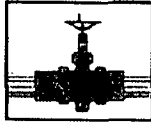


1R - 2166

WORKPLANS

Date:

3-9-10



PLAINS
PIPELINE, L.P.

RECEIVED

2010 MAR 22 PM 1 23

March 9, 2010

Mr. Edward Hansen
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Plains Pipeline, L.P. DCP Plant to Lea Station 6-inch Sec. 31
NMOCD Reference # 1R-2166
Unit Letter K of Section 31, Township 20 South, Range 37 East
Lea County, New Mexico

Dear Mr. Hansen:

Plains Pipeline, L.P. is pleased to submit the attached *Groundwater Remediation Plan*, dated March 2010, for the DCP Plant to Lea Station 6-inch Sec. 31 site. This site is located in Section 31 of Township 20 South, and Range 37 East of Lea County, New Mexico. This document details the site groundwater remediation activities performed to date and provides a proposed strategy for conducting future groundwater remediation activities.

Should you have any questions or comments, please contact me at (575) 441-1099.

Sincerely,

Jason Henry
Remediation Coordinator
Plains Pipeline, L.P.

CC: Larry Johnson, NMOCD, Hobbs Office
Brian Henington, NMSLO, Santa Fe Office

RECEIVED

MAR 19 2010

SOLID WASTE BUREAU

Enclosure

Basin Environmental Consulting, LLC

2800 Plains Highway P. O. Box 381 Lovington, New Mexico 88260
Phone: 575-396-2378 Fax: 575-396-1429



March 3, 2010

Mr. Edward Hansen
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Plains Pipeline, L.P. – DCP Plant to Lea Station 6-Inch Section 31
Groundwater Remediation Plan
NMOCD Reference # 1RP-2166
Plains SRS #2009-084
ULT “K” (NE/SW), Section 31, Township 20 South, Range 37 East
Latitude 32.52733° N, Longitude 103.2906° W
Lea County, New Mexico
Landowner: State of New Mexico

RECEIVED

MAR 19 2010

SOLID WASTE BUREAU

Dear Mr. Hansen,

Basin Environmental Consulting, LLC (Basin), on behalf of Plains Pipeline, LP (Plains), is pleased to submit the following Groundwater Remediation Plan for the release site known as DCP Plant to Lea Station 6-Inch Section 31.

Groundwater Remediation Activities

On April 15, 2009, soil boring SB-1 was advanced, approximately ten (10) feet west of the release point, to evaluate the vertical extent of soil impact. Temporary casing was installed in the soil boring to obtain a preliminary groundwater sample. On April 16, 2009, a groundwater sample (SB-1) was collected from the temporary casing and submitted to the laboratory for analysis. Following the collection of the groundwater sample, the temporary casing was removed from the soil boring and the soil boring was plugged with cement and bentonite, as required by the New Mexico Office of the State Engineer (NMOSE). Laboratory analytical results indicated a benzene concentration of 1.915 mg/L, a BTEX concentration of 4.7711 mg/L, a chloride concentration of 54.6 mg/L and a total dissolved solid (TDS) concentration of 788 mg/L. Based on the analytical results of the submitted groundwater sample, Plains notified New Mexico Oil Conservation Division (NMOCD) representatives at the Hobbs District Office and the Santa Fe Office of the laboratory confirmed impact to groundwater at the release site. A site location and site map are provided as Figure 1 and Figure 2, respectively.

On September 21 through September 23, 2009, Plains installed and developed four (4) monitor wells (MW-1 through MW-4) at the release site, as approved by the NMOCD. Monitor well boring logs for monitor wells MW-1, MW-2, MW-3, and MW-4 are provided as Figure 3 through Figure 6, respectively. On September 29, 2009, during groundwater sampling activities phase-

separated hydrocarbon (PSH) was observed in monitor well MW-1. Currently, PSH is recovered on a weekly schedule from monitor well MW-1. As of December 28, 2009, approximately 51 gallons (1.21 barrels) of PSH has been recovered from monitor well MW-1. Currently, all recovered fluids are being disposed of at a NMOCD approved disposal. Groundwater elevation data reflects a general groundwater gradient to the southeast. A Summary of Cumulative PSH Recovery Data is provided as Table 1 and Groundwater Elevation Data is provided as Table 2.

On September 29, 2009, groundwater samples were collected and analyzed for concentrations of RCRA metals (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Mercury, and Silver), NMWQCC metals (Copper, Iron, Manganese, Zinc, Aluminum, Boron, Cobalt, Molybdenum and Nickel) using EPA Method SW 6020A. In addition to the requested metals analysis, the NMOCD requested the analysis of Volatile Organic Compounds (VOC) and Semi-Volatile Organic Compounds (SVOC) by EPA Methods 8260 and 8270, respectively. The NMOCD further required the analysis of Anions and Cations (Calcium, Magnesium, Potassium, Sodium, Chloride, Sulfate, Bicarbonate, Carbonate, Nitrate, Phosphate and Fluoride) using EPA methods SM2320B and EPA 300.

Third Quarter 2009 Sampling Event

Monitor well MW-1 was not sampled during the third quarter 2009 sampling event, due to the presence of PSH in the monitor well.

The analytical results of the September 29, 2009 sampling event indicated RCRA metal concentrations were less than the NMWQCC drinking water standards in all three (3) sampled monitor wells, with the exception of the aluminum concentration in monitor well MW-3 and iron concentrations in monitor wells MW-2, MW-3 and MW-4. The aluminum concentration in monitor well MW-3 was 6.51 mg/L, the iron concentrations in monitor wells MW-2, MW-3 and MW-4 were 2.1 mg/L, 5.9 mg/L and 1.860 mg/L, respectively. The aluminum concentrations in monitor well MW-3 and the iron concentrations in monitor wells MW-2, MW-3 and MW-4 exceed the NMWQCC standards of 5.0 mg/L and 1.0 mg/L, respectively. Table 4 summarizes the concentrations of RCRA and NMWQCC Metals in Groundwater. Laboratory analytical reports are provided with this report.

The analytical results indicated concentrations of volatile organic compounds and semi-volatile compounds were less than the NMWQCC standard for each constituent in all three (3) sampled monitor wells. Table 5 summarizes the Concentrations of Volatile Organic Compounds in Groundwater. Table 6 summarizes the Concentrations of Semi-Volatile Organic Compounds in Groundwater.

The results further indicated concentrations of anion and cations were less than the NMWQCC drinking water standards in all three (3) sampled monitor wells, with the exception of chloride and fluoride concentrations. The chloride concentrations were 268 mg/L and 307 mg/L in monitor wells MW-3 and MW-4, respectively. The fluoride concentrations were 6.1 mg/L, 6.01 mg/L and 7.52 mg/L in monitor wells MW-2, MW-3 and MW-4, respectively. Table 7 summarizes the Concentrations of Anions and Cations in Groundwater.

Fourth Quarter 2009 Sampling Event

The on-site monitor wells (MW-1 through MW-4) were gauged and sampled on December 10, 2009. During the sampling event, the monitor wells were purged of a minimum of three (3) well volumes of water or until the wells were dry using a PVC bailer or an electric Grunfos Pimp. Groundwater was allowed to recharge and samples were obtained using disposable Teflon samplers. Purged water was disposed of at a NMOCD permitted disposal. Groundwater samples were collected from monitor wells MW-1, MW-2, MW-3 and MW-4 and analyzed for concentrations of benzene, toluene, ethyl-benzene and xylene (BTEX) using EPA Method SW 846 8260b. Pursuant to NMOCD request, monitor wells impacted with PSH are analyzed for concentrations of total petroleum hydrocarbons (TPH) using EPA method SW 846 8015 Modified. In addition, a groundwater sample was collected from monitor well MW-1 and analyzed for concentrations of PAH using EPA method SW 846 8270C. Concentrations of benzene, BTEX, Chlorides and TDS in Groundwater, and Concentrations of TPH in Groundwater are provided as Tables 3 and 8, respectively.


Laboratory analytical results of the groundwater sample collected from monitor well MW-1 indicated a benzene concentration of 19.0 mg/L, a BTEX concentration of 35.525 mg/L and a TPH concentration of 343 mg/L. The analytical results indicated concentrations of PAH were less than the laboratory method detection limit (MDL) for each constituent in monitor well MW-1. Laboratory analytical results of the groundwater samples collected from monitor wells MW-2 and MW-4 indicated benzene and BTEX concentrations were less than the appropriate laboratory MDL. Laboratory analytical results of the groundwater sample collected from monitor well MW-3 indicated a benzene concentration of 0.0031 mg/L and BTEX concentration of 0.0031 mg/L.

Anticipated Actions

Based on the analytical results of the third and fourth quarter sampling events, the release site appears to be delineated and additional monitor wells are not required, at this time. PSH recovery will continue on a weekly schedule from monitor well MW-1. All fluids recovered from monitor well MW-1 will be disposed of at a NMOCD permitted disposal. The on-site monitor wells will be monitored and sampled on a quarterly basis.

If you have any questions or require further information, please contact me at (575) 605-7210 or Mr. Jason Henry (Plains) at (575) 441-1099.

Respectfully,



Camille Bryant
Project Manager
Basin Environmental Consulting, LLC

Enclosures

Figure 1 – Site Location Map
Figure 2 – Site Map
Figure 3 – Monitor Well MW-1 Boring Log
Figure 4 - Monitor Well MW-2 Boring Log
Figure 5 - Monitor Well MW-3 Boring Log
Figure 6 – Monitor Well MW-4 Boring Log
Table 1 - 2009 Cumulative PSH Recovery Data
Table 2 – Groundwater Elevation Data Table
Table 3 – Concentrations of benzene, BTEX, Chlorides and TDS in Groundwater
Table 4 - Concentrations of RCRA and NMWQCC Metals in Groundwater
Table 5 - Concentrations of Volatile Organic Compounds in Groundwater
Table 6 - Concentrations of Semi-Volatile Organic Compounds in Groundwater
Table 7 - Concentrations of Anions and Cations in Groundwater
Table 8 - Concentrations of TPH in Groundwater
Laboratory Analytical Reports

cc: Jason Henry – Plains, Denver City, Texas
Jeff Dann – Plains, Houston, Texas
Larry Johnson – NMOCD, Hobbs District Office
Brian Henington – NMSLO, Santa Fe
file

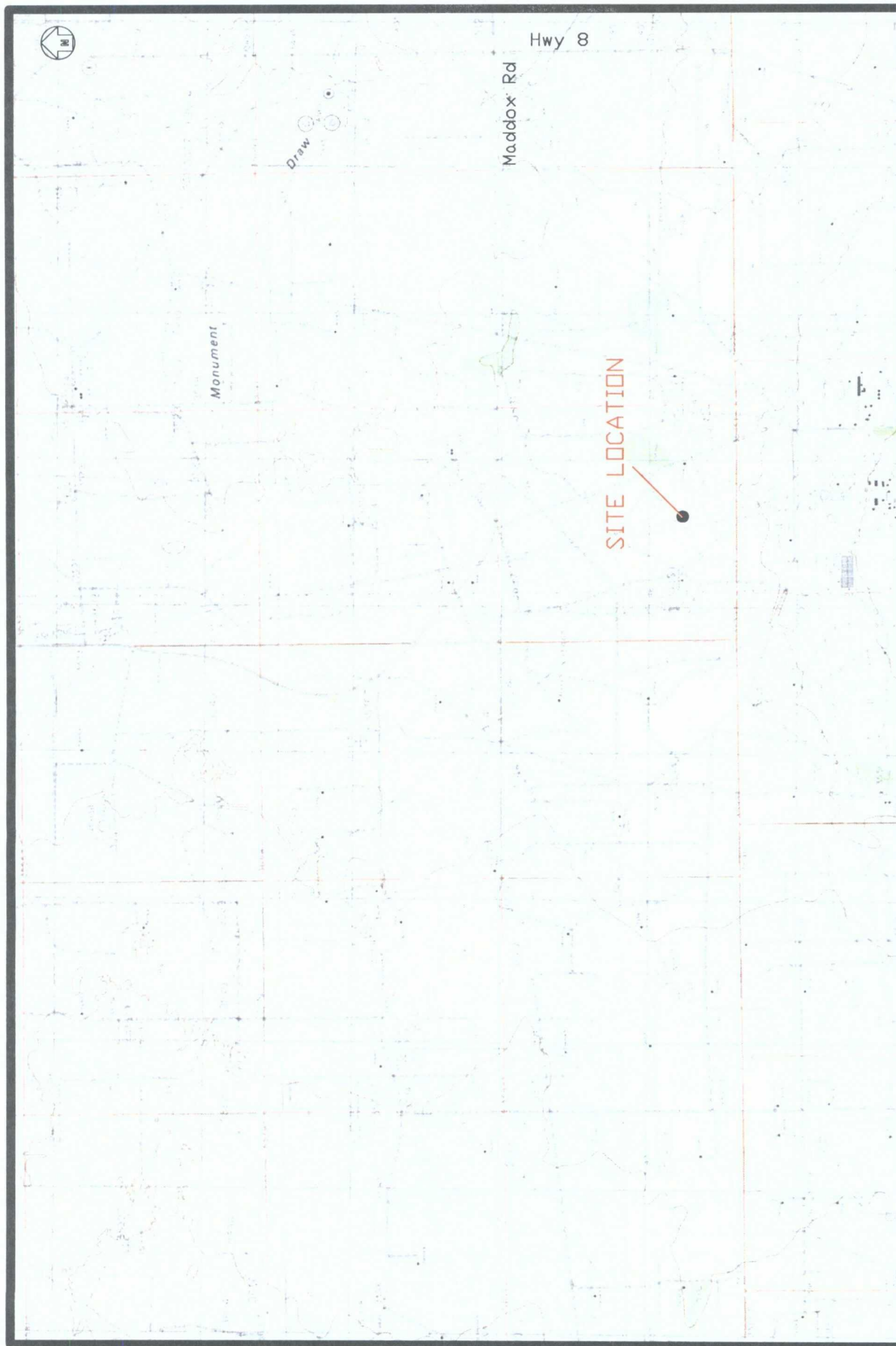


Figure 1
 Site Location Map
 Plains Pipeline, L.P.
 DCP Plant to Lea Station 6-Inch Sec 31
 Lea County, New Mexico
 SRS 2009-084
 1RP-2166



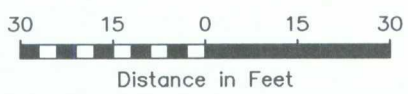
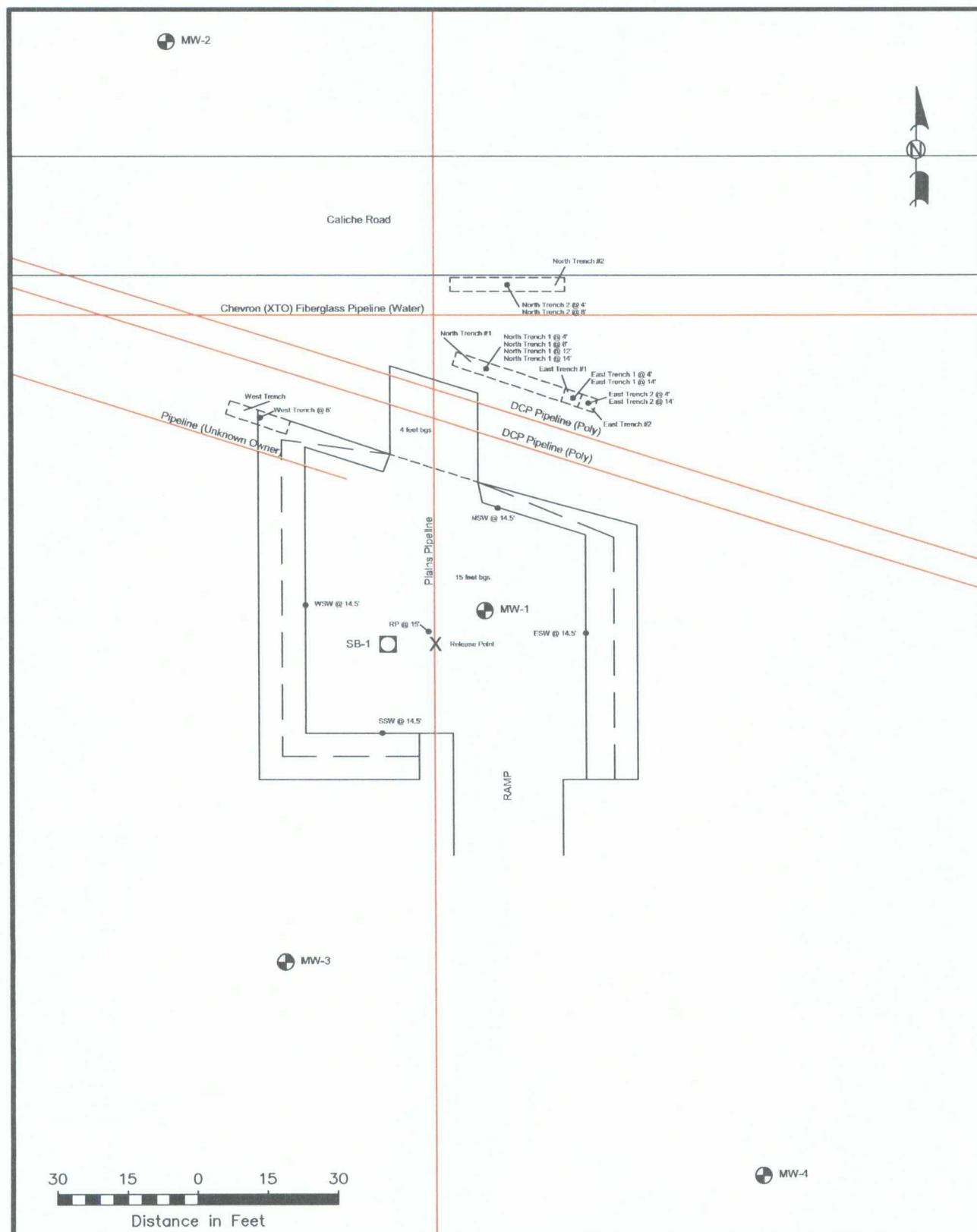
Basin Environmental Consulting

Prep By: CDS

July 20, 2009

Checked By: CDS

Scale 1"=3000'



LEGEND:

—	Excavation Extent
•	Sample Location
—	Pipeline
□	Soil Boring

Figure 2
 Site and Sample Location Map
 Plains Pipeline, L.P.
 DCP Plant to Lea Station 6-Inch - Sec 31
 SRS # 2009-084
 Lea County, NM
 1RP - 2166

Basin Environmental Services		
Scale: 1" = 30'	Drawn By: CDS	Prepared By: CDS
June 11, 2009		

Monitor Well MW-1

Depth
below
ground
surface

Drilling
Depth

Soil
Columns

PID
Reading

Petroleum
Odor

Petroleum
Stain

Soil Description

Monitor Well MW-1

Date Drilled: September 24, 2009
Thickness of Bentonite Seal: 57 Ft
Depth of Exploratory Boring: 86 Ft bgs
Depth to Groundwater: _____
Ground Water Elevation: _____

Indicates the PSH level measured on _____
Indicates the groundwater level measured on _____
Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Grout Surface Seal
Bentonite Pellet Seal
Sand Pack
Screen



PID Reading	Petroleum Odor	Petroleum Stain
1836	Heavy	Slight
747	Very Heavy	Slight
779	Heavy	None
848	Heavy	None
1449	Heavy	None
1463	Heavy	None
1078	Heavy	None
936	Heavy	None
1522	Heavy	None
1438	Heavy	None
1851	Heavy	None
1550	Very Heavy	None
863	Very Heavy	None

0 - 5' - Sand, brown with caliche nodules

5 - 18' - Caliche, grey, hard, dry, sandy

18 - 25' - Sand, brown, very fine grained, dry with caliche nodules

25 - 71' - Sand, brown, very fine grained, moist to wet at approximately 70 feet. Monitor well was completed using water



Completion Notes

- 1.) The monitor well was advanced on date using air / water rotary drilling techniques.
- 2.) The well was constructed with 4" 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 compression cap.
- 4.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from ground surface.

Monitor Well MW-1
DCP Plant to Lea Station 6-Inch Sec 31
Lea County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Consulting

Prep By: CDS
October 7, 2009

Checked By: CDS

Monitor Well MW-2

Drilling Depth Columns PID Reading Petroleum Odor Petroleum Stain

0				
5		0.3	None	None
10		0.2	None	None
15		(20.5)	None	None
20		16.8	None	None
25		39.7	None	None
30		(37.1)	None	None
35		46.6	None	None
40		46.9	None	None
45		(48.1)	None	None
50		35.4	None	None
55		47.9	None	None
60		(48.9)	None	None
65		46.2	None	None
70		45.4	None	None
75		(43.4)	None	None
80		44.3	None	None
85				
90				

Soil Description

0 - 3' bgs - Sand, light brown, clayey with caliche nodules

2 - 14' bgs - Caliche, white, soft, dry, sandy

14 - 90' bgs - Sand, brown, very fine grained, dry, hard 18 - 23 feet. Lost circulation at 80 feet bgs and completed drilling with water

Monitor Well MW-2

Date Drilled September 21, 2009
 Thickness of Bentonite Seal 51 ft
 Depth of Exploratory Boring 90 ft bgs
 Depth to Groundwater
 Ground Water Elevation

Indicates the PSH level measured on
 Indicates the groundwater level measured on
 Indicates samples selected for Laboratory Analysis.
 PID Head-space reading in ppm obtained with a photo-ionization detector.

Grout Surface Seal
 Bentonite Pellet Seal
 Sand Pack
 Screen

Completion Notes

- 1.) The monitor well was advanced on date using air / water 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 compression cap.
- 4.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from ground surface.

Monitor Well MW-2
 DCP Plant to Lea Station 6-Inch Sec 31
 Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Consulting

Prep By: CDS

Checked By: CDS

October 7, 2009

Monitor Well MW-3

Drilling Depth Columns PID Reading Petroleum Odor Petroleum Stain

0					0 - 5' bgs - Clay, light brown, sandy with caliche nodules, some organics
5		2.5	None	None	
10		9.4	None	None	5 - 12' bgs - Caliche, white, soft, dry, sandy
15		(10.5)	None	None	12 - 18' bgs - Sand, light brown, very fine grained with some caliche nodules
20		11.1	None	None	
25		15.1	None	None	18 - 24' bgs - Caliche, white, soft, dry, sandy
30		(8.0)	None	None	24 - 33' bgs - Sand, light brown and Caliche, white, soft, dry
35		8.2	None	None	
40		4.9	None	None	
45		(9.1)	None	None	
50		13.9	None	None	
55		8.6	None	None	33 - 90' bgs - Sand, reddish brown, very fine grained, dry. Lost circulation at 60 feet bgs and completed drilling with water
60		(8.4)	None	None	
65					
70					
75					
80					
85					
90					

Monitor Well MW-3

Date Drilled: September 22, 2009
 Thickness of Bentonite Seal: 61 ft
 Depth of Exploratory Boring: 90 ft bgs
 Depth to Groundwater: _____
 Ground Water Elevation: _____

Indicates the PSH level measured on _____
 Indicates the groundwater level measured on _____
 Indicates samples selected for Laboratory Analysis.
 PID Head-space reading in ppm obtained with a photo-ionization detector.

- Grout Surface Seal
- Bentonite Pellet Seal
- Sand Pack
- Screen

Completion Notes

- 1.) The monitor well was advanced on date using air / water 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 compression cap.
- 4.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from ground surface.

Monitor Well MW-3
 DCP Plant to Lea Station 6-Inch Sec 31
 Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Consulting

Prep By: CDS
 October 7, 2009
 Checked By: CDS

Monitor Well MW-4

Monitor Well MW-4

Drilling Depth Columns PID Reading Petroleum Odor Petroleum Stain

Soil Description

0					0 - 5' bgs - Sand, light brown, clayey with caliche nodules, some organics
5		18.5	None	None	
10		27.2	None	None	5 - 10' bgs - Caliche, white, soft, dry, sandy
15		(29.8)	None	None	10 - 15' bgs - Sand, light brown, very fine grained, dry
20		5.7	None	None	15 - 20' bgs - Sand, light brown, very fine grained, dry with some caliche nodules
25		25.0	None	None	20 - 28' bgs - Caliche, white, hard, dry, sandy
30		(26.2)	None	None	28 - 33' bgs - Sand, light brown, very fine grained, dry with caliche nodules
35		41.1	None	None	33 - 35' bgs - Sand, reddish brown, very fine grained, dry with caliche nodules
40		31.4	None	None	
45		(27.9)	None	None	
50		30.4	None	None	
55		25.4	None	None	
60		(33.9)	None	None	33 - 89' bgs - Sand, reddish brown, very fine grained, dry. Lost circulation at 60 feet bgs and completed drilling with water
65					
70					
75					
80					
85					
90					

Date Drilled September 22, 2009
 Thickness of Bentonite Seal 60 ft
 Depth of Exploratory Boring 89 ft bgs
 Depth to Groundwater
 Ground Water Elevation

Indicates the PSH level measured on
 Indicates the groundwater level measured on
 Indicates samples selected for Laboratory Analysis
 PID Head-space reading in ppm obtained with a photo-ionization detector.

Grout Surface Seal
 Bentonite Pellet Seal
 Sand Pack
 Screen

Completion Notes

- 1.) The monitor well was advanced on date using air / water 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 slick up steel cover and compression cap.
- 4.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from ground surface.

Monitor Well MW-4
 DCP Plant to Lea Station 6-Inch Sec 31
 Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Consulting

Prep By: CDS
 October 7, 2009
 Checked By: CDS

TABLE 1

2009 CUMULATIVE PSH RECOVERY DATA
PLAINS PIPELINE, L.P.
DCP PLANT TO LEA STATION 6-INCH Sec. 31
LEA COUNTY, NEW MEXICO
SRS# 2009-084
IRP-2136

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS (Feet)	CORRECTED GROUNDWATER ELEVATION	OIL RECOVERED (Gallons)
MW -1	10/06/09	-	69.87	70.13	0.26	-	4
MW -1	10/16/09	-	69.74	71.30	1.56	-	4
MW-1	10/21/09	-	69.31	71.41	2.10	-	4
MW-1	10/30/09	-	68.98	72.34	3.36	-	5
MW-1	11/05/09	-	69.07	72.16	3.09	-	5
MW-1	11/19/09	-	68.81	72.96	4.15	-	6
MW-1	11/24/09	-	69.25	72.11	2.86	-	3
MW-1	12/08/09	-	68.78	72.94	4.16	-	5
MW-1	12/17/09	-	69.05	72.85	3.80	-	5
MW-1	12/21/09	-	69.14	72.31	3.17	-	5
MW-1	12/28/09	-	68.91	72.96	4.05	-	5
Total (gallons)							51

TABLE 2

GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
 DCP PLANT TO LEA STATION 6-INCH SEC. 31
 LEA COUNTY, NEW MEXICO
 PLAINS SRS NO: 2009-084
 NMOCD REF NO: 1RP-2166

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	09/29/09	-	69.82	69.83	0.01	-
MW-1	10/06/09	-	69.87	70.13	0.26	-
MW-1	10/16/09	-	69.74	71.30	1.56	-
MW-1	10/21/09	-	69.31	71.41	2.10	-
MW-1	10/30/09	-	68.98	72.34	3.36	-
MW-1	11/05/09	-	69.07	72.16	3.09	-
MW-1	11/19/09	-	68.81	72.96	4.15	-
MW-1	11/24/09	-	69.25	72.11	2.86	-
MW-1	12/08/09	-	68.78	72.94	4.16	-
MW-1	12/10/09	-	69.51	71.41	1.90	-
MW-1	12/17/09	-	69.05	72.85	3.80	-
MW-1	12/21/09	-	69.14	72.31	3.17	-
MW-1	12/28/09	-	68.91	72.96	4.05	-
MW-2	09/29/09	3,539.39	-	82.26	0.00	3,457.13
MW-2	12/10/09	3,539.39	-	82.36	0.00	3,457.03
MW-3	09/29/09	3,539.31	-	82.54	0.00	3,456.77
MW-3	12/10/09	3,539.31	-	82.67	0.00	3,456.64
MW-4	09/29/09	3,540.12	-	83.58	0.00	3,456.54
MW-4	12/10/09	3,540.12	-	84.68	0.00	3,455.44

TABLE 3

CONCENTRATIONS OF BENZENE, BTX, CHLORIDES AND TOTAL DISSOLVED SOLIDS IN GROUNDWATER

PLAINS PIPELINE, L.P.

DCP PLANT TO LEA STATION 6" SECTION 31

LEA COUNTY, NEW MEXICO

PLAINS SRS NO. 2009-084

NMOCD REFERENCE NO: 1R-2166

SAMPLE LOCATION	SAMPLE DATE	DATE ANALYZED	METHODS: EPA SW 846-8021B, 5030						CHLORIDES (mg/L)	TDS (mg/L)
			BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL BTX (mg/L)		
SB-1	04/16/09	04/17/09	1.915	2.23	0.1761	0.337	0.113	4.7711	54.6	788
MW-1	12/10/09	12/17/09	19.0	13.09	0.812	1.894	0.729	35.525	-	-
MW-2	12/10/09	12/17/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	-	-
MW-3	12/10/09	12/17/09	0.0031	<0.0020	<0.0010	<0.0020	<0.0010	<0.0031	-	-
MW-4	12/10/09	12/17/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	-	-
NMOCD CRITERIA			0.01	0.75	0.75	TOTAL XYLENES 0.62			250	10,000

TABLE 4
CONCENTRATIONS OF RCRA AND NMWQCC METALS IN GROUNDWATER
PLAINS PIPELINE, L.P.
DCP PLANT TO LEA STATION 6-INCH SEC 31
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER IRP-2166

		EPA SW846-6020A, EPA 7470A																
SAMPLE LOCATION	SAMPLE DATE	Aluminum	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Molybdenum	Nickel	Selenium	Silver	Zinc	Mercury
MW-2	09/29/09	2.36	0.019	0.126	0.317	<0.001	0.007	<0.005	0.008	2.1	<0.002	0.045	0.02	0.006	0.028	<0.002	0.014	0.0001
MW-3	09/29/09	6.51	0.024	0.704	0.224	<0.001	0.01	0.006	0.014	5.9	0.005	0.147	0.024	0.013	0.008	<0.002	0.024	<0.0001
MW-4	09/29/09	2.22	0.04	0.176	0.184	<0.001	0.006	<0.005	0.01	1.860	<0.002	0.065	0.019	0.007	0.006	<0.002	0.008	<0.0001
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		5.0 mg/L	0.1 mg/L	1.0 mg/L	0.75 mg/L	0.01 mg/L	0.05 mg/L	0.05 mg/L	1.0 mg/L	1.0 mg/L	0.05 mg/L	0.2 mg/L	1.0 mg/L	0.2 mg/L	0.05 mg/L	0.05 mg/L	10 mg/L	0.002 mg/L

All water concentrations are reported in mg/L.

Table 5

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN WATER

PLAINS PIPELINE, LP
 DCP PLANT TO LEA STATION 6-INCH SEC 31
 LEA COUNTY, NEW MEXICO
 NMOCD REFERENCE NUMBER 1RP-2166

All water concentrations are in mg/L

Date Sampled	Sample Location	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	MTBE	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane
09/29/09	MW-2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01
09/29/09	MW-3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01
09/29/09	MW-4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		0.01 mg/L	.	.	.	.	.	.	.	.	.	.	0.01 mg/L	.	.

Table 5

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN WATER

PLAINS PIPELINE, LP
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2166
All water concentrations are in mg/L

Date Sampled	Sample Location	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	p-Cymene(p-Isopropyltoluene)	Dibromochloromethane	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	Dibromomethane (methylene bromide)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	0.1mg/L
09/29/09	MW-2	<0.005	<0.01	<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
09/29/09	MW-3	<0.005	<0.01	<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
09/29/09	MW-4	<0.005	<0.01	<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
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		0.1mg/L	.	.	.	.	.	.	0.0001 mg/L	.	.	.	.	.	.	0.005 mg/L	0.01 mg/L	0.005 mg/L

Table 5

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN WATER

PLAINS PIPELINE, LP
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2166

All water concentrations are in mg/L

Date Sampled	Sample Location	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	Methylene chloride	4-Methyl-2-pentanone (MIBK)	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane
09/29/09	MW-2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.05	<0.01	<0.005	<0.005	<0.005
09/29/09	MW-3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.05	<0.01	<0.005	<0.005	<0.005
09/29/09	MW-4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.05	<0.01	<0.005	<0.005	<0.005
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		.	.	.	.	.	.	.	0.75 mg/L	.	.	0.1mg/L	.	0.03 mg/L	.	.	.

Table 5

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER

PLAINS PIPELINE, LP

DCP PLANT TO LEA STATION 6-INCH SEC. 31

LEA COUNTY, NEW MEXICO

NMOCD REFERENCE NUMBER 1RP-2166

All water concentrations are in mg/L

Date Sampled	Sample Location	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	o-Xylene	m,p-Xylene	0.001 mg/L
09/29/09	MW-2	<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	<0.01	<0.002
09/29/09	MW-3	<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	<0.01	<0.002
09/29/09	MW-4	<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	<0.01	<0.002
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		0.02 mg/L	-	0.75 mg/L	-	0.06 mg/L	-	0.01 mg/L	-	-	-	-	-	Total Xylene	0.62 mg/L	0.001 mg/L

TABLE 6
CONCENTRATIONS OF SEMI-VOLATILE COMPOUNDS IN GROUNDWATER
PLAINS PIPELINE, L.P.
DCP PLANT TO LEA STATION 6-INCH SEC.31
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2166

All water concentrations are reported in mg/L

EPA SW846-8270C, 3510																		
SAMPLE LOCATION	SAMPLE DATE	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benz[a]pyrene	Benz[b]fluoranthene	Benz[g,h,i]perylene	Benz[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
MW-2	09/29/09	<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
MW-3	09/29/09	<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
MW-4	09/29/09	<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
MW-1	12/10/09	<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

TABLE 7
CONCENTRATIONS OF ANIONS/CATIONS IN GROUNDWATER
PLAINS PIPELINE, L.P.
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2166

All water concentrations are reported in mg/L.

SAMPLE DATE	SAMPLE LOCATION	EPA SW375.4, 325.3, 310, 160.1 SW846 6010B										
		Calcium	Magnesium	Potassium	Sodium	Chloride	Sulfate	Bicarbonate	Carbonate	Nitrate	Phosphate	Flouride
9/29/2009	MW-2	58	39.8	<12.5	125	164	204	192	200	6.98	<1.25	6.1
9/29/2009	MW-3	67	20.2	<12.5	199	268	119	260	196	3.66	<1.25	6.01
9/29/2009	MW-4	69	22.2	<12.5	203	307	93.5	180	204	2.25	<1.25	7.52
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

TABLE 8

CONCENTRATIONS OF TPH IN GROUNDWATER

PLAINS PIPELINE, L.P.
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS NO: 2009-084
NMOCD REF NO: 1RP-2166

SAMPLE LOCATION	SAMPLE DATE	METHOD: EPA SW 846-8015 Modified			
		GRO C ₆ -C ₁₂ (mg/L)	DRO C ₁₂ -C ₂₈ (mg/L)	ORO C ₂₈ -C ₃₅ (mg/L)	TOTAL TPH C ₆ -C ₃₅ (mg/L)
MW-1	12/10/09	332	11	<1.50	343

Analytical Report 330361
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

DCP Plant to Lea Station 6" - Sec 31

2009-0234

24-APR-09



12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:

Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Miramar, FL E86349

Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

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Midland - Corpus Christi - Atlanta



24-APR-09

Project Manager: **Jason Henry**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **330361**
DCP Plant to Lea Station 6" - Sec 31
Project Address: Lea County, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 330361. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 330361 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 330361



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6" - Sec 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1	W	Apr-16-09 10:00		330361-001



Certificate of Analysis Summary 330361

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" - Sec 31

Project Id: 2009-0234

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Fri Apr-17-09 08:07 am

Report Date: 24-APR-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	330361-001				
	Field Id:	SB-1				
	Depth:					
	Matrix:	WATER				
	Sampled:	Apr-16-09 10:00				
	Extracted:					
Anions by EPA 300	Analyzed:	Apr-17-09 17:20				
	Units/RL:	mg/L RL				
Chloride		54.6 5.00				
BTEX by EPA 8021B	Extracted:	Apr-22-09 16:30				
	Analyzed:	Apr-23-09 06:16				
	Units/RL:	mg/L RL				
		1.915 0.0100				
Benzene		2.230 0.0200				
Toluene		0.1761 0.0100				
Ethylbenzene		0.3370 0.0200				
m,p-Xylenes		0.1130 0.0100				
o-Xylene		0.45 0.0100				
Total Xylenes		4.7711 0.0100				
Total BTEX						
TDS by SM2540C	Extracted:					
	Analyzed:	Apr-20-09 15:30				
	Units/RL:	mg/L RL				
		788 5.00				
Total dissolved solids						

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron

Odessa Laboratory Director



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Outside XENCO's scope of NELAC Accreditation.

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(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" - Sec 31

Work Orders : 330361,

Project ID: 2009-0234

Lab Batch #: 756783

Sample: 528751-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 04/22/09 21:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0319	0.0300	106	80-120	

Lab Batch #: 756783

Sample: 528751-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 04/22/09 22:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 756783

Sample: 528751-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 04/22/09 22:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0248	0.0300	83	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 756783

Sample: 330361-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 04/23/09 06:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0245	0.0300	82	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Blank Spike Recovery



Project Name: DCP Plant to Lea Station 6" - Sec 31

Work Order #: 330361

Project ID:

2009-0234

Lab Batch #: 756413

Sample: 756413-1-BKS

Matrix: Water

Date Analyzed: 04/17/2009

Date Prepared: 04/17/2009

Analyst: LATCOR

Reporting Units: mg/L

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	10.2	102	90-110	

Blank Spike Recovery [D] = $100 * [C] / [B]$

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station 6" - Sec 31

Work Order #: 330361

Analyst: ASA

Lab Batch ID: 756783

Sample: 528751-1-BKS

Date Prepared: 04/22/2009

Batch #: 1

Project ID: 2009-0234

Date Analyzed: 04/22/2009

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/L												
BTEX by EPA 8021B		Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
Benzene		ND	0.1000	0.1020	102	0.1	0.1027	103	1	70-125	25	
Toluene		ND	0.1000	0.0972	97	0.1	0.0974	97	0	70-125	25	
Ethylbenzene		ND	0.1000	0.1019	102	0.1	0.1021	102	0	71-129	25	
m,p-Xylenes		ND	0.2000	0.2053	103	0.2	0.2057	103	0	70-131	25	
o-Xylene		ND	0.1000	0.0955	96	0.1	0.0960	96	1	71-133	25	

Relative Percent Difference RPD = $200 * [(C-F) / (C+F)]$

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: DCP Plant to Lea Station 6" - Sec 31

Work Order #: 330361

Lab Batch #: 756413

Date Analyzed: 04/17/2009

QC- Sample ID: 330361-001 S

Reporting Units: mg/L

Project ID: 2009-0234

Analyst: LATCOR

Date Prepared: 04/17/2009

Batch #: 1

Matrix: Water

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	54.6	100	159	104	80-120	

Matrix Spike Percent Recovery [D] = $100 \cdot (C-A)/B$

Relative Percent Difference [E] = $200 \cdot (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes



Sample Duplicate Recovery



Project Name: DCP Plant to Lea Station 6" - Sec 31

Work Order #: 330361

Lab Batch #: 756413

Project ID: 2009-0234

Date Analyzed: 04/17/2009

Date Prepared: 04/17/2009

Analyst: LATCOR

QC- Sample ID: 330361-001 D

Batch #: 1

Matrix: Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	54.6	54.6	0	20	

Lab Batch #: 756504

Date Prepared: 04/20/2009

Analyst: WRU

Date Analyzed: 04/20/2009

QC- Sample ID: 330361-001 D

Batch #: 1

Matrix: Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Total dissolved solids	788	800	2	30	

Spike Relative Difference $RPD = 200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST
12600 West I-20 East Phone: 432-563-1600
Odessa, Texas 79765 Fax: 432-563-1713

[illegible]

Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

Client: Plains / Basin
Date/ Time: 04-17-09 @ 0807
Lab ID #: 330361
Initials: JMF

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<input checked="" type="radio"/> Yes	No	25 °C
#2	Shipping container in good condition?	<input checked="" type="radio"/> Yes	No	
#3	Custody Seals intact on shipping container/ cooler?	<input checked="" type="radio"/> Yes	No	<u>(Not Present)</u>
#4	Custody Seals intact on sample bottles/ container? / label	<input checked="" type="radio"/> Yes	No	Not Present
#5	Chain of Custody present?	<input checked="" type="radio"/> Yes	No	
#6	Sample instructions complete of Chain of Custody?	<input checked="" type="radio"/> Yes	No	
#7	Chain of Custody signed when relinquished/ received?	<input checked="" type="radio"/> Yes	No	
#8	Chain of Custody agrees with sample label(s)?	<input checked="" type="radio"/> Yes	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<input checked="" type="radio"/> Yes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="radio"/> Yes	No	
#11	Containers supplied by ELOT?	<input checked="" type="radio"/> Yes	No	
#12	Samples in proper container/ bottle?	<input checked="" type="radio"/> Yes	No	See Below
#13	Samples properly preserved?	<input checked="" type="radio"/> Yes	No	See Below
#14	Sample bottles intact?	<input checked="" type="radio"/> Yes	No	
#15	Preservations documented on Chain of Custody?	<input checked="" type="radio"/> Yes	No	
#16	Containers documented on Chain of Custody?	<input checked="" type="radio"/> Yes	No	
#17	Sufficient sample amount for indicated test(s)?	<input checked="" type="radio"/> Yes	No	See Below
#18	All samples received within sufficient hold time?	<input checked="" type="radio"/> Yes	No	See Below
#19	Subcontract of sample(s)?	<input checked="" type="radio"/> Yes	No	<u>(Not Applicable)</u>
#20	VOC samples have zero headspace?	<input checked="" type="radio"/> Yes	No	Not Applicable

Variance Documentation

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

Regarding: _____

Corrective Action Taken:

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

Analytical Report 346678

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

DCP Plant to Lea Station Sec. 31

2009-084

03-NOV-09



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida (E86240),

South Carolina (96031001), Louisiana (04154), Georgia (917)



03-NOV-09

Project Manager: **Jason Henry**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **346678**
DCP Plant to Lea Station Sec. 31
Project Address: Lea County, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 346678. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 346678 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 346678



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station Sec. 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	Sep-29-09 11:30		346678-001
MW-3	W	Sep-29-09 13:00		346678-002
MW-4	W	Sep-29-09 14:00		346678-003



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: DCP Plant to Lea Station Sec. 31

Project ID: 2009-084

Work Order Number: 346678

Report Date: 03-NOV-09

Date Received: 10/01/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-775240 Inorganic Anions by EPA 300
E300MI

Batch 775240, Chloride, Fluoride, Sulfate recovered below QC limits in the Matrix Spike.

Samples affected are: 346678-003, -001, -002.

The Laboratory Control Sample for Chloride , Fluoride, Sulfate is within laboratory Control Limits

E300MI

Batch 775240, Nitrate as N RPD is outside the QC limit. This is most likely due to sample non-homogeneity.

Samples affected are: 346678-003, -001, -002.

Batch: LBA-775584 Alkalinity by SM2320B

None

Batch: LBA-775620 VOAs by SW-846 8260B

None

Batch: LBA-775661 SVOAs by SW-846 8270C

SW8270C

Batch 775661, Hexachlorobutadiene, Hexachloroethane RPD was outside laboratory control limits.

Samples affected are: 346678-003, -001, -002



CASE NARRATIVE

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Project Name: DCP Plant to Lea Station Sec. 31

Project ID: 2009-084

Work Order Number: 346678

Report Date: 03-NOV-09

Date Received: 10/01/2009

*Batch: LBA-775780 Total Lead by SW6020A
SW6020*

Batch 775780, Iron, Zinc recovered below QC limits in the Matrix Spike. Boron recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Barium, Iron, Manganese recovered above QC limits in the Matrix Spike Duplicate.

Samples affected are: 346678-003, -001, -002.

The Laboratory Control Sample for Iron, Manganese, Zinc, Barium, Boron is within laboratory Control Limits

*Batch: LBA-775998 Mercury, Total by EPA 245.1
None*

*Batch: LBA-776000 Metals per ICP by SW846 6010B
None*



Certificate of Analysis Summary 346678

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2009-084
Contact: Jason Henry
Project Location: Lea County, NM
Project Name: DCP Plant to Lea Station Sec. 31
Date Received in Lab: Thu Oct-01-09 07:35 am
Report Date: 03-NOV-09
Project Manager: Brent Barron, II

<i>Analysis Requested</i>		<i>Lab Id:</i> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	<i>346678-001</i> MW-2 WATER Sep-29-09 11:30	<i>346678-002</i> MW-3 WATER Sep-29-09 13:00	<i>346678-003</i> MW-4 WATER Sep-29-09 14:00
Alkalinity by SM2320B		<i>Extracted:</i>			
		<i>Analyzed:</i>	Oct-02-09 14:00	Oct-02-09 14:00	Oct-02-09 14:00
		<i>Units/RL:</i>	mg/L RL	mg/L RL	mg/L RL
Alkalinity, Total (as CaCO ₃)			200 4.00	196 4.00	204 4.00
Alkalinity, Carbonate (as CaCO ₃)			ND 4.00	ND 4.00	ND 4.00
Alkalinity, Bicarbonate (as CaCO ₃)			200 4.00	196 4.00	204 4.00
Anions by E300		<i>Extracted:</i>			
		<i>Analyzed:</i>	Oct-01-09 08:40	Oct-01-09 08:40	Oct-01-09 08:40
		<i>Units/RL:</i>	mg/L RL	mg/L RL	mg/L RL
Fluoride			6.31 1.00	6.01 1.00	7.52 1.00
Chloride			164 2.50	268 2.50	307 2.50
Sulfate			204 2.50	119 2.50	93.5 2.50
Nitrate as N			6.98 0.250	3.66 0.250	2.25 0.250
Ortho-Phosphate			ND 1.25	ND 1.25	ND 1.25

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 346678

PLAINS ALL AMERICAN EH&S, Midland, TX



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Project Location: Lea County, NM

Project Name: DCP Plant to Lea Station Sec. 31

Date Received in Lab: Thu Oct-01-09 07:35 am

Report Date: 03-NOV-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:		346678-001		346678-002		346678-003	
	Field Id:	Depth:	Matrix:	Sampled:	Field Id:	Depth:	Matrix:	Sampled:
ICP-MS Metals by SW 6020A	Extracted:	Oct-05-09 13:00	mg/L	RL	Oct-05-09 13:00	mg/L	RL	Oct-05-09 13:00
	Analyzed:	Oct-06-09 12:03	mg/L	RL	Oct-06-09 12:08	mg/L	RL	Oct-06-09 12:12
	Units/RL:							
	Aluminum	2.36	0.010		6.51	0.010		2.22
	Arsenic	0.019	0.002		0.024	0.002		0.040
	Barium	0.126	0.005		0.704	0.005		0.176
Mercury by EPA 7470A	Boron	0.317	0.010		0.224	0.010		0.184
	Cadmium	ND	0.001		ND	0.001		ND
	Chromium	0.007	0.003		0.010	0.003		0.006
	Cobalt	ND	0.005		0.006	0.005		ND
	Copper	0.008	0.003		0.014	0.003		0.010
	Iron	2.10	0.150		5.90	0.150		1.86
Mercury by EPA 7470A	Lead	ND	0.002		0.005	0.002		ND
	Manganese	0.045	0.003		0.147	0.003		0.065
	Molybdenum	0.020	0.004		0.024	0.004		0.019
	Nickel	0.006	0.005		0.013	0.005		0.007
	Selenium	0.028	0.003		0.008	0.003		0.006
	Silver	ND	0.002		ND	0.002		ND
Mercury	Zinc	0.014	0.003		0.024	0.003		0.008
	Extracted:	Oct-05-09 11:00	mg/L	RL	Oct-05-09 11:00	mg/L	RL	Oct-05-09 11:00
	Analyzed:	Oct-07-09 12:55	mg/L	RL	Oct-07-09 12:55	mg/L	RL	Oct-07-09 12:55
	Units/RL:							
	Mercury	0.0001	0.0001		ND	0.0001		ND

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 346678

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2009-084
Contact: Jason Henry
Project Location: Lea County, NM

Project Name: DCP Plant to Lea Station Sec. 31

Date Received in Lab: Thu Oct-01-09 07:35 am

Report Date: 03-NOV-09

Project Manager: Brent Barron, II

Analysis Requested		Lab Id:	346678-001	346678-002	346678-003		
Field Id:		MW-2	MW-3	MW-4			
Depth:							
Matrix:		WATER	WATER	WATER			
Sampled:		Sep-29-09 11:30	Sep-29-09 13:00	Sep-29-09 14:00			
Extracted:		Oct-07-09 10:27	Oct-07-09 10:27	Oct-07-09 10:27			
Analyzed:		mg/L	mg/L	mg/L	RL		
Units/RL:		58.0 2.50	67.0 2.50	69.0 2.50	RL		
Calcium		39.8 0.250	20.2 0.250	22.2 0.250			
Magnesium		ND 12.5	ND 12.5	ND 12.5			
Potassium		125 12.5	199 12.5	203 12.5			
Sodium							

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Contact: Jason Henry

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Report Date: 03-NOV-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	346678-001	346678-002	346678-003	
	Field Id:	MW-2	MW-3	MW-4	
	Depth:				
	Matrix:	WATER	WATER	WATER	
	Sampled:	Sep-29-09 11:30	Sep-29-09 13:00	Sep-29-09 14:00	
SVOAs by EPA 8270C	Extracted:	Oct-02-09 10:30	Oct-02-09 10:33	Oct-02-09 10:36	
	Analyzed:	Oct-03-09 16:46	Oct-03-09 17:23	Oct-03-09 18:02	
	Units/RL:	mg/L RL	mg/L RL	mg/L RL	
		ND 0.005	ND 0.005	ND 0.005	
		ND 0.005	ND 0.005	ND 0.005	
Acenaphthene		ND 0.005	ND 0.005	ND 0.005	
Acenaphthylene		ND 0.005	ND 0.005	ND 0.005	
Aniline (Phenylamine, Aminobenzene)		ND 0.020	ND 0.020	ND 0.020	
Anthracene		ND 0.005	ND 0.005	ND 0.005	
Benzo(a)anthracene		ND 0.005	ND 0.005	ND 0.005	
Benzo(a)pyrene		ND 0.005	ND 0.005	ND 0.005	
Benzo(b)fluoranthene		ND 0.005	ND 0.005	ND 0.005	
Benzo(k)fluoranthene		ND 0.005	ND 0.005	ND 0.005	
Benzo(g,h,i)perylene		ND 0.005	ND 0.005	ND 0.005	
Benzoic Acid		ND 0.030	ND 0.030	ND 0.030	
Benzyl Butyl Phthalate		ND 0.005	ND 0.005	ND 0.005	
bis(2-chloroethoxy) methane		ND 0.010	ND 0.010	ND 0.010	
bis(2-chloroethyl) ether		ND 0.010	ND 0.010	ND 0.010	
bis(2-chloroisopropyl) ether		ND 0.005	ND 0.005	ND 0.005	
bis(2-ethylhexyl) phthalate		ND 0.010	ND 0.010	ND 0.010	
4-Bromophenyl-phenyl ether		ND 0.010	ND 0.010	ND 0.010	
4-chloro-3-methylphenol		ND 0.010	ND 0.010	ND 0.010	
4-Chloroaniline		ND 0.020	ND 0.020	ND 0.020	
2-Chloronaphthalene		ND 0.010	ND 0.010	ND 0.010	
2-Chlorophenol		ND 0.010	ND 0.010	ND 0.010	
4-Chlorophenyl Phenyl Ether		ND 0.010	ND 0.010	ND 0.010	
Chrysene		ND 0.005	ND 0.005	ND 0.005	
Dibenz(a,h)Anthracene		ND 0.005	ND 0.005	ND 0.005	
Dibenzofuran		ND 0.010	ND 0.010	ND 0.010	
di-n-Butyl Phthalate		ND 0.005	ND 0.005	ND 0.005	

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Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: DCP Plant to Lea Station Sec. 31

Date Received in Lab: Thu Oct-01-09 07:35 am


Report Date: 03-NOV-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	346678-001	346678-002	346678-003	
	Field Id:	MW-2	MW-3	MW-4	
	Depth:				
	Matrix:	WATER	WATER	WATER	
	Sampled:	Sep-29-09 11:30	Sep-29-09 13:00	Sep-29-09 14:00	
SVOAs by EPA 8270C	Extracted:	Oct-02-09 10:30	Oct-02-09 10:33	Oct-02-09 10:36	
	Analyzed:	Oct-03-09 16:46	Oct-03-09 17:23	Oct-03-09 18:02	
	Units/RL:	mg/L RL	mg/L RL	mg/L RL	
		ND 0.010	ND 0.010	ND 0.010	
1,2-Dichlorobenzene		ND 0.010	ND 0.010	ND 0.010	
1,3-Dichlorobenzene		ND 0.010	ND 0.010	ND 0.010	
1,4-Dichlorobenzene		ND 0.010	ND 0.010	ND 0.010	
3,3-Dichlorobenzidine		ND 0.010	ND 0.010	ND 0.010	
2,4-Dichlorophenol		ND 0.010	ND 0.010	ND 0.010	
Diethyl Phthalate		ND 0.005	ND 0.005	ND 0.005	
Dimethyl Phthalate		ND 0.005	ND 0.005	ND 0.005	
2,4-Dimethylphenol		ND 0.010	ND 0.010	ND 0.010	
4,6-dinitro-2-methyl phenol		ND 0.010	ND 0.010	ND 0.010	
2,4-Dinitrophenol		ND 0.010	ND 0.010	ND 0.010	
2,4-Dinitrotoluene		ND 0.010	ND 0.010	ND 0.010	
2,6-Dinitrotoluene		ND 0.010	ND 0.010	ND 0.010	
di-n-Octyl Phthalate		ND 0.005	ND 0.005	ND 0.005	
Fluoranthene		ND 0.005	ND 0.005	ND 0.005	
Fluorene		ND 0.005	ND 0.005	ND 0.005	
Hexachlorobenzene		ND 0.010	ND 0.010	ND 0.010	
Hexachlorobutadiene		ND 0.010	ND 0.010	ND 0.010	
Hexachlorocyclopentadiene		ND 0.010	ND 0.010	ND 0.010	
Hexachlorocyclohexane		ND 0.010	ND 0.010	ND 0.010	
Indeno(1,2,3-c,d)Pyrene		ND 0.005	ND 0.005	ND 0.005	
Isophorone		ND 0.010	ND 0.010	ND 0.010	
2-Methylnaphthalene		ND 0.005	ND 0.005	ND 0.005	
2-methylphenol		ND 0.010	ND 0.010	ND 0.010	
3&4-Methylphenol		ND 0.010	ND 0.010	ND 0.010	
Naphthalene		ND 0.005	ND 0.005	ND 0.005	

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Odessa Laboratory Manager



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Contact: Jason Henry

Project Location: Lea County, NM

Project Name: DCP Plant to Lea Station Sec. 31

Date Received in Lab: Thu Oct-01-09 07:35 am

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Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	346678-001	346678-002	346678-003	
	Field Id:	MW-2	MW-3	MW-4	
	Depth:				
	Matrix:	WATER	WATER	WATER	
	Sampled:	Sep-29-09 11:30	Sep-29-09 13:00	Sep-29-09 14:00	
SVOAs by EPA 8270C	Extracted:	Oct-02-09 10:30	Oct-02-09 10:33	Oct-02-09 10:36	
	Analyzed:	Oct-03-09 16:46	Oct-03-09 17:23	Oct-03-09 18:02	
	Units/RL:	mg/L RL	mg/L RL	mg/L RL	
	2-Nitroaniline	ND 0.010	ND 0.010	ND 0.010	
	3-Nitroaniline	ND 0.010	ND 0.010	ND 0.010	
4-Nitroaniline		ND 0.020	ND 0.020	ND 0.020	
Nitrobenzene		ND 0.010	ND 0.010	ND 0.010	
2-Nitrophenol		ND 0.010	ND 0.010	ND 0.010	
4-Nitrophenol		ND 0.010	ND 0.010	ND 0.010	
N-Nitrosodi-n-Propylamine		ND 0.010	ND 0.010	ND 0.010	
N-Nitrosodiphenylamine		ND 0.010	ND 0.010	ND 0.010	
Pentachlorophenol		ND 0.010	ND 0.010	ND 0.010	
Phenanthrene		ND 0.005	ND 0.005	ND 0.005	
Phenol		ND 0.010	ND 0.010	ND 0.010	
Pyrene		ND 0.005	ND 0.005	ND 0.005	
Pyridine		ND 0.010	ND 0.010	ND 0.010	
1,2,4-Trichlorobenzene		ND 0.010	ND 0.010	ND 0.010	
2,4,5-Trichlorophenol		ND 0.010	ND 0.010	ND 0.010	
2,4,6-Trichlorophenol		ND 0.010	ND 0.010	ND 0.010	

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Analysis Requested	Lab Id: Field Id: Depth: Matrix: Sampled:	346678-001 MW-2 WATER Sep-29-09 11:30	346678-002 MW-3 WATER Sep-29-09 13:00	346678-003 MW-4 WATER Sep-29-09 14:00		
VOAs by SW-846 8260B	Extracted:	Oct-05-09 11:37	Oct-05-09 11:39	Oct-05-09 11:41		
	Analyzed:	Oct-05-09 12:34	Oct-05-09 12:56	Oct-05-09 13:18		
	Units/RL:	mg/L RL	mg/L RL	mg/L RL		
		ND 0.005	ND 0.005	ND 0.005		
Benzene		ND 0.005	ND 0.005	ND 0.005		
Bromobenzene		ND 0.005	ND 0.005	ND 0.005		
Bromochloromethane		ND 0.005	ND 0.005	ND 0.005		
Bromodichloromethane		ND 0.005	ND 0.005	ND 0.005		
Bromoform		ND 0.005	ND 0.005	ND 0.005		
Bromomethane		ND 0.005	ND 0.005	ND 0.005		
MTBE		ND 0.005	ND 0.005	ND 0.005		
n-Butylbenzene		ND 0.005	ND 0.005	ND 0.005		
Sec-Butylbenzene		ND 0.005	ND 0.005	ND 0.005		
tert-Butylbenzene		ND 0.005	ND 0.005	ND 0.005		
Carbon Disulfide		ND 0.050	ND 0.050	ND 0.050		
Carbon Tetrachloride		ND 0.005	ND 0.005	ND 0.005		
Chlorobenzene		ND 0.005	ND 0.005	ND 0.005		
Chloroethane		ND 0.010	ND 0.010	ND 0.010		
Chloroform		ND 0.005	ND 0.005	ND 0.005		
Chloromethane		ND 0.010	ND 0.010	ND 0.010		
2-Chlorotoluene		ND 0.005	ND 0.005	ND 0.005		
4-Chlorotoluene		ND 0.005	ND 0.005	ND 0.005		
p-Cymene (p-Isopropyltoluene)		ND 0.005	ND 0.005	ND 0.005		
Dibromochloromethane		ND 0.005	ND 0.005	ND 0.005		
1,2-Dibromo-3-Chloropropane		ND 0.005	ND 0.005	ND 0.005		
1,2-Dibromoethane		ND 0.005	ND 0.005	ND 0.005		
Dibromomethane		ND 0.005	ND 0.005	ND 0.005		
1,2-Dichlorobenzene		ND 0.005	ND 0.005	ND 0.005		
1,3-Dichlorobenzene		ND 0.005	ND 0.005	ND 0.005		

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 346678

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: DCP Plant to Lea Station Sec. 31

Date Received in Lab: Thu Oct-01-09 07:35 am

Report Date: 03-NOV-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	346678-001	346678-002	346678-003	
	Field Id:	MW-2	MW-3	MW-4	
	Depth:				
	Matrix:	WATER	WATER	WATER	
	Sampled:	Sep-29-09 11:30	Sep-29-09 13:00	Sep-29-09 14:00	
VOAs by SW-846 8260B	Extracted:	Oct-05-09 11:37	Oct-05-09 11:39	Oct-05-09 11:41	
	Analyzed:	Oct-05-09 12:34	Oct-05-09 12:56	Oct-05-09 13:18	
	Units/RL:	mg/L RL	mg/L RL	mg/L RL	
		ND 0.005	ND 0.005	ND 0.005	
		ND 0.005	ND 0.005	ND 0.005	
1,4-Dichlorobenzene		ND 0.005	ND 0.005	ND 0.005	
Dichlorodifluoromethane		ND 0.005	ND 0.005	ND 0.005	
1,1-Dichloroethane		ND 0.005	ND 0.005	ND 0.005	
1,2-Dichloroethane		ND 0.005	ND 0.005	ND 0.005	
1,1-Dichloroethene		ND 0.005	ND 0.005	ND 0.005	
cis-1,2-Dichloroethene		ND 0.005	ND 0.005	ND 0.005	
trans-1,2-Dichloroethene		ND 0.005	ND 0.005	ND 0.005	
1,2-Dichloropropane		ND 0.005	ND 0.005	ND 0.005	
1,3-Dichloropropane		ND 0.005	ND 0.005	ND 0.005	
2,2-Dichloropropane		ND 0.005	ND 0.005	ND 0.005	
1,1-Dichloropropene		ND 0.005	ND 0.005	ND 0.005	
cis-1,3-Dichloropropene		ND 0.005	ND 0.005	ND 0.005	
trans-1,3-Dichloropropene		ND 0.005	ND 0.005	ND 0.005	
Ethylbenzene		ND 0.005	ND 0.005	ND 0.005	
Hexachlorobutadiene		ND 0.005	ND 0.005	ND 0.005	
isopropylbenzene		ND 0.005	ND 0.005	ND 0.005	
Methylene Chloride		0.006 0.005	0.006 0.005	0.006 0.005	
Naphthalene		ND 0.010	ND 0.010	ND 0.010	
n-Propylbenzene		ND 0.005	ND 0.005	ND 0.005	
Styrene		ND 0.005	ND 0.005	ND 0.005	
1,1,1,2-Tetrachloroethane		ND 0.005	ND 0.005	ND 0.005	
1,1,1,2,2-Tetrachloroethane		ND 0.005	ND 0.005	ND 0.005	
Tetrachloroethylene		ND 0.005	ND 0.005	ND 0.005	
Toluene		ND 0.005	ND 0.005	ND 0.005	
1,2,3-Trichlorobenzene		ND 0.005	ND 0.005	ND 0.005	

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Brent Barron, II

Odessa Laboratory Manager



Certificate of Analysis Summary 346678

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: DCP Plant to Lea Station Sec. 31

Date Received in Lab: Thu Oct-01-09 07:35 am

Report Date: 03-NOV-09

Project Manager: Brent Barron, II



Analysis Requested	Lab Id:	346678-001	346678-002	346678-003	
	Field Id:	MW-2	MW-3	MW-4	
	Depth:				
	Matrix:	WATER	WATER	WATER	
	Sampled:	Sep-29-09 11:30	Sep-29-09 13:00	Sep-29-09 14:00	
VOAs by SW-846 8260B	Extracted:	Oct-05-09 11:37	Oct-05-09 11:39	Oct-05-09 11:41	
	Analyzed:	Oct-05-09 12:34	Oct-05-09 12:56	Oct-05-09 13:18	
	Units/RL:	mg/L RL	mg/L RL	mg/L RL	
		ND 0.005	ND 0.005	ND 0.005	
1,2,4-Trichlorobenzene		ND 0.005	ND 0.005	ND 0.005	
1,1,1-Trichloroethane		ND 0.005	ND 0.005	ND 0.005	
1,1,2-Trichloroethane		ND 0.005	ND 0.005	ND 0.005	
Trichloroethene		ND 0.005	ND 0.005	ND 0.005	
Trichlorofluoromethane		ND 0.005	ND 0.005	ND 0.005	
1,2,3-Trichloropropane		ND 0.005	ND 0.005	ND 0.005	
1,2,4-Trimethylbenzene		ND 0.005	ND 0.005	ND 0.005	
1,3,5-Trimethylbenzene		ND 0.005	ND 0.005	ND 0.005	
o-Xylene		ND 0.005	ND 0.005	ND 0.005	
m,p-Xylenes		ND 0.010	ND 0.010	ND 0.010	
Vinyl Chloride		ND 0.002	ND 0.002	ND 0.002	

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Brent Barron, II
Odessa Laboratory Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station Sec. 31

Work Orders : 346678,

Project ID: 2009-084

Lab Batch #: 775661

Sample: 539448-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/03/09 14:52

SURROGATE RECOVERY STUDY

SVOAs by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.045	0.050	90	43-116	
2-Fluorophenol	0.035	0.050	70	21-100	
Nitrobenzene-d5	0.045	0.050	90	35-114	
Phenol-d6	0.024	0.050	48	10-94	
Terphenyl-D14	0.046	0.050	92	33-141	
2,4,6-Tribromophenol	0.050	0.050	100	10-123	

Lab Batch #: 775661

Sample: 539448-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/03/09 15:30

SURROGATE RECOVERY STUDY

SVOAs by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.043	0.050	86	43-116	
2-Fluorophenol	0.036	0.050	72	21-100	
Nitrobenzene-d5	0.047	0.050	94	35-114	
Phenol-d6	0.024	0.050	48	10-94	
Terphenyl-D14	0.047	0.050	94	33-141	
2,4,6-Tribromophenol	0.052	0.050	104	10-123	

Lab Batch #: 775661

Sample: 346678-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/03/09 16:46

SURROGATE RECOVERY STUDY

SVOAs by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.043	0.050	86	43-116	
2-Fluorophenol	0.024	0.050	48	21-100	
Nitrobenzene-d5	0.042	0.050	84	35-114	
Phenol-d6	0.013	0.050	26	10-94	
Terphenyl-D14	0.052	0.050	104	33-141	
2,4,6-Tribromophenol	0.045	0.050	90	10-123	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station Sec. 31

Work Orders : 346678,

Project ID: 2009-084

Lab Batch #: 775661

Sample: 346678-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/03/09 17:23

SURROGATE RECOVERY STUDY

SVOAs by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.043	0.050	86	43-116	
2-Fluorophenol	0.021	0.050	42	21-100	
Nitrobenzene-d5	0.041	0.050	82	35-114	
Phenol-d6	0.011	0.050	22	10-94	
Terphenyl-D14	0.051	0.050	102	33-141	
2,4,6-Tribromophenol	0.044	0.050	88	10-123	

Lab Batch #: 775661

Sample: 346678-003 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/03/09 18:02

SURROGATE RECOVERY STUDY

SVOAs by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.041	0.050	82	43-116	
2-Fluorophenol	0.023	0.050	46	21-100	
Nitrobenzene-d5	0.039	0.050	78	35-114	
Phenol-d6	0.013	0.050	26	10-94	
Terphenyl-D14	0.052	0.050	104	33-141	
2,4,6-Tribromophenol	0.044	0.050	88	10-123	

Lab Batch #: 775661

Sample: 539448-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/06/09 14:37

SURROGATE RECOVERY STUDY

SVOAs by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.047	0.050	94	43-116	
2-Fluorophenol	0.035	0.050	70	21-100	
Nitrobenzene-d5	0.045	0.050	90	35-114	
Phenol-d6	0.023	0.050	46	10-94	
Terphenyl-D14	0.057	0.050	114	33-141	
2,4,6-Tribromophenol	0.039	0.050	78	10-123	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station Sec. 31

Work Orders : 346678,

Project ID: 2009-084

Lab Batch #: 775620

Sample: 539623-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/05/09 11:04

SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0474	0.0500	95	74-124	
Dibromofluoromethane	0.0476	0.0500	95	75-131	
1,2-Dichloroethane-D4	0.0492	0.0500	98	63-144	
Toluene-D8	0.0502	0.0500	100	80-117	

Lab Batch #: 775620

Sample: 539623-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/05/09 11:47

SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0475	0.0500	95	74-124	
Dibromofluoromethane	0.0468	0.0500	94	75-131	
1,2-Dichloroethane-D4	0.0505	0.0500	101	63-144	
Toluene-D8	0.0491	0.0500	98	80-117	

Lab Batch #: 775620

Sample: 346678-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/05/09 12:34

SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0468	0.0500	94	74-124	
Dibromofluoromethane	0.0453	0.0500	91	75-131	
1,2-Dichloroethane-D4	0.0479	0.0500	96	63-144	
Toluene-D8	0.0491	0.0500	98	80-117	

Lab Batch #: 775620

Sample: 346678-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/05/09 12:56

SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0483	0.0500	97	74-124	
Dibromofluoromethane	0.0450	0.0500	90	75-131	
1,2-Dichloroethane-D4	0.0495	0.0500	99	63-144	
Toluene-D8	0.0493	0.0500	99	80-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station Sec. 31

Work Orders : 346678,

Project ID: 2009-084

Lab Batch #: 775620

Sample: 346678-003 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/05/09 13:18

SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0480	0.0500	96	74-124	
Dibromofluoromethane	0.0472	0.0500	94	75-131	
1,2-Dichloroethane-D4	0.0513	0.0500	103	63-144	
Toluene-D8	0.0482	0.0500	96	80-117	

Lab Batch #: 775620

Sample: 346678-003 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/05/09 13:39

SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0475	0.0500	95	74-124	
Dibromofluoromethane	0.0477	0.0500	95	75-131	
1,2-Dichloroethane-D4	0.0497	0.0500	99	63-144	
Toluene-D8	0.0491	0.0500	98	80-117	

Lab Batch #: 775620

Sample: 346678-003 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 10/05/09 14:01

SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0485	0.0500	97	74-124	
Dibromofluoromethane	0.0466	0.0500	93	75-131	
1,2-Dichloroethane-D4	0.0481	0.0500	96	63-144	
Toluene-D8	0.0492	0.0500	98	80-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Blank Spike Recovery



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Project ID:

2009-084

Lab Batch #: 775584

Sample: 775584-1-BKS

Matrix: Water

Date Analyzed: 10/02/2009

Date Prepared: 10/02/2009

Analyst: WRU

Reporting Units: mg/L

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Alkalinity by SM2320B	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Alkalinity, Total (as CaCO ₃)	ND	200	172	86	80-120	

Lab Batch #: 775780

Sample: 539604-1-BKS

Matrix: Water

Date Analyzed: 10/06/2009

Date Prepared: 10/05/2009

Analyst: HAT

Reporting Units: mg/L

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

ICP-MS Metals by SW 6020A	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Aluminum	ND	0.200	0.198	99	75-125	
Arsenic	ND	0.050	0.048	96	75-125	
Barium	ND	0.050	0.050	100	75-125	
Boron	ND	0.020	0.018	90	75-125	
Cadmium	ND	0.020	0.021	105	75-125	
Chromium	ND	0.050	0.050	100	75-125	
Cobalt	ND	0.050	0.049	98	75-125	
Copper	ND	0.050	0.049	98	75-125	
Iron	ND	0.200	0.200	100	75-125	
Lead	ND	0.050	0.047	94	75-125	
Manganese	ND	0.050	0.050	100	75-125	
Molybdenum	ND	0.050	0.049	98	75-125	
Nickel	ND	0.050	0.049	98	75-125	
Selenium	ND	0.050	0.050	100	75-125	
Silver	ND	0.020	0.021	105	75-125	
Zinc	ND	0.050	0.052	104	75-125	

Blank Spike Recovery [D] = $100 * [C] / [B]$

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



Blank Spike Recovery



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Project ID:

2009-084

Lab Batch #: 775240

Sample: 775240-1-BKS

Matrix: Water

Date Analyzed: 10/01/2009

Date Prepared: 10/01/2009

Analyst: LATCOR

Reporting Units: mg/L

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Anions by E300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Fluoride	ND	2.70	2.76	102	90-110	
Chloride	ND	10.0	10.2	102	90-110	
Sulfate	ND	11.0	11.9	108	90-110	
Nitrate as N	ND	2.00	1.96	98	90-110	
Ortho-Phosphate	ND	1.70	1.75	103	90-110	

Blank Spike Recovery [D] = $100 * [C] / [B]$

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



Blank Spike Recovery



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Project ID:

2009-084

Lab Batch #: 775620

Sample: 539623-1-BKS

Matrix: Water

Date Analyzed: 10/05/2009

Date Prepared: 10/05/2009

Analyst: KHM

Reporting Units: mg/L

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	ND	0.050	0.046	92	66-142	
Bromobenzene	ND	0.050	0.049	98	60-130	
Bromochloromethane	ND	0.050	0.046	92	73-125	
Bromodichloromethane	ND	0.050	0.049	98	75-125	
Bromoform	ND	0.050	0.056	112	75-125	
Bromomethane	ND	0.050	0.047	94	70-130	
MTBE	ND	0.050	0.051	102	75-125	
n-Butylbenzene	ND	0.050	0.047	94	75-125	
Sec-Butylbenzene	ND	0.050	0.049	98	75-125	
tert-Butylbenzene	ND	0.050	0.050	100	75-125	
Carbon Disulfide	ND	0.500	0.467	93	60-140	
Carbon Tetrachloride	ND	0.050	0.048	96	62-125	
Chlorobenzene	ND	0.050	0.052	104	60-133	
Chloroethane	ND	0.050	0.041	82	70-130	
Chloroform	ND	0.050	0.045	90	74-125	
Chloromethane	ND	0.050	0.044	88	70-130	
2-Chlorotoluene	ND	0.050	0.049	98	73-125	
4-Chlorotoluene	ND	0.050	0.048	96	74-125	
p-Cymene (p-Isopropyltoluene)	ND	0.050	0.051	102	75-125	
Dibromochloromethane	ND	0.050	0.054	108	60-130	
1,2-Dibromo-3-Chloropropane	ND	0.050	0.043	86	59-125	
1,2-Dibromoethane	ND	0.050	0.047	94	73-125	
Dibromomethane	ND	0.050	0.043	86	69-127	
1,2-Dichlorobenzene	ND	0.050	0.049	98	75-125	
1,3-Dichlorobenzene	ND	0.050	0.049	98	75-125	
1,4-Dichlorobenzene	ND	0.050	0.049	98	75-125	
Dichlorodifluoromethane	ND	0.050	0.048	96	70-130	
1,1-Dichloroethane	ND	0.050	0.046	92	60-130	
1,2-Dichloroethane	ND	0.050	0.041	82	68-127	
1,1-Dichloroethene	ND	0.050	0.041	82	59-172	
cis-1,2-Dichloroethene	ND	0.050	0.043	86	60-130	
trans-1,2-dichloroethene	ND	0.050	0.043	86	60-130	
1,2-Dichloropropane	ND	0.050	0.048	96	74-125	

Blank Spike Recovery [D] = $100 * [C] / [B]$

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



Blank Spike Recovery



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Project ID:

2009-084

Lab Batch #: 775620

Sample: 539623-1-BKS

Matrix: Water

Date Analyzed: 10/05/2009

Date Prepared: 10/05/2009

Analyst: KHM

Reporting Units: mg/L

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
1,3-Dichloropropane	ND	0.050	0.046	92	75-125	
2,2-Dichloropropane	ND	0.050	0.046	92	60-140	
1,1-Dichloropropene	ND	0.050	0.039	78	75-125	
cis-1,3-Dichloropropene	ND	0.050	0.051	102	60-140	
trans-1,3-dichloropropene	ND	0.050	0.050	100	66-125	
Ethylbenzene	ND	0.050	0.048	96	75-125	
Hexachlorobutadiene	ND	0.050	0.052	104	75-125	
isopropylbenzene	ND	0.050	0.049	98	75-125	
Methylene Chloride	ND	0.050	0.041	82	75-125	
Naphthalene	ND	0.050	0.050	100	65-135	
n-Propylbenzene	ND	0.050	0.051	102	75-125	
Styrene	ND	0.050	0.049	98	60-130	
1,1,1,2-Tetrachloroethane	ND	0.050	0.052	104	75-125	
1,1,2,2-Tetrachloroethane	ND	0.050	0.048	96	50-130	
Tetrachloroethylene	ND	0.050	0.050	100	60-130	
Toluene	ND	0.050	0.049	98	59-139	
1,2,3-Trichlorobenzene	ND	0.050	0.052	104	75-137	
1,2,4-Trichlorobenzene	ND	0.050	0.052	104	75-135	
1,1,1-Trichloroethane	ND	0.050	0.043	86	75-125	
1,1,2-Trichloroethane	ND	0.050	0.048	96	75-127	
Trichloroethene	ND	0.050	0.048	96	62-137	
Trichlorofluoromethane	ND	0.050	0.052	104	67-125	
1,2,3-Trichloropropane	ND	0.050	0.051	102	75-125	
1,2,4-Trimethylbenzene	ND	0.050	0.048	96	75-125	
1,3,5-Trimethylbenzene	ND	0.050	0.049	98	70-125	
o-Xylene	ND	0.050	0.052	104	75-125	
m,p-Xylenes	ND	0.100	0.101	101	75-125	
Vinyl Chloride	ND	0.050	0.043	86	75-125	

Blank Spike Recovery $[D] = 100 * [C] / [B]$

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Analyst: LATCOR

Lab Batch ID: 775998

Sample: 539849-1-BKS

Date Prepared: 10/05/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 10/07/2009

Matrix: Water

Units: mg/L

Mercury by EPA 7470A

Analytes

Mercury

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Units: mg/L											
Analytes	Mercury by EPA 7470A										
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	ND	0.0010	0.0009	90	0.001	0.0010	100	11	75-125	20	

Relative Percent Difference $RPD = 200 * [(C-F)/(C+F)]$
Blank Spike Recovery $[D] = 100 * (C)/[B]$
Blank Spike Duplicate Recovery $[G] = 100 * (F)/[E]$
All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Analyst: CLR

Lab Batch ID: 775661

Sample: 539448-1-BKS

Date Prepared: 10/02/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 10/03/2009

Matrix: Water

Units: mg/L

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY													
Units: mg/L	SVOAs by EPA 8270C	Analytes	Blank Sample Result	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Result	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
			[A]	[B]	[C]	[D]	[E]	[F]	[G]				
		Acenaphthene	ND	0.050	0.044	88	0.05	0.044	88	0	54-114	25	
		Acenaphthylene	ND	0.050	0.042	84	0.05	0.043	86	2	53-113	25	
		Aniline (Phenylamine, Aminobenzene)	ND	0.050	0.038	76	0.05	0.038	76	0	35-104	25	
		Anthracene	ND	0.050	0.045	90	0.05	0.048	96	6	56-116	25	
		Benzo(a)anthracene	ND	0.050	0.041	82	0.05	0.043	86	5	59-116	25	
		Benzo(a)pyrene	ND	0.050	0.046	92	0.05	0.049	98	6	58-118	25	
		Benzo(b)fluoranthene	ND	0.050	0.047	94	0.05	0.051	102	8	54-123	25	
		Benzo(k)fluoranthene	ND	0.050	0.048	96	0.05	0.050	100	4	52-122	25	
		Benzo(g,h,i)perylene	ND	0.050	0.056	112	0.05	0.060	120	7	47-129	25	
		Benzoic Acid	ND	0.150	0.033	22	0.15	0.030	20	10	4-113	25	
		Benzyl Butyl Phthalate	ND	0.050	0.041	82	0.05	0.043	86	5	57-122	25	
		bis(2-chloroethoxy) methane	ND	0.050	0.042	84	0.05	0.044	88	5	53-112	25	
		bis(2-chloroethyl) ether	ND	0.050	0.040	80	0.05	0.041	82	2	57-108	25	
		bis(2-chloroisopropyl) ether	ND	0.050	0.040	80	0.05	0.040	80	0	54-111	25	
		bis(2-ethylhexyl) phthalate	ND	0.050	0.043	86	0.05	0.044	88	2	59-119	25	
		4-Bromophenyl-phenylether	ND	0.050	0.044	88	0.05	0.047	94	7	58-112	25	
		4-chloro-3-methylphenol	ND	0.050	0.044	88	0.05	0.046	92	4	58-116	25	
		4-Chloroaniline	ND	0.050	0.047	94	0.05	0.049	98	4	2-123	25	
		2-Chloronaphthalene	ND	0.050	0.044	88	0.05	0.042	84	5	58-105	25	
		2-Chlorophenol	ND	0.050	0.041	82	0.05	0.044	88	7	58-106	25	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes

Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Analyst: CLR

Lab Batch ID: 775661

Sample: 539448-1-BKS

Units: mg/L

Date Prepared: 10/02/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 10/03/2009

Matrix: Water

SVOAs by EPA 8270C	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
4-Chlorophenyl Phenyl Ether	ND	0.050	0.043	86	0.05	0.045	90	5	59-109	25	
Chrysene	ND	0.050	0.046	92	0.05	0.048	96	4	58-116	25	
Dibenz(a,h)Anthracene	ND	0.050	0.056	112	0.05	0.060	120	7	46-131	25	
Dibenzofuran	ND	0.050	0.044	88	0.05	0.046	92	4	56-111	25	
di-n-Butyl Phthalate	ND	0.050	0.047	94	0.05	0.049	98	4	60-118	25	
1,2-Dichlorobenzene	ND	0.050	0.042	84	0.05	0.034	68	21	53-106	25	
1,3-Dichlorobenzene	ND	0.050	0.042	84	0.05	0.034	68	21	52-105	25	
1,4-Dichlorobenzene	ND	0.050	0.042	84	0.05	0.034	68	21	54-105	25	
3,3-Dichlorobenzidine	ND	0.050	0.038	76	0.05	0.041	82	8	36-123	25	
2,4-Dichlorophenol	ND	0.050	0.045	90	0.05	0.046	92	2	60-110	25	
Diethyl Phthalate	ND	0.050	0.044	88	0.05	0.047	94	7	62-114	25	
Dimethyl Phthalate	ND	0.050	0.043	86	0.05	0.046	92	7	59-113	25	
2,4-Dimethylphenol	ND	0.050	0.037	74	0.05	0.041	82	10	50-108	25	
4,6-dinitro-2-methyl phenol	ND	0.050	0.044	88	0.05	0.047	94	7	57-119	25	
2,4-Dinitrophenol	ND	0.050	0.042	84	0.05	0.044	88	5	52-111	25	
2,4-Dinitrotoluene	ND	0.050	0.043	86	0.05	0.047	94	9	60-116	25	
2,6-Dinitrotoluene	ND	0.050	0.043	86	0.05	0.046	92	7	60-115	25	
di-n-Octyl Phthalate	ND	0.050	0.042	84	0.05	0.043	86	2	49-129	25	
Fluoranthene	ND	0.050	0.047	94	0.05	0.050	100	6	55-120	25	
Fluorene	ND	0.050	0.044	88	0.05	0.046	92	4	56-114	25	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Analyst: CLR

Lab Batch ID: 775661

Sample: 539448-1-BKS

Units: mg/L

Date Prepared: 10/02/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 10/03/2009

Matrix: Water

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Hexachlorobenzene	ND	0.050	0.047	94	0.05	0.050	100	6	60-109	25	
Hexachlorobutadiene	ND	0.050	0.046	92	0.05	0.035	70	27	52-107	25	F
Hexachlorocyclopentadiene	ND	0.050	0.045	90	0.05	0.048	96	6	32-115	25	
Hexachloroethane	ND	0.050	0.042	84	0.05	0.032	64	27	46-115	25	F
Indeno(1,2,3-c,d)Pyrene	ND	0.050	0.054	108	0.05	0.058	116	7	44-132	25	
Isophorone	ND	0.050	0.043	86	0.05	0.045	90	5	57-107	25	
2-Methylnaphthalene	ND	0.050	0.046	92	0.05	0.041	82	11	57-106	25	
2-methylphenol	ND	0.050	0.037	74	0.05	0.038	76	3	52-106	25	
3&4-Methylphenol	ND	0.100	0.067	67	0.1	0.069	69	3	23-140	25	
Naphthalene	ND	0.050	0.043	86	0.05	0.038	76	12	53-110	25	
2-Nitroaniline	ND	0.050	0.044	88	0.05	0.048	96	9	55-120	25	
3-Nitroaniline	ND	0.050	0.049	98	0.05	0.051	102	4	49-120	25	
4-Nitroaniline	ND	0.050	0.054	108	0.05	0.057	114	5	52-118	25	
Nitrobenzene	ND	0.050	0.043	86	0.05	0.045	90	5	56-107	25	
2-Nitrophenol	ND	0.050	0.044	88	0.05	0.046	92	4	57-105	25	
4-Nitrophenol	ND	0.050	0.032	64	0.05	0.033	66	3	18-104	25	
N-Nitrosodi-n-Propylamine	ND	0.050	0.041	82	0.05	0.041	82	0	21-137	25	
N-Nitrosodiphenylamine	ND	0.050	0.042	84	0.05	0.045	90	7	50-121	25	
Pentachlorophenol	ND	0.050	0.035	70	0.05	0.038	76	8	36-132	25	
Phenanthrene	ND	0.050	0.047	94	0.05	0.049	98	4	56-116	25	

Relative Percent Difference $RPD = 200 * [(C-F)/(C+F)]$

Blank Spike Recovery $[D] = 100 * (C/[B])$

Blank Spike Duplicate Recovery $[G] = 100 * (F/[E])$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Analyst: CLR

Lab Batch ID: 775661

Sample: 539448-1-BKS

Units: mg/L

Project ID: 2009-084

Date Analyzed: 10/03/2009

Matrix: Water

Date Prepared: 10/02/2009

Batch #: 1

SVOAs by EPA 8270C		Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
Phenol		ND	0.050	0.027	54	0.05	0.027	54	0	19-89	25	
Pyrene		ND	0.050	0.044	88	0.05	0.047	94	7	57-119	25	
Pyridine		ND	0.050	0.021	42	0.05	0.020	40	5	5-94	25	
1,2,4-Trichlorobenzene		ND	0.050	0.044	88	0.05	0.037	74	17	56-104	25	
2,4,5-Trichlorophenol		ND	0.050	0.044	88	0.05	0.047	94	7	55-114	25	
2,4,6-Trichlorophenol		ND	0.050	0.043	86	0.05	0.046	92	7	57-113	25	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries

Project Name: DCP Plant to Lea Station Sec. 31



Work Order #: 346678

Lab Batch #: 775240

Date Analyzed: 10/01/2009

Date Prepared: 10/01/2009

Project ID: 2009-084

Analyst: LATCOR

QC- Sample ID: 346505-001 S

Batch #: 1

Matrix: Water

Reporting Units: mg/L

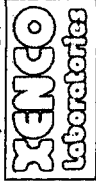
MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Fluoride	9.20	27.0	30.7	80	90-110	X
Chloride	154	100	240	86	90-110	X
Sulfate	71.1	100	159	88	90-110	X
Nitrate as N	3.75	20.0	23.9	101	90-110	
Ortho-Phosphate	ND	17.0	16.6	98	90-110	

Matrix Spike Percent Recovery [D] = $100 \cdot (C-A)/B$

Relative Percent Difference [E] = $200 \cdot (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station Sec. 31



Work Order #: 346678

Lab Batch ID: 775780

Date Analyzed: 10/06/2009

Reporting Units: mg/L

Project ID: 2009-084

QC- Sample ID: 345663-002 S

Date Prepared: 10/05/2009

Batch #: 1 Matrix: Water

Analyst: HAT

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										Flag
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	
Aluminum	0.067	0.200	0.279	106	0.200	0.290	112	4	75-125	25	
Arsenic	0.006	0.050	0.047	82	0.050	0.051	90	8	75-125	25	
Barium	0.458	0.050	0.509	102	0.050	0.523	130	3	75-125	25	X
Boron	0.312	0.020	0.340	140	0.020	0.358	230	5	75-125	25	X
Cadmium	ND	0.020	0.016	80	0.020	0.017	85	6	75-125	25	
Chromium	ND	0.050	0.057	114	0.050	0.062	124	8	75-125	25	
Cobalt	ND	0.050	0.054	108	0.050	0.059	118	9	75-125	25	
Copper	0.006	0.050	0.053	94	0.050	0.057	102	7	75-125	25	
Iron	36.1	0.200	36.2	50	0.200	36.5	200	1	75-125	25	X
Lead	0.026	0.050	0.075	98	0.050	0.081	110	8	75-125	25	
Manganese	2.98	0.050	3.03	100	0.050	3.07	180	1	75-125	25	X
Molybdenum	ND	0.050	0.056	112	0.050	0.062	124	10	75-125	25	
Nickel	0.009	0.050	0.058	98	0.050	0.062	106	7	75-125	25	
Selenium	ND	0.050	0.038	76	0.050	0.042	84	10	75-125	25	
Silver	ND	0.020	0.016	80	0.020	0.018	90	12	75-125	25	
Zinc	0.027	0.050	0.064	74	0.050	0.068	82	6	75-125	25	X

Matrix Spike Percent Recovery $[D] = 100 \cdot (C-A)/B$
Relative Percent Difference $RPD = 200 \cdot |(C-F)/(C+F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 \cdot (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Lab Batch ID: 775998

Date Analyzed: 10/07/2009

Reporting Units: mg/L

Project ID: 2009-084

QC- Sample ID: 346432-016 S

Batch #: 1 Matrix: Water

Date Prepared: 10/05/2009 Analyst: LATCOR

Reporting Units: mg/L											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Mercury by EPA 7470A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	0.0001	0.0010	0.0011	100	0.0010	0.0011	100	0	75-125	20	
Mercury											

Matrix Spike Percent Recovery $[D] = 100 \cdot (C-A)/B$
Relative Percent Difference $RPD = 200 \cdot (C-F)/(C+F)$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery $[G] = 100 \cdot (F-A)/E$



Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station Sec. 31



Work Order #: 346678

Lab Batch ID: 775620

Date Analyzed: 10/05/2009

Reporting Units: mg/L

Project ID: 2009-084

QC- Sample ID: 346678-003 S

Date Prepared: 10/05/2009

Batch #: 1 Matrix: Water

Analyst: KHM

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.050	0.045	90	0.050	0.046	92	2	66-142	21	
Bromobenzene	ND	0.050	0.047	94	0.050	0.049	98	4	60-130	20	
Bromochloromethane	ND	0.050	0.046	92	0.050	0.044	88	4	73-125	20	
Bromodichloromethane	ND	0.050	0.046	92	0.050	0.047	94	2	75-125	20	
Bromoform	ND	0.050	0.048	96	0.050	0.052	104	8	75-125	20	
Bromomethane	ND	0.050	0.044	88	0.050	0.043	86	2	70-130	20	
MTBE	ND	0.050	0.051	102	0.050	0.052	104	2	75-125	20	
n-Butylbenzene	ND	0.050	0.045	90	0.050	0.046	92	2	75-125	20	
Sec-Butylbenzene	ND	0.050	0.047	94	0.050	0.048	96	2	75-125	20	
tert-Butylbenzene	ND	0.050	0.049	98	0.050	0.049	98	0	75-125	20	
Carbon Disulfide	ND	0.500	0.454	91	0.500	0.448	90	1	60-140	20	
Carbon Tetrachloride	ND	0.050	0.045	90	0.050	0.047	94	4	62-125	20	
Chlorobenzene	ND	0.050	0.048	96	0.050	0.051	102	6	60-133	21	
Chloroethane	ND	0.050	0.040	80	0.050	0.039	78	3	70-130	20	
Chloroform	ND	0.050	0.044	88	0.050	0.044	88	0	74-125	20	
Chloromethane	ND	0.050	0.042	84	0.050	0.040	80	5	70-130	20	
2-Chlorotoluene	ND	0.050	0.047	94	0.050	0.047	94	0	73-125	20	
4-Chlorotoluene	ND	0.050	0.046	92	0.050	0.047	94	2	74-125	20	
p-Cymene (p-Isopropyltoluene)	ND	0.050	0.049	98	0.050	0.050	100	2	75-125	20	
Dibromochloromethane	ND	0.050	0.048	96	0.050	0.051	102	6	60-130	20	
1,2-Dibromo-3-Chloropropane	ND	0.050	0.043	86	0.050	0.045	90	5	59-125	28	
1,2-Dibromoethane	ND	0.050	0.045	90	0.050	0.049	98	9	73-125	20	
Dibromomethane	ND	0.050	0.042	84	0.050	0.044	88	5	69-127	23	

Matrix Spike Percent Recovery $[D] = 100 \cdot (C-A)/B$
Relative Percent Difference $RPD = 200 \cdot |(C-F)/(C+F)|$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery $[G] = 100 \cdot (F-A)/E$



Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station Sec. 31



Work Order #: 346678

Lab Batch ID: 775620

Date Analyzed: 10/05/2009

Reporting Units: mg/L

Project ID: 2009-084

QC- Sample ID: 346678-003 S

Batch #: 1 Matrix: Water

Date Prepared: 10/05/2009

Analyst: KHM

VOAs by SW-846 8260B		Analytes										Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,2-Dichlorobenzene		ND	0.050	0.047	94	0.050	0.048	96	2	75-125	20											
1,3-Dichlorobenzene		ND	0.050	0.049	98	0.050	0.050	100	2	75-125	20											
1,4-Dichlorobenzene		ND	0.050	0.047	94	0.050	0.048	96	2	75-125	20											
Dichlorodifluoromethane		ND	0.050	0.048	96	0.050	0.044	88	9	70-130	23											
1,1-Dichloroethane		ND	0.050	0.045	90	0.050	0.045	90	0	60-130	20											
1,2-Dichloroethane		ND	0.050	0.041	82	0.050	0.042	84	2	68-127	20											
1,1-Dichloroethene		ND	0.050	0.041	82	0.050	0.040	80	2	59-172	22											
cis-1,2-Dichloroethene		ND	0.050	0.042	84	0.050	0.043	86	2	60-130	20											
trans-1,2-dichloroethene		ND	0.050	0.043	86	0.050	0.043	86	0	60-130	20											
1,2-Dichloropropane		ND	0.050	0.046	92	0.050	0.048	96	4	74-125	20											
1,3-Dichloropropane		ND	0.050	0.043	86	0.050	0.047	94	9	75-125	20											
2,2-Dichloropropane		ND	0.050	0.044	88	0.050	0.045	90	2	60-140	20											
1,1-Dichloropropene		ND	0.050	0.039	78	0.050	0.040	80	3	75-125	20											
cis-1,3-Dichloropropene		ND	0.050	0.048	96	0.050	0.050	100	4	60-140	20											
trans-1,3-dichloropropene		ND	0.050	0.046	92	0.050	0.049	98	6	66-125	20											
Ethylbenzene		ND	0.050	0.045	90	0.050	0.047	94	4	75-125	20											
Hexachlorobutadiene		ND	0.050	0.049	98	0.050	0.052	104	6	75-125	20											
isopropylbenzene		ND	0.050	0.046	92	0.050	0.048	96	4	75-125	20											
Methylene Chloride		0.006	0.050	0.045	78	0.050	0.045	78	0	75-125	35											
Naphthalene		ND	0.050	0.047	94	0.050	0.049	98	4	65-135	20											
n-Propylbenzene		ND	0.050	0.048	96	0.050	0.050	100	4	75-125	20											
Styrene		ND	0.050	0.046	92	0.050	0.048	96	4	60-130	51											
1,1,1,2-Tetrachloroethane		ND	0.050	0.048	96	0.050	0.050	100	4	75-125	20											

Matrix Spike Percent Recovery [D]= 100*(C-A)/B
Relative Percent Difference RPD= 200*[(C-F)/(C+F)]

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E



Form 3 - MS / MSD Recoveries



Project Name: DCP Plant to Lea Station Sec. 31

Work Order # : 346678

Lab Batch ID: 775620

Date Analyzed: 10/05/2009

Reporting Units: mg/L

Project ID: 2009-084

QC- Sample ID: 346678-003 S

Batch #: 1 Matrix: Water

Date Prepared: 10/05/2009

Analyst: KHM

VOAs by SW-846 8260B		Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
1,1,2,2-Tetrachloroethane		ND	0.050	0.045	90	0.050	0.048	96	6	50-130	31	
Tetrachloroethylene		ND	0.050	0.048	96	0.050	0.050	100	4	60-130	20	
Toluene		ND	0.050	0.046	92	0.050	0.047	94	2	59-139	21	
1,2,3-Trichlorobenzene		ND	0.050	0.049	98	0.050	0.052	104	6	75-137	20	
1,2,4-Trichlorobenzene		ND	0.050	0.049	98	0.050	0.050	100	2	75-135	20	
1,1,1-Trichloroethane		ND	0.050	0.042	84	0.050	0.041	82	2	75-125	20	
1,1,2-Trichloroethane		ND	0.050	0.046	92	0.050	0.049	98	6	75-127	20	
Trichloroethene		ND	0.050	0.045	90	0.050	0.046	92	2	62-137	24	
Trichlorofluoromethane		ND	0.050	0.049	98	0.050	0.045	90	9	67-125	20	
1,2,3-Trichloropropane		ND	0.050	0.047	94	0.050	0.052	104	10	75-125	20	
1,2,4-Trimethylbenzene		ND	0.050	0.047	94	0.050	0.047	94	0	75-125	20	
1,3,5-Trimethylbenzene		ND	0.050	0.047	94	0.050	0.047	94	0	70-125	20	
o-Xylenes		ND	0.050	0.048	96	0.050	0.049	98	2	75-125	20	
m,p-Xylenes		ND	0.100	0.097	97	0.100	0.100	100	3	75-125	20	
Vinyl Chloride		ND	0.050	0.041	82	0.050	0.038	76	8	75-125	20	

Matrix Spike Percent Recovery $[D] = 100 \cdot (C-A)/B$
Relative Percent Difference $RPD = 200 \cdot (C-F)/(C+F)$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQ = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery $[G] = 100 \cdot (F-A)/E$



Sample Duplicate Recovery



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Lab Batch #: 775240

Project ID: 2009-084

Date Analyzed: 10/01/2009

Date Prepared: 10/01/2009

Analyst: LATCOR

QC- Sample ID: 346505-001 D

Batch #: 1

Matrix: Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Fluoride	9.20	9.26	1	20	
Chloride	154	145	6	20	
Sulfate	71.1	58.6	19	20	
Nitrate as N	3.75	2.42	43	20	F
Ortho-Phosphate	ND	ND	NC	20	

Lab Batch #: 775780

Date Prepared: 10/05/2009

Analyst: HAT

Date Analyzed: 10/06/2009

QC- Sample ID: 345663-002 D

Batch #: 1

Matrix: Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
ICP-MS Metals by SW 6020A	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Aluminum	0.067	0.069	3	25	
Arsenic	0.006	0.005	18	25	
Barium	0.458	0.466	2	25	
Boron	0.312	0.340	9	25	
Cadmium	ND	ND	NC	25	
Chromium	ND	ND	NC	25	
Cobalt	ND	ND	NC	25	
Copper	0.006	0.006	0	25	
Iron	36.1	37.1	3	25	
Manganese	2.98	3.08	3	25	
Molybdenum	ND	ND	NC	25	
Nickel	0.009	0.009	0	25	
Selenium	ND	ND	NC	25	
Silver	ND	ND	NC	25	
Zinc	0.027	0.029	7	25	

Spike Relative Difference $RPD = 200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: DCP Plant to Lea Station Sec. 31

Work Order #: 346678

Lab Batch #: 775780

Project ID: 2009-084

Date Analyzed: 10/06/2009

Date Prepared: 10/05/2009

Analyst: HAT

QC- Sample ID: 345663-002 D

Batch #: 1

Matrix: Water

Reporting Units: ug/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
ICP-MS Metals by SW 6020A	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Lead	25.5	24.5	4	25	

Lab Batch #: 776000

Date Analyzed: 10/07/2009

Date Prepared: 10/07/2009

Analyst: LATCOR

QC- Sample ID: 346678-001 D

Batch #: 1

Matrix: Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Metals per ICP by SW846 6010B	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Calcium	58.0	57.3	1	25	
Magnesium	39.8	40.5	2	25	
Potassium	ND	ND	NC	25	
Sodium	125	121	3	25	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

~~Initial Parameters~~

~~specific conductance
pH
temperature
depth to water~~

~~General Chemistry~~

~~Calcium
Magnesium
Potassium
Sodium
Chloride
Sulfate
Bicarbonate Alkalinity
Carbonate Alkalinity
Nitrate
Phosphate
Fluoride~~

~~ROCK Metals~~

~~Arsenic
Barium
Cadmium
Chromium
Lead
Mercury
Selenium
Silver~~

Additional ROCK Metals

Copper
Iron
Manganese
Zinc
Aluminum
Titanium
Cobalt
Molybdenum
Nickel

All compounds listed in U.S. EPA 149-946 Method: EPA (VOCs) & EPA (SVOCs)

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Flaming / Basin Env.
 Date/ Time: 10-01-09 @ 0735
 Lab ID #: 346078
 Initials: JMF

Sample Receipt Checklist

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

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

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

Jeanne Fitch

From: Jeanne Fitch [jeanne.fitch@xenco.com]
 Sent: Thursday, October 01, 2009 11:50 AM
 To: 'Curt D. Stanley'
 Subject: RE: MW samples DCP Plant (analysis question)
 Thanks Curt....FYI...NO3 has a 48 hr TAT and MW-2 was sampled at 11:30 on 09/29/09.

Thank You,

Jeanne Fitch

Environmental Lab of Texas
 a Xenco Company
 12600 West I-20 East
 Odessa, TX 79765
 (432) 563-1800

From: Curt D. Stanley [mailto:cstanley@basinenv.com]
 Sent: Thursday, October 01, 2009 11:46 AM
 To: Jeanne Fitch
 Subject: Re: MW samples DCP Plant (analysis question)

Jeanne,

Please run NO3, PO4 and F... and yes we need RCRA 8, plus 9 WQCC metals..

Thanks,
 Curt

----- Original Message -----

From: Jeanne Fitch
 To: 'Curt D. Stanley'
 Sent: Thursday, October 01, 2009 7:14 AM
 Subject: Re: MW samples DCP Plant (analysis question)

Hi Curt,

I noticed on your additional info page for the MW samples that NO3,PO4,and F were listed under Gen Chem but not on the COC. Did you need them analyzed as well? And just to confirm....you would like the RCRA 8 Metals + the additional 9 WQCC Metals. Please let me know.

Thank You,

Jeanne Fitch

Environmental Lab of Texas
 a Xenco Company
 12600 West I-20 East
 Odessa, TX 79765
 (432) 563-1800

 Please consider the environment before printing this email.

10/1/2009

Jeanne Fitch

From: Curt D. Stanley [cstanley@basinenv.com]
Sent: Tuesday, November 03, 2009 2:23 PM
To: Jeanne Fitch
Subject: Re: REVISED WO#346678 DCP Plant to Lea Station 6" #2
Jeanne.

Please revise the site name on these reports to read DCP Plant to Lea Station Sec 31. The project number should be 2009-084. Sorry for the confusion at this end. Please revise and reissue.

Thanks,
Curt

----- Original Message -----

From: Jeanne Fitch
To: 'Curt D. Stanley'; 'Camille J. Bryant'
Cc: jhenry@paalp.com
Sent: Friday, October 09, 2009 7:24 AM
Subject: Re: REVISED WO#346678 DCP Plant to Lea Station 6" #2


Hello Curt,

I have attached a revised report WO#346678 for DCP Plant to Lea Station 6" #2. As per your request we have reported the VOC SW8260 as mg/L and broke down the Total Alkalinity into Carbonate/Bicarbonate and Total Alkalinity. Please let me know if I can help you with anything else.

Thank You,

Jeanne Fitch

Environmental Lab of Texas
a Xenco Company
12600 West I-20 East
Odessa, TX 79765
(432) 563-1800

 Please consider the environment before printing this email.

11/3/2009

Analytical Report 355581

for

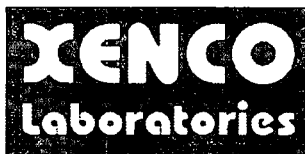
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

DCP Plant to Lea Station 6-Inch Sec 31

2009-084

22-DEC-09



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida (E86240),

South Carolina (96031001), Louisiana (04154), Georgia (917)



22-DEC-09

Project Manager: **Jason Henry**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **355581**
DCP Plant to Lea Station 6-Inch Sec 31
Project Address: Lea County, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 355581. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 355581 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Sample Cross Reference 355581



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6-Inch Sec 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	Dec-10-09 09:15		355581-001
MW-3	W	Dec-10-09 10:00		355581-002
MW-4	W	Dec-10-09 10:45		355581-003
MW-1	W	Dec-10-09 11:30		355581-004



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Project ID: 2009-084

Work Order Number: 355581

Report Date: 22-DEC-09

Date Received: 12/14/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-786064 TPH by SW8015 Mod

None

Batch: LBA-786220 BTEX by EPA 8021

None

Batch: LBA-786316 TCLP SVOCs by SW-846 8270C

None

Batch: LBA-786588 BTEX by EPA 8021

SW8021BM

Batch 786588, 4-Bromofluorobenzene recovered above QC limits Qc Data not confirmed by re-analysis. Samples affected are: 546021-1-BLK.

Batch: LBA-786597 BTEX by EPA 8021

None



Certificate of Analysis Summary 355581

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Mon Dec-14-09 05:20 pm

Report Date: 22-DEC-09

Project Manager: Brent Barron, II



Analysis Requested	Lab Id:	355581-001	355581-002	355581-003	355581-004
	Field Id:	MW-2	MW-3	MW-4	MW-1
	Depth:				
	Matrix:	WATER	WATER	WATER	WATER
	Sampled:	Dec-10-09 09:15	Dec-10-09 10:00	Dec-10-09 10:45	Dec-10-09 11:30
BTEx by EPA 8021	Extracted:	Dec-17-09 13:00	Dec-18-09 14:00	Dec-18-09 15:00	Dec-18-09 14:00
	Analyzed:	Dec-17-09 18:34	Dec-19-09 09:02	Dec-19-09 21:31	Dec-19-09 16:33
	Units/RL:	mg/L RL	mg/L RL	mg/L RL	mg/L RL
	Benzene	ND 0.0010	0.0031 0.0010	ND 0.0010	19.00 0.1000
	Toluene	ND 0.0020	ND 0.0020	ND 0.0020	13.09 0.2000
Ethylbenzene		ND 0.0010	ND 0.0010	ND 0.0010	0.8120 0.1000
	m,p-Xylenes	ND 0.0020	ND 0.0020	ND 0.0020	1.894 0.2000
o-Xylene		ND 0.0010	ND 0.0010	ND 0.0010	0.7290 0.1000
Xylenes, Total		ND 0.0010	ND 0.0010	ND 0.0010	2.623 0.1000
Total BTEx		ND 0.0010	0.0031 0.0010	ND 0.0010	35.53 0.1000

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 355581

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Mon Dec-14-09 05:20 pm

Report Date: 22-DEC-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	355581-001	355581-002	355581-003	355581-004	
	Field Id:	MW-2	MW-3	MW-4	MW-1	
	Depth:					
	Matrix:	WATER	WATER	WATER	WATER	
	Sampled:	Dec-10-09 09:15	Dec-10-09 10:00	Dec-10-09 10:45	Dec-10-09 11:30	
SVOA PAHs List SUB: T104704215-08B-TX	Extracted:					
	Analyzed:					
	Units/RL:					
Acenaphthene						
Acenaphthylene						
Anthracene						
Benzo(a)anthracene						
Benzo(a)pyrene						
Benzo(b)fluoranthene						
Benzo(k)fluoranthene						
Benzo(g,h,i)perylene						
Chrysene						
Dibenz(a,h)anthracene						
Fluoranthene						
Fluorene						
Indeno(1,2,3-c,d)Pyrene						
1-Methylnaphthalene						
2-Methylnaphthalene						
Naphthalene						
Phenanthrene						
Pyrene						

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brett Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 355581
PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Mon Dec-14-09 05:20 pm


Report Date: 22-DEC-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	355581-001	355581-002	355581-003	355581-004	
	Field Id:	MW-2	MW-3	MW-4	MW-1	
	Depth:					
	Matrix:	WATER	WATER	WATER	WATER	
	Sampled:	Dec-10-09 09:15	Dec-10-09 10:00	Dec-10-09 10:45	Dec-10-09 11:30	
TPH by SW8015 Mod	Extracted:				Dec-15-09 11:00	
	Analyzed:				Dec-17-09 02:00	
	Units/RL:				mg/L RL	
	C6-C12 Gasoline Range Hydrocarbons				332 1.50	
	C12-C28 Diesel Range Hydrocarbons				11.0 1.50	
Total TPH	C28-C35 Oil Range Hydrocarbons				ND 1.50	
					343 1.50	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II
Odessa Laboratory Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 355581,

Project ID: 2009-084

Lab Batch #: 786220

Sample: 545803-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L	Date Analyzed: 12/17/09 11:50	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0315	0.0300	105	80-120	
4-Bromofluorobenzene		0.0309	0.0300	103	80-120	

Lab Batch #: 786220

Sample: 545803-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L	Date Analyzed: 12/17/09 12:13	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0310	0.0300	103	80-120	
4-Bromofluorobenzene		0.0296	0.0300	99	80-120	

Lab Batch #: 786220

Sample: 545803-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L	Date Analyzed: 12/17/09 13:23	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0265	0.0300	88	80-120	
4-Bromofluorobenzene		0.0308	0.0300	103	80-120	

Lab Batch #: 786220

Sample: 355581-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L	Date Analyzed: 12/17/09 18:34	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0268	0.0300	89	80-120	
4-Bromofluorobenzene		0.0314	0.0300	105	80-120	

Lab Batch #: 786220

Sample: 355467-002 S / MS

Batch: 1 Matrix: Water

Units: mg/L	Date Analyzed: 12/18/09 01:53	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0309	0.0300	103	80-120	
4-Bromofluorobenzene		0.0334	0.0300	111	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 355581,

Project ID: 2009-084

Lab Batch #: 786220

Sample: 355467-002 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/18/09 02:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 786588

Sample: 546021-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/19/09 19:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene	0.0351	0.0300	117	80-120	

Lab Batch #: 786588

Sample: 546021-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/19/09 19:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0320	0.0300	107	80-120	
4-Bromofluorobenzene	0.0355	0.0300	118	80-120	

Lab Batch #: 786588

Sample: 546021-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/19/09 21:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0368	0.0300	123	80-120	*

Lab Batch #: 786588

Sample: 355581-003 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/19/09 21:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0255	0.0300	85	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 355581,

Project ID: 2009-084

Lab Batch #: 786588

Sample: 355581-003 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/20/09 04:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 786588

Sample: 355581-003 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/20/09 04:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 786597

Sample: 546010-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/18/09 12:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 786597

Sample: 546010-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/18/09 13:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0321	0.0300	107	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 786597

Sample: 546010-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/18/09 14:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 355581,

Project ID: 2009-084

Lab Batch #: 786597

Sample: 355581-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/19/09 09:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 786597

Sample: 355581-004 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/19/09 16:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 786597

Sample: 355592-003 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/19/09 18:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 786597

Sample: 355592-003 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/19/09 18:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 355581,

Project ID: 2009-084

Lab Batch #: 786316

Sample: 545778-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/18/09 10:20

SURROGATE RECOVERY STUDY

SVOA PAHs List Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.050	0.050	100	43-116	
2-Fluorophenol	0.041	0.050	82	21-100	
Nitrobenzene-d5	0.051	0.050	102	35-114	
Phenol-d6	0.026	0.050	52	10-94	
Terphenyl-D14	0.057	0.050	114	33-141	
2,4,6-Tribromophenol	0.052	0.050	104	10-123	

Lab Batch #: 786316

Sample: 545778-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/18/09 10:58

SURROGATE RECOVERY STUDY

SVOA PAHs List Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.044	0.050	88	43-116	
2-Fluorophenol	0.036	0.050	72	21-100	
Nitrobenzene-d5	0.045	0.050	90	35-114	
Phenol-d6	0.026	0.050	52	10-94	
Terphenyl-D14	0.047	0.050	94	33-141	
2,4,6-Tribromophenol	0.046	0.050	92	10-123	

Lab Batch #: 786316

Sample: 545778-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/18/09 11:36

SURROGATE RECOVERY STUDY

SVOA PAHs List Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.042	0.050	84	43-116	
2-Fluorophenol	0.034	0.050	68	21-100	
Nitrobenzene-d5	0.043	0.050	86	35-114	
Phenol-d6	0.025	0.050	50	10-94	
Terphenyl-D14	0.044	0.050	88	33-141	
2,4,6-Tribromophenol	0.044	0.050	88	10-123	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 355581,

Project ID: 2009-084

Lab Batch #: 786316

Sample: 355933-001 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/18/09 12:53

SURROGATE RECOVERY STUDY

SVOA PAHs List Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.195	0.250	78	43-116	
2-Fluorophenol	0.147	0.250	59	21-100	
Nitrobenzene-d5	0.192	0.250	77	35-114	
Phenol-d6	0.161	0.250	64	10-94	
Terphenyl-D14	0.204	0.250	82	33-141	
2,4,6-Tribromophenol	0.188	0.250	75	10-123	

Lab Batch #: 786316

Sample: 355581-004 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/18/09 14:09

SURROGATE RECOVERY STUDY

SVOA PAHs List Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.041	0.050	82	43-116	
2-Fluorophenol	0.020	0.050	40	21-100	
Nitrobenzene-d5	0.041	0.050	82	35-114	
Phenol-d6	0.015	0.050	30	10-94	
Terphenyl-D14	0.045	0.050	90	33-141	
2,4,6-Tribromophenol	0.033	0.050	66	10-123	

Lab Batch #: 786064

Sample: 545721-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/16/09 16:59

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	12.6	10.0	126	70-135	
o-Terphenyl	6.41	5.00	128	70-135	

Lab Batch #: 786064

Sample: 545721-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/16/09 17:26

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	12.7	10.0	127	70-135	
o-Terphenyl	6.29	5.00	126	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 355581,

Project ID: 2009-084

Lab Batch #: 786064

Sample: 545721-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/16/09 17:53

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	11.0	10.0	110	70-135	
o-Terphenyl	5.74	5.00	115	70-135	

Lab Batch #: 786064

Sample: 355581-004 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/17/09 02:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	11.9	10.0	119	70-135	
o-Terphenyl	5.49	5.00	110	70-135	

Lab Batch #: 786064

Sample: 355467-003 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/17/09 03:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	12.2	10.0	122	70-135	
o-Terphenyl	6.05	5.00	121	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Order #: 355581

Analyst: BRB

Lab Batch ID: 786220

Sample: 545803-1-BKS

Units: mg/L

Date Prepared: 12/17/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 12/17/2009

Matrix: Water

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/L												
BTEX by EPA 8021		Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
Benzene		ND	0.1000	0.1001	100	0.1	0.1008	101	1	70-125	25	
Toluene		ND	0.1000	0.1010	101	0.1	0.1010	101	0	70-125	25	
Ethylbenzene		ND	0.1000	0.1007	101	0.1	0.1011	101	0	71-129	25	
m,p-Xylenes		ND	0.2000	0.2082	104	0.2	0.2089	104	0	70-131	25	
o-Xylene		ND	0.1000	0.1068	107	0.1	0.1073	107	0	71-133	25	

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: ASA

Lab Batch ID: 786597

Sample: 546010-1-BKS

Batch #: 1

Matrix: Water

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/L												
BTEX by EPA 8021		Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
Benzene		ND	0.1000	0.1057	106	0.1	0.1110	111	5	70-125	25	
Toluene		ND	0.1000	0.1073	107	0.1	0.1126	113	5	70-125	25	
Ethylbenzene		ND	0.1000	0.1067	107	0.1	0.1123	112	5	71-129	25	
m,p-Xylenes		ND	0.2000	0.2190	110	0.2	0.2313	116	5	70-131	25	
o-Xylene		ND	0.1000	0.1124	112	0.1	0.1192	119	6	71-133	25	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$
Blank Spike Recovery [D] = $100 * (C)/[B]$
Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$
All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Order #: 355581

Analyst: ASA

Lab Batch ID: 786588

Sample: 546021-1-BKS

Date Prepared: 12/18/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 12/19/2009

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/L												
Analytes	BTEX by EPA 8021											
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
	Benzene	ND	0.1000	0.1123	112	0.1	0.1126	113	0	70-125	25	
	Toluene	ND	0.1000	0.1132	113	0.1	0.1141	114	1	70-125	25	
	Ethylbenzene	ND	0.1000	0.1130	113	0.1	0.1146	115	1	71-129	25	
	m,p-Xylenes	ND	0.2000	0.2308	115	0.2	0.2351	118	2	70-131	25	
	o-Xylene	ND	0.1000	0.1218	122	0.1	0.1248	125	2	71-133	25	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$
Blank Spike Recovery [D] = $100 * (C)/[B]$
Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$
All results are based on MDL and Validated for QC Purposes

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Order #: 355581

Analyst: KAN

Lab Batch ID: 786316

Sample: 545778-1-BKS

Date Prepared: 12/17/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 12/18/2009

Matrix: Water

Units: mg/L

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
SVOA PAHs List	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Acenaphthene	ND	0.050	0.046	92	0.05	0.045	90	2	27-132	31	
Acenaphthylene	ND	0.050	0.046	92	0.05	0.045	90	2	46-108	25	
Anthracene	ND	0.050	0.047	94	0.05	0.046	92	2	47-145	25	
Benzo(a)anthracene	ND	0.050	0.048	96	0.05	0.047	94	2	33-143	25	
Benzo(a)pyrene	ND	0.050	0.048	96	0.05	0.047	94	2	65-135	25	
Benzo(b)fluoranthene	ND	0.050	0.051	102	0.05	0.049	98	4	24-159	25	
Benzo(k)fluoranthene	ND	0.050	0.047	94	0.05	0.048	96	2	25-125	25	
Benzo(g,h,i)perylene	ND	0.050	0.047	94	0.05	0.045	90	4	65-135	25	
Chrysene	ND	0.050	0.045	90	0.05	0.044	88	2	65-135	25	
Dibenz(a,h)anthracene	ND	0.050	0.049	98	0.05	0.048	96	2	50-125	25	
Fluoranthene	ND	0.050	0.048	96	0.05	0.048	96	0	47-125	25	
Fluorene	ND	0.050	0.048	96	0.05	0.047	94	2	48-139	25	
Indeno(1,2,3-c,d)Pyrene	ND	0.050	0.049	98	0.05	0.048	96	2	27-160	25	
Naphthalene	ND	0.050	0.044	88	0.05	0.044	88	0	26-175	25	
Phenanthrene	ND	0.050	0.046	92	0.05	0.046	92	0	65-135	25	
Pyrene	ND	0.050	0.047	94	0.05	0.046	92	2	23-152	31	

Relative Percent Difference $RPD = 200 * [(C-F)/(C+F)]$

Blank Spike Recovery $[D] = 100 * (C)/[B]$

Blank Spike Duplicate Recovery $[G] = 100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Order #: 355581

Analyst: BEV

Lab Batch ID: 786064

Sample: 545721-1-BKS

Units: mg/L

Project ID: 2009-084

Date Analyzed: 12/16/2009

Date Prepared: 12/15/2009

Batch #: 1

Matrix: Water

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Units: mg/L											
TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	100	102	102	100	98.7	99	3	70-135	25	
C12-C28 Diesel Range Hydrocarbons	ND	100	71.0	71	100	77.3	77	8	70-135	25	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C/[B])$

Blank Spike Duplicate Recovery [G] = $100 * (F/[E])$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Order #: 355581

Lab Batch #: 786316

Date Analyzed: 12/18/2009

Date Prepared: 12/17/2009

Project ID: 2009-084

Analyst: KAN

QC- Sample ID: 355933-001 S

Batch #: 1

Matrix: Water

Reporting Units: mg/L

MATRIX / MATRIX SPIKE RECOVERY STUDY						
SVOA PAHs List by SW-846 8270C	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Acenaphthene	ND	0.250	0.207	83	27-132	
Acenaphthylene	ND	0.250	0.210	84	46-108	
Anthracene	ND	0.250	0.207	83	47-145	
Benzo(a)anthracene	ND	0.250	0.209	84	33-143	
Benzo(a)pyrene	ND	0.250	0.208	83	65-135	
Benzo(b)fluoranthene	ND	0.250	0.239	96	24-159	
Benzo(k)fluoranthene	ND	0.250	0.220	88	25-125	
Benzo(g,h,i)perylene	ND	0.250	0.215	86	65-135	
Chrysene	ND	0.250	0.199	80	65-135	
Dibenz(a,h)anthracene	ND	0.250	0.217	87	50-125	
Fluoranthene	ND	0.250	0.217	87	47-125	
Fluorene	ND	0.250	0.222	89	48-139	
Indeno(1,2,3-c,d)Pyrene	ND	0.250	0.219	88	27-160	
Naphthalene	ND	0.250	0.191	76	26-175	
Phenanthrene	ND	0.250	0.205	82	65-135	
Pyrene	ND	0.250	0.210	84	23-152	

Lab Batch #: 786064

Date Analyzed: 12/17/2009

Date Prepared: 12/15/2009

Analyst: BEV

QC- Sample ID: 355467-003 S

Batch #: 1

Matrix: Water

Reporting Units: mg/L

MATRIX / MATRIX SPIKE RECOVERY STUDY						
TPH by SW8015 Mod	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
C6-C12 Gasoline Range Hydrocarbons	ND	100	100	100	70-135	
C12-C28 Diesel Range Hydrocarbons	ND	100	77.6	78	70-135	

Matrix Spike Percent Recovery [D] = $100 \times (C-A)/B$

Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Order #: 355581

Lab Batch ID: 786220

Date Analyzed: 12/18/2009

Reporting Units: mg/L

Project ID: 2009-084

QC- Sample ID: 355467-002 S

Date Prepared: 12/17/2009

Batch #: 1 Matrix: Water

Analyst: BRB

Reporting Units: mg/L											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	ND	0.1000	0.1045	105	0.1000	0.0987	99	6	70-125	25
	Toluene	ND	0.1000	0.1052	105	0.1000	0.0975	98	8	70-125	25
	Ethylbenzene	ND	0.1000	0.1046	105	0.1000	0.0969	97	8	71-129	25
	m,p-Xylenes	ND	0.2000	0.2121	106	0.2000	0.1997	100	6	70-131	25
	o-Xylene	ND	0.1000	0.1111	111	0.1000	0.1048	105	6	71-133	25

Lab Batch ID: 786588

Date Analyzed: 12/20/2009

Reporting Units: mg/L

QC- Sample ID: 355581-003 S

Date Prepared: 12/18/2009

Batch #: 1 Matrix: Water

Analyst: ASA

Reporting Units: mg/L											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	0.1000	0.0844	84	0.1000	0.0827	83	2	70-125	25	
	Toluene	0.1000	0.0875	88	0.1000	0.0875	88	0	70-125	25	
	Ethylbenzene	0.1000	0.0885	89	0.1000	0.0894	89	1	71-129	25	
	m,p-Xylenes	0.2000	0.1796	90	0.2000	0.1843	92	3	70-131	25	
	o-Xylene	0.1000	0.0943	94	0.1000	0.0959	96	2	71-133	25	

Matrix Spike Percent Recovery $[D] = 100 \cdot (C-A)/B$
Relative Percent Difference $RPD = 200 \cdot |(C-F)/(C+F)|$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery $[C] = 100 \cdot (F-A)/E$



Form 3 - MS / MSD Recoveries



Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Order # : 355581

Lab Batch ID: 786597

Date Analyzed: 12/19/2009

Reporting Units: mg/L

Project ID: 2009-084

QC- Sample ID: 355592-003 S

Batch #: 1 Matrix: Water

Date Prepared: 12/18/2009

Analyst: ASA

Reporting Units: mg/L		MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
BTEX by EPA 8021 Analytes		Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene		0.0236	0.1000	0.1138	90	0.1000	0.1066	83	7	70-125	25	
Toluene		ND	0.1000	0.0884	88	0.1000	0.0815	82	8	70-125	25	
Ethylbenzene		0.0989	0.1000	0.1829	84	0.1000	0.1780	79	3	71-129	25	
m,p-Xylenes		0.0027	0.2000	0.1784	88	0.2000	0.1674	82	6	70-131	25	
o-Xylene		0.1004	0.1000	0.1963	96	0.1000	0.1877	87	4	71-133	25	

Matrix Spike Percent Recovery $[D] = 100 \cdot (C-A)/B$
Relative Percent Difference $RPD = 200 \cdot |(C-F)/(C+F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 \cdot (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Phone: 432-563-1800
Fax: 432-563-1713

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Project #: 2009-084

Project Loc: Lea County, NM

PO #: PAA - J. Henry

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

cstanley@basineny.com

Analyze For:

Laboratory Comments:

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains / Basin
 Date/ Time: 12-14-09 @ 1720
 Lab ID #: 355581
 Initials: JME

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<u>Yes</u>	No	2.6 °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	<u>Not Present</u>
#4	Custody Seals intact on sample bottles/ container? / label	<u>Yes</u>	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by ELOT?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	Subcontract of sample(s)?	<u>Yes</u>	No	Not Applicable
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

Variance Documentation

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

Regarding: _____

Corrective Action Taken:

Check all that Apply:

☐
☐
☐

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