1R - 85

REPORTS

DATE:

10-6-08

NOVA
safety and environmental

October 6, 2008

Mr. Ed Hansen
New Mexico Energy, Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Notification of Plains Marketing, L.P. Installation of Monitor Well
Red Byrd #1
SE ¼, NE ¼, Section 1, T-20-S, R-36-E
Lea County, NM
NMOCD Reference No. 1R-0085

Dear Mr. Hansen,

NOVA Safety and Environmental (NOVA), on behalf of Plains Marketing, L.P. (Plains) respectfully submits the following notification of the installation of monitor well MW-19 at the Plains Red Byrd #1 leak site (the site), located in the SE ¼, NE ¼, Section 1, T-20-S, R-36-E, in Lea County, NM. A Site Location Map is presented as Attachment Figure 1.

On July 15, 2008, one (1) monitor well, MW-19, was installed approximately 160 feet to the southeast of existing monitor well MW-15 to a depth of approximately 45 feet below ground surface (bgs). The monitor well was installed by Straub Corporation (Straub) of Stanton, Texas, a licensed monitor well driller in the State of New Mexico. The monitor wells were drilled utilizing guidelines set forth by the office of the New Mexico State Engineer. Please reference your e-mail correspondence to Ms. Camille Bryant of Plains Marketing L.P. dated May 29, 2008 regarding recommending the installation of this well. A site map depicting the new well location is presented as Attachment Figure 2. The Boring Log and Monitor Well Details along with the State of New Mexico Well Record and Log are presented in the attachments.

Soil samples collected during installation of the monitor well were collected utilizing a split-spoon sampling tool. Representative soil samples were divided into two separate portions using clean, disposable gloves and clean sampling tools. One portion of the soil sample was placed in a sterile glass container equipped with a Teflon-lined lid furnished by the laboratory. The container was filled to capacity to limit the amount of headspace present, labeled and placed on ice in an insulated cooler. Proper chain-of-custody documentation was maintained throughout the sampling and shipping process. The other portion of the soil sample was placed in a disposable zip-lock baggie. The baggie was labeled and sealed for headspace analysis using a photoionization detector (PID) calibrated to a 100-ppm isobutylene standard. Each bagged sample was allowed to volatilize for approximately thirty minutes in the sunlight at ambient

temperature prior to field screening activities. The samples with the highest recorded PID readings were submitted for laboratory analysis for BTEX by EPA Method 8021B and TPH by EPA Method 8015M GRO/DRO.

Laboratory analytical results for the three soil samples collected during the drilling activities indicated that BTEX and TPH concentration were below the NMOCD regulatory guidelines of 50 mg/Kg BTEX and 100 mg/Kg TPH. See Attachment Table 2 for BTEX and TPH concentrations in soil.

Following completion of well installation activities, the new monitor well (MW-19) was purged of a minimum of three well volumes of water using a disposable polyethylene bailer. Purge water was collected in a polystyrene tank and disposed of at a licensed disposal facility.

On August 4, 2008, groundwater samples were collected and analyzed for BTEX by method 8021B. On August 22, 2008, as per the NMOCD directive for Initial Groundwater Sampling Parameters, additional groundwater samples were collected and field monitored for temperature, specific conductance and pH. The samples were subsequently submitted to the laboratory and analyzed for Volatile Organic Compounds (VOCs), EPA Method 8260, Semi-Volatile Compounds (SVOCs), EPA Method 8270, Anions/cations, RCRA and WQCC Metals.

Laboratory analytical results on groundwater samples collected indicated that BTEX constituent concentrations were below the NMOCD regulatory guidelines. Laboratory results of groundwater samples collected indicated that no VOC or SVOC constituent concentrations were detected above WQCC standards. Laboratory results of groundwater samples collected indicated that chloride, sulfate, fluoride and Total dissolved solids (TDS) concentrations exceeded the WQCC standards. Laboratory results indicated that selected metals concentrations, such as barium, iron, manganese, aluminum and boron exceeded the WQCC standards. Historically, chloride, sulfate, and TDS concentrations have exhibited elevated levels above the WQCC standards based on initial groundwater analytical results of samples collected from monitor wells MW-1 through MW-7 in 2000. Plains has identified several potential sources which have the potential to impact or have impacted the groundwater in the Red Byrd #1 area. The potential source areas consist of refined product pipelines, industrial facilities including petro-chemical manufacturing, multiple petroleum product processing facilities and a gas pipeline compressor station. Plains will continue to monitor the situation concerning these additional potential impact contributors. A listing of BTEX concentrations is summarized in Attachment Table 3. Attachment Tables 4 through 7 summarize the VOCs, SVOCs, Anion/Cation and Metals concentrations for the initial groundwater sampling of monitor well MW-19. Laboratory analytical reports are attached.

Should you have any questions regarding this information, please contact me at 432-520-7720 or Mr. Daniel Bryant of Plains Marketing, L.P. at 432-557-5865.

Sincerely,

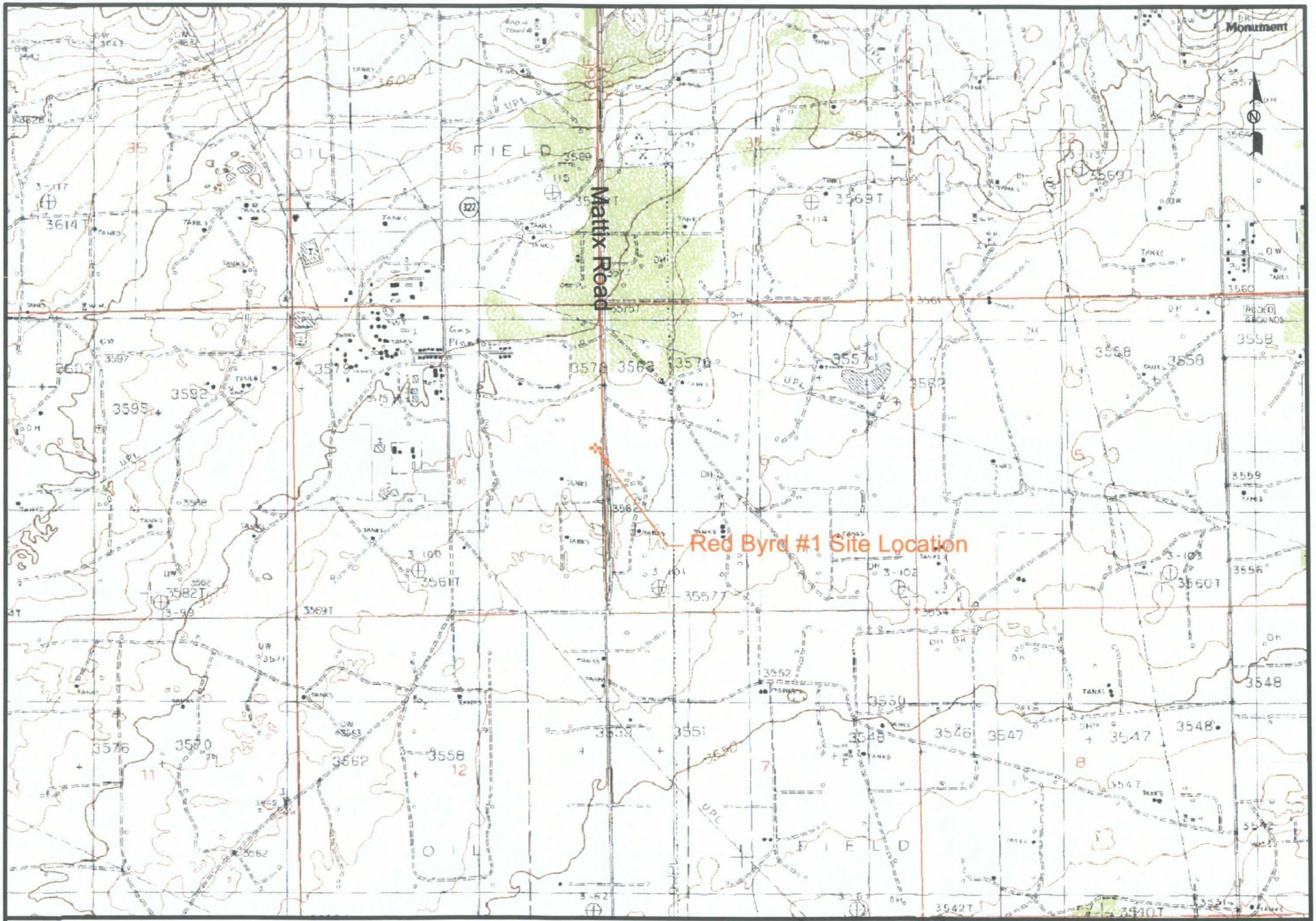
Ronald K. Rounsaville
Project Manager
NOVA Safety and Environmental

Attachments:

Figure 1 - Site Location Map
Figure 2 - Site Map
Table 1 – Groundwater Elevation Data
Table 2 – Concentrations of BTEX and TPH in Soils
Table 3 – Concentrations of BTEX in Groundwater
Table 4 – Concentrations of Volatiles in Groundwater
Table 5 – Concentrations of Semi-Volatiles in Groundwater
Table 6 – Concentrations of Anions/Cations in Groundwater
Table 7 – Concentrations of RCRA/WQCC Metals in Groundwater
Laboratory Analytical Reports
Boring Log and Monitor Well Details including State of New Mexico Well Record and Log

cc:

Larry Johnson, NMOCD, Hobbs, NM
Daniel Bryant, Plains Marketing, L.P., Lovington, NM
Jeff Dann, Plains Marketing, L.P., Houston, TX
file



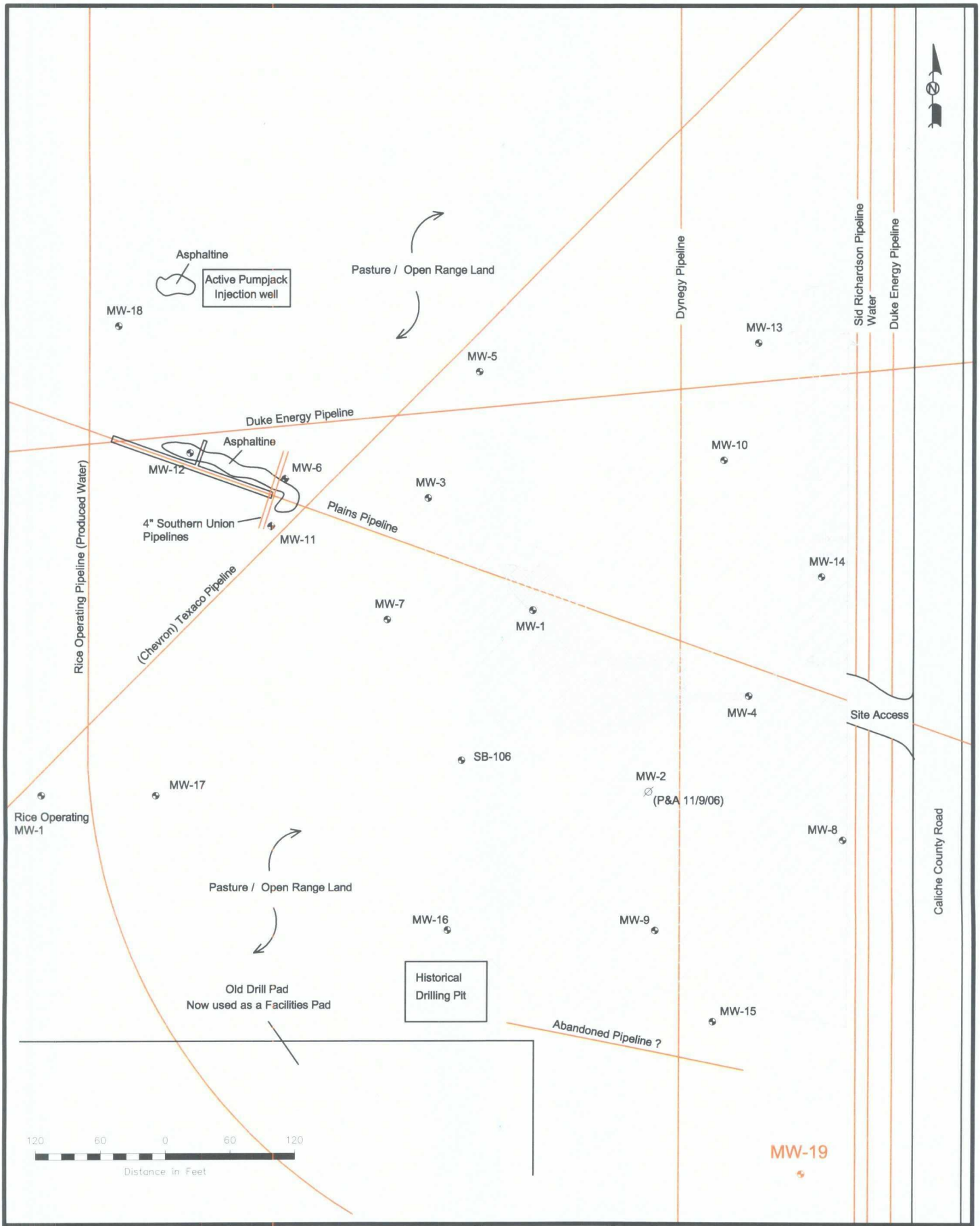
NMOCD Reference #1R-0085

Figure 1
Site Location Map

Plains Marketing, L.P.
Red Byrd No. 1
Lea County, NM

NOVA Safety and Environmental

SE1/4 NE1/4 Sec 1 T20S R36E		32° 36' 09.2"N 103° 17' 56.9"
Scale: NTS	Prep By: RKR	Checked By: TKC
		September 4, 2008



Legend:

- Monitor Well Location
- Pipeline
- Initial Excavation

Figure 2
Site Map

Plains Pipeline, L.P.
Red Byrd No. 1
Lea County, NM

NOVA Safety and Environmental

SE1/4 NE1/4 Sec 1 T20S R36E		32° 36' 09.2"N 103° 17' 56.9"
Scale: 1" = 100'	Prep By: CS	Checked By: TKC
September 2, 2004		

TABLE 1

GROUNDWATER ELEVATION DATA - 2008

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-1	*02/05/08*	3,567.59	-	33.10	0.00	3,534.49
MW-1	*05/05/08*	3,567.59	-	33.35	0.00	3,534.24
MW-1	*08/04/08*	3,567.59	-	33.50	0.00	3,534.09
MW-2	11/09/06	Plugged and Abandoned				
MW-3	*02/05/08*	3,567.55	-	32.85	0.00	3,534.70
MW-3	*05/05/08*	3,567.55	-	33.06	0.00	3,534.49
MW-3	*08/04/08*	3,567.55	-	37.18	0.00	3,530.37
MW-4	*02/05/08*	3,567.80	-	33.60	0.00	3,534.20
MW-4	*05/05/08*	3,567.80	-	33.80	0.00	3,534.00
MW-4	*08/04/08*	3,567.80	-	33.94	0.00	3,533.86
MW-5	*02/05/08*	3,569.50	-	34.34	0.00	3,535.16
MW-5	*05/05/08*	3,569.50	-	34.61	0.00	3,534.89
MW-5	*08/04/08*	3,569.50	-	34.64	0.00	3,534.86
MW-6	*02/05/08*		-	19.79	0.00	-19.79
MW-6	*05/05/08*		-	20.06	0.00	-20.06
MW-6	*08/04/08*		-	20.14	0.00	-20.14
MW-7	*02/05/08*	3,567.53	-	33.09	0.00	3,534.44
MW-7	*05/05/08*	3,567.53	-	33.31	0.00	3,534.22
MW-7	*08/04/08*	3,567.53	-	33.44	0.00	3,534.09
MW-8	*02/05/08*	3,567.79	-	33.81	0.00	3,533.98
MW-8	*05/05/08*	3,567.79	-	34.06	0.00	3,533.73
MW-8	*08/04/08*	3,567.79	-	34.19	0.00	3,533.60
MW-9	*02/05/08*	3,568.62	-	35.23	0.00	3,533.39
MW-9	*05/05/08*	3,568.62	-	35.48	0.00	3,533.14
MW-9	*08/04/08*	3,568.62	-	35.57	0.00	3,533.05
MW-10	*02/05/08*	3,570.11	-	35.14	0.00	3,534.97
MW-10	*05/05/08*	3,570.11	-	35.48	0.00	3,534.63
MW-10	*08/04/08*	3,570.11	-	35.53	0.00	3,534.58
MW-11	*02/05/08*	3,567.96	-	33.28	0.00	3,534.68
MW-11	*05/05/08*	3,567.96	-	33.49	0.00	3,534.47
MW-11	*08/04/08*	3,567.96	-	33.57	0.00	3,534.39
MW-12	01/11/08	Excavated around and cut down MW-12			0.00	0.00
MW-12	01/17/08				0.00	0.00
MW-12	01/22/08				0.00	0.00
MW-12	02/12/08				0.00	0.00
MW-12	02/21/08				0.00	0.00
MW-12	04/24/08				0.00	0.00
MW-12	05/08/08				0.00	0.00

TABLE 1

GROUNDWATER ELEVATION DATA - 2008

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-12	06/25/08		19.77	21.36	1.59	-20.01
MW-12	07/14/08		19.65	21.16	1.51	-19.88
MW-12	08/18/08		19.62	20.96	1.34	-19.82
MW-13	*02/05/08*	3,571.78	-	35.76	0.00	3,536.02
MW-13	*05/05/08*	3,571.78	-	36.12	0.00	3,535.66
MW-13	*08/04/08*	3,571.78	-	36.05	0.00	3,535.73
MW-14	*02/05/08*	3,571.69	-	36.90	0.00	3,534.79
MW-14	*05/05/08*	3,571.69	-	37.19	0.00	3,534.50
MW-14	*08/04/08*	3,571.69	-	37.29	0.00	3,534.40
MW-15	*02/05/08*	3,569.33	-	36.18	0.00	3,533.15
MW-15	*05/05/08*	3,569.33	-	36.40	0.00	3,532.93
MW-15	*08/04/08*	3,569.33	-	36.47	0.00	3,532.86
MW-16	*02/05/08*	3,568.89	-	35.61	0.00	3,533.28
MW-16	*05/05/08*	3,568.89	-	35.91	0.00	3,532.98
MW-16	*08/04/08*	3,568.89	-	36.02	0.00	3,532.87
MW-17	*02/05/08*	3,569.66	-	35.43	0.00	3,534.23
MW-17	*05/05/08*	3,569.66	-	35.74	0.00	3,533.92
MW-17	*08/04/08*	3,569.66	-	35.83	0.00	3,533.83
MW-18	*02/05/08*	3,571.17	-	35.51	0.00	3,535.66
MW-18	*05/05/08*	3,571.17	-	36.91	0.00	3,534.26
MW-18	*08/04/08*	3,571.17	-	35.90	0.00	3,535.27
MW-19	*08/04/08*			37.82		
MW-19	*08/26/08*			37.84		

Elevations based on the North American Vertical Datum of 1929.

TABLE 2

CONCENTRATIONS OF BTEX AND TPH IN SOILS

PLAINS MARKETING, L.P.
RED BYRD 1
LEA COUNTY, NM
NMOCD REFERENCE NUMBER 1R-0085

All Concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	TPH DRO	TPH GRO	SW 846-8012B,5030					BTEX
				BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	
NMOCD REGULATORY LIMIT		**100**		**10**					**50**
MW-8 5'	11/5/2004	**106**	**<5**	<0.05	<0.05	<0.05	<0.05		0.000
MW-8 20'	11/5/2004	<50	<1	<0.01	<0.01	<0.01	0.0135		0.014
MW-8 33'	11/5/2004	<50	9.62	<0.01	<0.01	0.0152	<0.01		0.015
MW-9 15'	11/5/2004	<50	<1	<0.01	<0.01	<0.01	<0.01		0.000
MW-9 25'	11/5/2004	<50	<1	<0.01	<0.01	<0.01	<0.01		0.000
MW-9 35'	11/5/2004	**2120**	**791**	1.63	<0.01	6.35	3.44		11.420
MW-10 5'	11/6/2004	<50	3.16	<0.01	<0.01	<0.01	0.0127		0.013
MW-10 25'	11/6/2004	<50	<1	<0.01	<0.01	<0.01	<0.01		0.000
MW-11 10'	11/6/2004	<50	<1	<0.01	<0.01	<0.01	<0.01		0.000
MW-11 20'	11/6/2004	<50	<1	<0.01	<0.01	<0.01	<0.01		0.000
MW-11 30'	11/6/2004	**872**	**36.5**	<0.05	<0.05	0.307	0.252		0.559
MW-12 15'	11/6/2004	**6760**	**360**	<0.05	<0.05	1.64	4.45		6.090
MW-12 25'	11/6/2004	**5920**	**404**	<0.01	<0.01	2.77	2.57		5.340
MW-12 36'	11/6/2004	**965**	**21.9**	<0.05	<0.05	<0.05	0.055		0.055
MW-13 10-15'	03/08/06	<50.0	<1						0.000
MW-13 30-35'	03/08/06	<50.0	<1						0.000
MW-14 10-15'	03/08/06	<50.0	<1						0.000
MW-14 30-35'	03/08/06	<50.0	<1						0.000
MW-14 35-40'	03/08/06	<50.0	43.4	<0.01	<0.01	0.041	<0.01		0.041
MW-15 15-20'	03/08/06	<50.0	<1						
MW-15 30-35'	03/08/06	**842**	**1560**	<0.1	<0.1	1.860	2.320		4.180

TABLE 2

CONCENTRATIONS OF BTEX AND TPH IN SOILS

PLAINS MARKETING, L.P.
RED BYRD 1
LEA COUNTY, NM
NMOCD REFERENCE NUMBER 1R-0085

All Concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	TPH DRO	TPH GRO	SW 846-8012B,5030					BTEX
				BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	
NMOCD REGULATORY LIMIT		**100**		**10**					**50**
MW-16 10-15'	3/9/2006	<50.0	<1						
MW-16 5-10'	3/9/2006	<50.0	<1						
MW-16 30-35'	3/9/2006	**649**	**2240**	<0.1	<0.1	2.350	3.880		6.230
MW-17 0-5'	3/9/2006	<50.0	<1						
MW-17 10-15'	3/9/2006	<50.0	<1						
MW-17 30-35'	3/9/2006	**151**	**2040**	**1.600**	<0.001	3.660	4.290		9.550
MW-18 5-10'	3/9/2006	<50.0	<1						
MW-18 20-25'	3/9/2006	<50.0	<1						
MW-18 30-35'	3/9/2006	<50.0	**92.6**	0.327	<0.01	0.202	<0.01		0.529
SB-106 0-5'	3/8/2006	<50.0	<5						
SB-106 10-15'	3/8/2006	<50.0	<1						
SB-106 30-35'	3/8/2006	<50.0	15.6	<0.01	<0.01	<0.01	<0.01		<0.01
MW-19 34'-35'	7/15/2008	<50.0	**1.2**	<0.0100	<0.0100	<0.0100	<0.0100		<0.0100
MW-19 39'-40'	7/15/2008	<50.0	**1.00**	<0.0100	<0.0100	<0.0100	<0.0100		<0.0100
MW-19 44'-45'	7/15/2008	<50.0	<1.00	<0.0100	<0.0100	<0.0100	<0.0100		<0.0100

combined when analyzed by Trace Laboratories, Inc. only.

TABLE 3

CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NM
NMOCD REFERENCE NUMBER 1R-0085

All Concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8012B,5030					
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	BTEX
NMOCD REGULATORY LIMIT		**0.010**	**0.750**	**0.750**	**0.62**		
MW - 1	02/02/00	**0.0880**	0.00300	<0.001	0.002	<0.001	0.093
	05/15/00	**0.1200**	0.00300	0.0020	0.002	<0.001	0.127
	09/14/00	**0.3610**	0.00200	0.0020	<0.001	<0.001	0.365
	12/05/00	**0.4830**	0.00100	0.0010	0.001	<0.001	0.486
	03/18/05	Not Sampled Due to PSH in Well					
	06/16/05	**0.0875**	<0.05	0.0634	<0.05		0.151
	09/16/05	**1.1500**	<0.2	**1.6100**	**1.150**		3.910
	12/15/05	**0.5960**	<0.2	<0.2	<0.2		0.596
	03/17/06	**0.6580**	<0.2	0.4060	0.373		1.437
	06/13/06	**0.2900**	0.00170	0.1870	0.158		0.637
	09/06/06	**0.2970**	<0.2	<0.2	<0.2		0.297
	11/15/06	**0.3680**	<0.001	0.2330	0.194		0.795
	02/14/07	**0.1110**	<0.001	0.0954	0.083		0.290
	05/11/07	**0.4320**	<0.200	0.5200	0.459		1.411
	08/14/07	**0.1460**	<0.02	0.0519	0.057		0.255
	11/01/07	**0.3090**	<0.02	0.1010	0.0647		0.475
	02/05/08	**0.1540**	<0.001	0.5830	0.4610		1.198
	05/05/08	**0.8160**	<0.005	0.2620	0.3430		1.421
	08/04/08	**0.2840**	<0.005	0.1110	0.0972		0.492
MW - 2	02/02/00	0.0080	<0.001	<0.001	<0.001	<0.001	0.008
	05/15/00	**0.0590**	<0.001	<0.001	<0.001	<0.001	0.059
	09/14/00	**0.1040**	<0.001	<0.001	<0.001	<0.001	0.104
	12/05/00	**0.1800**	<0.001	0.0030	0.001	<0.001	0.184
	03/18/05	**1.5700**	<0.5	<0.5	<0.5		1.570
	06/16/05	**1.0300**	<0.2	0.5350	0.315		1.880
	09/16/05	**0.9980**	<0.2	0.6810	0.424		2.103
	12/15/05	**0.8490**	<0.2	0.6050	0.402		1.856
	03/17/06	**0.6700**	<0.2	0.5800	0.588		1.838
	06/13/06	**0.3390**	<0.2	0.3340	<0.2		0.673
	09/06/06	Not Sampled Due to Well Obstruction					
	11/09/06	Plugged and Abandoned					
MW - 3	02/02/00	**0.1580**	0.00600	0.0050	0.006	0.002	0.177
	12/21/04	**1.8400**	<0.005	0.4120	0.284		2.536
	03/18/05	**0.7690**	<0.5	<0.5	<0.5		0.769
	06/16/05	**0.9900**	<0.5	**1.2900**	**0.888**		3.168
	09/16/05	**0.7050**	<0.2	0.6780	0.458		1.841
	12/15/05	Not Sampled Due to PSH in Well					
	03/17/06	**1.2400**	<0.2	**2.5900**	**2.300**		6.130
	06/13/06	**0.5430**	<0.2	0.4450	<0.2		0.988
	09/06/06	**0.4530**	<0.2	0.6010	**0.774**		1.828
	11/15/06	**0.7850**	<0.02	0.4930	0.318		1.596
	02/14/07	**0.9230**	<0.02	**2.0500**	**1.750**		4.723
	05/11/07	**0.4840**	<0.200	<0.200	**0.655**		1.139
	08/14/07	**0.4780**	<0.02	0.3320	0.341		1.151
	11/01/07	**0.4630**	<0.100	0.1510	0.206		0.820

TABLE 3

CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NM
NMOCD REFERENCE NUMBER 1R-0085

All Concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8012B,5030					BTEX
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	
NMOCD REGULATORY LIMIT		**0.010**	**0.750**	**0.750**	**0.62**		
MW-3	02/05/08	**0.3940**	<0.100	0.2570	0.315		0.966
	05/05/08	**0.4410**	<0.0100	0.1420	0.122		0.705
	08/04/08	**0.5540**	<0.005	0.1820	0.229		0.965
MW - 4	02/02/00	0.0030	<0.001	<0.001	<0.001	<0.001	0.003
	05/15/00	0.0020	0.00100	0.0010	<0.001	<0.001	0.004
	09/14/00	0.0070	<0.001	0.0060	0.004	<0.001	0.017
	12/05/00	**0.0130**	0.00100	0.0040	0.003	<0.001	0.021
	03/18/05	<0.005	<0.005	0.1220	0.096		0.218
	06/16/05	**0.1420**	<0.005	0.1240	0.116		0.382
	09/16/05	**0.0919**	<0.001	0.3210	0.258		0.671
	12/15/05	**0.0625**	<0.005	0.2890	0.230		0.582
	03/17/06	<0.001	0.03920	0.2510	0.211		0.501
	06/13/06	**0.0258**	<0.005	0.3510	0.238		0.615
	09/06/06	<0.001	0.01100	0.2690	0.205		0.485
	11/15/06	<0.001	0.00380	0.2730	0.209		0.486
	02/14/07	<0.001	<0.001	0.2850	0.222		0.507
	05/11/07	**0.0455**	0.01770	0.2550	0.214		0.532
	08/14/07	**0.0298**	0.00620	0.1540	0.112		0.302
	11/01/07	**0.0154**	0.00560	0.1460	0.116		0.283
	02/05/08	**0.0083**	0.00820	0.2190	0.172		0.408
	05/05/08	**0.1950**	<0.005	0.2190	0.174		0.588
	08/04/08	**0.0784**	0.00430	0.1840	0.148		0.415
MW - 5	02/02/00	**0.0320**	0.04300	0.1960	0.152	0.018	0.441
	03/18/05	Not Sampled Due to PSH in Well					
	06/16/05	**0.4090**	0.07600	0.4330	**0.670**		1.588
	09/16/05	**0.1240**	<0.001	0.3020	0.340		0.766
	12/15/05	**0.1490**	<0.005	0.3040	0.426		0.879
	03/17/06	<0.01	<0.01	0.2730	0.394		0.667
	06/13/06	**0.1480**	<0.05	0.2020	0.199		0.549
	09/06/06	**0.2020**	<0.001	0.2500	0.285		0.737
	11/15/06	**0.2070**	<0.001	0.2030	0.205		0.615
	02/14/07	**0.2390**	<0.001	0.1660	0.281		0.686
	05/11/07	**0.1900**	0.06090	0.1100	0.412		0.773
	08/14/07	**0.1560**	<0.01	0.0385	0.361		0.556
	11/01/07	**0.1110**	<0.001	0.0097	0.177		0.298
	02/05/08	**0.0825**	0.00300	0.0158	0.193		0.294
	05/05/08	**0.2230**	<0.005	0.0051	0.2380		0.466
	08/04/08	**0.0610**	0.00190	<0.001	0.1300		0.193
MW - 6	02/02/00	**0.0470**	0.00200	0.0040	0.004	0.002	0.059
	05/15/00	**0.0550**	0.00200	0.0050	0.002	0.001	0.065
	09/14/00	**0.0460**	0.00200	0.0030	<0.001	<0.001	0.051
	12/05/00	**0.0730**	0.00100	0.0060	0.005	0.001	0.086
	03/07/01	**0.1240**	<0.001	0.0020	0.001	0.003	0.130
	05/23/01	**0.0500**	0.00500	<0.005	<0.005		0.055

TABLE 3

CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NM
NMOCD REFERENCE NUMBER 1R-0085

All Concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8012B,5030					BTEX
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	
NMOCD REGULATORY LIMIT		0.010	0.750	0.750	0.62		
MW - 6	08/06/01	**0.0420**	<0.001	0.0010	<0.001	<0.001	0.043
	10/02/01	**0.0170**	<0.001	<0.001	<0.001	<0.001	0.017
	02/28/02	**0.0330**	<0.001	0.0020	<0.001	<0.001	0.035
	05/14/02	**0.0283**	<0.001	0.0013	<0.001	<0.001	0.030
	08/19/02	**0.0320**	<0.001	0.0010	<0.001	<0.001	0.033
	11/18/02	**0.0220**	<0.001	<0.001	<0.001	<0.001	0.022
	09/09/04	0.0064	<0.001	<0.001	<0.002	<0.001	0.006
	12/21/04	0.0034	<0.001	<0.001	<0.001		0.003
	03/18/05	**0.0208**	<0.001	0.0029	<0.001		0.024
	06/16/05	**0.1680**	<0.02	0.0383	<0.02		0.206
	09/16/05	**0.2390**	<0.001	0.0599	0.030		0.329
	12/15/05	**0.2490**	<0.01	0.0538	0.017		0.320
	03/17/06	**0.1340**	<0.001	0.0240	0.009		0.167
	06/13/06	**0.2580**	<0.001	0.0272	0.014		0.299
	09/06/06	**0.2890**	<0.001	0.0175	<0.001		0.307
	11/15/06	**0.1600**	<0.001	0.0104	0.0041		0.175
	02/14/07	**0.5710**	**0.82700**	0.0933	0.1140		1.605
	05/11/07	**0.2920**	0.02540	0.0174	0.0154		0.350
	08/14/07	Not Sampled Due to Excavation Activities					
	11/01/07	**0.2050**	0.03230	0.0333	0.0216		0.292
	02/05/08	**0.2790**	0.00300	0.0158	0.1930		0.491
	05/05/08	**0.3270**	0.11500	<0.02	<0.020		0.442
	08/04/08	**0.2900**	0.11700	0.0294	0.0316		0.468
MW - 7	02/02/00	**0.0070**	<0.001	0.0010	0.002	<0.001	0.010
	05/15/00	**0.0040**	<0.001	0.0010	<0.001	<0.001	0.005
	09/14/00	**0.0460**	<0.001	0.0020	<0.001	<0.001	0.048
	12/05/00	**0.0620**	<0.001	0.0020	<0.001	<0.001	0.064
	03/07/01	**0.0760**	<0.001	<0.001	0.001	0.003	0.080
	05/23/01	**0.0150**	<0.005	<0.005	<0.005		0.015
	08/06/01	**0.0110**	<0.001	<0.001	<0.001	<0.001	0.011
	10/02/01	**0.0250**	<0.001	<0.001	<0.001	<0.001	0.025
	02/28/02	**0.0040**	<0.001	<0.001	<0.001	<0.001	0.004
	05/14/02	**0.1180**	<0.001	<0.001	<0.001	<0.001	0.118
	08/19/02	**0.0140**	<0.001	<0.001	<0.001	<0.001	0.014
	11/18/02	**0.0240**	<0.001	<0.001	<0.001	<0.001	0.024
	09/08/04	<0.001	<0.001	<0.001	<0.002	<0.001	0.000
	12/21/04	**0.0057**	<0.001	<0.001	<0.001		0.006
	03/18/05	**0.0016**	<0.001	<0.001	<0.001		0.002
	06/16/05	**0.0109**	<0.001	0.0040	0.002		0.017
	09/16/05	**0.0079**	<0.001	0.0012	<0.001		0.009
	12/15/05	**0.0217**	<0.001	0.0034	0.002		0.027
	03/17/06	**0.0304**	<0.001	0.0050	0.003		0.038
	06/13/06	**0.0417**	<0.001	0.0037	0.004		0.049
	09/06/06	**0.0324**	<0.001	0.0035	0.007		0.043
	11/15/06	**0.0486**	<0.001	0.0040	0.0024		0.055
	02/14/07	**0.0551**	<0.001	0.0047	<0.001		0.060

TABLE 3

CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NM
NMOCD REFERENCE NUMBER 1R-0085

All Concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8012B,5030					BTEX
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	
NMOCD REGULATORY LIMIT		0.010	0.750	0.750	0.62		
MW - 7	05/11/07	**0.0378**	<0.001	0.0041	0.0074		0.049
	08/14/07	**0.0143**	<0.001	0.0031	0.0207		0.038
	11/01/07	**0.0224**	<0.001	0.0017	<0.001		0.024
	02/05/08	**0.0166**	<0.001	<0.001	<0.001		0.017
	05/05/08	**0.1160**	<0.001	<0.001	0.0043		0.120
	08/04/08	**0.0083**	<0.001	0.0010	<0.001		0.009
MW-8	11/11/04	**0.1850**	<0.001	0.0418	0.026		0.253
	03/18/05	**0.0796**	<0.005	0.0686	0.022		0.170
	06/16/05	**0.1110**	<0.001	0.1050	0.048		0.264
	09/16/05	**0.0628**	<0.001	0.0637	0.025		0.152
	12/15/05	<0.001	<0.001	<0.001	0.006		0.006
	03/17/06	**0.0116**	<0.001	0.0122	0.025		0.048
	06/13/06	<0.001	<0.001	<0.001	0.017		0.017
	09/06/06	<0.001	<0.001	<0.001	0.015		0.015
	11/15/06	**0.0366**	<0.001	0.0199	0.0182		0.0747
	02/14/07	**0.0718**	<0.001	0.0253	0.0384		0.1355
	05/11/07	**0.0442**	<0.001	0.0197	0.0243		0.0882
	08/14/07	**0.0413**	<0.001	0.0067	0.0147		0.0627
	11/01/07	**0.0251**	<0.001	0.0063	0.0125		0.0439
	02/05/08	**0.0319**	<0.001	0.0045	0.0175		0.0539
	05/05/08	**0.0061**	<0.001	0.0018	0.0129		0.0208
	08/04/08	**0.0051**	<0.001	<0.001	0.0034		0.0085
MW-9	11/11/04	**0.2810**	<0.05	0.0884	<0.05		0.369
	03/18/05	**0.0162**	<0.005	<0.005	<0.005		0.016
	06/16/05	**0.4620**	<0.2	0.2120	<0.2		0.674
	09/16/05	**0.6630**	0.03980	0.2340	0.144		1.081
	12/15/05	**0.4480**	<0.1	0.1710	<0.1		0.619
	03/17/06	**0.3790**	<0.02	0.1220	0.078		0.579
	06/13/06	**0.3040**	<0.05	0.0723	<0.05		0.376
	09/06/06	**0.1750**	<0.02	0.0258	<0.02		0.201
	11/15/06	**0.4000**	<0.001	0.0456	0.0145		0.4601
	02/14/07	**0.2760**	<0.001	0.0181	0.0066		0.3007
	05/11/07	**0.2000**	<0.020	<0.020	<0.020		0.2000
	08/14/07	**0.0983**	<0.02	0.0381	0.0352		0.1716
	11/01/07	**0.1400**	<0.001	0.0110	<0.001		0.1510
	02/05/08	**0.2360**	<0.001	0.0072	0.0015		0.2447
	05/05/08	**0.1980**	<0.005	0.0102	0.0099		0.2181
	08/04/08	**0.0270**	<0.001	0.0011	<0.001		0.0281
MW-10	11/11/04	**0.0813**	<0.005	0.0542	0.010		0.146
	03/18/05	**0.0462**	<0.01	0.0206	<0.01		0.067
	06/16/05	**0.0753**	<0.02	0.0692	0.033		0.178
	09/16/05	**0.2460**	<0.001	0.1760	0.095		0.517
	12/15/05	**0.2400**	<0.1	0.1930	<0.1		0.433
	03/17/06	**0.2280**	<0.01	0.1860	0.086		0.500

TABLE 3

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PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NM
NMOCD REFERENCE NUMBER 1R-0085

All Concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8012B,5030					
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	BTEX
NMOCD REGULATORY LIMIT		0.010	0.750	0.750	0.62		
MW-10	06/13/06	**0.2320**	<0.05	0.2040	0.065		0.501
	09/06/06	**0.1380**	<0.02	0.0622	0.043		0.243
	11/15/06	**0.1910**	<0.001	0.1670	0.0942		0.452
	02/14/07	**0.1830**	<0.001	0.1620	0.0819		0.427
	05/11/07	**0.1110**	<0.010	0.0703	0.0550		0.236
	08/14/07	**0.0784**	<0.01	0.0291	0.0177		0.125
	11/01/07	**0.1100**	<0.001	0.0412	0.0368		0.188
	02/05/08	**0.1180**	<0.001	0.0029	0.0240		0.145
	05/05/08	**0.1150**	<0.005	0.0082	0.0305		0.154
	08/04/08	**0.0762**	<0.001	0.0055	0.0131		0.095
MW-11	11/11/04	**0.0195**	<0.005	<0.005	<0.005		0.020
	03/18/05	**0.0648**	<0.005	0.0104	<0.005		0.075
	06/16/05	**0.1640**	<0.01	0.0132	<0.01		0.177
	09/16/05	**0.2070**	<0.001	0.0058	<0.001		0.213
	12/15/05	<0.001	<0.001	<0.001	<0.001		<0.001
	03/17/06	<0.001	<0.001	<0.001	0.010		0.010
	06/13/06	**0.1550**	<0.02	<0.02	<0.02		0.155
	09/06/06	**0.0144**	<0.001	<0.001	<0.001		0.014
	11/15/06	**0.2280**	<0.001	0.0456	0.0118		0.2854
	02/14/07	**0.2760**	0.00110	0.0571	0.0140		0.3482
	05/11/07	**0.2000**	<0.010	0.0439	<0.010		0.2439
	08/14/07	**0.1440**	<0.02	0.0290	<0.02		0.1730
	11/01/07	**0.2680**	<0.001	0.0602	0.0178		0.3460
	02/05/08	**0.2600**	<0.001	0.0599	0.0273		0.3472
	05/05/08	**0.2310**	<0.005	0.0456	0.0248		0.3014
	08/04/08	**0.0375**	<0.005	<0.005	<0.005		0.0375
MW-12	11/11/04	**0.0076**	<0.005	<0.005	0.010		0.017
	03/18/05	**0.0580**	<0.005	0.0427	0.042		0.143
	06/16/05	**0.1070**	<0.02	0.0757	0.071		0.254
	09/16/05	**0.0422**	<0.02	0.0326	<0.02		0.075
	12/15/05	**0.0226**	<0.001	**1.0000**	0.011		1.034
	03/17/06	**0.1150**	<0.1	<0.1	<0.1		**0.115**
	06/13/06	**0.1270**	<0.001	0.0057	0.045		0.178
	09/06/06	**0.0198**	<0.001	0.0015	0.005		0.026
	11/15/06	**0.1320**	<0.001	0.0461	0.0709		0.2490
	02/14/07	Not Sampled Due to PSH in Well					
	05/11/07	Not Sampled Due to PSH in Well					
	08/14/07	Not Sampled Due to PSH in Well					
	11/01/07	Not Sampled Due to PSH in Well					
	02/05/08	Not Sampled Due to PSH in Well					
MW-13	03/17/06	<0.001	<0.001	<0.001	<0.001		<0.001
	06/13/06	<0.001	<0.001	<0.001	<0.001		<0.001
	09/06/06	<0.001	<0.001	<0.001	0.004		0.004
	11/15/06	<0.001	<0.001	<0.001	0.0011		0.001

TABLE 3

CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NM
NMOCD REFERENCE NUMBER 1R-0085

All Concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8012B,5030					
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	BTEX
NMOCD REGULATORY LIMIT		0.010	0.750	0.750	0.62		
MW-13	02/14/07	<0.001	<0.001	<0.001	0.0020		0.002
	05/11/07	<0.001	<0.001	<0.001	0.0098		0.0098
	08/14/07	<0.001	<0.001	<0.001	<0.001		<0.001
	11/01/07	<0.001	<0.001	<0.001	<0.001		<0.001
	02/05/08	<0.001	<0.001	<0.001	0.0021		0.0021
	05/05/08	<0.001	<0.001	<0.001	0.0013		0.0013
	08/04/08	<0.001	<0.001	<0.001	<0.001		<0.001
MW-14	03/17/06	<0.005	<0.005	<0.005	<0.005		<0.005
	06/13/06	**0.0112**	<0.001	0.0025	0.003		0.017
	09/06/06	**0.0200**	0.00250	0.0115	0.032		0.066
	11/15/06	**0.0188**	<0.001	0.0031	0.0145		0.0364
	02/14/07	<0.001	<0.001	<0.001	0.0164		0.0164
	05/11/07	**0.0110**	<0.001	<0.001	0.0066		0.0176
	08/14/07	**0.0085**	<0.001	<0.001	0.0118		0.0203
	11/01/07	**0.0051**	<0.001	<0.001	<0.001		0.0051
	02/05/08	**0.0095**	<0.001	<0.001	<0.001		0.0095
	05/05/08	**0.0072**	0.00150	<0.001	0.0041		0.0128
	08/04/08	**0.0076**	0.00130	0.0017	0.0026		0.0132
MW-15	03/17/06	**0.4770**	<0.02	<0.02	<0.02		0.477
	06/13/06	**0.5670**	<0.02	0.1810	0.114		0.862
	09/06/06	**0.6980**	<0.02	0.2470	0.106		1.051
	11/15/06	**0.6020**	<0.02	0.2650	0.134		1.001
	02/14/07	**0.2540**	<0.001	0.1480	0.091		0.493
	05/11/07	**0.4380**	<0.010	0.2030	0.087		0.728
	08/14/07	**0.2960**	<0.01	0.1940	0.114		0.604
	11/01/07	**1.0700**	<0.1	0.3580	0.175		1.603
	02/05/08	**0.5000**	<0.001	0.1590	0.0861		0.745
	05/05/08	**0.5980**	<0.005	0.1900	0.0919		0.880
	08/04/08	**0.0660**	<0.005	0.0144	0.0108		0.091
MW-16	03/17/06	**0.1990**	<0.1	<0.1	<0.1		0.199
	06/13/06	**0.2330**	<0.2	<0.2	<0.2		0.233
	09/06/06	**0.1460**	<0.1	<0.1	<0.1		0.146
	11/15/06	**0.1840**	<0.001	0.1500	0.110		0.444
	02/14/07	**0.1920**	<0.001	0.1420	0.106		0.440
	05/11/07	<0.100	<0.100	0.1110	<0.100		0.111
	08/14/07	**0.0801**	<0.01	0.0454	0.0318		0.157
	11/01/07	**0.1160**	<0.001	0.1160	0.0870		0.319
	02/05/08	**0.0796**	<0.005	0.6110	0.0503		0.741
	05/05/08	**0.1280**	<0.005	0.0824	0.0534		0.264
	08/04/08	**0.0566**	<0.001	0.0334	0.0204		0.1104
MW-17	03/17/06	**0.0281**	<0.01	<0.01	<0.01		0.028
	06/13/06	**0.0251**	<0.001	<0.001	0.003		0.028
	09/06/06	**0.0168**	0.00100	0.0108	0.010		0.039

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All Concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8012B,5030					
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	BTEX
NMOCD REGULATORY LIMIT		**0.010**	**0.750**	**0.750**	**0.62**		
MW-17	11/15/06	**0.0329**	<0.001	0.0220	0.0174		0.0723
	02/14/07	**0.0812**	<0.001	0.0599	0.0549		0.1960
	05/11/07	**0.0511**	<0.001	0.0410	0.0335		0.1256
	08/14/07	**0.0629**	<0.001	0.0351	0.0189		0.1169
	11/01/07	**0.0318**	<0.001	0.0254	0.0184		0.0756
	02/05/08	**0.0554**	<0.001	0.0399	0.0291		0.1244
	05/05/08	**0.0800**	<0.005	0.0405	0.0297		0.1502
	08/04/08	**0.0299**	<0.001	0.0159	0.0105		0.0563
MW-18	03/17/06	<0.001	<0.001	0.0018	<0.001		0.002
	06/13/06	0.0090	<0.001	0.0392	0.038		0.086
	09/06/06	0.0091	<0.001	0.0492	0.041		0.099
	11/15/06	0.0075	<0.001	0.0626	0.0456		0.1157
	02/14/07	0.0090	0.00340	0.0667	0.0651		0.1442
	05/11/07	0.0073	<0.001	0.0653	0.0558		0.1284
	08/14/07	0.0072	<0.001	0.0518	0.0419		0.1009
	11/01/07	0.0050	<0.001	0.0600	0.0462		0.1112
	02/05/08	0.0080	<0.001	0.0864	0.0671		0.1615
	05/05/08	**0.0438**	<0.005	0.0991	0.0766		0.2195
	08/04/08	**0.0174**	0.00170	0.0590	0.0469		0.1250
MW-19	*08/04/08*	<0.001	<0.001	0.0039	0.0039		0.0078
	08/22/08	<0.001	<0.001	0.0017	<0.001		0.0017
EB - 1	09/14/00	<0.001	<0.001	<0.001	<0.001	<0.001	0.000
	12/05/00	<0.001	<0.001	<0.001	<0.001	<0.001	0.000
	03/07/01	<0.001	<0.001	<0.001	<0.001	<0.001	0.000
	05/23/01	<0.005	<0.005	<0.005	<0.005		0.000
	08/06/01	<0.001	<0.001	<0.001	<0.001	<0.001	0.000
	10/02/02	<0.001	<0.001	<0.001	<0.001	<0.001	0.000
	02/28/02	<0.001	<0.001	<0.001	<0.001	<0.001	0.000
	05/14/02	<0.001	<0.001	<0.001	<0.001	<0.001	0.000
	08/19/02	<0.001	<0.001	<0.001	<0.001	<0.001	0.000
	11/18/02	<0.001	<0.001	<0.001	<0.001	<0.001	0.000

Note: m,p and o Xylenes combined when analyzed by Trace Laboratories, Inc. only.

Note: EB denotes Equipment Blank collected during sampling event.

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN WATER
Plains Marketing, L.P.
TNM Red Byrd # 1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085
All water concentrations are in mg/L

Date Sampled	Sample Location	Bromochloromethane	Dichlorodifluoromethane	Chloromethane (methyl chloride)	Vinyl Chloride	Bromomethane (methyl bromide)	Chloroethane	Trichlorofluoromethane	Acetone	Iodomethane (methyl Iodide)	Carbon Disulfide	Acrylonitrile	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	2-Hexanone
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		-	-	-	**0.001 mg/L**	-	-	-	-	-	-	-	-	-	-
08/26/08	MW-19	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.010	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN WATER
Plains Marketing, L.P.
TNM Red Byrd # 1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085
All water concentrations are in mg/L

Date Sampled	Sample Location	trans 1,4-Dichloro-2-butene	1,1-Dichloroethene	Methylene chloride	MTBE	trans-1,2-Dichloroethene	1,1-Dichloroethane	cis-1,2-Dichloroethene	2,2-Dichloropropane	1,2-Dichloroethane (EDC)	Chloroform	1,1,1-Trichloroethane	1,1-Dichloropropene	Benzene	Carbon Tetrachloride
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		-	-	0.1mg/L	-	0.1mg/L	0.025 mg/L	0.07 mg/L	-	0.01 mg/L	0.1mg/L	0.06 mg/L	-	0.01 mg/L	0.01 mg/L
08/26/08	MW-19	<0.010	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN WATER
Plains Marketing, L.P.
TNM Red Byrd # 1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085
All water concentrations are in mg/L

Date Sampled	Sample Location	1,2-Dichloropropane	Trichloroethene (TCE)	Dibromomethane (methylene bromide)	Bromodichloromethane	2-Chloroethyl vinyl ether	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Toluene	1,1,2-Trichloroethane	1,3-Dichloropropane	Dibromochloromethane	1,2-Dibromoethane (EDB)	Tetrachloroethene (PCE)	Chlorobenzene
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		-	-	-	-	-	-	-	0.75 mg/L	0.01 mg/L	-	-	-	-	0.1 mg/L
08/26/08	MW-19	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN WATER
Plains Marketing, L.P.
TNM Red Byrd # 1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085
All water concentrations are in mg/L

Date Sampled	Sample Location	1,1,1,2-Tetrachloroethane	Ethylbenzene	m,p-Xylene	Bromoform	Styrene	o-Xylene	1,1,2,2-Tetrachloroethane	2-Chlorotoluene	1,2,3-Trichloropropane	Isopropylbenzene	Bromobenzene	n-Propylbenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		**0.01 mg/L**	**0.75 mg/L**	**Total Xylene 0.62 mg/L**	**-**	**-**	**Total Xylene 0.62 mg/L**	**0.01 mg/L**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
08/26/08	MW-19	<0.001	0.0017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0032	<0.001	<0.001	<0.001	<0.001

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN WATER
Plains Marketing, L.P.
TNM Red Byrd # 1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085
All water concentrations are in mg/L

Date Sampled	Sample Location	1,2,4-Trimethylbenzene	1,4-Dichlorobenzene (para)	sec-Butylbenzene	1,3-Dichlorobenzene (meta)	p-Isopropyltoluene	4-Chlorotoluene	1,2-Dichlorobenzene (ortho)	n-Butylbenzene	1,2-Dibromo-3-chloropropane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	Naphthalene	Hexachlorobutadiene
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		-	-	-	-	-	-	-	-	-	-	-	**0.03 mg/L**	-
08/26/08	MW-19	<0.001	<0.001	<0.001	<0.001	0.0019	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005

TABLE 5

CONCENTRATIONS OF SEMI-VOLATILES IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM Red Byrd # 1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510															
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
MW - 1	11/21/02	0.06	0.07	0.122	0.089	0.103	0.091	0.101	0.101	0.061	0.102	0.126	0.09	0.086	<0.05	0.111	0.106
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
MW - 7	11/21/02	0.054	<0.05	0.076	0.052	0.055	<0.05	<0.05	<0.05	<0.05	0.054	0.083	0.175	<0.05	2.68	0.127	0.072
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
MW - 8	11/21/02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
MW - 10	11/21/02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
MW - 11	11/21/02	0.089	0.094	0.182	0.125	0.12	0.126	0.108	0.145	0.08	0.105	0.19	0.149	0.111	<0.05	0.168	0.156
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

TABLE 5

CONCENTRATIONS OF SEMI-VOLATILES IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM Red Byrd # 1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510															
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
MW - 12	11/21/02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
MW - 13	11/21/02	0.075	0.054	0.065	<0.05	<0.05	<0.05	<0.05	0.054	<0.05	<0.05	0.068	0.373	<0.05	12.4	0.323	0.061
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	1.5	0.066	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
MW - 14	11/21/02	0.074	0.159	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.704	<0.05	14.1	0.641	<0.05
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.432	<0.05	9.11	0.335	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00263	<0.0002	<0.0002	0.00271	<0.0002	0.0016	0.00263	0.0424	0.00123	<0.0002
MW - 15	11/21/02	0.179	<0.05	<0.05	0.089	<0.05	0.105	<0.05	0.15	0.081	<0.05	0.154	0.662	<0.05	21.3	0.564	0.145
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.129	<0.05	1.95	0.074	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00113	<0.0002	0.0217	<0.0002	<0.0002
MW - 16	01/10/03	<0.05	<0.05	0.05	0.064	0.062	0.058	0.059	0.068	0.061	<0.05	0.096	0.069	<0.05	0.055	0.081	0.094
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.129	<0.05	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

TABLE 5

CONCENTRATIONS OF SEMI-VOLATILES IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM Red Byrd # 1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510															
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
MW - 17	01/10/03	0.07	0.079	2.48	3.25	3.52	2.74	3.13	3.34	3.2	2.37	3.05	0.648	2.43	0.078	1.77	3.41
	12/01/03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	12/15/04	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
MW - 19	08/22/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

TABLE 6

CONCENTRATIONS OF ANIONS/CATIONS IN GROUNDWATER

PLAINS PIPELINE, L.P.
TNM RED BYRD # 1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085

All water concentrations are reported in mg/L

SAMPLE DATE	SAMPLE LOCATION	EPA SW375.4, 325,3, 310, 160.1												TEMP ^{0}C	Specific Conductance ms/cm	pH
		Calcium	Magnesium	Potassium	Sodium	Chloride	Sulfate	Bicarbonate	Carbonate	Nitrate	Phosphate	Flouride	TDS			
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		-	-	-	-	250 mg/L	600 mg/L	-	-	10 mg/L	-	1.6 mg/L	1000 mg/L	-	-	6 - 9
08/26/08	MW - 19	654	251	35.1	5,810	**8,320**	**2,060**	674	<1.00	<1.00	<2.50	**9.2**	**18,100**	21.74	27.33	6.38

TABLE 7

CONCENTRATIONS OF RCRA AND WQCC METALS IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM Red Byrd # 1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-6010B																
		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Copper	Iron	Manganese	Zinc	Aluminum	Boron	Cobalt	Molybdenum	Nickel
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		**0.1 mg/L**	**1.0 mg/L**	**0.01 mg/L**	**0.05 mg/L**	**0.05 mg/L**	**0.002 mg/L**	**0.05 mg/L**	**0.05 mg/L**	**1.0 mg/L**	**1.0 mg/L**	**0.2 mg/L**	**10 mg/L**	**5.0 mg/L**	**0.75 mg/L**	**0.05 mg/L**	**1.0 mg/L**	**0.2 mg/L**
MW - 19	08/22/08	<0.010	**1.21**	<0.002	0.026	<0.005	<0.0002	<0.020	<0.005	0.031	**19.3**	**0.621**	0.094	**34.1**	**1.25**	0.011	<0.010	0.029

TRACEANALYSIS, INC.

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NELAP Certifications

Lubbock T104704219-08-TX El Paso T104704221-08-TX Midland T104704392-08-TX

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: July 22, 2008

Work Order: 8071631

Project Location: Monument-Lea Co., NM
Project Name: Red Byrd #1
Project Number: TNM-Red Byrd #1

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
167229	MW-19 34'-35'	soil	2008-07-15	10:02	2008-07-16
167230	MW-19 39'-40'	soil	2008-07-15	10:06	2008-07-16
167231	MW-19 44'-45'	soil	2008-07-15	10:11	2008-07-16

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.

Blair Leftwich

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Red Byrd #1 were received by TraceAnalysis, Inc. on 2008-07-16 and assigned to work order 8071631. Samples for work order 8071631 were received intact at a temperature of 3.2 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
BTEX	S 8021B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8071631 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 167229 - MW-19 34'-35'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	50595	Date Analyzed:	2008-07-21	Analyzed By:	DC
Prep Batch:	43396	Sample Preparation:	2008-07-21	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.922	mg/Kg	1	1.00	92	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.913	mg/Kg	1	1.00	91	48.2 - 155

Sample: 167229 - MW-19 34'-35'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50434	Date Analyzed:	2008-07-17	Analyzed By:	LD
Prep Batch:	43283	Sample Preparation:	2008-07-17	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		122	mg/Kg	1	100	122	10 - 250.4

Sample: 167229 - MW-19 34'-35'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50597	Date Analyzed:	2008-07-21	Analyzed By:	DC
Prep Batch:	43396	Sample Preparation:	2008-07-21	Prepared By:	DC

continued ...

sample 167229 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	**1.20**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.11	mg/Kg	1	1.00	111	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.08	mg/Kg	1	1.00	108	63.8 - 141

Sample: 167230 - MW-19 39'-40'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	50595	Date Analyzed:	2008-07-21	Analyzed By:	DC
Prep Batch:	43396	Sample Preparation:	2008-07-21	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.905	mg/Kg	1	1.00	90	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.910	mg/Kg	1	1.00	91	48.2 - 155

Sample: 167230 - MW-19 39'-40'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50550	Date Analyzed:	2008-07-21	Analyzed By:	LD
Prep Batch:	43324	Sample Preparation:	2008-07-18	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		128	mg/Kg	1	100	128	10 - 250.4

Sample: 167230 - MW-19 39'-40'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50597	Date Analyzed:	2008-07-21	Analyzed By:	DC
Prep Batch:	43396	Sample Preparation:	2008-07-21	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	**1.00**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	1	1.00	108	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.08	mg/Kg	1	1.00	108	63.8 - 141

Sample: 167231 - MW-19 44'-45'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	50595	Date Analyzed:	2008-07-21	Analyzed By:	DC
Prep Batch:	43396	Sample Preparation:	2008-07-21	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.935	mg/Kg	1	1.00	94	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.920	mg/Kg	1	1.00	92	48.2 - 155

Sample: 167231 - MW-19 44'-45'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50550	Date Analyzed:	2008-07-21	Analyzed By:	LD
Prep Batch:	43324	Sample Preparation:	2008-07-18	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		141	mg/Kg	1	100	141	10 - 250.4

Sample: 167231 - MW-19 44'-45'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50597	Date Analyzed:	2008-07-21	Analyzed By:	DC
Prep Batch:	43396	Sample Preparation:	2008-07-21	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.13	mg/Kg	1	1.00	113	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.09	mg/Kg	1	1.00	109	63.8 - 141

Method Blank (1) QC Batch: 50434

QC Batch:	50434	Date Analyzed:	2008-07-17	Analyzed By:	LD
Prep Batch:	43283	QC Preparation:	2008-07-17	Prepared By:	LD

Parameter	Flag	MDL Result	Units	RL
DRO		<15.8	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		70.8	mg/Kg	1	100	71	30.9 - 146.4

Method Blank (1) QC Batch: 50550

QC Batch: 50550 | Date Analyzed: 2008-07-21 | Analyzed By: LD
Prep Batch: 43324 | QC Preparation: 2008-07-18 | Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		<15.8	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		88.5	mg/Kg	1	100	88	30.9 - 146.4

Method Blank (1) QC Batch: 50595

QC Batch: 50595 | Date Analyzed: 2008-07-21 | Analyzed By: DC
Prep Batch: 43396 | QC Preparation: 2008-07-21 | Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00580	mg/Kg	0.01
Toluene		<0.00470	mg/Kg	0.01
Ethylbenzene		<0.00530	mg/Kg	0.01
Xylene		<0.0136	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.936	mg/Kg	1	1.00	94	48.3 - 132.5
4-Bromofluorobenzene (4-BFB)		0.915	mg/Kg	1	1.00	92	37.7 - 128.9

Method Blank (1) QC Batch: 50597

QC Batch: 50597 | Date Analyzed: 2008-07-21 | Analyzed By: DC
Prep Batch: 43396 | QC Preparation: 2008-07-21 | Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		0.746	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.11	mg/Kg	1	1.00	111	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		1.09	mg/Kg	1	1.00	109	16.8 - 138.1

Laboratory Control Spike (LCS-1)

QC Batch: 50434 | Date Analyzed: 2008-07-17 | Analyzed By: LD
Prep Batch: 43283 | QC Preparation: 2008-07-17 | Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	235	mg/Kg	1	250	<15.8	94	27.8 - 152.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	245	mg/Kg	1	250	<15.8	98	27.8 - 152.1	4	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
n-Triacontane	103	107	mg/Kg	1	100	103	107	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 50550 | Date Analyzed: 2008-07-21 | Analyzed By: LD
Prep Batch: 43324 | QC Preparation: 2008-07-18 | Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	316	mg/Kg	1	250	<15.8	126	27.8 - 152.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	308	mg/Kg	1	250	<15.8	123	27.8 - 152.1	3	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
n-Triacontane	128	128	mg/Kg	1	100	128	128	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 50595 | Date Analyzed: 2008-07-21 | Analyzed By: DC
Prep Batch: 43396 | QC Preparation: 2008-07-21 | Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.914	mg/Kg	1	1.00	<0.00580	91	73.3 - 116.6
Toluene	0.927	mg/Kg	1	1.00	<0.00470	93	78.6 - 115.1
Ethylbenzene	0.929	mg/Kg	1	1.00	<0.00530	93	77.4 - 114.9
Xylene	2.79	mg/Kg	1	3.00	<0.0136	93	78.2 - 114.7

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.988	mg/Kg	1	1.00	<0.00580	99	73.3 - 116.6	8	20
Toluene	0.997	mg/Kg	1	1.00	<0.00470	100	78.6 - 115.1	7	20
Ethylbenzene	1.00	mg/Kg	1	1.00	<0.00530	100	77.4 - 114.9	7	20
Xylene	3.00	mg/Kg	1	3.00	<0.0136	100	78.2 - 114.7	7	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)	0.939	0.971	mg/Kg	1	1.00	94	97	45 - 124.2
4-Bromofluorobenzene (4-BFB)	0.944	0.965	mg/Kg	1	1.00	94	96	47.2 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 50597 | Date Analyzed: 2008-07-21 | Analyzed By: DC
Prep Batch: 43396 | QC Preparation: 2008-07-21 | Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	10.0	mg/Kg	1	10.0	0.746	92	57.5 - 106.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	10.6	mg/Kg	1	10.0	0.746	98	57.5 - 106.4	6	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)	1.14	1.14	mg/Kg	1	1.00	114	114	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	1.15	1.16	mg/Kg	1	1.00	115	116	53.3 - 123.6

Matrix Spike (MS-1) Spiked Sample: 167191

QC Batch: 50434 | Date Analyzed: 2008-07-17 | Analyzed By: LD
Prep Batch: 43283 | QC Preparation: 2008-07-17 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	1410	mg/Kg	1	250	1100	124	18 - 179.5

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	1250	mg/Kg	1	250	1100	60	18 - 179.5	12	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane [1] [2]	421	425	mg/Kg	1	100	421	425	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 167231

QC Batch: 50550 | Date Analyzed: 2008-07-21 | Analyzed By: LD
Prep Batch: 43324 | QC Preparation: 2008-07-18 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	311	mg/Kg	1	250	<15.8	124	18 - 179.5

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	322	mg/Kg	1	250	<15.8	129	18 - 179.5	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	111	118	mg/Kg	1	100	111	118	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 167566

QC Batch: 50595 | Date Analyzed: 2008-07-21 | Analyzed By: DC
Prep Batch: 43396 | QC Preparation: 2008-07-21 | Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene [3]	1.94	mg/Kg	1	1.00	<0.00580	194	62.2 - 134.3

continued ...

[1] High surrogate recovery due to peak interference.
[2] High surrogate recovery due to peak interference.
[3] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Toluene	[4]	2.00	mg/Kg	1	1.00	<0.00470	200	62.6 - 145.4
Ethylbenzene	[5]	2.07	mg/Kg	1	1.00	0.047	202	64.6 - 146.4
Xylene	[6]	6.21	mg/Kg	1	3.00	0.0672	205	64.3 - 148.8

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[7]	1.12	mg/Kg	1	1.00	<0.00580	112	62.2 - 134.3	54	20
Toluene	[8]	1.14	mg/Kg	1	1.00	<0.00470	114	62.6 - 145.4	55	20
Ethylbenzene	[9]	1.18	mg/Kg	1	1.00	0.047	113	64.6 - 146.4	55	20
Xylene	[10]	3.54	mg/Kg	1	3.00	0.0672	116	64.3 - 148.8	55	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.941	0.879	mg/Kg	1	1	94	88	38.8 - 127.5
4-Bromofluorobenzene (4-BFB)	0.977	0.904	mg/Kg	1	1	98	90	49.3 - 142.4

Matrix Spike (MS-1) Spiked Sample: 167231

QC Batch: 50597 | Date Analyzed: 2008-07-21 | Analyzed By: DC
Prep Batch: 43396 | QC Preparation: 2008-07-21 | Prepared By: DC

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	[11]	18.2	mg/Kg	1	10.0	<0.739	182	10 - 139.3

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	[12]	22.3	mg/Kg	1	10.0	<0.739	223	10 - 139.3	20	20

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

[4]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[5]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[6]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[7]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[8]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[9]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[10]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[11]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[12]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.10	1.10	mg/Kg	1	1	110	110	21.3 - 119
4-Bromofluorobenzene (4-BFB)	1.17	1.16	mg/Kg	1	1	117	116	52.5 - 154

Standard (CCV-2)

QC Batch: 50434 Date Analyzed: 2008-07-17 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	236	94	85 - 115	2008-07-17

Standard (CCV-3)

QC Batch: 50434 Date Analyzed: 2008-07-17 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	244	98	85 - 115	2008-07-17

Standard (CCV-1)

QC Batch: 50550 Date Analyzed: 2008-07-21 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	259	104	85 - 115	2008-07-21

Standard (CCV-2)

QC Batch: 50550 Date Analyzed: 2008-07-21 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	257	103	85 - 115	2008-07-21

Standard (ICV-1)

QC Batch: 50595 Date Analyzed: 2008-07-21 Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0971	97	85 - 115	2008-07-21
Toluene		mg/Kg	0.100	0.0978	98	85 - 115	2008-07-21
Ethylbenzene		mg/Kg	0.100	0.0973	97	85 - 115	2008-07-21
Xylene		mg/Kg	0.300	0.293	98	85 - 115	2008-07-21

Standard (CCV-1)

QC Batch: 50595 Date Analyzed: 2008-07-21 Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0925	92	85 - 115	2008-07-21
Toluene		mg/Kg	0.100	0.0936	94	85 - 115	2008-07-21
Ethylbenzene		mg/Kg	0.100	0.0928	93	85 - 115	2008-07-21
Xylene		mg/Kg	0.300	0.280	93	85 - 115	2008-07-21

Standard (ICV-1)

QC Batch: 50597 Date Analyzed: 2008-07-21 Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.12	112	85 - 115	2008-07-21

Standard (CCV-1)

QC Batch: 50597 Date Analyzed: 2008-07-21 Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.14	114	85 - 115	2008-07-21

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Invoice to: (If different from above) PLAINS

Project #: TNM RED BYRD #1 Project Name: Red Byrd #1

Project Location (including state): LEA CO. NM Sampler Signature: Ron Rounsaville

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Turn Around Time if different from standard	Hold
071631-1	MW-19, 4-5'	1	4oz		X							X		7/15/08	0930																		X
-2	MW-19, 9-10'	1			X							X			0937																		X
-3	MW-19, 14-15'	1			X							X			0942																		X
-4	MW-19, 19-20'	1			X							X			0947																		X
-5	MW-19, 24-25'	1			X							X			0952																		X
-6	MW-19, 29-30'	1			X							X			0957																		X
-7	MW-19, 34-35'	1			X							X			1002		X		X														
-8	MW-19, 39-40'	1			X							X			1006		X		X														
-9	MW-19, 44-45'	1			X							X		7/15/08	1011		X		X														

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
Ron Rounsaville		7/16/08	455	Belinda Shelton	TRACE	7/16/08	1155	3.2°
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:

LAB USE ONLY — Received on Ice: (Y) N; Headspace: (Y) N; Correct Containers: (Y) N

REMARKS: all tests - Midland

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

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

Carrier # Carry An

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TRACEANALYSIS, INC.

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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: September 3, 2008

Work Order: 8082528

Project Location: Monument-Lea Co., NM
Project Name: Red Byrd #1
Project Number: TNM-Red Byrd #1

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
171777	MW-19	water	2008-08-22	16:30	2008-08-25

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.

Michael Abel

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Red Byrd #1 were received by TraceAnalysis, Inc. on 2008-08-25 and assigned to work order 8082528. Samples for work order 8082528 were received intact without headspace and at a temperature of 3.2 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
Ag, Total	S 6010B
Alkalinity	SM 2320B
Al, Total	S 6010B
As, Total	S 6010B
Ba, Total	S 6010B
B, Total	S 6010B
Ca, Dissolved	S 6010B
Cd, Total	S 6010B
Co, Total	S 6010B
Cr, Total	S 6010B
Cu, Total	S 6010B
Fe, Total	S 6010B
Hg, Total	S 7470A
K, Dissolved	S 6010B
Mg, Dissolved	S 6010B
Mn, Total	S 6010B
Mo, Total	S 6010B
Na, Dissolved	S 6010B
Ni, Total	S 6010B
Pb, Total	S 6010B
Semivolatiles	S 8270C
Se, Total	S 6010B
TDS	SM 2540C
TPH DRO	Mod. 8015B
TPH GRO	S 8015B
Volatiles	S 8260B
Zn, Total	S 6010B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8082528 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 171777 - MW-19

Laboratory:	Midland				
Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	51776	Date Analyzed:	2008-08-25	Analyzed By:	AR
Prep Batch:	44400	Sample Preparation:	2008-08-25	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		**674**	mg/L as CaCo3	1	4.00
Total Alkalinity		**674**	mg/L as CaCo3	1	4.00

Sample: 171777 - MW-19

Laboratory:	Lubbock				
Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	51999	Date Analyzed:	2008-09-02	Analyzed By:	TP
Prep Batch:	44452	Sample Preparation:	2008-08-27	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		**654**	mg/L	10	1.00
Dissolved Potassium		**35.1**	mg/L	1	1.00
Dissolved Magnesium		**251**	mg/L	1	1.00
Dissolved Sodium		**5810**	mg/L	100	1.00

Sample: 171777 - MW-19

Laboratory:	Lubbock				
Analysis:	Hg, Total	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	51885	Date Analyzed:	2008-08-28	Analyzed By:	TP
Prep Batch:	44491	Sample Preparation:	2008-08-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.000200	mg/L	1	0.000200

Sample: 171777 - MW-19

Laboratory:	Lubbock				
Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3510C
QC Batch:	51812	Date Analyzed:	2008-08-26	Analyzed By:	DS
Prep Batch:	44438	Sample Preparation:	2008-08-25	Prepared By:	DS

Parameter	Flag	Result	RL Units	Dilution	RL
Pyridine		<0.00500	mg/L	1	0.00500
N-Nitrosodimethylamine		<0.00500	mg/L	1	0.00500
2-Picoline		<0.00500	mg/L	1	0.00500
Methyl methanesulfonate		<0.00500	mg/L	1	0.00500
Ethyl methanesulfonate		<0.00500	mg/L	1	0.00500
Phenol		<0.00500	mg/L	1	0.00500
Aniline		<0.00500	mg/L	1	0.00500
bis(2-chloroethyl)ether		<0.00500	mg/L	1	0.00500
2-Chlorophenol		<0.00500	mg/L	1	0.00500
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	1	0.00500
1,4-Dichlorobenzene (para)		<0.00500	mg/L	1	0.00500
Benzyl alcohol		<0.00500	mg/L	1	0.00500
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	1	0.00500
2-Methylphenol		<0.00500	mg/L	1	0.00500
bis(2-chloroisopropyl)ether		<0.00500	mg/L	1	0.00500
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	1	0.00500
N-Nitrosodi-n-propylamine		<0.00500	mg/L	1	0.00500
Hexachloroethane		<0.00500	mg/L	1	0.00500
Acetophenone		<0.00500	mg/L	1	0.00500
Nitrobenzene		<0.00500	mg/L	1	0.00500
N-Nitrosopiperidine		<0.00500	mg/L	1	0.00500
Isophorone		<0.00500	mg/L	1	0.00500
2-Nitrophenol		<0.00500	mg/L	1	0.00500
2,4-Dimethylphenol		<0.00500	mg/L	1	0.00500
bis(2-chloroethoxy)methane		<0.00500	mg/L	1	0.00500
2,4-Dichlorophenol		<0.00500	mg/L	1	0.00500
1,2,4-Trichlorobenzene		<0.00500	mg/L	1	0.00500
Benzoic acid		<0.00500	mg/L	1	0.00500
Naphthalene		<0.00500	mg/L	1	0.00500
a,a-Dimethylphenethylamine		<0.00500	mg/L	1	0.00500
4-Chloroaniline		<0.00500	mg/L	1	0.00500
2,6-Dichlorophenol		<0.0100	mg/L	1	0.0100
Hexachlorobutadiene		<0.00500	mg/L	1	0.00500
N-Nitroso-di-n-butylamine		<0.00500	mg/L	1	0.00500
4-Chloro-3-methylphenol		<0.00500	mg/L	1	0.00500
2-Methylnaphthalene		<0.00500	mg/L	1	0.00500
1-Methylnaphthalene		<0.00500	mg/L	1	0.00500
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	1	0.00500
Hexachlorocyclopentadiene		<0.00500	mg/L	1	0.00500

continued ...

sample 171777 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
2,4,6-Trichlorophenol		<0.0100		mg/L	1	0.0100
2,4,5-Trichlorophenol		<0.00500		mg/L	1	0.00500
2-Chloronaphthalene		<0.00500		mg/L	1	0.00500
1-Chloronaphthalene		<0.00500		mg/L	1	0.00500
2-Nitroaniline		<0.00500		mg/L	1	0.00500
Dimethylphthalate		<0.00500		mg/L	1	0.00500
Acenaphthylene		<0.00500		mg/L	1	0.00500
2,6-Dinitrotoluene		<0.00500		mg/L	1	0.00500
3-Nitroaniline		<0.00500		mg/L	1	0.00500
Acenaphthene		<0.00500		mg/L	1	0.00500
2,4-Dinitrophenol		<0.00500		mg/L	1	0.00500
Dibenzofuran		<0.00500		mg/L	1	0.00500
Pentachlorobenzene		<0.00500		mg/L	1	0.00500
4-Nitrophenol		<0.0250		mg/L	1	0.0250
2,4-Dinitrotoluene		<0.00500		mg/L	1	0.00500
1-Naphthylamine		<0.00500		mg/L	1	0.00500
2,3,4,6-Tetrachlorophenol		<0.0100		mg/L	1	0.0100
2-Naphthylamine		<0.00500		mg/L	1	0.00500
Fluorene		<0.00500		mg/L	1	0.00500
4-Chlorophenyl-phenylether		<0.00500		mg/L	1	0.00500
Diethylphthalate		<0.00500		mg/L	1	0.00500
4-Nitroaniline		<0.00500		mg/L	1	0.00500
Diphenylhydrazine		<0.00500		mg/L	1	0.00500
4,6-Dinitro-2-methylphenol		<0.00500		mg/L	1	0.00500
Diphenylamine		<0.00500		mg/L	1	0.00500
4-Bromophenyl-phenylether		<0.00500		mg/L	1	0.00500
Phenacetin		<0.00500		mg/L	1	0.00500
Hexachlorobenzene		<0.00500		mg/L	1	0.00500
4-Aminobiphenyl		<0.00500		mg/L	1	0.00500
Pentachlorophenol		<0.0100		mg/L	1	0.0100
Anthracene		<0.00500		mg/L	1	0.00500
Pentachloronitrobenzene		<0.00500		mg/L	1	0.00500
Pronamide		<0.00500		mg/L	1	0.00500
Phenanthrene		<0.00500		mg/L	1	0.00500
Di-n-butylphthalate		<0.00500		mg/L	1	0.00500
Fluoranthene		<0.00500		mg/L	1	0.00500
Benzidine		<0.0250		mg/L	1	0.0250
Pyrene		<0.00500		mg/L	1	0.00500
p-Dimethylaminoazobenzene		<0.00500		mg/L	1	0.00500
Butylbenzylphthalate		<0.00500		mg/L	1	0.00500
Benzo(a)anthracene		<0.00500		mg/L	1	0.00500
3,3-Dichlorobenzidine		<0.00500		mg/L	1	0.00500
Chrysene		<0.00500		mg/L	1	0.00500

continued ...

sample 171777 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
bis(2-ethylhexyl)phthalate		**0.00599**	mg/L	1	0.00500
Di-n-octylphthalate		<0.00500	mg/L	1	0.00500
Benzo(b)fluoranthene		<0.00500	mg/L	1	0.00500
Benzo(k)fluoranthene		<0.00500	mg/L	1	0.00500
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	1	0.00500
Benzo(a)pyrene		<0.00500	mg/L	1	0.00500
3-Methylcholanthrene		<0.00500	mg/L	1	0.00500
Dibenzo(a,j)acridine		<0.00500	mg/L	1	0.00500
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	1	0.00500
Dibenzo(a,h)anthracene		<0.00500	mg/L	1	0.00500
Benzo(g,h,i)perylene		<0.00500	mg/L	1	0.00500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0388	mg/L	1	0.0800	48	10 - 84.7
Phenol-d5		0.0275	mg/L	1	0.0800	34	10 - 54.9
Nitrobenzene-d5		0.0603	mg/L	1	0.0800	75	10 - 202
2-Fluorobiphenyl		0.0594	mg/L	1	0.0800	74	10 - 199
2,4,6-Tribromophenol		0.0673	mg/L	1	0.0800	84	10 - 141
Terphenyl-d14		0.0693	mg/L	1	0.0800	87	10 - 160

Sample: 171777 - MW-19

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	51931	Date Analyzed:	2008-08-29	Analyzed By:	AR
Prep Batch:	44451	Sample Preparation:	2008-08-27	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**18100**	mg/L	100	10.0

Sample: 171777 - MW-19

Laboratory:	Lubbock				
Analysis:	Total Metals	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	51880	Date Analyzed:	2008-08-28	Analyzed By:	RR
Prep Batch:	44471	Sample Preparation:	2008-08-28	Prepared By:	KV

continued ...

sample 171777 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.00500	mg/L	1	0.00500
Total Aluminum		**34.1**	mg/L	1	0.0500
Total Arsenic		<0.0100	mg/L	1	0.0100
Total Boron		**1.25**	mg/L	1	0.00500
Total Barium		**1.21**	mg/L	1	0.00500
Total Cadmium		<0.00200	mg/L	1	0.00200
Total Cobalt		**0.0110**	mg/L	1	0.00200
Total Chromium		**0.0260**	mg/L	1	0.00500
Total Copper		**0.0310**	mg/L	1	0.00500
Total Iron		**19.3**	mg/L	1	0.0100
Total Manganese		**0.621**	mg/L	1	0.00250
Total Molybdenum		<0.0100	mg/L	1	0.0100
Total Nickel		**0.0290**	mg/L	1	0.00500
Total Lead		<0.00500	mg/L	1	0.00500
Total Selenium		<0.0200	mg/L	1	0.0200
Total Zinc		**0.0940**	mg/L	1	0.00500

Sample: 171777 - MW-19

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	51809	Date Analyzed:	2008-08-26	Analyzed By:	LD
Prep Batch:	44428	Sample Preparation:	2008-08-26	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<5.00	mg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		10.6	mg/L	1	10.0	106	70 - 130

Sample: 171777 - MW-19

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	51945	Date Analyzed:	2008-08-29	Analyzed By:	DC
Prep Batch:	44537	Sample Preparation:	2008-08-29	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	0.684	mg/L	5	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.466	mg/L	5	0.500	93	70 - 130
4-Bromofluorobenzene (4-BFB)		0.410	mg/L	5	0.500	82	70 - 130

Sample: 171777 - MW-19

Laboratory:	Lubbock				
Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	51997	Date Analyzed:	2008-09-02	Analyzed By:	KB
Prep Batch:	44591	Sample Preparation:	2008-09-02	Prepared By:	KB

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00

continued ...

sample 171777 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
1,2-Dichloropropane		<1.00		µg/L	1	1.00
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00		µg/L	1	1.00
Toluene		<1.00		µg/L	1	1.00
1,1,2-Trichloroethane		<1.00		µg/L	1	1.00
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00		µg/L	1	1.00
Ethylbenzene		**1.67**		µg/L	1	1.00
m,p-Xylene		<1.00		µg/L	1	1.00
Bromoform		<1.00		µg/L	1	1.00
Styrene		<1.00		µg/L	1	1.00
o-Xylene		<1.00		µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00		µg/L	1	1.00
2-Chlorotoluene		<1.00		µg/L	1	1.00
1,2,3-Trichloropropane		<1.00		µg/L	1	1.00
Isopropylbenzene		**3.23**		µg/L	1	1.00
Bromobenzene		<1.00		µg/L	1	1.00
n-Propylbenzene		<1.00		µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00
sec-Butylbenzene		<1.00		µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00		µg/L	1	1.00
p-Isopropyltoluene		**1.90**		µg/L	1	1.00
4-Chlorotoluene		<1.00		µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00		µg/L	1	1.00
n-Butylbenzene		<1.00		µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00		µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00		µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00		µg/L	1	5.00
Naphthalene		<5.00		µg/L	1	5.00
Hexachlorobutadiene		<5.00		µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane	[1]	63.3	µg/L	1	50.0	127	83.6 - 120
Toluene-d8		50.2	µg/L	1	50.0	100	85.1 - 120
4-Bromofluorobenzene (4-BFB)		49.0	µg/L	1	50.0	98	73.7 - 111

Method Blank (1) QC Batch: 51776

QC Batch: 51776 Date Analyzed: 2008-08-25 Analyzed By: AR
Prep Batch: 44400 QC Preparation: 2008-08-25 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 51809

QC Batch: 51809 Date Analyzed: 2008-08-26 Analyzed By: LD
Prep Batch: 44428 QC Preparation: 2008-08-26 Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		<2.44	mg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		10.7	mg/L	1	10.0	107	70 - 130

Method Blank (1) QC Batch: 51812

QC Batch: 51812 Date Analyzed: 2008-08-26 Analyzed By: DS
Prep Batch: 44438 QC Preparation: 2008-08-25 Prepared By: DS

Parameter	Flag	MDL Result	Units	RL
Pyridine		<0.00128	mg/L	0.005
N-Nitrosodimethylamine		<0.00192	mg/L	0.005
2-Picoline		<0.00132	mg/L	0.005
Methyl methanesulfonate		<0.00175	mg/L	0.005

continued ...

[1]8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preperation was performed properly.

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Ethyl methanesulfonate		<0.00122	mg/L	0.005
Phenol		<0.00165	mg/L	0.005
Aniline		<0.00138	mg/L	0.005
bis(2-chloroethyl)ether		<0.00217	mg/L	0.005
2-Chlorophenol		<0.00150	mg/L	0.005
1,3-Dichlorobenzene (meta)		<0.00166	mg/L	0.005
1,4-Dichlorobenzene (para)		<0.00156	mg/L	0.005
Benzyl alcohol		<0.00100	mg/L	0.005
1,2-Dichlorobenzene (ortho)		<0.00164	mg/L	0.005
2-Methylphenol		<0.00158	mg/L	0.005
bis(2-chloroisopropyl)ether		<0.000828	mg/L	0.005
4-Methylphenol / 3-Methylphenol		<0.00124	mg/L	0.005
N-Nitrosodi-n-propylamine		<0.00127	mg/L	0.005
Hexachloroethane		<0.00198	mg/L	0.005
Acetophenone		<0.00127	mg/L	0.005
Nitrobenzene		<0.00193	mg/L	0.005
N-Nitrosopiperidine		<0.00120	mg/L	0.005
Isophorone		<0.00194	mg/L	0.005
2-Nitrophenol		<0.00140	mg/L	0.005
2,4-Dimethylphenol		<0.00109	mg/L	0.005
bis(2-chloroethoxy)methane		<0.00124	mg/L	0.005
2,4-Dichlorophenol		<0.00134	mg/L	0.005
1,2,4-Trichlorobenzene		<0.00193	mg/L	0.005
Benzoic acid		<0.00304	mg/L	0.005
Naphthalene		<0.00165	mg/L	0.005
a,a-Dimethylphenethylamine		<0.000758	mg/L	0.005
4-Chloroaniline		<0.00115	mg/L	0.005
2,6-Dichlorophenol		<0.00120	mg/L	0.01
Hexachlorobutadiene		<0.00184	mg/L	0.005
N-Nitroso-di-n-butylamine		<0.00169	mg/L	0.005
4-Chloro-3-methylphenol		<0.00120	mg/L	0.005
2-Methylnaphthalene		<0.00145	mg/L	0.005
1-Methylnaphthalene		<0.00155	mg/L	0.005
1,2,4,5-Tetrachlorobenzene		<0.00205	mg/L	0.005
Hexachlorocyclopentadiene		<0.00385	mg/L	0.005
2,4,6-Trichlorophenol		<0.00152	mg/L	0.01
2,4,5-Trichlorophenol		<0.00320	mg/L	0.005
2-Chloronaphthalene		<0.00168	mg/L	0.005
1-Chloronaphthalene		<0.00181	mg/L	0.005
2-Nitroaniline		<0.00169	mg/L	0.005
Dimethylphthalate		<0.00178	mg/L	0.005
Acenaphthylene		<0.00136	mg/L	0.005
2,6-Dinitrotoluene		<0.00139	mg/L	0.005
3-Nitroaniline		<0.00124	mg/L	0.005

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Acenaphthene		<0.00132	mg/L	0.005
2,4-Dinitrophenol		<0.00392	mg/L	0.005
Dibenzofuran		<0.00161	mg/L	0.005
Pentachlorobenzene		<0.00242	mg/L	0.005
4-Nitrophenol		<0.00127	mg/L	0.025
2,4-Dinitrotoluene		<0.00139	mg/L	0.005
1-Naphthylamine		<0.00128	mg/L	0.005
2,3,4,6-Tetrachlorophenol		<0.00130	mg/L	0.01
2-Naphthylamine		<0.00154	mg/L	0.005
Fluorene		<0.00130	mg/L	0.005
4-Chlorophenyl-phenylether		<0.00173	mg/L	0.005
Diethylphthalate		<0.00161	mg/L	0.005
4-Nitroaniline		<0.00101	mg/L	0.005
Diphenylhydrazine		<0.00125	mg/L	0.005
4,6-Dinitro-2-methylphenol		<0.00135	mg/L	0.005
Diphenylamine		<0.00159	mg/L	0.005
4-Bromophenyl-phenylether		<0.00187	mg/L	0.005
Phenacetin		<0.00139	mg/L	0.005
Hexachlorobenzene		<0.00238	mg/L	0.005
4-Aminobiphenyl		<0.00134	mg/L	0.005
Pentachlorophenol		<0.000632	mg/L	0.01
Anthracene		<0.00152	mg/L	0.005
Pentachloronitrobenzene		<0.00307	mg/L	0.005
Pronamide		<0.00159	mg/L	0.005
Phenanthrene		<0.00144	mg/L	0.005
Di-n-butylphthalate		<0.00125	mg/L	0.005
Fluoranthene		<0.00159	mg/L	0.005
Benzidine		<0.000845	mg/L	0.025
Pyrene		<0.00135	mg/L	0.005
p-Dimethylaminoazobenzene		<0.000969	mg/L	0.005
Butylbenzylphthalate		<0.00110	mg/L	0.005
Benzo(a)anthracene		<0.00138	mg/L	0.005
3,3-Dichlorobenzidine		<0.00130	mg/L	0.005
Chrysene		<0.00146	mg/L	0.005
bis(2-ethylhexyl)phthalate		<0.00108	mg/L	0.005
Di-n-octylphthalate		<0.000892	mg/L	0.005
Benzo(b)fluoranthene		<0.00126	mg/L	0.005
Benzo(k)fluoranthene		<0.00149	mg/L	0.005
7,12-Dimethylbenz(a)anthracene		<0.00134	mg/L	0.005
Benzo(a)pyrene		<0.00155	mg/L	0.005
3-Methylcholanthrene		<0.00166	mg/L	0.005
Dibenzo(a,j)acridine		<0.00201	mg/L	0.005
Indeno(1,2,3-cd)pyrene		<0.00195	mg/L	0.005
Dibenzo(a,h)anthracene		<0.00210	mg/L	0.005

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Benzo(g,h,i)perylene		<0.00207	mg/L	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0299	mg/L	1	0.0800	37	10 - 66.9
Phenol-d5		0.0210	mg/L	1	0.0800	26	10 - 50.7
Nitrobenzene-d5		0.0466	mg/L	1	0.0800	58	10 - 124
2-Fluorobiphenyl		0.0446	mg/L	1	0.0800	56	10 - 127
2,4,6-Tribromophenol		0.0473	mg/L	1	0.0800	59	10 - 138
Terphenyl-d14		0.0539	mg/L	1	0.0800	67	10 - 143

Method Blank (1) QC Batch: 51880

QC Batch: 51880 | Date Analyzed: 2008-08-28 | Analyzed By: RR
Prep Batch: 44471 | QC Preparation: 2008-08-28 | Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Silver		<0.000700	mg/L	0.005
Total Aluminum		<0.00540	mg/L	0.05
Total Arsenic		<0.00850	mg/L	0.01
Total Boron		<0.00210	mg/L	0.005
Total Barium		<0.00180	mg/L	0.005
Total Cadmium		<0.00110	mg/L	0.002
Total Cobalt		<0.00170	mg/L	0.002
Total Chromium		<0.00201	mg/L	0.005
Total Copper		<0.00129	mg/L	0.005
Total Iron		<0.00146	mg/L	0.01
Total Manganese		<0.000414	mg/L	0.0025
Total Molybdenum		<0.00613	mg/L	0.01
Total Nickel		<0.00271	mg/L	0.005
Total Lead		<0.00460	mg/L	0.005
Total Selenium		<0.0106	mg/L	0.02
Total Zinc		<0.000679	mg/L	0.005

Method Blank (1) QC Batch: 51885

QC Batch: 51885 | Date Analyzed: 2008-08-28 | Analyzed By: TP
Prep Batch: 44491 | QC Preparation: 2008-08-28 | Prepared By: TP

Parameter	Flag	MDL Result	Units	RL
Total Mercury		<0.0000251	mg/L	0.0002

Method Blank (1) QC Batch: 51931

QC Batch: 51931 Date Analyzed: 2008-08-29 Analyzed By: AR
Prep Batch: 44451 QC Preparation: 2008-08-27 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.00	mg/L	10

Method Blank (1) QC Batch: 51945

QC Batch: 51945 Date Analyzed: 2008-08-29 Analyzed By: DC
Prep Batch: 44537 QC Preparation: 2008-08-29 Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		0.0870	mg/L	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0933	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0888	mg/L	1	0.100	89	70 - 130

Method Blank (1) QC Batch: 51997

QC Batch: 51997 Date Analyzed: 2008-09-02 Analyzed By: KB
Prep Batch: 44591 QC Preparation: 2008-09-02 Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane		<0.197	µg/L	1
Dichlorodifluoromethane		<0.672	µg/L	1
Chloromethane (methyl chloride)		<0.542	µg/L	1
Vinyl Chloride		<0.516	µg/L	1
Bromomethane (methyl bromide)		<0.446	µg/L	5
Chloroethane		<0.656	µg/L	1
Trichlorofluoromethane		<0.538	µg/L	1
Acetone		<1.10	µg/L	10
Iodomethane (methyl iodide)		<0.214	µg/L	5

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Carbon Disulfide		<0.294	µg/L	1
Acrylonitrile		<0.442	µg/L	1
2-Butanone (MEK)		<0.420	µg/L	5
4-Methyl-2-pentanone (MIBK)		<0.407	µg/L	5
2-Hexanone		<0.486	µg/L	5
trans 1,4-Dichloro-2-butene		<0.463	µg/L	10
1,1-Dichloroethene		<0.237	µg/L	1
Methylene chloride		<0.312	µg/L	5
MTBE		<0.318	µg/L	1
trans-1,2-Dichloroethene		<0.217	µg/L	1
1,1-Dichloroethane		<0.202	µg/L	1
cis-1,2-Dichloroethene		<0.309	µg/L	1
2,2-Dichloropropane		<0.318	µg/L	1
1,2-Dichloroethane (EDC)		<0.292	µg/L	1
Chloroform		<0.234	µg/L	1
1,1,1-Trichloroethane		<0.257	µg/L	1
1,1-Dichloropropene		<0.286	µg/L	1
Benzene		<0.319	µg/L	1
Carbon Tetrachloride		<0.223	µg/L	1
1,2-Dichloropropane		<0.266	µg/L	1
Trichloroethene (TCE)		<0.235	µg/L	1
Dibromomethane (methylene bromide)		<0.341	µg/L	1
Bromodichloromethane		<0.291	µg/L	1
2-Chloroethyl vinyl ether		<0.293	µg/L	5
cis-1,3-Dichloropropene		<0.207	µg/L	1
trans-1,3-Dichloropropene		<0.293	µg/L	1
Toluene		<0.268	µg/L	1
1,1,2-Trichloroethane		<0.329	µg/L	1
1,3-Dichloropropane		<0.316	µg/L	1
Dibromochloromethane		<0.290	µg/L	1
1,2-Dibromoethane (EDB)		<0.229	µg/L	1
Tetrachloroethene (PCE)		<0.233	µg/L	1
Chlorobenzene		<0.276	µg/L	1
1,1,1,2-Tetrachloroethane		<0.226	µg/L	1
Ethylbenzene		<0.245	µg/L	1
m,p-Xylene		<0.517	µg/L	1
Bromoform		<0.175	µg/L	1
Styrene		<0.239	µg/L	1
o-Xylene		<0.247	µg/L	1
1,1,2,2-Tetrachloroethane		<0.223	µg/L	1
2-Chlorotoluene		<0.235	µg/L	1
1,2,3-Trichloropropane		<0.230	µg/L	1
Isopropylbenzene		<0.226	µg/L	1
Bromobenzene		<0.245	µg/L	1

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
n-Propylbenzene		<0.234	µg/L	1
1,3,5-Trimethylbenzene		<0.261	µg/L	1
tert-Butylbenzene		<0.281	µg/L	1
1,2,4-Trimethylbenzene		<0.285	µg/L	1
1,4-Dichlorobenzene (para)		<0.307	µg/L	1
sec-Butylbenzene		<0.312	µg/L	1
1,3-Dichlorobenzene (meta)		<0.284	µg/L	1
p-Isopropyltoluene		<0.244	µg/L	1
4-Chlorotoluene		<0.257	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.294	µg/L	1
n-Butylbenzene		<0.339	µg/L	1
1,2-Dibromo-3-chloropropane		<0.780	µg/L	5
1,2,3-Trichlorobenzene		<0.736	µg/L	5
1,2,4-Trichlorobenzene		<0.432	µg/L	5
Naphthalene		<0.475	µg/L	5
Hexachlorobutadiene		<1.02	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.5	µg/L	1	50.0	105	83.6 - 120
Toluene-d8		50.3	µg/L	1	50.0	101	85 - 120
4-Bromofluorobenzene (4-BFB)		49.4	µg/L	1	50.0	99	73.7 - 111

Method Blank (1) QC Batch: 51999

QC Batch: 51999 | Date Analyzed: 2008-09-02 | Analyzed By: TP
Prep Batch: 44452 | QC Preparation: 2008-08-27 | Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.175	mg/L	1
Dissolved Potassium		<0.327	mg/L	1
Dissolved Magnesium		<0.148	mg/L	1
Dissolved Sodium		<0.244	mg/L	1

Duplicates (1)

QC Batch: 51776 | Date Analyzed: 2008-08-25 | Analyzed By: AR
Prep Batch: 44400 | QC Preparation: 2008-08-25 | Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	5.00	<1.00	mg/L as CaCo3	1	200	20
Carbonate Alkalinity	38.0	34.0	mg/L as CaCo3	1	11	20
Bicarbonate Alkalinity	<4.00	8.00	mg/L as CaCo3	1	200	20
Total Alkalinity	43.0	42.0	mg/L as CaCo3	1	2	20

Duplicates (1)

QC Batch: 51931 | Date Analyzed: 2008-08-29 | Analyzed By: AR
Prep Batch: 44451 | QC Preparation: 2008-08-27 | Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	470	452	mg/L	1	4	20

Laboratory Control Spike (LCS-1)

QC Batch: 51809 | Date Analyzed: 2008-08-26 | Analyzed By: LD
Prep Batch: 44428 | QC Preparation: 2008-08-26 | Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	24.6	mg/L	1	25.0	<2.44	98	70 - 130

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	23.3	mg/L	1	25.0	<2.44	93	70 - 130	5	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
n-Triacontane	12.9	12.2	mg/L	1	10.0	129	122	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 51812 | Date Analyzed: 2008-08-26 | Analyzed By: DS
Prep Batch: 44438 | QC Preparation: 2008-08-25 | Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Phenol	0.0173	mg/L	1	0.0800	<0.00165	22	10 - 46.1

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
2-Chlorophenol	0.0401	mg/L	1	0.0800	<0.00150	50	10 - 123
1,4-Dichlorobenzene (para)	0.0378	mg/L	1	0.0800	<0.00156	47	10 - 118
N-Nitrosodi-n-propylamine	0.0431	mg/L	1	0.0800	<0.00127	54	10 - 132
1,2,4-Trichlorobenzene	0.0399	mg/L	1	0.0800	<0.00193	50	10 - 130
Naphthalene	0.0421	mg/L	1	0.0800	<0.00165	53	20.3 - 121
4-Chloro-3-methylphenol	0.0574	mg/L	1	0.0800	<0.00120	72	10 - 140
Acenaphthylene	0.0505	mg/L	1	0.0800	<0.00136	63	22.3 - 124
Acenaphthene	0.0488	mg/L	1	0.0800	<0.00132	61	18.8 - 134
4-Nitrophenol	0.0164	mg/L	1	0.0800	<0.00127	20	10 - 135
2,4-Dinitrotoluene	0.0480	mg/L	1	0.0800	<0.00139	60	13.6 - 152
Fluorene	0.0533	mg/L	1	0.0800	<0.00130	67	29.7 - 114
Pentachlorophenol	0.0263	mg/L	1	0.0800	<0.000632	33	10 - 144
Anthracene	0.0512	mg/L	1	0.0800	<0.00152	64	48.2 - 118
Phenanthrene	0.0522	mg/L	1	0.0800	<0.00144	65	45.5 - 121
Fluoranthene	0.0526	mg/L	1	0.0800	<0.00159	66	42.7 - 126
Pyrene	0.0543	mg/L	1	0.0800	<0.00135	68	26.8 - 155
Benzo(a)anthracene	0.0555	mg/L	1	0.0800	<0.00138	69	60.2 - 97.3
Chrysene	0.0556	mg/L	1	0.0800	<0.00146	70	56 - 92.4
Benzo(b)fluoranthene [2]	0.0489	mg/L	1	0.0800	<0.00126	61	73.9 - 102
Benzo(k)fluoranthene	0.0546	mg/L	1	0.0800	<0.00149	68	45.6 - 143
Benzo(a)pyrene	0.0576	mg/L	1	0.0800	<0.00155	72	54.8 - 122
Indeno(1,2,3-cd)pyrene	0.0580	mg/L	1	0.0800	<0.00195	72	61.4 - 118
Dibenzo(a,h)anthracene	0.0556	mg/L	1	0.0800	<0.0210	70	64.9 - 118
Benzo(g,h,i)perylene	0.0556	mg/L	1	0.0800	<0.00207	70	46.8 - 129

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Phenol	0.0176	mg/L	1	0.0800	<0.00165	22	10 - 46.1	2	20
2-Chlorophenol	0.0408	mg/L	1	0.0800	<0.00150	51	10 - 123	2	20
1,4-Dichlorobenzene (para)	0.0380	mg/L	1	0.0800	<0.00156	48	10 - 118	0	20
N-Nitrosodi-n-propylamine	0.0436	mg/L	1	0.0800	<0.00127	54	10 - 132	1	20
1,2,4-Trichlorobenzene	0.0406	mg/L	1	0.0800	<0.00193	51	10 - 130	2	20
Naphthalene	0.0430	mg/L	1	0.0800	<0.00165	54	20.3 - 121	2	20
4-Chloro-3-methylphenol	0.0568	mg/L	1	0.0800	<0.00120	71	10 - 140	1	20
Acenaphthylene	0.0510	mg/L	1	0.0800	<0.00136	64	22.3 - 124	1	20
Acenaphthene	0.0494	mg/L	1	0.0800	<0.00132	62	18.8 - 134	1	20
4-Nitrophenol	0.0145	mg/L	1	0.0800	<0.00127	18	10 - 135	12	20
2,4-Dinitrotoluene	0.0484	mg/L	1	0.0800	<0.00139	60	13.6 - 152	1	20
Fluorene	0.0540	mg/L	1	0.0800	<0.00130	68	29.7 - 114	1	20
Pentachlorophenol	0.0270	mg/L	1	0.0800	<0.000632	34	10 - 144	3	20
Anthracene	0.0512	mg/L	1	0.0800	<0.00152	64	48.2 - 118	0	20
Phenanthrene	0.0517	mg/L	1	0.0800	<0.00144	65	45.5 - 121	1	20

continued ...

[2]Benzo(b)fluoranthene out of control limits for LCS/LCSD. Majority of analytes within range show process is within control. •

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Fluoranthene	0.0525	mg/L	1	0.0800	<0.00159	66	42.7 - 126	0	20
Pyrene	0.0545	mg/L	1	0.0800	<0.00135	68	26.8 - 155	0	20
Benzo(a)anthracene	0.0566	mg/L	1	0.0800	<0.00138	71	60.2 - 97.3	2	20
Chrysene	0.0556	mg/L	1	0.0800	<0.00146	70	56 - 92.4	0	20
Benzo(b)fluoranthene [3]	0.0498	mg/L	1	0.0800	<0.00126	62	73.9 - 102	2	20
Benzo(k)fluoranthene	0.0551	mg/L	1	0.0800	<0.00149	69	45.6 - 143	1	20
Benzo(a)pyrene	0.0579	mg/L	1	0.0800	<0.00155	72	54.8 - 122	0	20
Indeno(1,2,3-cd)pyrene	0.0583	mg/L	1	0.0800	<0.00195	73	61.4 - 118	0	20
Dibenzo(a,h)anthracene	0.0555	mg/L	1	0.0800	<0.0210	69	64.9 - 118	0	20
Benzo(g,h,i)perylene	0.0558	mg/L	1	0.0800	<0.00207	70	46.8 - 129	0	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
2-Fluorophenol	0.0292	0.0295	mg/L	1	0.0800	36	37	10 - 109
Phenol-d5	0.0206	0.0209	mg/L	1	0.0800	26	26	10 - 61.5
Nitrobenzene-d5	0.0464	0.0468	mg/L	1	0.0800	58	58	10 - 139
2-Fluorobiphenyl	0.0469	0.0482	mg/L	1	0.0800	59	60	10 - 139
2,4,6-Tribromophenol	0.0549	0.0549	mg/L	1	0.0800	69	69	10 - 161
Terphenyl-d14	0.0582	0.0590	mg/L	1	0.0800	73	74	10 - 144

Laboratory Control Spike (LCS-1)

QC Batch: 51880 | Date Analyzed: 2008-08-28 | Analyzed By: RR
Prep Batch: 44471 | QC Preparation: 2008-08-28 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.120	mg/L	1	0.125	<0.000700	96	85 - 115
Total Aluminum	0.855	mg/L	1	1.00	<0.00540	86	85 - 115
Total Arsenic	0.483	mg/L	1	0.500	<0.00850	97	85 - 115
Total Boron	0.0450	mg/L	1	0.0500	<0.00210	90	85 - 115
Total Barium	0.987	mg/L	1	1.00	<0.00180	99	85 - 115
Total Cadmium	0.261	mg/L	1	0.250	<0.00110	104	85 - 115
Total Cobalt	0.258	mg/L	1	0.250	<0.00170	103	85 - 115
Total Chromium	0.102	mg/L	1	0.100	<0.00201	102	85 - 115
Total Copper	0.119	mg/L	1	0.125	<0.00129	95	85 - 115
Total Iron	0.513	mg/L	1	0.500	<0.00146	103	85 - 115
Total Manganese	0.245	mg/L	1	0.250	<0.000414	98	85 - 115
Total Molybdenum	0.512	mg/L	1	0.500	<0.00613	102	85 - 115
Total Nickel	0.251	mg/L	1	0.250	<0.00271	100	85 - 115

continued ...

[3]Benzo(b)fluoranthene out of control limits for LCS/LCSD. Majority of analytes within range show process is within control. •

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Lead	0.480	mg/L	1	0.500	<0.00460	96	85 - 115
Total Selenium	0.449	mg/L	1	0.500	<0.0106	90	85 - 115
Total Zinc	0.246	mg/L	1	0.250	<0.000679	98	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.120	mg/L	1	0.125	<0.000700	96	85 - 115	0	20
Total Aluminum	0.861	mg/L	1	1.00	<0.00540	86	85 - 115	1	20
Total Arsenic	0.478	mg/L	1	0.500	<0.00850	96	85 - 115	1	20
Total Boron	0.0450	mg/L	1	0.0500	<0.00210	90	85 - 115	0	20
Total Barium	0.995	mg/L	1	1.00	<0.00180	100	85 - 115	1	20
Total Cadmium	0.262	mg/L	1	0.250	<0.00110	105	85 - 115	0	20
Total Cobalt	0.258	mg/L	1	0.250	<0.00170	103	85 - 115	0	20
Total Chromium	0.103	mg/L	1	0.100	<0.00201	103	85 - 115	1	20
Total Copper	0.120	mg/L	1	0.125	<0.00129	96	85 - 115	1	20
Total Iron	0.516	mg/L	1	0.500	<0.00146	103	85 - 115	1	20
Total Manganese	0.247	mg/L	1	0.250	<0.000414	99	85 - 115	1	20
Total Molybdenum	0.511	mg/L	1	0.500	<0.00613	102	85 - 115	0	20
Total Nickel	0.254	mg/L	1	0.250	<0.00271	102	85 - 115	1	20
Total Lead	0.477	mg/L	1	0.500	<0.00460	95	85 - 115	1	20
Total Selenium	0.432	mg/L	1	0.500	<0.0106	86	85 - 115	4	20
Total Zinc	0.249	mg/L	1	0.250	<0.000679	100	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 51885 | Date Analyzed: 2008-08-28 | Analyzed By: TP
Prep Batch: 44491 | QC Preparation: 2008-08-28 | Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.000989	mg/L	1	0.00100	<0.0000251	99	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.00100	mg/L	1	0.00100	<0.0000251	100	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 51945 | Date Analyzed: 2008-08-29 | Analyzed By: DC
Prep Batch: 44537 | QC Preparation: 2008-08-29 | Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	0.920	mg/L	1	1.00	0.087	83	70 - 130

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	0.969	mg/L	1	1.00	0.087	88	70 - 130	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.0964	mg/L	1	0.100	101	96	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0918	0.0920	mg/L	1	0.100	92	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 51997 | Date Analyzed: 2008-09-02 | Analyzed By: KB
Prep Batch: 44591 | QC Preparation: 2008-09-02 | Prepared By: KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromochloromethane	51.7	µg/L	1	50.0	<0.197	103	88.2 - 114.5
Dichlorodifluoromethane	50.4	µg/L	1	50.0	<0.672	101	60.6 - 132.1
Chloromethane (methyl chloride)	49.0	µg/L	1	50.0	<0.542	98	55.7 - 127.9
Vinyl Chloride	46.9	µg/L	1	50.0	<0.516	94	47.6 - 142.9
Bromomethane (methyl bromide)	35.6	µg/L	1	50.0	<0.446	71	40.2 - 153.4
Chloroethane	40.2	µg/L	1	50.0	<0.656	80	44.5 - 145.8
Trichlorofluoromethane	46.4	µg/L	1	50.0	<0.538	93	55.9 - 152
Acetone	32.9	µg/L	1	50.0	<1.10	66	10 - 177.1
Iodomethane (methyl iodide)	41.5	µg/L	1	50.0	<0.214	83	76.6 - 128.8
Carbon Disulfide	54.3	µg/L	1	50.0	<0.294	109	66.1 - 137.3
Acrylonitrile	51.8	µg/L	1	50.0	<0.442	104	72.6 - 136.6
2-Butanone (MEK)	39.8	µg/L	1	50.0	<0.420	80	19.8 - 180.1
4-Methyl-2-pentanone (MIBK)	47.1	µg/L	1	50.0	<0.407	94	79.8 - 129.5
2-Hexanone	40.2	µg/L	1	50.0	<0.486	80	26.2 - 189.3
trans 1,4-Dichloro-2-butene	49.9	µg/L	1	50.0	<0.463	100	68 - 140.3
1,1-Dichloroethene	50.5	µg/L	1	50.0	<0.237	101	79 - 122.1
Methylene chloride	48.6	µg/L	1	50.0	<0.312	97	59.5 - 134.6
MTBE	63.9	µg/L	1	50.0	<0.318	128	69.8 - 137.1

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
trans-1,2-Dichloroethene	52.0	µg/L	1	50.0	<0.217	104	81.4 - 118.7
1,1-Dichloroethane	51.4	µg/L	1	50.0	<0.202	103	79.7 - 119.2
cis-1,2-Dichloroethene	53.1	µg/L	1	50.0	<0.309	106	86 - 120.2
2,2-Dichloropropane	51.2	µg/L	1	50.0	<0.318	102	48 - 145.8
1,2-Dichloroethane (EDC)	51.3	µg/L	1	50.0	<0.292	103	76.2 - 126.4
Chloroform	51.2	µg/L	1	50.0	<0.234	102	80.2 - 120.9
1,1,1-Trichloroethane	47.8	µg/L	1	50.0	<0.257	96	66 - 139.6
1,1-Dichloropropene	53.1	µg/L	1	50.0	<0.286	106	89.3 - 116.5
Benzene	51.2	µg/L	1	50.0	<0.319	102	89.5 - 113.9
Carbon Tetrachloride	48.2	µg/L	1	50.0	<0.223	96	78 - 128.2
1,2-Dichloropropane	52.2	µg/L	1	50.0	<0.266	104	88.5 - 115.5
Trichloroethene (TCE)	53.9	µg/L	1	50.0	<0.235	108	87.1 - 118.1
Dibromomethane (methylene bromide)	51.6	µg/L	1	50.0	<0.341	103	89.8 - 117.7
Bromodichloromethane	52.2	µg/L	1	50.0	<0.291	104	90.4 - 120.5
2-Chloroethyl vinyl ether	42.0	µg/L	1	50.0	<0.293	84	74.2 - 129.9
cis-1,3-Dichloropropene	47.4	µg/L	1	50.0	<0.207	95	88.8 - 124.1
trans-1,3-Dichloropropene	54.2	µg/L	1	50.0	<0.293	108	82 - 131.4
Toluene	50.9	µg/L	1	50.0	<0.268	102	91.1 - 113.8
1,1,2-Trichloroethane	51.2	µg/L	1	50.0	<0.329	102	91.5 - 113.9
1,3-Dichloropropane	51.7	µg/L	1	50.0	<0.316	103	89.6 - 115.8
Dibromochloromethane	52.7	µg/L	1	50.0	<0.290	105	95.1 - 119.8
1,2-Dibromoethane (EDB)	52.7	µg/L	1	50.0	<0.229	105	93.8 - 117.4
Tetrachloroethene (PCE)	55.5	µg/L	1	50.0	<0.233	111	60.6 - 131.5
Chlorobenzene	50.1	µg/L	1	50.0	<0.276	100	91.3 - 108.8
1,1,1,2-Tetrachloroethane	50.7	µg/L	1	50.0	<0.226	101	92 - 114.9
Ethylbenzene	53.0	µg/L	1	50.0	<0.245	106	91.8 - 117.4
m,p-Xylene	107	µg/L	1	100	<0.517	107	91.4 - 120
Bromoform	53.4	µg/L	1	50.0	<0.175	107	84 - 133.8
Styrene	47.6	µg/L	1	50.0	<0.239	95	87 - 128.3
o-Xylene	55.5	µg/L	1	50.0	<0.247	111	89.3 - 122.4
1,1,2,2-Tetrachloroethane	47.1	µg/L	1	50.0	<0.223	94	79.7 - 129.4
2-Chlorotoluene	53.2	µg/L	1	50.0	<0.235	106	90.5 - 114.9
1,2,3-Trichloropropane	49.8	µg/L	1	50.0	<0.230	100	88.3 - 121
Isopropylbenzene	47.7	µg/L	1	50.0	<0.226	95	93.5 - 114.9
Bromobenzene	50.7	µg/L	1	50.0	<0.245	101	89.7 - 114
n-Propylbenzene	54.2	µg/L	1	50.0	<0.234	108	83.8 - 119
1,3,5-Trimethylbenzene	54.6	µg/L	1	50.0	<0.261	109	88.9 - 116.7
tert-Butylbenzene	49.5	µg/L	1	50.0	<0.281	99	89.6 - 115.9
1,2,4-Trimethylbenzene	56.1	µg/L	1	50.0	<0.285	112	92.2 - 114.6
1,4-Dichlorobenzene (para)	51.7	µg/L	1	50.0	<0.307	103	90.4 - 107
sec-Butylbenzene	57.6	µg/L	1	50.0	<0.312	115	87.7 - 116.6
1,3-Dichlorobenzene (meta)	53.4	µg/L	1	50.0	<0.284	107	91.3 - 110.9
p-Isopropyltoluene	50.3	µg/L	1	50.0	<0.244	101	89.9 - 116.6
4-Chlorotoluene	53.7	µg/L	1	50.0	<0.257	107	91 - 116

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,2-Dichlorobenzene (ortho)	53.1	µg/L	1	50.0	<0.294	106	92.9 - 113.3
n-Butylbenzene	58.7	µg/L	1	50.0	<0.339	117	87.1 - 120
1,2-Dibromo-3-chloropropane	46.6	µg/L	1	50.0	<0.780	93	72.5 - 129.8
1,2,3-Trichlorobenzene	57.9	µg/L	1	50.0	<0.736	116	10 - 218.8
1,2,4-Trichlorobenzene	62.8	µg/L	1	50.0	<0.432	126	53.2 - 146.6
Naphthalene	56.4	µg/L	1	50.0	<0.475	113	26.6 - 177.2
Hexachlorobutadiene	56.0	µg/L	1	50.0	<1.02	112	73.6 - 134.8

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromochloromethane	52.1	µg/L	1	50.0	<0.197	104	88.2 - 114.5	1	20
Dichlorodifluoromethane	52.9	µg/L	1	50.0	<0.672	106	60.6 - 132.1	5	20
Chloromethane (methyl chloride)	49.0	µg/L	1	50.0	<0.542	98	55.7 - 127.9	0	20
Vinyl Chloride	45.9	µg/L	1	50.0	<0.516	92	47.6 - 142.9	2	20
Bromomethane (methyl bromide)	34.9	µg/L	1	50.0	<0.446	70	40.2 - 153.4	2	20
Chloroethane	40.5	µg/L	1	50.0	<0.656	81	44.5 - 145.8	1	20
Trichlorofluoromethane	55.5	µg/L	1	50.0	<0.538	111	55.9 - 152	18	20
Acetone	34.6	µg/L	1	50.0	<1.10	69	10 - 177.1	5	20
Iodomethane (methyl iodide)	42.7	µg/L	1	50.0	<0.214	85	76.6 - 128.8	3	20
Carbon Disulfide	55.1	µg/L	1	50.0	<0.294	110	66.1 - 137.3	2	20
Acrylonitrile	54.5	µg/L	1	50.0	<0.442	109	72.6 - 136.6	5	20
2-Butanone (MEK)	40.6	µg/L	1	50.0	<0.420	81	19.8 - 180.1	2	20
4-Methyl-2-pentanone (MIBK)	49.4	µg/L	1	50.0	<0.407	99	79.8 - 129.5	5	20
2-Hexanone	41.6	µg/L	1	50.0	<0.486	83	26.2 - 189.3	3	20
trans 1,4-Dichloro-2-butene	50.6	µg/L	1	50.0	<0.463	101	68 - 140.3	1	20
1,1-Dichloroethene	51.2	µg/L	1	50.0	<0.237	102	79 - 122.1	1	20
Methylene chloride	48.9	µg/L	1	50.0	<0.312	98	59.5 - 134.6	1	20
MTBE	64.3	µg/L	1	50.0	<0.318	129	69.8 - 137.1	1	20
trans-1,2-Dichloroethene	52.2	µg/L	1	50.0	<0.217	104	81.4 - 118.7	0	20
1,1-Dichloroethane	51.5	µg/L	1	50.0	<0.202	103	79.7 - 119.2	0	20
cis-1,2-Dichloroethene	53.5	µg/L	1	50.0	<0.309	107	86 - 120.2	1	20
2,2-Dichloropropane	49.8	µg/L	1	50.0	<0.318	100	48 - 145.8	3	20
1,2-Dichloroethane (EDC)	51.8	µg/L	1	50.0	<0.292	104	76.2 - 126.4	1	20
Chloroform	51.5	µg/L	1	50.0	<0.234	103	80.2 - 120.9	1	20
1,1,1-Trichloroethane	47.8	µg/L	1	50.0	<0.257	96	66 - 139.6	0	20
1,1-Dichloropropene	53.2	µg/L	1	50.0	<0.286	106	89.3 - 116.5	0	20
Benzene	51.3	µg/L	1	50.0	<0.319	103	89.5 - 113.9	0	20
Carbon Tetrachloride	48.0	µg/L	1	50.0	<0.223	96	78 - 128.2	0	20
1,2-Dichloropropane	52.5	µg/L	1	50.0	<0.266	105	88.5 - 115.5	1	20
Trichloroethene (TCE)	54.5	µg/L	1	50.0	<0.235	109	87.1 - 118.1	1	20
Dibromomethane (methylene bromide)	51.9	µg/L	1	50.0	<0.341	104	89.8 - 117.7	1	20
Bromodichloromethane	52.1	µg/L	1	50.0	<0.291	104	90.4 - 120.5	0	20
2-Chloroethyl vinyl ether	41.4	µg/L	1	50.0	<0.293	83	74.2 - 129.9	1	20

continued ...

control spikes continued ...

Param		LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
cis-1,3-Dichloropropene		47.8	µg/L	1	50.0	<0.207	96	88.8 - 124.1	1	20
trans-1,3-Dichloropropene		54.0	µg/L	1	50.0	<0.293	108	82 - 131.4	0	20
Toluene		51.5	µg/L	1	50.0	<0.268	103	91.1 - 113.8	1	20
1,1,2-Trichloroethane		51.6	µg/L	1	50.0	<0.329	103	91.5 - 113.9	1	20
1,3-Dichloropropane		51.9	µg/L	1	50.0	<0.316	104	89.6 - 115.8	0	20
Dibromochloromethane		53.0	µg/L	1	50.0	<0.290	106	95.1 - 119.8	1	20
1,2-Dibromoethane (EDB)		53.8	µg/L	1	50.0	<0.229	108	93.8 - 117.4	2	20
Tetrachloroethene (PCE)		56.4	µg/L	1	50.0	<0.233	113	60.6 - 131.5	2	20
Chlorobenzene		50.5	µg/L	1	50.0	<0.276	101	91.3 - 108.8	1	20
1,1,1,2-Tetrachloroethane		51.0	µg/L	1	50.0	<0.226	102	92 - 114.9	1	20
Ethylbenzene		53.4	µg/L	1	50.0	<0.245	107	91.8 - 117.4	1	20
m,p-Xylene		108	µg/L	1	100	<0.517	108	91.4 - 120	1	20
Bromoform		54.2	µg/L	1	50.0	<0.175	108	84 - 133.8	2	20
Styrene		48.3	µg/L	1	50.0	<0.239	97	87 - 128.3	1	20
o-Xylene		56.3	µg/L	1	50.0	<0.247	113	89.3 - 122.4	1	20
1,1,2,2-Tetrachloroethane		47.1	µg/L	1	50.0	<0.223	94	79.7 - 129.4	0	20
2-Chlorotoluene		52.8	µg/L	1	50.0	<0.235	106	90.5 - 114.9	1	20
1,2,3-Trichloropropane		49.4	µg/L	1	50.0	<0.230	99	88.3 - 121	1	20
Isopropylbenzene		47.5	µg/L	1	50.0	<0.226	95	93.5 - 114.9	0	20
Bromobenzene		50.6	µg/L	1	50.0	<0.245	101	89.7 - 114	0	20
n-Propylbenzene		53.7	µg/L	1	50.0	<0.234	107	83.8 - 119	1	20
1,3,5-Trimethylbenzene		54.6	µg/L	1	50.0	<0.261	109	88.9 - 116.7	0	20
tert-Butylbenzene		49.5	µg/L	1	50.0	<0.281	99	89.6 - 115.9	0	20
1,2,4-Trimethylbenzene		56.3	µg/L	1	50.0	<0.285	113	92.2 - 114.6	0	20
1,4-Dichlorobenzene (para)		51.4	µg/L	1	50.0	<0.307	103	90.4 - 107	1	20
sec-Butylbenzene		57.3	µg/L	1	50.0	<0.312	115	87.7 - 116.6	0	20
1,3-Dichlorobenzene (meta)		53.2	µg/L	1	50.0	<0.284	106	91.3 - 110.9	0	20
p-Isopropyltoluene		50.2	µg/L	1	50.0	<0.244	100	89.9 - 116.6	0	20
4-Chlorotoluene		53.7	µg/L	1	50.0	<0.257	107	91 - 116	0	20
1,2-Dichlorobenzene (ortho)		54.3	µg/L	1	50.0	<0.294	109	92.9 - 113.3	2	20
n-Butylbenzene		58.7	µg/L	1	50.0	<0.339	117	87.1 - 120	0	20
1,2-Dibromo-3-chloropropane		49.6	µg/L	1	50.0	<0.780	99	72.5 - 129.8	6	20
1,2,3-Trichlorobenzene	[4]	73.4	µg/L	1	50.0	<0.736	147	10 - 218.8	24	20
1,2,4-Trichlorobenzene		72.7	µg/L	1	50.0	<0.432	145	53.2 - 146.6	15	20
Naphthalene	[5]	69.9	µg/L	1	50.0	<0.475	140	26.6 - 177.2	21	20
Hexachlorobutadiene		59.1	µg/L	1	50.0	<1.02	118	73.6 - 134.8	5	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
Dibromofluoromethane	49.8	49.6	µg/L	1	50.0	100	99	85.4 - 110.5
Toluene-d8	49.6	49.6	µg/L	1	50.0	99	99	87 - 108.6

continued ...

[4]LCS/LCSD RPD outside RPD limits. •
[5]LCS/LCSD RPD outside RPD limits. •

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	50.2	50.7	µg/L	1	50.0	100	101	83.3 - 113

Laboratory Control Spike (LCS-1)

QC Batch: 51999 | Date Analyzed: 2008-09-02 | Analyzed By: TP
Prep Batch: 44452 | QC Preparation: 2008-08-27 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	50.0	mg/L	1	50.0	<0.175	100	85 - 115
Dissolved Potassium	50.3	mg/L	1	50.0	<0.327	101	85 - 115
Dissolved Magnesium	49.4	mg/L	1	50.0	<0.148	99	85 - 115
Dissolved Sodium	50.3	mg/L	1	50.0	<0.244	101	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	49.6	mg/L	1	50.0	<0.175	99	85 - 115	1	20
Dissolved Potassium	49.3	mg/L	1	50.0	<0.327	99	85 - 115	2	20
Dissolved Magnesium	49.2	mg/L	1	50.0	<0.148	98	85 - 115	0	20
Dissolved Sodium	49.5	mg/L	1	50.0	<0.244	99	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 171776

QC Batch: 51809 | Date Analyzed: 2008-08-26 | Analyzed By: LD
Prep Batch: 44428 | QC Preparation: 2008-08-26 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO [6]	16.0	mg/L	1	25.0	<2.44	64	70 - 130

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO [7]	16.5	mg/L	1	25.0	<2.44	66	70 - 130	3	20

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

[6]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[7]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	8.37	8.56	mg/L	1	10	84	86	70 - 130

Matrix Spike (MS-1) Spiked Sample: 171733

QC Batch: 51812 | Date Analyzed: 2008-08-26 | Analyzed By: DS
Prep Batch: 44438 | QC Preparation: 2008-08-25 | Prepared By: DS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Phenol	0.0240	mg/L	1	0.0800	<0.00165	30	10 - 53.2
2-Chlorophenol	0.0510	mg/L	1	0.0800	<0.00150	64	10 - 127
1,4-Dichlorobenzene (para)	0.0542	mg/L	1	0.0800	<0.00156	68	10 - 109
N-Nitrosodi-n-propylamine	0.0539	mg/L	1	0.0800	<0.00127	67	10 - 122
1,2,4-Trichlorobenzene	0.0577	mg/L	1	0.0800	<0.00193	72	10 - 121
Naphthalene	0.0561	mg/L	1	0.0800	<0.00165	70	16 - 95
4-Chloro-3-methylphenol	0.0719	mg/L	1	0.0800	<0.00120	90	10 - 193
Acenaphthylene	0.0642	mg/L	1	0.0800	<0.00136	80	16 - 95
Acenaphthene	0.0623	mg/L	1	0.0800	<0.00132	78	10 - 133
4-Nitrophenol	0.0193	mg/L	1	0.0800	<0.00127	24	10 - 131
2,4-Dinitrotoluene	0.0605	mg/L	1	0.0800	<0.00139	76	10 - 163
Fluorene	0.0680	mg/L	1	0.0800	<0.00130	85	16 - 95
Pentachlorophenol	0.0359	mg/L	1	0.0800	<0.000632	45	10 - 163
Anthracene	0.0629	mg/L	1	0.0800	<0.00152	79	16 - 95
Phenanthrene	0.0654	mg/L	1	0.0800	<0.00144	82	16 - 95
Fluoranthene	0.0666	mg/L	1	0.0800	<0.00159	83	16 - 95
Pyrene	0.0686	mg/L	1	0.0800	<0.00135	86	17.6 - 146
Benzo(a)anthracene	0.0685	mg/L	1	0.0800	<0.00138	86	16 - 95
Chrysene	0.0696	mg/L	1	0.0800	<0.00146	87	16 - 95
Benzo(b)fluoranthene	0.0621	mg/L	1	0.0800	<0.00126	78	16 - 95
Benzo(k)fluoranthene	0.0737	mg/L	1	0.0800	<0.00149	92	16 - 95
Benzo(a)pyrene	0.0724	mg/L	1	0.0800	<0.00155	90	16 - 95
Indeno(1,2,3-cd)pyrene	0.0707	mg/L	1	0.0800	<0.00195	88	16 - 95
Dibenzo(a,h)anthracene	0.0696	mg/L	1	0.0800	<0.0210	87	16 - 95
Benzo(g,h,i)perylene	0.0692	mg/L	1	0.0800	<0.00207	86	16 - 95

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Phenol	0.0242	mg/L	1	0.0800	<0.00165	30	10 - 53.2	1	20
2-Chlorophenol	0.0511	mg/L	1	0.0800	<0.00150	64	10 - 127	0	20
1,4-Dichlorobenzene (para)	0.0541	mg/L	1	0.0800	<0.00156	68	10 - 109	0	20
N-Nitrosodi-n-propylamine	0.0552	mg/L	1	0.0800	<0.00127	69	10 - 122	2	20
1,2,4-Trichlorobenzene	0.0572	mg/L	1	0.0800	<0.00193	72	10 - 121	1	20
Naphthalene	0.0557	mg/L	1	0.0800	<0.00165	70	16 - 95	1	20

continued ...

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
4-Chloro-3-methylphenol	0.0733	mg/L	1	0.0800	<0.00120	92	10 - 193	2	20
Acenaphthylene	0.0632	mg/L	1	0.0800	<0.00136	79	16 - 95	2	20
Acenaphthene	0.0614	mg/L	1	0.0800	<0.00132	77	10 - 133	1	20
4-Nitrophenol	0.0191	mg/L	1	0.0800	<0.00127	24	10 - 131	1	20
2,4-Dinitrotoluene	0.0599	mg/L	1	0.0800	<0.00139	75	10 - 163	1	20
Fluorene	0.0677	mg/L	1	0.0800	<0.00130	85	16 - 95	0	20
Pentachlorophenol	0.0368	mg/L	1	0.0800	<0.000632	46	10 - 163	2	20
Anthracene	0.0620	mg/L	1	0.0800	<0.00152	78	16 - 95	1	20
Phenanthrene	0.0644	mg/L	1	0.0800	<0.00144	80	16 - 95	2	20
Fluoranthene	0.0643	mg/L	1	0.0800	<0.00159	80	16 - 95	4	20
Pyrene	0.0671	mg/L	1	0.0800	<0.00135	84	17.6 - 146	2	20
Benzo(a)anthracene	0.0679	mg/L	1	0.0800	<0.00138	85	16 - 95	1	20
Chrysene	0.0684	mg/L	1	0.0800	<0.00146	86	16 - 95	2	20
Benzo(b)fluoranthene	0.0607	mg/L	1	0.0800	<0.00126	76	16 - 95	2	20
Benzo(k)fluoranthene	0.0690	mg/L	1	0.0800	<0.00149	86	16 - 95	7	20
Benzo(a)pyrene	0.0723	mg/L	1	0.0800	<0.00155	90	16 - 95	0	20
Indeno(1,2,3-cd)pyrene	0.0692	mg/L	1	0.0800	<0.00195	86	16 - 95	2	20
Dibenzo(a,h)anthracene	0.0692	mg/L	1	0.0800	<0.0210	86	16 - 95	1	20
Benzo(g,h,i)perylene	0.0693	mg/L	1	0.0800	<0.00207	87	16 - 95	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
2-Fluorophenol	0.0369	0.0369	mg/L	1	0.08	46	46	10 - 72.2
Phenol-d5	0.0252	0.0257	mg/L	1	0.08	32	32	10 - 50.2
Nitrobenzene-d5	0.0588	0.0575	mg/L	1	0.08	74	72	10 - 131
2-Fluorobiphenyl	0.0601	0.0593	mg/L	1	0.08	75	74	10 - 118
2,4,6-Tribromophenol	0.0651	0.0661	mg/L	1	0.08	81	83	10 - 181
Terphenyl-d14	0.0692	0.0688	mg/L	1	0.08	86	86	10 - 155

Matrix Spike (MS-1) Spiked Sample: 171776

QC Batch: 51880 | Date Analyzed: 2008-08-28 | Analyzed By: RR
Prep Batch: 44471 | QC Preparation: 2008-08-28 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.118	mg/L	1	0.125	<0.000700	94	75 - 125
Total Aluminum	4.21	mg/L	1	1.00	3.29	92	75 - 125
Total Arsenic	0.476	mg/L	1	0.500	<0.00850	95	75 - 125
Total Boron	0.190	mg/L	1	0.0500	0.144	92	75 - 125
Total Barium	1.06	mg/L	1	1.00	0.095	96	75 - 125
Total Cadmium	0.245	mg/L	1	0.250	<0.00110	98	75 - 125

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.243	mg/L	1	0.250	<0.00170	97	75 - 125
Total Chromium	0.105	mg/L	1	0.100	0.007	98	75 - 125
Total Copper	0.130	mg/L	1	0.125	0.01	96	75 - 125
Total Iron	3.40	mg/L	1	0.500	2.9	100	75 - 125
Total Manganese	0.268	mg/L	1	0.250	0.039	92	75 - 125
Total Molybdenum	0.478	mg/L	1	0.500	<0.00613	96	75 - 125
Total Nickel	0.241	mg/L	1	0.250	0.005	94	75 - 125
Total Lead	0.443	mg/L	1	0.500	<0.00460	89	75 - 125
Total Selenium	0.442	mg/L	1	0.500	0.02	84	75 - 125
Total Zinc	0.259	mg/L	1	0.250	0.032	91	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.118	mg/L	1	0.125	<0.000700	94	75 - 125	0	20
Total Aluminum	4.31	mg/L	1	1.00	3.29	102	75 - 125	2	20
Total Arsenic	0.480	mg/L	1	0.500	<0.00850	96	75 - 125	1	20
Total Boron	0.192	mg/L	1	0.0500	0.144	96	75 - 125	1	20
Total Barium	1.06	mg/L	1	1.00	0.095	96	75 - 125	0	20
Total Cadmium	0.245	mg/L	1	0.250	<0.00110	98	75 - 125	0	20
Total Cobalt	0.243	mg/L	1	0.250	<0.00170	97	75 - 125	0	20
Total Chromium	0.105	mg/L	1	0.100	0.007	98	75 - 125	0	20
Total Copper	0.131	mg/L	1	0.125	0.01	97	75 - 125	1	20
Total Iron	3.30	mg/L	1	0.500	2.9	80	75 - 125	3	20
Total Manganese	0.267	mg/L	1	0.250	0.039	91	75 - 125	0	20
Total Molybdenum	0.479	mg/L	1	0.500	<0.00613	96	75 - 125	0	20
Total Nickel	0.240	mg/L	1	0.250	0.005	94	75 - 125	0	20
Total Lead	0.443	mg/L	1	0.500	<0.00460	89	75 - 125	0	20
Total Selenium	0.440	mg/L	1	0.500	0.02	84	75 - 125	0	20
Total Zinc	0.262	mg/L	1	0.250	0.032	92	75 - 125	1	20

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

Matrix Spike (MS-1) Spiked Sample: 171898

QC Batch: 51885 | Date Analyzed: 2008-08-28 | Analyzed By: TP
Prep Batch: 44491 | QC Preparation: 2008-08-28 | Prepared By: TP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.00108	mg/L	1	0.00100	<0.0000251	108	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.00102	mg/L	1	0.00100	<0.0000251	102	75 - 125	6	20

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

Matrix Spike (MS-1) Spiked Sample: 171614

QC Batch: 51945 | Date Analyzed: 2008-08-29 | Analyzed By: DC
Prep Batch: 44537 | QC Preparation: 2008-08-29 | Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO [8]	66.3	mg/L	50	50.0	60.8702	11	70 - 130

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO [9]	67.8	mg/L	50	50.0	60.8702	14	70 - 130	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5.07	4.89	mg/L	50	5	101	98	70 - 130
4-Bromofluorobenzene (4-BFB)	4.83	4.87	mg/L	50	5	97	97	70 - 130

Matrix Spike (MS-1) Spiked Sample: 172137

QC Batch: 51997 | Date Analyzed: 2008-09-02 | Analyzed By: KB
Prep Batch: 44591 | QC Preparation: 2008-09-02 | Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromochloromethane	61.4	µg/L	1	50.0	<0.197	123	83.9 - 123
Dichlorodifluoromethane	48.8	µg/L	1	50.0	<0.672	98	38.4 - 157.1
Chloromethane (methyl chloride)	66.7	µg/L	1	50.0	<0.542	133	54.1 - 145.8
Vinyl Chloride	61.4	µg/L	1	50.0	<0.516	123	48 - 153.9
Bromomethane (methyl bromide)	53.1	µg/L	1	50.0	<0.446	106	29.9 - 175.7
Chloroethane	63.1	µg/L	1	50.0	<0.656	126	10 - 240.3
Trichlorofluoromethane	55.7	µg/L	1	50.0	<0.538	111	49.5 - 169.4
Acetone	27.4	µg/L	1	50.0	<1.10	55	10 - 186
Iodomethane (methyl iodide)	38.4	µg/L	1	50.0	<0.214	77	71.9 - 127.7

continued ...

[8]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[9]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Carbon Disulfide	[10]	70.0	µg/L	1	50.0	<0.294	140	75.1 - 130.9
Acrylonitrile	[11]	76.8	µg/L	1	50.0	<0.442	154	62.6 - 149.5
2-Butanone (MEK)		39.1	µg/L	1	50.0	<0.420	78	19.8 - 138.2
4-Methyl-2-pentanone (MIBK)		62.0	µg/L	1	50.0	<0.407	124	50.4 - 160.5
2-Hexanone		65.2	µg/L	1	50.0	<0.486	130	20.8 - 171.5
trans 1,4-Dichloro-2-butene		67.1	µg/L	1	50.0	<0.463	134	45.7 - 136.4
1,1-Dichloroethene		68.1	µg/L	1	50.0	13.3	110	75.2 - 127.4
Methylene chloride		60.9	µg/L	1	50.0	<0.312	122	61.5 - 137.2
MTBE		70.7	µg/L	1	50.0	<0.318	141	60 - 149.2
trans-1,2-Dichloroethene	[12]	64.6	µg/L	1	50.0	<0.217	129	78.2 - 125.1
1,1-Dichloroethane	[13]	64.3	µg/L	1	50.0	0.39	128	79 - 126.5
cis-1,2-Dichloroethene		60.9	µg/L	1	50.0	<0.309	122	82.5 - 127.1
2,2-Dichloropropane		50.5	µg/L	1	50.0	<0.318	101	13.7 - 121.7
1,2-Dichloroethane (EDC)		69.0	µg/L	1	50.0	<0.292	138	73.7 - 141
Chloroform	[14]	68.2	µg/L	1	50.0	2.14	132	78.1 - 129.7
1,1,1-Trichloroethane		56.8	µg/L	1	50.0	<0.257	114	70 - 140.3
1,1-Dichloropropene		58.6	µg/L	1	50.0	<0.286	117	83 - 122
Benzene		58.5	µg/L	1	50.0	<0.319	117	63.3 - 136.4
Carbon Tetrachloride		51.5	µg/L	1	50.0	<0.223	103	75.8 - 128.8
1,2-Dichloropropane	[15]	63.8	µg/L	1	50.0	<0.266	128	84 - 124.5
Trichloroethene (TCE)	[16]	231	µg/L	1	50.0	169	124	83.7 - 109.8
Dibromomethane (methylene bromide)		58.8	µg/L	1	50.0	<0.341	118	84.6 - 124.7
Bromodichloromethane		57.7	µg/L	1	50.0	0.49	114	87.2 - 125.3
2-Chloroethyl vinyl ether	[17]	<0.293	µg/L	1	50.0	<0.293	0	10 - 174.1
cis-1,3-Dichloropropene		48.0	µg/L	1	50.0	<0.207	96	82.3 - 118.5
trans-1,3-Dichloropropene		62.2	µg/L	1	50.0	<0.293	124	75.9 - 126
Toluene		57.9	µg/L	1	50.0	<0.268	116	10 - 205.6
1,1,2-Trichloroethane		59.8	µg/L	1	50.0	<0.329	120	84 - 125.8
1,3-Dichloropropane		62.0	µg/L	1	50.0	<0.316	124	83 - 126.6
Dibromochloromethane		51.5	µg/L	1	50.0	<0.290	103	91.4 - 119.1
1,2-Dibromoethane (EDB)		52.8	µg/L	1	50.0	<0.229	106	88.8 - 118.8
Tetrachloroethene (PCE)		27.0	µg/L	1	50.0	0.61	53	46.8 - 74.2
Chlorobenzene		53.1	µg/L	1	50.0	<0.276	106	86.6 - 111.7
1,1,1,2-Tetrachloroethane		52.9	µg/L	1	50.0	<0.226	106	87.2 - 118.6
Ethylbenzene		57.9	µg/L	1	50.0	<0.245	116	81.8 - 123.6
m,p-Xylene		120	µg/L	1	100	<0.517	120	36 - 162.4
Bromoform		49.4	µg/L	1	50.0	<0.175	99	74.1 - 133

continued ...

[10]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[11]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[12]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[13]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[14]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[15]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[16]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[17]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Styrene		51.7	µg/L	1	50.0	<0.239	103	10 - 187.2
o-Xylene		60.8	µg/L	1	50.0	<0.247	122	40.7 - 160.6
1,1,2,2-Tetrachloroethane		64.4	µg/L	1	50.0	<0.223	129	74.8 - 154.8
2-Chlorotoluene		55.9	µg/L	1	50.0	<0.235	112	86.3 - 117
1,2,3-Trichloropropane		58.4	µg/L	1	50.0	<0.230	117	73.2 - 125.2
Isopropylbenzene		46.2	µg/L	1	50.0	<0.226	92	87.8 - 114.2
Bromobenzene		57.4	µg/L	1	50.0	<0.245	115	84.8 - 116
n-Propylbenzene		57.5	µg/L	1	50.0	<0.234	115	79.4 - 117.1
1,3,5-Trimethylbenzene		55.7	µg/L	1	50.0	<0.261	111	82.6 - 115.9
tert-Butylbenzene		46.1	µg/L	1	50.0	<0.281	92	83 - 115.2
1,2,4-Trimethylbenzene		57.9	µg/L	1	50.0	<0.285	116	86.2 - 116.1
1,4-Dichlorobenzene (para)		49.8	µg/L	1	50.0	<0.307	100	86 - 106.4
sec-Butylbenzene		55.0	µg/L	1	50.0	<0.312	110	79.7 - 116.6
1,3-Dichlorobenzene (meta)		51.8	µg/L	1	50.0	<0.284	104	86.7 - 109.5
p-Isopropyltoluene		46.0	µg/L	1	50.0	<0.244	92	81.6 - 114.7
4-Chlorotoluene		56.9	µg/L	1	50.0	<0.257	114	87.1 - 115.4
1,2-Dichlorobenzene (ortho)		49.3	µg/L	1	50.0	<0.294	99	88.4 - 112.8
n-Butylbenzene		55.1	µg/L	1	50.0	<0.339	110	79.7 - 117.1
1,2-Dibromo-3-chloropropane		51.6	µg/L	1	50.0	<0.780	103	61.6 - 136.2
1,2,3-Trichlorobenzene		36.2	µg/L	1	50.0	<0.736	72	22.9 - 143.5
1,2,4-Trichlorobenzene		38.0	µg/L	1	50.0	<0.432	76	55.2 - 123.7
Naphthalene		40.5	µg/L	1	50.0	<0.475	81	37.2 - 147
Hexachlorobutadiene	[18]	35.6	µg/L	1	50.0	<1.02	71	74.3 - 107.4

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromochloromethane		61.4	µg/L	1	50.0	<0.197	123	83.9 - 123	0	20
Dichlorodifluoromethane		55.3	µg/L	1	50.0	<0.672	111	38.4 - 157.1	12	20
Chloromethane (methyl chloride)		68.4	µg/L	1	50.0	<0.542	137	54.1 - 145.8	2	20
Vinyl Chloride		65.6	µg/L	1	50.0	<0.516	131	48 - 153.9	7	20
Bromomethane (methyl bromide)		51.2	µg/L	1	50.0	<0.446	102	29.9 - 175.7	4	20
Chloroethane		62.7	µg/L	1	50.0	<0.656	125	10 - 240.3	1	20
Trichlorofluoromethane		54.3	µg/L	1	50.0	<0.538	109	49.5 - 169.4	2	20
Acetone		28.5	µg/L	1	50.0	<1.10	57	10 - 186	4	20
Iodomethane (methyl iodide)		42.2	µg/L	1	50.0	<0.214	84	71.9 - 127.7	9	20
Carbon Disulfide	[19]	70.8	µg/L	1	50.0	<0.294	142	75.1 - 130.9	1	20
Acrylonitrile	[20]	75.8	µg/L	1	50.0	<0.442	152	62.6 - 149.5	1	20
2-Butanone (MEK)		42.9	µg/L	1	50.0	<0.420	86	19.8 - 138.2	9	20
4-Methyl-2-pentanone (MIBK)		64.2	µg/L	1	50.0	<0.407	128	50.4 - 160.5	4	20

continued ...

[18]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

[19]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

[20]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits. •

matrix spikes continued ...

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
2-Hexanone		66.5	µg/L	1	50.0	<0.486	133	20.8 - 171.5	2	20
trans 1,4-Dichloro-2-butene		65.6	µg/L	1	50.0	<0.463	131	45.7 - 136.4	2	20
1,1-Dichloroethene		72.9	µg/L	1	50.0	13.3	119	75.2 - 127.4	7	20
Methylene chloride		61.4	µg/L	1	50.0	<0.312	123	61.5 - 137.2	1	20
MTBE	[21]	76.3	µg/L	1	50.0	<0.318	153	60 - 149.2	8	20
trans-1,2-Dichloroethene	[22]	65.2	µg/L	1	50.0	<0.217	130	78.2 - 125.1	1	20
1,1-Dichloroethane	[23]	65.3	µg/L	1	50.0	0.39	130	79 - 126.5	2	20
cis-1,2-Dichloroethene	[24]	63.9	µg/L	1	50.0	<0.309	128	82.5 - 127.1	5	20
2,2-Dichloropropane		51.9	µg/L	1	50.0	<0.318	104	13.7 - 121.7	3	20
1,2-Dichloroethane (EDC)		68.9	µg/L	1	50.0	<0.292	138	73.7 - 141	0	20
Chloroform	[25]	68.2	µg/L	1	50.0	2.14	132	78.1 - 129.7	0	20
1,1,1-Trichloroethane		55.7	µg/L	1	50.0	<0.257	111	70 - 140.3	2	20
1,1-Dichloropropene		59.4	µg/L	1	50.0	<0.286	119	83 - 122	1	20
Benzene		59.3	µg/L	1	50.0	<0.319	119	63.3 - 136.4	1	20
Carbon Tetrachloride		50.5	µg/L	1	50.0	<0.223	101	75.8 - 128.8	2	20
1,2-Dichloropropane		62.2	µg/L	1	50.0	<0.266	124	84 - 124.5	2	20
Trichloroethene (TCE)	[26]	231	µg/L	1	50.0	169	124	83.7 - 109.8	0	20
Dibromomethane (methylene bromide)		58.6	µg/L	1	50.0	<0.341	117	84.6 - 124.7	0	20
Bromodichloromethane		58.7	µg/L	1	50.0	0.49	116	87.2 - 125.3	2	20
2-Chloroethyl vinyl ether	[27]	<0.293	µg/L	1	50.0	<0.293	0	10 - 174.1	0	20
cis-1,3-Dichloropropene		49.3	µg/L	1	50.0	<0.207	99	82.3 - 118.5	3	20
trans-1,3-Dichloropropene		61.6	µg/L	1	50.0	<0.293	123	75.9 - 126	1	20
Toluene		58.0	µg/L	1	50.0	<0.268	116	10 - 205.6	0	20
1,1,2-Trichloroethane		59.8	µg/L	1	50.0	<0.329	120	84 - 125.8	0	20
1,3-Dichloropropane		61.6	µg/L	1	50.0	<0.316	123	83 - 126.6	1	20
Dibromochloromethane		53.5	µg/L	1	50.0	<0.290	107	91.4 - 119.1	4	20
1,2-Dibromoethane (EDB)		55.1	µg/L	1	50.0	<0.229	110	88.8 - 118.8	4	20
Tetrachloroethene (PCE)		27.6	µg/L	1	50.0	0.61	54	46.8 - 74.2	2	20
Chlorobenzene		53.4	µg/L	1	50.0	<0.276	107	86.6 - 111.7	1	20
1,1,1,2-Tetrachloroethane		52.9	µg/L	1	50.0	<0.226	106	87.2 - 118.6	0	20
Ethylbenzene		58.0	µg/L	1	50.0	<0.245	116	81.8 - 123.6	0	20
m,p-Xylene		118	µg/L	1	100	<0.517	118	36 - 162.4	2	20
Bromoform		51.4	µg/L	1	50.0	<0.175	103	74.1 - 133	4	20
Styrene		51.3	µg/L	1	50.0	<0.239	103	10 - 187.2	1	20

continued ...

[21]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

[22]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits. •

[23]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits. •

[24]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

[25]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits. •

[26]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits. •

[27]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits. •

matrix spikes continued ...

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
o-Xylene		61.5	µg/L	1	50.0	<0.247	123	40.7 - 160.6	1	20
1,1,2,2-Tetrachloroethane		63.0	µg/L	1	50.0	<0.223	126	74.8 - 154.8	2	20
2-Chlorotoluene		58.4	µg/L	1	50.0	<0.235	117	86.3 - 117	4	20
1,2,3-Trichloropropane		60.4	µg/L	1	50.0	<0.230	121	73.2 - 125.2	3	20
Isopropylbenzene		49.3	µg/L	1	50.0	<0.226	99	87.8 - 114.2	6	20
Bromobenzene	[28]	59.9	µg/L	1	50.0	<0.245	120	84.8 - 116	4	20
n-Propylbenzene	[29]	60.1	µg/L	1	50.0	<0.234	120	79.4 - 117.1	4	20
1,3,5-Trimethylbenzene	[30]	58.2	µg/L	1	50.0	<0.261	116	82.6 - 115.9	4	20
tert-Butylbenzene		48.6	µg/L	1	50.0	<0.281	97	83 - 115.2	5	20
1,2,4-Trimethylbenzene	[31]	60.2	µg/L	1	50.0	<0.285	120	86.2 - 116.1	4	20
1,4-Dichlorobenzene (para)		51.7	µg/L	1	50.0	<0.307	103	86 - 106.4	4	20
sec-Butylbenzene		58.0	µg/L	1	50.0	<0.312	116	79.7 - 116.6	5	20
1,3-Dichlorobenzene (meta)		53.4	µg/L	1	50.0	<0.284	107	86.7 - 109.5	3	20
p-Isopropyltoluene		48.8	µg/L	1	50.0	<0.244	98	81.6 - 114.7	6	20
4-Chlorotoluene	[32]	59.0	µg/L	1	50.0	<0.257	118	87.1 - 115.4	4	20
1,2-Dichlorobenzene (ortho)		51.8	µg/L	1	50.0	<0.294	104	88.4 - 112.8	5	20
n-Butylbenzene	[33]	59.0	µg/L	1	50.0	<0.339	118	79.7 - 117.1	7	20
1,2-Dibromo-3-chloropropane		55.9	µg/L	1	50.0	<0.780	112	61.6 - 136.2	8	20
1,2,3-Trichlorobenzene	[34]	46.4	µg/L	1	50.0	<0.736	93	22.9 - 143.5	25	20
1,2,4-Trichlorobenzene	[35]	46.6	µg/L	1	50.0	<0.432	93	55.2 - 123.7	20	20
Naphthalene	[36]	52.4	µg/L	1	50.0	<0.475	105	37.2 - 147	26	20
Hexachlorobutadiene		41.6	µg/L	1	50.0	<1.02	83	74.3 - 107.4	16	20

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

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane	[37] [38]	63.1	59.6	µg/L	1	50	126	119	89 - 112.8
Toluene-d8		53.7	51.8	µg/L	1	50	107	104	86.2 - 109.5
4-Bromofluorobenzene (4-BFB)		52.2	49.7	µg/L	1	50	104	99	81.3 - 115.4

Matrix Spike (MS-1) Spiked Sample: 171589

QC Batch:	51999	Date Analyzed:	2008-09-02	Analyzed By:	TP
Prep Batch:	44452	QC Preparation:	2008-08-27	Prepared By:	KV

[28]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[29]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[30]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[31]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[32]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[33]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[34]MS/MSD RPD out of RPD Limits.
[35]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[36]MS/MSD RPD out of RPD Limits.
[37]8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preperation was performed properly.
[38]8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preperation was performed properly.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	60.1	mg/L	1	50.0	10.7	99	75 - 125
Dissolved Potassium	51.2	mg/L	1	50.0	3.11	96	75 - 125
Dissolved Magnesium	58.5	mg/L	1	50.0	8.85	99	75 - 125
Dissolved Sodium	179	mg/L	10	50.0	131	96	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	63.6	mg/L	1	50.0	10.7	106	75 - 125	6	20
Dissolved Potassium	54.5	mg/L	1	50.0	3.11	103	75 - 125	6	20
Dissolved Magnesium	62.2	mg/L	1	50.0	8.85	107	75 - 125	6	20
Dissolved Sodium	180	mg/L	10	50.0	131	98	75 - 125	1	20

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

Standard (ICV-1)

QC Batch: 51776 Date Analyzed: 2008-08-25 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2008-08-25
Carbonate Alkalinity		mg/L as CaCo3	0.00	244		0 - 200	2008-08-25
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	9.00		0 - 200	2008-08-25
Total Alkalinity		mg/L as CaCo3	250	253	101	90 - 110	2008-08-25

Standard (CCV-1)

QC Batch: 51776 Date Analyzed: 2008-08-25 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2008-08-25
Carbonate Alkalinity		mg/L as CaCo3	0.00	234		0 - 200	2008-08-25
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	20.0		0 - 200	2008-08-25
Total Alkalinity		mg/L as CaCo3	250	254	102	90 - 110	2008-08-25

Standard (ICV-1)

QC Batch: 51809 Date Analyzed: 2008-08-26 Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	242	97	85 - 115	2008-08-26

Standard (CCV-1)

QC Batch: 51809 Date Analyzed: 2008-08-26 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	252	101	85 - 115	2008-08-26

Standard (CCV-1)

QC Batch: 51812 Date Analyzed: 2008-08-26 Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/L	60.0	55.5	92	80 - 120	2008-08-26
1,4-Dichlorobenzene (para)		mg/L	60.0	58.8	98	80 - 120	2008-08-26
2-Nitrophenol		mg/L	60.0	65.0	108	80 - 120	2008-08-26
2,4-Dichlorophenol		mg/L	60.0	61.0	102	80 - 120	2008-08-26
Hexachlorobutadiene		mg/L	60.0	61.7	103	80 - 120	2008-08-26
4-Chloro-3-methylphenol		mg/L	60.0	69.7	116	80 - 120	2008-08-26
2,4,6-Trichlorophenol		mg/L	60.0	62.5	104	80 - 120	2008-08-26
Acenaphthene		mg/L	60.0	58.8	98	80 - 120	2008-08-26
Diphenylamine		mg/L	60.0	58.9	98	80 - 120	2008-08-26
Pentachlorophenol		mg/L	60.0	49.2	82	80 - 120	2008-08-26
Fluoranthene		mg/L	60.0	56.0	93	80 - 120	2008-08-26
Di-n-octylphthalate		mg/L	60.0	67.2	112	80 - 120	2008-08-26
Benzo(a)pyrene		mg/L	60.0	60.4	101	80 - 120	2008-08-26

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		59.6	mg/L	1	60.0	99	80 - 120
Phenol-d5		54.3	mg/L	1	60.0	90	80 - 120
Nitrobenzene-d5		58.1	mg/L	1	60.0	97	80 - 120
2-Fluorobiphenyl		55.9	mg/L	1	60.0	93	80 - 120
2,4,6-Tribromophenol		61.3	mg/L	1	60.0	102	80 - 120
Terphenyl-d14		58.2	mg/L	1	60.0	97	80 - 120

Standard (ICV-1)

QC Batch: 51880 Date Analyzed: 2008-08-28 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.125	100	90 - 110	2008-08-28
Total Aluminum		mg/L	1.00	1.00	100	90 - 110	2008-08-28
Total Arsenic		mg/L	1.00	1.01	101	90 - 110	2008-08-28
Total Boron		mg/L	1.00	1.01	101	90 - 110	2008-08-28
Total Barium		mg/L	1.00	0.974	97	90 - 110	2008-08-28
Total Cadmium		mg/L	1.00	1.01	101	90 - 110	2008-08-28
Total Cobalt		mg/L	1.00	1.03	103	90 - 110	2008-08-28
Total Chromium		mg/L	1.00	0.992	99	90 - 110	2008-08-28
Total Copper		mg/L	1.00	0.977	98	90 - 110	2008-08-28
Total Iron		mg/L	1.00	0.991	99	90 - 110	2008-08-28
Total Manganese		mg/L	1.00	1.03	103	90 - 110	2008-08-28
Total Molybdenum		mg/L	1.00	0.997	100	90 - 110	2008-08-28
Total Nickel		mg/L	1.00	1.05	105	90 - 110	2008-08-28
Total Lead		mg/L	1.00	0.997	100	90 - 110	2008-08-28
Total Selenium		mg/L	1.00	1.01	101	90 - 110	2008-08-28
Total Zinc		mg/L	1.00	0.979	98	90 - 110	2008-08-28

Standard (CCV-1)

QC Batch: 51880 Date Analyzed: 2008-08-28 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.125	100	90 - 110	2008-08-28
Total Aluminum		mg/L	1.00	1.01	101	90 - 110	2008-08-28
Total Arsenic		mg/L	1.00	1.03	103	90 - 110	2008-08-28
Total Boron		mg/L	1.00	1.01	101	90 - 110	2008-08-28
Total Barium		mg/L	1.00	0.994	99	90 - 110	2008-08-28
Total Cadmium		mg/L	1.00	1.03	103	90 - 110	2008-08-28
Total Cobalt		mg/L	1.00	1.04	104	90 - 110	2008-08-28
Total Chromium		mg/L	1.00	1.00	100	90 - 110	2008-08-28
Total Copper		mg/L	1.00	0.978	98	90 - 110	2008-08-28
Total Iron		mg/L	1.00	1.00	100	90 - 110	2008-08-28
Total Manganese		mg/L	1.00	1.04	104	90 - 110	2008-08-28
Total Molybdenum		mg/L	1.00	1.00	100	90 - 110	2008-08-28
Total Nickel		mg/L	1.00	1.07	107	90 - 110	2008-08-28
Total Lead		mg/L	1.00	1.02	102	90 - 110	2008-08-28
Total Selenium		mg/L	1.00	1.02	102	90 - 110	2008-08-28
Total Zinc		mg/L	1.00	0.984	98	90 - 110	2008-08-28

Standard (ICV-1)

QC Batch: 51885 Date Analyzed: 2008-08-28 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00103	103	90 - 110	2008-08-28

Standard (CCV-1)

QC Batch: 51885 Date Analyzed: 2008-08-28 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000968	97	90 - 110	2008-08-28

Standard (ICV-1)

QC Batch: 51931 Date Analyzed: 2008-08-29 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	965	96	90 - 110	2008-08-29

Standard (CCV-1)

QC Batch: 51931 Date Analyzed: 2008-08-29 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	984	98	90 - 110	2008-08-29

Standard (ICV-1)

QC Batch: 51945 Date Analyzed: 2008-08-29 Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.08	108	85 - 115	2008-08-29

Standard (CCV-1)

QC Batch: 51945 Date Analyzed: 2008-08-29 Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.09	109	85 - 115	2008-08-29

Standard (CCV-1)

QC Batch: 51997 Date Analyzed: 2008-09-02 Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromochloromethane		µg/L	50.0	46.1	92	70 - 130	2008-09-02
Dichlorodifluoromethane		µg/L	50.0	51.8	104	70 - 130	2008-09-02
Chloromethane (methyl chloride)		µg/L	50.0	47.4	95	70 - 130	2008-09-02
Vinyl Chloride		µg/L	50.0	43.9	88	80 - 120	2008-09-02
Bromomethane (methyl bromide)	[39]	µg/L	50.0	34.0	68	70 - 130	2008-09-02
Chloroethane		µg/L	50.0	39.7	79	70 - 130	2008-09-02
Trichlorofluoromethane		µg/L	50.0	45.5	91	70 - 130	2008-09-02
Acetone		µg/L	50.0	35.0	70	70 - 130	2008-09-02
Iodomethane (methyl iodide)		µg/L	50.0	35.9	72	70 - 130	2008-09-02
Carbon Disulfide		µg/L	50.0	48.6	97	70 - 130	2008-09-02
Acrylonitrile		µg/L	50.0	47.1	94	70 - 130	2008-09-02
2-Butanone (MEK)	[40]	µg/L	50.0	33.8	68	70 - 130	2008-09-02
4-Methyl-2-pentanone (MIBK)		µg/L	50.0	41.6	83	70 - 130	2008-09-02
2-Hexanone	[41]	µg/L	50.0	34.6	69	70 - 130	2008-09-02
trans 1,4-Dichloro-2-butene		µg/L	50.0	45.2	90	70 - 130	2008-09-02
1,1-Dichloroethene		µg/L	50.0	45.6	91	80 - 120	2008-09-02
Methylene chloride		µg/L	50.0	43.8	88	70 - 130	2008-09-02
MTBE		µg/L	50.0	56.7	113	70 - 130	2008-09-02
trans-1,2-Dichloroethene		µg/L	50.0	46.5	93	70 - 130	2008-09-02
1,1-Dichloroethane		µg/L	50.0	46.4	93	70 - 130	2008-09-02
cis-1,2-Dichloroethene		µg/L	50.0	47.6	95	70 - 130	2008-09-02
2,2-Dichloropropane		µg/L	50.0	48.8	98	70 - 130	2008-09-02
1,2-Dichloroethane (EDC)		µg/L	50.0	46.0	92	70 - 130	2008-09-02
Chloroform		µg/L	50.0	45.5	91	80 - 120	2008-09-02
1,1,1-Trichloroethane		µg/L	50.0	42.6	85	70 - 130	2008-09-02

continued ...

[39]Bromomethane outside of control limits on CCV(ICV). CCV(ICV) component average is 92 which is within acceptable range. This is acceptable by Method 8000.

[40]2-Butanone outside of control limits on CCV(ICV). CCV(ICV) component average is 92 which is within acceptable range. This is acceptable by Method 8000.

[41]2-Hexanone outside of control limits on CCV(ICV). CCV(ICV) component average is 92 which is within acceptable range. This is acceptable by Method 8000.

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
1,1-Dichloropropene		µg/L	50.0	48.0	96	70 - 130	2008-09-02
Benzene		µg/L	50.0	46.3	93	70 - 130	2008-09-02
Carbon Tetrachloride		µg/L	50.0	42.9	86	70 - 130	2008-09-02
1,2-Dichloropropane		µg/L	50.0	47.2	94	80 - 120	2008-09-02
Trichloroethene (TCE)		µg/L	50.0	45.8	92	70 - 130	2008-09-02
Dibromomethane (methylene bromide)		µg/L	50.0	46.4	93	70 - 130	2008-09-02
Bromodichloromethane		µg/L	50.0	46.7	93	70 - 130	2008-09-02
2-Chloroethyl vinyl ether	[42]	µg/L	50.0	33.1	66	70 - 130	2008-09-02
cis-1,3-Dichloropropene		µg/L	50.0	43.0	86	70 - 130	2008-09-02
trans-1,3-Dichloropropene		µg/L	50.0	48.9	98	70 - 130	2008-09-02
Toluene		µg/L	50.0	46.0	92	80 - 120	2008-09-02
1,1,2-Trichloroethane		µg/L	50.0	46.4	93	70 - 130	2008-09-02
1,3-Dichloropropane		µg/L	50.0	46.5	93	70 - 130	2008-09-02
Dibromochloromethane		µg/L	50.0	47.1	94	70 - 130	2008-09-02
1,2-Dibromoethane (EDB)		µg/L	50.0	47.6	95	70 - 130	2008-09-02
Tetrachloroethene (PCE)	[43]	µg/L	50.0	31.3	63	70 - 130	2008-09-02
Chlorobenzene		µg/L	50.0	45.5	91	80 - 120	2008-09-02
1,1,1,2-Tetrachloroethane		µg/L	50.0	45.9	92	70 - 130	2008-09-02
Ethylbenzene		µg/L	50.0	47.9	96	80 - 120	2008-09-02
m,p-Xylene		µg/L	100	97.2	97	70 - 130	2008-09-02
Bromoform		µg/L	50.0	47.2	94	70 - 130	2008-09-02
Styrene		µg/L	50.0	43.0	86	70 - 130	2008-09-02
o-Xylene		µg/L	50.0	50.5	101	70 - 130	2008-09-02
1,1,2,2-Tetrachloroethane		µg/L	50.0	47.1	94	70 - 130	2008-09-02
2-Chlorotoluene		µg/L	50.0	47.5	95	70 - 130	2008-09-02
1,2,3-Trichloropropane		µg/L	50.0	44.7	89	70 - 130	2008-09-02
Isopropylbenzene		µg/L	50.0	43.0	86	70 - 130	2008-09-02
Bromobenzene		µg/L	50.0	45.3	91	70 - 130	2008-09-02
n-Propylbenzene		µg/L	50.0	48.8	98	70 - 130	2008-09-02
1,3,5-Trimethylbenzene		µg/L	50.0	49.0	98	70 - 130	2008-09-02
tert-Butylbenzene		µg/L	50.0	45.0	90	70 - 130	2008-09-02
1,2,4-Trimethylbenzene		µg/L	50.0	51.1	102	70 - 130	2008-09-02
1,4-Dichlorobenzene (para)		µg/L	50.0	45.5	91	70 - 130	2008-09-02
sec-Butylbenzene		µg/L	50.0	52.0	104	70 - 130	2008-09-02
1,3-Dichlorobenzene (meta)		µg/L	50.0	48.0	96	70 - 130	2008-09-02
p-Isopropyltoluene		µg/L	50.0	45.5	91	70 - 130	2008-09-02
4-Chlorotoluene		µg/L	50.0	48.2	96	70 - 130	2008-09-02
1,2-Dichlorobenzene (ortho)		µg/L	50.0	48.4	97	70 - 130	2008-09-02
n-Butylbenzene		µg/L	50.0	53.8	108	70 - 130	2008-09-02

continued ...

[42] 2-Chloroethyl vinyl ether outside of control limits on CCV(ICV). CCV(ICV) component average is 92 which is within acceptable range. This is acceptable by Method 8000.

[43] Tetrachloroethene outside of control limits on CCV(ICV). CCV(ICV) component average is 92 which is within acceptable range. This is acceptable by Method 8000.

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
1,2-Dibromo-3-chloropropane		µg/L	50.0	39.0	78	70 - 130	2008-09-02
1,2,3-Trichlorobenzene		µg/L	50.0	42.5	85	70 - 130	2008-09-02
1,2,4-Trichlorobenzene		µg/L	50.0	49.7	99	70 - 130	2008-09-02
Naphthalene		µg/L	50.0	41.4	83	70 - 130	2008-09-02
Hexachlorobutadiene		µg/L	50.0	50.0	100	70 - 130	2008-09-02

Standard (ICV-1)

QC Batch: 51999 Date Analyzed: 2008-09-02 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	51.3	103	90 - 110	2008-09-02
Dissolved Potassium		mg/L	50.0	50.8	102	90 - 110	2008-09-02
Dissolved Magnesium		mg/L	50.0	52.1	104	90 - 110	2008-09-02
Dissolved Sodium		mg/L	50.0	51.7	103	90 - 110	2008-09-02

Standard (CCV-1)

QC Batch: 51999 Date Analyzed: 2008-09-02 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	49.1	98	90 - 110	2008-09-02
Dissolved Potassium		mg/L	50.0	49.6	99	90 - 110	2008-09-02
Dissolved Magnesium		mg/L	50.0	50.2	100	90 - 110	2008-09-02
Dissolved Sodium		mg/L	50.0	49.2	98	90 - 110	2008-09-02

LAB Order ID # 8082528 Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9, Lubbock, Texas 79424, Tel (806) 794-1296, Fax (806) 794-1298, 1 (800) 378-1296
5002 Basin Street, Suite A1, Midland, Texas 79703, Tel (432) 689-6301, Fax (432) 689-6313
200 East Sunset Rd., Suite E, El Paso, Texas 79922, Tel (915) 585-3443, Fax (915) 585-4944, 1 (888) 588-3443
8808 Camp Bowie Blvd. West, Suite 180, Ft. Worth, Texas 76116, Tel (817) 201-5260, Fax (817) 560-4336

Company Name: Nova
Phone #: 520-7720
Address: (Street, City, Zip) 2507 Commerce
Fax #:
Contact Person: Ron K.
E-mail:
Invoice to: (If different from above) Plains
Project #: 2005 30. TNM-Red Byrd-1
Project Name: Red Byrd
Project Location (including state):
Sampler Signature:

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	#CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
17177	MW-19	5	Voa	X				X				X		8-22	16:30
	MW 19	1	1L Plast	X								X	X		
	MW 19	1	1L Amb	X								X	X		
	MW 19	1	500ml Plast. Nitric Lamb	X					X			X			
	MW 19	1													
	MW 19	3	Voa												

LAB # (LAB USE ONLY)	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Cations / Anions / Alkalinity	WQCC Metals				Turn Around Time if different from standard	Hold
17177			X	X								X	X					X	X					
						X												X						

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
	NOVA	8.25.8	1441		TRACE	8/25/08	14:41	3.2°C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
	TRACE	8/25/08	1700					
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:

LAB USE ONLY
Intact Y N NA
Headspace Y N NA
Log-In Review

REMARKS: TPH DRO/GRO, ANIONS, Alkalinity - Midland
Dry Weight Basis Required
TRRP Report Required
Check If Special Reporting Limits Are Needed
Semi-Vols, Vols, Metals, cations - Lubbock

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

Carrier # carry in / Lone Star

ORIGINAL COPY

Monitor Well MW-19

Depth (feet)	PID Reading	Petroleum Odor	Petroleum Stain
0	1.8	None	None
5			
10	1.6	None	None
15	1.5	None	None
	1.2	None	None
20	1.1	None	None
25	1.3	None	None
30	(27.3)	None	None
35	(9.6)	None	None
40		None	None
45 TD	(5.4)		

Soil Description

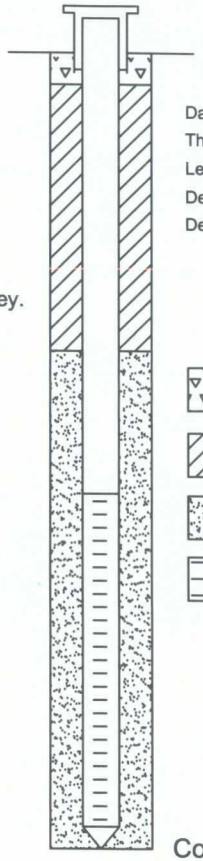
0 - 13' - Sand, brown, clayey, fine grained.

13 - 15' - Caliche, grey and sand, brown, clayey.

15 - 30' - Clay, brown, sandy.

30 - 35' - Clay, brown, sandy, with gravel.

35 - 45' - Clay, brown, sandy.



Monitor Well Details

Date Drilled	07-15-08
Thickness of Bentonite Seal	15 ft
Length of PVC Well Screen	20 ft
Depth of PVC Well	45 ft
Depth of Exploratory Well	45 ft

Grout Surface Seal

Bentonite Pellet Seal

Sand Pack

Screen

(oval) Indicates samples selected for Laboratory Analysis.

PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

1. The monitor well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from below ground surface. (bgs)

Boring Log And Monitor Well Details
Monitor Well MW-19
Red Bryd #1 Lea County, New Mexico
Plains Marketing, L.P.

NOVA safety and environmental

NOVA Safety and Environmental

CAD By: DGC	Checked By: CDS
March 24, 2007	

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
RED BYRD MW-19	
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
PLAINS MARKETING LP	
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
333 CLAY STREET, SUITE 1600	HOUSTON / TX / 77078

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	36	4.00	N
	LONGITUDE	103	17	58.00	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS

FROM MONUMENT CAFE GO W ON MONUMENT HWY TO MADDOX RD GO S TURN R ON CALICHE RD TO 1ST R

2. OPTIONAL

(2.5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP	RANGE
¼	¼	¼	¼		☐ NORTH ☐ SOUTH	☐ EAST ☐ WEST

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1478	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
7-15-08	7-15-08	45	45	

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT):

DRILLING FLUID: ☑ AIR ☐ MUD ☐ ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
45'	25'	5	SCH 40 .010 SCREEN	FJ	2	0.154	.010
25'	+43"	5	SCH 40 PVC RISER	FJ	2	0.154	RISER

4. WATER BEARING STRATA

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA	TOTAL ESTIMATED WELL YIELD (GPM)

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 1 OF 2

5. SEAL AND PUMP

TYPE OF PUMP: ☐ SUBMERSIBLE ☐ JET ☐ NO PUMP – WELL NOT EQUIPPED
☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY:

ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
	45'	22'	5	7 BAGS OF 20/40 SAND		TOPLOAD
	22'	2'	5	5 BAGS OF 3/8 HOLEPLUG		TOPLOAD
	2'	0	5	1BAG OF CEMENT		TOPLOAD

6. GEOLOGIC LOG OF WELL

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
0	5	5	TAN FINE SAND	☐ YES ☑ NO
5	9	4	RED FINE SAND	☐ YES ☑ NO
9	13	4	TAN FINE SAND - SANDSTONE - CALICHE	☐ YES ☑ NO
13	22	9	TAN FINE SAND -SANDSTONE	☐ YES ☑ NO
22	25	3	RED FINE SAND - SANDSTONE	☐ YES ☑ NO
25	36	11	TAN FINE SAND-(MED. DENCE) SANDSTONE	☐ YES ☑ NO
36	45	9	TAN FINE SAND - WITH CLAY	☐ YES ☑ NO
TD	45			☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO

ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL

7. TEST & ADDITIONAL INFO

WELL TEST — METHOD: ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY:

TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

ADDITIONAL STATEMENTS OR EXPLANATIONS:

2X2 PAD - 4X4 HIGH RISER

8. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

SIGNATURE OF DRILLER — DATE: 8-12-08

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2