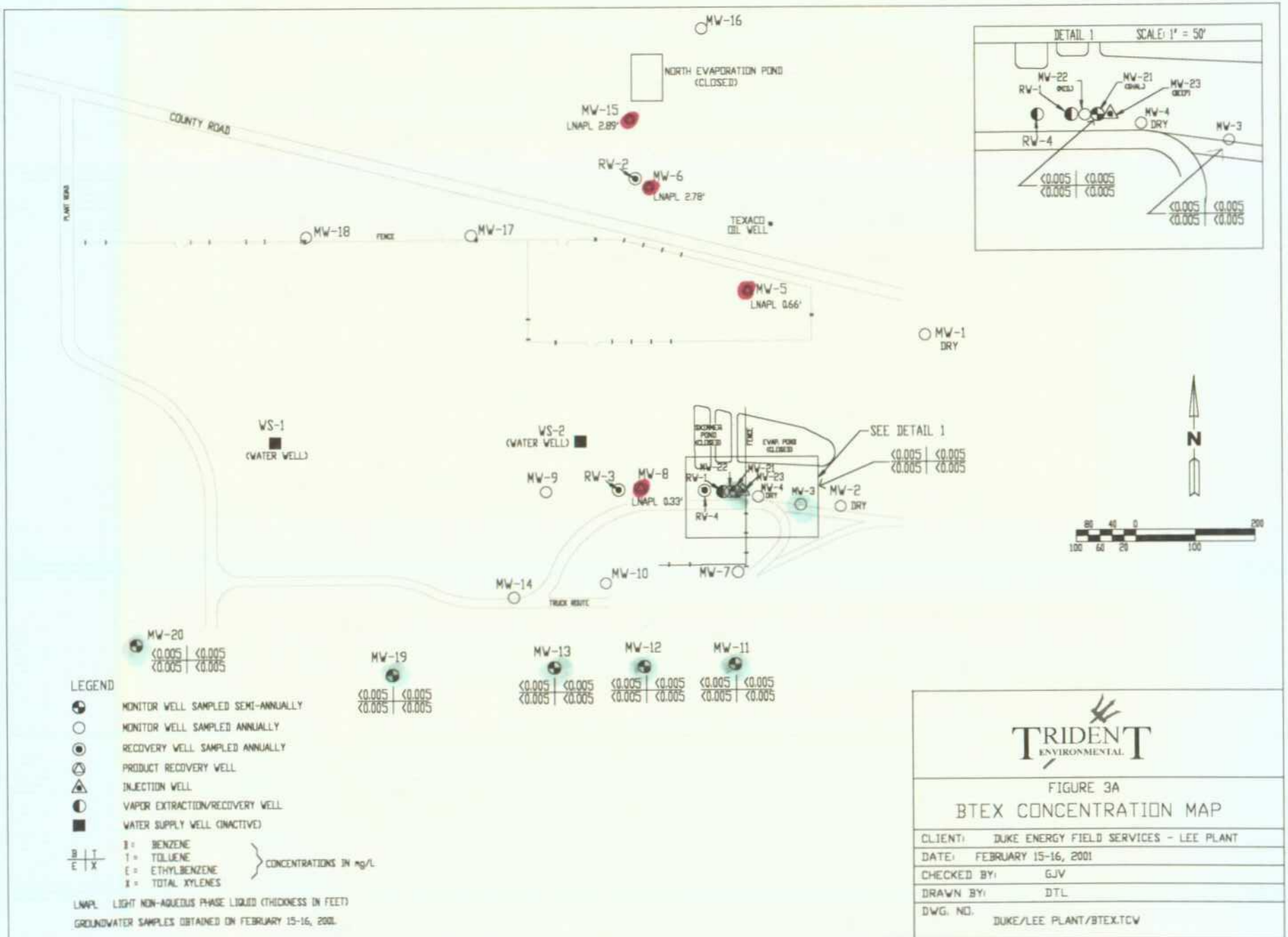
Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-19 (con't)	03/16/95	**0.079**	0.028	0.005	0.011
	05/24/95	0.003	0.004	0.002	0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.001	<0.001	<0.001	<0.001
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.005	<0.005	<0.005	<0.005
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.005	<0.005	<0.005	<0.005
	08/15/00	<0.001	<0.001	<0.001	<0.001
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
MW-20	10/29/91	**0.080**	0.041	0.003	0.003
	01/23/92	<0.001	<0.001	<0.001	<0.001
	07/30/92	**0.22**	0.076	0.006	0.006
	01/20/93	<0.001	<0.001	<0.001	<0.001
	04/15/93	0.001	<0.001	<0.001	0.002
	07/20/93	**0.217**	0.102	0.011	0.034
	10/26/93	**0.018**	0.014	<0.002	<0.006
	01/06/94	0.004	0.005	0.003	0.010
	05/03/94	<0.001	<0.001	<0.001	<0.003
	07/26/94	<0.001	<0.001	<0.001	<0.003
	10/12/94	<0.001	<0.001	<0.001	<0.003
	03/16/95	0.001	0.006	<0.001	0.006
	06/24/95	<0.001	<0.001	<0.001	0.003
	08/10/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	01/16/96	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	08/27/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	01/21/97	<0.001	<0.001	<0.001	<0.001
	04/17/97	<0.001	<0.001	<0.001	<0.001
	08/12/97	<0.001	<0.001	<0.001	<0.001
	01/20/98	<0.005	<0.005	<0.005	<0.005
	08/05/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.005	<0.005	<0.005	<0.005
	08/18/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.005	<0.005	<0.005	<0.005
	08/15/00	<0.005	<0.005	<0.005	<0.005
	02/15/01	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	0.002	0.002
WQCC Standards (mg/l)		0.010	0.75	0.75	0.62

Samples analyzed for BTEX using EPA Method 602/8021B.
New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

Table 3 (continued)
BTEX Analytical Results In Groundwater
Duke Energy Field Services - Lee Plant

Monitoring Well	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
MW-21	07/20/93	**37**	**5**	**<2**	**<6**
	04/23/94	0.007	<0.001	<0.001	<0.003
	05/04/94	**0.517**	0.052	<0.001	<0.003
	07/26/94	**0.078**	0.051	<0.001	0.011
	03/16/95	**0.042**	<0.001	<0.001	<0.003
	10/10/95	**0.092**	<0.001	<0.001	<0.001
	04/25/96	0.001	<0.001	<0.001	<0.001
	11/20/96	**0.010**	<0.001	<0.001	<0.001
	04/17/97	**3.51**	<0.025	<0.025	<0.025
	08/13/97	**33**	0.31	0.73	**0.90**
	01/20/98	**11.0**	<0.100	<0.100	<0.100
	08/06/98	<0.001	<0.001	<0.001	<0.001
	02/15/99	<0.001	<0.001	<0.001	<0.001
	08/19/99	<0.001	<0.001	<0.001	<0.001
	02/16/00	<0.005	<0.005	<0.005	<0.005
	08/16/00	<0.005	<0.005	<0.005	<0.005
	02/16/01	<0.005	<0.005	<0.005	<0.005
	08/01/01	<0.005	<0.005	<0.005	<0.005
MW-22	07/20/93	**0.170**	0.065	0.036	0.048
	04/23/94	**2.52**	0.26	**<0.10**	**<0.30**
	05/04/94	0.007	0.002	<0.001	0.007
	07/26/94	0.005	0.001	<0.001	<0.003
	03/16/95	<0.001	<0.001	<0.001	<0.003
	10/10/95	<0.001	<0.001	<0.001	<0.001
	04/25/96	<0.001	<0.001	<0.001	<0.001
	11/20/96	<0.001	<0.001	<0.001	<0.001
	08/13/97	0.002	0.001	<0.001	<0.001
	08/06/98	<0.001	0.006	<0.001	<0.001
	08/19/99	<0.005	<0.005	<0.005	<0.005
	08/16/00	<0.005	<0.005	<0.005	<0.005
	07/31/01	<0.001	<0.001	<0.001	<0.001
MW-23	07/20/93	**0.190**	0.130	0.010	0.046
	08/13/97	<0.001	<0.001	<0.001	<0.001
WS-1	Mar-90	**0.015**	0.004	0.002	0.004
	08/10/90	**0.010**	0.001	0.001	0.001
	06/27/91	0.007	<0.002	<0.002	<0.003
	01/23/92	**0.110**	0.020	0.020	0.010
	07/30/92	**0.015**	0.003	0.003	0.002
	04/15/93	0.007	0.003	0.002	0.002
	07/26/94	**0.020**	<0.001	0.002	<0.003
WS-2	Mar-90	0.007	<0.001	0.001	<0.001
	06/27/91	**0.280**	0.027	0.002	0.003
	01/23/92	**0.010**	<0.001	<0.001	<0.001
	07/30/92	**0.46**	0.011	0.005	0.002
	04/15/93	**1.6**	<0.001	0.019	0.014
RW-1	04/04/90	**2.6**	0.32	0.58	0.19
WQCC Standards (mg/l)		0.010	0.75	0.75	0.62

Samples analyzed for BTEX using EPA Method 602/8021B.
New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

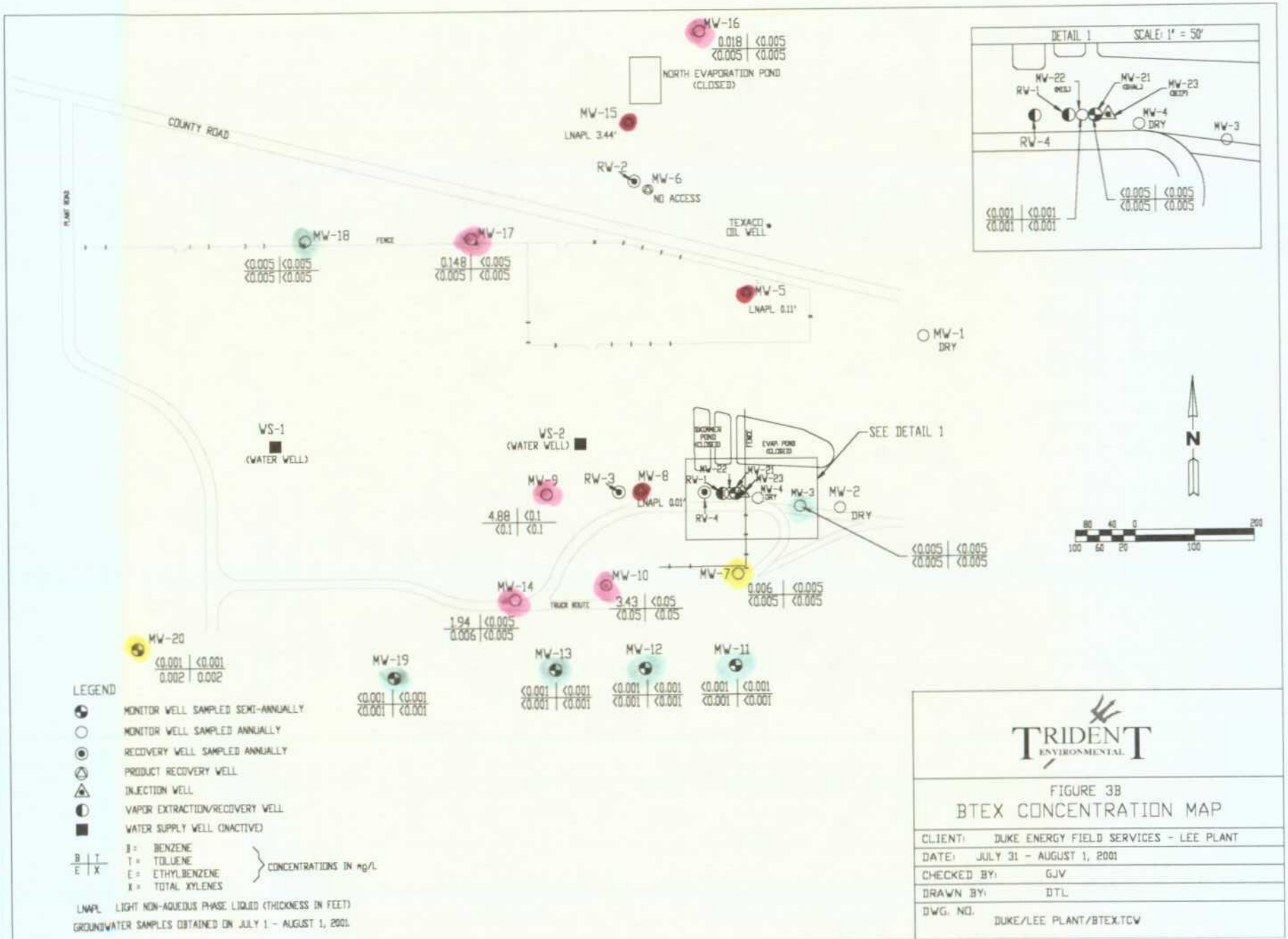


TRIDENT ENVIRONMENTAL

FIGURE 3A

BTEX CONCENTRATION MAP

CLIENT:	DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE:	FEBRUARY 15-16, 2001
CHECKED BY:	GJV
DRAWN BY:	DTL
DWG. NO.	DUKE/LEE PLANT/BTEX.TCW



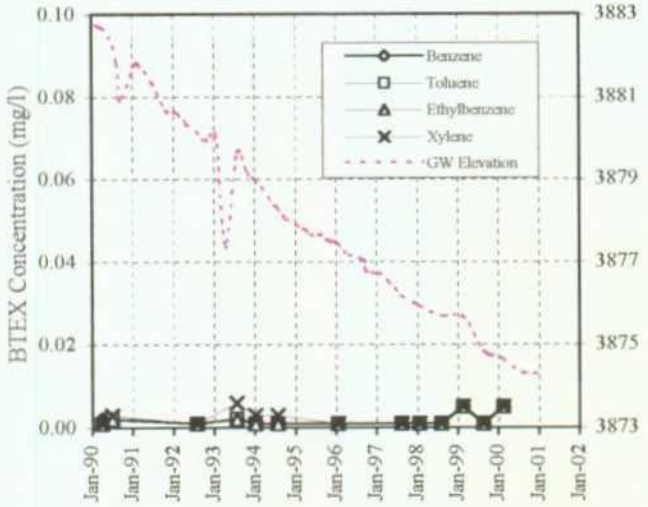
TRIDENT ENVIRONMENTAL

FIGURE 3B
BTEX CONCENTRATION MAP

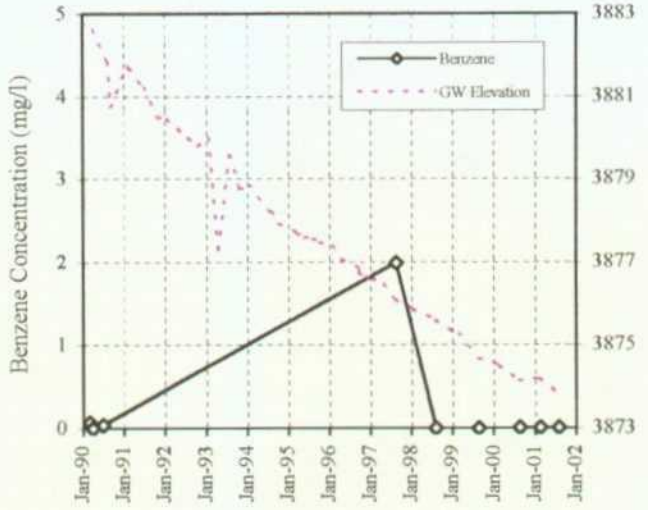
CLIENT:	DUKE ENERGY FIELD SERVICES - LEE PLANT
DATE:	JULY 31 - AUGUST 1, 2001
CHECKED BY:	GJV
DRAWN BY:	DTL
DWG. NO.	DUKE/LEE PLANT/BTEX.TCW

Figure 4A
Hydrocarbon Concentration Versus Time (Central Area Wells)

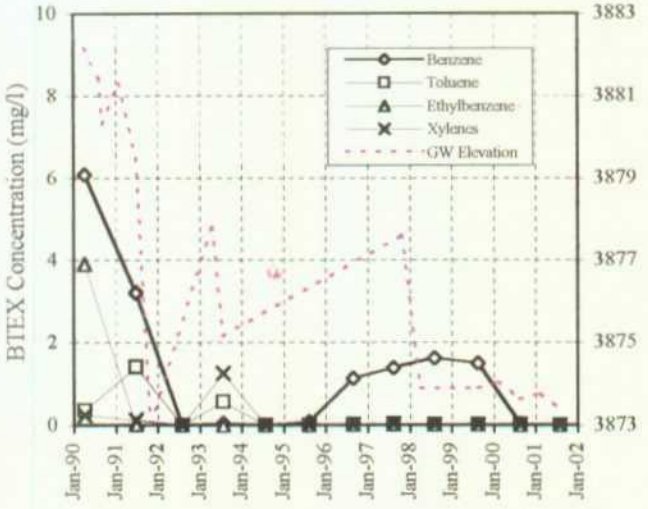
MW-2



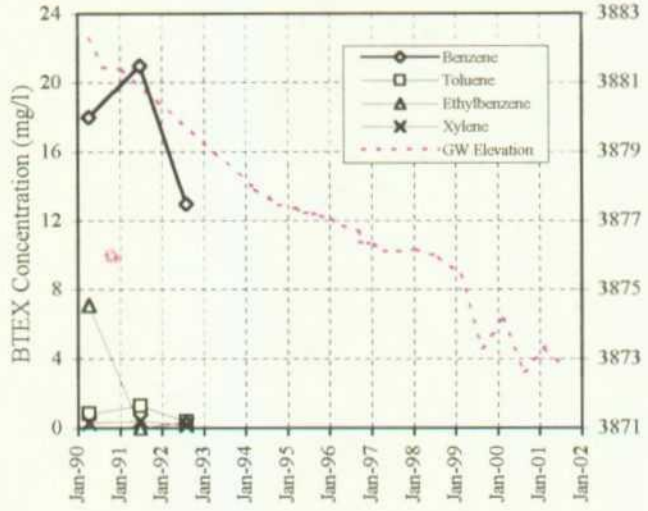
MW-3



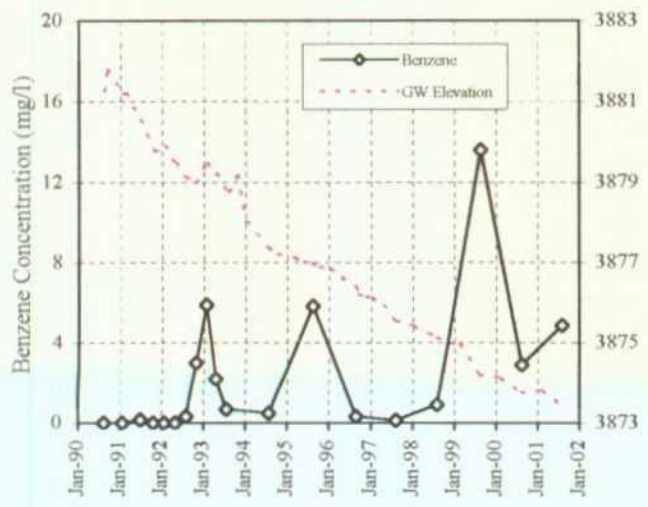
MW-7



MW-8



MW-9



MW-10

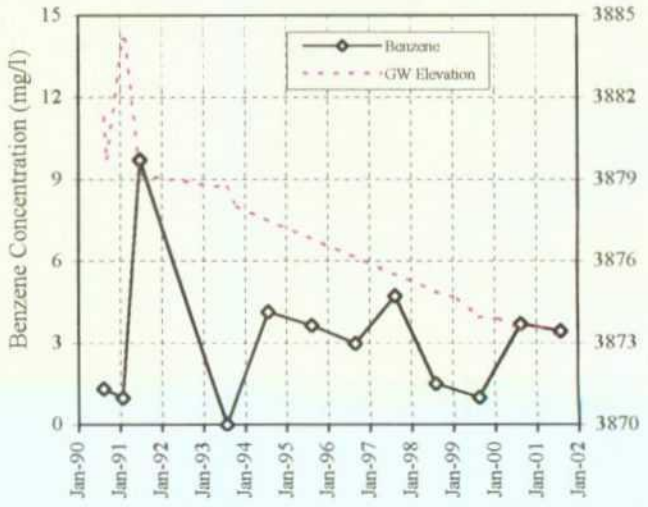
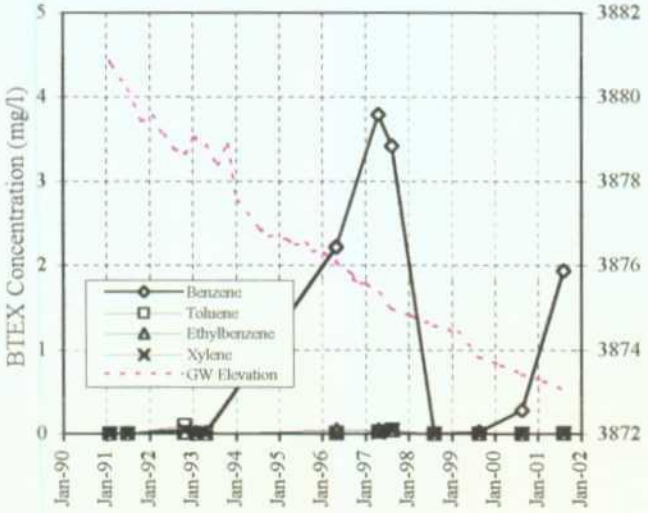
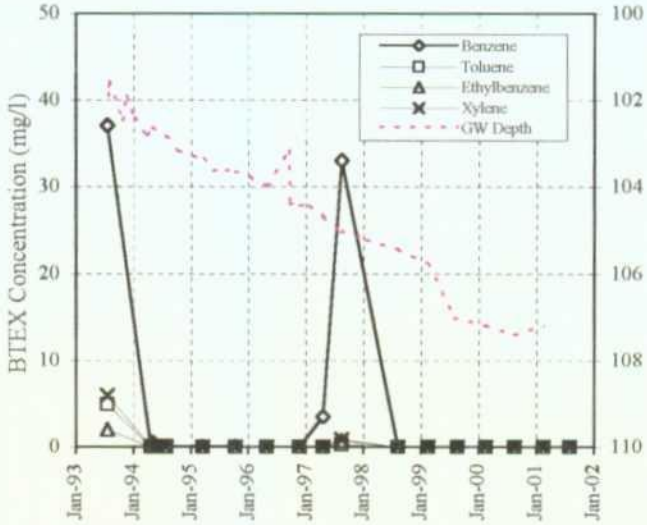


Figure 4A (continued)
Hydrocarbon Concentration Versus Time (Central Area Wells)

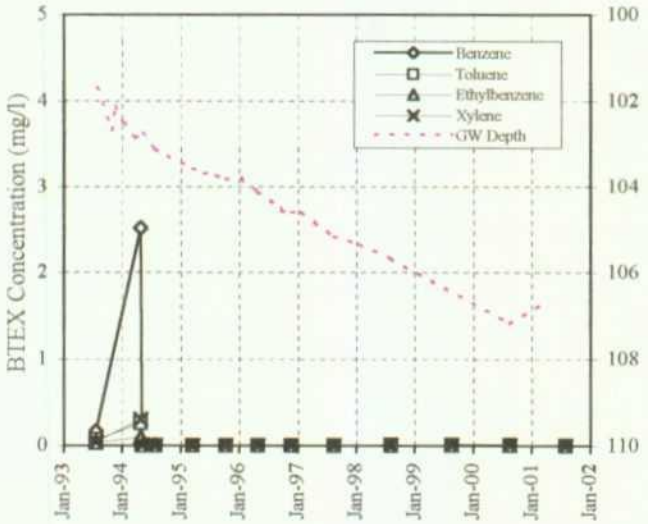
MW-14



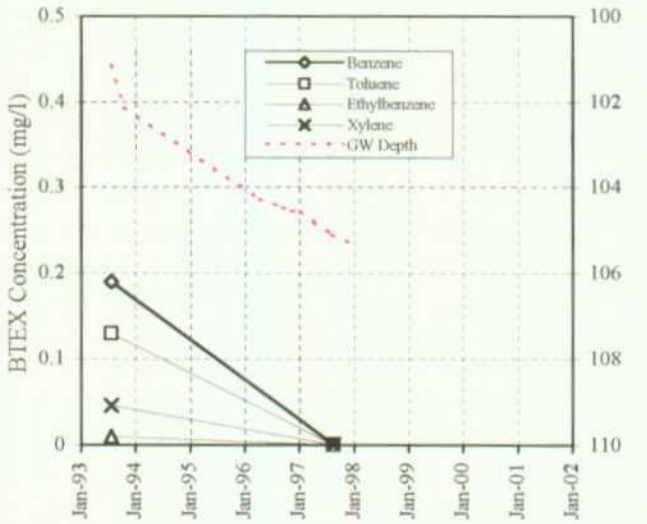
MW-21



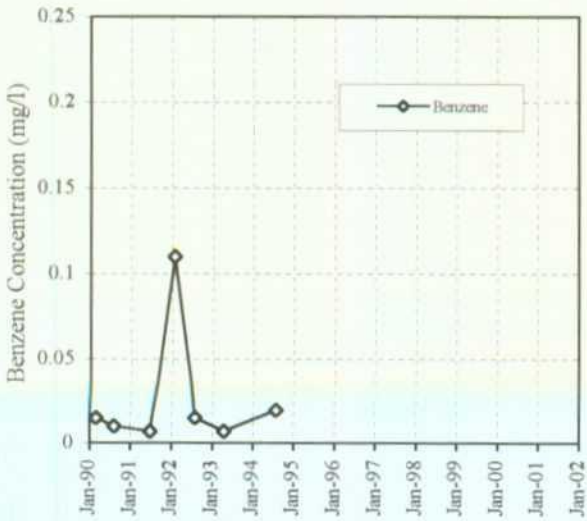
MW-22



MW-23



WS-1



WS-2

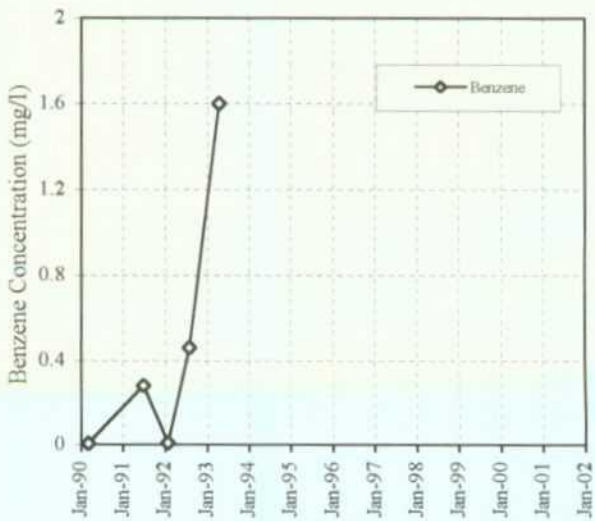
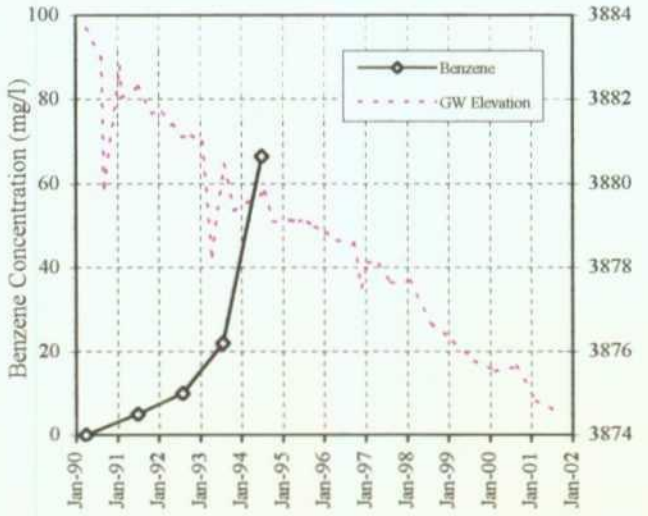
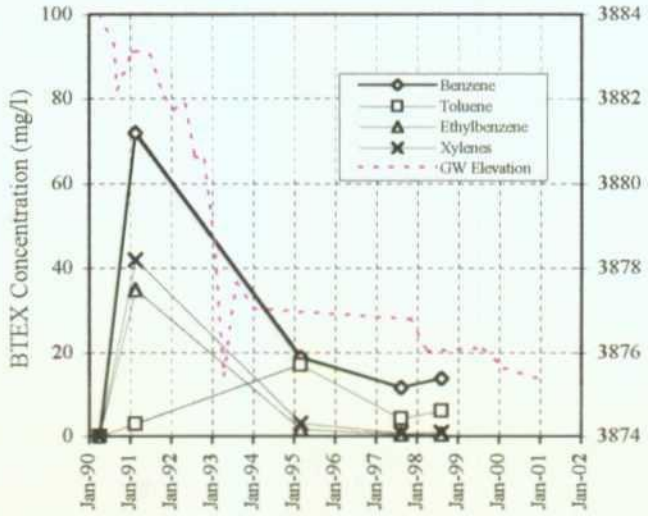


Figure 4B
Hydrocarbon Concentration Versus Time (North Area Wells)

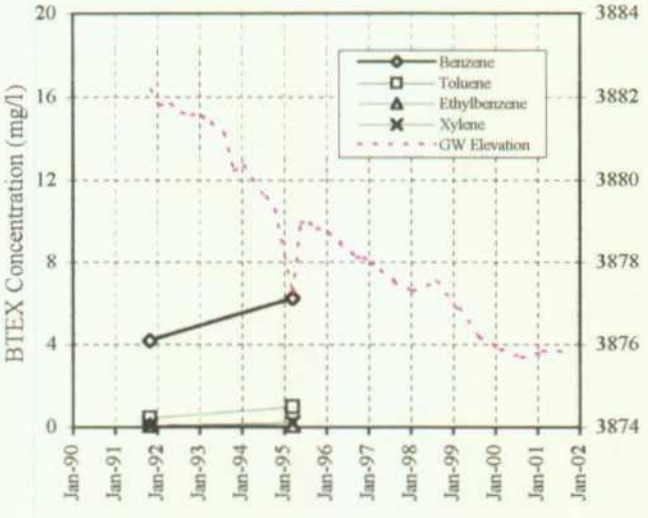
MW-5



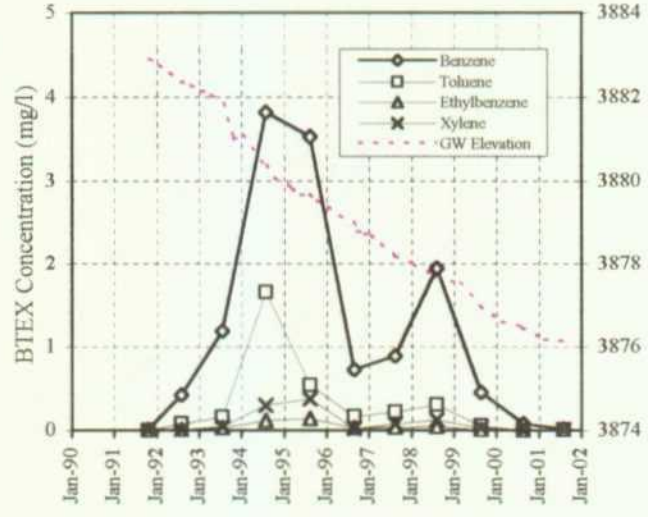
MW-6



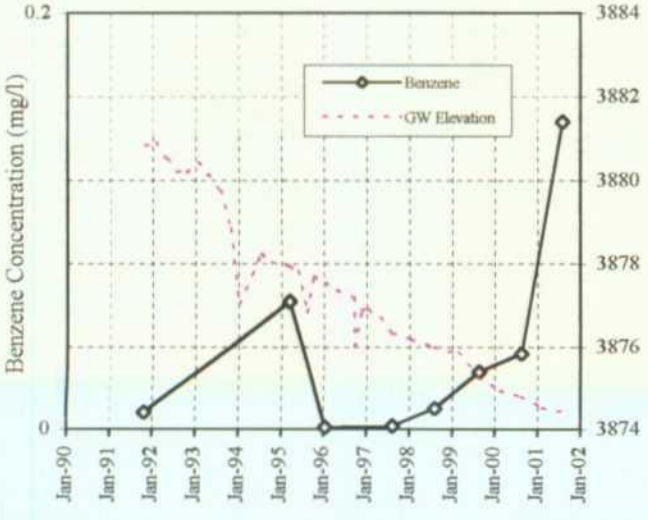
MW-15



MW-16



MW-17



MW-18

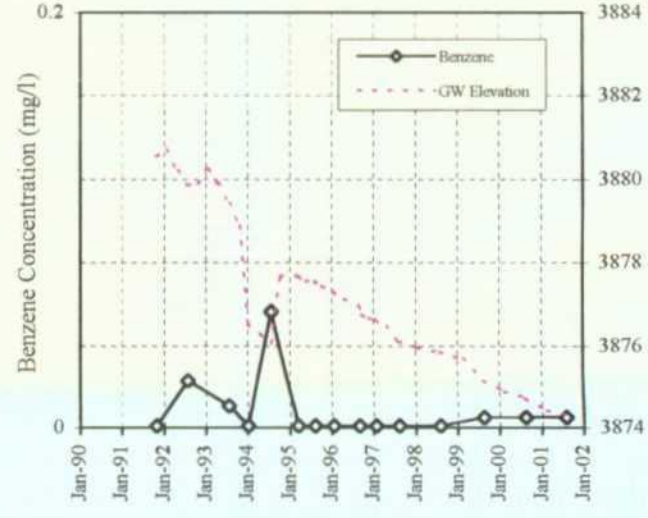
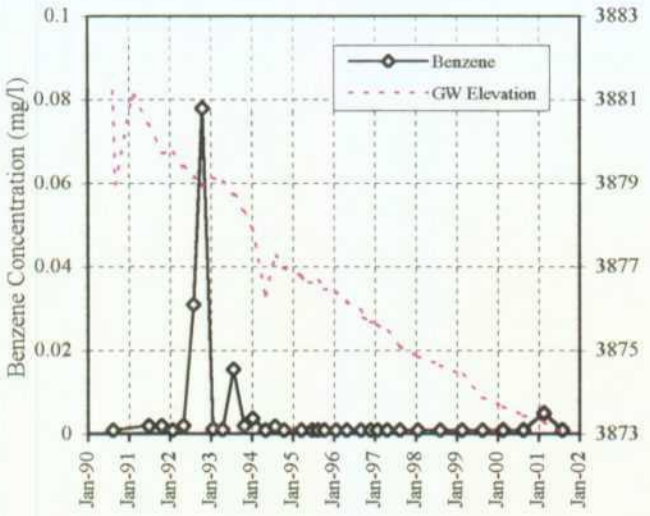
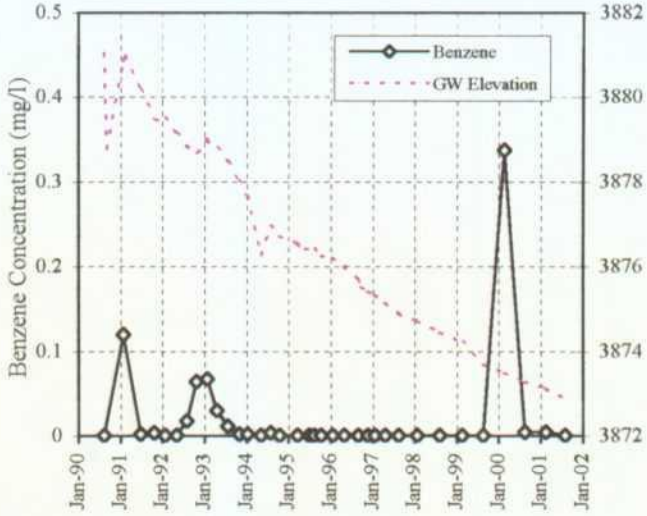


Figure 4C
Hydrocarbon Concentration Versus Time (Downgradient - South Area Wells)

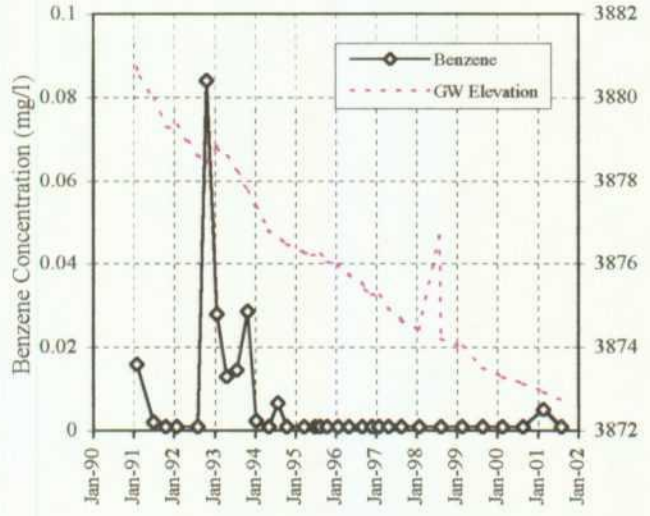
MW-11



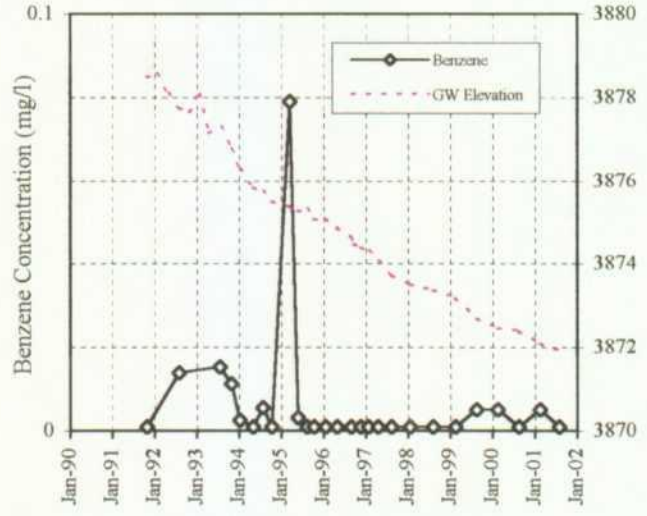
MW-12



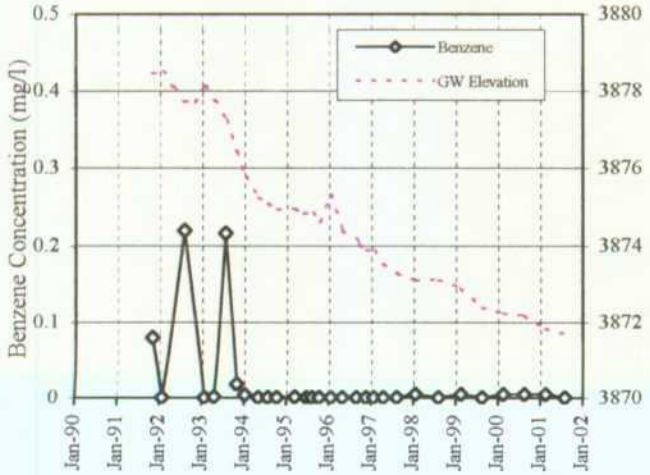
MW-13



MW-19



MW-20



6.0 Remediation System Performance

The estimated total fluid extraction volumes from the remediation system recovery wells, for the fourth quarter of 2000 through the third quarter of 2001, are summarized in Table 4. A graphical representation of monthly groundwater recovery volumes for the period of record (October 1, 2000 through September 30, 2001) is depicted in Figure 5. A total of 4,765,727 gallons of groundwater was recovered by the three recovery wells during the period of record.

The Xitech product recovery system remains operational at MW-6. LNAPL has also been observed in monitoring wells MW-5, MW-8, and MW-15, therefore passive bailers, absorbent socks, and hand bailing methods have been implemented to remove the free product from these wells.

The soil vapor extraction well system at RW-1 and the air sparge well at MW-23 remain in operation. Vapor extraction utilizing a Roots positive displacement blower (Model 24URAI – 2 hp) at RW-1 has been in operation since August 1993. Air sparging is accomplished by means of a 1 HP Gast® Piston air compressor. Air sparging has been in operation since July 10, 1998. Effectiveness of the vapor extraction and air sparge systems is evidenced by the lack of measurable BTEX concentrations in MW-21, which remain at levels below the laboratory detection limit of 0.005 mg/L for each constituent.

The groundwater recovery, air sparging, and vapor extraction systems have been effective in limiting the downgradient migration of the dissolved-phase hydrocarbon plume. Also, the groundwater recovery system, Xitech product recovery system, passive skimmer, and hand bailing techniques have been effective in recovering free product (condensate), although the total amount of free product recovery is unknown. A summary of the measurable free product recovery volumes for the period of October 1, 2000 to September 30, 2001 is provided in Table 5. A total of 622 gallons of measurable free product was recovered during the period of record.

Table 4
Total Fluids Extraction Volumes for 10/1/00-9/30/01
Duke Energy Field Services - Lee Gas Plant

Month - Year	Gallons of Groundwater Recovered			
	RW-2	RW-3	RW-4	Monthly Totals
Oct-00	27,360	238,618	123,965	389,943
Nov-00	321,007	0	144,329	465,336
Dec-00	297,346	0	259,868	557,214
Jan-01	264,030	0	2,149	266,179
Feb-01	179,583	81,561	41	261,185
Mar-01	66,333	216	*125,107*	191,656
Apr-01	64,851	0	*387,832*	452,683
May-01	57,133	0	348,789	405,922
Jun-01	7,457	*71,280*	259,614	338,351
Jul-01	*136,800*	*123,120*	243,996	503,916
Aug-01	0	*36,000*	254,168	290,168
Sep-01	0	*405,216*	237,957	643,173
Well Totals	1,421,900	956,011	2,387,816	**4,765,727**

Values in italics indicates volume estimated due to flow meter failure during monitoring period.

Figure 5
Total Fluid Extraction Volumes for 10/1/00-9/30/01

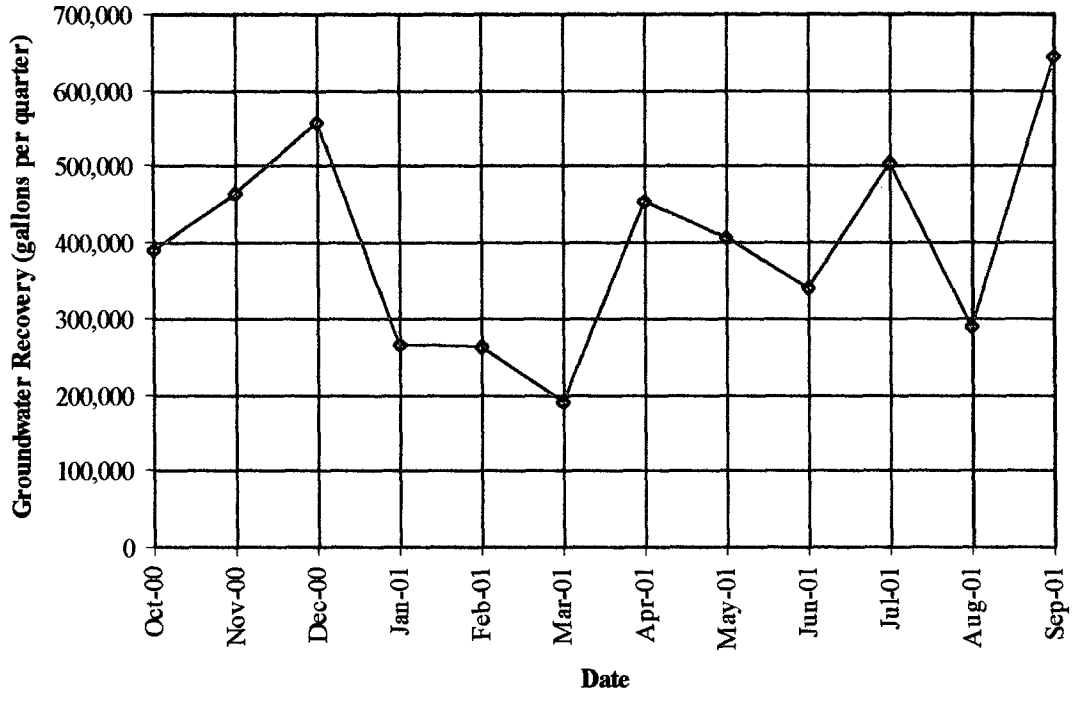


Table 5
Measurable Free Product Recovery Volumes for 11/1/00-9/30/01
Duke Energy Field Services - Lee Gas Plant

Month - Year	Measurable Free Product Recovered (gallons)				
	MW-5	MW-6	MW-8	MW-15	Monthly Totals
Nov-00	0.67	70.0	0.01	0.00	70.7
Dec-00	2.37	80.0	0.10	3.02	85.5
Jan-01	1.05	70.0	0.01	1.78	72.8
Feb-01	0.96	80.0	0.00	2.79	83.7
Mar-01	0.4	70.0	0.16	3.61	74.1
Apr-01	0.00	78	0.00	0.00	78.0
May-01	1.04	0	0.34	4.53	5.9
Jun-01	0.35	0	0.37	3.11	3.8
Jul-01	0.79	70	0.36	3.20	74.3
Aug-01	0.00	0	0.0	0.00	0.0
Sep-01	0.7	70	0.5	2.3	73.4
Well Totals	8.3	588	1.8	24.3	622

* Actual free product recovery volumes are underestimated due to evaporation of product from storage tank which cannot be measured.
Also, total fluid recovery from submersible pumps in RW-2, RW-3, & RW-4 recover free product in those wells and also MW-6 & MW-8

7.0 Conclusions

The groundwater conditions and the remediation performance at the Lee Gas Plant as determined during the last annual monitoring period indicate that hydrocarbon concentrations are not detectable above the WQCC standards in each of the downgradient and crossgradient monitoring wells. It is believed that these results are attributable to the success of the current groundwater recovery, air sparge, vapor extraction, and free product removal operations.

Elevated dissolved hydrocarbon concentrations in the groundwater remain within the defined plume and the levels appear to be generally stable to declining in most wells, however a recent increasing trend of benzene concentrations in MW-17 has been observed.

The recovery of LNAPL from the groundwater in wells MW-6 (Xitech), MW-5 and MW-8 (absorbent socks) has been effective, however potential product recovery volumes in MW-15 exceed the capabilities of the passive bailer currently in use.

The hydraulic gradient is approximately 0.0035 feet/foot and the direction of the groundwater flow is to the southwest, which is consistent with previous gauging data. Average water elevations continue to decrease at a rate of approximately 1 foot/year.

8.0 Recommendations

The following recommendations are proposed for the remediation system and monitoring operations at the Lee Gas Plant.

- Continue groundwater recovery operations since the present system has been effective in limiting the downgradient migration of the dissolved-phase hydrocarbon plume.
- Continue LNAPL recovery at MW-6 with the Xitech system.
- Continue free product recovery from MW-5, MW-8, and MW-15 using passive bailers and/or hydrophobic adsorbent socks, and hand bailing methods as appropriate.
- Begin a program of monitoring natural attenuation that includes the analysis of dissolved oxygen, nitrate (NO_3), sulfate (SO_4), ferric iron (Fe^{3+}), ferrous iron (Fe^{2+}), and manganese (Mn) to assess the efficacy of intrinsic bioremediation processes occurring on site.
- Continue the sampling and monitoring program on a semi-annual basis. The next sampling event is scheduled during the first quarter of 2002.

Appendix A

Laboratory Analytical Reports

and

Chain-of-Custody Documentation

Summary Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, Tx. 79708

Report Date: August 13, 2001

Order ID Number: A01080311

Project Number: CC # V-101
Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176277	MW-20	Water	7/31/01	11:15	8/3/01
176278	MW-19	Water	7/31/01	12:00	8/3/01
176279	MW-13	Water	7/31/01	13:00	8/3/01
176280	MW-12	Water	7/31/01	16:00	8/3/01
176281	MW-11	Water	7/31/01	17:00	8/3/01
176282	MW-22	Water	7/31/01	17:50	8/3/01
176283	MW-21	Water	8/1/01	18:50	8/3/01
176284	MW-18	Water	8/1/01	9:00	8/3/01
176285	MW-17	Water	8/1/01	10:00	8/3/01
176286	MW-16	Water	8/1/01	11:00	8/3/01
176287	MW-3	Water	8/1/01	11:45	8/3/01
176288	MW-7	Water	8/1/01	12:25	8/3/01
176289	MW-14	Water	8/1/01	14:00	8/3/01
176290	MW-9	Water	8/1/01	15:45	8/3/01
176291	MW-10	Water	8/1/01	16:45	8/3/01
176292	Duplicate	Water	8/1/01	:	8/3/01
176293	Rinsate	Water	8/1/01	17:35	8/3/01
176294	Trip Blank	Water	8/1/01	:	8/3/01

This report consists of a total of 2 page(s) and is intended only as a summary of results for the sample(s) listed above.

	BTEX				
Sample - Field Code	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
176277 - MW-20	<0.001	<0.001	0.002	0.002	0.004
176278 - MW-19	<0.001	<0.001	<0.001	<0.001	<0.001
176279 - MW-13	<0.001	<0.001	<0.001	<0.001	<0.001
176280 - MW-12	<0.001	<0.001	<0.001	<0.001	<0.001
176281 - MW-11	<0.001	<0.001	<0.001	<0.001	<0.001
176282 - MW-22	<0.001	<0.001	<0.001	<0.001	<0.001
176283 - MW-21	<0.005	<0.005	<0.005	<0.005	<0.005
176284 - MW-18	<0.005	<0.005	<0.005	<0.005	<0.005
176285 - MW-17	0.148	<0.005	<0.005	<0.005	0.148
176286 - MW-16	0.018	<0.005	<0.005	<0.005	0.018
176287 - MW-3	<0.005	<0.005	<0.005	<0.005	<0.005
176288 - MW-7	0.006	<0.005	<0.005	<0.005	0.006
176289 - MW-14	1.94	<0.005	0.006	<0.005	1.94
176290 - MW-9	4.88	<0.1	<0.1	<0.1	4.88
176291 - MW-10	3.43	<0.05	<0.05	<0.05	3.43

Continued ...

Continued ...

	BTEX				
Sample - Field Code	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
176292 - Duplicate	17	<0.2	0.598	<0.2	17.6
176293 - Rinsate	<0.005	<0.005	<0.005	<0.005	<0.005
176294 - Trip Blank	<0.005	<0.005	<0.005	<0.005	<0.005

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, Tx. 79708

Report Date: August 13, 2001

Order ID Number: A01080311

Project Number: CC # V-101
Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176277	MW-20	Water	7/31/01	11:15	8/3/01
176278	MW-19	Water	7/31/01	12:00	8/3/01
176279	MW-13	Water	7/31/01	13:00	8/3/01
176280	MW-12	Water	7/31/01	16:00	8/3/01
176281	MW-11	Water	7/31/01	17:00	8/3/01
176282	MW-22	Water	7/31/01	17:50	8/3/01
176283	MW-21	Water	8/1/01	18:50	8/3/01
176284	MW-18	Water	8/1/01	9:00	8/3/01
176285	MW-17	Water	8/1/01	10:00	8/3/01
176286	MW-16	Water	8/1/01	11:00	8/3/01
176287	MW-3	Water	8/1/01	11:45	8/3/01
176288	MW-7	Water	8/1/01	12:25	8/3/01
176289	MW-14	Water	8/1/01	14:00	8/3/01
176290	MW-9	Water	8/1/01	15:45	8/3/01
176291	MW-10	Water	8/1/01	16:45	8/3/01
176292	Duplicate	Water	8/1/01	:	8/3/01
176293	Rinsate	Water	8/1/01	17:35	8/3/01
176294	Trip Blank	Water	8/1/01	:	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 176277 - MW-20

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13065	Date Analyzed:	8/3/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11159	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		0.002	mg/L	1	0.001
M,P,O-Xylene		0.002	mg/L	1	0.001
Total BTEX		0.004	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.102	mg/L	1	0.10	102	72 - 128
4-BFB		0.093	mg/L	1	0.10	93	72 - 128

Sample: 176278 - MW-19

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13065	Date Analyzed:	8/3/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11159	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.1	mg/L	1	0.10	100	72 - 128
4-BFB		0.0915	mg/L	1	0.10	92	72 - 128

Sample: 176279 - MW-13

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13065	Date Analyzed:	8/3/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11159	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.108	mg/L	1	0.10	108	72 - 128
4-BFB		0.0933	mg/L	1	0.10	93	72 - 128

Sample: 176280 - MW-12

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13065	Date Analyzed:	8/3/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11159	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.107	mg/L	1	0.10	107	72 - 128
4-BFB		0.0946	mg/L	1	0.10	95	72 - 128

Sample: 176281 - MW-11

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13065	Date Analyzed:	8/3/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11159	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.105	mg/L	1	0.10	105	72 - 128
4-BFB		0.0922	mg/L	1	0.10	92	72 - 128

Sample: 176282 - MW-22

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13065	Date Analyzed:	8/3/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11159	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001

Continued ...

... *Continued* Sample: 176282 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0943	mg/L	1	0.10	94	72 - 128
4-BFB		0.08	mg/L	1	0.10	80	72 - 128

Sample: 176283 - MW-21

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13115	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.32	mg/L	5	0.10	13	72 - 128
4-BFB	[1]	0.135	mg/L	5	0.10	27	72 - 128

Sample: 176284 - MW-18

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13115	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	[2]	0.338	mg/L	5	0.10	67	72 - 128
4-BFB	[3]	0.144	mg/L	5	0.10	29	72 - 128

Sample: 176285 - MW-17

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13115	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11203	Date Prepared:	8/6/01

[1] Poor surrogate recovery due to matrix difficulties.
[2] Poor surrogate recovery due to matrix difficulties.
[3] Poor surrogate recovery due to matrix difficulties.

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.148	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		0.148	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	[4]	0.335	mg/L	5	0.10	67	72 - 128
4-BFB	[5]	0.152	mg/L	5	0.10	30	72 - 128

Sample: 176286 - MW-16

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13115	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.018	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		0.018	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	[6]	0.215	mg/L	5	0.10	43	72 - 128
4-BFB	[7]	0.0659	mg/L	5	0.10	13	72 - 128

Sample: 176287 - MW-3

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13115	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	[8]	0.211	mg/L	5	0.10	42	72 - 128
4-BFB	[9]	0.0701	mg/L	5	0.10	14	72 - 128

[4]Poor surrogate recovery due to matrix difficulties.
[5]Poor surrogate recovery due to matrix difficulties.
[6]Poor surrogate recovery due to matrix difficulties.
[7]Poor surrogate recovery due to matrix difficulties.
[8]Poor surrogate recovery due to matrix difficulties.
[9]Poor surrogate recovery due to matrix difficulties.

Sample: 176288 - MW-7

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13115	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.006	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		0.006	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	[10]	0.247	mg/L	5	0.10	49	72 - 128
4-BFB	[11]	0.12	mg/L	5	0.10	24	72 - 128

Sample: 176289 - MW-14

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13115	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		1.94	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		0.006	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		1.94	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.488	mg/L	5	0.10	97	72 - 128
4-BFB	[12]	0.276	mg/L	5	0.10	55	72 - 128

Sample: 176290 - MW-9

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13263	Date Analyzed:	8/10/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11286	Date Prepared:	8/9/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		4.88	mg/L	100	0.001
Toluene		<0.1	mg/L	100	0.001
Ethylbenzene		<0.1	mg/L	100	0.001
M,P,O-Xylene		<0.1	mg/L	100	0.001
Total BTEX		4.88	mg/L	100	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	[13]	2.3	mg/L	100	0.10	23	72 - 128

Continued ...

[10]Poor surrogate recovery due to matrix difficulties.
[11]Poor surrogate recovery due to matrix difficulties.
[12]Poor surrogate recovery due to matrix difficulties.
[13]Poor surrogate recovery due to matrix difficulties.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-BFB	[14]	2.14	mg/L	100	0.10	21	72 - 128

Sample: 176291 - MW-10

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13263	Date Analyzed:	8/10/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11286	Date Prepared:	8/9/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		3.43	mg/L	50	0.001
Toluene		<0.05	mg/L	50	0.001
Ethylbenzene		<0.05	mg/L	50	0.001
M,P,O-Xylene		<0.05	mg/L	50	0.001
Total BTEX		3.43	mg/L	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.72	mg/L	50	0.10	94	72 - 128
4-BFB		4.53	mg/L	50	0.10	90	72 - 128

Sample: 176292 - Duplicate

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13263	Date Analyzed:	8/10/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11286	Date Prepared:	8/9/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		17	mg/L	200	0.001
Toluene		<0.2	mg/L	200	0.001
Ethylbenzene		0.598	mg/L	200	0.001
M,P,O-Xylene		<0.2	mg/L	200	0.001
Total BTEX		17.6	mg/L	200	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		20.3	mg/L	200	0.10	101	72 - 128
4-BFB		19.1	mg/L	200	0.10	95	72 - 128

Sample: 176293 - Rinsate

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13115	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

[14] Poor surrogate recovery due to matrix difficulties.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.508	mg/L	5	0.10	101	72 - 128
4-BFB		0.379	mg/L	1	0.10	75	72 - 128

Sample: 176294 - Trip Blank

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC13115	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	[15]	0.277	mg/L	5	0.10	55	72 - 128
4-BFB	[16]	0.167	mg/L	5	0.10	33	72 - 128

[15] Poor surrogate recovery due to matrix difficulties.
[16] Poor surrogate recovery due to matrix difficulties.

Quality Control Report
Method Blank

Method Blank

QCBatch: QC13065

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0961	mg/L	1	0.10	96	72 - 128
4-BFB		0.0816	mg/L	1	0.10	82	72 - 128

Method Blank

QCBatch: QC13115

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.107	mg/L	1	0.10	107	72 - 128
4-BFB		0.0746	mg/L	1	0.10	75	72 - 128

Method Blank

QCBatch: QC13263

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC13065

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.092	0.092	mg/L	1	0.10	<0.001	92	0	80 - 120	20
Benzene	0.097	0.094	mg/L	1	0.10	<0.001	97	3	80 - 120	20
Toluene	0.098	0.095	mg/L	1	0.10	<0.001	98	3	80 - 120	20
Ethylbenzene	0.098	0.095	mg/L	1	0.10	<0.001	98	3	80 - 120	20
M,P,O-Xylene	0.284	0.276	mg/L	1	0.30	<0.001	94	2	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.096	0.092	mg/L	1	0.10	96	92	72 - 128
4-BFB	0.096	0.093	mg/L	1	0.10	96	93	72 - 128

Laboratory Control Spikes

QCBatch: QC13115

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.103	0.106	mg/L	1	0.10	<0.001	103	2	80 - 120	20
Benzene	0.096	0.102	mg/L	1	0.10	<0.001	96	6	80 - 120	20
Toluene	0.097	0.103	mg/L	1	0.10	<0.001	97	5	80 - 120	20
Ethylbenzene	0.096	0.102	mg/L	1	0.10	<0.001	96	6	80 - 120	20
M,P,O-Xylene	0.287	0.304	mg/L	1	0.30	<0.001	95	5	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.109	0.115	mg/L	1	0.10	109	115	72 - 128
4-BFB	0.107	0.111	mg/L	1	0.10	107	111	72 - 128

Laboratory Control Spikes

QCBatch: QC13263

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.11	0.109	mg/L	1	0.10	<0.001	110	0	80 - 120	20
Benzene	0.109	0.107	mg/L	1	0.10	<0.001	109	1	80 - 120	20
Toluene	0.107	0.104	mg/L	1	0.10	<0.001	107	2	80 - 120	20
Ethylbenzene	0.107	0.104	mg/L	1	0.10	<0.001	107	2	80 - 120	20
M,P,O-Xylene	0.313	0.305	mg/L	1	0.30	<0.001	104	2	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.108	0.107	mg/L	1	0.10	108	107	72 - 128
4-BFB	0.103	0.102	mg/L	1	0.10	103	102	72 - 128

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13065

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.087	87	85 - 115	8/3/01
Benzene		mg/L	0.10	0.095	95	85 - 115	8/3/01
Toluene		mg/L	0.10	0.095	95	85 - 115	8/3/01
Ethylbenzene		mg/L	0.10	0.095	95	85 - 115	8/3/01
M,P,O-Xylene		mg/L	0.30	0.277	92	85 - 115	8/3/01

ICV (1) QCBatch: QC13065

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.094	94	85 - 115	8/3/01
Benzene		mg/L	0.10	0.098	98	85 - 115	8/3/01
Toluene		mg/L	0.10	0.099	99	85 - 115	8/3/01
Ethylbenzene		mg/L	0.10	0.099	99	85 - 115	8/3/01
M,P,O-Xylene		mg/L	0.30	0.288	96	85 - 115	8/3/01

CCV (1) QCBatch: QC13115

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.080	80	85 - 115	8/6/01
Benzene		mg/L	0.10	0.086	86	85 - 115	8/6/01
Toluene		mg/L	0.10	0.085	85	85 - 115	8/6/01
Ethylbenzene		mg/L	0.10	0.083	83	85 - 115	8/6/01
M,P,O-Xylene		mg/L	0.30	0.247	82	85 - 115	8/6/01

CCV (2) QCBatch: QC13115

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.097	97	85 - 115	8/6/01
Benzene		mg/L	0.10	0.097	97	85 - 115	8/6/01
Toluene		mg/L	0.10	0.098	98	85 - 115	8/6/01
Ethylbenzene		mg/L	0.10	0.098	98	85 - 115	8/6/01
M,P,O-Xylene		mg/L	0.30	0.29	96	85 - 115	8/6/01

ICV (1) QCBatch: QC13115

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.095	95	85 - 115	8/6/01
Benzene		mg/L	0.10	0.096	96	85 - 115	8/6/01
Toluene		mg/L	0.10	0.096	96	85 - 115	8/6/01
Ethylbenzene		mg/L	0.10	0.095	95	85 - 115	8/6/01
M,P,O-Xylene		mg/L	0.30	0.283	94	85 - 115	8/6/01

CCV (1)

QCBatch: QC13263

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.106	106	85 - 115	8/10/01
Benzene		mg/L	0.10	0.101	101	85 - 115	8/10/01
Toluene		mg/L	0.10	0.099	99	85 - 115	8/10/01
Ethylbenzene		mg/L	0.10	0.1	100	85 - 115	8/10/01
M,P,O-Xylene		mg/L	0.30	0.292	97	85 - 115	8/10/01

CCV (2)

QCBatch: QC13263

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.101	101	85 - 115	8/10/01
Benzene		mg/L	0.10	0.095	95	85 - 115	8/10/01
Toluene		mg/L	0.10	0.093	93	85 - 115	8/10/01
Ethylbenzene		mg/L	0.10	0.093	93	85 - 115	8/10/01
M,P,O-Xylene		mg/L	0.30	0.273	91	85 - 115	8/10/01

ICV (1)

QCBatch: QC13263

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.105	105	85 - 115	8/10/01
Benzene		mg/L	0.10	0.096	96	85 - 115	8/10/01
Toluene		mg/L	0.10	0.095	95	85 - 115	8/10/01
Ethylbenzene		mg/L	0.10	0.095	95	85 - 115	8/10/01
M,P,O-Xylene		mg/L	0.30	0.277	92	85 - 115	8/10/01

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V-101-0701-1

Chain of Custody

Date 8-1-01 Page 1 of 2

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Telephone:

Samplers (SIGNATURES) Gilbert Van Deventer

Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	TCLP Metals	Total Metals	Ions:	Number of Containers
MW-20 176277	Water	7-31-01	1115		X															2
MW-19 78	Water	7-31-01	1200		X															2
MW-13 79	Water	7-31-01	1300		X															2
MW-12 80	Water	7-31-01	1400		X															2
MW-11 81	Water	7-31-01	1700		X															2
MW-22 82	Water	7-31-01	1750		X															2
MW-21 83	Water	7-31-01	1750		X															2
MW-18 84	Water	8-1-01	0900		X															2
MW-17 85	Water	8-1-01	1000		X															2
MW-16 86	Water	8-1-01	1100		X															2

Analysis Request

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Lee Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	
Cost Center No.:	V-101	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

Relinquished By: (1) (Company)	Relinquished By: (2) (Company)	Relinquished By: (3) (Company)
Trident Environmental		
(Printed Name) Gilbert Van Deventer	(Printed Name)	(Printed Name)
(Signature) Gilbert Van Deventer	(Signature)	(Signature)
(Date) 8-2-01 (Time) 8:30 am	(Date) (Time)	(Date) (Time)
Received By: (1) (Company)	**Received By: (2) (Company)**	**Received By: (3) (Company)**
(Printed Name)	(Printed Name)	(Printed Name) Vicki Hinsley
(Signature)	(Signature)	(Signature) Vicki Hinsley
(Date) (Time)	(Date) (Time)	(Date) 8-3-01 (Time) 10:00

Copy signed original form for Trident Environmental records

and Bus 9026744848 / 0 8/101

Ao 80

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

V-101-0701-2

Chain of Custody

Date 8-1-01 Page 2 of 2

Lab Name: TRACEANALYSIS, INC.
Address: 6701 Aberdeen Avenue Lubbock, Texas 79424
Telephone: 806•794•1296

Samplers (SIGNATURES)

Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	TCLP Metals	Total Metals	Ions:						Number of Containers
MW-3 176287	Water	8-1-01	1145		X																				2
MW-7 88	Water	8-1-01	1225		X																				2
MW-14 89	Water	8-1-01	1400		X																				2
MW-9 90	Water	8-1-01	1545		X																				2
MW-10 91	Water	8-1-01	1645		X																				2
Duplicate 92	Water	8-1-01	0000		X																				2
Rinsate 93	Water	8-1-01	1735		X																				2
Trip Blank 2038A/1394	Water	4/20-01	—		X																				2

Project Information

Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant
Project Manager: Gil Van Deventer
Cost Center No.: V-101
Shipping ID No.:
Bill to (see below):
Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: Steve Weathers, PO Box 5493, Denver, CO 80217

Sample Receipt

Total Containers:
COC Seals:
Rec'd Good Cond/Cold:
Conforms to Records:
Lab No.:

Relinquished By: (1) (Company) Trident Environmental
(Printed Name) Gilbert Van Deventer
(Signature) [signature]
(Date) 8-2-01 (Time) 0830

Relinquished By: (2) (Company)
(Printed Name)
(Signature)
(Date) (Time)

Relinquished By: (3) (Company)
(Printed Name)
(Signature)
(Date) (Time)

Received By: (1) (Company)
(Printed Name)
(Signature)
(Date) (Time)

Received By: (2) (Company)
(Printed Name)
(Signature)
(Date) (Time)

Received By: (3) (Company) TraceAnalysis
(Printed Name) Vicki Hensley
(Signature) [signature]
(Date) 8-3-01 (Time) 1022

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ne Bus 902 674 4848 10

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Dale Littlejohn
TRW
415 West Wall Suite 1818
Midland, TX 79701

Report Date: March 2, 2001

Order ID Number: A01021712

Project Number: P/6494/1AC
Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
165139	MW-20 0102151013	Water	2/15/01	10:13	2/17/01
165140	MW-19 0102151800	Water	2/15/01	18:00	2/17/01
165141	MW-12 0102151925	Water	2/15/01	19:25	2/17/01
165142	MW-13 0102151850	Water	2/15/01	18:50	2/17/01
165143	Rinsate 0102151935	Water	2/15/01	19:35	2/17/01
165144	Dup 0102160000	Water	2/15/01	:	2/17/01
165145	MW-3 0102160830	Water	2/16/01	8:30	2/17/01
165146	MW-11 0102160900	Water	2/16/01	9:00	2/17/01
165147	MW-21 0102161015	Water	2/16/01	10:15	2/17/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 165139 - MW-20 0102151013

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC09403	Date Analyzed:	2/27/01
Analyst:	JW	Preparation Method:	E 5030B	Prep Batch:	PB08073	Date Prepared:	2/28/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001
Test Comments	[1]	NOTE	mg/L	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.465	mg/L	1	0.10	93	72 - 128
4-BFB		0.411	mg/L	1	0.10	82	72 - 128

Sample: 165140 - MW-19 0102151800

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC09403	Date Analyzed:	2/27/01
Analyst:	JW	Preparation Method:	E 5030B	Prep Batch:	PB08073	Date Prepared:	2/28/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001
Test Comments	[2]	NOTE	mg/L	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.467	mg/L	1	0.10	93	72 - 128
4-BFB		0.416	mg/L	1	0.10	83	72 - 128

Sample: 165141 - MW-12 0102151925

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC09403	Date Analyzed:	2/27/01
Analyst:	JW	Preparation Method:	E 5030B	Prep Batch:	PB08073	Date Prepared:	2/28/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Continued ...

[1] ELEVATED REPORTING LIMITS DUE TO LACK OF SAMPLE
[2] ELEVATED REPORTING LIMITS DUE TO LACK OF SAMPLE

... Continued Sample: 165141 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
Test Comments	[3]	NOTE	mg/L	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.447	mg/L	1	0.10	89	72 - 128
4-BFB		0.405	mg/L	1	0.10	81	72 - 128

Sample: 165142 - MW-13 0102151850

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC09403	Date Analyzed:	2/27/01
Analyst:	JW	Preparation Method:	E 5030B	Prep Batch:	PB08073	Date Prepared:	2/28/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001
Test Comments	[4]	NOTE	mg/L	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.461	mg/L	1	0.10	92	72 - 128
4-BFB		0.405	mg/L	1	0.10	81	72 - 128

Sample: 165143 - Rinsate 0102151935

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC09403	Date Analyzed:	2/27/01
Analyst:	JW	Preparation Method:	E 5030B	Prep Batch:	PB08073	Date Prepared:	2/28/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001
Test Comments	[5]	NOTE	mg/L	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.474	mg/L	1	0.10	94	72 - 128
4-BFB		0.415	mg/L	1	0.10	83	72 - 128

[3]ELEVATED REPORTING LIMITS DUE TO LACK OF SAMPLE
[4]ELEVATED REPORTING LIMITS DUE TO LACK OF SAMPLE
[5]ELEVATED REPORTING LIMITS DUE TO LACK OF SAMPLE

Sample: 165144 - Dup 0102160000

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC09403	Date Analyzed:	2/27/01
Analyst:	JW	Preparation Method:	E 5030B	Prep Batch:	PB08073	Date Prepared:	2/28/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001
Test Comments	[6]	NOTE	mg/L	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.474	mg/L	1	0.10	94	72 - 128
4-BFB		0.416	mg/L	1	0.10	83	72 - 128

Sample: 165145 - MW-3 0102160830

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC09403	Date Analyzed:	2/27/01
Analyst:	JW	Preparation Method:	E 5030B	Prep Batch:	PB08073	Date Prepared:	2/28/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001
Test Comments	[7]	NOTE	mg/L	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.47	mg/L	1	0.10	94	72 - 128
4-BFB		0.409	mg/L	1	0.10	81	72 - 128

Sample: 165146 - MW-11 0102160900

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC09403	Date Analyzed:	2/27/01
Analyst:	JW	Preparation Method:	E 5030B	Prep Batch:	PB08073	Date Prepared:	2/28/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001
Test Comments	[8]	NOTE	mg/L	1	

[6]ELEVATED REPORTING LIMITS DUE TO LACK OF SAMPLE
[7]ELEVATED REPORTING LIMITS DUE TO LACK OF SAMPLE
[8]ELEVATED REPORTING LIMITS DUE TO LACK OF SAMPLE

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.459	mg/L	1	0.10	91	72 - 128
4-BFB		0.402	mg/L	1	0.10	80	72 - 128

Sample: 165147 - MW-21 0102161015

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC09404	Date Analyzed:	2/27/01
Analyst:	JW	Preparation Method:	E 5030B	Prep Batch:	PB08074	Date Prepared:	2/28/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001
Test Comments	[9]	NOTE	mg/L	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.466	mg/L	1	0.10	93	72 - 128
4-BFB		0.436	mg/L	1	0.10	87	72 - 128

[9]ELEVATED REPORTING LIMITS DUE TO LACK OF SAMPLE

Quality Control Report
Method Blank

Method Blank

QCBatch: QC09403

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene	[10]	0.001	mg/L	0.001
Total BTEX		0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		0.106	mg/L	0.10	106	72 - 128
4-BFB		0.096	mg/L	0.10	96	72 - 128

Method Blank

QCBatch: QC09404

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		0.098	mg/L	0.10	98	72 - 128
4-BFB		0.087	mg/L	0.10	87	72 - 128

Quality Control Report
Lab Control Spikes and Duplicate Spikes

LCS

QC Batch: QC09403

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.112	mg/L	1	0.10	<0.001	112		80 - 120	20
Benzene		0.104	mg/L	1	0.10	<0.001	104		80 - 120	20
Toluene		0.104	mg/L	1	0.10	<0.001	104		80 - 120	20

Continued ...

[10]METHOD BLANK TOOK A HIT AT 0.001 PPM POSSIBLY DUE TO RESIDUAL CARRYOVER

... Continued

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Ethylbenzene		0.104	mg/L	1	0.10	<0.001	104		80 - 120	20
M,P,O-Xylene		0.304	mg/L	1	0.30	0.001	101		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.1	mg/L	1	0.10	100	72 - 128
4-BFB		0.109	mg/L	1	0.10	109	72 - 128

LCSD

QC Batch: QC09403

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.097	mg/L	1	0.10	<0.001	97	14	80 - 120	20
Benzene		0.093	mg/L	1	0.10	<0.001	93	11	80 - 120	20
Toluene		0.095	mg/L	1	0.10	<0.001	95	9	80 - 120	20
Ethylbenzene		0.096	mg/L	1	0.10	<0.001	96	8	80 - 120	20
M,P,O-Xylene		0.282	mg/L	1	0.30	0.001	94	8	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.094	mg/L	1	0.10	94	72 - 128
4-BFB		0.101	mg/L	1	0.10	101	72 - 128

LCS

QC Batch: QC09404

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.099	mg/L	1	0.10	<0.001	99		80 - 120	20
Benzene		0.089	mg/L	1	0.10	<0.001	89		80 - 120	20
Toluene		0.089	mg/L	1	0.10	<0.001	89		80 - 120	20
Ethylbenzene		0.095	mg/L	1	0.10	<0.001	95		80 - 120	20
M,P,O-Xylene		0.249	mg/L	1	0.30	<0.001	83		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.092	mg/L	1	0.10	92	72 - 128
4-BFB		0.103	mg/L	1	0.10	103	72 - 128

LCSD

QC Batch: QC09404

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.093	mg/L	1	0.10	<0.001	93	6	80 - 120	20
Benzene		0.089	mg/L	1	0.10	<0.001	89	2	80 - 120	20
Toluene		0.093	mg/L	1	0.10	<0.001	93	4	80 - 120	20
Ethylbenzene		0.093	mg/L	1	0.10	<0.001	93	2	80 - 120	20
M,P,O-Xylene		0.272	mg/L	1	0.30	<0.001	90	9	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.098	mg/L	1	0.10	98	72 - 128
4-BFB		0.112	mg/L	1	0.10	112	72 - 128

Quality Control Report
Continuing Calibration Verification Standards

CCV (1)

QC Batch: QC09403

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.113	113	85 - 115	2/27/01
Benzene		mg/L	0.10	0.093	93	85 - 115	2/27/01
Toluene		mg/L	0.10	0.091	91	85 - 115	2/27/01
Ethylbenzene		mg/L	0.10	0.098	98	85 - 115	2/27/01
M,P,O-Xylene		mg/L	0.30	0.261	87	85 - 115	2/27/01

CCV (2)

QC Batch: QC09403

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.116	116	85 - 115	2/27/01
Benzene		mg/L	0.10	0.11	110	85 - 115	2/27/01
Toluene		mg/L	0.10	0.112	112	85 - 115	2/27/01
Ethylbenzene		mg/L	0.10	0.11	110	85 - 115	2/27/01
M,P,O-Xylene		mg/L	0.30	0.331	110	85 - 115	2/27/01

ICV (1)

QC Batch: QC09403

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.109	109	85 - 115	2/27/01
Benzene		mg/L	0.10	0.098	98	85 - 115	2/27/01
Toluene		mg/L	0.10	0.1	100	85 - 115	2/27/01

Continued ...

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ethylbenzene		mg/L	0.10	0.1	100	85 - 115	2/27/01
M,P,O-Xylene		mg/L	0.30	0.297	99	85 - 115	2/27/01

CCV (1)

QC Batch: QC09404

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.092	92	85 - 115	2/27/01
Benzene		mg/L	0.10	0.086	86	85 - 115	2/27/01
Toluene		mg/L	0.10	0.089	89	85 - 115	2/27/01
Ethylbenzene		mg/L	0.10	0.091	91	85 - 115	2/27/01
M,P,O-Xylene		mg/L	0.30	0.259	86	85 - 115	2/27/01

CCV (2)

QC Batch: QC09404

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.089	89	85 - 115	2/27/01
Benzene		mg/L	0.10	0.087	87	85 - 115	2/27/01
Toluene		mg/L	0.10	0.091	91	85 - 115	2/27/01
Ethylbenzene		mg/L	0.10	0.091	91	85 - 115	2/27/01
M,P,O-Xylene		mg/L	0.30	0.267	89	85 - 115	2/27/01

ICV (1)

QC Batch: QC09404

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.103	103	85 - 115	2/27/01
Benzene		mg/L	0.10	0.092	92	85 - 115	2/27/01
Toluene		mg/L	0.10	0.093	93	85 - 115	2/27/01
Ethylbenzene		mg/L	0.10	0.103	103	85 - 115	2/27/01
M,P,O-Xylene		mg/L	0.30	0.254	84	85 - 115	2/27/01

TRW Inc.
Energy & Environmental Systems
415 West Wall St. Suite. 1818
Midland, Texas 79701
(915) 682-0008
FAX: (915) 682-0028

№ 13613

Chain of Custody

Date 2/16/01 Page 1 of 1

Lab Name: TRACE ANALYSIS, INC.
Address: 6701 Aberdeen
Lubbock, Texas 79424
Telephone: 800-378-1296

Samplers (SIGNATURES)

Dale T Littlejohn

Analysis Request

Sample Identification	Matrix	Date	Time	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals	Number of Containers
MW-20 010215 1013	Wtr	2/15/01	1013	✓								165	139	165	139			2
MW-19 010215 1800	"	"	1800	✓									38			40		2
MW-12 010215 1925	"	"	1925	✓									39			41		2
MW-13 010215 1850	"	"	1850	✓												42		2
Rinsate 010215 1935	"	"	1935	✓												43		2
Dup 010216 0000	"	2/16/01	0000	✓												44		2
MW-3 010216 0830	"	2/16/01	0830	✓												45		2
MW-11 010216 0900	"	"	0900	✓												46		2
MW-21 010216 1015	"	"	1015	✓												47		2
VE 010215 1520	Air	2/15/01	1520	✓								✓				48		2

Project Information

Project Name: Duke Energy Field Srvcs
Project Location: Lee Gas Plant
Project Manager: G.I Van Deventer
Cost Center No.: P/6494/1AC
Shipping ID No.:
PO No.:

Sample Receipt

Total Containers:
COC Seals:
Rec'd Good Cond/Cold:
Conforms to Records:
Lab No.:

Special Instructions/Comments: Invoice direct to: Duke Energy Field Services
Attn: Steve Weathers

Relinquished By: (1)
Dale T Littlejohn 1315
(Signature) (Time)
DALE LITTLEJOHN 2/16/01
(Printed Name) (Date)
TRW
(Company)

Received By: (1)
Helen Shelton 1315
(Signature) (Time)
HELEN SHELTON 2/16/01
(Printed Name) (Date)
TRACE ANALYSIS
(Company)

Relinquished By: (2)
Helen Shelton 1800
(Signature) (Time)
HELEN SHELTON 2/16/01
(Printed Name) (Date)
TRACE ANALYSIS
(Company)

Received By: (2)
(Signature) (Time)
(Printed Name) (Date)
(Company)

Relinquished By: (3)
(Signature) (Time)
(Printed Name) (Date)
(Company)

Received By: (3)
Vicki Hensley
(Signature) (Time)
Vicki Hensley 10:00
(Printed Name) (Date)
Vicki Trace Analysis 2-17-01
(Company)

Distribution: White, Canary-Laboratory / Pink-TRW

TRW Inc.
Energy & Environmental Systems
415 West Wall St. Suite. 1818
Midland, Texas 79701
(915) 682-0008
FAX: (915) 682-0028

№ 13613

Chain of Custody

Date 2/18/01 Page 1 of 1

Lab Name: TRACE ANALYSIS INC.
Address: 6701 Aberdeen
Lubbock Texas 79424
Telephone: 806-794-1296

Samplers (SIGNATURES)

Analysis Request

Sample Identification	Matrix	Date	Time	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals							Number of Containers
MW-20 010215 1013	WTR	2/15/01	1013	✓																				2
MW-19 010215 1800			1800	✓																				2
MW-12 010215 1125			1125	✓																				2
MW-13 010215 1150			1150	✓																				2
Rinsate 010215 1135			1135	✓																				2
Dup MW-21 010216 0000		2/16/01	0000	✓																				2
MW-3 010216 0830		2/16/01	0830	✓																				2
MW-11 010216 0900			0900	✓																				2
MW-21 010216 1015			1015	✓																				2
VE 010215 1520	AIR	2/15/01	1520	✓								✓												2

Project Information

Project Name: Duke Energy Field Services
Project Location: Lee Gas Plant
Project Manager: G.L. Van Deventer
Cost Center No.: P164441AC
Shipping ID No.:
PO No.:
Special Instructions/Comments: Invoice direct to: Duke Energy Field Services
Attn: Steve Weathers

Sample Receipt

Total Containers:
COC Seals:
Rec'd Good Cond/Cold:
Conforms to Records:
Lab No.:

Relinquished By: (1)	Relinquished By: (2)	Relinquished By: (3)
(Signature) (Time)	(Signature) (Time)	(Signature) (Time)
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
(Company)	(Company)	(Company)
Received By: (1)	**Received By: (2)**	**Received By: (3)**
(Signature) (Time) 1315	(Signature) (Time)	(Signature) (Time)
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
(Company)	(Company)	(Company)

Distribution: White, Canary-Laboratory / Pink-TRW

Appendix B

Well Sampling Data Forms

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES WELL ID: **MW-3**

SITE NAME: LEE GAS PLANT DATE: 2/16/01

PROJECT NO. P/6494/1AC SAMPLER: DALE LITTLEJOHN

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: 109.61 Feet

DEPTH TO WATER: 106.07 Feet

HEIGHT OF WATER COLUMN: 3.54 Feet X 0.163 X 3 (Well Volumes) = 1.73 Minimum Gallons To Purge

WELL DIAMETER: ☑ 2-Inch ☐ 4-Inch 0.163 (2"), 0.653 (4"), or 1.47 (6")

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
	2	10.6	1030	7.52	5.33	82	

COMMENTS: Collected Sample #0102160830 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-11**
SITE NAME: LEE GAS PLANT
DATE: 2/16/01
PROJECT NO. P/6494/1AC
SAMPLER: JOHN FERGERSON

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump

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: 118.03 Feet
DEPTH TO WATER: 105.21 Feet
HEIGHT OF WATER COLUMN: 12.82 Feet X 0.653 X 3 (Well Volumes) = 25.11 Minimum Gallons To Purge
WELL DIAMETER: ☐ 2-Inch ☑ 4-Inch
0.163 (2"), 0.653 (4"), or 1.47 (6")

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
0735	0	-	-	-	-	-	Pump On!
0737	5	18.7	2300	7.04	6.62	539	
0740	10	19.4	2340	7.08	5.12	309	
0743	15	19.8	2350	7.16	4.66	246	
0745	20	19.9	2310	7.21	5.75	174	
0748	25	20.0	2290	7.24	5.78	138	
0750	30	20.1	2250	7.26	5.71	122	
0752	35	20.1	2210	7.29	6.03	120	
0755	40	20.2	2190	7.31	5.60	114	Pump Off!
							Flow Rate = 2.00 gal/min

COMMENTS: Collected Sample #0102160900 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-12**
SITE NAME: LEE GAS PLANT
DATE: 2/15/01
PROJECT NO. P/6494/1AC
SAMPLER: JOHN FERGERSON/DALE LITTLEJOHN

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump

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: 117.60 Feet
DEPTH TO WATER: 105.69 Feet
HEIGHT OF WATER COLUMN: 11.91 Feet X 0.653 X 3 (Well Volumes) = 23.33 Minimum Gallons To Purge
WELL DIAMETER: ☐ 2-Inch ☑ 4-Inch
0.163 (2"), 0.653 (4"), or 1.47 (6")

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m* S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1742	0	-	-	-	-	-	Pump On!
1757	5	20.0	1070	7.63	7.07	999	
1800	10	20.3	1030	7.62	6.67	385	
1802	15	20.4	1010	7.61	5.56	167	
1805	20	20.4	1000	7.60	3.89	112	
1808	25	20.5	990	7.6	5.22	109	
1810	30	20.5	990	7.60	4.77	101	Pump Off!
							Flow Rate = 1.07 gal/min

COMMENTS: Collected Sample #0102151925 for BTEX 8021B. Collected Rinsate Sample #0102151935 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-13**
SITE NAME: LEE GAS PLANT
DATE: 2/15/01
PROJECT NO. P/6494/1AC
SAMPLER: JOHN FERGERSON/DALE LITTLEJOHN

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump

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: 117.40 Feet
DEPTH TO WATER: 105.69 Feet
HEIGHT OF WATER COLUMN: 11.71 Feet X 0.653 X 3 (Well Volumes) = 22.94 Minimum Gallons To Purge
WELL DIAMETER: ☐ 2-Inch ☑ 4-Inch
0.163 (2"), 0.653 (4"), or 1.47 (6")

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1648	0	-	-	-	-	-	Pump On!
1700	5	19.9	1460	7.06	4.61	95	
1702	10	20.1	1320	7.10	3.02	64	
1706	15	20.7	1430	7.09	7.23	24	
1710	20	20.8	1500	7.12	6.57	113	
1715	25	20.8	1540	7.14	6.58	59	
1750	30	20.9	1560	7.16	6.55	63	
1725	35	20.9	1590	7.17	6.34	141	
1730	40	20.9	1600	7.18	5.99	92	Pump Off!
							Flow Rate = 0.95 gal/min

COMMENTS: Collected Sample #0102151850 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-19**
SITE NAME: LEE GAS PLANT
DATE: 2/15/01
PROJECT NO. P/6494/1AC
SAMPLER: JOHN FERGERSON/DALE LITTLEJOHN

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump

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: 126.57 Feet
DEPTH TO WATER: 108.7 Feet
HEIGHT OF WATER COLUMN: 17.87 Feet X 0.653 X 3 (Well Volumes) = 35.01 Minimum Gallons To Purge
WELL DIAMETER: ☐ 2-Inch ☑ 4-Inch
0.163 (2"), 0.653 (4"), or 1.47 (6")

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1736	0	-	-	-	-	-	Pump On!
1738	5	20.4	1340	6.79	0.72	59	
1740	10	20.4	1340	6.75	0.80	45	
1742	15	20.4	1320	6.73	0.90	49	
1744	20	20.4	1330	6.72	1.22	41	
1746	25	20.4	1340	6.71	1.37	43	
1748	30	20.4	1340	6.70	1.33	41	Pump Off!
							Flow Rate = 2.5 gal/min

COMMENTS: Collected Sample #0102151800 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-20**
SITE NAME: LEE GAS PLANT
DATE: 2/15/01
PROJECT NO. P/6494/1AC
SAMPLER: JOHN FERGERSON/DALE LITTLEJOHN

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 128.05 Feet
DEPTH TO WATER: 111.47 Feet
HEIGHT OF WATER COLUMN: 16.58 Feet X 0.653 X 3 (Well Volumes) = 32.48 Minimum Gallons To Purge
WELL DIAMETER: ☐ 2-Inch ☑ 4-Inch
0.163 (2"), 0.653 (4"), or 1.47 (6")

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
0822	0	-	-	-	-	-	Pump On!
0824	5	18.4	608	6.81	5.81	128	
0826	10	19.0	603	6.88	6.34	178	
0828	15	19.8	586	6.92	6.40	89	
0901	20	21.3	567	7.23	6.05	381	Pump shut down after pumping 15 gallons of purge water.
0903	25	20.7	573	7.26	3.74	290	
0905	30	20.9	570	7.26	3..1	185	
0908	35	20.9	569	7.29	2.87	121	Pump Off!
							Flow Rate = 2.5 gal/min

COMMENTS: Collected Sample #0102151013 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-21**
SITE NAME: LEE GAS PLANT
DATE: 2/16/01
PROJECT NO. P/6494/1AC
SAMPLER: DALE LITTLEJOHN

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: 123.48 Feet
DEPTH TO WATER: 107.2 Feet
HEIGHT OF WATER COLUMN: 16.28 Feet X 0.163 X 3 (Well Volumes) = 7.96 Minimum Gallons To Purge
WELL DIAMETER: ☑ 2-Inch ☐ 4-Inch 0.163 (2"), 0.653 (4"), or 1.47 (6")

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
	8	16.5	475	7.87	1040	241	

COMMENTS: Collected Sample #0102161015 for BTEX 8021B. Collected Duplicate Sample #010216000 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-3**
SITE NAME: LEE GAS PLANT
DATE: 8/1/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

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: 109.61 Feet
DEPTH TO WATER: 106.47 Feet
HEIGHT OF WATER COLUMN: 3.14 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.5	-	-	-	-	-	

COMMENTS: Collected Sample #0108011145 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-7**
SITE NAME: LEE GAS PLANT
DATE: 8/1/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

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: 111.65 Feet
DEPTH TO WATER: 105.07 Feet
HEIGHT OF WATER COLUMN: 6.58 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1112	0	-	-	-	-	-	
1130	3	24.8	1600	7.20	0.85	55	
1136	6	26.1	1350	7.36	1.73	163	
1200	9	27.9	1150	7.49	3.10	115	
1214	12	29.8	1100	7.45	2.70	139	

COMMENTS: Collected Sample #0108011225 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-9**
SITE NAME: LEE GAS PLANT
DATE: 8/1/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.02 Feet
DEPTH TO WATER: 106.75 Feet
HEIGHT OF WATER COLUMN: 10.27 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1514	0	-	-	-	-	-	Pump On!
1518	5	23.0	1290	7.08	1.97	9	
1520	10	22.2	1220	7.11	1.40	7	
1523	15	22.0	1170	7.10	1.21	4	
1526	20	21.8	1170	7.12	1.19	11	
1529	25	21.9	1180	7.12	1.48	12	
1532	30	22.0	1180	7.11	1.17	13	
1535	35	21.9	1190	7.10	1.23	11	
1537	40	21.9	1210	7.09	1.24	4	Pump Off!
							Flow Rate = 1.74 gal/min

COMMENTS: Collected Sample #01008011545 for BTEX 8021B. (Dublicate of MW-9 also recovered)

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-10**
SITE NAME: LEE GAS PLANT
DATE: 8/1/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.50 Feet
DEPTH TO WATER: 106.48 Feet
HEIGHT OF WATER COLUMN: 11.02 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1611	0	-	-	-	-	-	Pump On!
1616	5	23.1	2360	7.17	1.87	31	
1621	10	22.5	2180	7.27	1.48	26	
1626	14	22.2	2220	7.22	1.16	44	
1637	17	23.5	2230	7.24	2.30	75	
1641	20	22.3	2230	7.19	1.59	27	
1645	23	22.2	2230	7.21	-	23	Pump Off!
							Flow Rate = 0.68 gal/min

COMMENTS: Collected Sample #0108011745 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-11**
SITE NAME: LEE GAS PLANT
DATE: 7/31/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 118.03 Feet
DEPTH TO WATER: 105.47 Feet
HEIGHT OF WATER COLUMN: 12.56 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1619	0	-	-	-	-	-	Pump On!
1622	5	22.3	2520	7.24	1.33	125	
1625	10	21.6	2200	7.24	0.89	20	
1627	15	21.3	2110	7.27	0.97	4	
1630	20	21.2	2070	7.30	1.10	3	
1633	25	21.1	2000	7.31	1.37	1	
1636	30	21.1	1990	7.33	1.57	0	
1639	35	21.0	1970	7.34	1.84	0	
1642	40	21.0	1950	7.34	1.73	0	Pump Off!
							Flow Rate = 1.74 gal/min

COMMENTS: Collected Sample #0107311700 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-12**
SITE NAME: LEE GAS PLANT
DATE: 7/31/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.60 Feet
DEPTH TO WATER: 105.95 Feet
HEIGHT OF WATER COLUMN: 11.65 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1510	0	-	-	-	-	-	Pump On!
1513	5	24.0	950	7.20	1.08	87	
1516	10	22.6	940	7.32	-	18	
1519	15	22.0	930	7.32	0.76	3	
1522	20	21.5	920	7.31	1.17	0	
1525	25	21.5	920	7.37	1.27	3	
1528	30	21.4	910	7.36	1.06	0	
1531	35	21.4	910	7.45	1.12	0	Pump Off!
							Flow Rate = 1.67 gal/min

COMMENTS: Collected Sample #0107311600 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-13**
SITE NAME: LEE GAS PLANT
DATE: 7/31/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 117.40 Feet
DEPTH TO WATER: 107.82 Feet
HEIGHT OF WATER COLUMN: 9.58 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1223	0	-	-	-	-	-	Pump On!
1227	5	22.5	1620	7.23	0.86	5	
1231	10	22.0	1370	7.28	1.00	3	
1236	15	21.9	1420	7.26	1.48	0	
1240	20	21.8	1490	7.21	2.32	0	
1244	25	21.8	1530	7.19	2.97	0	
1249	30	21.8	1570	7.18	3.48	3	
1253	35	21.9	1590	7.18	3.97	0	
1258	40	22.1	1600	7.17	4.80	0	Pump Off!
							Flow Rate = 1.14 gal/min

COMMENTS: Collected Sample #0107131300 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-14**
SITE NAME: LEE GAS PLANT
DATE: 8/1/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 118.49 Feet
DEPTH TO WATER: 109.19 Feet
HEIGHT OF WATER COLUMN: 9.30 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1416	0	-	-	-	-	-	Pump On!
1419	5	23.6	1560	7.04	1.62	90	
1422	10	22.6	1490	6.99	1.66	28	
1425	15	21.9	1580	7.01	2.18	28	
1428	20	21.7	1640	6.96	2.33	12	
1431	25	21.8	1640	6.93	2.45	2	
1433	30	21.5	1630	6.92	2.58	2	
1436	35	21.2	1640	6.90	2.39	1	
1439	40	21.2	1640	6.90	2.39	1	Pump Off!
							Flow Rate = 1.74 gal/min

COMMENTS: Collected Sample #0108011400 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-16**
SITE NAME: LEE GAS PLANT
DATE: 8/1/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 125.15 Feet
DEPTH TO WATER: 104.67 Feet
HEIGHT OF WATER COLUMN: 20.48 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1017	0	-	-	-	-	-	Pump On!
1020	5	21.2	826	7.12	0.79	71	
1023	10	20.9	782	6.93	1.08	35	
1026	15	20.9	766	7.06	2.79	44	
1029	20	20.8	749	7.26	3.93	29	
1032	25	20.7	732	7.35	4.35	24	
1035	30	20.7	738	7.36	4.55	27	
1038	35	20.7	723	7.41	4.98	11	
1041	40	20.7	721	7.40	5.03	10	Pump Off!
							Flow Rate = 1.7 gal/min

COMMENTS: Collected Sample #0108011100 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-17**
SITE NAME: LEE GAS PLANT
DATE: 8/1/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 124.09 Feet
DEPTH TO WATER: 107.39 Feet
HEIGHT OF WATER COLUMN: 16.70 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m* S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
0926	0	-	-	-	-	-	Pump On!
0929	5	21.2	906	6.99	0.83	20	
0932	10	20.9	900	7.00	0.76	11	
0935	15	20.9	891	7.01	0.71	12	
0938	20	20.9	883	7.07	0.60	6	
0941	25	20.8	866	7.12	0.55	4	
0943	30	20.8	860	7.18	0.52	2	
0946	35	20.8	855	7.18	0.52	3	
0949	40	20.8	853	7.19	0.52	1	Pump Off!
							Flow Rate = 1.7 gal/min

COMMENTS: Collected Sample #0108011000 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-18**
SITE NAME: LEE GAS PLANT
DATE: 8/1/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 130.02 Feet
DEPTH TO WATER: 108.78 Feet
HEIGHT OF WATER COLUMN: 21.24 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
0815	0	-	-	-	-	-	Pump On!
0819	5	20.3	566	6.81	1.71	69	
0822	10	20.2	544	7.01	0.93	35	
0825	15	20.2	578	7.30	1.22	38	
0828	20	20.2	547	7.49	1.02	42	
0830	25	20.1	529	7.59	0.96	22	
0833	30	20.1	523	7.63	1.05	12	
0837	35	20.1	522	7.64	1.00	8	
0839	40	20.1	521	7.63	1.00	4	Pump Off!
							Flow Rate = 1.7 gal/min

COMMENTS: Collected Sample #0109010900 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-19**
SITE NAME: LEE GAS PLANT
DATE: 7/31/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 126.57 Feet
DEPTH TO WATER: 108.88 Feet
HEIGHT OF WATER COLUMN: 17.69 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1131	0	-	-	-	-	-	Pump On!
1134	5	21.7	1280	6.83	1.38	115	
1137	10	20.7	1290	6.82	1.22	20	
1140	15	20.5	1290	6.80	1.15	0	
1143	20	20.5	1300	6.80	1.28	0	
1146	25	20.5	1300	6.80	1.20	0	
1149	30	20.5	1300	6.81	1.33	0	
1153	35	20.4	1300	6.82	1.19	0	
1156	40	20.5	1300	6.78	1.07	1	Pump Off!
							Flow Rate = 1.6 gal/min

COMMENTS: Collected Sample #0107311200 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-20**
SITE NAME: LEE GAS PLANT
DATE: 7/31/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 3" Grundfos Pump
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: 128.05 Feet
DEPTH TO WATER: 111.63 Feet
HEIGHT OF WATER COLUMN: 16.42 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1028	0	-	-	-	-	-	Pump On!
1032	5	24.0	858	7.41	3.11	-	
1037	10	22.0	673	7.48	2.69	-	
1041	15	21.7	660	7.44	1.91	-	
1045	20	22.0	647	7.30	1.55	-	
1049	25	21.4	640	7.49	1.44	0	
1054	30	21.3	633	7.50	1.41	-	
1057	35	21.3	636	7.49	1.27	0	
1102	40	21.2	635	7.47	1.17	0	Pump Off!
							Flow Rate = 1.2 gal/min

COMMENTS: Collected Sample #0107311115 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-21**
SITE NAME: LEE GAS PLANT
DATE: 7/31/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

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: 123.48 Feet
DEPTH TO WATER: 108 Feet
HEIGHT OF WATER COLUMN: 15.48 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m* S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1822	0	-	-	-	-	-	
1825	3	22.9	469	8.09	11.26	457	
1827	6	22.7	450	8.08	11.05	26	
1830	9	22.4	446	8.15	11.22	22	
1832	12	22.4	441	8.08	11.07	12	
1835	15	22.3	440	8.02	11.10	5	
1837	18	22.2	439	8.06	11.18	3	

COMMENTS: Collected Sample #0107311850 for BTEX 8021B.

WELL SAMPLING DATA FORM

CLIENT: DUKE ENERGY FIELD SERVICES
WELL ID: **MW-22**
SITE NAME: LEE GAS PLANT
DATE: 7/31/01
PROJECT NO. V-101
SAMPLER: Fergerson / Van Deventer

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: 148.58 Feet
DEPTH TO WATER: 107 Feet
HEIGHT OF WATER COLUMN: 41.58 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C / °F	COND. *m*S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
1722	0	-	-	-	-	-	
1724	3	22.6	623	8.04	12.21	880	
1727	6	22.0	586	7.95	14.01	387	
1729	9	21.9	573	7.87	15.22	199	
1732	12	21.8	574	7.86	16.09	84	
1734	15	21.7	565	7.79	15.62	50	
1737	18	21.7	567	7.84	15.52	36	
1740	21	21.7	560	7.82	15.70	29	
1742	24	21.6	557	7.80	15.61	23	
1745	27	21.6	557	7.81	15.25	24	

COMMENTS: Collected Sample #0107311750 for BTEX 8021B.