

1R - 418

REPORTS

DATE:

2004



Mr. William Olson
Environmental Geologist
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

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Shell Oil Products US
HSE Science & Engineering
7500 N. MacArthur Blvd.
Suite 120, PMB 319
Irving, Texas 75063
Tel (972) 385-8359
Fax (972) 385-8387
Email seburkey@shellopus.com

February 25, 2004

Re: 2003 Annual Groundwater Monitoring Report
Barber Ranch Release Site
Monument, Lea County, New Mexico

Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505

IR-418

Dear Mr. Olson:

Attached is the 2003 Annual Groundwater Monitoring Report for the Barber Ranch Release site, located approximately 1-1/4 miles southwest of Monument in Lea County, New Mexico. Also attached in the proposed 2004 Sampling Schedule for the subject site. As indicated in the attached report, the dissolved-phase BTEX/PAH and PSH plumes appear to be stable at the site. Shell will continue to gauge all wells on a monthly basis with sock change-out and hand bailing being conducted as the primary method for product recovery. In addition, Shell requests that quarterly sampling be continued with a reduction in sampling for selected monitoring wells based on the attached schedule.

If you have any questions or comments, please do not hesitate to call me at (972) ~~247-1700~~.

Respectfully,
Shell Oil Products US

Scott E. Burkey
Environmental Specialist

385-8359

Cc: Mr. Jeffrey Kindley, Enercon Services, Inc.
Mr. Paul Sheeley, NMOCD, Hobbs, NM

SHELL OIL PRODUCTS US

**2003 ANNUAL GROUNDWATER
MONITORING REPORT
BARBER RANCH
MONUMENT, LEA COUNTY,
NEW MEXICO**

ENERCON PROJECT NO. EQ-112

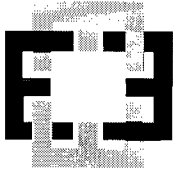
Prepared for:

**MR. SCOTT E. BURKEY
SHELL OIL PRODUCTS US
7750 NORTH MACARTHUR, SUITE 120 PMB 319
IRVING, TEXAS 75063**

February 23, 2004

Prepared by:

**ENERCON SERVICES, INC.
ENVIRONMENTAL & INDUSTRIAL SERVICES GROUP
306 West Wall, Suite 1312
Midland, Texas 79701
(432) 570-8726
(432) 684-7587 Fax**



February 23, 2004

Mr. Scott Burkey
Environmental Specialist
Shell Oil Products US
7750 North MacArthur, Suite 120, PMB 319
Irving, Texas 75063

**RE: ANNUAL GROUNDWATER MONITORING REPORT
FOR YEAR 2003
BARBER RANCH
MONUMENT, LEA COUNTY, NEW MEXICO
ENERCON PROJECT NUMBER EQ-112**

Dear Mr. Burkey:

This report details the groundwater monitoring activities at Barber Ranch from January 1, 2003 through December 31, 2003. The site is located approximately 3 miles southeast of Monument, on New Mexico State Highway 18, in Lea County, New Mexico (Figure 1). The purpose of the groundwater monitoring activities was to gauge monitor wells, recover product and collect groundwater samples in an effort to follow the extent and impact of a groundwater plume apparently originating from a subsurface crude oil pipeline release.

GROUNDWATER ASSESSMENT

Enercon has completed monitoring at the referenced facility for the period from January 1, 2003 through December 31, 2003. All monitor wells were gauged quarterly, wells exhibiting PSH were bailed, and groundwater samples were collected quarterly during the annual monitoring period. The twenty-three onsite monitor wells were installed from April to August 2002.

Quarterly hand bailing and absorbent sock change-out have been utilized as the recovery techniques for all monitor wells. To date, 7.25 gallons of PSH has been recovered manually (booms and bailing) since the installation of the twenty-three onsite monitor wells with 6.26 gallons recovered in 2003.

Phase-separated hydrocarbons were detected during each monitoring event in monitor wells MW-2, MW-10, MW-13, and MW-19, and were detected periodically in monitor

wells MW-7, MW-9, and MW-12. Monitor well MW-19 consistently exhibited the greatest thickness of PSH with an average of 0.055 feet. PSH thicknesses and recoveries are listed in Table 1 of Attachment B.

Depth to groundwater ranged across the site from 23.34 feet below the top of the casing (TOC) in monitor well MW-8 to 30.88 feet in monitor well MW-15. Groundwater table elevation fluctuated from a minimum of 0.04 feet in MW-10 to a maximum of 1.51 feet in MW-16, with an average fluctuation of 0.258 feet across the site for the year. Groundwater at the site was determined to flow to the south/southeast. Figures 2 through 5 of Attachment A illustrate the groundwater gradient based on the four quarterly gauging events for the year. Relative water table elevations are summarized in Table 1 of Attachment B.

GROUNDWATER SAMPLING

On February 4, 2003, Enercon conducted the first quarterly groundwater monitoring event. Groundwater samples were collected from all monitor wells except for MW-2, MW-9, MW-10, MW-12, MW-13, and MW-19, which exhibited PSH. Samples were submitted to the laboratory and analyzed for BTEX (EPA Method 8021B) and PAH (EPA Method 8270C). Laboratory analytical results indicated concentrations of 0.0045 mg/l benzene from monitor well MW-1; 0.0201 mg/l benzene, 0.0523 mg/l ethylbenzene, and 0.0893 mg/l total xylenes for monitor well MW-5; 0.0604 mg/l benzene for monitor well MW-6; 0.0013 mg/l benzene for monitor well MW-11; 0.0243 mg/l benzene and 0.0016 mg/l total xylenes in monitor well MW-15; 0.002 mg/l benzene for monitor well MW-20; and 0.0680 mg/l benzene in monitor well MW-22. BTEX concentrations from all remaining groundwater samples analyzed resulted in concentrations below laboratory detectable limits. Laboratory analytical results indicated PAH concentrations of 0.0137 mg/l naphthalene for monitor well MW-5, and 0.0003 mg/l phenanthrene for monitor well MW-21. All remaining groundwater samples analyzed resulted in PAH concentrations below laboratory detectable limits.

On May 1, 2003, Enercon conducted the second quarterly groundwater monitoring event. Groundwater samples were collected from all monitor wells except for MW-2, MW-7, MW-10, MW-13, and MW-19, which exhibited PSH. Samples were submitted to the laboratory and analyzed for BTEX (EPA Method 8021B) and PAH (EPA Method 8270C). Laboratory analytical results indicated concentrations of 0.0043 mg/l benzene in monitor well MW-1; 0.0248 mg/l benzene for monitor well MW-5; 0.0668 mg/l benzene for monitor well MW-6; 0.0016 mg/l benzene in monitor well MW-11; 0.0025 mg/l benzene and 0.002 mg/l total xylenes for monitor well MW-12; 0.0112 mg/l benzene for monitor well MW-15; 0.0043 mg/l benzene for monitor well MW-17; 0.0011 mg/l benzene for monitor well MW-20; 0.0019 mg/l total xylenes for monitor well MW-21; and 0.0355 mg/l benzene for monitor well MW-22. BTEX concentrations from all remaining groundwater samples analyzed resulted in concentrations below laboratory detectable limits. Laboratory analytical results indicated PAH concentrations of 0.0042

mg/l naphthalene in monitor well MW-5. All remaining groundwater samples analyzed resulted in PAH concentrations below laboratory detectable limits.

On July 28, 2003, Enercon conducted the third quarterly groundwater monitoring event. Groundwater samples were collected from all monitor wells except for MW-2, MW-10, MW-13, and MW-19, which exhibited PSH. Samples were submitted to the laboratory and analyzed for BTEX (EPA Method 8021B) and PAH (EPA Method 8270C). Laboratory analytical results indicated concentrations of 0.0025 mg/l benzene in monitor well MW-1; 0.0109 mg/l benzene for monitor well MW-5; 0.0250 mg/l benzene for monitor well MW-6; 0.0035 mg/l benzene in monitor well MW-12; 0.0106 mg/l benzene in monitor well MW-15; and 0.0023 mg/l benzene in monitor well MW-17. BTEX concentrations from all remaining groundwater samples analyzed resulted in concentrations below laboratory detectable limits. Laboratory analytical results indicated PAH concentrations of 0.0047 mg/l naphthalene in monitor well MW-5 and 0.0058 mg/l naphthalene for monitor well MW-9. All remaining groundwater samples analyzed resulted in PAH concentrations below laboratory detectable limits.

On October 8, 2003, Enercon conducted the fourth quarterly groundwater monitoring event. Groundwater samples were collected from all monitor wells except for MW-2, MW-10, MW-13, and MW-19, which exhibited PSH. Samples were submitted to the laboratory and analyzed for BTEX (EPA Method 8021B) and PAH (EPA Method 8270C). Laboratory analytical results indicated concentrations of 0.0048 mg/l benzene in monitor well MW-1; 0.0256 mg/l ethylbenzene and 0.0057 mg/l total xylenes for monitor well MW-5; 0.0307 mg/l benzene for monitor well MW-6; 0.0019 mg/l benzene, 0.0014 mg/l ethylbenzene, and 0.0018 mg/l total xylenes in monitor well MW-9; 0.0023 mg/l benzene for monitor well MW-12; 0.0025 mg/l benzene in monitor well MW-14; 0.0203 mg/l benzene, 0.0013 mg/l ethylbenzene, and 0.0011 mg/l total xylenes for monitor well MW-15; 0.0038 mg/l benzene in monitor well MW-18; 0.0232 mg/l benzene and 0.0013 mg/l total xylenes in monitor well MW-22; and 0.0071 mg/l benzene, 0.0016 mg/l ethylbenzene, and 0.0023 mg/l total xylenes in monitor well MW-23. BTEX concentrations from all remaining groundwater samples analyzed resulted in concentrations below laboratory detectable limits. Laboratory analytical results indicated PAH concentrations of 0.0002 mg/l naphthalene in monitor well MW-4; 0.0098 mg/l naphthalene and 0.00102 mg/l fluorene in monitor well MW-5; 0.00091 mg/l phenanthrene in monitor well MW-7; 0.00051 mg/l fluorene in monitor well MW-9; and 0.00067 mg/l naphthalene in monitor well MW-15. All remaining groundwater samples analyzed resulted in PAH concentrations below laboratory detectable limits.

Laboratory analytical results indicated concentrations of BTEX have decreased in monitor wells MW-5, MW-6, MW-20 and MW-22, while increasing throughout the year in monitor wells MW-14, MW-18, and MW-23. PAH concentrations remain relatively insignificant across the site. Figures 6 through 9 of Attachment A illustrate the dissolved hydrocarbon concentrations across the site based on the four quarterly gauging events for the year. Laboratory analytical results are summarized in Table 2 and 3, Attachment B of this report with laboratory data sheets included in Attachment C.

Enercon Services, Inc. appreciates the opportunity to provide you with our professional consulting services on this important project. If you have any questions or if we can be of further assistance, please do not hesitate to call.

Respectfully,
Enercon Services, Inc.

Jeffrey W. Kindley
Jeffrey W. Kindley, P.G.
Project Manager

Jeffrey Kindley for
Lori M. Evans, P.G.
Senior Geologist

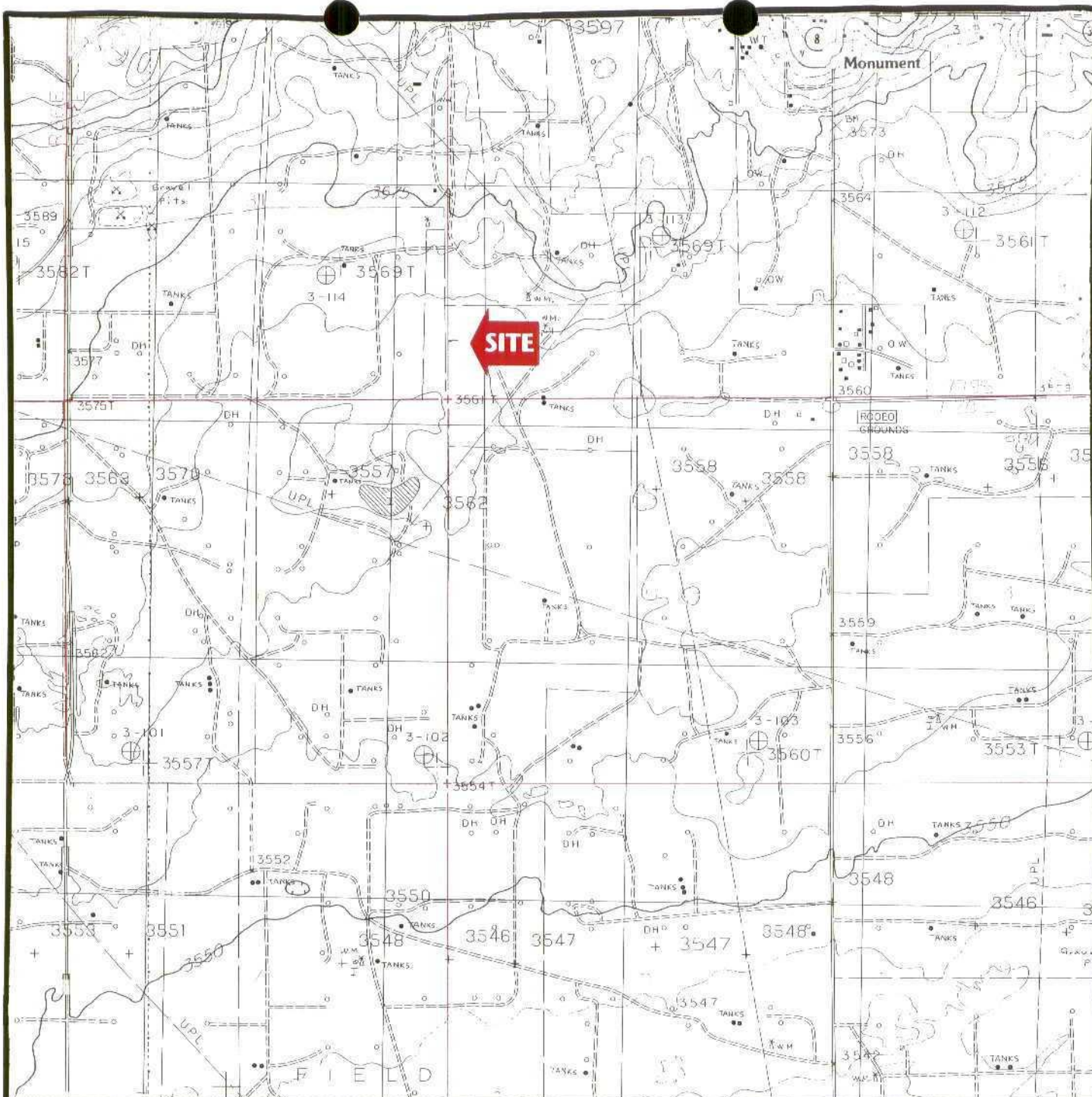
ATTACHMENT A

FIGURES

Site Map (Figure 1)

Groundwater Gradient Maps (Figures 2 through 5)

Hydrocarbon Concentration Maps (Figures 6 through 9)



**U.S.G.S. TOPOGRAPHIC MAP
MONUMENT SOUTH, NEW MEXICO
QUADRANGLE
DATED 1985**

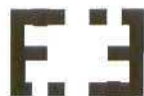
INCIDENT NUMBER 300109

**SHELL OIL PRODUCTS US
BARBER RANCH
MONUMENT, LEA COUNTY
NEW MEXICO**



Figure 1

Scale: 1" = 2,000'



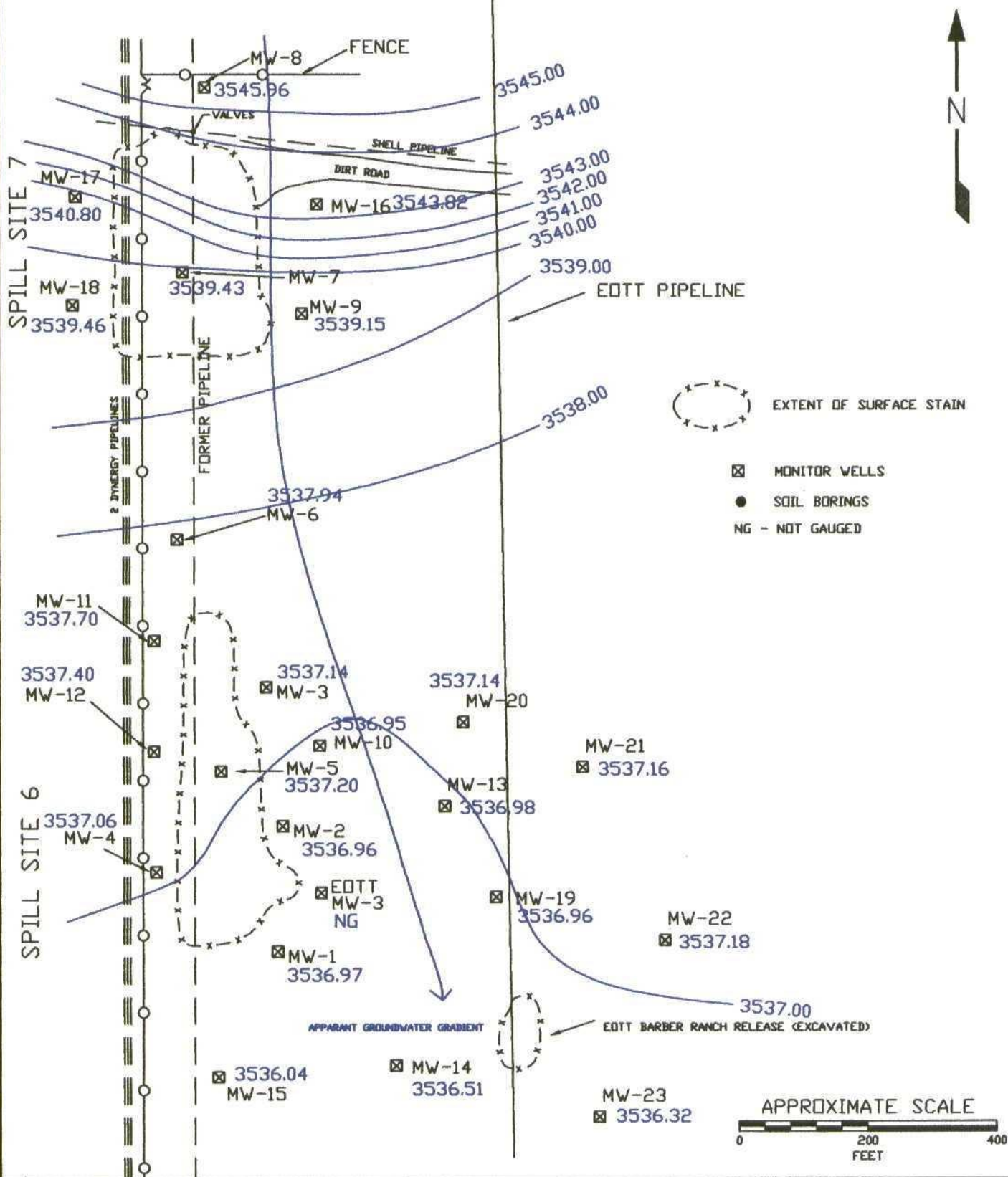
**ENERCON SERVICES, INC.
306 WEST WALL
SUITE 1312
MIDLAND, TX 79707
(432) 570-8726**



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2

GROUNDWATER GRADIENT MAP



SHELL OIL PRODUCTS US
BARBER RANCH INCIDENT #300109
SPILL SITES 6 AND 7
LEA COUNTY, NEW MEXICO

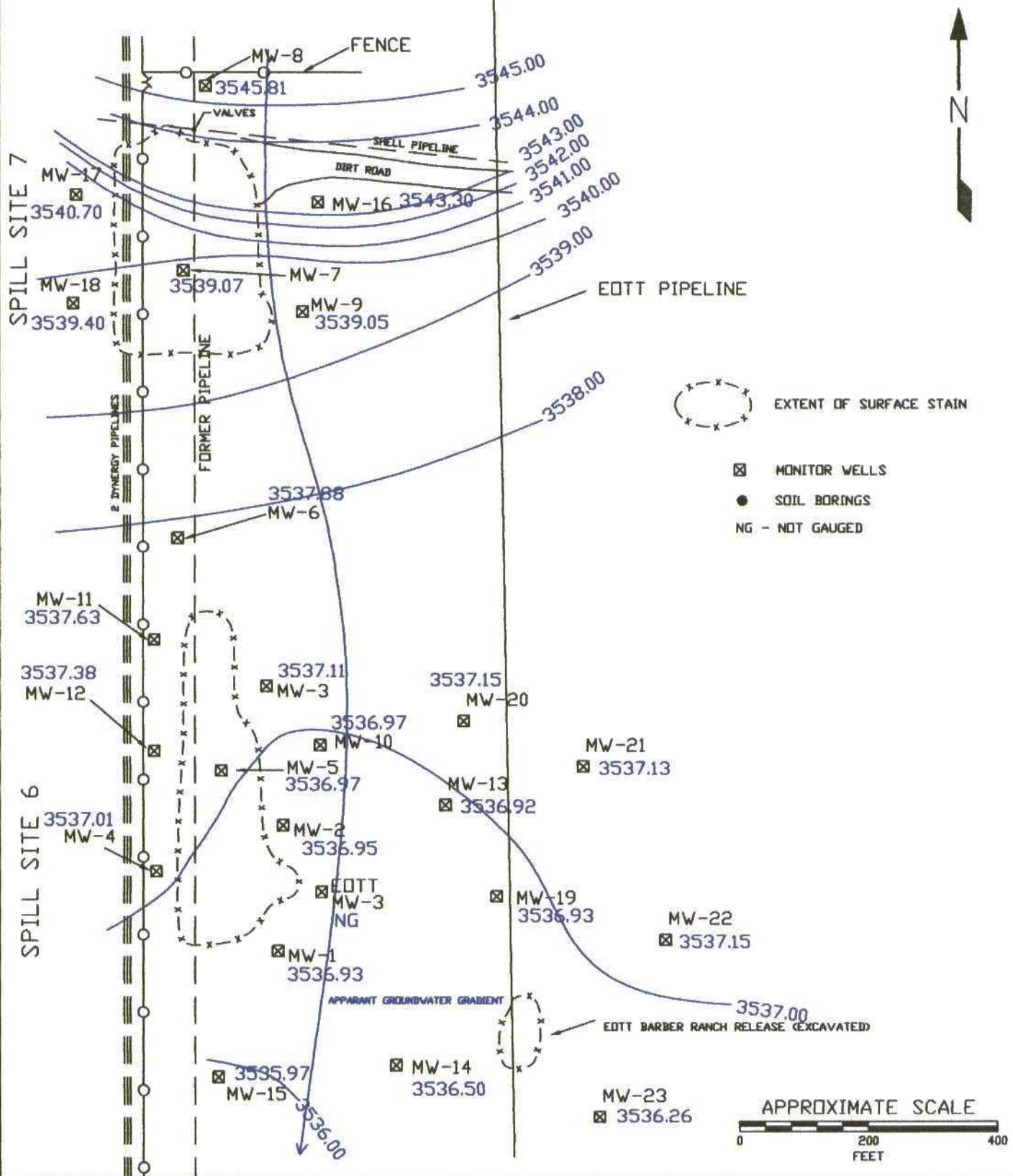


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FIGURE
3

GROUNDWATER GRADIENT MAP



SHELL OIL PRODUCTS US
BARBER RANCH INCIDENT #300109
SPILL SITES 6 AND 7
LEA COUNTY, NEW MEXICO

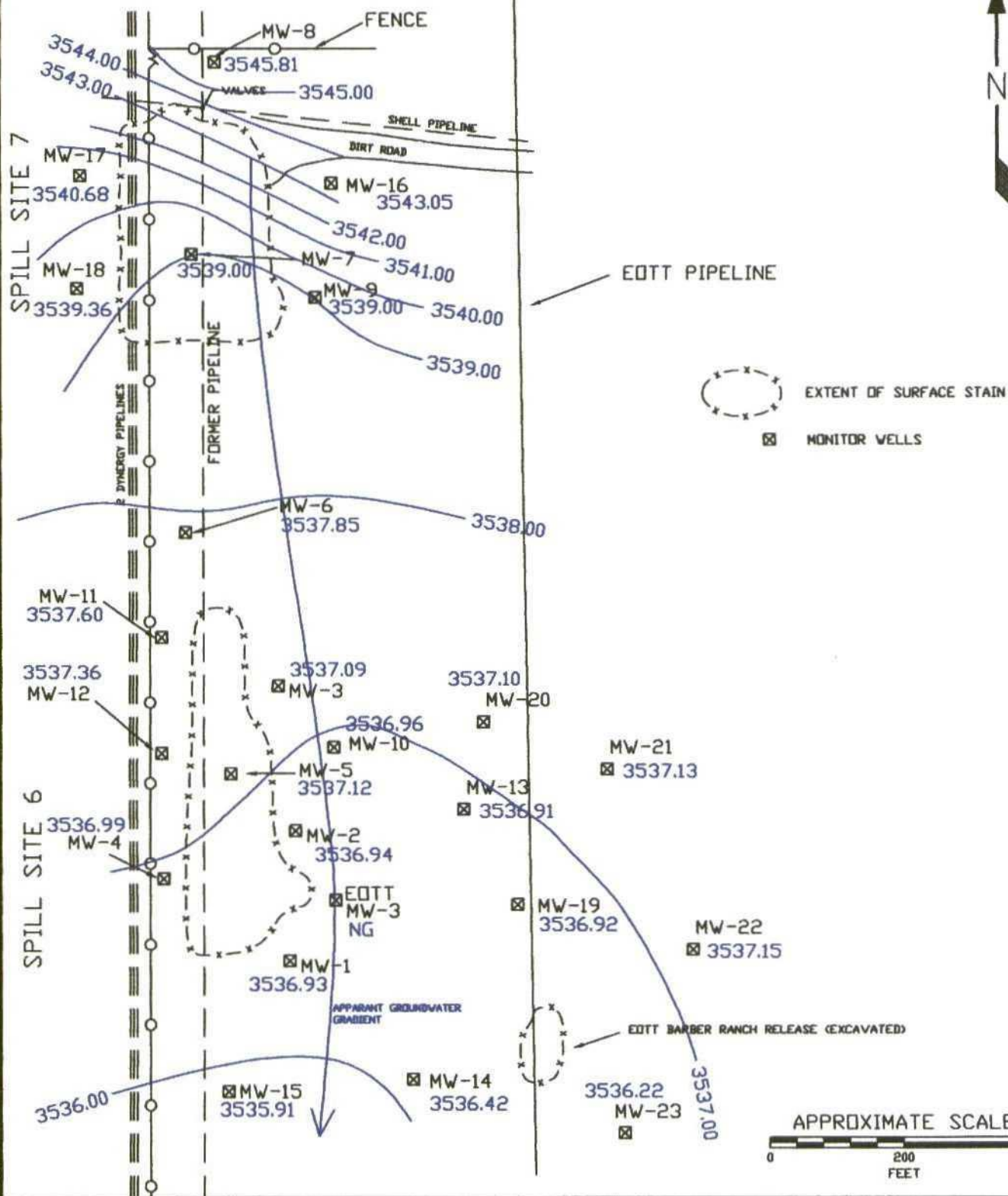


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FIGURE
4

GROUNDWATER GRADIENT MAP



SHELL OIL PRODUCTS US
BARBER RANCH INCIDENT #300109
SPILL SITES 6 AND 7
LEA COUNTY, NEW MEXICO

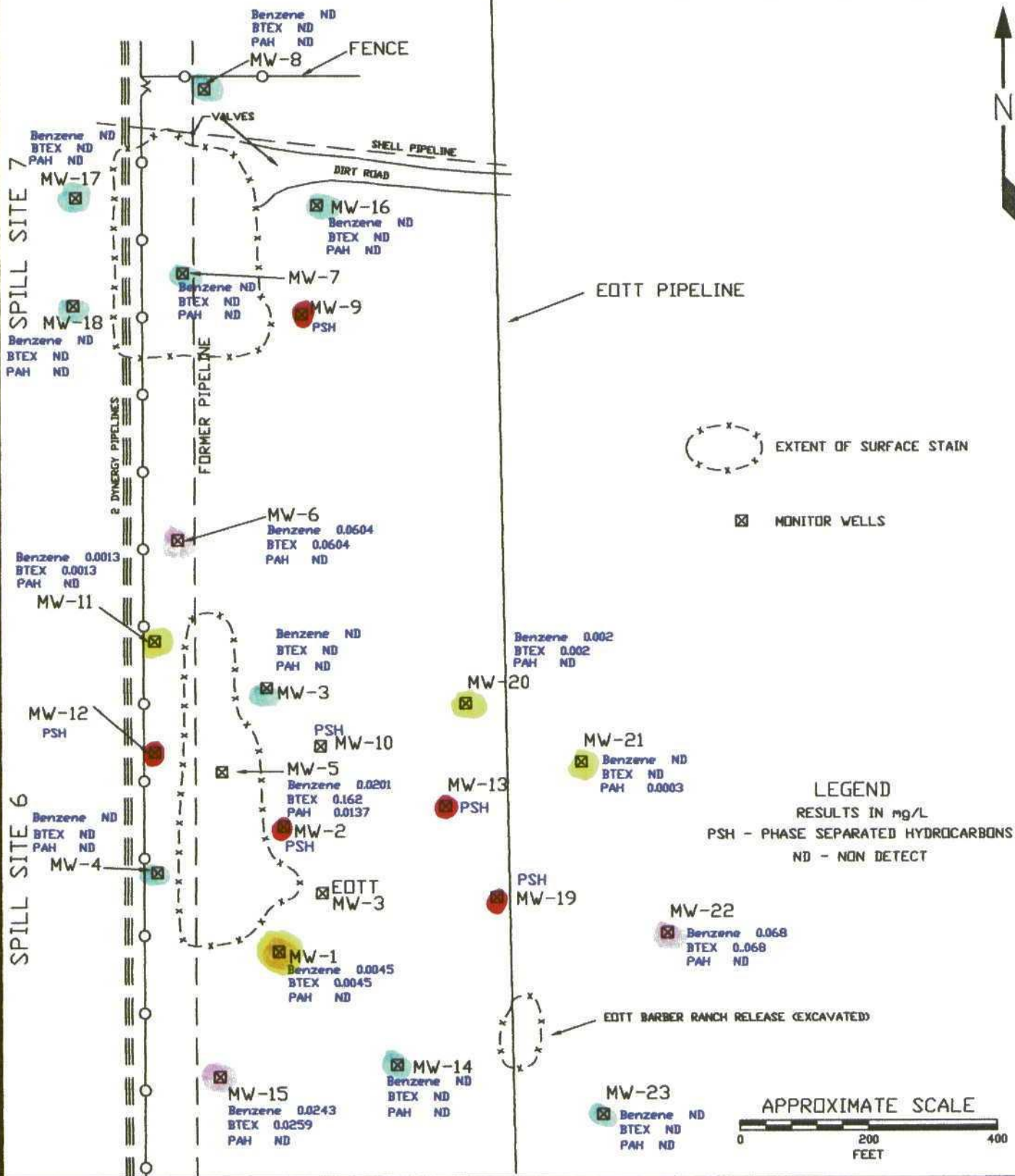


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FIGURE
5

BTEX CONCENTRATION MAP



SHELL PIPELINE CORPORATION
 BARBER RANCH
 SPILL SITES 6 AND 7
 LEA COUNTY, NEW MEXICO

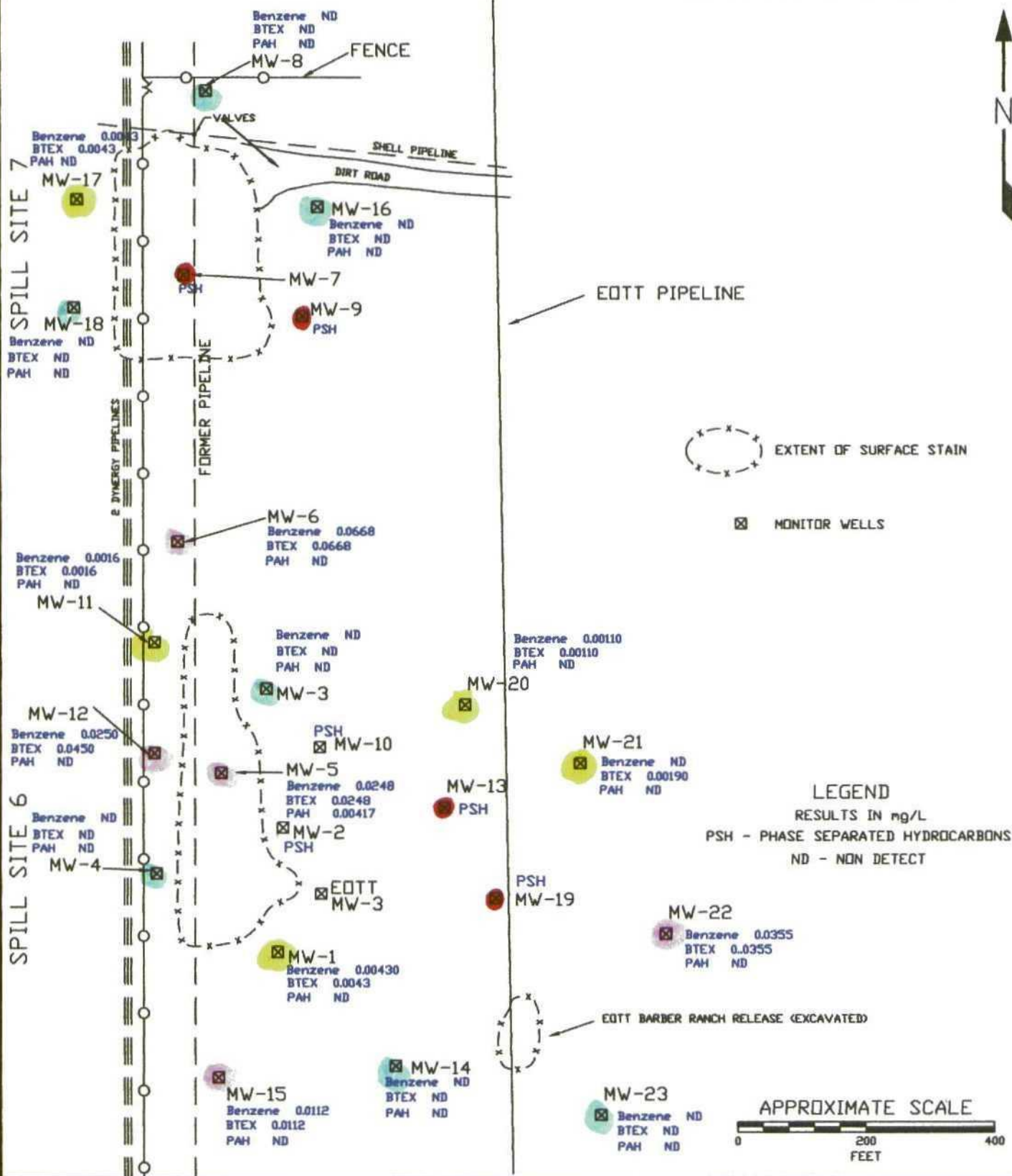


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FIGURE
 6

BTEX CONCENTRATION MAP



SHELL PIPELINE CORPORATION
 BARBER RANCH
 SPILL SITES 6 AND 7
 LEA COUNTY, NEW MEXICO

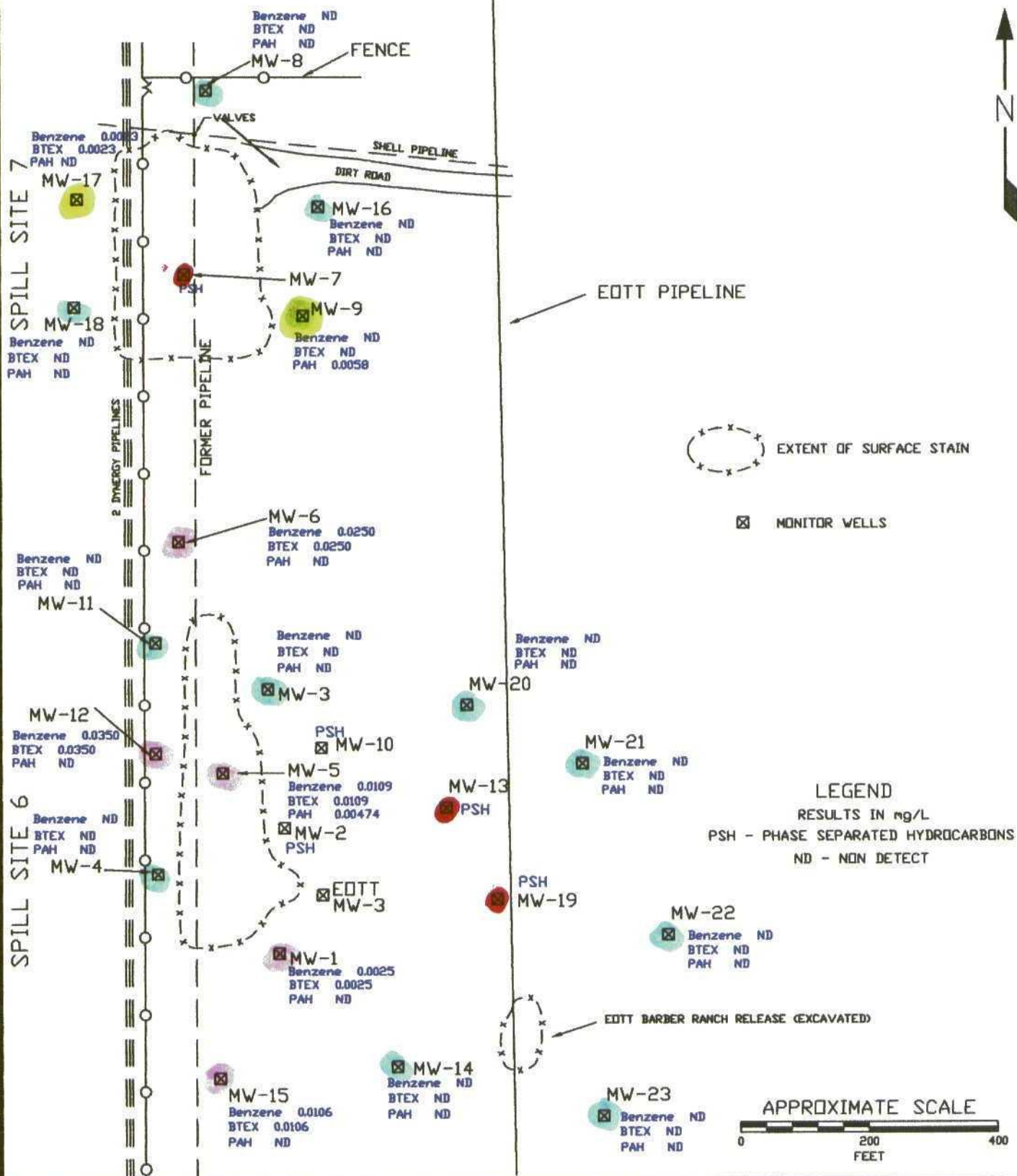


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FIGURE
 7

BTEX CONCENTRATION MAP



SHELL PIPELINE CORPORATION
BARBER RANCH
SPILL SITES 6 AND 7
LEA COUNTY, NEW MEXICO

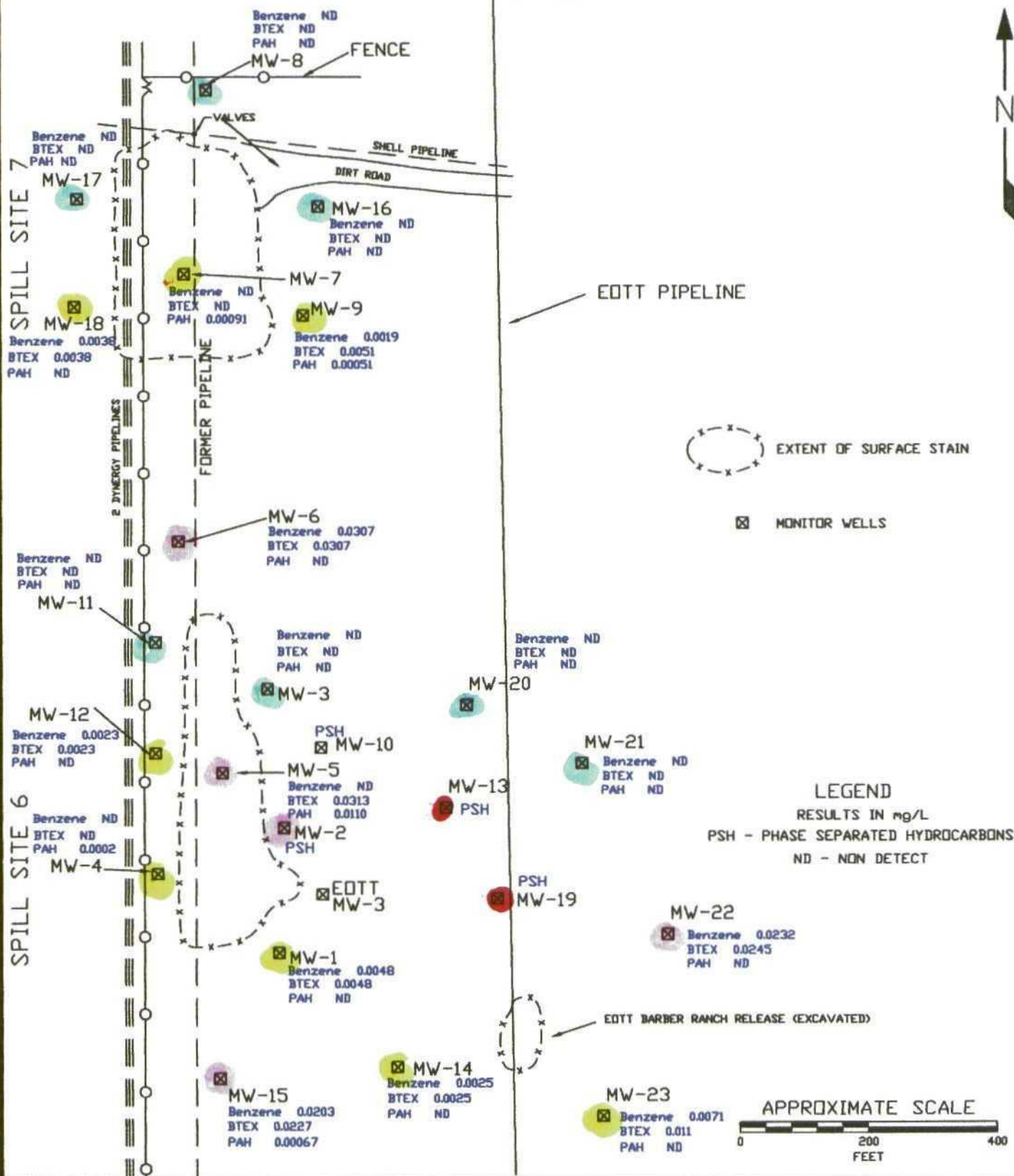


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FIGURE
8

BTEX CONCENTRATION MAP



SHELL PIPELINE CORPORATION
 BARBER RANCH
 SPILL SITES 6 AND 7
 LEA COUNTY, NEW MEXICO



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DATE
 OCTOBER, 2003
 PROJECT NO.
 EQ-112

FIGURE
 9

ATTACHMENT B

TABLES

Relative Groundwater Elevations, PSH Thickness, and Manual PSH Recovery (Table 1)
Dissolved BTEX Concentrations (Table 2)
Dissolved PAH Concentrations (Table 3)

TABLE 1
BARBER RANCH
RELATIVE GROUNDWATER ELEVATIONS

Monitor Well	Date	Relative Top of Casing (in feet)	PSH (in feet)	Depth to Water (in feet)	Corrected Groundwater (in feet)	PSH Thickness (in feet)	PSH Recovery (in gallons)	PSH Cumulative Recovery (in gallons)	Type of Recovery
MW-1	07/01/02	3,567.05		30.08	3536.97	0.00			
	08/21/02			30.08	3536.97	0.00			
	10/10/02			30.09	3536.96	0.00			
	02/04/03			30.05	3537.00	0.00			
	05/01/03			30.08	3536.97	0.00			
	07/28/03			30.12	3536.93	0.00			
	10/08/03			30.12	3536.93	0.00			
MW-2	07/01/02	3,566.63	29.63	29.79	3536.98	0.16	0.00	0.00	None
	08/21/02		29.65	29.70	3536.98	0.05	0.25	0.25	Absorption Boom
	10/10/02		29.65	29.71	3536.97	0.06	0.00	0.25	Absorption Boom
	02/04/03		29.61	29.66	3537.02	0.05	0.25	0.50	Absorption Boom
	05/01/03		29.67	29.71	3536.96	0.04	0.25	0.75	Absorption Boom
	07/28/03		29.68	29.73	3536.95	0.05	0.25	1.00	Absorption Boom
	10/08/03		29.69	29.73	3536.94	0.04	0.50	1.50	Absorption Boom
MW-3	07/01/02	3,566.64		29.50	3537.14	0.00			
	08/21/02			29.49	3537.15	0.00			
	10/10/02			29.56	3537.08	0.00			
	02/04/03			29.42	3537.22	0.00			
	05/01/03			29.50	3537.14	0.00			
	07/28/03			29.53	3537.11	0.00			
	10/08/03			29.55	3537.09	0.00			
MW-4	07/01/02	3,567.14		30.05	3537.09	0.00			
	08/21/02			30.05	3537.09	0.00			
	10/10/02			30.07	3537.07	0.00			
	02/04/03			29.98	3537.16	0.00			
	05/01/03			30.08	3537.06	0.00			
	07/28/03			30.13	3537.01	0.00			
	10/08/03			30.15	3536.99	0.00			

TABLE I
BARBER RANCH
RELATIVE GROUNDWATER ELEVATIONS

Monitor Well	Date	Relative Top of Casing (in feet)	PSH PSH (in feet)	Depth to Water (in feet)	Corrected Groundwater (in feet)	PSH Thickness (in feet)	PSH Recovery (in gallons)	PSH Cumulative Recovery (in gallons)	Type of Recovery
MW-5	07/01/02	3,566.21		29.00	3537.21	0.00			
	08/21/02			28.99	3537.22	0.00			
	10/10/02			29.02	3537.19	0.00			
	02/04/03			28.92	3537.29	0.00			
	05/01/03			29.01	3537.20	0.00			
	07/28/03			29.08	3537.13	0.00			
	10/08/03			29.09	3537.12	0.00			
MW-6	07/01/02	3,567.29		29.35	3537.94	0.00			
	08/21/02			29.33	3537.96	0.00			
	10/10/02			29.37	3537.92	0.00			
	02/04/03			29.26	3538.03	0.00			
	05/01/03			29.35	3537.94	0.00			
	07/28/03			29.41	3537.88	0.00			
	10/08/03			29.44	3537.85	0.00			
MW-7	07/01/02	3,567.56	28.22	28.11	3539.45	0.00			
	08/21/02			28.06	3539.50	0.00			
	10/10/02			28.24	3539.34	0.02			
	02/04/03			27.89	3539.67	0.00			
	05/01/03			28.17	3539.43	0.04			
	07/28/03			28.49	3539.07	0.00			
	10/08/03			28.56	3539.00	0.00	0.25	0.25	Absorbent Boom Absorbent Boom Absorbent Boom
MW-8	07/01/02	3,569.77		23.21	3546.56	0.00			
	08/21/02			22.86	3546.91	0.00			
	10/10/02			23.27	3546.50	0.00			
	02/04/03			23.34	3546.43	0.00			
	05/01/03			23.81	3545.96	0.00			
	07/28/03			23.96	3545.81	0.00			
	10/08/03			23.96	3545.81	0.00			

TABLE 1
BARBER RANCH
RELATIVE GROUNDWATER ELEVATIONS

Monitor Well	Date	Relative Top of Casing (in feet)	PSH (in feet)	Depth to Water (in feet)	Corrected Groundwater (in feet)	PSH Thickness (in feet)	PSH Recovery (in gallons)	PSH Cumulative Recovery (in gallons)	Type of Recovery
MW-9	07/01/02	3,567.74	28.49	28.46	3539.28	0.00		0.00	Absorption Boom Absorption Boom Absorption Boom Absorption Boom
	08/21/02			28.49	3539.25	0.00		0.00	
	10/10/02			28.57	3539.17	0.00		0.00	
	02/04/03			28.51	3539.25	0.02		0.00	
	05/01/03			28.59	3539.15	0.00	0.25	0.25	
	07/28/03			28.69	3539.05	0.00		0.25	
	10/08/03			28.74	3539.00	0.00		0.25	
MW-10	07/01/02	3,565.97	28.95	29.13	3537.00	0.18	0.00	0.00	None
	08/21/02		28.97	29.03	3536.99	0.06	0.25	0.25	Absorption Boom
	10/10/02		29.00	29.06	3536.96	0.06	0.00	0.25	
	02/04/03		28.96	29.03	3537.00	0.07	0.25	0.50	Absorption Boom
	05/01/03		29.02	29.06	3536.95	0.04	0.25	0.75	Absorption Boom
	07/28/03		29.00	29.05	3536.97	0.05	0.25	1.00	Absorption Boom
	10/08/03		29.01	29.03	3536.96	0.02	0.50	1.50	Absorption Boom
MW-11	07/01/02	3,566.99		29.27	3537.72	0.00			
	08/21/02			29.23	3537.76	0.00			
	10/10/02			29.30	3537.69	0.00			
	02/04/03			29.12	3537.87	0.00			
	05/01/03			29.29	3537.70	0.00			
	07/28/03			29.36	3537.63	0.00			
	10/08/03			29.39	3537.60	0.00			
MW-12	07/01/02	3,567.18	29.50	29.64	3537.54	0.00			Absorption Boom Absorption Boom Absorption Boom Absorption Boom
	08/21/02			29.62	3537.56	0.00			
	10/10/02			29.68	3537.50	0.00			
	02/04/03			29.51	3537.68	0.01			
	05/01/03			29.78	3537.40	0.00			
	07/28/03			29.80	3537.38	0.00			
	10/08/03			29.82	3537.36	0.00			

TABLE 1
BARBER RANCH
RELATIVE GROUNDWATER ELEVATIONS

Monitor Well	Date	Relative Top of Casing (in feet)	PSH PSH (in feet)	Depth to Water (in feet)	Corrected Groundwater (in feet)	PSH Thickness (in feet)	PSH Recovery (in gallons)	PSH Cumulative Recovery (in gallons)	Type of Recovery
MW-13	07/01/02	3,566.65	29.67	29.69	3536.98	0.02	0.00	0.00	None
	08/21/02		29.69	29.75	3536.95	0.06	0.25	0.25	Absorption Boom
	10/10/02		29.68	29.74	3536.96	0.06	0.00	0.25	Absorption Boom
	02/04/03		29.63	29.70	3537.01	0.07	0.25	0.50	Absorption Boom
	05/01/03		29.67	29.70	3536.98	0.03	0.25	0.75	Absorption Boom
	07/28/03		29.73	29.78	3536.92	0.05	0.25	1.00	Absorption Boom
	10/08/03		29.74	29.77	3536.91	0.03	0.50	1.50	Absorption Boom
MW-14	07/01/02	3,566.03		29.53	3536.50	0.00			
	08/21/02			29.50	3536.53	0.00			
	10/10/02			29.53	3536.50	0.00			
	02/04/02			29.44	3536.59	0.00			
	05/01/03			29.52	3536.51	0.00			
	07/28/03			29.53	3536.50	0.00			
	10/08/03			29.61	3536.42	0.00			
MW-15	07/01/02	3,566.79		30.77	3536.02	0.00			
	08/21/02			30.72	3536.07	0.00			
	10/10/02			30.75	3536.04	0.00			
	02/04/03			30.61	3536.18	0.00			
	05/01/03			30.75	3536.04	0.00			
	07/28/03			30.82	3535.97	0.00			
	10/08/03			30.88	3535.91	0.00			
MW-16	07/01/02	3,568.55		39.31	3529.24	0.00			
	08/21/02			23.51	3545.04	0.00			
	10/10/02			23.88	3544.67	0.00			
	02/04/03			23.99	3544.56	0.00			
	05/01/03			24.73	3543.82	0.00			
	07/28/03			25.25	3543.30	0.00			
	10/08/03			25.50	3543.05	0.00			

TABLE 1
BARBER RANCH
RELATIVE GROUNDWATER ELEVATIONS

Monitor Well	Date	Relative Top of Casing (in feet)	PSH PSH (in feet)	Depth to Water (in feet)	Corrected Groundwater (in feet)	PSH Thickness (in feet)	PSH Recovery (in gallons)	PSH Cumulative Recovery (in gallons)	Type of Recovery
MW-17	07/01/02	3,569.45		28.63	3540.82	0.00			
	08/21/02			28.65	3540.80	0.00			
	10/10/02			28.72	3540.73	0.00			
	02/04/03			28.51	3540.94	0.00			
	05/01/03			28.65	3540.80	0.00			
	07/28/03			28.75	3540.70	0.00			
	10/08/03			28.77	3540.68	0.00			
MW-18	07/01/02	3,568.38		28.92	3539.46	0.00			
	08/21/02			28.92	3539.46	0.00			
	10/10/02			28.96	3539.42	0.00			
	02/04/03			28.85	3539.53	0.00			
	05/01/03			28.92	3539.46	0.00			
	07/28/03			28.98	3539.40	0.00			
	10/08/03			29.02	3539.36	0.00			
MW-19	07/01/02	3,566.22	29.25	29.26	3536.97	0.01	0.00	0.00	None
	08/21/02		29.23	29.37	3536.98	0.14	0.25	0.25	Absorption Boom
	10/10/02		29.26	29.35	3536.95	0.09	0.00	0.25	Absorption Boom
	02/04/03		29.21	29.22	3537.01	0.01	0.25	0.50	Absorption Boom
	05/01/03		29.25	29.33	3536.96	0.08	0.25	0.75	Absorption Boom
	07/28/03		29.28	29.35	3536.93	0.07	0.25	1.00	Absorption Boom
	10/08/03		29.29	29.36	3536.92	0.07	0.50	1.50	Absorption Boom
MW-20	08/21/02	3,566.59		29.43	3537.16	0.00			
	10/10/02			28.46	3538.13	0.00			
	02/04/03			29.42	3537.17	0.00			
	05/01/03			29.45	3537.14	0.00			
	07/28/03			29.44	3537.15	0.00			
	10/08/03			29.49	3537.10	0.00			

TABLE I
BARBER RANCH
RELATIVE GROUNDWATER ELEVATIONS

Monitor Well	Date	Relative Top of Casing (in feet)	PSH (in feet)	Depth to Water (in feet)	Corrected Groundwater (in feet)	PSH Thickness (in feet)	PSH Recovery (in gallons)	PSH Cumulative Recovery (in gallons)	Type of Recovery
MW-21	08/21/02	3,565.58		29.71	3535.87	0.00			
	10/10/02			28.43	3537.15	0.00			
	02/04/03			28.39	3537.19	0.00			
	05/01/03			28.42	3537.16	0.00			
	07/28/03			28.45	3537.13	0.00			
	10/08/03			28.45	3537.13	0.00			
MW-22	08/21/02	3,565.69		28.42	3537.27	0.00			
	10/10/02			28.52	3537.17	0.00			
	02/04/03			28.47	3537.22	0.00			
	05/01/03			28.51	3537.18	0.00			
	07/28/03			28.54	3537.15	0.00			
	10/08/03			28.54	3537.15	0.00			
MW-23	08/21/02	3,565.47		28.50	3536.97	0.00			
	10/10/02			29.17	3536.30	0.00			
	02/04/03			29.04	3536.43	0.00			
	05/01/03			29.15	3536.32	0.00			
	07/28/03			29.21	3536.26	0.00			
	10/08/03			29.25	3536.22	0.00			

* Correction Equation for Phase-Separated Hydrocarbons: Corrected Groundwater Elevation = Top of Casing Elevation - [Depth to Water Below Top of Casing - (SG)(PSH Thickness)].
Specific Gravity (SG) = 0.9 for crude oil.

TABLE 2
GROUNDWATER ANALYSIS
BARBER RANCH
MONUMENT, LEA COUNTY, NEW MEXICO

Monitor Well	Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)	Total BTEX (mg/l)
MW-1	04/30/02	0.0128	<0.001	<0.001	<0.001	0.0128
	10/10/02	0.0054	<0.001	<0.001	<0.001	0.0054
	02/04/03	0.0045	<0.001	<0.001	<0.001	0.0045
	05/01/03	0.0043	<0.001	<0.001	<0.001	0.0043
	07/28/03	0.0025	<0.001	<0.001	<0.001	0.0025
	10/08/03	0.0048	<0.001	<0.001	<0.001	0.0048
MW-2	04/30/02	PSH	PSH	PSH	PSH	PSH
	10/10/02	PSH	PSH	PSH	PSH	PSH
	02/04/03	PSH	PSH	PSH	PSH	PSH
	05/01/03	PSH	PSH	PSH	PSH	PSH
	07/28/03	PSH	PSH	PSH	PSH	PSH
	10/08/03	PSH	PSH	PSH	PSH	PSH
MW-3	05/01/02	<0.001	<0.001	<0.001	<0.001	<0.001
	10/10/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.005	<0.005	<0.005	<0.005	<0.005
	05/01/03	<0.001	<0.001	<0.001	<0.001	<0.001
	07/28/03	<0.001	<0.001	<0.001	<0.001	<0.001
	10/08/03	<0.001	<0.001	<0.001	<0.001	<0.001
MW-4	05/01/02	<0.001	<0.001	<0.001	<0.001	<0.001
	10/10/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/01/03	<0.001	<0.001	<0.001	<0.001	<0.001
	07/28/03	<0.001	<0.001	<0.001	<0.001	<0.001
	10/08/03	<0.001	<0.001	<0.001	<0.001	<0.001
MW-5	05/02/02	0.0351	<0.010	0.0317	0.122	0.1890
	10/10/02	0.0203	<0.005	0.0077	0.0204	0.0484
	02/04/03	0.0201	<0.020	0.0523	0.0893	0.1620
	05/01/03	0.0248	<0.020	<0.020	<0.020	0.0248
	07/28/03	0.0109	<0.010	<0.010	<0.010	0.0109
	10/08/03	<0.005	<0.005	0.0256	0.0057	0.0313
MW-6	05/03/02	0.0262	<0.005	<0.005	<0.005	0.0262
	10/10/02	0.0501	<0.005	<0.005	<0.005	0.0501
	02/04/03	0.0604	<0.005	<0.005	<0.005	0.0604
	05/01/03	0.0668	<0.001	<0.001	<0.001	0.0668
	07/28/03	0.0250	<0.005	<0.005	<0.005	0.0250
	10/08/03	0.0307	<0.005	<0.005	<0.005	0.0307
	01/28/04	0.0345	<0.001	<0.001	0.001	0.0355
MW-7	05/03/02	0.0116	<0.001	0.0021	0.0012	0.0149
	10/10/02	PSH	PSH	PSH	PSH	PSH
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/01/03	PSH	PSH	PSH	PSH	PSH
	07/28/03	PSH	PSH	PSH	PSH	PSH
	10/08/03	<0.005	<0.005	<0.005	<0.005	<0.005

TABLE 2
GROUNDWATER ANALYSIS
BARBER RANCH
MONUMENT, LEA COUNTY, NEW MEXICO

Monitor Well	Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)	Total BTEX (mg/l)
MW-8	05/06/02	<0.005	<0.005	<0.005	<0.005	<0.005
	10/10/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/01/03	<0.005	<0.005	<0.005	<0.005	<0.005
	07/28/03	<0.001	<0.001	<0.001	<0.001	<0.001
	10/08/03	<0.001	<0.001	<0.001	<0.001	<0.001
MW-9	05/06/02	<0.005	<0.005	<0.005	<0.005	<0.005
	10/10/02	<0.005	<0.005	<0.005	<0.005	<0.005
	02/04/03	PSH	PSH	PSH	PSH	PSH
	05/01/03	PSH	PSH	PSH	PSH	PSH
	07/28/03	<0.010	<0.010	<0.010	<0.010	<0.010
	10/08/03	0.0019	<0.001	0.0014	0.0018	0.0051
MW-10	05/06/02	PSH	PSH	PSH	PSH	PSH
	10/10/02	PSH	PSH	PSH	PSH	PSH
	02/04/03	PSH	PSH	PSH	PSH	PSH
	05/01/03	PSH	PSH	PSH	PSH	PSH
	07/28/03	PSH	PSH	PSH	PSH	PSH
	10/08/03	PSH	PSH	PSH	PSH	PSH
MW-11	05/08/02	<0.005	<0.005	<0.005	<0.005	<0.005
	10/10/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	0.0013	<0.001	<0.001	<0.001	0.0013
	05/01/03	0.0016	<0.001	<0.001	<0.001	0.0016
	07/28/03	<0.001	<0.001	<0.001	<0.001	<0.001
	10/08/03	<0.001	<0.001	<0.001	<0.001	<0.001
MW-12	05/08/02	0.002	<0.001	<0.001	0.0026	0.0046
	10/10/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	PSH	PSH	PSH	PSH	PSH
	05/01/03	0.0025	<0.001	<0.001	0.002	0.0045
	07/28/03	0.0035	<0.001	<0.001	<0.001	0.0035
	10/08/03	0.0023	<0.001	<0.001	<0.001	0.0023
MW-13	06/25/02	PSH	PSH	PSH	PSH	PSH
	10/10/02	PSH	PSH	PSH	PSH	PSH
	02/04/03	PSH	PSH	PSH	PSH	PSH
	05/01/03	PSH	PSH	PSH	PSH	PSH
	07/28/03	PSH	PSH	PSH	PSH	PSH
	10/08/03	PSH	PSH	PSH	PSH	PSH
MW-14	06/25/02	0.0032	<0.001	<0.001	<0.001	0.0032
	10/10/02	<0.005	<0.005	<0.005	<0.005	<0.005
	02/04/03	<0.005	<0.005	<0.005	<0.005	<0.005
	05/01/03	<0.005	<0.005	<0.005	<0.005	<0.005
	07/28/03	<0.001	<0.001	<0.001	<0.001	<0.001
	10/08/03	0.0025	<0.001	<0.001	<0.001	0.0025

TABLE 2
GROUNDWATER ANALYSIS
BARBER RANCH
MONUMENT, LEA COUNTY, NEW MEXICO

Monitor Well	Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)	Total BTEX (mg/l)
MW-15	06/25/02	<0.001	<0.001	<0.001	<0.001	<0.001
	10/10/02	0.0231	<0.001	<0.001	<0.001	0.0231
	02/04/03	0.0243	<0.001	<0.001	0.0016	0.0259
	05/01/03	0.0112	<0.005	<0.005	<0.005	0.0112
	07/28/03	0.0106	<0.001	<0.001	<0.001	0.0106
	10/08/03	0.0203	<0.001	0.0013	0.0011	0.0227
MW-16	07/01/02	<0.005	<0.005	<0.005	<0.005	<0.005
	10/10/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/01/03	<0.001	<0.001	<0.001	<0.001	<0.001
	07/28/03	<0.001	<0.001	<0.001	<0.001	<0.001
	10/08/03	<0.001	<0.001	<0.001	<0.001	<0.001
MW-17	06/25/02	<0.005	<0.005	<0.005	<0.005	<0.005
	10/10/02	<0.005	<0.005	<0.005	<0.005	<0.005
	02/04/03	<0.005	<0.005	<0.005	<0.005	<0.005
	05/01/03	0.0043	<0.001	<0.001	<0.001	0.0043
	07/28/03	0.0023	<0.001	<0.001	<0.001	0.0023
	10/08/03	<0.001	<0.001	<0.001	<0.001	<0.001
MW-18	06/25/02	0.0014	<0.001	<0.001	<0.001	0.0014
	10/10/02	<0.005	<0.005	<0.005	<0.005	<0.005
	02/04/03	<0.005	<0.005	<0.005	<0.005	<0.005
	05/01/03	<0.005	<0.005	<0.005	<0.005	<0.005
	07/28/03	<0.005	<0.005	<0.005	<0.005	<0.005
	10/08/03	0.0038	<0.001	<0.001	<0.001	0.0038
MW-19	07/01/02	PSH	PSH	PSH	PSH	PSH
	10/10/02	PSH	PSH	PSH	PSH	PSH
	02/04/03	PSH	PSH	PSH	PSH	PSH
	05/01/03	PSH	PSH	PSH	PSH	PSH
	07/28/03	PSH	PSH	PSH	PSH	PSH
	10/08/03	PSH	PSH	PSH	PSH	PSH
MW-20	08/21/02	<0.005	<0.005	<0.005	0.0092	0.0092
	10/10/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	0.002	<0.001	<0.001	<0.001	0.002
	05/01/03	0.0011	<0.001	<0.001	<0.001	0.0011
	07/28/03	<0.001	<0.001	<0.001	<0.001	<0.001
	10/08/03	<0.001	<0.001	<0.001	<0.001	<0.001
MW-21	08/20/02	0.152	0.427	0.47	1.35	2.40
	10/10/02	<0.005	<0.005	<0.005	0.0086	0.0086
	02/04/03	<0.005	<0.005	<0.005	<0.005	<0.005
	05/01/03	<0.001	<0.001	<0.001	0.0019	0.0019
	07/28/03	<0.001	<0.001	<0.001	<0.001	<0.001
	10/08/03	<0.001	<0.001	<0.001	<0.001	<0.001

TABLE 2
GROUNDWATER ANALYSIS
BARBER RANCH
MONUMENT, LEA COUNTY, NEW MEXICO

Monitor Well	Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)	Total BTEX (mg/l)
MW-22	08/20/02	0.0663	<0.020	<0.020	0.519	0.585
	10/10/02	0.0362	<0.005	<0.005	<0.005	0.0362
	02/04/03	0.0680	<0.010	<0.010	<0.010	0.068
	05/01/03	0.0355	<0.001	<0.001	<0.001	0.0355
	07/28/03	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
	10/08/03	0.0232	<0.001	<0.001	0.0013	0.0245
MW-23	08/20/02	0.0577	<0.005	<0.005	<0.005	0.0577
	10/10/02	0.0029	<0.001	<0.001	<0.001	0.0029
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/01/03	<0.001	<0.001	<0.001	<0.001	<0.001
	07/28/03	<0.005	<0.005	<0.005	<0.005	<0.005
	10/08/03	0.0071	<0.001	0.0016	0.0023	0.011
NMOCD Standards		0.01	0.75	0.75	0.62	2.13
PSH-Phase Separated Hydrocarbons Any well exhibiting PSH was not sampled.						

ATTACHMENT C

Analytical Data

Report Date: February 24, 2003 Order Number: A03021011
EQ-112 Barber Ranch 3000109

Page Number: 1 of 1
Barber Lea County, New Mexico

Summary Report

Ken Springer
Equiva Ken Springer
777 Walker St. RM 1211
Houston, TX 77002

Report Date: February 24, 2003

Order ID Number: A03021011

Project: EQ-112
TA Job Code: Barber Ranch 3000109
Casualty Code: EQ-112
Project Location: Barber Lea County, New Mexico
Project Address:
Enercon Services Inc. / Midland / Jeff Kindley

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
220962	MW-23	Water	2/7/03	11:00	2/8/03

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.

Sample: 220962 - MW-23

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

This is only a summary. Please, refer to the complete report package for quality control data.

TRACE ANALYSIS, INC.

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Analytical and Quality Control Report

Ken Springer
Equiva Ken Springer
777 Walker St. RM 1211
Houston, TX 77002

Report Date: February 24, 2003

Order ID Number: A03021011

Project: EQ-112
TA Job Code: Barber Ranch 3000109
Casualty Code: EQ-112
Project Location: Barber Lea County, New Mexico
Enercon Services Inc. / Midland / Jeff Kindley

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
220962	MW-23	Water	2/7/03	11:00	2/8/03

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 33:1 unless otherwise noted.

This report consists of a total of 4 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

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

Report Date: February 24, 2003
EQ-112

Order Number: A03021011
Barber Ranch 3000109

Page Number: 2 of 4
Barber Lea County, New Mexico

Analytical Report

Sample: 220962 - MW-23

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27358 Date Analyzed: 2/23/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB25121 Date Prepared: 2/12/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		52.64	mg/L	1	80	65	35 - 114
2-Fluorobiphenyl		59.18	mg/L	1	80	73	43 - 116
Terphenyl-d14		51.61	mg/L	1	80	64	33 - 141

Quality Control Report Method Blank

Method Blank

QCBatch: QC27358

Param	Flag	Results	Units	Reporting Limit
Naphthalene		<0.0002	mg/L	0.0002
Acenaphthylene		<0.0002	mg/L	0.0002
Acenaphthene		<0.0002	mg/L	0.0002
Fluorene		<0.0002	mg/L	0.0002
Phenanthrene		<0.0002	mg/L	0.0002
Anthracene		<0.0002	mg/L	0.0002
Fluoranthene		<0.0002	mg/L	0.0002
Pyrene		<0.0002	mg/L	0.0002
Benzo(a)anthracene		<0.0002	mg/L	0.0002
Chrysene		<0.0002	mg/L	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	0.0002
Benzo(a)pyrene		<0.0002	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		73.47	mg/L	1	80	91	35 - 114
2-Fluorobiphenyl		80.45	mg/L	1	80	100	43 - 116
Terphenyl-d14		86.7	mg/L	1	80	108	33 - 141

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC27358

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Naphthalene	72.66	73.77	mg/L	1	80	<0.0002	90	1	16 - 96	20
Acenaphthylene	80.12	79.38	mg/L	1	80	<0.0002	100	0	20 - 110	20
Acenaphthene	79.88	79.68	mg/L	1	80	<0.0002	99	0	18 - 108	20
Fluorene	74.02	74.8	mg/L	1	80	<0.0002	92	1	22 - 102	20
Phenanthrene	72.94	73.63	mg/L	1	80	<0.0002	91	0	25 - 103	20
Anthracene	63.69	63.38	mg/L	1	80	<0.0002	79	0	22 - 110	20
Fluoranthene	61.65	65.12	mg/L	1	80	<0.0002	77	5	21 - 110	20
Pyrene	60.27	60.85	mg/L	1	80	<0.0002	75	0	22 - 100	20
Benzo(a)anthracene	63.14	62.66	mg/L	1	80	<0.0002	78	0	30 - 99	20
Chrysene	56.89	58.51	mg/L	1	80	<0.0002	71	2	27 - 108	20
Benzo(b)fluoranthene	67.33	66.65	mg/L	1	80	<0.0002	84	1	19 - 102	20
Benzo(k)fluoranthene	75.47	78.4	mg/L	1	80	<0.0002	94	3	35 - 103	20
Benzo(a)pyrene	69.72	69.35	mg/L	1	80	<0.0002	87	0	24 - 105	20

Continued ...

... Continued

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Indeno(1,2,3-cd)pyrene	61.77	72.73	mg/L	1	80	<0.0002	77	16	22 - 108	20
Dibenzo(a,h)anthracene	60.28	59.01	mg/L	1	80	<0.0002	75	2	23 - 77	20
Benzo(g,h,i)perylene	80.79	78.99	mg/L	1	80	<0.0002	100	2	19 - 119	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
Nitrobenzene-d5	77.73	79.61	mg/L	1	80	97	99	35 - 114
2-Fluorobiphenyl	87.81	87.74	mg/L	1	80	109	109	43 - 116
Terphenyl-d14	81.01	82.23	mg/L	1	80	101	102	33 - 141

Quality Control Report Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC27358

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60	59.81	99	80 - 120	2/23/03
Acenaphthylene		mg/L	60	62.83	104	80 - 120	2/23/03
Acenaphthene		mg/L	60	60.51	100	80 - 120	2/23/03
Fluorene		mg/L	60	58.26	97	80 - 120	2/23/03
Phenanthrene		mg/L	60	63.18	105	80 - 120	2/23/03
Anthracene		mg/L	60	58.24	97	80 - 120	2/23/03
Fluoranthene		mg/L	60	70.53	117	80 - 120	2/23/03
Pyrene		mg/L	60	55.35	92	80 - 120	2/23/03
Benzo(a)anthracene		mg/L	60	64.25	107	80 - 120	2/23/03
Chrysene		mg/L	60	55.29	92	80 - 120	2/23/03
Benzo(b)fluoranthene		mg/L	60	57.75	96	80 - 120	2/23/03
Benzo(k)fluoranthene		mg/L	60	61.81	103	80 - 120	2/23/03
Benzo(a)pyrene		mg/L	60	63.15	105	80 - 120	2/23/03
Indeno(1,2,3-cd)pyrene		mg/L	60	70.41	117	80 - 120	2/23/03
Dibenzo(a,h)anthracene		mg/L	60	69.09	115	80 - 120	2/23/03
Benzo(g,h,i)perylene		mg/L	60	63.87	106	80 - 120	2/23/03
Nitrobenzene-d5		mg/L	60	60.38	100	80 - 120	2/23/03
2-Fluorobiphenyl		mg/L	60	58.21	97	80 - 120	2/23/03
Terphenyl-d14		mg/L	60	63.35	105	80 - 120	2/23/03

Summary Report

Scott Burkey
Equiva Scott Burkey
2109 Luna Road Suite 240
Carrollton, TX 75006

Report Date: February 25, 2003

Order ID Number: A03020618

Project: EQ-112
TA Job Code: Barber Ranch 3000109
Casualty Code: EQ-112
Project Location: Barber Lea County, New Mexico
Project Address:
Enercon Services Inc. / Midland / Jeff Kindley

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
220793	MW-1	Water	2/4/03	14:10	2/6/03
220794	MW-3	Water	2/4/03	13:05	2/6/03
220795	MW-4	Water	2/4/03	13:25	2/6/03
220796	MW-5	Water	2/4/03	13:15	2/6/03
220797	MW-6	Water	2/4/03	12:45	2/6/03
220798	MW-7	Water	2/4/03	11:50	2/6/03
220799	MW-8	Water	2/4/03	12:00	2/6/03
220800	MW-11	Water	2/4/03	12:55	2/6/03
220801	MW-14	Water	2/4/03	14:30	2/6/03
220802	MW-15	Water	2/4/03	14:15	2/6/03
220803	MW-16	Water	2/4/03	11:40	2/6/03
220804	MW-17	Water	2/4/03	12:15	2/6/03
220805	MW-18	Water	2/4/03	12:30	2/6/03
220806	MW-20	Water	2/4/03	14:40	2/6/03
220807	MW-21	Water	2/4/03	14:55	2/6/03
220808	MW-22	Water	2/4/03	15:10	2/6/03
220809	MW-23	Water	2/4/03	15:25	2/6/03

0 This report consists of a total of 8 page(s) and is intended only as a summary of results for the sample(s) listed above.

Sample - Field Code	BTEX				
	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
220793 - MW-1	0.0045	<0.001	<0.001	<0.001	0.0045
220794 - MW-3	<0.005	<0.005	<0.005	<0.005	<0.005
220795 - MW-4	<0.001	<0.001	<0.001	<0.001	<0.001
220796 - MW-5	0.0201	<0.020	0.0523	0.0893	0.162
220797 - MW-6	0.0604	<0.005	<0.005	<0.005	0.0604
220798 - MW-7	<0.001	<0.001	<0.001	<0.001	<0.001
220799 - MW-8	<0.001	<0.001	<0.001	<0.001	<0.001
220800 - MW-11	0.0013	<0.001	<0.001	<0.001	0.0013
220801 - MW-14	<0.005	<0.005	<0.005	<0.005	<0.005
220802 - MW-15	0.0243	<0.001	<0.001	0.0016	0.0259

Continued ...

This is only a summary. Please, refer to the complete report package for quality control data.

Report Date: February 25, 2003 Order Number: A03020618
EQ-112 Barber Ranch 3000109

Page Number: 2 of 8
Barber Lea County, New Mexico

Continued ...

Sample - Field Code	BTEX				
	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
220803 - MW-16	<0.001	<0.001	<0.001	<0.001	<0.001
220804 - MW-17	<0.005	<0.005	<0.005	<0.005	<0.005
220805 - MW-18	<0.005	<0.005	<0.005	<0.005	<0.005
220806 - MW-20	0.002	<0.001	<0.001	<0.001	0.002
220807 - MW-21	<0.005	<0.005	<0.005	<0.005	<0.005
220808 - MW-22	0.068	<0.010	<0.010	<0.010	0.068
220809 - MW-23	<0.001	<0.001	<0.001	<0.001	<0.001

Sample: 220793 - MW-1

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220794 - MW-3

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

This is only a summary. Please, refer to the complete report package for quality control data.

Report Date: February 25, 2003 Order Number: A03020618
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Barber Lea County, New Mexico**Sample: 220795 - MW-4**

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220796 - MW-5

Param	Flag	Result	Units
Naphthalene		0.0137	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220797 - MW-6

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L

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Report Date: February 25, 2003 Order Number: A03020618
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Barber Lea County, New Mexico

Sample 220797 continued ...

Param	Flag	Result	Units
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220798 - MW-7

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220799 - MW-8

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L

Continued on next page ...

This is only a summary. Please, refer to the complete report package for quality control data.

Sample 220799 continued ...

Param	Flag	Result	Units
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220800 - MW-11

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220801 - MW-14

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

This is only a summary. Please, refer to the complete report package for quality control data.

Report Date: February 25, 2003 Order Number: A03020618
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Barber Lea County, New Mexico**Sample: 220802 - MW-15**

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220803 - MW-16

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220804 - MW-17

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L

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Report Date: February 25, 2003 Order Number: A03020618
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Barber Lea County, New Mexico*Sample 220804 continued ...*

Param	Flag	Result	Units
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220805 - MW-18

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220806 - MW-20

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L

*Continued on next page ...**This is only a summary. Please, refer to the complete report package for quality control data.*

Report Date: February 25, 2003 Order Number: A03020618
EQ-112 Barber Ranch 3000109

Page Number: 8 of 8
Barber Lea County, New Mexico

Sample 220806 continued ...

Param	Flag	Result	Units
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220807 - MW-21

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		0.0003	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

Sample: 220808 - MW-22

Param	Flag	Result	Units
Naphthalene		<0.0002	mg/L
Acenaphthylene		<0.0002	mg/L
Acenaphthene		<0.0002	mg/L
Fluorene		<0.0002	mg/L
Phenanthrene		<0.0002	mg/L
Anthracene		<0.0002	mg/L
Fluoranthene		<0.0002	mg/L
Pyrene		<0.0002	mg/L
Benzo(a)anthracene		<0.0002	mg/L
Chrysene		<0.0002	mg/L
Benzo(b)fluoranthene		<0.0002	mg/L
Benzo(k)fluoranthene		<0.0002	mg/L
Benzo(a)pyrene		<0.0002	mg/L
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L
Dibenzo(a,h)anthracene		<0.0002	mg/L
Benzo(g,h,i)perylene		<0.0002	mg/L

This is only a summary. Please, refer to the complete report package for quality control data.

TRACE ANALYSIS, INC.

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Analytical and Quality Control Report

Scott Burkey
Equiva Scott Burkey
2109 Luna Road Suite 240
Carrollton, TX 75006

Report Date: February 25, 2003

Order ID Number: A03020618

Project: EQ-112
TA Job Code: Barber Ranch 3000109
Casualty Code: EQ-112
Project Location: Barber Lea County, New Mexico
Enercon Services Inc. / Midland / Jeff Kindley

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
220793	MW-1	Water	2/4/03	14:10	2/6/03
220794	MW-3	Water	2/4/03	13:05	2/6/03
220795	MW-4	Water	2/4/03	13:25	2/6/03
220796	MW-5	Water	2/4/03	13:15	2/6/03
220797	MW-6	Water	2/4/03	12:45	2/6/03
220798	MW-7	Water	2/4/03	11:50	2/6/03
220799	MW-8	Water	2/4/03	12:00	2/6/03
220800	MW-11	Water	2/4/03	12:55	2/6/03
220801	MW-14	Water	2/4/03	14:30	2/6/03
220802	MW-15	Water	2/4/03	14:15	2/6/03
220803	MW-16	Water	2/4/03	11:40	2/6/03
220804	MW-17	Water	2/4/03	12:15	2/6/03
220805	MW-18	Water	2/4/03	12:30	2/6/03
220806	MW-20	Water	2/4/03	14:40	2/6/03
220807	MW-21	Water	2/4/03	14:55	2/6/03
220808	MW-22	Water	2/4/03	15:10	2/6/03
220809	MW-23	Water	2/4/03	15:25	2/6/03

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.

This report consists of a total of 27 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

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: 220793 - MW-1

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26925 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24788 Date Prepared: 2/6/03

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0045	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		0.0045	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	¹	0.0614	mg/L	1	0.10	61	70 - 130

Sample: 220793 - MW-1

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		45.72	mg/L	1	80	57	35 - 114
2-Fluorobiphenyl		40.58	mg/L	1	80	50	43 - 116
Terphenyl-d14		51.21	mg/L	1	80	64	33 - 141

¹Surrogate recovery within acceptable limits according to GC-3 water control chart.

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Sample: 220794 - MW-3

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26982 Date Analyzed: 2/7/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24836 Date Prepared: 2/7/03

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		0.081	mg/L	5	0.10	81	70 - 130
4-BFB		0.085	mg/L	5	0.10	85	70 - 130

Sample: 220794 - MW-3

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		68.48	mg/L	1	80	85	35 - 114
2-Fluorobiphenyl		56.53	mg/L	1	80	70	43 - 116
Terphenyl-d14		44.7	mg/L	1	80	55	33 - 141

Sample: 220795 - MW-4

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26925 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24788 Date Prepared: 2/6/03

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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		0.109	mg/L	1	0.10	109	70 - 130
4-BFB	2	0.0673	mg/L	1	0.10	67	70 - 130

Sample: 220795 - MW-4

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		65.92	mg/L	1	80	82	35 - 114
2-Fluorobiphenyl		64.04	mg/L	1	80	80	43 - 116
Terphenyl-d14		52.9	mg/L	1	80	66	33 - 141

Sample: 220796 - MW-5

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC27007 Date Analyzed: 2/10/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24857 Date Prepared: 2/10/03

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0201	mg/L	20	0.001
Toluene		<0.020	mg/L	20	0.001

Continued ...

²Surrogate recovery within acceptable limits according to GC-3 water control chart.

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... Continued Sample: 220796 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
Ethylbenzene		0.0523	mg/L	20	0.001
M,P,O-Xylene		0.0893	mg/L	20	0.001
Total BTEX		0.162	mg/L	20	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.085	mg/L	20	0.10	85	70 - 130
4-BFB		0.090	mg/L	20	0.10	90	70 - 130

Sample: 220796 - MW-5

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		0.0137	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		37.73	mg/L	1	80	47	35 - 114
2-Fluorobiphenyl		33.18	mg/L	1	80	41	43 - 116
Terphenyl-d14		33.7	mg/L	1	80	42	33 - 141

Sample: 220797 - MW-6

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC27007 Date Analyzed: 2/10/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24857 Date Prepared: 2/10/03

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0604	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		0.0604	mg/L	5	0.001

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.087	mg/L	5	0.10	87	70 - 130
4-BFB		0.093	mg/L	5	0.10	93	70 - 130

Sample: 220797 - MW-6

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		48.67	mg/L	1	80	60	35 - 114
2-Fluorobiphenyl		47.89	mg/L	1	80	59	43 - 116
Terphenyl-d14		61.89	mg/L	1	80	77	33 - 141

Sample: 220798 - MW-7

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26925 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24788 Date Prepared: 2/6/03

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		0.087	mg/L	1	0.10	87	70 - 130
4-BFB	³	0.0527	mg/L	1	0.10	52	70 - 130

³Surrogate recovery within acceptable limits according to GC-3 water control chart.

Sample: 220798 - MW-7

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		43.3	mg/L	1	80	54	35 - 114
2-Fluorobiphenyl		44.33	mg/L	1	80	55	43 - 116
Terphenyl-d14		46.91	mg/L	1	80	58	33 - 141

Sample: 220799 - MW-8

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26925 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24788 Date Prepared: 2/6/03

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		0.0978	mg/L	1	0.10	98	70 - 130
4-BFB	4	0.0602	mg/L	1	0.10	60	70 - 130

Sample: 220799 - MW-8

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

⁴Surrogate recovery within acceptable limits according to GC-3 water control chart.

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		63.41	mg/L	1	80	79	35 - 114
2-Fluorobiphenyl		52.86	mg/L	1	80	66	43 - 116
Terphenyl-d14		54.38	mg/L	1	80	67	33 - 141

Sample: 220800 - MW-11

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26925 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24788 Date Prepared: 2/6/03

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0013	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		0.0013	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	70 - 130
4-BFB	⁵	0.0665	mg/L	1	0.10	66	70 - 130

Sample: 220800 - MW-11

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002

Continued ...

⁵Surrogate recovery within acceptable limits according to GC-3 water control chart.

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... Continued Sample: 220800 Analysis: PAH

Param	Flag	Result	Units	Dilution	RDL
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		65.45	mg/L	1	80	81	35 - 114
2-Fluorobiphenyl		63.36	mg/L	1	80	79	43 - 116
Terphenyl-d14		54.62	mg/L	1	80	68	33 - 141

Sample: 220801 - MW-14

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26925 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24788 Date Prepared: 2/6/03

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		0.092	mg/L	5	0.10	92	70 - 130
4-BFB	6	0.055	mg/L	5	0.10	55	70 - 130

Sample: 220801 - MW-14

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002

Continued ...

⁶Surrogate recovery within acceptable limits according to GC-3 water control chart.

... Continued Sample: 220801 Analysis: PAH

Param	Flag	Result	Units	Dilution	RDL
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		71.57	mg/L	1	80	89	35 - 114
2-Fluorobiphenyl		57.35	mg/L	1	80	71	43 - 116
Terphenyl-d14		68.99	mg/L	1	80	86	33 - 141

Sample: 220802 - MW-15

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26925 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24788 Date Prepared: 2/6/03

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0243	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		0.0016	mg/L	1	0.001
Total BTEX		0.0259	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0976	mg/L	1	0.10	98	70 - 130
4-BFB		0.072	mg/L	1	0.10	72	70 - 130

Sample: 220802 - MW-15

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002

Continued ...

... Continued Sample: 220802 Analysis: PAH

Param	Flag	Result	Units	Dilution	RDL
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		67.6	mg/L	1	80	84	35 - 114
2-Fluorobiphenyl		61.1	mg/L	1	80	76	43 - 116
Terphenyl-d14		60.5	mg/L	1	80	75	33 - 141

Sample: 220803 - MW-16

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26925 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24788 Date Prepared: 2/6/03

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		0.0989	mg/L	1	0.10	99	70 - 130
4-BFB	7	0.0626	mg/L	1	0.10	62	70 - 130

Sample: 220803 - MW-16

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002

Continued ...

⁷Surrogate recovery within acceptable limits according to GC-3 water control chart.

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... Continued Sample: 220803 Analysis: PAH

Param	Flag	Result	Units	Dilution	RDL
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		30.12	mg/L	1	80	37	35 - 114
2-Fluorobiphenyl		58.75	mg/L	1	80	73	43 - 116
Terphenyl-d14		66.09	mg/L	1	80	82	33 - 141

Sample: 220804 - MW-17

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26925 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24788 Date Prepared: 2/6/03

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	8	0.0583	mg/L	5	0.10	58	70 - 130

Sample: 220804 - MW-17

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002

Continued ...

⁸Surrogate recovery within acceptable limits according to GC-3 water control chart.

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... Continued Sample: 220804 Analysis: PAH

Param	Flag	Result	Units	Dilution	RDL
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		64.86	mg/L	1	80	81	35 - 114
2-Fluorobiphenyl		64.93	mg/L	1	80	81	43 - 116
Terphenyl-d14		69.49	mg/L	1	80	86	33 - 141

Sample: 220805 - MW-18

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26920 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24786 Date Prepared: 2/6/03

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		0.101	mg/L	5	0.10	101	70 - 130
4-BFB		0.099	mg/L	5	0.10	99	70 - 130

Sample: 220805 - MW-18

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002

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... Continued Sample: 220805 Analysis: PAH

Param	Flag	Result	Units	Dilution	RDL
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		59.7	mg/L	1	80	74	35 - 114
2-Fluorobiphenyl		60.85	mg/L	1	80	76	43 - 116
Terphenyl-d14		68.33	mg/L	1	80	85	33 - 141

Sample: 220806 - MW-20

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26920 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24786 Date Prepared: 2/6/03

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.002	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		0.002	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.112	mg/L	1	0.10	112	70 - 130
4-BFB		0.100	mg/L	1	0.10	100	70 - 130

Sample: 220806 - MW-20

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002

Continued ...

... Continued Sample: 220806 Analysis: PAH

Param	Flag	Result	Units	Dilution	RDL
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		52.3	mg/L	1	80	65	35 - 114
2-Fluorobiphenyl		51.19	mg/L	1	80	63	43 - 116
Terphenyl-d14		53.93	mg/L	1	80	67	33 - 141

Sample: 220807 - MW-21

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC27030 Date Analyzed: 2/11/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24875 Date Prepared: 2/11/03

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		0.091	mg/L	5	0.10	91	70 - 130
4-BFB	⁹	0.0592	mg/L	5	0.10	59	70 - 130

Sample: 220807 - MW-21

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		0.0003	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

⁹Surrogate recovery within acceptable limits according to GC-3 water control chart.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		55.36	mg/L	1	80	69	35 - 114
2-Fluorobiphenyl		49.13	mg/L	1	80	61	43 - 116
Terphenyl-d14		49.33	mg/L	1	80	61	33 - 141

Sample: 220808 - MW-22

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26920 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24786 Date Prepared: 2/6/03

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.068	mg/L	10	0.001
Toluene		<0.010	mg/L	10	0.001
Ethylbenzene		<0.010	mg/L	10	0.001
M,P,O-Xylene		<0.010	mg/L	10	0.001
Total BTEX		0.068	mg/L	10	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.097	mg/L	10	0.10	97	70 - 130
4-BFB		0.098	mg/L	10	0.10	98	70 - 130

Sample: 220808 - MW-22

Analysis: PAH Analytical Method: S 8270C QC Batch: QC27132 Date Analyzed: 2/12/03
Analyst: RC Preparation Method: E 3510C Prep Batch: PB24957 Date Prepared: 2/8/03

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.0002	mg/L	1	0.0002
Acenaphthylene		<0.0002	mg/L	1	0.0002
Acenaphthene		<0.0002	mg/L	1	0.0002
Fluorene		<0.0002	mg/L	1	0.0002
Phenanthrene		<0.0002	mg/L	1	0.0002
Anthracene		<0.0002	mg/L	1	0.0002
Fluoranthene		<0.0002	mg/L	1	0.0002
Pyrene		<0.0002	mg/L	1	0.0002
Benzo(a)anthracene		<0.0002	mg/L	1	0.0002
Chrysene		<0.0002	mg/L	1	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	1	0.0002
Benzo(a)pyrene		<0.0002	mg/L	1	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	1	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	1	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	1	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		49.18	mg/L	1	80	61	35 - 114
2-Fluorobiphenyl		49.65	mg/L	1	80	62	43 - 116

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Terphenyl-d14		58.97	mg/L	1	80	73	33 - 141

Sample: 220809 - MW-23

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC26920 Date Analyzed: 2/6/03
Analyst: CG Preparation Method: S 5030B Prep Batch: PB24786 Date Prepared: 2/6/03

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		0.104	mg/L	1	0.10	104	70 - 130
4-BFB		0.099	mg/L	1	0.10	99	70 - 130

Quality Control Report Method Blank

Method Blank QCBatch: QC26920

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		0.100	mg/L	1	0.10	100	70 - 130
4-BFB		0.0932	mg/L	1	0.10	93	70 - 130

Method Blank QCBatch: QC26925

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		0.0966	mg/L	1	0.10	97	70 - 130
4-BFB	¹⁰	0.0613	mg/L	1	0.10	61	70 - 130

Method Blank QCBatch: QC26982

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

¹⁰Surrogate recovery within acceptable limits according to GC-3 water control chart.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0866	mg/L	1	0.10	87	70 - 130
4-BFB		0.0888	mg/L	1	0.10	89	70 - 130

Method Blank QCBatch: QC27007

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		0.085	mg/L	1	0.10	85	70 - 130
4-BFB		0.0867	mg/L	1	0.10	87	70 - 130

Method Blank QCBatch: QC27030

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		0.0968	mg/L	1	0.10	97	70 - 130
4-BFB	11	0.0595	mg/L	1	0.10	59	70 - 130

Method Blank QCBatch: QC27132

Param	Flag	Results	Units	Reporting Limit
Naphthalene		<0.0002	mg/L	0.0002
Acenaphthylene		<0.0002	mg/L	0.0002
Acenaphthene		<0.0002	mg/L	0.0002
Fluorene		<0.0002	mg/L	0.0002
Phenanthrene		<0.0002	mg/L	0.0002
Anthracene		<0.0002	mg/L	0.0002

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¹¹Surrogate recovery within acceptable limits according to GC-3 water control chart.

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Param	Flag	Results	Units	Reporting Limit
Fluoranthene		<0.0002	mg/L	0.0002
Pyrene		<0.0002	mg/L	0.0002
Benzo(a)anthracene		<0.0002	mg/L	0.0002
Chrysene		<0.0002	mg/L	0.0002
Benzo(b)fluoranthene		<0.0002	mg/L	0.0002
Benzo(k)fluoranthene		<0.0002	mg/L	0.0002
Benzo(a)pyrene		<0.0002	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.0002	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.0002	mg/L	0.0002
Benzo(g,h,i)perylene		<0.0002	mg/L	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		88.18	mg/L	1	80	110	35 - 114
2-Fluorobiphenyl		78.56	mg/L	1	80	98	43 - 116
Terphenyl-d14		88.82	mg/L	1	80	111	33 - 141

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC26920

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.107	0.106	mg/L	1	0.10	<0.001	107	0	70 - 130	20
Benzene	0.114	0.123	mg/L	1	0.10	<0.001	114	7	70 - 130	20
Toluene	0.105	0.113	mg/L	1	0.10	<0.001	105	7	70 - 130	20
Ethylbenzene	0.099	0.109	mg/L	1	0.10	<0.001	99	9	70 - 130	20
M,P,O-Xylene	0.301	0.322	mg/L	1	0.30	<0.001	100	6	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	0.1	0.103	mg/L	1	0.10	100	103	70 - 130
4-BFB	0.103	0.1	mg/L	1	0.10	103	100	70 - 130

Laboratory Control Spikes

QCBatch: QC26925

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.096	0.0962	mg/L	1	0.10	<0.001	96	0	70 - 130	20
Benzene	0.0942	0.0948	mg/L	1	0.10	<0.001	94	1	70 - 130	20
Toluene	0.0971	0.0976	mg/L	1	0.10	<0.001	97	0	70 - 130	20
Ethylbenzene	0.0962	0.0964	mg/L	1	0.10	<0.001	96	0	70 - 130	20
M,P,O-Xylene	0.288	0.290	mg/L	1	0.30	<0.001	96	1	70 - 130	20

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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	0.098	0.0961	mg/L	1	0.10	98	96	70 - 130
4-BFB	0.0937	0.0941	mg/L	1	0.10	94	94	70 - 130

Laboratory Control Spikes

QCBatch: QC26982

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0929	0.0939	mg/L	1	0.10	<0.001	93	1	70 - 130	20
Benzene	0.0886	0.0908	mg/L	1	0.10	<0.001	89	2	70 - 130	20
Toluene	0.0894	0.0898	mg/L	1	0.10	<0.001	89	0	70 - 130	20
Ethylbenzene	0.0902	0.0906	mg/L	1	0.10	<0.001	90	0	70 - 130	20
M,P,O-Xylene	0.274	0.276	mg/L	1	0.30	<0.001	91	1	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	0.0861	0.0858	mg/L	1	0.10	86	86	70 - 130
4-BFB	0.0905	0.090	mg/L	1	0.10	90	90	70 - 130

Laboratory Control Spikes

QCBatch: QC27007

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0887	0.0919	mg/L	1	0.10	<0.001	89	4	70 - 130	20
Benzene	0.0864	0.0875	mg/L	1	0.10	<0.001	86	1	70 - 130	20
Toluene	0.0877	0.0884	mg/L	1	0.10	<0.001	88	1	70 - 130	20
Ethylbenzene	0.0879	0.0894	mg/L	1	0.10	<0.001	88	2	70 - 130	20
M,P,O-Xylene	0.268	0.272	mg/L	1	0.30	<0.001	89	1	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	0.0865	0.0874	mg/L	1	0.10	86	87	70 - 130
4-BFB	0.090	0.0912	mg/L	1	0.10	90	91	70 - 130

Laboratory Control Spikes

QCBatch: QC27030

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0876	0.0886	mg/L	1	0.10	<0.001	88	1	70 - 130	20
Benzene	0.0943	0.0928	mg/L	1	0.10	<0.001	94	2	70 - 130	20
Toluene	0.0942	0.0934	mg/L	1	0.10	<0.001	94	1	70 - 130	20
Ethylbenzene	0.092	0.0915	mg/L	1	0.10	<0.001	92	0	70 - 130	20

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Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
M,P,O-Xylene	0.274	0.274	mg/L	1	0.30	<0.001	91	0	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	0.0969	0.0943	mg/L	1	0.10	97	94	70 - 130
4-BFB	0.0875	0.0871	mg/L	1	0.10	88	87	70 - 130

Laboratory Control Spikes

QCBatch: QC27132

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Naphthalene	70.29	74.1	mg/L	1	80	<0.0002	87	5	16 - 96	20
Accnaphthylene	75.35	76.05	mg/L	1	80	<0.0002	94	0	20 - 110	20
Acenaphthene	73.87	73.6	mg/L	1	80	<0.0002	92	0	18 - 108	20
Fluorene	73.89	73.71	mg/L	1	80	<0.0002	92	0	22 - 102	20
Phenanthrene	74.83	74.94	mg/L	1	80	<0.0002	93	0	25 - 103	20
Anthracene	73.12	71.43	mg/L	1	80	<0.0002	91	2	22 - 110	20
Fluoranthene	75.62	76.00	mg/L	1	80	<0.0002	94	0	21 - 110	20
Pyrene	65.2	61.32	mg/L	1	80	<0.0002	81	6	22 - 100	20
Benzo(a)anthracene	73.57	73.74	mg/L	1	80	<0.0002	91	0	30 - 99	20
Chrysene	58.23	54.95	mg/L	1	80	<0.0002	72	5	27 - 108	20
Benzo(b)fluoranthene	57.19	60.11	mg/L	1	80	<0.0002	71	4	19 - 102	20
Benzo(k)fluoranthene	71.86	71.61	mg/L	1	80	<0.0002	89	0	35 - 103	20
Benzo(a)pyrene	79.74	77.4	mg/L	1	80	<0.0002	99	2	24 - 105	20
Indeno(1,2,3-cd)pyrene	76.82	79.6	mg/L	1	80	<0.0002	96	3	22 - 108	20
Dibenzo(a,h)anthracene	54.86	54.9	mg/L	1	80	<0.0002	68	0	23 - 77	20
Benzo(g,h,i)perylene	84.99	76.02	mg/L	1	80	<0.0002	106	11	19 - 119	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
Nitrobenzene-d5	88.64	87.68	mg/L	1	80	110	109	35 - 114
2-Fluorobiphenyl	83.94	84.98	mg/L	1	80	104	106	43 - 116
Terphenyl-d14	77.63	74.39	mg/L	1	80	97	92	33 - 141

Quality Control Report Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC26920

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.110	110	85 - 115	2/6/03
Benzene		mg/L	0.10	0.113	113	85 - 115	2/6/03

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/L	0.10	0.102	102	85 - 115	2/6/03
Ethylbenzene		mg/L	0.10	0.1	100	85 - 115	2/6/03
M,P,O-Xylene		mg/L	0.30	0.296	98	85 - 115	2/6/03

ICV (1) QCBatch: QC26920

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.099	99	85 - 115	2/6/03
Benzene		mg/L	0.10	0.110	110	85 - 115	2/6/03
Toluene		mg/L	0.10	0.098	98	85 - 115	2/6/03
Ethylbenzene		mg/L	0.10	0.097	97	85 - 115	2/6/03
M,P,O-Xylene		mg/L	0.30	0.293	97	85 - 115	2/6/03

CCV (1) QCBatch: QC26925

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0926	93	85 - 115	2/6/03
Benzene		mg/L	0.10	0.0939	94	85 - 115	2/6/03
Toluene		mg/L	0.10	0.0955	96	85 - 115	2/6/03
Ethylbenzene		mg/L	0.10	0.093	93	85 - 115	2/6/03
M,P,O-Xylene		mg/L	0.30	0.279	93	85 - 115	2/6/03

CCV (2) QCBatch: QC26925

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	2/6/03
Benzene		mg/L	0.10	0.095	95	85 - 115	2/6/03
Toluene		mg/L	0.10	0.097	97	85 - 115	2/6/03
Ethylbenzene		mg/L	0.10	0.097	97	85 - 115	2/6/03
M,P,O-Xylene		mg/L	0.30	0.290	96	85 - 115	2/6/03

ICV (1) QCBatch: QC26925

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
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	2/6/03
Benzene		mg/L	0.10	0.0947	95	85 - 115	2/6/03
Toluene		mg/L	0.10	0.0969	97	85 - 115	2/6/03
Ethylbenzene		mg/L	0.10	0.0952	95	85 - 115	2/6/03
M,P,O-Xylene		mg/L	0.30	0.285	95	85 - 115	2/6/03

CCV (1)

QCBatch: QC26982

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0938	94	85 - 115	2/7/03
Benzene		mg/L	0.10	0.0885	88	85 - 115	2/7/03
Toluene		mg/L	0.10	0.0899	90	85 - 115	2/7/03
Ethylbenzene		mg/L	0.10	0.0925	92	85 - 115	2/7/03
M,P,O-Xylene		mg/L	0.30	0.274	91	85 - 115	2/7/03

CCV (2)

QCBatch: QC26982

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.088	88	85 - 115	2/7/03
Benzene		mg/L	0.10	0.088	88	85 - 115	2/7/03
Toluene		mg/L	0.10	0.088	88	85 - 115	2/7/03
Ethylbenzene		mg/L	0.10	0.088	88	85 - 115	2/7/03
M,P,O-Xylene		mg/L	0.30	0.267	89	85 - 115	2/7/03

ICV (1)

QCBatch: QC26982

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0918	92	85 - 115	2/7/03
Benzene		mg/L	0.10	0.0893	89	85 - 115	2/7/03
Toluene		mg/L	0.10	0.0898	90	85 - 115	2/7/03
Ethylbenzene		mg/L	0.10	0.0907	91	85 - 115	2/7/03
M,P,O-Xylene		mg/L	0.30	0.276	92	85 - 115	2/7/03

CCV (1) QCBatch: QC27007

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0911	91	85 - 115	2/10/03
Benzene		mg/L	0.10	0.0862	86	85 - 115	2/10/03
Toluene		mg/L	0.10	0.0873	87	85 - 115	2/10/03
Ethylbenzene		mg/L	0.10	0.088	88	85 - 115	2/10/03
M,P,O-Xylene		mg/L	0.30	0.269	90	85 - 115	2/10/03

CCV (2) QCBatch: QC27007

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.090	90	85 - 115	2/10/03
Benzene		mg/L	0.10	0.088	88	85 - 115	2/10/03
Toluene		mg/L	0.10	0.088	88	85 - 115	2/10/03
Ethylbenzene		mg/L	0.10	0.089	89	85 - 115	2/10/03
M,P,O-Xylene		mg/L	0.30	0.270	90	85 - 115	2/10/03

ICV (1) QCBatch: QC27007

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0871	87	85 - 115	2/10/03
Benzene		mg/L	0.10	0.085	85	85 - 115	2/10/03
Toluene		mg/L	0.10	0.0856	86	85 - 115	2/10/03
Ethylbenzene		mg/L	0.10	0.0862	86	85 - 115	2/10/03
M,P,O-Xylene		mg/L	0.30	0.263	88	85 - 115	2/10/03

CCV (1) QCBatch: QC27030

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0956	96	85 - 115	2/11/03
Benzene		mg/L	0.10	0.0945	94	85 - 115	2/11/03
Toluene		mg/L	0.10	0.0963	96	85 - 115	2/11/03
Ethylbenzene		mg/L	0.10	0.0958	96	85 - 115	2/11/03
M,P,O-Xylene		mg/L	0.30	0.287	96	85 - 115	2/11/03

CCV (2) QCBatch: QC27030

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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	2/11/03
Benzene		mg/L	0.10	0.091	91	85 - 115	2/11/03
Toluene		mg/L	0.10	0.092	92	85 - 115	2/11/03
Ethylbenzene		mg/L	0.10	0.0980	98	85 - 115	2/11/03
M,P,O-Xylene		mg/L	0.30	0.271	90	85 - 115	2/11/03

ICV (1) QCBatch: QC27030

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0896	90	85 - 115	2/11/03
Benzene		mg/L	0.10	0.0975	98	85 - 115	2/11/03
Toluene		mg/L	0.10	0.0973	97	85 - 115	2/11/03
Ethylbenzene		mg/L	0.10	0.0958	96	85 - 115	2/11/03
M,P,O-Xylene		mg/L	0.30	0.285	95	85 - 115	2/11/03

CCV (1) QCBatch: QC27132

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60	55.84	93	80 - 120	2/12/03
Acenaphthylene		mg/L	60	58.21	97	80 - 120	2/12/03
Acenaphthene		mg/L	60	51.56	85	80 - 120	2/12/03
Fluorene		mg/L	60	55.42	92	80 - 120	2/12/03
Phenanthrene		mg/L	60	52.14	86	80 - 120	2/12/03
Anthracene		mg/L	60	54.23	90	80 - 120	2/12/03
Fluoranthene		mg/L	60	51.65	86	80 - 120	2/12/03
Pyrene		mg/L	60	51.95	86	80 - 120	2/12/03
Benzo(a)anthracene		mg/L	60	57.87	96	80 - 120	2/12/03
Chrysene		mg/L	60	56.7	94	80 - 120	2/12/03
Benzo(b)fluoranthene		mg/L	60	67.78	112	80 - 120	2/12/03
Benzo(k)fluoranthene		mg/L	60	58.9	98	80 - 120	2/12/03
Benzo(a)pyrene		mg/L	60	67.76	112	80 - 120	2/12/03
Indeno(1,2,3-cd)pyrene		mg/L	60	63.44	105	80 - 120	2/12/03
Dibenzo(a,h)anthracene		mg/L	60	52.56	87	80 - 120	2/12/03
Benzo(g,h,i)perylene		mg/L	60	53.29	88	80 - 120	2/12/03
Nitrobenzene-d5		mg/L	60	53.4	89	80 - 120	2/12/03
2-Fluorobiphenyl		mg/L	60	50.9	84	80 - 120	2/12/03
Terphenyl-d14		mg/L	60	67.28	112	80 - 120	2/12/03

220775-809

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A03020618

Company Name:

Environ Services Inc

Phone #:

915-570-8726

Address:

306 West Whittaker, Suite 1312, Midland, TX 79701

Fax #:

915-684-7587

Contact Person:

Jeffrey Kindley

Invoice to:

Kerry Springer Scott Burkey Houston, TX

Project #:

EQ-112

Incident

300109

Project Location:

Menominee, Lea County, New Mexico

Sample Signature:

Jeffrey Kindley

Project Name:

Barben Ranch

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	✓	TPH 418.1/TX1005	✓	PAH 8270C	✓	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	✓	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	✓	TCLP Semi Volatiles	✓	TCLP Pesticides	✓	RCI	✓	GC-MS Vol. 8260B/624	✓	GC/MS Semi. Vol. 8270C/625	✓	PCBs 8082/608	✓	Pesticides 8081A/608	✓	BOD, TSS, pH	✓	Turn Around Time if different from standard	✓
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LAB USE ONLY

Intact Y / N
Headspace Y (N)
Temp 3
Log-in Review MS

REMARKS:

Normal
2/25 F/P

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

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6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
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TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

Company Name:

Environ Services Inc.
(Street, City, Zip)

Phone #:

915-570-8726

Address:

306 West Wall, Suite 1312, Midland, TX 79701 915-684-7587

Contact Person:

Jeffrey Kindley

Invoice to:

Scott B. King
Shell Oil Products

Project #:

EQ-112

Project Name:

Pinben Ranch

Project Location:

Monument, Lea County, New Mexico

Sampler Signature:

Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCL	HNO3	NaHSO ₄	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
220 804	MW-17	3	40ml Lab	✓				✓					✓		2/26/03	1215
805	MW-18	3	40ml Lab	✓				✓					✓		2/26/03	1230
806	MW-20	3	40ml Lab	✓				✓					✓		2/26/03	1440
807	MW-21	3	40ml Lab	✓				✓					✓		2/26/03	1455
808	MW-22	3	40ml Lab	✓				✓					✓		2/26/03	1510
809	MW-23	3	40ml Lab	✓				✓					✓		2/26/03	1525

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<i>Jeffrey Kindley</i>	February 5, 2003	1000	<i>Helen Shelton</i>	2/6/03	10:00
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<i>Helen Shelton</i>	2/6/03	1830	<i>Jeffrey Kindley</i>	2/6/03	10:00
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			<i>Jeffrey Kindley</i>	2/6/03	10:00

LAB USE ONLY	REMARKS:
Intact ☒ / N ☐	<i>Bottle Broken MW-23</i>
Headspace ☒ / N ☐	<i>Normal</i>
Temp ☒ / N ☐	
Log-in Review ☒ / N ☐	

Carrier # *Exxon Road GI 130-3590*

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 18 samples - HS
ORIGINAL COPY

Summary Report

Scott Burkey
Equiva-Scott Burkey
2109 Luna Road
2109 Luna Road
Carrollton, TX 75006

Report Date: May 13, 2003

Work Order: 3050505

Incidnet #: 300109
Project Location: Monument Lea County, New Mexico
Project Name: Barker Ranch
Project Number: EQ-112

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
6686	MW-1	water	2003-05-01	16:00	2003-05-03
6687	MW-3	water	2003-05-01	13:30	2003-05-03
6688	MW-4	water	2003-05-01	16:30	2003-05-03
6689	MW-5	water	2003-05-01	14:00	2003-05-03
6690	MW-6	water	2003-05-01	13:00	2003-05-03
6691	MW-8	water	2003-05-01	10:50	2003-05-03
6692	MW-11	water	2003-05-01	14:15	2003-05-03
6693	MW-12	water	2003-05-01	15:00	2003-05-03
6694	MW-14	water	2003-05-01	17:00	2003-05-03
6695	MW-15	water	2003-05-01	17:30	2003-05-03
6696	MW-16	water	2003-05-01	11:05	2003-05-03
6697	MW-17	water	2003-05-01	12:15	2003-05-03
6698	MW-18	water	2003-05-01	12:30	2003-05-03
6699	MW-20	water	2003-05-01	10:30	2003-05-03
6700	MW-21	water	2003-05-01	10:15	2003-05-03
6701	MW-22	water	2003-05-01	10:00	2003-05-03
6702	MW-23	water	2003-05-01	09:00	2003-05-03

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (isomers) (mg/L)
6686 - MW-1	0.00430	<0.00100	<0.00100	<0.00100
6687 - MW-3	<0.00100	<0.00100	<0.00100	<0.00100
6688 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100
6689 - MW-5	0.0248	<0.0200	<0.0200	<0.0200
6690 - MW-6	0.0668	<0.00100	<0.00100	<0.00100
6691 - MW-8	<0.00500	<0.00500	<0.00500	<0.00500
6692 - MW-11	0.00160	<0.00100	<0.00100	<0.00100
6693 - MW-12	0.00250	<0.00100	<0.00100	0.00200
6694 - MW-14	<0.00500	<0.00500	<0.00500	<0.00500
6695 - MW-15	0.0112	<0.00500	<0.00500	<0.00500
6696 - MW-16	<0.00100	<0.00100	<0.00100	<0.00100
6697 - MW-17	0.00430	<0.00100	<0.00100	<0.00100
6698 - MW-18	<0.00500	<0.00500	<0.00500	<0.00500
6699 - MW-20	0.00110	<0.00100	<0.00100	<0.00100
6700 - MW-21	<0.00100	<0.00100	<0.00100	0.00190
6701 - MW-22	0.0355	<0.00100	<0.00100	<0.00100

continued ...

... continued

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (isomers) (mg/L)
6702 - MW-23	<0.00100	<0.00100	<0.00100	<0.00100

Sample: 6686 - MW-1

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6687 - MW-3

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6688 - MW-4

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200

continued ...

sample 6688 continued ...

Param	Flag	Result	Units	RL
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6689 - MW-5

Param	Flag	Result	Units	RL
Naphthalene		0.00417	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6690 - MW-6

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6691 - MW-8

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6692 - MW-11

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6693 - MW-12

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200

continued ...

sample 6693 continued ...

Param	Flag	Result	Units	RL
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6694 - MW-14

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6695 - MW-15

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6696 - MW-16

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200

continued ...

sample 6696 continued ...

Param	Flag	Result	Units	RL
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6697 - MW-17

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6698 - MW-18

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6699 - MW-20

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6700 - MW-21

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6701 - MW-22

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200

continued ...

sample 6701 continued ...

Param	Flag	Result	Units	RL
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 6702 - MW-23

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

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Analytical and Quality Control Report

Scott Burkey
Equiva-Scott Burkey
2109 Luna Road
Suite 240
Carrollton, TX 75006

Report Date: May 13, 2003

Work Order: 3050505

Incidnet #: 300109
Project Location: Monument Lea County, New Mexico
Project Name: Barker Ranch
Project Number: EQ-112

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
6686	MW-1	water	2003-05-01	16:00	2003-05-03
6687	MW-3	water	2003-05-01	13:30	2003-05-03
6688	MW-4	water	2003-05-01	16:30	2003-05-03
6689	MW-5	water	2003-05-01	14:00	2003-05-03
6690	MW-6	water	2003-05-01	13:00	2003-05-03
6691	MW-8	water	2003-05-01	10:50	2003-05-03
6692	MW-11	water	2003-05-01	14:15	2003-05-03
6693	MW-12	water	2003-05-01	15:00	2003-05-03
6694	MW-14	water	2003-05-01	17:00	2003-05-03
6695	MW-15	water	2003-05-01	17:30	2003-05-03
6696	MW-16	water	2003-05-01	11:05	2003-05-03
6697	MW-17	water	2003-05-01	12:15	2003-05-03
6698	MW-18	water	2003-05-01	12:30	2003-05-03
6699	MW-20	water	2003-05-01	10:30	2003-05-03
6700	MW-21	water	2003-05-01	10:15	2003-05-03
6701	MW-22	water	2003-05-01	10:00	2003-05-03
6702	MW-23	water	2003-05-01	09:00	2003-05-03

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.

This report consists of a total of 23 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

Analytical Report

Sample: 6686 - MW-1

Analysis: BTEX
QC Batch: 1409
Prep Batch: 1260

Analytical Method: S 8021B
Date Analyzed: 2003-05-05
Date Prepared: 2003-05-05

Prep Method: S 5030B
Analyzed By: DK
Prepared By: DK

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00430	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)		0.0883	mg/L	1	0.100	88	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0835	mg/L	1	0.100	84	77.8 - 110

Sample: 6686 - MW-1

Analysis: PAH
QC Batch: 1515
Prep Batch: 1262

Analytical Method: S 8270C
Date Analyzed: 2003-05-08
Date Prepared: 2003-05-06

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0266	mg/L	0.001	80.0	33	21 - 145
2-Fluorobiphenyl		0.0403	mg/L	0.001	80.0	50	25 - 145
Terphenyl-d14	¹	0.0438	mg/L	0.001	80.0	55	76 - 127

Sample: 6687 - MW-3

¹ Sample surrogate recovery out of limits due to sample matrix.

Analysis: BTEX
QC Batch: 1409
Prep Batch: 1260

Analytical Method: S 8021B
Date Analyzed: 2003-05-05
Date Prepared: 2003-05-05

Prep Method: S 5030B
Analyzed By: DK
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)		0.0862	mg/L	1	0.100	86	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0805	mg/L	1	0.100	80	77.8 - 110

Sample: 6687 - MW-3

Analysis: PAH
QC Batch: 1515
Prep Batch: 1262

Analytical Method: S 8270C
Date Analyzed: 2003-05-08
Date Prepared: 2003-05-06

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0293	mg/L	0.001	80.0	37	21 - 145
2-Fluorobiphenyl		0.0454	mg/L	0.001	80.0	57	25 - 145
Terphenyl-d14	²	0.0455	mg/L	0.001	80.0	57	76 - 127

Sample: 6688 - MW-4

Analysis: BTEX
QC Batch: 1409
Prep Batch: 1260

Analytical Method: S 8021B
Date Analyzed: 2003-05-05
Date Prepared: 2003-05-05

Prep Method: S 5030B
Analyzed By: DK
Prepared By: DK

²Sample surrogate recovery out of limits due to sample matrix.

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)		0.0864	mg/L	1	0.100	86	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0812	mg/L	1	0.100	81	77.8 - 110

Sample: 6688 - MW-4

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 1515	Date Analyzed: 2003-05-08	Analyzed By: RC
Prep Batch: 1262	Date Prepared: 2003-05-06	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0307	mg/L	0.001	80.0	38	21 - 145
2-Fluorobiphenyl		0.046	mg/L	0.001	80.0	58	25 - 145
Terphenyl-d14	3	0.0468	mg/L	0.001	80.0	58	76 - 127

Sample: 6689 - MW-5

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 1409	Date Analyzed: 2003-05-05	Analyzed By: DK
Prep Batch: 1260	Date Prepared: 2003-05-05	Prepared By: DK

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0248	mg/L	20	0.00100

continued ...

³Sample surrogate recovery out of limits due to sample matrix.

sample 6689 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Toluene		<0.0200	mg/L	20	0.00100
Ethylbenzene		<0.0200	mg/L	20	0.00100
Xylene (isomers)		<0.0200	mg/L	20	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.59	mg/L	20	0.100	80	78.7 - 110
4-Bromofluorobenzene (4-BFB)	⁴	1.5	mg/L	20	0.100	75	77.8 - 110

Sample: 6689 - MW-5

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 1515	Date Analyzed: 2003-05-08	Analyzed By: RC
Prep Batch: 1262	Date Prepared: 2003-05-06	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.00417	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0176	mg/L	0.001	80.0	22	21 - 145
2-Fluorobiphenyl		0.0253	mg/L	0.001	80.0	32	25 - 145
Terphenyl-d14	⁵	0.0349	mg/L	0.001	80.0	44	76 - 127

Sample: 6690 - MW-6

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 1409	Date Analyzed: 2003-05-05	Analyzed By: DK
Prep Batch: 1260	Date Prepared: 2003-05-05	Prepared By: DK

⁴Low BFB surrogate recovery due to matrix interference.

⁵Sample surrogate recovery out of limits due to sample matrix.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0668	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)		0.0856	mg/L	1	0.100	86	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0987	mg/L	1	0.100	99	77.8 - 110

Sample: 6690 - MW-6

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C
QC Batch: 1515 Date Analyzed: 2003-05-08 Analyzed By: RC
Prep Batch: 1262 Date Prepared: 2003-05-06 Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0207	mg/L	0.001	80.0	26	21 - 145
2-Fluorobiphenyl		0.0327	mg/L	0.001	80.0	41	25 - 145
Terphenyl-d14	6	0.0468	mg/L	0.001	80.0	58	76 - 127

Sample: 6691 - MW-8

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 1409 Date Analyzed: 2003-05-05 Analyzed By: DK
Prep Batch: 1260 Date Prepared: 2003-05-05 Prepared By: DK

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00500	mg/L	5	0.00100

continued ...

⁶Surrogate is out of control limits. Other surrogate recoveries show that extraction occurred properly.

sample 6691 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)	7	0.383	mg/L	5	0.100	77	78.7 - 110
4-Bromofluorobenzene (4-BFB)	8	0.36	mg/L	5	0.100	72	77.8 - 110

Sample: 6691 - MW-8

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 1515	Date Analyzed: 2003-05-08	Analyzed By: RC
Prep Batch: 1262	Date Prepared: 2003-05-06	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.026	mg/L	0.001	80.0	32	21 - 145
2-Fluorobiphenyl		0.0383	mg/L	0.001	80.0	48	25 - 145
Terphenyl-d14	9	0.04	mg/L	0.001	80.0	50	76 - 127

Sample: 6692 - MW-11

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 1409	Date Analyzed: 2003-05-05	Analyzed By: DK
Prep Batch: 1260	Date Prepared: 2003-05-05	Prepared By: DK

⁷Low surrogate recovery due to prep. ICV, CCV show the method to be in control.

⁸Low surrogate recovery due to prep. ICV, CCV show the method to be in control.

⁹Sample surrogate recovery out of limits due to sample matrix.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00160	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)		0.0845	mg/L	1	0.100	84	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0786	mg/L	1	0.100	79	77.8 - 110

Sample: 6692 - MW-11

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C
QC Batch: 1515 Date Analyzed: 2003-05-08 Analyzed By: RC
Prep Batch: 1262 Date Prepared: 2003-05-06 Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0287	mg/L	0.001	80.0	36	21 - 145
2-Fluorobiphenyl		0.0411	mg/L	0.001	80.0	51	25 - 145
Terphenyl-d14	¹⁰	0.0394	mg/L	0.001	80.0	49	76 - 127

Sample: 6693 - MW-12

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 1409 Date Analyzed: 2003-05-05 Analyzed By: DK
Prep Batch: 1260 Date Prepared: 2003-05-05 Prepared By: DK

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00250	mg/L	1	0.00100

continued ...

¹⁰Sample surrogate recovery out of limits due to sample matrix.

sample 6693 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		0.00200	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0919	mg/L	1	0.100	92	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.085	mg/L	1	0.100	85	77.8 - 110

Sample: 6693 - MW-12

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 1515	Date Analyzed: 2003-05-08	Analyzed By: RC
Prep Batch: 1262	Date Prepared: 2003-05-06	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0312	mg/L	0.001	80.0	39	21 - 145
2-Fluorobiphenyl		0.0456	mg/L	0.001	80.0	57	25 - 145
Terphenyl-d14	¹¹	0.0423	mg/L	0.001	80.0	53	76 - 127

Sample: 6694 - MW-14

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 1431	Date Analyzed: 2003-05-05	Analyzed By: DK
Prep Batch: 1275	Date Prepared: 2003-05-05	Prepared By: DK

continued ...

¹¹ Sample surrogate recovery out of limits due to sample matrix.

sample 6694 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.538	mg/L	5	0.100	108	61 - 127
4-Bromofluorobenzene (4-BFB)		0.414	mg/L	5	0.100	83	72.6 - 130

Sample: 6694 - MW-14

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 1515	Date Analyzed: 2003-05-08	Analyzed By: RC
Prep Batch: 1262	Date Prepared: 2003-05-06	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0243	mg/L	0.001	80.0	30	21 - 145
2-Fluorobiphenyl		0.036	mg/L	0.001	80.0	45	25 - 145
Terphenyl-d14	12	0.0336	mg/L	0.001	80.0	42	76 - 127

Sample: 6695 - MW-15

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 1409	Date Analyzed: 2003-05-05	Analyzed By: DK
Prep Batch: 1260	Date Prepared: 2003-05-05	Prepared By: DK

¹²Sample surrogate recovery out of limits due to sample matrix.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0112	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)		0.434	mg/L	5	0.100	87	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.401	mg/L	5	0.100	80	77.8 - 110

Sample: 6695 - MW-15

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 1515	Date Analyzed: 2003-05-08	Analyzed By: RC
Prep Batch: 1262	Date Prepared: 2003-05-06	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0235	mg/L	0.001	80.0	29	21 - 145
2-Fluorobiphenyl		0.0338	mg/L	0.001	80.0	42	25 - 145
Terphenyl-d14	¹³	0.0309	mg/L	0.001	80.0	39	76 - 127

Sample: 6696 - MW-16

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 1409	Date Analyzed: 2003-05-05	Analyzed By: DK
Prep Batch: 1260	Date Prepared: 2003-05-05	Prepared By: DK

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100

continued ...

¹³Sample surrogate recovery out of limits due to sample matrix.

sample 6696 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0908	mg/L	1	0.100	91	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.083	mg/L	1	0.100	83	77.8 - 110

Sample: 6696 - MW-16

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 1515	Date Analyzed: 2003-05-08	Analyzed By: RC
Prep Batch: 1262	Date Prepared: 2003-05-06	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	¹⁴	0.0153	mg/L	0.001	80.0	19	21 - 145
2-Fluorobiphenyl		0.0199	mg/L	0.001	80.0	25	25 - 145
Terphenyl-d14	¹⁵	0.0275	mg/L	0.001	80.0	34	76 - 127

Sample: 6697 - MW-17

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 1409	Date Analyzed: 2003-05-05	Analyzed By: DK
Prep Batch: 1260	Date Prepared: 2003-05-05	Prepared By: DK

¹⁴Sample surrogate recovery out of limits due to sample matrix.

¹⁵Sample surrogate recovery out of limits due to sample matrix.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00430	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)		0.0914	mg/L	1	0.100	91	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0861	mg/L	1	0.100	86	77.8 - 110

Sample: 6697 - MW-17

Analysis: PAH
QC Batch: 1515
Prep Batch: 1262

Analytical Method: S 8270C
Date Analyzed: 2003-05-08
Date Prepared: 2003-05-06

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.031	mg/L	0.001	80.0	39	21 - 145
2-Fluorobiphenyl		0.046	mg/L	0.001	80.0	58	25 - 145
Terphenyl-d14	¹⁶	0.0453	mg/L	0.001	80.0	57	76 - 127

Sample: 6698 - MW-18

Analysis: BTEX
QC Batch: 1409
Prep Batch: 1260

Analytical Method: S 8021B
Date Analyzed: 2003-05-05
Date Prepared: 2003-05-05

Prep Method: S 5030B
Analyzed By: DK
Prepared By: DK

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00500	mg/L	5	0.00100

continued ...

¹⁶Sample surrogate recovery out of limits due to sample matrix.

sample 6698 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.404	mg/L	5	0.100	81	78.7 - 110
4-Bromofluorobenzene (4-BFB)	17	0.377	mg/L	5	0.100	75	77.8 - 110

Sample: 6698 - MW-18

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 1515	Date Analyzed: 2003-05-08	Analyzed By: RC
Prep Batch: 1262	Date Prepared: 2003-05-06	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.023	mg/L	0.001	80.0	29	21 - 145
2-Fluorobiphenyl		0.0323	mg/L	0.001	80.0	40	25 - 145
Terphenyl-d14	18	0.0355	mg/L	0.001	80.0	44	76 - 127

Sample: 6699 - MW-20

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 1409	Date Analyzed: 2003-05-05	Analyzed By: DK
Prep Batch: 1260	Date Prepared: 2003-05-05	Prepared By: DK

¹⁷Low BFB surrogate recovery due to matrix interference.

¹⁸Sample surrogate recovery out of limits due to sample matrix.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00110	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)		0.0895	mg/L	1	0.100	90	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0826	mg/L	1	0.100	83	77.8 - 110

Sample: 6699 - MW-20

Analysis: PAH
QC Batch: 1515
Prep Batch: 1262

Analytical Method: S 8270C
Date Analyzed: 2003-05-08
Date Prepared: 2003-05-06

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0258	mg/L	0.001	80.0	32	21 - 145
2-Fluorobiphenyl		0.0373	mg/L	0.001	80.0	47	25 - 145
Terphenyl-d14	¹⁹	0.0353	mg/L	0.001	80.0	44	76 - 127

Sample: 6700 - MW-21

Analysis: BTEX
QC Batch: 1409
Prep Batch: 1260

Analytical Method: S 8021B
Date Analyzed: 2003-05-05
Date Prepared: 2003-05-05

Prep Method: S 5030B
Analyzed By: DK
Prepared By: DK

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100

continued ...

¹⁹Sample surrogate recovery out of limits due to sample matrix.

sample 6700 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		0.00190	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	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0785	mg/L	1	0.100	78	77.8 - 110

Sample: 6700 - MW-21

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 1515	Date Analyzed: 2003-05-08	Analyzed By: RC
Prep Batch: 1262	Date Prepared: 2003-05-06	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0229	mg/L	0.001	80.0	29	21 - 145
2-Fluorobiphenyl		0.0342	mg/L	0.001	80.0	43	25 - 145
Terphenyl-d14	²⁰	0.0375	mg/L	0.001	80.0	47	76 - 127

Sample: 6701 - MW-22

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 1409	Date Analyzed: 2003-05-05	Analyzed By: DK
Prep Batch: 1260	Date Prepared: 2003-05-05	Prepared By: DK

continued ...

²⁰Sample surrogate recovery out of limits due to sample matrix.

sample 6701 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0355	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)	²¹	0.0781	mg/L	1	0.100	78	78.7 - 110
4-Bromofluorobenzene (4-BFB)	²²	0.077	mg/L	1	0.100	77	77.8 - 110

Sample: 6701 - MW-22

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 1515	Date Analyzed: 2003-05-08	Analyzed By: RC
Prep Batch: 1262	Date Prepared: 2003-05-06	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.018	mg/L	0.001	80.0	22	21 - 145
2-Fluorobiphenyl		0.0246	mg/L	0.001	80.0	31	25 - 145
Terphenyl-d14	²³	0.031	mg/L	0.001	80.0	39	76 - 127

Sample: 6702 - MW-23

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
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²¹Low surrogate recovery due to prep. ICV, CCV show the method to be in control.

²²Low surrogate recovery due to prep. ICV, CCV show the method to be in control.

²³Sample surrogate recovery out of limits due to sample matrix.

QC Batch: 1409
Prep Batch: 1260

Date Analyzed: 2003-05-05
Date Prepared: 2003-05-05

Analyzed By: DK
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)		0.079	mg/L	1	0.100	79	78.7 - 110
4-Bromofluorobenzene (4-BFB)	24	0.0752	mg/L	1	0.100	75	77.8 - 110

Sample: 6702 - MW-23

Analysis: PAH
QC Batch: 1515
Prep Batch: 1262

Analytical Method: S 8270C
Date Analyzed: 2003-05-08
Date Prepared: 2003-05-06

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0489	mg/L	0.001	80.0	61	21 - 145
2-Fluorobiphenyl		0.0721	mg/L	0.001	80.0	90	25 - 145
Terphenyl-d14		0.072	mg/L	0.001	80.0	90	76 - 127

Method Blank (1) QC Batch: 1409

Parameter	Flag	Result	Units	MDL
Benzene		<0.000410	mg/L	0.00041
Toluene		<0.000760	mg/L	0.00076

continued ...

²⁴Low BFB surrogate recovery due to matrix interference.

method blank continued ...

Parameter	Flag	Result	Units	MDL
Ethylbenzene		<0.00120	mg/L	0.0012
Xylene (isomers)		<0.00183	mg/L	0.00183

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0997	mg/L	1	0.100	100	78.7 - 110
4-Bromofluorobenzene (4-BFB)		0.0949	mg/L	1	0.100	95	77.8 - 110

Method Blank (1) QC Batch: 1431

Parameter	Flag	Result	Units	MDL
Benzene		<0.000350	mg/L	0.00035
Toluene		<0.000550	mg/L	0.00055
Ethylbenzene		<0.000690	mg/L	0.00069
Xylene (isomers)		<0.00183	mg/L	0.00183

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	²⁵	0.0399	mg/L	1	0.100	40	61 - 127
4-Bromofluorobenzene (4-BFB)	²⁶	0.0267	mg/L	1	0.100	27	72.6 - 130

Method Blank (1) QC Batch: 1515

Parameter	Flag	Result	Units	MDL
Naphthalene		<0.0000445	mg/L	0.0445
Acenaphthylene		<0.0000383	mg/L	0.0383
Acenaphthene		<0.0000421	mg/L	0.0421
Fluorene		<0.0000655	mg/L	0.0655
Phenanthrene		<0.0000383	mg/L	0.0383
Anthracene		<0.0000468	mg/L	0.0468
Fluoranthene		<0.0000550	mg/L	0.055
Pyrene		<0.0000904	mg/L	0.0904
Benzo(a)anthracene		<0.0000993	mg/L	0.0993
Chrysene		<0.000121	mg/L	0.1207
Benzo(b)fluoranthene		<0.000171	mg/L	0.1707
Benzo(k)fluoranthene		<0.0000951	mg/L	0.0951
Benzo(a)pyrene		<0.000135	mg/L	0.1351
Indeno(1,2,3-cd)pyrene		<0.000176	mg/L	0.1764
Dibenzo(a,h)anthracene		<0.000184	mg/L	0.1843
Benzo(g,h,i)perylene		<0.000134	mg/L	0.1343

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0331	mg/L	0.001	80.0	41	21 - 145
2-Fluorobiphenyl		0.0534	mg/L	0.001	80.0	67	25 - 145

continued ...

²⁵Low surrogate recovery due to prep. ICV, CCV show the method to be in control.

²⁶Low surrogate recovery due to prep. ICV, CCV show the method to be in control.

method blank continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Terphenyl-d14	²⁷	0.0544	mg/L	0.001	80.0	68	76 - 127

Laboratory Control Spike (LCS-1) QC Batch: 1409

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.101	0.101	mg/L	1	0.100	<0.000410	101	0	80.5 - 113	20
Toluene	0.100	0.100	mg/L	1	0.100	<0.000760	100	0	81.2 - 112	20
Ethylbenzene	0.0996	0.100	mg/L	1	0.100	<0.00120	100	1	82.2 - 112	20
Xylene (isomers)	0.301	0.304	mg/L	1	0.300	<0.00183	100	1	80.6 - 112	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)	0.0958	0.0950	mg/L	1	0.100	96	95	78.7 - 110
4-Bromofluorobenzene (4-BFB)	0.0992	0.0980	mg/L	1	0.100	99	98	77.8 - 110

Laboratory Control Spike (LCS-1) QC Batch: 1431

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.110	0.109	mg/L	1	0.100	<0.000350	110	1	77.7 - 115	20
Toluene	0.108	0.107	mg/L	1	0.100	<0.000550	108	1	76.5 - 114	20
Ethylbenzene	0.104	0.102	mg/L	1	0.100	<0.000690	104	2	78.7 - 112	20
Xylene (isomers)	0.308	0.302	mg/L	1	0.300	<0.00183	102	2	66.3 - 123	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)	0.0895	0.0876	mg/L	1	0.100	90	88	61 - 127
4-Bromofluorobenzene (4-BFB)	0.0897	0.0870	mg/L	1	0.100	90	87	72.6 - 130

Laboratory Control Spike (LCS-1) QC Batch: 1515

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Naphthalene	54.6	55.0	mg/L	1	80.0	<0.0445	68	1	21.4 - 134	20
Acenaphthylene	67.5	67.2	mg/L	1	80.0	<0.0383	84	0	42.1 - 135	20
Acenaphthene	66.9	66.1	mg/L	1	80.0	<0.0421	84	1	41 - 133	20
Fluorene	68.0	67.7	mg/L	1	80.0	<0.0655	85	0	49.3 - 133	20
Phenanthrene	70.2	70.8	mg/L	1	80.0	<0.0383	88	1	54.4 - 135	20
Anthracene	70.3	71.2	mg/L	1	80.0	<0.0468	88	1	42.2 - 130	20
Fluoranthene	75.6	76.0	mg/L	1	80.0	<0.0550	94	0	44.4 - 146	20
Pyrene	70.2	69.6	mg/L	1	80.0	<0.0904	88	1	52.8 - 137	20
Benzo(a)anthracene	73.2	72.1	mg/L	1	80.0	<0.0993	92	2	59 - 134	20

continued ...

²⁷Surrogate is out of control limits. Other surrogate recoveries show that extraction occurred properly.

control spikes continued ...

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chrysene	28 99.7	99.8	mg/L	1	80.0	<0.121	125	0	49.6 - 107	20
Benzo(b)fluoranthene	66.2	65.7	mg/L	1	80.0	<0.171	83	1	43.2 - 134	20
Benzo(k)fluoranthene	63.3	61.0	mg/L	1	80.0	<0.0951	79	4	55.2 - 145	20
Benzo(a)pyrene	72.6	72.5	mg/L	1	80.0	<0.135	91	0	63.9 - 138	20
Indeno(1,2,3-cd)pyrene	75.6	75.1	mg/L	1	80.0	<0.176	94	1	64.6 - 145	20
Dibenzo(a,h)anthracene	83.7	82.6	mg/L	1	80.0	<0.184	105	1	48.6 - 112	20
Benzo(g,h,i)perylene	73.9	72.8	mg/L	1	80.0	<0.134	92	1	71.5 - 146	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
Nitrobenzene-d5	41.1	40.6	mg/L	1	80.0	51	51	20 - 146
2-Fluorobiphenyl	68.6	67.9	mg/L	1	80.0	86	85	25.3 - 146
Terphenyl-d14	71.2	70.7	mg/L	1	80.0	89	88	76 - 127

Standard (ICV-1) QC Batch: 1409

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	2003-05-05
Toluene		mg/L	0.100	0.0985	98	85 - 115	2003-05-05
Ethylbenzene		mg/L	0.100	0.0986	99	85 - 115	2003-05-05
Xylene (isomers)		mg/L	0.300	0.297	99	85 - 115	2003-05-05

Standard (CCV-1) QC Batch: 1409

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	2003-05-05
Toluene		mg/L	0.100	0.101	101	85 - 115	2003-05-05
Ethylbenzene		mg/L	0.100	0.100	100	85 - 115	2003-05-05
Xylene (isomers)		mg/L	0.300	0.303	101	85 - 115	2003-05-05

Standard (CCV-2) QC Batch: 1409

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	2003-05-05
Toluene		mg/L	0.100	0.101	101	85 - 115	2003-05-05
Ethylbenzene		mg/L	0.100	0.101	101	85 - 115	2003-05-05
Xylene (isomers)		mg/L	0.300	0.305	102	85 - 115	2003-05-05

Standard (CCV-1) QC Batch: 1431

²⁸Spike above percent recovery limits. Spike amount bias high. Sample is non detect.

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	2003-05-05
Toluene		mg/L	0.100	0.105	105	85 - 115	2003-05-05
Ethylbenzene		mg/L	0.100	0.101	101	85 - 115	2003-05-05
Xylene (isomers)		mg/L	0.300	0.298	99	85 - 115	2003-05-05

Standard (CCV-2) QC Batch: 1431

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.108	108	85 - 115	2003-05-05
Toluene		mg/L	0.100	0.106	106	85 - 115	2003-05-05
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2003-05-05
Xylene (isomers)		mg/L	0.300	0.303	101	85 - 115	2003-05-05

Standard (CCV-1) QC Batch: 1515

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	63.9	106	80 - 120	2003-05-08
Acenaphthylene		mg/L	60.0	64.0	106	80 - 120	2003-05-08
Acenaphthene		mg/L	60.0	63.0	105	80 - 120	2003-05-08
Fluorene		mg/L	60.0	63.3	106	80 - 120	2003-05-08
Phenanthrene		mg/L	60.0	63.3	105	80 - 120	2003-05-08
Anthracene		mg/L	60.0	65.0	108	80 - 120	2003-05-08
Fluoranthene		mg/L	60.0	66.1	110	80 - 120	2003-05-08
Pyrene		mg/L	60.0	61.2	102	80 - 120	2003-05-08
Benzo(a)anthracene		mg/L	60.0	63.5	106	80 - 120	2003-05-08
Chrysene		mg/L	60.0	61.4	102	80 - 120	2003-05-08
Benzo(b)fluoranthene		mg/L	60.0	63.9	106	80 - 120	2003-05-08
Benzo(k)fluoranthene		mg/L	60.0	63.0	105	80 - 120	2003-05-08
Benzo(a)pyrene		mg/L	60.0	66.0	110	80 - 120	2003-05-08
Indeno(1,2,3-cd)pyrene		mg/L	60.0	64.5	107	80 - 120	2003-05-08
Dibenzo(a,h)anthracene		mg/L	60.0	65.7	109	80 - 120	2003-05-08
Benzo(g,h,i)perylene		mg/L	60.0	61.8	103	80 - 120	2003-05-08

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		51.5	mg/L	1	60.0	86	80 - 120
2-Fluorobiphenyl		70.1	mg/L	1	60.0	117	80 - 120
Terphenyl-d14		66.3	mg/L	1	60.0	110	80 - 120

Standard (CCV-2) QC Batch: 1515

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	64.3	107	80 - 120	2003-05-08
Acenaphthylene		mg/L	60.0	63.4	106	80 - 120	2003-05-08
Acenaphthene		mg/L	60.0	62.9	105	80 - 120	2003-05-08

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluorene		mg/L	60.0	65.7	109	80 - 120	2003-05-08
Phenanthrene		mg/L	60.0	63.2	105	80 - 120	2003-05-08
Anthracene		mg/L	60.0	62.6	104	80 - 120	2003-05-08
Fluoranthene		mg/L	60.0	65.9	110	80 - 120	2003-05-08
Pyrene		mg/L	60.0	60.8	101	80 - 120	2003-05-08
Benzo(a)anthracene		mg/L	60.0	64.0	107	80 - 120	2003-05-08
Chrysene		mg/L	60.0	61.5	102	80 - 120	2003-05-08
Benzo(b)fluoranthene		mg/L	60.0	67.6	113	80 - 120	2003-05-08
Benzo(k)fluoranthene		mg/L	60.0	60.5	101	80 - 120	2003-05-08
Benzo(a)pyrene		mg/L	60.0	65.6	109	80 - 120	2003-05-08
Indeno(1,2,3-cd)pyrene		mg/L	60.0	63.0	105	80 - 120	2003-05-08
Dibenzo(a,h)anthracene		mg/L	60.0	64.3	107	80 - 120	2003-05-08
Benzo(g,h,i)perylene		mg/L	60.0	59.4	99	80 - 120	2003-05-08

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		52.8	mg/L	1	60.0	88	80 - 120
2-Fluorobiphenyl		71.6	mg/L	1	60.0	119	80 - 120
Terphenyl-d14		66	mg/L	1	60.0	110	80 - 120

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 3073016

Company Name:

Environ Services Inc
(Street, City, Zip)

Phone #: 432-570-8726
Fax #: 432-684-7587

Address:

306 West Wall Santa Rita Blvd, Midland, TX 79701

Contact Person:

Jeffrey Kindley

Invoice to:
(If different from above)

Scott Burkeley / Shell Oil Products

Project #:

EQ-112 Incident # 300109

Project Name:

Burien Ranch

Project Location:

Monument, Lea Co., New Mexico

Sampler Signature:

Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	TIME
14183	MW-1	3	40ml	✓				✓				✓	7/28/13 12:00
84	MW-3	3	40ml	✓				✓				✓	7/28/13 14:00
85	MW-4	3	40ml	✓				✓				✓	7/28/13 13:00
86	MW-5	3	40ml	✓				✓				✓	7/28/13 13:00
87	MW-6	3	40ml	✓				✓				✓	7/28/13 14:00
88	MW-8	3	40ml	✓				✓				✓	7/28/13 13:45
89	MW-9	3	40ml	✓				✓				✓	7/28/13 16:15
90	MW-11	3	40ml	✓				✓				✓	7/28/13 14:30
91	MW-12	3	40ml	✓				✓				✓	7/28/13 13:45
92	MW-14	3	40ml	✓				✓				✓	7/28/13 14:45
93	MW-15	3	40ml	✓				✓				✓	7/28/13 12:15

Relinquished by: Jeffrey Kindley	Date: 07/29/13	Time: 0900	Received by: Ellen Shelton	Date: 7/29/13	Time: 0900
Relinquished by: Jeffrey Kindley	Date: 7/29/13	Time: 1730	Received by: Ellen Shelton	Date: 7/29/13	Time: 1730
Relinquished by: Ellen Shelton	Date: 7/29/13	Time: 1730	Received by: Ellen Shelton	Date: 7/29/13	Time: 1730

Remarks: Normal

LAB USE ONLY

Intact ☒ N

Headspace ☒ Y / ☒ N

Temp 21°C

Log-in Review ☒

Carrier # 3073016

Check If Special Reporting Limits Are Needed ☐

Report Date: August 12, 2003
EQ-112

Work Order: 3073016
Barker Ranch

Page Number: 1 of 9
Monument Lea County, New Mexico

Summary Report

Shell Oil Products-Scott Burkey
2109 Luna Road
Suite 240
Carrollton, TX 75006

Report Date: August 12, 2003

Work Order: 3073016

Incident #: 300109
Project Location: Monument Lea County, New Mexico
Project Name: Barker Ranch
Project Number: EQ-112

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
14183	MW-1	water	2003-07-28	12:40	2003-07-30
14184	MW-3	water	2003-07-28	14:00	2003-07-30
14185	MW-4	water	2003-07-28	13:00	2003-07-30
14186	MW-5	water	2003-07-28	13:20	2003-07-30
14187	MW-6	water	2003-07-28	14:45	2003-07-30
14188	MW-8	water	2003-07-28	15:45	2003-07-30
14189	MW-9	water	2003-07-28	16:15	2003-07-30
14190	MW-11	water	2003-07-28	14:30	2003-07-30
14191	MW-12	water	2003-07-28	13:45	2003-07-30
14192	MW-14	water	2003-07-28	11:45	2003-07-30
14193	MW-15	water	2003-07-28	12:15	2003-07-30
14194	MW-16	water	2003-07-28	16:00	2003-07-30
14195	MW-17	water	2003-07-28	15:30	2003-07-30
14196	MW-18	water	2003-07-28	15:00	2003-07-30
14197	MW-20	water	2003-07-28	16:45	2003-07-30
14198	MW-21	water	2003-07-28	17:00	2003-07-30
14199	MW-22	water	2003-07-28	17:30	2003-07-30
14200	MW-23	water	2003-07-28	11:30	2003-07-30

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (isomers) (mg/L)
14183 - MW-1	0.00250	<0.00100	<0.00100	<0.00100
14184 - MW-3	<0.00100	<0.00100	<0.00100	<0.00100
14185 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100
14186 - MW-5	0.0109	<0.0100	<0.0100	<0.0100
14187 - MW-6	0.0250	<0.00500	<0.00500	<0.00500
14188 - MW-8	<0.00100	<0.00100	<0.00100	<0.00100
14189 - MW-9	<0.0100	<0.0100	<0.0100	<0.0100
14190 - MW-11	<0.00100	<0.00100	<0.00100	<0.00100
14191 - MW-12	0.00350	<0.00100	<0.00100	<0.00100
14192 - MW-14	<0.00100	<0.00100	<0.00100	<0.00100
14193 - MW-15	0.0106	<0.00100	<0.00100	<0.00100
14194 - MW-16	<0.00100	<0.00100	<0.00100	<0.00100
14195 - MW-17	0.00230	<0.00100	<0.00100	<0.00100

continued ...

... continued

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (isomers) (mg/L)
14196 - MW-18	<0.00500	<0.00500	<0.00500	<0.00500
14197 - MW-20	<0.00100	<0.00100	<0.00100	<0.00100
14198 - MW-21	<0.00100	<0.00100	<0.00100	<0.00100
14199 - MW-22	<0.0200	<0.0200	<0.0200	<0.0200
14200 - MW-23	<0.00500	<0.00500	<0.00500	<0.00500

Sample: 14183 - MW-1

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14184 - MW-3

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14185 - MW-4

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14186 - MW-5

Param	Flag	Result	Units	RL
Naphthalene		0.00474	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14187 - MW-6

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200

continued ...

sample 14187 continued ...

Param	Flag	Result	Units	RL
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14188 - MW-8

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14189 - MW-9

Param	Flag	Result	Units	RL
Naphthalene		0.000580	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14190 - MW-11

continued ...

sample 14190 continued ...

Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14191 - MW-12

Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14192 - MW-14

Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200

continued ...

sample 14192 continued ...

Param	Flag	Result	Units	RL
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14193 - MW-15

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14194 - MW-16

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14195 - MW-17

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14196 - MW-18

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14197 - MW-20

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200

continued ...

sample 14197 continued ...

Param	Flag	Result	Units	RL
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14198 - MW-21

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14199 - MW-22

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 14200 - MW-23

Report Date: August 12, 2003
EQ-112

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Barker Ranch

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Monument Lea County, New Mexico

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

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Analytical and Quality Control Report

Scott Burkey
Shell Oil Products-Scott Burkey
2109 Luna Road
Suite 240
Carrollton, TX 75006

Report Date: August 12, 2003

Work Order: 3073016

Incidnet #: 300109
Project Location: Monument Lea County, New Mexico
Project Name: Barker Ranch
Project Number: EQ-112

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
14183	MW-1	water	2003-07-28	12:40	2003-07-30
14184	MW-3	water	2003-07-28	14:00	2003-07-30
14185	MW-4	water	2003-07-28	13:00	2003-07-30
14186	MW-5	water	2003-07-28	13:20	2003-07-30
14187	MW-6	water	2003-07-28	14:45	2003-07-30
14188	MW-8	water	2003-07-28	15:45	2003-07-30
14189	MW-9	water	2003-07-28	16:15	2003-07-30
14190	MW-11	water	2003-07-28	14:30	2003-07-30
14191	MW-12	water	2003-07-28	13:45	2003-07-30
14192	MW-14	water	2003-07-28	11:45	2003-07-30
14193	MW-15	water	2003-07-28	12:15	2003-07-30
14194	MW-16	water	2003-07-28	16:00	2003-07-30
14195	MW-17	water	2003-07-28	15:30	2003-07-30
14196	MW-18	water	2003-07-28	15:00	2003-07-30
14197	MW-20	water	2003-07-28	16:45	2003-07-30
14198	MW-21	water	2003-07-28	17:00	2003-07-30
14199	MW-22	water	2003-07-28	17:30	2003-07-30
14200	MW-23	water	2003-07-28	11:30	2003-07-30

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.

This report consists of a total of 25 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

Analytical Report

Sample: 14183 - MW-1

Analysis: BTEX
QC Batch: 3400
Prep Batch: 3056

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00250	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)	1	0.0452	mg/L	1	0.100	45	70 - 130
4-Bromofluorobenzene (4-BFB)	2	0.0250	mg/L	1	0.100	25	70 - 130

Sample: 14183 - MW-1

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0525	mg/L	0.001	80.0	66	21 - 145
2-Fluorobiphenyl		0.0597	mg/L	0.001	80.0	75	25 - 145
Terphenyl-d14		0.0558	mg/L	0.001	80.0	70	26 - 127

¹Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

²Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

Analysis: BTEX
QC Batch: 3400
Prep Batch: 3056

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

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)	5	0.0613	mg/L	1	0.100	61	70 - 130
4-Bromofluorobenzene (4-BFB)	6	0.0349	mg/L	1	0.100	35	70 - 130

Sample: 14185 - MW-4

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0483	mg/L	0.001	80.0	60	21 - 145
2-Fluorobiphenyl		0.0576	mg/L	0.001	80.0	72	25 - 145
Terphenyl-d14		0.0570	mg/L	0.001	80.0	71	26 - 127

Sample: 14186 - MW-5

Analysis: BTEX

Analytical Method: S 8021B

Prep Method: S 5030B

⁵Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

⁶Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

Report Date: August 12, 2003
EQ-112

Work Order: 3073016
Barker Ranch

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Monument Lea County, New Mexico

QC Batch: 3400
Prep Batch: 3056

Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0109	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)	7	0.595	mg/L	10	0.100	60	70 - 130
4-Bromofluorobenzene (4-BFB)	8	0.364	mg/L	10	0.100	36	70 - 130

Sample: 14186 - MW-5

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.00474	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0453	mg/L	0.001	80.0	57	21 - 145
2-Fluorobiphenyl		0.0505	mg/L	0.001	80.0	63	25 - 145
Terphenyl-d14		0.0463	mg/L	0.001	80.0	58	26 - 127

Sample: 14187 - MW-6

Analysis: BTEX
QC Batch: 3400

Analytical Method: S 8021B
Date Analyzed: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS

⁷Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

⁸Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

Prep Batch: 3056

Date Prepared: 2003-07-31

Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0250	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)	9	0.305	mg/L	5	0.100	61	70 - 130
4-Bromofluorobenzene (4-BFB)	10	0.206	mg/L	5	0.100	41	70 - 130

Sample: 14187 - MW-6

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0553	mg/L	0.001	80.0	69	21 - 145
2-Fluorobiphenyl		0.0613	mg/L	0.001	80.0	77	25 - 145
Terphenyl-d14		0.0590	mg/L	0.001	80.0	74	26 - 127

Sample: 14188 - MW-8

Analysis: BTEX
QC Batch: 3400
Prep Batch: 3056

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

⁹Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

¹⁰Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

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)	¹¹	0.0650	mg/L	1	0.100	65	70 - 130
4-Bromofluorobenzene (4-BFB)	¹²	0.0345	mg/L	1	0.100	34	70 - 130

Sample: 14188 - MW-8

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0504	mg/L	0.001	80.0	63	21 - 145
2-Fluorobiphenyl		0.0566	mg/L	0.001	80.0	71	25 - 145
Terphenyl-d14		0.0533	mg/L	0.001	80.0	67	26 - 127

Sample: 14189 - MW-9

Analysis: BTEX
QC Batch: 3400
Prep Batch: 3056

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

¹¹Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

¹²Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	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)	¹³	0.631	mg/L	10	0.100	63	70 - 130
4-Bromofluorobenzene (4-BFB)	¹⁴	0.350	mg/L	10	0.100	35	70 - 130

Sample: 14189 - MW-9

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.000580	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0620	mg/L	0.001	80.0	78	21 - 145
2-Fluorobiphenyl		0.0628	mg/L	0.001	80.0	78	25 - 145
Terphenyl-d14		0.0561	mg/L	0.001	80.0	70	26 - 127

Sample: 14190 - MW-11

Analysis: BTEX
QC Batch: 3400
Prep Batch: 3056

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

¹³Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

¹⁴Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

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)	¹⁵	0.0616	mg/L	1	0.100	62	70 - 130
4-Bromofluorobenzene (4-BFB)	¹⁶	0.0310	mg/L	1	0.100	31	70 - 130

Sample: 14190 - MW-11

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 3622	Date Analyzed: 2003-08-06	Analyzed By: RC
Prep Batch: 3032	Date Prepared: 2003-07-30	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0586	mg/L	0.001	80.0	73	21 - 145
2-Fluorobiphenyl		0.0656	mg/L	0.001	80.0	82	25 - 145
Terphenyl-d14		0.0590	mg/L	0.001	80.0	74	26 - 127

Sample: 14191 - MW-12

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 3407	Date Analyzed: 2003-07-31	Analyzed By: BS
Prep Batch: 3063	Date Prepared: 2003-07-31	Prepared By: BS

¹⁵Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

¹⁶Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00350	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)		0.101	mg/L	1	0.100	101	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0890	mg/L	1	0.100	89	72.6 - 130

Sample: 14191 - MW-12

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0394	mg/L	0.001	80.0	49	21 - 145
2-Fluorobiphenyl		0.0416	mg/L	0.001	80.0	52	25 - 145
Terphenyl-d14		0.0480	mg/L	0.001	80.0	60	26 - 127

Sample: 14192 - MW-14

Analysis: BTEX
QC Batch: 3407
Prep Batch: 3063

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100

continued ...

sample 14192 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0949	mg/L	1	0.100	95	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0839	mg/L	1	0.100	84	72.6 - 130

Sample: 14192 - MW-14

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0527	mg/L	0.001	80.0	66	21 - 145
2-Fluorobiphenyl		0.0580	mg/L	0.001	80.0	72	25 - 145
Terphenyl-d14		0.0565	mg/L	0.001	80.0	71	26 - 127

Sample: 14193 - MW-15

Analysis: BTEX
QC Batch: 3407
Prep Batch: 3063

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

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sample 14193 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0106	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)		0.0958	mg/L	1	0.100	96	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0880	mg/L	1	0.100	88	72.6 - 130

Sample: 14193 - MW-15

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0514	mg/L	0.001	80.0	64	21 - 145
2-Fluorobiphenyl		0.0564	mg/L	0.001	80.0	70	25 - 145
Terphenyl-d14		0.0493	mg/L	0.001	80.0	62	26 - 127

Sample: 14194 - MW-16

Analysis: BTEX
QC Batch: 3407
Prep Batch: 3063

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

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)		0.0972	mg/L	1	0.100	97	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0873	mg/L	1	0.100	87	72.6 - 130

Sample: 14194 - MW-16

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0551	mg/L	0.001	80.0	69	21 - 145
2-Fluorobiphenyl		0.0594	mg/L	0.001	80.0	74	25 - 145
Terphenyl-d14		0.0590	mg/L	0.001	80.0	74	26 - 127

Sample: 14195 - MW-17

Analysis: BTEX
QC Batch: 3407
Prep Batch: 3063

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00230	mg/L	1	0.00100

continued ...

sample 14195 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0991	mg/L	1	0.100	99	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0889	mg/L	1	0.100	89	72.6 - 130

Sample: 14195 - MW-17

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0492	mg/L	0.001	80.0	62	21 - 145
2-Fluorobiphenyl		0.0532	mg/L	0.001	80.0	66	25 - 145
Terphenyl-d14		0.0484	mg/L	0.001	80.0	60	26 - 127

Sample: 14196 - MW-18

Analysis: BTEX
QC Batch: 3407
Prep Batch: 3063

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

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sample 14196 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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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)		0.461	mg/L	5	0.100	92	61 - 127
4-Bromofluorobenzene (4-BFB)		0.402	mg/L	5	0.100	80	72.6 - 130

Sample: 14196 - MW-18

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0505	mg/L	0.001	80.0	63	21 - 145
2-Fluorobiphenyl		0.0552	mg/L	0.001	80.0	69	25 - 145
Terphenyl-d14		0.0516	mg/L	0.001	80.0	64	26 - 127

Sample: 14197 - MW-20

Analysis: BTEX
QC Batch: 3407
Prep Batch: 3063

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

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)		0.0931	mg/L	1	0.100	93	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0780	mg/L	1	0.100	78	72.6 - 130

Sample: 14197 - MW-20

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0192	mg/L	0.001	80.0	24	21 - 145
2-Fluorobiphenyl		0.0281	mg/L	0.001	80.0	35	25 - 145
Terphenyl-d14		0.0314	mg/L	0.001	80.0	39	26 - 127

Sample: 14198 - MW-21

Analysis: BTEX
QC Batch: 3407
Prep Batch: 3063

Analytical Method: S 8021B
Date Analyzed: 2003-07-31
Date Prepared: 2003-07-31

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100

continued ...

sample 14198 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0909	mg/L	1	0.100	91	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0794	mg/L	1	0.100	79	72.6 - 130

Sample: 14198 - MW-21

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	¹⁷	0.0118	mg/L	0.001	80.0	15	21 - 145
2-Fluorobiphenyl	¹⁸	0.0187	mg/L	0.001	80.0	23	25 - 145
Terphenyl-d14		0.0472	mg/L	0.001	80.0	59	26 - 127

Sample: 14199 - MW-22

Analysis: BTEX
QC Batch: 3475
Prep Batch: 3121

Analytical Method: S 8021B
Date Analyzed: 2003-08-04
Date Prepared: 2003-08-04

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

¹⁷Sample surrogate recovery out of limits due to sample matrix.

¹⁸Sample surrogate recovery out of limits due to sample matrix.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/L	20	0.00100
Toluene		<0.0200	mg/L	20	0.00100
Ethylbenzene		<0.0200	mg/L	20	0.00100
Xylene (isomers)		<0.0200	mg/L	20	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/L	20	0.100	97	61 - 127
4-Bromofluorobenzene (4-BFB)		1.81	mg/L	20	0.100	90	72.6 - 130

Sample: 14199 - MW-22

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 3622	Date Analyzed: 2003-08-06	Analyzed By: RC
Prep Batch: 3032	Date Prepared: 2003-07-30	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0311	mg/L	0.001	80.0	39	21 - 145
2-Fluorobiphenyl		0.0335	mg/L	0.001	80.0	42	25 - 145
Terphenyl-d14		0.0565	mg/L	0.001	80.0	71	26 - 127

Sample: 14200 - MW-23

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 3475	Date Analyzed: 2003-08-04	Analyzed By: BS
Prep Batch: 3121	Date Prepared: 2003-08-04	Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00500	mg/L	5	0.00100

continued ...

sample 14200 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.574	mg/L	5	0.100	115	61 - 127
4-Bromofluorobenzene (4-BFB)		0.500	mg/L	5	0.100	100	72.6 - 130

Sample: 14200 - MW-23

Analysis: PAH
QC Batch: 3622
Prep Batch: 3032

Analytical Method: S 8270C
Date Analyzed: 2003-08-06
Date Prepared: 2003-07-30

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0593	mg/L	0.001	80.0	74	21 - 145
2-Fluorobiphenyl		0.0651	mg/L	0.001	80.0	81	25 - 145
Terphenyl-d14		0.0610	mg/L	0.001	80.0	76	26 - 127

Method Blank (1) QC Batch: 3400

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)	¹⁹	0.0690	mg/L	1	0.100	69	70 - 130
4-Bromofluorobenzene (4-BFB)	²⁰	0.0485	mg/L	1	0.100	48	70 - 130

Method Blank (1) QC Batch: 3407

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)		0.0889	mg/L	1	0.100	89	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0778	mg/L	1	0.100	78	72.6 - 130

Method Blank (1) QC Batch: 3475

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)		0.109	mg/L	1	0.100	109	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0977	mg/L	1	0.100	98	72.6 - 130

Method Blank (1) QC Batch: 3622

Parameter	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.2
Acenaphthylene		<0.000200	mg/L	0.2
Acenaphthene		<0.000200	mg/L	0.2
Fluorene		<0.000200	mg/L	0.2
Phenanthrene		<0.000200	mg/L	0.2
Anthracene		<0.000200	mg/L	0.2
Fluoranthene		<0.000200	mg/L	0.2
Pyrene		<0.000200	mg/L	0.2
Benzo(a)anthracene		<0.000200	mg/L	0.2
Chrysene		<0.000200	mg/L	0.2
Benzo(b)fluoranthene		<0.000200	mg/L	0.2

continued ...

¹⁹Low surrogate recovery due to prep. ICV/CCV show the method to be in control.

²⁰Low surrogate recovery due to prep. ICV/CCV show the method to be in control.

method blank continued ...

Parameter	Flag	Result	Units	RL
Benzo(k)fluoranthene		<0.000200	mg/L	0.2
Benzo(a)pyrene		<0.000200	mg/L	0.2
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.2
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.2
Benzo(g,h,i)perylene		<0.000200	mg/L	0.2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0448	mg/L	0.001	80.0	56	21 - 145
2-Fluorobiphenyl		0.0556	mg/L	0.001	80.0	70	25 - 145
Terphenyl-d14		0.0699	mg/L	0.001	80.0	87	26 - 127

Laboratory Control Spike (LCS-1) QC Batch: 3400

Param		LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	²¹ 22	0.0733	0.0709	mg/L	1	0.100	<0.000650	73	3	79.9 - 111	20
Benzene	²³ 24	0.0733	0.0709	mg/L	1	0.100	<0.000650	73	3	79.9 - 111	20
Toluene		0.0877	0.0852	mg/L	1	0.100	<0.00101	88	3	70.3 - 116	20
Toluene		0.0877	0.0852	mg/L	1	0.100	<0.00101	88	3	70.3 - 116	20
Ethylbenzene		0.0767	0.0750	mg/L	1	0.100	<0.000840	77	2	72.1 - 117	20
Ethylbenzene		0.0767	0.0750	mg/L	1	0.100	<0.000840	77	2	72.1 - 117	20
Xylene (isomers)		0.242	0.237	mg/L	1	0.300	<0.000737	81	2	71.2 - 117	20
Xylene (isomers)		0.242	0.237	mg/L	1	0.300	<0.000737	81	2	71.2 - 117	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)		0.0768	0.0746	mg/L	1	0.100	77	75	72.7 - 119
Trifluorotoluene (TFT)		0.0768	0.0746	mg/L	1	0.100	77	75	72.7 - 119
4-Bromofluorobenzene (4-BFB)	²⁵ 26	0.0686	0.0689	mg/L	1	0.100	69	69	76.4 - 113
4-Bromofluorobenzene (4-BFB)	²⁷ 28	0.0686	0.0689	mg/L	1	0.100	69	69	76.4 - 113

Laboratory Control Spike (LCS-1) QC Batch: 3407

Param		LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene		0.0962	0.0979	mg/L	1	0.100	<0.000350	96	2	77.7 - 115	20
Toluene		0.0958	0.0982	mg/L	1	0.100	<0.000550	96	2	76.5 - 114	20
Ethylbenzene		0.0983	0.101	mg/L	1	0.100	<0.000690	98	2	78.7 - 112	20

continued ...

²¹Low analyte recovery due to prep. Other components show the method to be in control.

²²Low analyte recovery due to prep. Other components show the method to be in control.

²³Low analyte recovery due to prep. Other components show the method to be in control.

²⁴Low analyte recovery due to prep. Other components show the method to be in control.

²⁵Low analyte recovery due to prep. Other components show the method to be in control.

²⁶Low analyte recovery due to prep. Other components show the method to be in control.

²⁷Low analyte recovery due to prep. Other components show the method to be in control.

²⁸Low analyte recovery due to prep. Other components show the method to be in control.

control spikes continued . . .

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Xylene (isomers)	0.290	0.296	mg/L	1	0.300	<0.000610	97	2	66.3 - 123	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)	0.0869	0.0859	mg/L	1	0.100	87	86	61 - 127
4-Bromofluorobenzene (4-BFB)	0.0873	0.0872	mg/L	1	0.100	87	87	72.6 - 130

Laboratory Control Spike (LCS-1) QC Batch: 3475

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.111	0.109	mg/L	1	0.100	<0.000350	111	2	77.7 - 115	20
Benzene	0.111	0.109	mg/L	1	0.100	<0.000350	111	2	77.7 - 115	20
Toluene	0.111	0.109	mg/L	1	0.100	<0.000550	111	2	76.5 - 114	20
Toluene	0.111	0.109	mg/L	1	0.100	<0.000550	111	2	76.5 - 114	20
Ethylbenzene ²⁹	0.113	0.112	mg/L	1	0.100	<0.000690	113	1	78.7 - 112	20
Ethylbenzene ³⁰	0.113	0.112	mg/L	1	0.100	<0.000690	113	1	78.7 - 112	20
Xylene (isomers)	0.331	0.327	mg/L	1	0.300	<0.000610	110	1	66.3 - 123	20
Xylene (isomers)	0.331	0.327	mg/L	1	0.300	<0.000610	110	1	66.3 - 123	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)	0.106	0.104	mg/L	1	0.100	106	104	61 - 127
Trifluorotoluene (TFT)	0.106	0.104	mg/L	1	0.100	106	104	61 - 127
4-Bromofluorobenzene (4-BFB)	0.106	0.104	mg/L	1	0.100	106	104	72.6 - 130
4-Bromofluorobenzene (4-BFB)	0.106	0.104	mg/L	1	0.100	106	104	72.6 - 130

Laboratory Control Spike (LCS-1) QC Batch: 3622

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Naphthalene	70.9	71.6	mg/L	1	80.0	<0.0445	89	1	21.4 - 134	20
Acenaphthylene	78.3	78.8	mg/L	1	80.0	<0.0383	98	1	42.1 - 135	20
Acenaphthene	72.8	73.8	mg/L	1	80.0	<0.0421	91	1	41 - 133	20
Fluorene	72.8	72.2	mg/L	1	80.0	<0.0655	91	1	49.3 - 133	20
Phenanthrene	74.1	75.9	mg/L	1	80.0	<0.0383	93	2	54.4 - 135	20
Anthracene	74.6	75.2	mg/L	1	80.0	<0.0468	93	1	42.2 - 130	20
Fluoranthene	75.9	77.3	mg/L	1	80.0	<0.0550	95	2	44.4 - 146	20
Pyrene	81.7	81.6	mg/L	1	80.0	<0.0904	102	0	52.8 - 137	20
Benzo(a)anthracene	72.7	72.9	mg/L	1	80.0	<0.0993	91	0	59 - 134	20
Chrysene	78.3	77.7	mg/L	1	80.0	<0.121	98	1	49.6 - 107	20
Benzo(b)fluoranthene	69.4	70.5	mg/L	1	80.0	<0.171	87	2	43.2 - 134	20
Benzo(k)fluoranthene	80.3	79.0	mg/L	1	80.0	<0.0951	100	2	55.2 - 145	20
Benzo(a)pyrene	76.4	76.2	mg/L	1	80.0	<0.135	96	0	63.9 - 138	20

continued . . .

²⁹High analyte recovery due to prep. Other recoveries show the method to be in control.

³⁰High analyte recovery due to prep. Other recoveries show the method to be in control.

control spikes continued ...

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Indeno(1,2,3-cd)pyrene	77.7	78.5	mg/L	1	80.0	<0.176	97	1	64.6 - 145	20
Dibenzo(a,h)anthracene	83.1	82.4	mg/L	1	80.0	<0.184	104	1	48.6 - 142	20
Benzo(g,h,i)perylene	77.4	77.1	mg/L	1	80.0	<0.134	97	0	71.5 - 146	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
Nitrobenzene-d5	67.7	68.6	mg/L	1	80.0	85	86	20 - 146
2-Fluorobiphenyl	77.1	78.1	mg/L	1	80.0	96	98	25.3 - 146
Terphenyl-d14	72.2	72.0	mg/L	1	80.0	90	90	26 - 127

Standard (ICV-1) QC Batch: 3400

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	31	mg/L	0.100	0.0693	69	85 - 115	2003-07-31
Toluene		mg/L	0.100	0.0862	86	85 - 115	2003-07-31
Ethylbenzene	32	mg/L	0.100	0.0798	80	85 - 115	2003-07-31
Xylene (isomers)	33	mg/L	0.300	0.247	82	85 - 115	2003-07-31

Standard (CCV-1) QC Batch: 3400

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	2003-07-31
Toluene		mg/L	0.100	0.112	112	85 - 115	2003-07-31
Ethylbenzene		mg/L	0.100	0.104	104	85 - 115	2003-07-31
Xylene (isomers)		mg/L	0.300	0.328	109	85 - 115	2003-07-31

Standard (ICV-1) QC Batch: 3407

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	2003-07-31
Toluene		mg/L	0.100	0.0999	100	85 - 115	2003-07-31
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2003-07-31
Xylene (isomers)		mg/L	0.300	0.300	100	85 - 115	2003-07-31

Standard (CCV-1) QC Batch: 3407

³¹ Average of ICV/CCV components within acceptable range.

³² Average of ICV/CCV components within acceptable range.

³³ Average of ICV/CCV components within acceptable range.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0982	98	85 - 115	2003-07-31
Toluene		mg/L	0.100	0.0979	98	85 - 115	2003-07-31
Ethylbenzene		mg/L	0.100	0.0985	98	85 - 115	2003-07-31
Xylene (isomers)		mg/L	0.300	0.288	96	85 - 115	2003-07-31

Standard (ICV-1) QC Batch: 3475

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	2003-08-04
Toluene		mg/L	0.100	0.100	100	85 - 115	2003-08-04
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2003-08-04
Xylene (isomers)		mg/L	0.300	0.300	100	85 - 115	2003-08-04

Standard (CCV-1) QC Batch: 3475

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.110	110	85 - 115	2003-08-04
Toluene		mg/L	0.100	0.111	111	85 - 115	2003-08-04
Ethylbenzene		mg/L	0.100	0.113	113	85 - 115	2003-08-04
Xylene (isomers)		mg/L	0.300	0.333	111	85 - 115	2003-08-04

Standard (CCV-1) QC Batch: 3622

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	59.6	99	80 - 120	2003-08-06
Acenaphthylene		mg/L	60.0	63.2	105	80 - 120	2003-08-06
Acenaphthene		mg/L	60.0	59.2	99	80 - 120	2003-08-06
Fluorene		mg/L	60.0	57.3	96	80 - 120	2003-08-06
Phenanthrene		mg/L	60.0	60.8	101	80 - 120	2003-08-06
Anthracene		mg/L	60.0	60.8	101	80 - 120	2003-08-06
Fluoranthene		mg/L	60.0	61.4	102	80 - 120	2003-08-06
Pyrene		mg/L	60.0	65.1	108	80 - 120	2003-08-06
Benzo(a)anthracene		mg/L	60.0	57.4	96	80 - 120	2003-08-06
Chrysene		mg/L	60.0	58.8	98	80 - 120	2003-08-06
Benzo(b)fluoranthene		mg/L	60.0	58.6	98	80 - 120	2003-08-06
Benzo(k)fluoranthene		mg/L	60.0	60.2	100	80 - 120	2003-08-06
Benzo(a)pyrene		mg/L	60.0	60.5	101	80 - 120	2003-08-06
Indeno(1,2,3-cd)pyrene		mg/L	60.0	61.6	103	80 - 120	2003-08-06
Dibenzo(a,h)anthracene		mg/L	60.0	63.0	105	80 - 120	2003-08-06
Benzo(g,h,i)perylene		mg/L	60.0	62.3	104	80 - 120	2003-08-06

continued ...

standard continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		58.9	mg/L	1	60.0	98	80 - 120
2-Fluorobiphenyl		62.1	mg/L	1	60.0	104	80 - 120
Terphenyl-d14		55.6	mg/L	1	60.0	93	80 - 120

Standard (CCV-2) QC Batch: 3622

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	60.3	100	80 - 120	2003-08-06
Acenaphthylene		mg/L	60.0	63.3	106	80 - 120	2003-08-06
Acenaphthene		mg/L	60.0	59.0	98	80 - 120	2003-08-06
Fluorene		mg/L	60.0	57.4	96	80 - 120	2003-08-06
Phenanthrene		mg/L	60.0	61.5	102	80 - 120	2003-08-06
Anthracene		mg/L	60.0	61.7	103	80 - 120	2003-08-06
Fluoranthene		mg/L	60.0	61.0	102	80 - 120	2003-08-06
Pyrene		mg/L	60.0	66.3	110	80 - 120	2003-08-06
Benzo(a)anthracene		mg/L	60.0	58.3	97	80 - 120	2003-08-06
Chrysene		mg/L	60.0	60.2	100	80 - 120	2003-08-06
Benzo(b)fluoranthene		mg/L	60.0	59.2	99	80 - 120	2003-08-06
Benzo(k)fluoranthene		mg/L	60.0	60.2	100	80 - 120	2003-08-06
Benzo(a)pyrene		mg/L	60.0	60.5	101	80 - 120	2003-08-06
Indeno(1,2,3-cd)pyrene		mg/L	60.0	61.8	103	80 - 120	2003-08-06
Dibenzo(a,h)anthracene		mg/L	60.0	62.3	104	80 - 120	2003-08-06
Benzo(g,h,i)perylene		mg/L	60.0	61.8	103	80 - 120	2003-08-06

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		58.7	mg/L	1	60.0	98	80 - 120
2-Fluorobiphenyl		60.5	mg/L	1	60.0	101	80 - 120
Terphenyl-d14		57.0	mg/L	1	60.0	95	80 - 120

Summary Report

Scott Burkey
Shell Oil Products-Scott Burkey
2109 Luna Road
Suite 240
Carrollton, TX 75006

Report Date: October 17, 2003

Work Order: 3101016

Incidnet #: 300109
Project Location: Monument Lea County, New Mexico
Project Name: Barker Ranch
Project Number: EQ-112

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
19185	MW-1	water	2003-10-08	14:30	2003-10-10
19186	MW-3	water	2003-10-08	11:30	2003-10-10
19187	MW-4	water	2003-10-09	09:30	2003-10-10
19188	MW-5	water	2003-10-09	11:00	2003-10-10
19189	MW-6	water	2003-10-09	11:45	2003-10-10
19190	MW-7	water	2003-10-08	15:00	2003-10-10
19191	MW-8	water	2003-10-08	13:50	2003-10-10
19192	MW-9	water	2003-10-09	13:30	2003-10-10
19193	MW-11	water	2003-10-09	10:30	2003-10-10
19194	MW-12	water	2003-10-08	10:00	2003-10-10
19195	MW-14	water	2003-10-08	15:15	2003-10-10
19196	MW-15	water	2003-10-08	14:50	2003-10-10
19197	MW-16	water	2003-10-08	13:30	2003-10-10
19198	MW-17	water	2003-10-08	14:15	2003-10-10
19199	MW-18	water	2003-10-08	14:40	2003-10-10
19200	MW-20	water	2003-10-08	13:00	2003-10-10
19201	MW-21	water	2003-10-08	12:35	2003-10-10
19202	MW-22	water	2003-10-08	12:10	2003-10-10
19203	MW-23	water	2003-10-08	11:45	2003-10-10

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (isomers) (mg/L)
19185 - MW-1	0.00480	<0.00100	<0.00100	<0.00100
19186 - MW-3	<0.00100	<0.00100	<0.00100	<0.00100
19187 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100
19188 - MW-5	<0.00500	<0.00500	0.0256	0.00570
19189 - MW-6	0.0307	<0.00500	<0.00500	<0.00500
19190 - MW-7	<0.00500	<0.00500	<0.00500	<0.00500
19191 - MW-8	<0.00100	<0.00100	<0.00100	<0.00100
19192 - MW-9	0.00190	<0.00100	0.00140	0.00180
19193 - MW-11	<0.00100	<0.00100	<0.00100	<0.00100
19194 - MW-12	0.00230	<0.00100	<0.00100	<0.00100
19195 - MW-14	0.00250	<0.00100	<0.00100	<0.00100

continued ...

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Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (isomers) (mg/L)
19196 - MW-15	0.0203	<0.00100	0.00130	0.00110
19197 - MW-16	<0.00100	<0.00100	<0.00100	<0.00100
19198 - MW-17	<0.00100	<0.00100	<0.00100	<0.00100
19199 - MW-18	0.00380	<0.00100	<0.00100	<0.00100
19200 - MW-20	<0.00100	<0.00100	<0.00100	<0.00100
19201 - MW-21	<0.00100	<0.00100	<0.00100	<0.00100
19202 - MW-22	0.0232	<0.00100	<0.00100	0.00130
19203 - MW-23	0.00710	<0.00100	0.00160	0.00230

Sample: 19185 - MW-1

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19186 - MW-3

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19187 - MW-4

Param	Flag	Result	Units	RL
Naphthalene		0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19188 - MW-5

Param	Flag	Result	Units	RL
Naphthalene		0.00998	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		0.00102	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19189 - MW-6

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200

continued ...

sample 19189 continued ...

Param	Flag	Result	Units	RL
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19190 - MW-7

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		0.000910	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19191 - MW-8

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19192 - MW-9

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		0.000510	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19193 - MW-11

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19194 - MW-12

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200

continued ...

sample 19194 continued ...

Param	Flag	Result	Units	RL
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19195 - MW-14

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19196 - MW-15

Param	Flag	Result	Units	RL
Naphthalene		0.000670	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19197 - MW-16

continued ...

sample 19197 continued ...

Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19198 - MW-17

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19199 - MW-18

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200

continued ...

sample 19199 continued ...

Param	Flag	Result	Units	RL
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19200 - MW-20

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19201 - MW-21

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19202 - MW-22

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

Sample: 19203 - MW-23

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.200
Acenaphthylene		<0.000200	mg/L	0.200
Acenaphthene		<0.000200	mg/L	0.200
Fluorene		<0.000200	mg/L	0.200
Phenanthrene		<0.000200	mg/L	0.200
Anthracene		<0.000200	mg/L	0.200
Fluoranthene		<0.000200	mg/L	0.200
Pyrene		<0.000200	mg/L	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.200
Chrysene		<0.000200	mg/L	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.200

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Analytical and Quality Control Report

Scott Burkey
Shell Oil Products-Scott Burkey
2109 Luna Road
Suite 240
Carrollton, TX 75006

Report Date: October 17, 2003

Work Order: 3101016

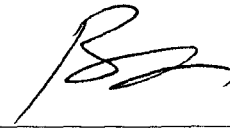
Incidnet #: 300109
Project Location: Monument Lea County, New Mexico
Project Name: Barker Ranch
Project Number: EQ-112

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
19185	MW-1	water	2003-10-08	14:30	2003-10-10
19186	MW-3	water	2003-10-08	11:30	2003-10-10
19187	MW-4	water	2003-10-09	09:30	2003-10-10
19188	MW-5	water	2003-10-09	11:00	2003-10-10
19189	MW-6	water	2003-10-09	11:45	2003-10-10
19190	MW-7	water	2003-10-08	15:00	2003-10-10
19191	MW-8	water	2003-10-08	13:50	2003-10-10
19192	MW-9	water	2003-10-09	13:30	2003-10-10
19193	MW-11	water	2003-10-09	10:30	2003-10-10
19194	MW-12	water	2003-10-08	10:00	2003-10-10
19195	MW-14	water	2003-10-08	15:15	2003-10-10
19196	MW-15	water	2003-10-08	14:50	2003-10-10
19197	MW-16	water	2003-10-08	13:30	2003-10-10
19198	MW-17	water	2003-10-08	14:15	2003-10-10
19199	MW-18	water	2003-10-08	14:40	2003-10-10
19200	MW-20	water	2003-10-08	13:00	2003-10-10
19201	MW-21	water	2003-10-08	12:35	2003-10-10
19202	MW-22	water	2003-10-08	12:10	2003-10-10
19203	MW-23	water	2003-10-08	11:45	2003-10-10

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.

This report consists of a total of 28 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.


Dr. Blair Leftwich, Director

Analytical Report

Sample: 19185 - MW-1

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00480	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)		0.0958	mg/L	1	0.100	96	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0844	mg/L	1	0.100	84	72.6 - 130

Sample: 19185 - MW-1

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0723	mg/L	0.001	80.0	90	35 - 114
2-Fluorobiphenyl		0.0571	mg/L	0.001	80.0	71	43 - 116
Terphenyl-d14		0.0516	mg/L	0.001	80.0	64	33 - 141

Sample: 19186 - MW-3

Report Date: October 17, 2003
EQ-112

Work Order: 3101016
Barker Ranch

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Monument Lea County, New Mexico

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

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)		0.0939	mg/L	1	0.100	94	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0842	mg/L	1	0.100	84	72.6 - 130

Sample: 19186 - MW-3

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0789	mg/L	0.001	80.0	99	35 - 114
2-Fluorobiphenyl		0.0606	mg/L	0.001	80.0	76	43 - 116
Terphenyl-d14		0.0402	mg/L	0.001	80.0	50	33 - 141

Sample: 19187 - MW-4

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

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)		0.0947	mg/L	1	0.100	95	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0837	mg/L	1	0.100	84	72.6 - 130

Sample: 19187 - MW-4

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 5121	Date Analyzed: 2003-10-14	Analyzed By: RC
Prep Batch: 4501	Date Prepared: 2003-10-12	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0729	mg/L	0.001	80.0	91	35 - 114
2-Fluorobiphenyl		0.0574	mg/L	0.001	80.0	72	43 - 116
Terphenyl-d14		0.0439	mg/L	0.001	80.0	55	33 - 141

Sample: 19188 - MW-5

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 5044	Date Analyzed: 2003-10-13	Analyzed By: BS
Prep Batch: 4510	Date Prepared: 2003-10-13	Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00500	mg/L	5	0.00100

continued ...

sample 19188 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Toluene		<0.00500	mg/L	5	0.00100
Ethylbenzene		0.0256	mg/L	5	0.00100
Xylene (isomers)		0.00570	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.502	mg/L	5	0.100	100	61 - 127
4-Bromofluorobenzene (4-BFB)		0.448	mg/L	5	0.100	90	72.6 - 130

Sample: 19188 - MW-5

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.00998	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		0.00102	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0651	mg/L	0.001	80.0	81	35 - 114
2-Fluorobiphenyl		0.0522	mg/L	0.001	80.0	65	43 - 116
Terphenyl-d14		0.0530	mg/L	0.001	80.0	66	33 - 141

Sample: 19189 - MW-6

Analysis: BTEX
QC Batch: 5044
Prep Batch: 4510

Analytical Method: S 8021B
Date Analyzed: 2003-10-13
Date Prepared: 2003-10-13

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

continued ...

Report Date: October 17, 2003
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sample 19189 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0307	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)		0.484	mg/L	5	0.100	97	61 - 127
4-Bromofluorobenzene (4-BFB)		0.414	mg/L	5	0.100	83	72.6 - 130

Sample: 19189 - MW-6

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0727	mg/L	0.001	80.0	91	35 - 114
2-Fluorobiphenyl		0.0548	mg/L	0.001	80.0	68	43 - 116
Terphenyl-d14		0.0562	mg/L	0.001	80.0	70	33 - 141

Sample: 19190 - MW-7

Analysis: BTEX
QC Batch: 5044
Prep Batch: 4510

Analytical Method: S 8021B
Date Analyzed: 2003-10-13
Date Prepared: 2003-10-13

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

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)		0.496	mg/L	5	0.100	99	61 - 127
4-Bromofluorobenzene (4-BFB)		0.418	mg/L	5	0.100	84	72.6 - 130

Sample: 19190 - MW-7

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		0.000910	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0654	mg/L	0.001	80.0	82	35 - 114
2-Fluorobiphenyl		0.0500	mg/L	0.001	80.0	62	43 - 116
Terphenyl-d14		0.0419	mg/L	0.001	80.0	52	33 - 141

Sample: 19191 - MW-8

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100

continued ...

sample 19191 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0931	mg/L	1	0.100	93	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0820	mg/L	1	0.100	82	72.6 - 130

Sample: 19191 - MW-8

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 5121	Date Analyzed: 2003-10-14	Analyzed By: RC
Prep Batch: 4501	Date Prepared: 2003-10-12	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0727	mg/L	0.001	80.0	91	35 - 114
2-Fluorobiphenyl		0.0554	mg/L	0.001	80.0	69	43 - 116
Terphenyl-d14		0.0554	mg/L	0.001	80.0	69	33 - 141

Sample: 19192 - MW-9

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 5044	Date Analyzed: 2003-10-13	Analyzed By: BS
Prep Batch: 4510	Date Prepared: 2003-10-13	Prepared By: BS

continued ...

sample 19192 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00190	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		0.00140	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)		0.0986	mg/L	1	0.100	99	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0915	mg/L	1	0.100	92	72.6 - 130

Sample: 19192 - MW-9

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		0.000510	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0681	mg/L	0.001	80.0	85	35 - 114
2-Fluorobiphenyl		0.0550	mg/L	0.001	80.0	69	43 - 116
Terphenyl-d14		0.0470	mg/L	0.001	80.0	59	33 - 141

Sample: 19193 - MW-11

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

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)		0.0943	mg/L	1	0.100	94	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0824	mg/L	1	0.100	82	72.6 - 130

Sample: 19193 - MW-11

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 5121	Date Analyzed: 2003-10-14	Analyzed By: RC
Prep Batch: 4501	Date Prepared: 2003-10-12	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0749	mg/L	0.001	80.0	94	35 - 114
2-Fluorobiphenyl		0.0580	mg/L	0.001	80.0	72	43 - 116
Terphenyl-d14		0.0526	mg/L	0.001	80.0	66	33 - 141

Sample: 19194 - MW-12

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 5029	Date Analyzed: 2003-10-10	Analyzed By: BS
Prep Batch: 4489	Date Prepared: 2003-10-10	Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00230	mg/L	1	0.00100

continued ...

sample 19194 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0922	mg/L	1	0.100	92	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0816	mg/L	1	0.100	82	72.6 - 130

Sample: 19194 - MW-12

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0741	mg/L	0.001	80.0	93	35 - 114
2-Fluorobiphenyl		0.0579	mg/L	0.001	80.0	72	43 - 116
Terphenyl-d14		0.0494	mg/L	0.001	80.0	62	33 - 141

Sample: 19195 - MW-14

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

continued ...

sample 19195 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00250	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)		0.0942	mg/L	1	0.100	94	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0816	mg/L	1	0.100	82	72.6 - 130

Sample: 19195 - MW-14

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0472	mg/L	0.001	80.0	59	35 - 114
2-Fluorobiphenyl		0.0366	mg/L	0.001	80.0	46	43 - 116
Terphenyl-d14		0.0412	mg/L	0.001	80.0	52	33 - 141

Sample: 19196 - MW-15

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0203	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		0.00130	mg/L	1	0.00100
Xylene (isomers)		0.00110	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0907	mg/L	1	0.100	91	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0863	mg/L	1	0.100	86	72.6 - 130

Sample: 19196 - MW-15

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.000670	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0563	mg/L	0.001	80.0	70	35 - 114
2-Fluorobiphenyl		0.0450	mg/L	0.001	80.0	56	43 - 116
Terphenyl-d14		0.0417	mg/L	0.001	80.0	52	33 - 141

Sample: 19197 - MW-16

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100

continued ...

sample 19197 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0919	mg/L	1	0.100	92	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0803	mg/L	1	0.100	80	72.6 - 130

Sample: 19197 - MW-16

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 5121	Date Analyzed: 2003-10-14	Analyzed By: RC
Prep Batch: 4501	Date Prepared: 2003-10-12	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0523	mg/L	0.001	80.0	65	35 - 114
2-Fluorobiphenyl		0.0395	mg/L	0.001	80.0	49	43 - 116
Terphenyl-d14		0.0488	mg/L	0.001	80.0	61	33 - 141

Sample: 19198 - MW-17

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 5029	Date Analyzed: 2003-10-10	Analyzed By: BS
Prep Batch: 4489	Date Prepared: 2003-10-10	Prepared By: BS

continued ...

sample 19198 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0939	mg/L	1	0.100	94	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0842	mg/L	1	0.100	84	72.6 - 130

Sample: 19198 - MW-17

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0721	mg/L	0.001	80.0	90	35 - 114
2-Fluorobiphenyl		0.0552	mg/L	0.001	80.0	69	43 - 116
Terphenyl-d14		0.0508	mg/L	0.001	80.0	64	33 - 141

Sample: 19199 - MW-18

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00380	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)		0.0936	mg/L	1	0.100	94	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0845	mg/L	1	0.100	84	72.6 - 130

Sample: 19199 - MW-18

Analysis: PAH
QC Batch: 5121
Prep Batch: 4501

Analytical Method: S 8270C
Date Analyzed: 2003-10-14
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0692	mg/L	0.001	80.0	86	35 - 114
2-Fluorobiphenyl		0.0540	mg/L	0.001	80.0	68	43 - 116
Terphenyl-d14		0.0537	mg/L	0.001	80.0	67	33 - 141

Sample: 19200 - MW-20

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100

continued ...

sample 19200 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0950	mg/L	1	0.100	95	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0844	mg/L	1	0.100	84	72.6 - 130

Sample: 19200 - MW-20

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 5121	Date Analyzed: 2003-10-14	Analyzed By: RC
Prep Batch: 4501	Date Prepared: 2003-10-12	Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0625	mg/L	0.001	80.0	78	35 - 114
2-Fluorobiphenyl		0.0471	mg/L	0.001	80.0	59	43 - 116
Terphenyl-d14		0.0427	mg/L	0.001	80.0	53	33 - 141

Sample: 19201 - MW-21

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5030B
QC Batch: 5029	Date Analyzed: 2003-10-10	Analyzed By: BS
Prep Batch: 4489	Date Prepared: 2003-10-10	Prepared By: BS

continued ...

sample 19201 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0899	mg/L	1	0.100	90	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0785	mg/L	1	0.100	78	72.6 - 130

Sample: 19201 - MW-21

Analysis: PAH
QC Batch: 5138
Prep Batch: 4503

Analytical Method: S 8270C
Date Analyzed: 2003-10-15
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0373	mg/L	0.001	80.0	47	21 - 145
2-Fluorobiphenyl		0.0335	mg/L	0.001	80.0	42	25 - 145
Terphenyl-d14		0.0369	mg/L	0.001	80.0	46	26 - 127

Sample: 19202 - MW-22

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0232	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene (isomers)		0.00130	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0925	mg/L	1	0.100	92	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0836	mg/L	1	0.100	84	72.6 - 130

Sample: 19202 - MW-22

Analysis: PAH
QC Batch: 5138
Prep Batch: 4503

Analytical Method: S 8270C
Date Analyzed: 2003-10-15
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0623	mg/L	0.001	80.0	78	21 - 145
2-Fluorobiphenyl		0.0591	mg/L	0.001	80.0	74	25 - 145
Terphenyl-d14		0.0588	mg/L	0.001	80.0	74	26 - 127

Sample: 19203 - MW-23

Analysis: BTEX
QC Batch: 5029
Prep Batch: 4489

Analytical Method: S 8021B
Date Analyzed: 2003-10-10
Date Prepared: 2003-10-10

Prep Method: S 5030B
Analyzed By: BS
Prepared By: BS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00710	mg/L	1	0.00100

continued ...

sample 19203 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		0.00160	mg/L	1	0.00100
Xylene (isomers)		0.00230	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0954	mg/L	1	0.100	95	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0800	mg/L	1	0.100	80	72.6 - 130

Sample: 19203 - MW-23

Analysis: PAH
QC Batch: 5138
Prep Batch: 4503

Analytical Method: S 8270C
Date Analyzed: 2003-10-15
Date Prepared: 2003-10-12

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	0.001	0.200
Acenaphthylene		<0.000200	mg/L	0.001	0.200
Acenaphthene		<0.000200	mg/L	0.001	0.200
Fluorene		<0.000200	mg/L	0.001	0.200
Phenanthrene		<0.000200	mg/L	0.001	0.200
Anthracene		<0.000200	mg/L	0.001	0.200
Fluoranthene		<0.000200	mg/L	0.001	0.200
Pyrene		<0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		<0.000200	mg/L	0.001	0.200
Chrysene		<0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		<0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		<0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0612	mg/L	0.001	80.0	76	21 - 145
2-Fluorobiphenyl		0.0617	mg/L	0.001	80.0	77	25 - 145
Terphenyl-d14		0.0633	mg/L	0.001	80.0	79	26 - 127

Method Blank (1) QC Batch: 5029

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)		0.0868	mg/L	1	0.100	87	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0788	mg/L	1	0.100	79	72.6 - 130

Method Blank (1) QC Batch: 5044

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)		0.101	mg/L	1	0.100	101	61 - 127
4-Bromofluorobenzene (4-BFB)		0.0853	mg/L	1	0.100	85	72.6 - 130

Method Blank (1) QC Batch: 5121

Parameter	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.2
Acenaphthylene		<0.000200	mg/L	0.2
Acenaphthene		<0.000200	mg/L	0.2
Fluorene		<0.000200	mg/L	0.2
Phenanthrene		<0.000200	mg/L	0.2
Anthracene		<0.000200	mg/L	0.2
Fluoranthene		<0.000200	mg/L	0.2
Pyrene		<0.000200	mg/L	0.2
Benzo(a)anthracene		<0.000200	mg/L	0.2
Chrysene		<0.000200	mg/L	0.2
Benzo(b)fluoranthene		<0.000200	mg/L	0.2
Benzo(k)fluoranthene		<0.000200	mg/L	0.2
Benzo(a)pyrene		<0.000200	mg/L	0.2
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.2
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.2
Benzo(g,h,i)perylene		<0.000200	mg/L	0.2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0756	mg/L	0.001	80.0	94	35 - 114
2-Fluorobiphenyl		0.0585	mg/L	0.001	80.0	73	43 - 116
Terphenyl-d14		0.0685	mg/L	0.001	80.0	86	33 - 141

Method Blank (1) QC Batch: 5138

Parameter	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.2
Acenaphthylene		<0.000200	mg/L	0.2
Acenaphthene		<0.000200	mg/L	0.2
Fluorene		<0.000200	mg/L	0.2
Phenanthrene		<0.000200	mg/L	0.2
Anthracene		<0.000200	mg/L	0.2
Fluoranthene		<0.000200	mg/L	0.2
Pyrene		<0.000200	mg/L	0.2
Benzo(a)anthracene		<0.000200	mg/L	0.2
Chrysene		<0.000200	mg/L	0.2
Benzo(b)fluoranthene		<0.000200	mg/L	0.2
Benzo(k)fluoranthene		<0.000200	mg/L	0.2
Benzo(a)pyrene		<0.000200	mg/L	0.2
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.2
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.2
Benzo(g,h,i)perylene		<0.000200	mg/L	0.2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0652	mg/L	0.001	80.0	82	21 - 145
2-Fluorobiphenyl		0.0673	mg/L	0.001	80.0	84	25 - 145
Terphenyl-d14		0.0737	mg/L	0.001	80.0	92	26 - 127

Laboratory Control Spike (LCS-1) QC Batch: 5029

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0968	0.0951	mg/L	1	0.100	<0.000350	97	2	81.2 - 118	20
Toluene	0.0954	0.0947	mg/L	1	0.100	<0.000550	95	1	81.2 - 118	20
Ethylbenzene	0.0948	0.0939	mg/L	1	0.100	<0.000690	95	1	80.7 - 122	20
Xylene (isomers)	0.281	0.278	mg/L	1	0.300	<0.000610	94	1	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)	0.0893	0.0899	mg/L	1	0.100	89	90	69.5 - 125
4-Bromofluorobenzene (4-BFB)	0.0874	0.0876	mg/L	1	0.100	87	88	66.2 - 129

Laboratory Control Spike (LCS-1) QC Batch: 5044

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.102	0.101	mg/L	1	0.100	<0.000350	102	0	81.2 - 118	20
Toluene	0.101	0.101	mg/L	1	0.100	<0.000550	101	0	81.2 - 118	20
Ethylbenzene	0.102	0.102	mg/L	1	0.100	<0.000690	102	0	80.7 - 122	20
Xylene (isomers)	0.301	0.300	mg/L	1	0.300	<0.000610	100	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)	0.0970	0.0975	mg/L	1	0.100	97	98	69.5 - 125
4-Bromofluorobenzene (4-BFB)	0.0948	0.0947	mg/L	1	0.100	95	95	66.2 - 129

Laboratory Control Spike (LCS-1) QC Batch: 5121

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Naphthalene	66.4	66.6	mg/L	1	80.0	<0.0445	83	0	16 - 96	20
Acenaphthylene	79.3	78.4	mg/L	1	80.0	<0.0383	99	1	20 - 110	20
Acenaphthene	71.4	71.5	mg/L	1	80.0	<0.0421	89	0	18 - 108	20
Fluorene	73.8	72.9	mg/L	1	80.0	<0.0655	92	1	22 - 102	20
Phenanthrene	67.3	67.2	mg/L	1	80.0	<0.0383	84	0	25 - 103	20
Anthracene	71.5	72.3	mg/L	1	80.0	<0.0468	89	1	22 - 110	20
Fluoranthene	72.8	72.0	mg/L	1	80.0	<0.0550	91	1	21 - 110	20
Pyrene	64.8	67.7	mg/L	1	80.0	<0.0904	81	4	22 - 100	20
Benzo(a)anthracene	73.2	73.6	mg/L	1	80.0	<0.0993	92	0	30 - 99	20
Chrysene	81.5	81.2	mg/L	1	80.0	<0.121	102	0	27 - 108	20
Benzo(b)fluoranthene	74.8	74.5	mg/L	1	80.0	<0.171	94	0	19 - 102	20
Benzo(k)fluoranthene	¹ 83.4	79.4	mg/L	1	80.0	<0.0951	104	5	35 - 103	20
Benzo(a)pyrene	78.4	76.1	mg/L	1	80.0	<0.135	98	3	24 - 105	20
Indeno(1,2,3-cd)pyrene	58.5	65.6	mg/L	1	80.0	<0.176	73	11	22 - 108	20
Dibenzo(a,h)anthracene	² 61.7	67.8	mg/L	1	80.0	<0.184	77	9	23 - 77	20
Benzo(g,h,i)perylene	54.8	64.3	mg/L	1	80.0	<0.134	68	16	19 - 119	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
Nitrobenzene-d5	79.2	81.2	mg/L	1	80.0	99	102	35 - 114
2-Fluorobiphenyl	63.2	63.1	mg/L	1	80.0	79	79	43 - 116
Terphenyl-d14	63.6	67.1	mg/L	1	80.0	80	84	33 - 141

Laboratory Control Spike (LCS-1) QC Batch: 5138

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Naphthalene	68.1	68.0	mg/L	1	80.0	<0.0445	85	0	21.4 - 134	20
Acenaphthylene	75.7	74.0	mg/L	1	80.0	<0.0383	95	2	42.1 - 135	20
Acenaphthene	70.9	70.3	mg/L	1	80.0	<0.0421	89	1	41 - 133	20
Fluorene	71.6	70.4	mg/L	1	80.0	<0.0655	90	2	49.3 - 133	20
Phenanthrene	73.4	73.8	mg/L	1	80.0	<0.0383	92	0	54.4 - 135	20
Anthracene	72.8	72.7	mg/L	1	80.0	<0.0468	91	0	42.2 - 130	20
Fluoranthene	76.2	75.9	mg/L	1	80.0	<0.0550	95	0	44.4 - 146	20
Pyrene	81.9	82.3	mg/L	1	80.0	<0.0904	102	0	52.8 - 137	20
Benzo(a)anthracene	69.8	70.0	mg/L	1	80.0	<0.0993	87	0	59 - 134	20
Chrysene	78.9	78.6	mg/L	1	80.0	<0.121	99	0	49.6 - 107	20
Benzo(b)fluoranthene	62.7	66.7	mg/L	1	80.0	<0.171	78	6	43.2 - 134	20
Benzo(k)fluoranthene	71.3	73.5	mg/L	1	80.0	<0.0951	89	3	55.2 - 145	20

continued ...

¹The average of the spike compounds shows that the process is in control.

²The average of the spike compounds shows that the process is in control.

control spikes continued ...

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzo(a)pyrene	71.2	73.6	mg/L	1	80.0	<0.135	89	3	63.9 - 138	20
Indeno(1,2,3-cd)pyrene	68.9	69.7	mg/L	1	80.0	<0.176	86	1	64.6 - 145	20
Dibenzo(a,h)anthracene	74.4	74.8	mg/L	1	80.0	<0.184	93	0	48.6 - 142	20
Benzo(g,h,i)perylene	67.5	68.1	mg/L	1	80.0	<0.134	84	1	71.5 - 146	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
Nitrobenzene-d5	69.9	71.4	mg/L	1	80.0	87	89	20 - 146
2-Fluorobiphenyl	68.2	67.5	mg/L	1	80.0	85	84	25.3 - 146
Terphenyl-d14	69.5	69.8	mg/L	1	80.0	87	87	26 - 127

Standard (ICV-1) QC Batch: 5029

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	2003-10-10
Toluene		mg/L	0.100	0.0932	93	85 - 115	2003-10-10
Ethylbenzene		mg/L	0.100	0.0933	93	85 - 115	2003-10-10
Xylene (isomers)		mg/L	0.300	0.277	92	85 - 115	2003-10-10

Standard (CCV-1) QC Batch: 5029

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0968	97	85 - 115	2003-10-10
Toluene		mg/L	0.100	0.0958	96	85 - 115	2003-10-10
Ethylbenzene		mg/L	0.100	0.0955	96	85 - 115	2003-10-10
Xylene (isomers)		mg/L	0.300	0.282	94	85 - 115	2003-10-10

Standard (CCV-2) QC Batch: 5029

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0943	94	85 - 115	2003-10-10
Toluene		mg/L	0.100	0.0941	94	85 - 115	2003-10-10
Ethylbenzene		mg/L	0.100	0.0938	94	85 - 115	2003-10-10
Xylene (isomers)		mg/L	0.300	0.277	92	85 - 115	2003-10-10

Standard (ICV-1) QC Batch: 5044

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	2003-10-13

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/L	0.100	0.100	100	85 - 115	2003-10-13
Ethylbenzene		mg/L	0.100	0.0996	100	85 - 115	2003-10-13
Xylene (isomers)		mg/L	0.300	0.292	98	85 - 115	2003-10-13

Standard (CCV-1) QC Batch: 5044

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0960	96	85 - 115	2003-10-13
Toluene		mg/L	0.100	0.0956	96	85 - 115	2003-10-13
Ethylbenzene		mg/L	0.100	0.0966	97	85 - 115	2003-10-13
Xylene (isomers)		mg/L	0.300	0.284	95	85 - 115	2003-10-13

Standard (CCV-2) QC Batch: 5044

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0955	96	85 - 115	2003-10-13
Toluene		mg/L	0.100	0.0976	98	85 - 115	2003-10-13
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2003-10-13
Xylene (isomers)		mg/L	0.300	0.291	97	85 - 115	2003-10-13

Standard (CCV-1) QC Batch: 5121

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	62.0	103	80 - 120	2003-10-14
Acenaphthylene		mg/L	60.0	70.2	117	80 - 120	2003-10-14
Acenaphthene		mg/L	60.0	70.6	118	80 - 120	2003-10-14
Fluorene		mg/L	60.0	65.9	110	80 - 120	2003-10-14
Phenanthrene		mg/L	60.0	68.7	114	80 - 120	2003-10-14
Anthracene		mg/L	60.0	69.9	116	80 - 120	2003-10-14
Fluoranthene		mg/L	60.0	70.4	117	80 - 120	2003-10-14
Pyrene		mg/L	60.0	64.1	107	80 - 120	2003-10-14
Benzo(a)anthracene		mg/L	60.0	69.1	115	80 - 120	2003-10-14
Chrysene		mg/L	60.0	68.4	114	80 - 120	2003-10-14
Benzo(b)fluoranthene		mg/L	60.0	58.7	98	80 - 120	2003-10-14
Benzo(k)fluoranthene		mg/L	60.0	62.5	104	80 - 120	2003-10-14
Benzo(a)pyrene		mg/L	60.0	71.9	120	80 - 120	2003-10-14
Indeno(1,2,3-cd)pyrene		mg/L	60.0	57.8	96	80 - 120	2003-10-14
Dibenzo(a,h)anthracene		mg/L	60.0	59.5	99	80 - 120	2003-10-14
Benzo(g,h,i)perylene		mg/L	60.0	57.5	96	80 - 120	2003-10-14

continued ...

standard continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		68.3	mg/L	1	60.0	114	80 - 120
2-Fluorobiphenyl		63.6	mg/L	1	60.0	106	80 - 120
Terphenyl-d14		59.5	mg/L	1	60.0	99	80 - 120

Standard (CCV-1) QC Batch: 5138

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	68.2	114	80 - 120	2003-10-15
Acenaphthylene		mg/L	60.0	57.6	96	80 - 120	2003-10-15
Acenaphthene		mg/L	60.0	55.6	93	80 - 120	2003-10-15
Fluorene		mg/L	60.0	60.4	101	80 - 120	2003-10-15
Phenanthrene		mg/L	60.0	70.3	117	80 - 120	2003-10-15
Anthracene		mg/L	60.0	70.0	117	80 - 120	2003-10-15
Fluoranthene		mg/L	60.0	70.4	117	80 - 120	2003-10-15
Pyrene		mg/L	60.0	68.4	114	80 - 120	2003-10-15
Benzo(a)anthracene		mg/L	60.0	58.7	98	80 - 120	2003-10-15
Chrysene		mg/L	60.0	59.7	100	80 - 120	2003-10-15
Benzo(b)fluoranthene		mg/L	60.0	67.0	112	80 - 120	2003-10-15
Benzo(k)fluoranthene		mg/L	60.0	69.4	116	80 - 120	2003-10-15
Benzo(a)pyrene		mg/L	60.0	71.1	118	80 - 120	2003-10-15
Indeno(1,2,3-cd)pyrene		mg/L	60.0	67.9	113	80 - 120	2003-10-15
Dibenzo(a,h)anthracene		mg/L	60.0	68.3	114	80 - 120	2003-10-15
Benzo(g,h,i)perylene		mg/L	60.0	67.2	112	80 - 120	2003-10-15

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		69.4	mg/L	1	60.0	116	80 - 120
2-Fluorobiphenyl		51.5	mg/L	1	60.0	86	80 - 120
Terphenyl-d14		56.3	mg/L	1	60.0	94	80 - 120

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

Trace Analysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 3101016

Company Name: Environ Services Inc Phone #: 432-570-8726
Address: (Street, City, Zip) Fax #:
306 West Willy, Suite 1312 Midland, TX 79701 432-684-7587
Contact Person: Jeff Knalley
Invoice to: Scott Bucky c/o Shell Oil Company
(If different from above) Project Name:
Project #: EO-112 Incident # 300109 Barker
Project Location: Leakey, NM Sampler Signature: Jeff Knalley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
19185	MW-1	3	40 ml Labe	✓				✓					✓	10/09/03	1430
86	MW-3	3	40 ml Labe	✓				✓					✓	10/09/03	1180
87	MW-4	3	40 ml Labe	✓				✓					✓	10/09/03	0930
88	MW-5	3	40 ml Labe	✓				✓					✓	10/09/03	1102
89	MW-6	3	40 ml Labe	✓				✓					✓	10/09/03	1145
90	MW-7	3	40 ml Labe	✓				✓					✓	10/09/03	1300
91	MW-8	3	40 ml Labe	✓				✓					✓	10/09/03	1350
92	MW-9	3	40 ml Labe	✓				✓					✓	10/09/03	1330
93	MW-11	3	40 ml Labe	✓				✓					✓	10/09/03	1030
94	MW-12	3	40 ml Labe	✓				✓					✓	10/09/03	1000
95	MW-14	3	40 ml Labe	✓				✓					✓	10/09/03	1515

Relinquished by: Jeff Knalley Date: 10/09/03 Time: 1600
Relinquished by: Jeff Knalley Date: 10/09/03 Time: 1000
Relinquished by: Jeff Knalley Date: 10/09/03 Time: 1730
Relinquished by: Jeff Knalley Date: 10/09/03 Time: 1025

ANALYSIS REQUEST (Circle or Specify Method No.)														
MTBE 8021B/602	✓	TPH 418.1/TX1005	✓	PAH 8270C	✓	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	✓	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	✓	TCLP Semi Volatiles	✓	TCLP Pesticides	✓	RCI
GC/MS Vol. 8260B/624	✓	GC/MS Semi. Vol. 8270C/625	✓	PCBs 8082/608	✓	Pesticides 8081A/608	✓	BOD, TSS, pH	✓	Turn Around Time if different from standard	✓	Hold	✓	✓

REMARKS:

LAB USE ONLY

Intact (P) N

Headspace (P) Y (N)

Temp 20 °C

Log-in Review NA

Carrier # 20

Check If Special Reporting Limits Are Needed NA

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

33 samples

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Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 24 Samples

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