

2RP-006

Annual GW Report

DATE:
OCT 2 2009

RECEIVED

October 2, 2009

2009 OCT 9 AM 10 43

Mr. Glenn Von Gonten
New Mexico Oil Conservation Division – Environmental Bureau
1220 So. St. Francis Drive
Santa Fe, New Mexico 87505

RE: **2009 Annual Groundwater Monitoring Report**
Centurion Pipeline L.P.
Artesia Tank Farm
Artesia, New Mexico
Delta Project No. CPNM1

Dear Mr. Von Gonten:

On behalf of Centurion Pipeline L.P., Delta Consultants (Delta) is pleased to present the attached 2009 Annual Groundwater Monitoring Report for the above-referenced site. If you have any questions or comments, or if additional information is required, please contact me at 972-665-0528 or Mr. Bill Von Drehle at 713-215-7379.

Respectfully,

DELTA CONSULTANTS


Michael Henn
Senior Project Manager

Cc via email: Bill Von Drehle - Centurion Pipeline L.P.
Darrel Lester - Centurion Pipeline L.P.
Rebecca Moore - Centurion Pipeline L.P.

Attachments: 2009 Annual Groundwater Monitoring Report (hard copy (2) and CD (1))



2009 ANNUAL GROUNDWATER MONITORING REPORT

**CENTURION PIPELINE L.P.
ARTESIA TANK FARM
ARTESIA, EDDY COUNTY, NEW MEXICO
NMOCD ID. 2RP-6**

DELTA PROJECT NO. CPNM1

Prepared for:

**Centurion Pipeline L.P.
5 Greenway Plaza
Houston, Texas 77046**

October 2, 2009

Prepared by:

**Delta Consultants
704 Central Parkway East, #1220
Plano, Texas 75024**

TABLE OF CONTENTS

1.0	REPORT SUMMARY	1
2.0	SITE HISTORY	1
3.0	GROUNDWATER ASSESSMENT	2
3.1	Groundwater Elevations	2
3.2	Groundwater Chemistry	2
4.0	CONCLUSIONS AND RECOMMENDATIONS	4
4.1	Conclusions	4
5.0	QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES	4
6.0	REMARKS	4
7.0	SIGNATURES	5

TABLES

Table 1	Groundwater Elevation Data
Table 2	Groundwater Analytical Data

FIGURES

Figure 1	Site Map
Figure 2	Groundwater Elevation Data (July 29, 2009)
Figure 3	Benzene Concentration Data (from August 17, 2005 to July 29, 2009)

APPENDICES

Appendix A	Groundwater Analytical Report
------------	-------------------------------

2009 ANNUAL GROUNDWATER MONITORING REPORT

**CENTURION PIPELINE L.P.
ARTESIA TANK FARM
ARTESIA, EDDY COUNTY, NEW MEXICO
NMOCD ID. 2RP-6**

DELTA PROJECT NO. CPNM1

1.0 REPORT SUMMARY

On behalf of Centurion Pipeline L.P. (Centurion), Delta Consultants (Delta) has prepared this 2009 Annual Groundwater Monitoring Report. This report provides the results of the annual groundwater monitoring activities that occurred at the above-referenced site on July 29, 2009.

2.0 SITE HISTORY

In March 1993, a release of crude oil was discovered at the Artesia Pump Station (site) located approximately 12 miles southeast of Artesia, New Mexico. In August 1993, an initial assessment that included the installation of twenty three (23) soil borings concluded that impacts from light non-aqueous phase liquid (LNAPL) extended approximately 1,700 feet down Scoggin Draw. An interception trench and groundwater separation/air-stripper remediation system was installed in November 1994 to control and remediate the LNAPL and dissolved-phase hydrocarbons associated with the release. A total of fourteen monitor wells (MW-1 through MW-14) were eventually installed along Scoggin Draw to evaluate/monitor the extent of groundwater impact. Quarterly reporting was performed throughout operation of the remediation system, which was shut down in early 1997. The system was dismantled in the fall of 1998.

Subsequent to April 1997, the on-site monitor wells have been monitored and sampled on an annual basis.

Per New Mexico Oil Conservation Division (NMOCD) approval, monitor wells MW-4, MW-6, MW-7, MW-12, and MW-13 were plugged and abandoned at the site on June 19, 2003. On August 18, 2005, monitor wells MW-5, MW-8 and MW-14 were plugged and abandoned.

Delta prepared and submitted a site-specific 'Risk Assessment Report' on May 12, 2005.

On June 29, 2007, the NMOCD was notified that effective July 1, 2007, the Operator of Record for Artesia Pump Station and the associated water development easement (WM-72) transferred from BP Pipelines (North America) Inc. to Centurion, a subsidiary of Occidental Petroleum Corporation. During the asset transition between BP and Centurion in August 2007, groundwater monitoring activities were temporarily suspended.

The most recent annual report, titled "2008 Annual Groundwater Monitoring Report", was submitted to the NMOCD on October 22, 2008.

3.0 GROUNDWATER ASSESSMENT

On July 29, 2009, Delta conducted groundwater monitoring activities at the site. The field data and laboratory analytical results from the event were used to produce this report. It should be noted that due to saturated/wet conditions, no attempt was made to access the nested MW-3 network, which is located within the on-site tank berm.

3.1 Groundwater Elevations

Groundwater elevation data was collected using a product/water interface probe, from accessible monitor wells. Depth to groundwater at the site ranged from 5.86 feet below grade surface (bgs) in MW-9 to 15.93 feet bgs in MW-11. Groundwater elevation at the site ranged from 3,450.26 feet above mean sea level (amsl) at MW-9 to 3,399.88 feet amsl at MW-11. Shallow groundwater flows generally south along Scoggin Draw in the site vicinity. Groundwater elevation data is presented in Table 1 and depicted on Figure 2.

Evidence of LNAPL (i.e., petroleum hydrocarbon sheen) was observed in monitor well MW-1 during the groundwater gauging activities. However, the identified benzene concentration in the sample collected from this well on July 29, 2009 is well below (less than 1%) the benzene saturation level in groundwater for crude oil of 1,760 mg/L (refer to Section 3.2 for laboratory analytical results). It is Delta's position that the residual LNAPL (i.e., sheen) identified at this monitor well is a residual feature within the well pack material, and does not represent the conditions of the groundwater in the vicinity of this well.

3.2 Groundwater Chemistry

Groundwater samples were collected from monitor wells MW-1, MW-2R, MW-9, MW-10 and MW-11 utilizing the low-flow purge and sample method, which is in general accordance with guidance contained in EPA

publication EPA/540/S-95/504. Again, the area surrounding the nested MW-3 monitor well network was inundated with surface water, which impeded sampling. A blind duplicate sample (labeled MW-17) that was collected from MW-2R and a trip blank were also submitted for laboratory analysis. The samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B.

The analytical results show that the contaminant plume is stable within the confines of the pump station (per MW-2R) and declining outside of the station boundary (per MW-1, MW-9 and MW-10), indicating that natural attenuation of the COCs is continuing. In 2008, a benzene concentration of 0.054 mg/L was identified in the sample collected from MW-2R. The recent sample exhibited a benzene concentration of 0.058 mg/L. The blind duplicate, MW-17, exhibited a benzene concentration of 0.057 mg/L. As a point of comparison, on October 10, 2006, a benzene concentration of 0.510 mg/L was identified in this well.

The sample collected from MW-1, where a sheen of LNAPL was identified during gauging, exhibited a benzene concentration of 0.280 mg/L, which is above the human health standard of 0.01 mg/L, as stated in New Mexico Water Quality Control Commission (NMWQCC) Regulations (20.6.2 NMAC) Subpart III, Section 3103. The sample collected from this monitoring well on August 17, 2005 exhibited a benzene concentration of 0.640 mg/L. No other COC concentrations were identified above the NMWQCC human health standards.

The sample collected from MW-9 exhibited a benzene concentration of 0.00041-J. No other COC concentrations were identified above the NMWQCC human health standards. A benzene concentration of 0.0013 mg/L was identified in the sample collected from this well on August 12, 2008. The last time a benzene concentration at or above the NMWQCC human health standards was identified at this well was on August 17, 2005 (0.010 mg/L).

The sample collected from MW-10 did not exhibit a benzene concentration above the laboratory method detection limit of 0.00030 mg/L, and no other COC concentrations were identified above the NMWQCC human health standards. The sample collected from this monitoring well exhibited a benzene concentration of 0.017 mg/L on October 10, 2006.

The sample collected from MW-11 did not exhibit COC concentrations above the laboratory method detection limits. No BTEX concentrations have been identified in groundwater samples collected from this well since 1997.

The analytical results are summarized in Table 2 and depicted on Figure 3. Copies of the laboratory analytical report and chain-of-custody documentation are presented in Appendix A.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

- Based on the analytical data, benzene is the only COC that currently exceeds the NMWQCC human health standards for groundwater. The historical laboratory analytical data indicates that the contaminant plume is stable and COC concentrations are in decline. It is apparent that residual contamination (i.e., benzene concentrations in groundwater above the NMWQCC human health standards) is confined to the pump station and the immediate downgradient area (i.e., MW-1).
- To remain in accordance with §20.6.2 NMAC, monitored natural attenuation (MNA) and annual groundwater gauging and sampling will continue as a response action to address affected groundwater at the site.

5.0 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

Groundwater samples were collected from monitor wells MW-1, MW-2A, MW-9, MW-10 and MW-11 utilizing the low-flow purge and sample method, which is in general accordance with guidance contained in EPA publication EPA/540/S-95/504. The groundwater samples were collected utilizing industry standard methods and appropriate personnel protective equipment (PPE). The groundwater samples were transferred to laboratory-prepared containers (i.e., 40 ml, clear vials preserved with hydrochloric acid), immediately placed in an ice-filled cooler and chilled to less than four degrees Celsius. The cooler was then transferred to the analytical laboratory (Southern Petroleum Laboratories, Inc. in Houston, TX) under chain-of-custody protocol.

6.0 REMARKS

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that

contract or outlined in this report were performed. This report is intended only for the use of Delta's client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the content of this report.

7.0 SIGNATURES

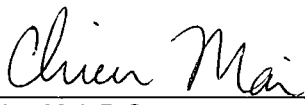
This report was prepared by **DELTA CONSULTANTS**



Michael Henn
Senior Project Manager

Date: 10-2-09

Reviewed by:



Chieu Mai, P.G.
Project Geologist

Date: 10/02/09

TABLES

TABLE 1
GROUNDWATER ELEVATION DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

LOCATION	DATE	CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION
MW-1	05/21/93	3448.58	20.52	20.73	0.21	3428.03
	11/17/94		17.54	17.56	0.02	3431.04
	02/09/95		18.02	18.05	0.03	3430.56
	06/16/95		19.15	19.21	0.06	3429.42
	10/02/95		Sheen	16.48	Sheen	3432.10
	11/26/95		15.85	15.87	0.02	3432.73
	04/16/96		14.32	14.33	0.01	3434.26
	07/06/96		15.55	15.57	0.02	3433.03
	09/30/96		11.70	11.75	0.05	3436.87
	01/10/97		12.79	12.90	0.11	3435.77
	04/02/97		13.60	13.62	0.02	3434.98
	07/10/97		14.78	14.79	0.01	3433.80
	10/17/97		14.62	14.63	0.01	3433.96
	01/18/98		NP	13.74	NA	3434.84
	04/18/98		13.75	13.76	0.01	3434.83
	05/29/98		NP	14.56	NA	3434.02
	06/30/98		NP	14.90	NA	3433.68
	07/23/98		NP	15.71	NA	3432.87
	08/19/98		NP	16.49	NA	3432.09
	12/05/98		NP	17.94	NA	3430.64
	04/01/99		NP	18.30	NA	3430.28
	06/03/99		NP	17.65	NA	3430.93
	09/16/99		NP	11.02	NA	3437.56
	01/08/00		NP	10.18	NA	3438.40
	06/08/00		NP	9.84	NA	3438.74
	07/24/01		9.88	9.90	0.02	3438.70
	03/12/02		7.70	7.73	0.03	3440.88
	07/18/03		9.67	9.68	0.01	3438.91
	03/29/04		NP	7.05	NA	3441.53
	08/17/05		NP	6.58	NA	3442.00
	10/10/06		6.54	6.56	0.02	3442.02
	08/12/08		6.02	6.03	0.01	3442.55
	07/29/09		5.570	5.575	0.005	3443.01
MW-2	05/21/93	3456.88	25.81	27.56	1.75	3430.81
	11/17/94		23.28	26.67	3.39	3433.09
	02/09/95		23.98	26.50	2.52	3432.52
	06/16/95		25.63	26.45	0.82	3431.13
	10/02/95		22.01	26.18	4.17	3434.24
	11/26/95		21.23	26.17	4.94	3434.91
	04/16/96		20.58	22.46	1.88	3436.02
	07/06/96		21.86	25.18	3.32	3434.52
	09/30/96		19.17	20.94	1.77	3437.44
	01/10/97		20.20	22.98	2.78	3436.26
	04/02/97		21.00	24.04	3.04	3435.42
	07/10/97		22.41	23.50	1.09	3434.31
	10/17/97		21.92	26.18	4.26	3434.32
	01/18/98		20.03	24.00	3.97	3436.25
	04/18/98		21.04	25.31	4.27	3435.20
	05/29/98		21.68	25.86	4.18	3434.57
	06/30/98		22.00	26.20	4.20	3434.25
	07/23/98		23.08	26.25	3.17	3433.32
	08/19/98		23.66	26.16	2.50	3432.85
	12/05/98		24.90	26.70	1.80	3431.71
	04/01/99		25.15	26.47	1.32	3431.53
	06/01/99		23.10	26.20	3.10	3433.32
	09/16/99		NP	18.28	NA	3438.60
	01/08/00		18.65	19.23	0.58	3438.14
	06/07/00		19.28	19.31	0.03	3437.60
	07/24/01		17.03	17.50	0.47	3439.78
	03/12/02		16.61	17.03	0.42	3440.21
	07/18/03		17.22	17.63	0.41	3439.60
	03/29/04		Not gauged, not assessible			
	08/17/05		Not gauged, not assessible			
	10/10/06		Not gauged, not assessible			
	08/12/08		Not gauged, not assessible			
	07/29/09		Not gauged, not assessible			

TABLE 1
GROUNDWATER ELEVATION DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

LOCATION	DATE	CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION
MW-2A (MW-2R)	10/10/01	3457.46	NP	19.01	NA	3438.45
	03/12/02		NP	17.76	NA	3439.70
	07/18/03		NP	18.39	NA	3439.07
	03/29/04		NP	17.10	NA	3440.36
	08/17/05		NP	16.94	NA	3440.52
	10/10/06		NP	16.08	NA	3441.38
	08/12/08		NP	15.32	NA	3442.14
	07/29/09		NP	15.29	NA	3442.17
MW-3	05/21/93	3447.67	16.45	17.81	1.36	3431.02
	11/17/94		13.07	13.65	0.58	3434.51
	02/09/95		13.75	14.32	0.57	3433.83
	06/16/95		15.20	15.84	0.64	3432.37
	10/02/95		10.69	11.43	0.74	3436.87
	11/26/95		9.69	10.41	0.72	3437.87
	04/16/96		9.58	9.63	0.05	3438.08
	07/06/96		11.70	11.80	0.10	3435.96
	09/30/96		8.71	8.75	0.04	3438.95
	01/10/97		10.33	10.40	0.07	3437.33
	04/02/97		11.36	11.42	0.06	3436.30
	07/10/97		13.02	13.10	0.08	3434.64
	10/17/97		13.22	13.24	0.02	3434.45
	01/18/98		10.68	10.78	0.10	3436.98
	04/18/98		11.47	11.55	0.08	3436.19
	05/29/98		12.34	12.45	0.11	3435.31
	06/30/98		12.70	12.80	0.10	3434.96
	07/23/98		13.95	14.02	0.07	3433.71
	08/19/98		15.08	15.15	0.07	3432.58
	12/05/98		16.40	16.50	0.10	3431.26
	04/01/99		16.00	16.08	0.08	3431.66
	06/03/99		14.35	14.38	0.03	3433.32
	09/16/99		7.82	7.87	0.05	3439.84
	01/08/00		8.50	8.60	0.10	3439.16
	06/08/00		6.98	7.05	0.07	3440.68
	07/24/01		6.63	6.73	0.10	3441.03
	03/12/02		5.43	5.50	0.07	3442.23
	07/18/03		Not gauged			
	03/29/04		Not gauged			
	08/17/05		5.20	5.28	0.08	3442.46
	10/10/06		Not gauged			
	08/12/08		Not gauged			
	07/29/09		Not gauged - not accessible			
MW-3A (MW-3RS) (MW-3C)	10/10/01	ND	NP	7.34	NA	ND
	03/12/02		NP	5.24	NA	ND
	07/18/03		NP	6.34	NA	ND
	03/29/04		NP	4.50	NA	ND
	08/17/05		NP	3.70	NA	ND
	10/10/06		NP	3.18	NA	ND
	08/12/08		NP	3.32	NA	ND
	07/29/09		Not gauged - not accessible			

Page 3 of 8

LOCATION	DATE	CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION	
MW-3B (MW-3R)	10/10/01	ND	NP	7.47	NA	ND	
	03/12/02		NP	5.62	NA	ND	
	07/18/03		NP	6.81	NA	ND	
	03/29/04		Not gauged				
	08/17/05		NP	4.82	NA	ND	
	10/10/06		NP	3.86	NA	ND	
	08/12/08		NP	3.90	NA	ND	
	07/29/09		Not gauged - not accessible				
MW-4	11/17/94	ND	NP	28.28	NA	ND	
	02/09/95		NP	28.51	NA	ND	
	06/16/95		NP	29.58	NA	ND	
	10/02/95		NP	24.42	NA	ND	
	11/26/95		NP	22.61	NA	ND	
	04/16/96		NP	20.63	NA	ND	
	07/06/96		NP	26.44	NA	ND	
	09/30/96		NP	21.88	NA	ND	
	01/10/97		NP	25.24	NA	ND	
	04/02/97		NP	25.49	NA	ND	
	04/18/98		NP	25.02	NA	ND	
	12/05/98		29.52	29.70	0.18	ND	
	04/01/99		28.65	28.67	0.02	ND	
	06/03/99		NP	26.48	NA	ND	
	09/20/99		NP	18.85	NA	ND	
	01/08/00		NP	19.30	NA	ND	
	06/08/00		NP	18.46	NA	ND	
	07/24/01		NP	16.93	NA	ND	
	03/12/02		NP	14.89	NA	ND	
	06/19/03		Plugged and Abandoned				
MW-5	11/17/94	3430.25	16.22	24.19	7.97	3412.83	
	02/09/95		16.84	24.85	8.01	3412.21	
	06/16/95		19.44	21.14	1.70	3410.56	
	10/02/95		16.19	17.85	1.66	3413.81	
	11/26/95		17.58	19.31	1.73	3412.41	
	04/16/96		17.04	17.25	0.21	3413.18	
	07/06/96		16.20	16.36	0.16	3414.03	
	09/30/96		11.17	11.38	0.21	3419.05	
	01/10/97		13.45	13.60	0.15	3416.78	
	04/02/97		14.19	14.35	0.16	3416.04	
	07/10/97		16.22	16.25	0.03	3414.03	
	10/17/97		13.37	13.39	0.02	3416.88	
	01/18/98		13.57	13.58	0.01	3416.68	
	04/18/98		14.04	14.05	0.01	3416.21	
	05/29/98		NP	15.09	NA	3415.16	
	06/30/98		NP	15.42	NA	3414.83	
	07/23/98		NP	17.30	NA	3412.95	
	08/19/98		18.09	18.10	0.01	3412.16	
	12/05/98		NP	18.94	NA	3411.31	
	04/01/99		NP	19.48	NA	3410.77	
	06/03/99		NP	14.46	NA	3415.79	
	09/20/99		NP	9.91	NA	3420.34	
	01/08/00		NP	12.11	NA	3418.14	
	06/08/00		NP	12.13	NA	3418.12	
	07/24/01		NP	12.77	NA	3417.48	
	03/21/02		NP	10.43	NA	3419.82	
	07/17/03		NP	12.02	NA	3418.23	
	03/29/04		NP	8.90	NA	3421.35	
	08/17/05		NP	9.61	NA	3420.64	
	08/18/05		Plugged and Abandoned				

TABLE 1
GROUNDWATER ELEVATION DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

LOCATION	DATE	CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION
MW-6	11/17/94	ND	Sheen	14.53	Sheen	ND
	02/09/95		NP	15.02	NA	ND
	06/16/95		16.24	16.27	0.03	ND
	10/02/95		NP	13.55	NA	ND
	11/26/95		NP	14.84	NA	ND
	04/16/96		NP	13.80	NA	ND
	07/06/96		NP	14.55	NA	ND
	09/30/96		NP	9.62	NA	ND
	01/10/97		NP	12.26	NA	ND
	04/02/97		NP	12.03	NA	ND
	04/18/98		NP	12.14	NA	ND
	12/05/98		NP	15.95	NA	ND
	04/01/99		NP	16.04	NA	ND
	06/03/99		NP	13.60	NA	ND
	09/20/99		NP	8.69	NA	ND
	01/08/00		NP	10.73	NA	ND
	06/08/00		NP	11.45	NA	ND
	07/24/01		NP	11.69	NA	ND
	03/21/02		NP	9.43	NA	ND
	06/19/03		Plugged and Abandoned			
	MW-7 *	11/17/94	3460.55	NP	34.33	NA
02/09/95		NP		34.67	NA	3425.88
06/16/95		NP		35.61	NA	3424.94
10/02/95		NP		33.79	NA	3426.76
11/26/95		NP		33.20	NA	3427.35
04/16/96		NP		30.95	NA	3429.60
07/06/96		NP		33.36	NA	3427.19
09/30/96		NP		29.15	NA	3431.40
01/10/97		NP		30.72	NA	3429.83
04/02/97		NP		31.85	NA	3428.70
04/18/98		NP		31.94	NA	3428.61
12/05/98		NP		35.24	NA	3425.31
04/01/99		NP		35.24	NA	3425.31
06/03/99		NP		33.32	NA	3427.23
09/20/99		NP		27.25	NA	3433.30
01/08/00		NP		27.95	NA	3432.60
06/08/00		NP		26.91	NA	3433.64
07/24/01		NP		25.65	NA	3434.90
03/21/02		NP		24.08	NA	3436.47
06/19/03		Plugged and Abandoned				

TABLE 1
GROUNDWATER ELEVATION DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

LOCATION	DATE	CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION
MW-8	11/17/94	3424.57	13.69	14.95	1.26	3410.69
	02/09/95		14.46	15.02	0.56	3410.03
	06/16/95		15.50	16.41	0.91	3408.93
	10/02/95		13.03	13.45	0.42	3411.48
	11/26/95		14.16	14.71	0.55	3410.33
	04/16/96		13.66	13.70	0.04	3410.90
	07/06/96		13.05	13.07	0.02	3411.52
	09/30/96		8.04	8.07	0.03	3416.53
	01/10/97		9.89	9.90	0.01	3414.68
	04/02/97		10.58	10.60	0.02	3413.99
	07/10/97		NP	12.59	NA	3411.98
	10/17/97		NP	10.20	NA	3414.37
	01/18/98		NP	10.08	NA	3414.49
	04/18/98		NP	10.52	NA	3414.05
	05/29/98		NP	11.55	NA	3413.02
	06/30/98		NP	11.87	NA	3412.70
	07/23/98		NP	13.65	NA	3410.92
	08/19/98		NP	14.42	NA	3410.15
	12/05/98		NP	15.30	NA	3409.27
	04/01/99		NP	15.73	NA	3408.84
	06/03/99		NP	11.88	NA	3412.69
	09/20/99		NP	7.20	NA	3417.37
	01/08/00		NP	8.58	NA	3415.99
	06/08/00		NP	9.71	NA	3414.86
	07/24/01		NP	9.53	NA	3415.04
	03/21/02		NP	7.28	NA	3417.29
	07/17/03		NP	8.59	NA	3415.98
	03/29/04		NP	6.80	NA	3417.77
	08/17/05		NP	6.82	NA	3417.75
	08/18/05		Plugged and Abandoned			
MW-9	11/17/94	3456.12	23.07	23.10	0.03	3433.05
	02/09/95		Sheen	23.41	Sheen	3432.71
	06/16/95		Sheen	24.65	Sheen	3431.47
	10/02/95		Sheen	20.73	Sheen	3435.39
	11/26/95		Sheen	19.52	Sheen	3436.60
	04/16/96		17.53	17.54	0.01	3438.59
	07/06/96		21.20	21.23	0.03	3434.92
	09/30/96		16.00	16.02	0.02	3440.12
	01/10/97		17.55	17.57	0.02	3438.57
	04/02/97		18.91	18.92	0.01	3437.21
	07/10/97		20.39	20.41	0.02	3435.73
	10/17/97		20.13	20.15	0.02	3435.99
	01/18/98		18.39	18.40	0.01	3437.73
	04/18/98		18.80	18.81	0.01	3437.32
	05/29/98		NP	19.50	NA	3436.62
	06/30/98		NP	19.82	NA	3436.30
	07/23/98		21.00	21.01	0.01	3435.12
	08/19/98		NP	21.75	NA	3434.37
	12/05/98		NP	23.18	NA	3432.94
	04/01/99		NP	22.85	NA	3433.27
	06/03/99		NP	20.85	NA	3435.27
	09/20/99		NP	12.56	NA	3443.56
	01/08/00		NP	12.64	NA	3443.48
	06/08/00		NP	11.65	NA	3444.47
	07/24/01		NP	10.65	NA	3445.47
	03/12/02		7.80	7.81	0.01	3448.32
	07/18/03		Sheen	9.71	Sheen	3446.41
	03/29/04		NP	6.90	NA	3449.22
	08/17/05		NP	9.63	NA	3446.49
	10/10/06		NP	6.12	NA	3450.00
	08/12/08		NP	6.02	NA	3450.10
	07/29/09		NP	5.86	NA	3450.26

TABLE 1
GROUNDWATER ELEVATION DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

LOCATION	DATE	CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION
MW-10	11/17/94	3418.33	19.02	21.24	2.22	3398.98
	02/09/95		19.74	22.36	2.62	3398.20
	06/16/95		20.97	23.30	2.33	3397.01
	10/02/95		18.49	19.55	1.06	3399.68
	11/26/95		20.13	22.03	1.90	3397.92
	04/16/96		20.26	20.88	0.62	3397.98
	07/06/96		19.86	20.03	0.17	3398.44
	09/30/96		NP	15.62	NA	3402.71
	01/10/97		19.00	19.05	0.05	3399.32
	04/02/97		19.35	19.40	0.05	3398.97
	07/10/97		20.37	20.42	0.05	3397.95
	10/17/97		NP	16.58	NA	3401.75
	01/18/98		NP	17.82	NA	3400.51
	04/18/98		NP	18.27	NA	3400.06
	05/29/98		NP	18.72	NA	3399.61
	06/30/98		NP	19.04	NA	3399.29
	07/23/98		NP	19.26	NA	3399.07
	08/19/98		NP	19.40	NA	3398.93
	12/05/98		NP	19.69	NA	3398.64
	04/01/99		NP	19.62	NA	3398.71
	06/03/99		NP	17.10	NA	3401.23
	09/16/99		NP	16.39	NA	3401.94
	01/08/00		NP	17.75	NA	3400.58
	06/08/00		NP	17.80	NA	3400.53
	07/24/01		NP	17.44	NA	3400.89
	03/21/02		NP	16.36	NA	3401.97
	07/17/03		NP	16.86	NA	3401.47
	03/29/04		NP	14.20	NA	3404.13
	08/17/05		NP	11.68	NA	3406.65
	10/10/06		NP	15.81	NA	3402.52
	08/12/08		Not gauged - not accessible			
	07/29/09		NP	11.20	NA	3407.13
MW-11	11/17/94	3415.81	NP	19.34	NA	3396.47
	02/09/95		NP	19.61	NA	3396.20
	06/16/95		NP	20.08	NA	3395.73
	10/02/95		NP	19.74	NA	3396.07
	11/26/95		NP	19.94	NA	3395.87
	04/16/96		NP	19.68	NA	3396.13
	07/06/96		NP	19.75	NA	3396.06
	09/30/96		NP	18.65	NA	3397.16
	01/10/97		NP	19.92	NA	3395.89
	04/02/97		NP	19.50	NA	3396.31
	01/18/98		NP	18.91	NA	3396.90
	04/18/98		NP	19.07	NA	3396.74
	06/30/98		NP	19.39	NA	3396.42
	08/19/98		NP	19.54	NA	3396.27
	12/05/98		NP	19.47	NA	3396.34
	04/01/99		NP	19.44	NA	3396.37
	06/02/99		NP	19.58	NA	3396.23
	09/16/99		NP	18.20	NA	3397.61
	01/08/00		NP	18.22	NA	3397.59
	06/07/00		NP	18.55	NA	3397.26
	07/24/01		NP	18.69	NA	3397.12
	03/21/02		NP	17.62	NA	3398.19
	07/17/03		NP	17.65	NA	3398.16
	03/29/04		NP	17.23	NA	3398.58
	08/17/05		NP	16.68	NA	3399.13
	10/10/06		NP	16.50	NA	3399.31
	08/12/08		NP	16.03	NA	3399.78
	07/29/09		NP	15.93	NA	3399.88

TABLE 1
GROUNDWATER ELEVATION DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

LOCATION	DATE	CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION
MW-12	11/17/94	ND	NP	16.47	NA	ND
	02/09/95		NP	16.78	NA	ND
	06/16/95		NP	17.28	NA	ND
	10/02/95		NP	16.03	NA	ND
	11/26/95		NP	16.63	NA	ND
	04/16/96		NP	16.55	NA	ND
	07/06/96		NP	16.45	NA	ND
	09/30/96		NP	13.81	NA	ND
	01/10/97		NP	18.92	NA	ND
	04/02/97		NP	15.20	NA	ND
	04/18/98		NP	14.91	NA	ND
	12/05/98		NP	16.63	NA	ND
	04/01/99		NP	16.87	NA	ND
	06/03/99		NP	15.55	NA	ND
	09/16/99		NP	13.59	NA	ND
	01/08/00		NP	13.70	NA	ND
	06/07/00		NP	14.35	NA	ND
	07/24/01		NP	13.66	NA	ND
	03/21/02		NP	12.94	NA	ND
	06/19/03		Plugged and Abandoned			
MW-13	11/17/94	ND	20.41	20.49	0.08	ND
	02/09/95		20.84	20.87	0.03	ND
	06/16/95		21.35	21.40	0.05	ND
	10/02/95		19.35	19.44	0.09	ND
	11/26/95		21.53	21.58	0.05	ND
	04/16/96		21.82	21.90	0.08	ND
	07/06/96		21.00	21.05	0.05	ND
	09/30/96		16.40	16.42	0.02	ND
	01/10/97		19.17	19.19	0.02	ND
	04/02/97		18.50	18.52	0.02	ND
	07/10/97		NP	19.00	NA	ND
	10/17/97		NP	18.03	NA	ND
	01/18/98		NP	19.11	NA	ND
	04/18/98		NP	19.60	NA	ND
	05/29/98		NP	19.96	NA	ND
	06/30/98		NP	20.28	NA	ND
	07/23/98		NP	20.91	NA	ND
	08/19/98		NP	21.25	NA	ND
	12/05/98		NP	21.60	NA	ND
	04/01/99		NP	21.81	NA	ND
	06/03/99		NP	18.52	NA	ND
	09/16/99		NP	13.59	NA	ND
	01/08/00		NP	16.79	NA	ND
	06/07/00		NP	17.81	NA	ND
	07/24/01		NP	18.18	NA	ND
	03/21/02		NP	16.69	NA	ND
	06/19/03		Plugged and Abandoned			

TABLE 1
GROUNDWATER ELEVATION DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

LOCATION	DATE	CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION
MW-14	11/17/94	3417.70	NP	18.11	NA	3399.59
	02/09/95		NP	18.45	NA	3399.25
	06/16/95		NP	18.93	NA	3398.77
	10/02/95		NP	18.63	NA	3399.07
	11/26/95		NP	18.83	NA	3398.87
	04/16/96		NP	18.55	NA	3399.15
	07/06/96		NP	18.58	NA	3399.12
	09/30/96		NP	17.63	NA	3400.07
	01/10/97		NP	17.42	NA	3400.28
	04/02/97		NP	17.82	NA	3399.88
	01/18/98		NP	17.61	NA	3400.09
	04/18/98		NP	17.77	NA	3399.93
	06/30/98		NP	18.10	NA	3399.60
	08/19/98		NP	18.23	NA	3399.47
	12/05/98		NP	18.15	NA	3399.55
	04/01/99		NP	18.27	NA	3399.43
	06/02/99		NP	18.25	NA	3399.45
	09/16/99		NP	16.82	NA	3400.88
	01/08/00		NP	16.75	NA	3400.95
	06/07/00		NP	17.07	NA	3400.63
	07/24/01		NP	16.16	NA	3401.54
	03/21/02		NP	15.97	NA	3401.73
	07/17/03		NP	15.97	NA	3401.73
	03/29/04		NP	15.50	NA	3402.20
	08/17/05		NP	15.16	NA	3402.54
	08/18/05		Plugged and Abandoned			

All measurements in feet.

NP = free product not present.

NA = not applicable.

ND = No Data

* - Casing elevation determined by adding 2.84 feet of PVC stick-up (from the MW installation report).
to 3457.71 feet (ground elevation survey, 12/27/04)

TABLE 2
GROUNDWATER ANALYTICAL DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

SAMPLE ID	DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHALENE (mg/L)	TDS (mg/L)	CHLORIDE (mg/L)
NMWQCC Human Health Standards		0.01	0.75	0.75	0.62	NA	1,000	250
MW-1	7/18/2003	not sampled - free product present						
	3/29/2004*	1.30	0.069	0.160	0.371	0.028	4,060	395
	8/17/2005	0.640	<0.005	0.240	0.340	NA	NA	NA
	10/10/2006	not sampled - free product present						
	8/12/2008	not sampled - free product present						
	7/29/2009	0.280	0.0036	0.058	0.205	NA	NA	NA
MW-2	7/18/2003	not sampled - free product present						
	3/29/2004	not sampled - not accessible						
	8/17/2005	not sampled - not accessible						
	10/10/2006	not sampled - not accessible						
	8/12/2008	not sampled - not accessible						
MW-2A	10/10/2001	0.920	0.2100	0.520	1.200	NA	4,700	670
MW-2B	3/12/2002	0.880	0.0330	0.200	0.520	NA	NA	590
(MW-2R)	3/14/2003*	0.980	0.0150	0.290	0.440	NA	4,320	745
	7/18/2003	0.690	< 0.005	0.192	0.410	NA	NA	NA
	3/29/2004*	0.710	0.013	0.21	0.395	<0.005	4,820	835
	8/17/2005	0.590	0.0054	0.140	0.2856	NA	NA	NA
	10/10/2006	0.510	0.011	0.072	0.2482	NA	NA	NA
	8/12/2008	0.054	<0.001	0.0016	0.012	NA	NA	NA
	7/29/2009	0.058	0.00042-J	0.00056-J	0.0054	NA	NA	NA
MW-16	3/12/2003*	0.052	<0.001	0.0013	0.010	NA	NA	NA
Dup - 2B								
MW-17	7/29/2009	0.057	0.00044-J	0.00055-J	0.0055	NA	NA	NA
Dup - 2R								
MW-3	7/18/2003	not sampled						
	3/29/2004*	not sampled						
	8/17/2005	not sampled						
	10/10/2006	not sampled						
	8/12/2008	not sampled						
	7/29/2009	not sampled - not accessible						
MW-3A (MW-3RS) (MW-3C)	10/10/2001	5.800	0.400	0.570	1.400	NA	4,700	690
	3/12/2002	2.400	0.120	0.310	0.700	NA	NA	520
	3/14/2003*	0.720	< 0.001	0.087	0.110	NA	4,220	526
	7/18/2003	0.347	< 0.005	0.0361	0.0534	NA	NA	NA
	3/29/2004*	0.14	<0.001	0.014	0.026	<0.005	3,840	383
	8/17/2005	0.027	0.0035	0.018	0.0354	NA	NA	NA
	10/10/2006	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	8/12/2008	0.059	0.0017	0.007	0.260	NA	NA	NA
	7/29/2009	not sampled - not accessible						
MW-3B (MW-3R)	10/10/2001	7.900	4.500	1.200	4.400	NA	6,300	1,300
	3/12/2002	3.300	1.200	0.440	1.100	NA	NA	1,200
	7/18/2003	2.92	0.226	0.448	0.908	NA	NA	NA
	3/29/2004*	not sampled						
	8/17/2005	3.300	0.500	0.410	0.870	NA	NA	NA
	10/10/2006	3.100	0.300	0.480	1.020	NA	NA	NA
	8/12/2008	not sampled						
	7/29/2009	not sampled - not accessible						

TABLE 2
GROUNDWATER ANALYTICAL DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

SAMPLE ID	DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHALENE (mg/L)	TDS (mg/L)	CHLORIDE (mg/L)
MW-4	8/31/1993	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA	NA	NA
	11/25/1994	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	12/22/1994	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	2/16/1995	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	6/16/1995	0.0544	< 0.001	0.0025	0.0067	NA	NA	NA
	10/2/1995	0.0098	< 0.001	< 0.001	< 0.001	NA	NA	NA
	11/26/1995	0.0047	0.0020	0.0013	0.0038	NA	NA	NA
	4/17/1995	0.0063	0.0011	< 0.001	0.0036	NA	NA	NA
	7/5/1996	0.0050	< 0.001	< 0.001	0.0020	NA	NA	NA
	9/30/1996	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	1/10/1997	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	4/2/1997	0.0013	< 0.001	< 0.001	< 0.001	NA	NA	NA
	7/10/1997	NA	NA	NA	NA	NA	NA	NA
	9/14/1997	NA	NA	NA	NA	NA	NA	NA
	1/18/1998	NA	NA	NA	NA	NA	NA	NA
	4/18/1998	0.750	0.130	0.100	0.150	NA	NA	NA
	9/20/1999	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	6/8/2000	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	7/24/2001	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	3/12/2002	0.031	0.0024	0.012	0.019	NA	NA	NA
	3/14/2003*	< 0.001	< 0.001	< 0.001	< 0.002	NA	3,290	328
	6/19/2003	Plugged and Abandoned						
MW-5	8/31/1993	1.500	0.290	0.094	0.480	0.0059	NA	NA
	12/22/1994	NA	NA	NA	NA	NA	NA	NA
	2/16/1995	NA	NA	NA	NA	NA	NA	NA
	6/16/1995	NA	NA	NA	NA	NA	NA	NA
	10/2/1995	NA	NA	NA	NA	NA	NA	NA
	11/26/1995	NA	NA	NA	NA	NA	NA	NA
	4/17/1995	NA	NA	NA	NA	NA	NA	NA
	7/5/1996	NA	NA	NA	NA	NA	NA	NA
	9/30/1996	NA	NA	NA	NA	NA	NA	NA
	1/10/1997	NA	NA	NA	NA	NA	NA	NA
	4/2/1997	NA	NA	NA	NA	NA	NA	NA
	4/18/1998	NA	NA	NA	NA	NA	NA	NA
	9/20/1999	NA	NA	NA	NA	NA	NA	NA
	6/8/2000	NA	NA	NA	NA	NA	NA	NA
	7/25/2001	0.400	0.0097	0.060	0.160	NA	NA	NA
	3/21/2002	0.440	0.0091	0.064	0.240	NA	NA	590
	3/14/2003*	0.0094	< 0.001	< 0.001	0.008	NA	4,170	832
	7/17/2003	0.0157	< 0.005	0.000558	0.00403	NA	NA	NA
	3/29/2004*	0.0085	< 0.001	< 0.001	0.022	< 0.005	4,020	570
	8/17/2005	Plugged and Abandoned						
MW-6	11/25/1994	not sampled - free product present						
	12/21/1994	not sampled - free product present						
	2/16/1995	0.0022	< 0.001	< 0.001	< 0.001	NA	NA	NA
	6/16/1995	not sampled - free product present						
	10/2/1995	0.0031	< 0.001	< 0.001	0.0025	NA	NA	NA
	11/26/1995	0.0038	< 0.001	0.0061	0.0190	NA	NA	NA
	4/16/1995	0.0063	0.0011	< 0.001	0.0036	NA	NA	NA
	7/6/1996	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	9/30/1996	< 0.001	< 0.001	0.002	< 0.001	NA	NA	NA
	1/10/1997	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	4/2/1997	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	7/10/1997	NA	NA	NA	NA	NA	NA	NA
	9/14/1997	NA	NA	NA	NA	NA	NA	NA
	1/18/1998	NA	NA	NA	NA	NA	NA	NA
	4/18/1998	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	9/20/1999	NA	NA	NA	NA	NA	NA	NA
	6/8/2000	NA	NA	NA	NA	NA	NA	NA
	7/24/2001	NA	NA	NA	NA	NA	NA	NA
	3/21/2002	0.013	0.00077	0.0025	0.006	NA	NA	990
	3/14/2003*	< 0.001	< 0.001	< 0.001	< 0.002	NA	4,740	1100
	6/19/2003	Plugged and Abandoned						

TABLE 2
GROUNDWATER ANALYTICAL DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

SAMPLE ID	DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHALENE (mg/L)	TDS (mg/L)	CHLORIDE (mg/L)
MW-7	8/31/1993	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA	NA	NA
	11/25/1994	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	12/22/1994	1.590	< 0.010	0.039	0.0865	NA	NA	NA
	2/16/1995	0.846	< 0.010	0.0209	0.0527	NA	NA	NA
	6/16/1995	3.100	0.0036	0.0587	0.140	NA	NA	NA
	10/2/1995	0.880	< 0.010	0.017	0.0350	NA	NA	NA
	11/26/1995	3.000	0.0046	0.051	0.200	NA	NA	NA
	4/17/1995	1.900	< 0.020	0.130	0.100	NA	NA	NA
	7/6/1996	1.800	< 0.010	0.160	0.120	NA	NA	NA
	9/30/1996	0.170	< 0.020	0.011	0.011	NA	NA	NA
	1/10/1997	0.160	< 0.001	< 0.001	0.0032	NA	NA	NA
	4/2/1997	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	7/10/1997	NA	NA	NA	NA	NA	NA	NA
	9/4/1997	NA	NA	NA	NA	NA	NA	NA
	1/18/1998	NA	NA	NA	NA	NA	NA	NA
	4/18/1998	0.120	< 0.001	< 0.001	0.0077	NA	NA	NA
	9/20/1999	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	6/8/2000	0.300	< 0.010	< 0.010	0.04200	NA	NA	NA
	7/24/2001	< 0.00021	< 0.00022	< 0.0002	0.0018	NA	NA	NA
	3/21/2002	0.00068	< 0.0050	0.0011	0.00029	NA	NA	550
	3/14/2003*	< 0.001	< 0.001	< 0.001	< 0.002	NA	3,640	503
	6/19/2003	Plugged and Abandoned						
MW-8	11/17/1994	NA	NA	NA	NA	NA	NA	NA
	12/22/1994	NA	NA	NA	NA	NA	NA	NA
	2/16/1995	NA	NA	NA	NA	NA	NA	NA
	6/16/1995	NA	NA	NA	NA	NA	NA	NA
	10/2/1995	NA	NA	NA	NA	NA	NA	NA
	11/26/1995	NA	NA	NA	NA	NA	NA	NA
	4/16/1995	NA	NA	NA	NA	NA	NA	NA
	7/2/1996	NA	NA	NA	NA	NA	NA	NA
	9/30/1996	NA	NA	NA	NA	NA	NA	NA
	1/10/1997	NA	NA	NA	NA	NA	NA	NA
	4/2/1997	NA	NA	NA	NA	NA	NA	NA
	7/10/1997	NA	NA	NA	NA	NA	NA	NA
	9/14/1997	NA	NA	NA	NA	NA	NA	NA
	1/18/1998	NA	NA	NA	NA	NA	NA	NA
	4/18/1998	3.800	0.820	0.480	1.100	NA	NA	NA
	9/20/1999	NA	NA	NA	NA	NA	NA	NA
	6/8/2000	NA	NA	NA	NA	NA	NA	NA
	7/24/2001	NA	NA	NA	NA	NA	NA	NA
	3/21/2002	1.500	0.110	0.390	0.920	NA	NA	580
	3/21/2003*	0.760	0.039	0.270	0.430	NA	3,990	583
	7/17/2003	1.02000	0.03750	0.30800	0.71800	NA	NA	NA
	3/29/2004*	0.790	0.0038	0.350	0.80	< 0.005	3,970	441
	8/17/2005	Plugged and Abandoned						
MW-9	3/12/2003*	0.0082	< 0.001	0.0013	0.072	NA	3,580	530
	6/19/2003	not sampled - free product present						
	3/29/2004*	0.023	< 0.001	< 0.001	0.110	< 0.005	3,840	570
	8/17/2005	0.010	< 0.001	0.00590	0.037	NA	NA	NA
	10/10/2006	0.0029	< 0.001	0.0014	0.012	NA	NA	NA
	8/12/2008	0.0013	< 0.001	0.0013	0.010	NA	NA	NA
	7/29/2009	0.00041-J	< 0.00025	0.00036-J	0.00341	NA	NA	NA

TABLE 2
GROUNDWATER ANALYTICAL DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

SAMPLE ID	DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHALENE (mg/L)	TDS (mg/L)	CHLORIDE (mg/L)
MW-10	11/17/1994	NA	NA	NA	NA	NA	NA	NA
	12/22/1994	NA	NA	NA	NA	NA	NA	NA
	2/16/1995	NA	NA	NA	NA	NA	NA	NA
	6/14/1995	NA	NA	NA	NA	NA	NA	NA
	10/2/1995	NA	NA	NA	NA	NA	NA	NA
	11/25/1995	NA	NA	NA	NA	NA	NA	NA
	4/16/1995	NA	NA	NA	NA	NA	NA	NA
	7/2/1996	NA	NA	NA	NA	NA	NA	NA
	9/30/1996	0.062	<0.001	0.0022	0.0022	NA	NA	NA
	1/10/1997	NA	NA	NA	NA	NA	NA	NA
	4/2/1997	NA	NA	NA	NA	NA	NA	NA
	7/10/1997	NA	NA	NA	NA	NA	NA	NA
	9/14/1997	NA	NA	NA	NA	NA	NA	NA
	1/18/1998	NA	NA	NA	NA	NA	NA	NA
	4/18/1998	0.061	<0.001	<0.001	0.020	NA	NA	NA
	3/21/2002	0.013	0.030	0.990	1.000	NA	NA	23
	3/14/2003*	0.220	0.0078	<0.001	0.019	NA	4,480	795
	7/17/2003	0.0209	0.00129	<0.005	0.0116	NA	NA	NA
	3/29/2004*	0.230	<0.001	<0.001	0.041	<0.005	2,510	671
	8/17/2005	0.037	<0.001	<0.001	0.016	NA	NA	NA
	10/10/2006	0.017	<0.001	<0.001	0.0036	NA	NA	NA
	8/12/2008	not sampled						
	7/29/2009	<0.00030	0.0004-J	0.0004-J	0.0021	NA	NA	NA
MW-11	11/17/1994	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	12/22/1994	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	2/16/1995	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	6/14/1995	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	10/2/1995	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	11/25/1995	0.0013	0.0053	0.0021	0.0061	NA	NA	NA
	4/16/1995	<0.001	0.0028	0.0011	0.0037	NA	NA	NA
	7/2/1996	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	9/30/1996	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	1/10/1997	<0.001	0.0012	0.0015	0.006	NA	NA	NA
	4/2/1997	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	7/10/1997	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	9/14/1997	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	1/18/1998	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	4/18/1998	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	3/21/2002	<0.0005	<0.0005	0.00052	0.0016	NA	NA	35
	3/14/2003*	<0.001	<0.001	<0.001	<0.002	NA	3,000	41.7
	7/17/2003	<0.005	<0.005	<0.005	<0.0015	NA	NA	NA
	3/29/2004*	<0.001	<0.001	<0.001	<0.002	<0.005	2,510	38.5
	8/17/2005	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	10/10/2006	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	8/12/2008	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	7/29/2009	<0.00030	<0.00025	<0.00022	<0.00030	NA	NA	NA
MW-12	11/17/1994	0.075	0.0011	0.001	0.001	NA	NA	NA
	12/22/1994	0.0056	<0.001	<0.001	<0.001	NA	NA	NA
	2/16/1995	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	6/16/1995	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	10/2/1995	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	11/26/1995	0.0011	0.0035	<0.001	0.0051	NA	NA	NA
	4/16/1995	0.0015	0.0051	0.0018	0.0058	NA	NA	NA
	7/2/1996	0.0041	<0.001	<0.001	0.0012	NA	NA	NA
	9/30/1996	0.030	<0.001	<0.001	<0.001	NA	NA	NA
	1/10/1997	0.0023	<0.001	<0.001	<0.001	NA	NA	NA
	4/2/1997	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
	7/10/1997	NA	NA	NA	NA	NA	NA	NA
	9/14/1997	NA	NA	NA	NA	NA	NA	NA
	1/18/1998	NA	NA	NA	NA	NA	NA	NA
	4/18/1998	0.0039	<0.001	<0.001	<0.001	NA	NA	NA
	9/16/1999	0.030	<0.001	<0.001	<0.003	NA	NA	NA
	6/7/2000	<0.001	<0.001	<0.001	<0.003	NA	NA	NA
	7/24/2001	<0.00013	<0.0002	<0.00022	<0.0028	NA	NA	NA
	3/21/2002	<0.0005	<0.0005	<0.0005	<0.0015	NA	NA	570
	3/14/2003*	<0.001	<0.001	<0.001	<0.002	NA	4,150	676
	6/19/2003	Plugged and Abandoned						

TABLE 2
GROUNDWATER ANALYTICAL DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

SAMPLE ID	DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHALENE (mg/L)	TDS (mg/L)	CHLORIDE (mg/L)
MW-13	11/17/1994	NA	NA	NA	NA	NA	NA	NA
	12/22/1994	NA	NA	NA	NA	NA	NA	NA
	2/16/1995	NA	NA	NA	NA	NA	NA	NA
	6/16/1995	NA	NA	NA	NA	NA	NA	NA
	10/2/1995	NA	NA	NA	NA	NA	NA	NA
	11/26/1995	NA	NA	NA	NA	NA	NA	NA
	4/16/1995	NA	NA	NA	NA	NA	NA	NA
	7/2/1996	NA	NA	NA	NA	NA	NA	NA
	9/30/1996	NA	NA	NA	NA	NA	NA	NA
	1/10/1997	NA	NA	NA	NA	NA	NA	NA
	4/2/1997	NA	NA	NA	NA	NA	NA	NA
	7/10/1997	NA	NA	NA	NA	NA	NA	NA
	9/14/1997	NA	NA	NA	NA	NA	NA	NA
	1/18/1998	NA	NA	NA	NA	NA	NA	NA
	4/18/1998	< 0.001	< 0.001	0.006	0.013	NA	NA	NA
	9/20/1999	NA	NA	NA	NA	NA	NA	NA
	6/8/2000	NA	NA	NA	NA	NA	NA	NA
	7/24/2001	NA	NA	NA	NA	NA	NA	NA
	3/21/2002	0.0026	<0.00050	0.0017	0.0048	NA	NA	520
	3/14/2003*	< 0.001	0.0011	< 0.001	< 0.002	NA	2,940	28.2
	6/19/2003	Plugged and Abandoned						
MW-14	11/17/1994	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	12/22/1994	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	2/16/1995	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	6/16/1995	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	10/2/1995	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	11/26/1995	< 0.001	0.0036	0.0017	0.0068	NA	NA	NA
	4/16/1995	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	7/2/1996	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	9/30/1996	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	1/10/1997	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	4/2/1997	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	7/10/1997	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	9/14/1997	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	1/18/1998	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	4/18/1998	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	3/21/2002	< 0.0050	< 0.0050	< 0.0050	0.0011	NA	NA	31
	3/14/2003*	< 0.001	< 0.001	< 0.001	< 0.002	NA	2,950	39.1
	7/17/2003	< 0.005	< 0.005	< 0.005	< 0.0015	NA	NA	NA
	3/29/2004*	< 0.001	< 0.001	< 0.001	< 0.002	< 0.005	3,000	38.9
	8/17/2005	Plugged and Abandoned						
Trip Blank	8/17/2005	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	10/10/2006	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	8/12/2008	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA
	7/29/2009	< 0.00030	< 0.00025	< 0.00022	< 0.00030	NA	NA	NA

mg/L = milligrams per Liter.

NA = Not Analyzed.

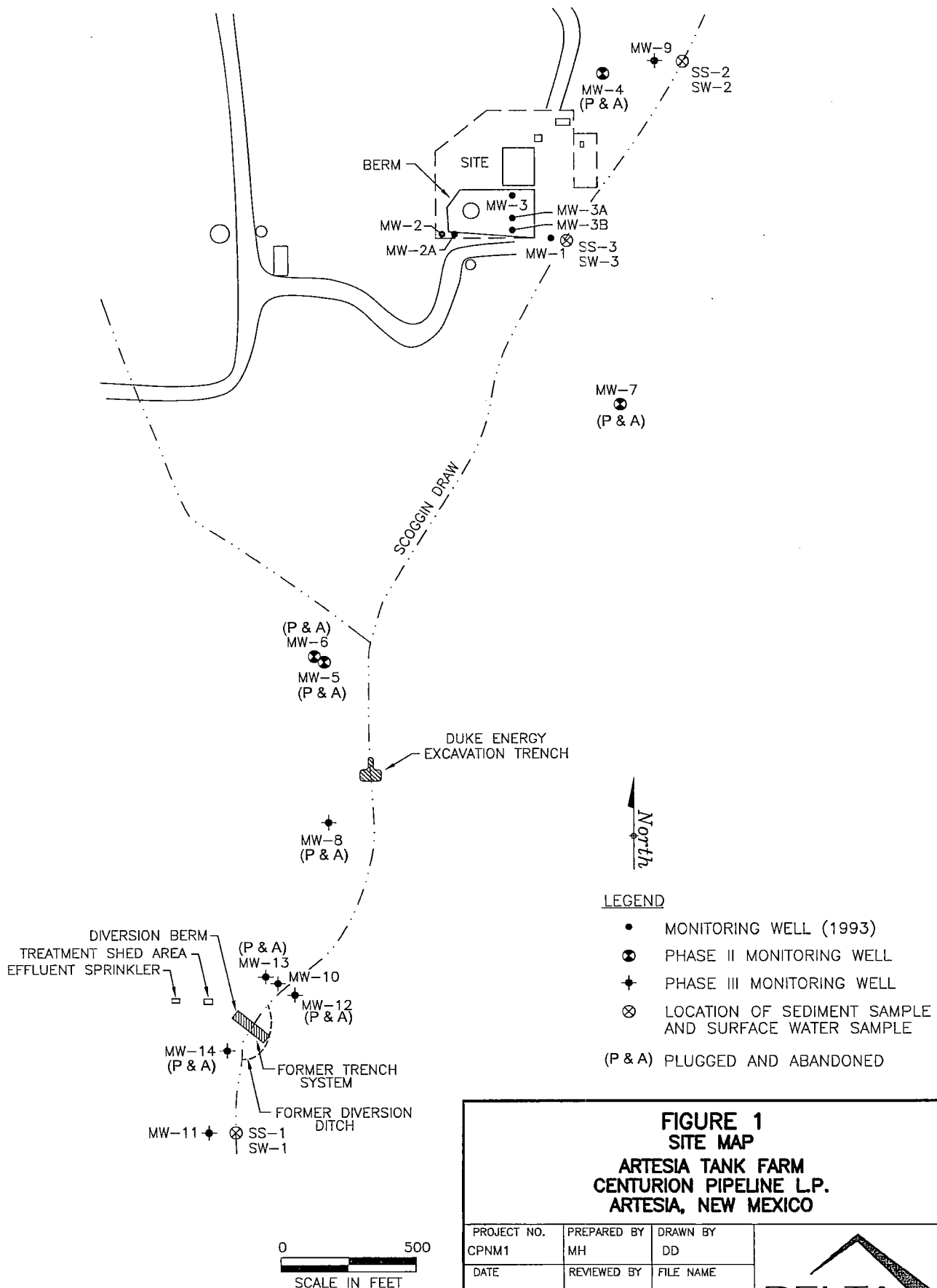
See individual laboratory analytical reports for specific analysis methods utilized.

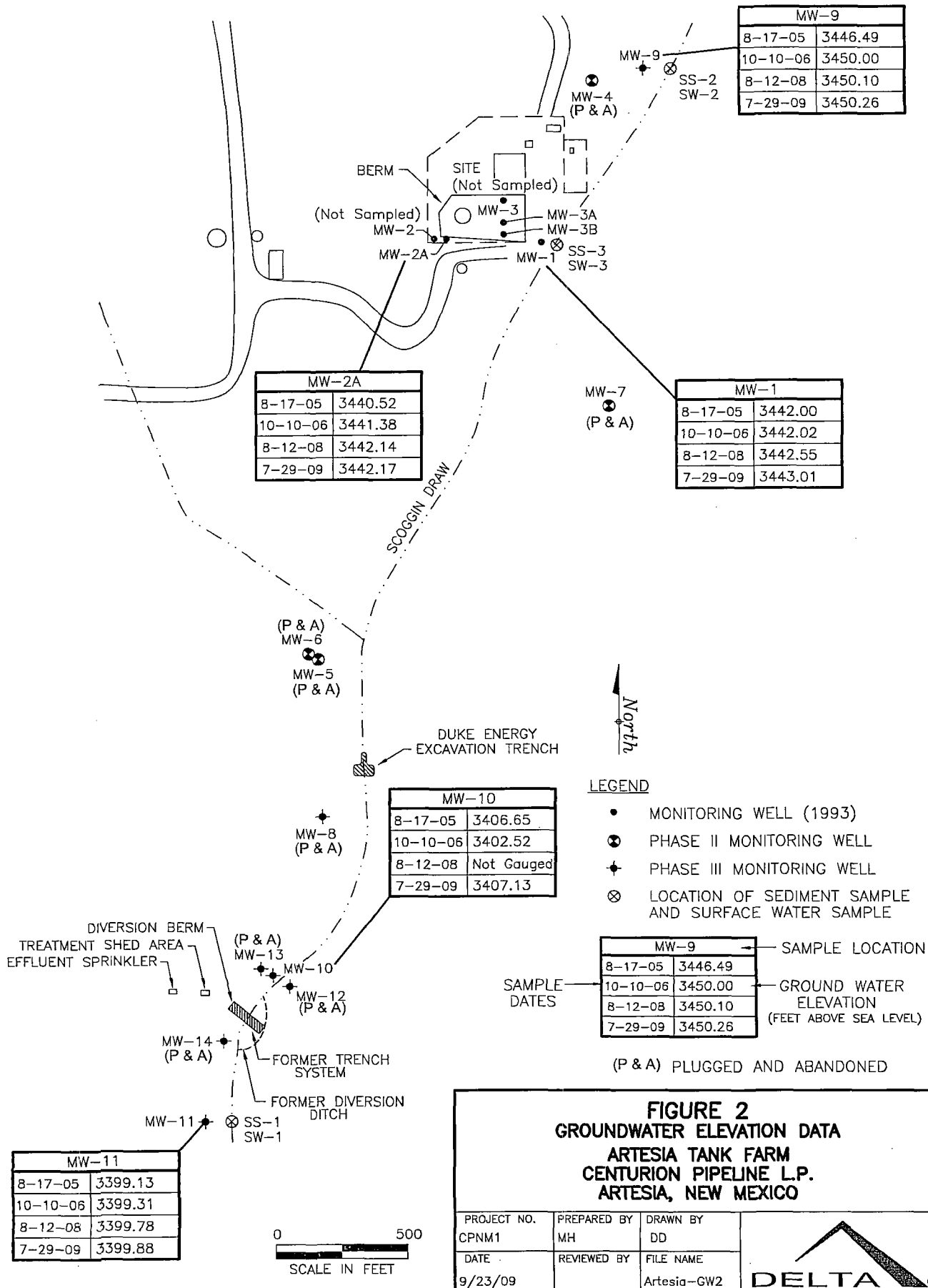
MCLs = Maximum Concentration Levels.

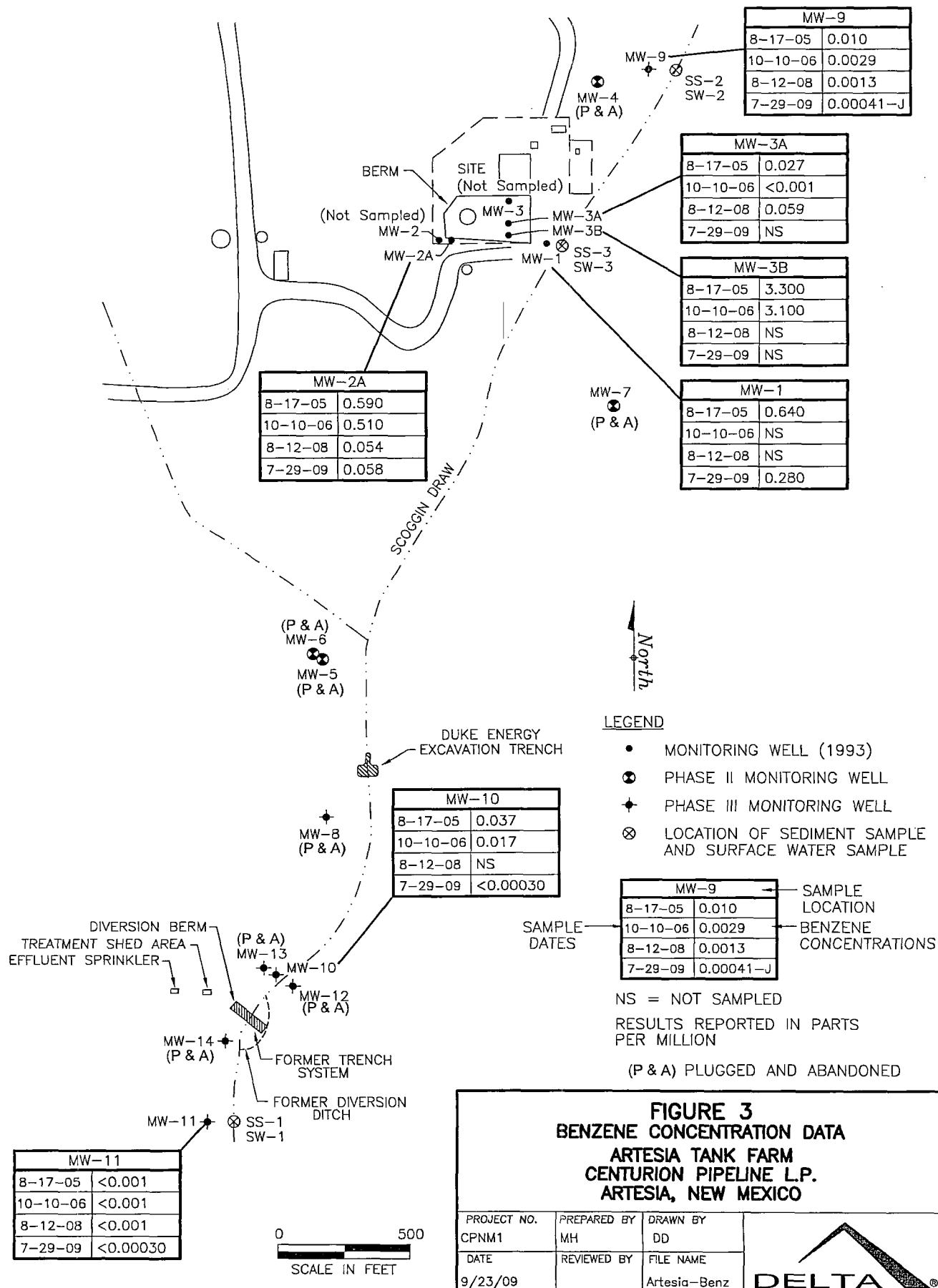
Bold = Indicates concentrations above Human Health Standards per New Mexico Water Quality Control Commission (NMWQCC) Regulations (20.6.2 NMAC) Subpart III, Section 3103.

* - Sampled by RT Hicks Consulting.

FIGURES







APPENDICES

APPENDIX A

LABORATORY ANALYTICAL REPORT



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Delta Environmental Consultants, Inc.

Certificate of Analysis Number:

09080019

<u>Report To:</u> Delta Environmental Consultants, Inc. Michael Henn 704 Central Parkway East, Suite 1220 Plano TX 75074- ph: (972) 665-0528 fax:	<u>Project Name:</u> Artesia Pump Station <u>Site:</u> Artesia, NM <u>Site Address:</u> <u>PO Number:</u> <u>State:</u> Texas <u>State Cert. No.:</u> T104704205-06-TX <u>Date Reported:</u> 8/11/2009
--	---

This Report Contains A Total Of 20 Pages

Excluding This Page, Chain Of Custody

And

Attachments

8/14/2009

Date

Test results meet all requirements of NELAC, unless specified in the narrative.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Case Narrative for:
Delta Environmental Consultants, Inc.

Certificate of Analysis Number:

09080019

Report To: Delta Environmental Consultants, Inc. Michael Henn 704 Central Parkway East, Suite 1220 Plano TX 75074- ph: (972) 665-0528 fax:	Project Name: Artesia Pump Station Site: Artesia, NM Site Address: PO Number: State: Texas State Cert. No.: T104704205-06-TX Date Reported: 8/11/2009
---	--

I. SAMPLE RECEIPT:

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

II: ANALYSES AND EXCEPTIONS:

No exceptions noted.

III. GENERAL REPORTING COMMENTS:

This report is presented in a format to meet the Texas Risk Reduction Program Rule (TRRP). The reports include a list of the Method Quantitation Limits (MQL's) for each target compound. The MQL represents the lowest non-zero standard concentration in the initial calibration curve. The Practical Quantitation Limit (PQL) represents the MQL adjusted for dilutions and moisture, if applicable. Results that are reported as ND (not detected) indicate that the compound was not identified at a concentration that is at or above the Sample Detection Limit (SDL). The SDL represents the Method Detection Limit (MDL) or the Detectability Check Standard (DCS) concentration with any adjustments for dilutions and moisture, if applicable. The SDL's are rounded based on the number of significant figures in the MDL. This accounts for any slight inconsistencies in the SDL's on the report. Any compound that was detected at a concentration that was above the SDL, but for which the concentration was less than the MQL (after adjustment for dilutions and/or moisture), is reported as estimated (with a J qualifier). The J flags were applied to meet TRRP requirements.

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than

09080019 Page 1

8/14/2009

Joann Marroquin
Senior Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.

Date



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Case Narrative for:
Delta Environmental Consultants, Inc.

Certificate of Analysis Number:

09080019

the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

09080019 Page 2

8/14/2009

Joann Marroquin
Senior Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.

Date



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Delta Environmental Consultants, Inc.

Certificate of Analysis Number:

09080019

Report To: Delta Environmental Consultants, Inc.
Michael Henn
704 Central Parkway East, Suite 1220

Plano

TX

75074-

ph: (972) 665-0528

fax: (972) 665-9989

Project Name: Artesia Pump Station

Site: Artesia, NM

Site Address:

PO Number:

State: Texas

State Cert. No.: T104704205-06-TX

Date Reported: 8/11/2009

Fax To:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-2R	09080019-01	Water	7/29/2009 12:05:00 PM	8/1/2009 10:30:00 AM		☐
MW-9	09080019-02	Water	7/29/2009 1:35:00 PM	8/1/2009 10:30:00 AM		☐
MW-10	09080019-03	Water	7/29/2009 4:45:00 PM	8/1/2009 10:30:00 AM		☐
MW-11	09080019-04	Water	7/29/2009 3:45:00 PM	8/1/2009 10:30:00 AM		☐
MW-17	09080019-05	Water	7/29/2009 11:10:00 AM	8/1/2009 10:30:00 AM		☐
TRIP BLANK	09080019-06	Water	7/29/2009	8/1/2009 10:30:00 AM		☐
MW-1	09080019-07	Water	7/29/2009 2:50:00 PM	8/1/2009 10:30:00 AM		☐

8/14/2009

Joann Marroquin
Senior Project Manager

Date

Kesavalu M. Bagawandoss Ph.D., J.D.
Laboratory Director

Ted Yen
Quality Assurance Officer



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-2R

Collected: 07/29/2009 12:05

SPL Sample ID: 09080019-01

Site: Artesia, NM

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
PURGEABLE AROMATICS				SW8021B		Units: ug/L			
Benzene	58		0.30	0.30	1	1	1	08/05/09 14:00	EMB
Toluene	0.42	J	0.25	0.25	1	1	1	08/05/09 14:00	EMB
Ethylbenzene	0.56	J	0.22	0.22	1	1	1	08/05/09 14:00	EMB
m,p-Xylene	5.4		0.30	0.30	1	1	1	08/05/09 14:00	EMB
o-Xylene	ND		0.32	0.32	1	1	1	08/05/09 14:00	EMB
Xylenes, Total	5.4		0.30	0.30	1	1	1	08/05/09 14:00	EMB
Surr: 1,4-Difluorobenzene	99.2		%	70-130			1	08/05/09 14:00	EMB
Surr: 4-Bromofluorobenzene	97.4		%	70-130			1	08/05/09 14:00	EMB

Joann Marroquin

Joann Marroquin
Project Manager

Qualifiers: ND/U - Not Detected Above Sample Detection Limit (SDL) >PCL - Result exceeds Protective Concentration Limit
B - Analyte detected in associated Method Blank above MQL D - Surrogate Recovery not reportable due to dilution
* - Surrogate Recovery Outside QC Limits MI - Matrix Interference
J - Estimated Value between SDL and MQL (PQL) + - DCS Concentration
E - Estimated Value exceeds calibration curve PQL - Adjusted MQL
TNTC - Too numerous to count



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-9

Collected: 07/29/2009 13:35

SPL Sample ID: 09080019-02

Site: Artesia, NM

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
PURGEABLE AROMATICS				SW8021B		Units: ug/L			
Benzene	0.41	J	0.30	0.30	1	1	1	08/06/09 10:32	EMB
Toluene	ND		0.25	0.25	1	1	1	08/06/09 10:32	EMB
Ethylbenzene	0.36	J	0.22	0.22	1	1	1	08/06/09 10:32	EMB
m,p-Xylene	2.7		0.30	0.30	1	1	1	08/06/09 10:32	EMB
o-Xylene	0.71	J	0.32	0.32	1	1	1	08/06/09 10:32	EMB
Xylenes, Total	3.41		0.30	0.30	1	1	1	08/06/09 10:32	EMB
Surr: 1,4-Difluorobenzene	102		%	70-130			1	08/06/09 10:32	EMB
Surr: 4-Bromofluorobenzene	106		%	70-130			1	08/06/09 10:32	EMB

Joann Marroquin

Joann Marroquin
Project Manager

Qualifiers: ND/U - Not Detected Above Sample Detection Limit (SDL)
B - Analyte detected in associated Method Blank above MQL
* - Surrogate Recovery Outside QC Limits
J - Estimated Value between SDL and MQL (PQL)
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>PCL - Result exceeds Protective Concentration Limit
D - Surrogate Recovery not reportable due to dilution
MI - Matrix Interference
+ - DCS Concentration
PQL - Adjusted MQL

09080019 Page 5
8/14/2009 2:05:01 PM



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-10

Collected: 07/29/2009 16:45 SPL Sample ID: 09080019-03

Site: Artesia, NM

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
PURGEABLE AROMATICS				SW8021B		Units: ug/L			
Benzene	ND		0.30	0.30	1	1	1	08/05/09 7:26	EMB
Toluene	0.4	J	0.25	0.25	1	1	1	08/05/09 7:26	EMB
Ethylbenzene	0.4	J	0.22	0.22	1	1	1	08/05/09 7:26	EMB
m,p-Xylene	2.1		0.30	0.30	1	1	1	08/05/09 7:26	EMB
o-Xylene	ND		0.32	0.32	1	1	1	08/05/09 7:26	EMB
Xylenes, Total	2.1		0.30	0.30	1	1	1	08/05/09 7:26	EMB
Surr: 1,4-Difluorobenzene	91.0		%	70-130			1	08/05/09 7:26	EMB
Surr: 4-Bromofluorobenzene	93.3		%	70-130			1	08/05/09 7:26	EMB

Joann Marroquin

Joann Marroquin
Project Manager

Qualifiers: ND/U - Not Detected Above Sample Detection Limit (SDL) >PCL - Result exceeds Protective Concentration Limit
B - Analyte detected in associated Method Blank above MQL D - Surrogate Recovery not reportable due to dilution
* - Surrogate Recovery Outside QC Limits MI - Matrix Interference
J - Estimated Value between SDL and MQL (PQL) + - DCS Concentration
E - Estimated Value exceeds calibration curve PQL - Adjusted MQL
TNTC - Too numerous to count

09080019 Page 6
8/14/2009 2:05:01 PM



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-11

Collected: 07/29/2009 15:45

SPL Sample ID: 09080019-04

Site: Artesia, NM

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
PURGEABLE AROMATICS				SW8021B		Units: ug/L			
Benzene	ND		0.30	0.30	1	1	1	08/05/09 7:58	EMB
Toluene	ND		0.25	0.25	1	1	1	08/05/09 7:58	EMB
Ethylbenzene	ND		0.22	0.22	1	1	1	08/05/09 7:58	EMB
m,p-Xylene	ND		0.30	0.30	1	1	1	08/05/09 7:58	EMB
o-Xylene	ND		0.32	0.32	1	1	1	08/05/09 7:58	EMB
Xylenes, Total	ND		0.30	0.30	1	1	1	08/05/09 7:58	EMB
Surr: 1,4-Difluorobenzene	97.6		%	70-130			1	08/05/09 7:58	EMB
Surr: 4-Bromofluorobenzene	100		%	70-130			1	08/05/09 7:58	EMB

Joann Marroquin

Joann Marroquin

Project Manager

Qualifiers: ND/U - Not Detected Above Sample Detection Limit (SDL)
B - Analyte detected in associated Method Blank above MQL
* - Surrogate Recovery Outside QC Limits
J - Estimated Value between SDL and MQL (PQL)
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>PCL - Result exceeds Protective Concentration Limit
D - Surrogate Recovery not reportable due to dilution
MI - Matrix Interference
+ - DCS Concentration
PQL - Adjusted MQL

09080019 Page 7
8/14/2009 2:05:01 PM



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-17

Collected: 07/29/2009 11:10

SPL Sample ID: 09080019-05

Site: Artesia, NM

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
PURGEABLE AROMATICS				SW8021B		Units: ug/L			
Benzene	57		0.30	0.30	1	1	1	08/06/09 11:04	EMB
Toluene	0.44	J	0.25	0.25	1	1	1	08/06/09 11:04	EMB
Ethylbenzene	0.55	J	0.22	0.22	1	1	1	08/06/09 11:04	EMB
m,p-Xylene	5.5		0.30	0.30	1	1	1	08/06/09 11:04	EMB
o-Xylene	ND		0.32	0.32	1	1	1	08/06/09 11:04	EMB
Xylenes, Total	5.5		0.30	0.30	1	1	1	08/06/09 11:04	EMB
Surr: 1,4-Difluorobenzene	97.1		%	70-130			1	08/06/09 11:04	EMB
Surr: 4-Bromofluorobenzene	97.4		%	70-130			1	08/06/09 11:04	EMB

Joann Marroquin

Joann Marroquin

Project Manager

Qualifiers: ND/U - Not Detected Above Sample Detection Limit (SDL)
B - Analyte detected in associated Method Blank above MQL
* - Surrogate Recovery Outside QC Limits
J - Estimated Value between SDL and MQL (PQL)
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>PCL - Result exceeds Protective Concentration Limit
D - Surrogate Recovery not reportable due to dilution
MI - Matrix Interference
+ - DCS Concentration
PQL - Adjusted MQL

09080019 Page 8
8/14/2009 2:05:01 PM



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: TRIP BLANK

Collected: 07/29/2009 0:00

SPL Sample ID: 09080019-06

Site: Artesia, NM

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
PURGEABLE AROMATICS			SW8021B			Units: ug/L			
Benzene	ND		0.30	0.30	1	1	1	08/05/09 13:28	EMB
Toluene	ND		0.25	0.25	1	1	1	08/05/09 13:28	EMB
Ethylbenzene	ND		0.22	0.22	1	1	1	08/05/09 13:28	EMB
m,p-Xylene	ND		0.30	0.30	1	1	1	08/05/09 13:28	EMB
o-Xylene	ND		0.32	0.32	1	1	1	08/05/09 13:28	EMB
Xylenes, Total	ND		0.30	0.30	1	1	1	08/05/09 13:28	EMB
Surr: 1,4-Difluorobenzene	97.2	%	70-130				1	08/05/09 13:28	EMB
Surr: 4-Bromofluorobenzene	98.3	%	70-130				1	08/05/09 13:28	EMB

Joann Marroquin

Joann Marroquin
Project Manager

Qualifiers: ND/U - Not Detected Above Sample Detection Limit (SDL)
B - Analyte detected in associated Method Blank above MQL
* - Surrogate Recovery Outside QC Limits
J - Estimated Value between SDL and MQL (PQL)
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>PCL - Result exceeds Protective Concentration Limit
D - Surrogate Recovery not reportable due to dilution
MI - Matrix Interference
+ - DCS Concentration
PQL - Adjusted MQL

09080019 Page 9
8/14/2009 2:05:02 PM



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-1

Collected: 07/29/2009 14:50

SPL Sample ID: 09080019-07

Site: Artesia, NM

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
PURGEABLE AROMATICS				SW8021B		Units: ug/L			
Benzene	280		0.30	0.30	1	1	1	08/09/09 11:33	EMB
Toluene	3.6		0.25	0.25	1	1	1	08/09/09 11:33	EMB
Ethylbenzene	58		0.22	0.22	1	1	1	08/09/09 11:33	EMB
m,p-Xylene	190		0.30	0.30	1	1	1	08/09/09 11:33	EMB
o-Xylene	15		0.32	0.32	1	1	1	08/09/09 11:33	EMB
Xylenes, Total	205		0.302	0.302	1	1	1	08/09/09 11:33	EMB
Surr: 1,4-Difluorobenzene	80.6		%	70-130			1	08/09/09 11:33	EMB
Surr: 4-Bromofluorobenzene	99.2		%	70-130			1	08/09/09 11:33	EMB

TPH TEXAS 1005				TX1005		Units: mg/L			
C6-C12	ND		0.43	0.48	5	4.5	1	08/03/09 21:09	AM
>C12-C28	ND		0.56	0.62	5	4.5	1	08/03/09 21:09	AM
>C28-C35	ND		0.56	0.62	5	4.5	1	08/03/09 21:09	AM
Total TPH (C6-C35)	ND		0.43	0.48	5	4.5	1	08/03/09 21:09	AM
Surr: 1-Chlorooctane	100		%	70-130			1	08/03/09 21:09	AM
Surr: o-Terphenyl	104		%	70-130			1	08/03/09 21:09	AM

Prep Method	Prep Date	Prep Initials	Prep Factor
TX1005	08/03/2009 10:01	LSB	0.90

Joann Marroquin

Joann Marroquin

Project Manager

Qualifiers: ND/U - Not Detected Above Sample Detection Limit (SDL)
B - Analyte detected in associated Method Blank above MQL
* - Surrogate Recovery Outside QC Limits
J - Estimated Value between SDL and MQL (PQL)
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>PCL - Result exceeds Protective Concentration Limit
D - Surrogate Recovery not reportable due to dilution
MI - Matrix Interference
+ - DCS Concentration
PQL - Adjusted MQL

09080019 Page 10
8/14/2009 2:05:02 PM

Quality Control Documentation



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Delta Environmental Consultants, Inc.

Artesia Pump Station

Analysis: TPH Texas 1005
Method: TX1005

WorkOrder: 09080019
Lab Batch ID: 92562

Method Blank

Samples in Analytical Batch:

RunID: HP_B_090804A-5141624 Units: mg/L
Analysis Date: 08/03/2009 17:40 Analyst: AM
Preparation Date: 08/03/2009 10:01 Prep By: LSB Method TX1005

Lab Sample ID 09080019-07B
Client Sample ID MW-1

Analyte	Result	Qual	Rep Limit	SDL	MDL/DCS
>C12-C28	ND		5.0	0.62	0.62
>C28-C35	ND		5.0	0.62	0.62
C6-C12	ND		5.0	0.48	0.48
Total TPH (C6-C35)	ND		5.0	0.48	0.48
Surr: 1-Chlorooctane	120.4		70-130	0	0
Surr: o-Terphenyl	121.1		70-130	0	0

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: HP_B_090804A-5141622 Units: mg/L
Analysis Date: 08/03/2009 17:19 Analyst: AM
Preparation Date: 08/03/2009 10:01 Prep By: LSB Method TX1005

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCS Qual	LCSD Spike Added	LCSD Result	LCSD Qual	LCSD Percent Recovery	RPD	RPD Qual	RPD Limit	Lower Limit	Upper Limit
>C12-C28	100	100	100		100	94.5		95	6.0		20	75	125
C6-C12	100	102	102		100	102		102	0.6		20	75	125
Total TPH (C6-C35)	200	202	101		200	196.5		98	3.2		20	75	125
Surr: 1-Chlorooctane	5	4.98	100		5	4.85		97	2.6		30	70	130
Surr: o-Terphenyl	5	4.85	97		5	4.69		94	3.4		30	70	130

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09080013-01
RunID: HP_B_090804A-5141636 Units: mg/L
Analysis Date: 08/03/2009 20:00 Analyst: AM
Preparation Date: 08/03/2009 10:01 Prep By: LSB Method TX1005

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
>C12-C28	ND		94.2	90.3	95.9		94.2	97.0	103		7.16		20	75	125
C6-C12	ND		94.2	97.4	103		94.2	101	107		3.69		20	75	125
Total TPH (C6-C35)	ND		188.4	187.7	99.65		188.4	198.0	105.2		5.376		20	75	125
Surr: 1-Chlorooctane	ND		4.71	4.66	98.9		4.71	4.91	104		5.26		20	70	130
Surr: o-Terphenyl	ND		4.71	4.45	94.4		4.71	4.73	100		6.06		20	70	130

Qualifiers: ND/U - Not Detected at the SDL
B - Analyte detected in the associated Method Blank
J - Estimated Value between SDL and MQL (PQL)
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TN/C - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
+ - DCS Concentration

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Delta Environmental Consultants, Inc. Artesia Pump Station

Analysis: Purgeable Aromatics
Method: SW8021B

WorkOrder: 09080019
Lab Batch ID: R280089

Method Blank

RunID: HP_N_090805A-5144485 Units: ug/L
Analysis Date: 08/05/2009 1:38 Analyst: EMB

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09080019-01A	MW-2R
09080019-03A	MW-10
09080019-04A	MW-11
09080019-06A	TRIP BLANK

Analyte	Result	Qual	Rep Limit	SDL	MDL/DCS
Benzene	ND		1.0	0.30	0.30
Ethylbenzene	ND		1.0	0.22	0.22
Toluene	ND		1.0	0.25	0.25
m,p-Xylene	ND		1.0	0.30	0.30
o-Xylene	ND		1.0	0.32	0.32
Xylenes, Total	ND		1.0	0.30	0.30
Surr: 1,4-Difluorobenzene	97.3		70-130	0	0
Surr: 4-Bromofluorobenzene	99.9		70-130	0	0

Laboratory Control Sample (LCS)

RunID: HP_N_090805A-5144484 Units: ug/L
Analysis Date: 08/05/2009 0:35 Analyst: EMB

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Benzene	20.0	20	100		70	130
Ethylbenzene	20.0	19.7	98.4		70	130
Toluene	20.0	19.7	98.7		70	130
m,p-Xylene	40.0	39.3	98.2		70	130
o-Xylene	20.0	19.5	97.7		70	130
Xylenes, Total	60.0	58.8	98.1		70	130
Surr: 1,4-Difluorobenzene	100	99.1	99.1		70	130
Surr: 4-Bromofluorobenzene	100	100	100		70	130

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09080019-04
RunID: HP_N_090805A-5144496 Units: ug/L
Analysis Date: 08/05/2009 10:15 Analyst: EMB

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Benzene	ND		20	23.0	115		20	21.8	109		5.58		31	66	141
Ethylbenzene	ND		20	23.1	116		20	21.6	108		6.64		28	52	136
Toluene	ND		20	23.0	115		20	21.8	109		5.11		25	61	131

Qualifiers: ND/U - Not Detected at the SDL MI - Matrix Interference
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated Value between SDL and MQL (PQL) * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve + - DCS Concentration
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Delta Environmental Consultants, Inc.

Artesia Pump Station

Analysis: Purgeable Aromatics
Method: SW8021B

WorkOrder: 09080019
Lab Batch ID: R280089

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09080019-04
RunID: HP_N_090805A-5144496 Units: ug/L
Analysis Date: 08/05/2009 10:15 Analyst: EMB

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
m,p-Xylene	ND		40	45.6	114		40	43.0	107		5.99		36	60	130
o-Xylene	ND		20	22.8	114		20	21.7	108		5.00		30	64	130
Xylenes, Total	ND		60	68.4	114		60	64.7	108		5.66		36	60	130
Surr: 1,4-Difluorobenzene	ND		100	99.2	99.2		100	97.6	97.6		1.58		30	70	130
Surr: 4-Bromofluorobenzene	ND		100	101	101		100	98.8	98.8		2.01		30	70	130

Qualifiers: ND/U - Not Detected at the SDL
B - Analyte detected in the associated Method Blank
J - Estimated Value between SDL and MQL (PQL)
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
+ - DCS Concentration

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Delta Environmental Consultants, Inc. Artesia Pump Station

Analysis: Purgeable Aromatics
Method: SW8021B

WorkOrder: 09080019
Lab Batch ID: R280160

Method Blank

Samples in Analytical Batch:

RunID: HP_N_090805C-5146153 Units: ug/L
Analysis Date: 08/05/2009 20:24 Analyst: EMB

Lab Sample ID Client Sample ID
09080019-02A MW-9
09080019-05A MW-17

Analyte	Result	Qual	Rep Limit	SDL	MDL/DCS
Benzene	ND		1.0	0.30	0.30
Ethylbenzene	ND		1.0	0.22	0.22
Toluene	ND		1.0	0.25	0.25
m,p-Xylene	ND		1.0	0.30	0.30
o-Xylene	ND		1.0	0.32	0.32
Xylenes, Total	ND		1.0	0.30	0.30
Surr: 1,4-Difluorobenzene	98.6		70-130	0	0
Surr: 4-Bromofluorobenzene	99.3		70-130	0	0

Laboratory Control Sample (LCS)

RunID: HP_N_090805C-5146152 Units: ug/L
Analysis Date: 08/05/2009 19:21 Analyst: EMB

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Benzene	20.0	20	99.8		70	130
Ethylbenzene	20.0	20.1	100		70	130
Toluene	20.0	20.4	102		70	130
m,p-Xylene	40.0	40	100		70	130
o-Xylene	20.0	19.8	99.1		70	130
Xylenes, Total	60.0	59.8	99.7		70	130
Surr: 1,4-Difluorobenzene	100	97.8	97.8		70	130
Surr: 4-Bromofluorobenzene	100	99.9	99.9		70	130

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09080143-06
RunID: HP_N_090805C-5146164 Units: ug/L
Analysis Date: 08/06/2009 4:17 Analyst: EMB

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Benzene	15.6		20	33.1	87.7		20	32.8	86.0		1.03		31	66	141
Ethylbenzene	1.41		20	20.8	97.0		20	20.9	97.3		0.330		28	52	136
Toluene	2.67		20	21.9	96.2		20	21.9	96.4		0.146		25	61	131

Qualifiers: ND/U - Not Detected at the SDL MI - Matrix Interference
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated Value between SDL and MQL (PQL) * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve + - DCS Concentration
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Delta Environmental Consultants, Inc.

Artesia Pump Station

Analysis: Purgeable Aromatics
Method: SW8021B

WorkOrder: 09080019
Lab Batch ID: R280160

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09080143-06
RunID: HP_N_090805C-5146164 Units: ug/L
Analysis Date: 08/06/2009 4:17 Analyst: EMB

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
m,p-Xylene	11.7		40	48.5	92.0		40	48.7	92.6		0.513		36	60	130
o-Xylene	2.97		20	21.7	93.5		20	21.7	93.7		0.185		30	64	130
Xylenes, Total	14.7		60	70.2	92.5		60	70.4	93.0		0.412		36	60	130
Surr: 1,4-Difluorobenzene	ND		100	98.1	98.1		100	96.9	96.9		1.22		30	70	130
Surr: 4-Bromofluorobenzene	ND		100	101	101		100	102	102		0.849		30	70	130

Qualifiers: ND/U - Not Detected at the SDL
B - Analyte detected in the associated Method Blank
J - Estimated Value between SDL and MQL (PQL)
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
+ - DCS Concentration

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

09080019 Page 16

8/14/2009 2:05:04 PM



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Delta Environmental Consultants, Inc.

Artesia Pump Station

Analysis: Purgeable Aromatics
Method: SW8021B

WorkOrder: 09080019
Lab Batch ID: R280534

Method Blank

Samples in Analytical Batch:

RunID: HP_N_090809A-5152216 Units: ug/L Lab Sample ID Client Sample ID
Analysis Date: 08/09/2009 4:43 Analyst: EMB 09080019-07A MW-1

Analyte	Result	Qual	Rep Limit	SDL	MDL/DCS
Benzene	ND		1.0	0.30	0.30
Ethylbenzene	ND		1.0	0.22	0.22
Toluene	ND		1.0	0.25	0.25
m,p-Xylene	ND		1.0	0.30	0.30
o-Xylene	ND		1.0	0.32	0.32
Xylenes, Total	ND		1.0	0.30	0.30
Surr: 1,4-Difluorobenzene	95.9		70-130	0	0
Surr: 4-Bromofluorobenzene	96.4		70-130	0	0

Laboratory Control Sample (LCS)

RunID: HP_N_090809A-5152215 Units: ug/L
Analysis Date: 08/09/2009 3:41 Analyst: EMB

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Benzene	20.0	18.3	91.4		70	130
Ethylbenzene	20.0	19	94.9		70	130
Toluene	20.0	19	95.0		70	130
m,p-Xylene	40.0	37.8	94.4		70	130
o-Xylene	20.0	19	94.9		70	130
Xylenes, Total	60.0	56.8	94.6		70	130
Surr: 1,4-Difluorobenzene	100	97	97.0		70	130
Surr: 4-Bromofluorobenzene	100	96	96.0		70	130

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09080016-10
RunID: HP_N_090809A-5152228 Units: ug/L
Analysis Date: 08/09/2009 12:04 Analyst: EMB

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Benzene	ND		20	18.9	94.5		20	18.6	93.1		1.56		31	66	141
Ethylbenzene	ND		20	18.4	91.8		20	18.9	94.6		3.01		28	52	136
Toluene	ND		20	18.8	93.8		20	19.1	95.6		1.85		25	61	131

Qualifiers: ND/U - Not Detected at the SDL MI - Matrix Interference
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated Value between SDL and MQL (PQL) * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve + - DCS Concentration
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

09080019 Page 17

8/14/2009 2:05:04 PM



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Delta Environmental Consultants, Inc.

Artesia Pump Station

Analysis: Purgeable Aromatics
Method: SW8021B

WorkOrder: 09080019
Lab Batch ID: R280534

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09080016-10
RunID: HP_N_090809A-5152228 Units: ug/L
Analysis Date: 08/09/2009 12:04 Analyst: EMB

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
m,p-Xylene	ND		40	36.8	92.1		40	37.3	93.2		1.23		36	60	130
o-Xylene	ND		20	18.7	93.6		20	19.0	95.2		1.63		30	64	130
Xylenes, Total	ND		60	55.5	92.6		60	56.3	93.9		1.36		36	60	130
Surr: 1,4-Difluorobenzene	ND		100	100	100		100	97.1	97.1		3.38		30	70	130
Surr: 4-Bromofluorobenzene	ND		100	99.6	99.6		100	96.6	96.6		3.02		30	70	130

Qualifiers: ND/U - Not Detected at the SDL
B - Analyte detected in the associated Method Blank
J - Estimated Value between SDL and MQL (PQL)
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
+ - DCS Concentration

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

09080019 Page 18

8/14/2009 2:05:04 PM

*Sample Receipt Checklist
And
Chain of Custody*



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Sample Receipt Checklist

Workorder:	09080019	Received By:	T_B
Date and Time Received:	8/1/2009 10:30:00 AM	Carrier name:	Fedex-Priority
Temperature:	3.0°C	Chilled by:	Water Ice

- | | | | |
|--|---|-----------------------------|--|
| 1. Shipping container/cooler in good condition? | Yes ☒ | No ☐ | Not Present ☐ |
| 2. Custody seals intact on shipping container/cooler? | Yes ☐ | No ☐ | Not Present ☒ |
| 3. Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☒ |
| 4. Chain of custody present? | Yes ☒ | No ☐ | |
| 5. Chain of custody signed when relinquished and received? | Yes ☒ | No ☐ | |
| 6. Chain of custody agrees with sample labels? | Yes ☒ | No ☐ | |
| 7. Samples in proper container/bottle? | Yes ☒ | No ☐ | |
| 8. Sample containers intact? | Yes ☒ | No ☐ | |
| 9. Sufficient sample volume for indicated test? | Yes ☒ | No ☐ | |
| 10. All samples received within holding time? | Yes ☒ | No ☐ | |
| 11. Container/Temp Blank temperature in compliance? | Yes ☒ | No ☐ | |
| 12. Water - VOA vials have zero headspace? | Yes ☒ | No ☐ | VOA Vials Not Present ☐ |
| 13. Water - Preservation checked upon receipt (except VOA*)? | Yes ☐ | No ☐ | Not Applicable ☒ |

*VOA Preservation Checked After Sample Analysis

SPL Representative:
Client Name Contacted:

Contact Date & Time:

Non Conformance
Issues:

Client Instructions:

[illegible]