

AP - 52

ANNUAL MONITORING REPORT

YEAR(S):
2005



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

April 5, 2006

Ms. Camille Reynolds
Plains All American
3112 West Highway 82
Lovington, NM 88260

RE: 2005 Annual Monitoring Report
C.S. Cayler Ref. #2002-10250
NMOCD File Number AP-0052
U/L B, Section 6, Range 37 East, Township 17 South
Lea County, New Mexico
Dated February 2006

Dear Ms. Reynolds:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the above report submitted on behalf of Plains All American (Plains) by Environmental Plus, Inc. This report is accepted and approved with the following conditions and understandings:

1. Plains should have now received the NMOCD approval of the Stage I and Stage II Abatement Plan for this site. Implementation of it should begin as soon as possible.
2. Additional perimeter monitor wells will be constructed to delineate the area extent of the dissolved phase hydrocarbon plume.
3. Plains will continue monitoring activities at the site throughout 2006. Such activities will be reported in the 2006 annual report, due by April 1, 2007.

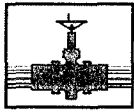
NMOCD approval of this report does not relieve Plains of liability should its activities at this site prove to have been harmful to public health or the environment. Nor does it relieve Plains of its responsibility to comply with the rules and regulations of any other governmental agency.

If you have any questions, contact me at (505) 476-3492 or ed.martin@state.nm.us

NEW MEXICO OIL CONSERVATION DIVISION

Edwin E. Martin
Environmental Bureau

Copy: NMOCD, Hobbs
Environmental Plus, Inc.



PLAINS
ALL AMERICAN

March 20, 2006

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

Re: Plains All American – Annual Monitoring Report
One Site in Lea County, New Mexico

Dear Mr. Martin:

Plains All American is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Plains All American actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico Oil Conservation Division (NMOCD). In accordance with the rules and regulations of the NMOCD, Plains All American hereby submits the Annual Monitoring report for the following site:

C.S. Caylor Section 6, Township 17 South, Range 37 East, Lea County

EPI prepared this document and has vouched for the accuracy and completeness. On behalf of Plains All American, I have personally reviewed the document and interviewed EPI in order to verify the accuracy and completeness of the document. It is based upon this inquiry and review that Plains All American submits the enclosed Annual Monitoring Report for the above-referenced facility.

If you have any questions or require further information, please contact me at (505) 441-0965.

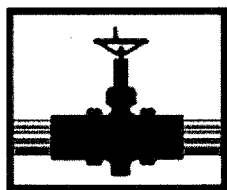
Sincerely,

Camille Reynolds
Remediation Coordinator
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosure

2006 MAR 27 PM 12 23



PLAINS
ALL AMERICAN
PIPELINE, L.P.

2005 ANNUAL MONITORING REPORT

C.S. Cayler
Ref. # 2002-10250
(COMPANY #231735)

UL-B (NW¼ of the NE¼) of Section 6, R37E, T17S
Latitude 32° 52' 2.45"N and Longitude 103° 17' 17.73"W
Elevation ~3,810'amsl

~7 miles southeast of Lovington, Lea County, New Mexico

February 2006

Prepared by

Environmental Plus, Inc.
2100 West Avenue O
P.O. Box 1558
Hunee, New Mexico 88231
Tele 505•394•3481 FAX 505•394•2601
(pmccasland@envplus.net)

*Entire report
is on the
L-Drive*



Distribution List

2005 Annual Monitoring Report
C.S. Cayler (Ref. # 2002-10250)

NAME	TITLE	COMPANY OR AGENCY	MAILING ADDRESS	E-MAIL
Ed Martin	Environmental Engineer	New Mexico Oil Conservation Division	1220 South St. Francis Drive Santa Fe, NM 87505	emartin@state.nm.us
Larry Johnson	Environmental Engineer	New Mexico Oil Conservation Division	1625 French Dr. Hobbs, NM 88231	lwjohnson@state.nm.us
Camille Reynolds	Remediation Coordinator	Plains Pipeline, L.P.	P.O. Box 3119 Midland, TX 79702	cjreynolds@paalp.com
Jeff Dann	Senior Environmental Specialist	Plains Pipeline, L.P.	333 Clay Street Suite #1600 Houston, TX 77002	jpdann@paalp.com
file		Environmental Plus, Inc.	P.O. Box 1558 Eunice, NM 88231	pmccasland@envplus.net

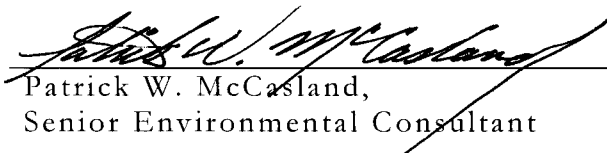
STANDARD OF CARE

2005 ANNUAL MONITORING REPORT

C.S. Cayler
Ref. # 2002-10250
(Company #231735)

The information provided in this report was collected consistent with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993), the NMOCD Unlined Surface Impoundment Closure Guidelines (February 1993), and the Environmental Plus, Inc. (EPI) Standard Operating Procedures and Quality Assurance/Quality Control Plan. The conclusions are based on field observations and laboratory analytical reports as presented in the report. Recommendations follow NMOCD guidance and represent the professional opinions of EPI staff. These opinions were arrived at with currently accepted geologic, hydrogeologic and engineering practices at this time and location. The report was prepared or reviewed by a certified or registered EPI professional with a background in engineering, environmental and/or the natural sciences.

This report was prepared by:


Patrick W. McCasland,
Senior Environmental Consultant

20 March 2006
Date

This report was reviewed by:


Iain A. Olness, P.G.
Hydrogeologist

20 March 2006
Date

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1.0 BACKGROUND AND PREVIOUS REMEDIAL ACTIVITIES

This site is located in the NW¼ of the NE¼ (also referred to as Unit Letter-B) of Section 6, Range 37 East, Township 17 South at a latitude of 32° 52' 2.45"N and a longitude of 103° 17' 17.73"W, approximately 7 miles southeast of Lovington, Lea County, New Mexico on property owned by Robert C. Rice (reference *Figure 1* and *Figure 2*). The release occurred from the 8" steel pipeline on September 19, 2002, while under the ownership of EOTT Energy Pipeline (EOTT changed its' name to Link Energy in October 2003) and as of April 1, 2004, Plains Pipeline, L.P. (Plains) purchased the assets from Link Energy. The estimated 70 barrel (bbls) crude oil release was attributed to internal and/or external corrosion of the steel pipeline and impacted approximately 2,200 square feet (ft²) (70' x 30') of surface area (reference *Figure 2*, *Appendix II* and *Appendix III*). There was no crude oil recovered from this release. It was also observed that the ground surface beyond the current spill area had apparently been impacted by a historical spill or spills; however, the source(s) and date(s) are not known. The area groundwater gradient (reference *Figure 3*) is to the southeast and was determined using area water well information from the New Mexico Office of the State Engineer. Surface elevations were interpolated from the USGS topographical map.

Preliminary delineation of the site was initiated in September 2002 with the advancement of four soil borings. On September 24, 2002, during delineation activities, crude oil impacted soil was encountered during the advancement of soil boring BH-1 to a depth of 78-feet below ground surface (bgs), at which depth the groundwater was encountered. Soil boring BH-1 was subsequently completed as monitoring well MW-1. Following development of monitoring well MW-1, approximately 11-feet of phase separated hydrocarbons (PSH) were observed on top of the groundwater. The New Mexico Oil Conservation Division (NMOCD) Santa Fe and Hobbs, New Mexico offices and the landowner were immediately notified of the groundwater impact in excess of the New Mexico Water Quality Control Commission (WQCC) standards. The soil samples collected during the preliminary site investigation were analyzed for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and m,p,&o xylenes (BTEX). The NMOCD soil remedial goals, based on an NMOCD site ranking of 20, are as follows:

Constituent of Concern (CoC)	Remedial Goal
TPH ^{8015M}	100 mg/Kg
Benzene ¹	10 mg/Kg
BTEX ¹	50 mg/Kg
¹ VOC headspace <100 ppm may be submitted "in lieu" of laboratory analysis.	

Information collected during preliminary soil delineation and monitoring well installation activities is provided in the Plains Pipeline, L.P., C.S. Cayler, ref. #2002-10250, 2004 Annual Monitoring Report, (August 2005), submitted to the NMOCD in August 2005.

Site surveillance, to measure groundwater and PSH levels and recover PSH, began immediately in September of 2002. PSH recovery was accomplished initially by

manual bailing, followed in March of 2003 with deployment of a portable gasoline powered, trailer mounted, eductor type recovery system designed for continuous operation. In June 2004, an automated electrified PSH recovery system was installed and activated.

Impacted soil down to approximately 7-feet bgs has been excavated. The rock and soil have been separated and are currently being stored on site. The soil portion has been spread into a 4-foot thick lift and is turned and aerated semi-annually to promote attenuation and is tested semi-annually.

Delineation of groundwater impacts at the site began with installation of groundwater monitoring wells MW-2 through MW-5 in May/June 2004 and groundwater monitoring wells MW-6 through MW-10 in October 2004. The 2004 groundwater analytical results indicated the dissolved phase hydrocarbon plume extended beyond the groundwater monitoring wells to the north, west and south. Therefore, based on the analytical results from the 2004 sampling events, Plains recommended to the NMOCD in the Plains Pipeline, L.P., C.S. Cayler, ref. #2002-10250, 2004 Annual Monitoring Report, (August 2005), installation of up to six additional groundwater monitoring wells.

In October 2005, Plains submitted the Stage 1 and Stage 2 Abatement Plan (Abatement Plan) for the site to address remediation of the impacted soil and groundwater. In a letter dated November 7, 2005, the NMOCD determined that the Abatement Plan was administratively complete. Subsequently, Plains issued the required public notifications and, as of December 31, 2005, is awaiting approval of the Abatement Plan. *APPROVED 2-18-06*

2.0 2005 FIELD ACTIVITIES

During 2005, field activities included routine site reconnaissance, continuous PSH recovery with groundwater sampling on March 31, May 12, August 22 and November 14.

2.1 SITE RECONNAISSANCE

Site reconnaissance and surveillance occurred at least twice weekly to maintain the PSH recovery system, manage PSH and document changes in groundwater and PSH levels.

2.2 PSH RECOVERY

PSH recovery continued during 2005 using an automated eductor type PSH recovery system installed and activated in June 2004. Currently, PSH is being recovered from monitoring wells MW-1 through MW-4 and MW-7. In 2005, 8,148 gallons (194 bbls) of crude oil were recovered and reintroduced into the Plains pipeline system. Total PSH recovery volume as of December 31, 2005 was 17,997 gallons (428.5 bbls) of crude oil.

3.0 GROUNDWATER ELEVATION AND GRADIENT

In September 2005, to ensure accuracy of the calculated groundwater gradient, the locations and elevations of the groundwater monitoring wells MW-1 through MW-10

were surveyed by the Pettigrew and Associates engineering firm of Hobbs, New Mexico. The site groundwater gradient is consistent with the southeasterly area groundwater gradient. The groundwater elevations, derived from the monitor wells not impacted with PSH, declined slightly during 2005 (reference *Figure 16*, *Figure 17*, *Figure 18*, *Figure 20*, *Figure 22* and *Figure 24*).

4.0 PSH THICKNESS

The average stabilized PSH thickness in monitoring well MW-1 declined 2.10-feet from October 2004 to November 2005. PSH thickness in MW-2 declined 1.95-feet from October 2004 to November 2005. Average stabilized PSH thicknesses have increased in monitoring wells MW-3 (3.34-feet), MW-4 (2.08-feet), MW-7 (6.15-feet), and MW-8 (1.24-feet) (reference *Table 1* and *Table 2*). Groundwater and PSH measurements are recorded at least monthly. The recovery system is shutdown for at least 48 hours prior to collecting groundwater and PSH levels to ensure stabilized measurements.

5.0 SOIL TREATMENT CELL SAMPLING AND ANALYSIS

The soil treatment cell is located in the northeast corner of the site (reference *Figure 3*). Because the TPH concentrations were reported to be 1,000 mg/Kg or less in the 2004 Annual Monitoring Report, the soil treatment cell was not sampled in 2005.

6.0 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater monitoring wells MW-1 through MW-4 and MW-7 were impacted with PSH and not sampled during 2005. Prior to collecting samples for laboratory analysis, the monitoring wells were purged of a minimum of three well volumes or dry. Groundwater monitoring wells MW-5, MW-6, MW-9 and MW-10 were sampled on March 31, May 12, August 22 and November 14, 2005. Groundwater monitoring well MW-8 was sampled on March 31 and May 12, 2005, however, PSH precluded sampling during the August 22 and November 14 sampling events (reference *Table 3* and *Appendix I*). Groundwater samples were submitted to a qualified, independent laboratory for quantification of benzene, toluene, ethylbenzene, and Total xylene (BTEX). Samples collected from groundwater monitoring wells MW-5, MW-6, MW-8, MW-9 and MW-10 on May 12, 2005 were submitted for analysis of the polynuclear aromatic hydrocarbons (PAH) (reference *Table 4* and *Appendix I*).

6.1 GROUNDWATER MONITORING WELLS MW-1 THROUGH MW-4 AND MW-7

Groundwater monitoring wells MW-1 through MW-4 and MW-7 were impacted with PSH and not sampled during 2005.

6.2 GROUNDWATER MONITORING WELL MW-5

Benzene concentrations ranged from 3,140 µg/L to 20,300 µg/L and were in excess of the WQCC groundwater standard of 10 µg/L. Toluene concentrations ranged from an acceptable 8.93 µg/L to 2,240 µg/L, in excess of the 750 µg/L WQCC groundwater standard. Ethylbenzene ranged from an acceptable 142 µg/L to 1,420 µg/L, in excess of the 750 µg/L WQCC groundwater standard. Total xylene ranged from an acceptable 133 µg/L to 1,140 µg/L, in excess of the 620 µg/L WQCC groundwater standard (reference *Figure 8*). PAH concentrations ranged from not

detectable at or above the 0.05 µg/L MDL to 17.5 µg/L and were below the 30 µg/L WQCC groundwater standard.

6.3 GROUNDWATER MONITORING WELL MW-6

Benzene concentrations ranged from 158 µg/L to 702 µg/L and were in excess of the 10 µg/L WQCC groundwater standard. Toluene concentrations ranged from non-detectable at or above the 1.0 µg/L method detection limit (MDL) to 5.74 µg/L and were below the 750 µg/L WQCC groundwater standard. Ethylbenzene concentrations ranged from non-detectable at or above the 1.0 µg/L MDL to 1.97 µg/L and were below the 750 µg/L WQCC groundwater standard. Total xylene concentrations ranged from 4.06 µg/L to 10.7 µg/L and were below the 620 µg/L WQCC groundwater standard (reference *Figure 9*). PAH compound concentrations ranged from not detectable at or above the 0.05 µg/L MDL and were below the 30 µg/L WQCC groundwater standard.

6.4 GROUNDWATER MONITORING WELL MW-8

Groundwater monitoring well MW-8 was sampled on March 31 and May 12, 2005; however, PSH precluded sampling during the August 22 and November 14 sampling events. Benzene concentrations ranged from 737 µg/L to 915 µg/L and were in excess of the 10 µg/L WQCC groundwater standard. Toluene concentrations ranged from 59.6 µg/L to 87.8 µg/L and were below the 750 µg/L WQCC groundwater standard. Ethylbenzene concentrations ranged from 4.08 µg/L to 29.8 µg/L and were below the 750 µg/L WQCC groundwater standard. Total xylene concentrations ranged from 31.5 µg/L to 31.7 µg/L and were below the 620 µg/L WQCC groundwater standard (reference *Figure 11*). PAH compounds were non-detectable above the 0.05 µg/L MDL and were below the 30 µg/L WQCC groundwater standard.

6.5 GROUNDWATER MONITORING WELL MW-9

Benzene concentrations ranged from 10.8 µg/L to 24.0 µg/L and were in excess of the 10 µg/L WQCC groundwater standard. Toluene and ethylbenzene were non-detectable at or above the 1.0 µg/L MDL and were below the 750 µg/L WQCC groundwater standards. Total xylene concentrations ranged from 2.01 µg/L to 7.07 µg/L and were below the 620 µg/L WQCC groundwater standard (reference *Figure 12*). PAH compounds were non-detectable at or above the 0.05 µg/L MDL and were below the 30 µg/L WQCC groundwater standard.

6.6 GROUNDWATER MONITORING WELL MW-10

Benzene concentrations ranged from 1.28 µg/L to 8.09 µg/L and were below the 10 µg/L WQCC groundwater standard. Toluene and ethylbenzene were non-detectable at or above the 1.0 µg/L MDL and were below the 750 µg/L WQCC groundwater standards. Total xylene concentrations ranged from non-detectable at or above the 1.0 µg/L MDL to 24.7 µg/L and were below the 620 µg/L WQCC groundwater standard (reference *Figure 13*). PAH compounds ranged from non-detectable at or above the 0.05 µg/L MDL to 0.068 µg/L and were below the 30 µg/L WQCC groundwater standard.

7.0 STATUS AND RECOMMENDATIONS

The current array of monitoring wells has not completely defined the areal extent of the PSH on the groundwater to the west or the areal distribution of the dissolved phase hydrocarbon impact. Installation of up to six additional perimeter monitoring wells is proposed to bound the areal extents of the PSH impact and the dissolved phase hydrocarbon plume (reference *Figure 26*). Plains is currently awaiting approval of the Stage I and Stage II Abatement Plan developed in accordance with NMAC 19.15.1.19 (Rule 19) and submitted to the NMOCD for approval in October 2005. The Abatement Plan formalizes site soil and groundwater delineation and remediation. Below are the recommended actions for 2006:

1. Implement the Stage I and Stage II Abatement Plan upon approval by the NMOCD.
2. Install and survey up to six additional perimeter monitor wells to delineate the areal extents of the dissolved phase hydrocarbon plume.
3. Continue to document weekly site surveillance, maintenance of the facilities, management of recovered fluids, and collect monthly stabilized groundwater and PSH levels.
4. Collect and analyze samples from groundwater monitoring wells not impacted by PSH for the BTEX parameters on a quarterly basis.
5. Collect and analyze samples for the PAH suite of parameters at least annually.

FIGURES

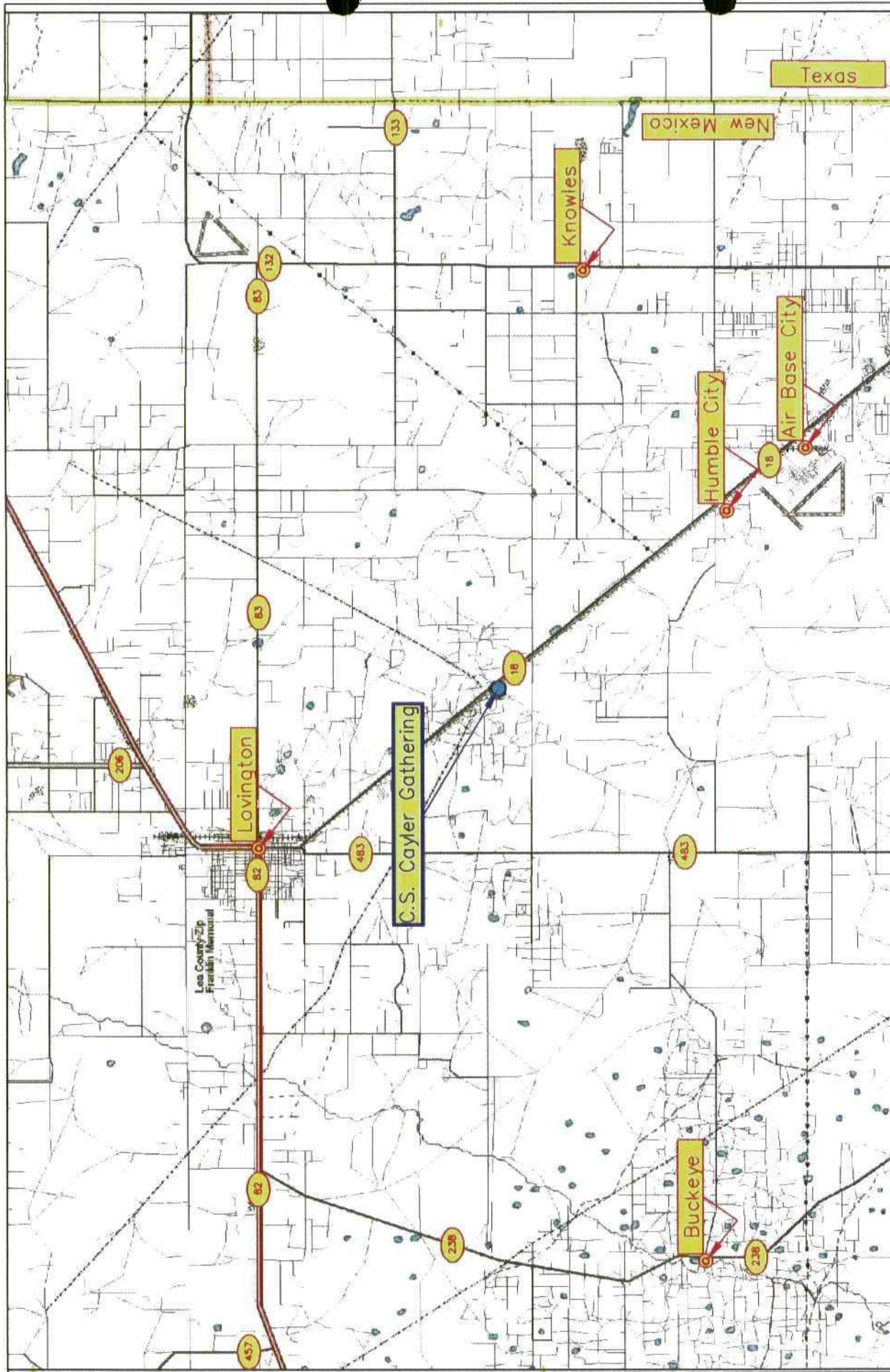


Figure 1 Area Map Plains Marketing, L. P. C. S. Caylor 2002-10250	Lea County, New Mexico NW 1/4 of the NE 1/4, Sec. 6, T17S, R37E N 32° 52' 02.45" W 103° 17' 17.70" Elevation: 3,805 feet amsl		DWG By: Daniel Dominguez February 2006	REVISED:	6 SHEET 1 of 1
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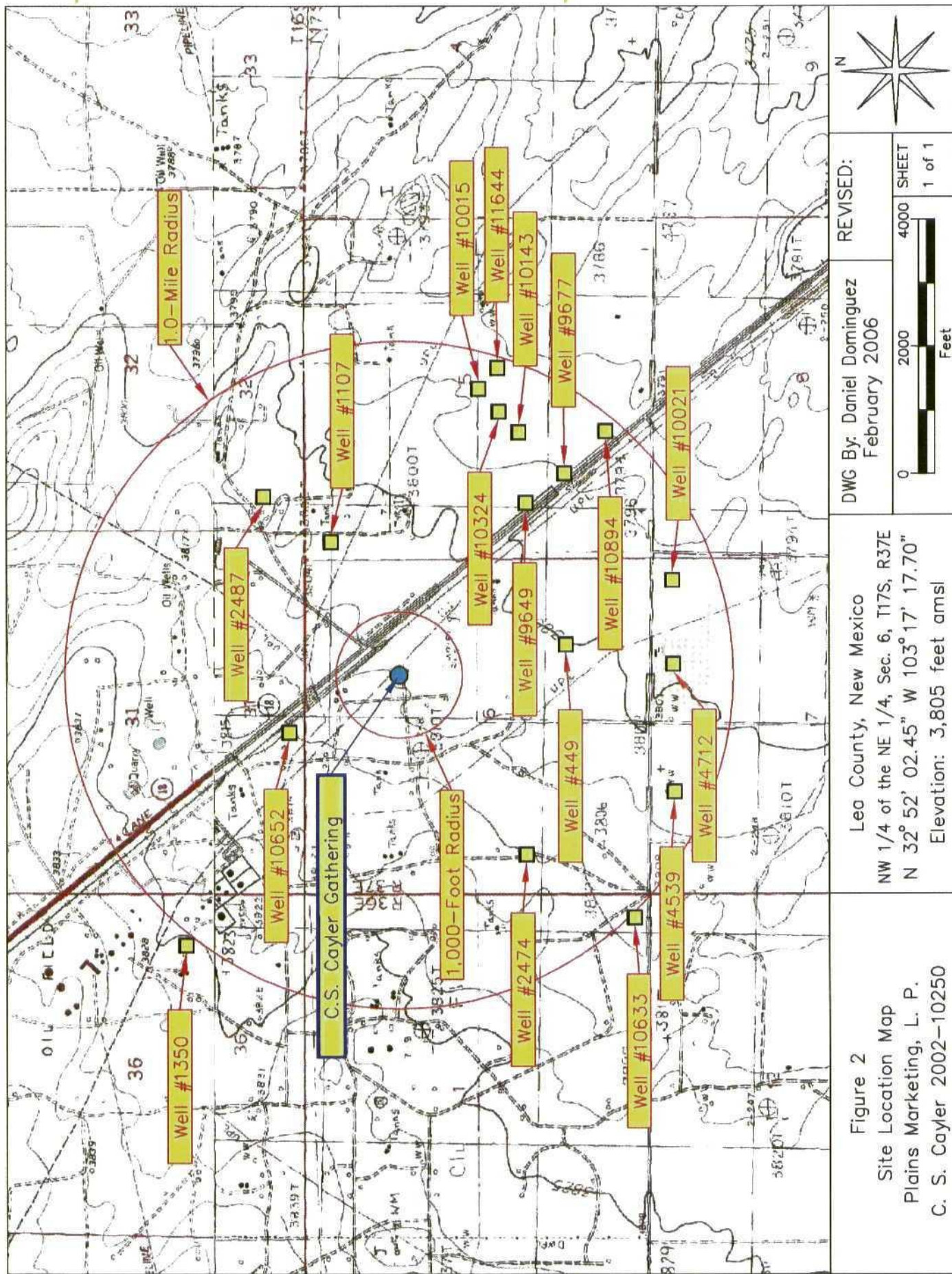


Figure 2
Site Location Map
Plains Marketing, L. P.
C. S. Caylor 2002-10250

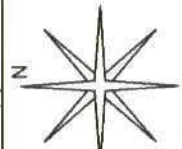
Lea County, New Mexico
NW 1/4 of the NE 1/4, Sec. 6, T17S, R37E
N 32° 52' 02.45" W 103° 17' 17.70"
Elevation: 3,805 feet amsl

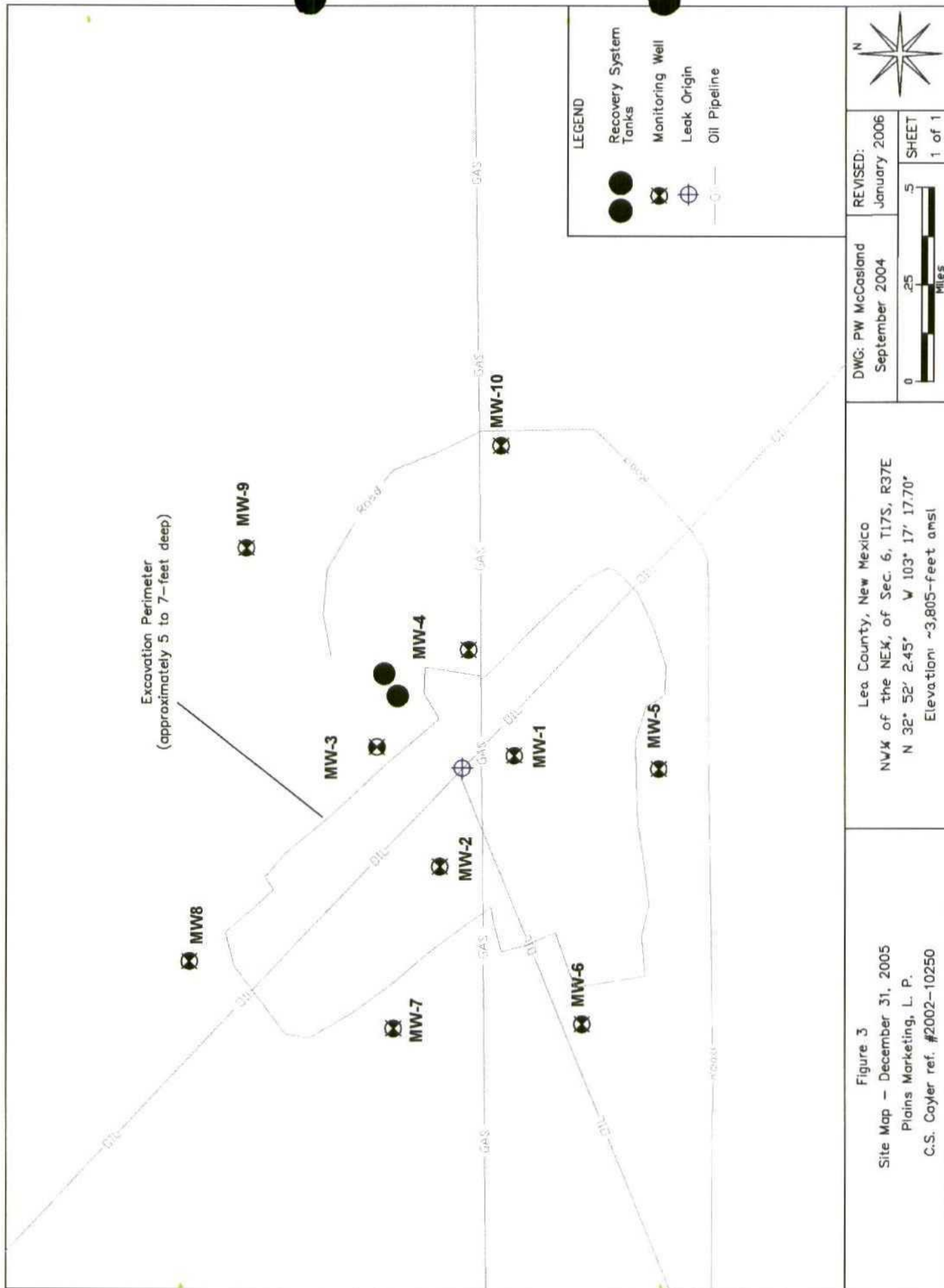
DWG By: Daniel Dominguez
February 2006

REVISED:

0 2000 4000 Feet

SHEET 1 of 1





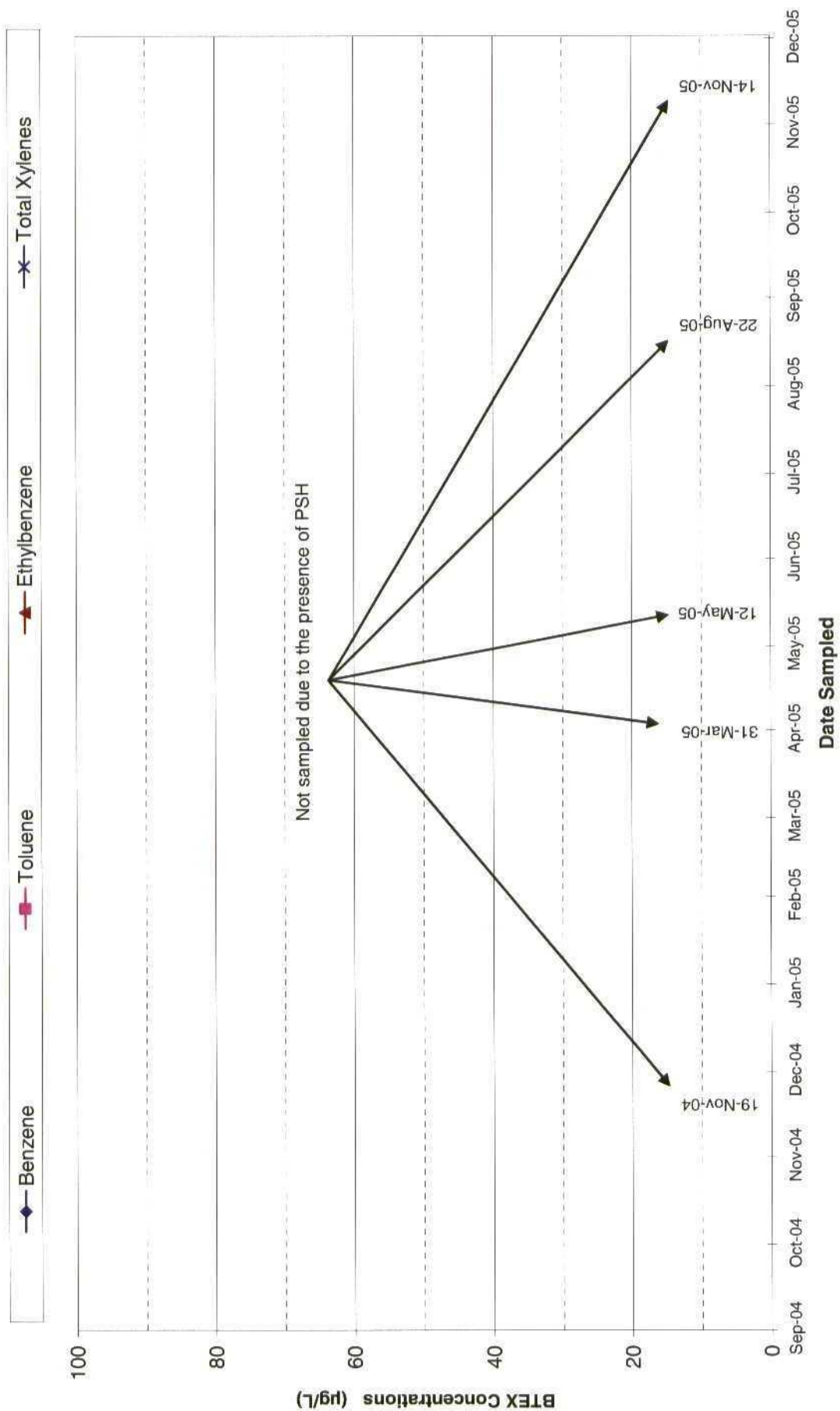


Figure 4: BTEX Concentrations in Groundwater Monitoring Well MW-1, from 9-22-04 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

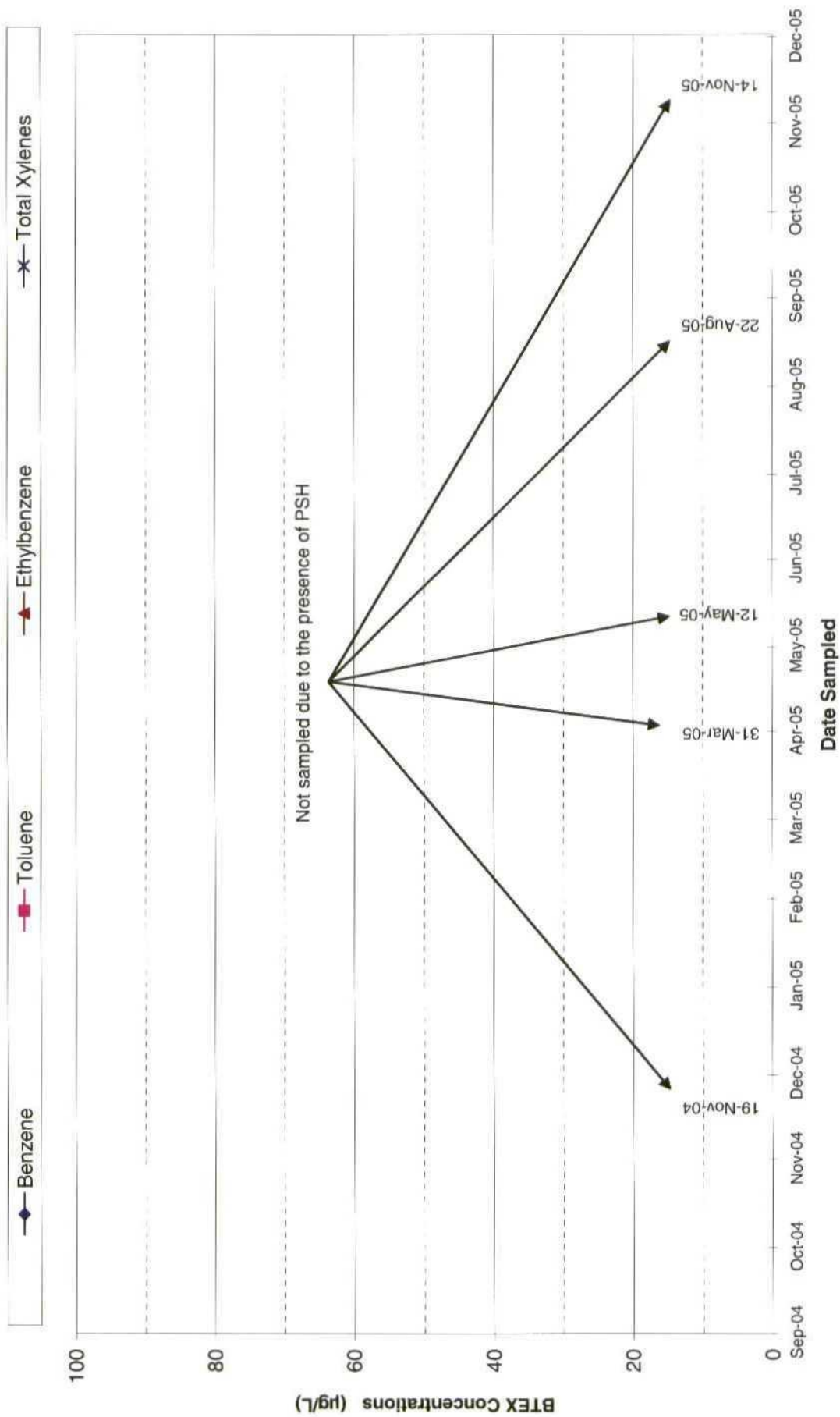


Figure 5: BTEX Concentrations in Groundwater Monitoring Well MW-2, from 9-22-04 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

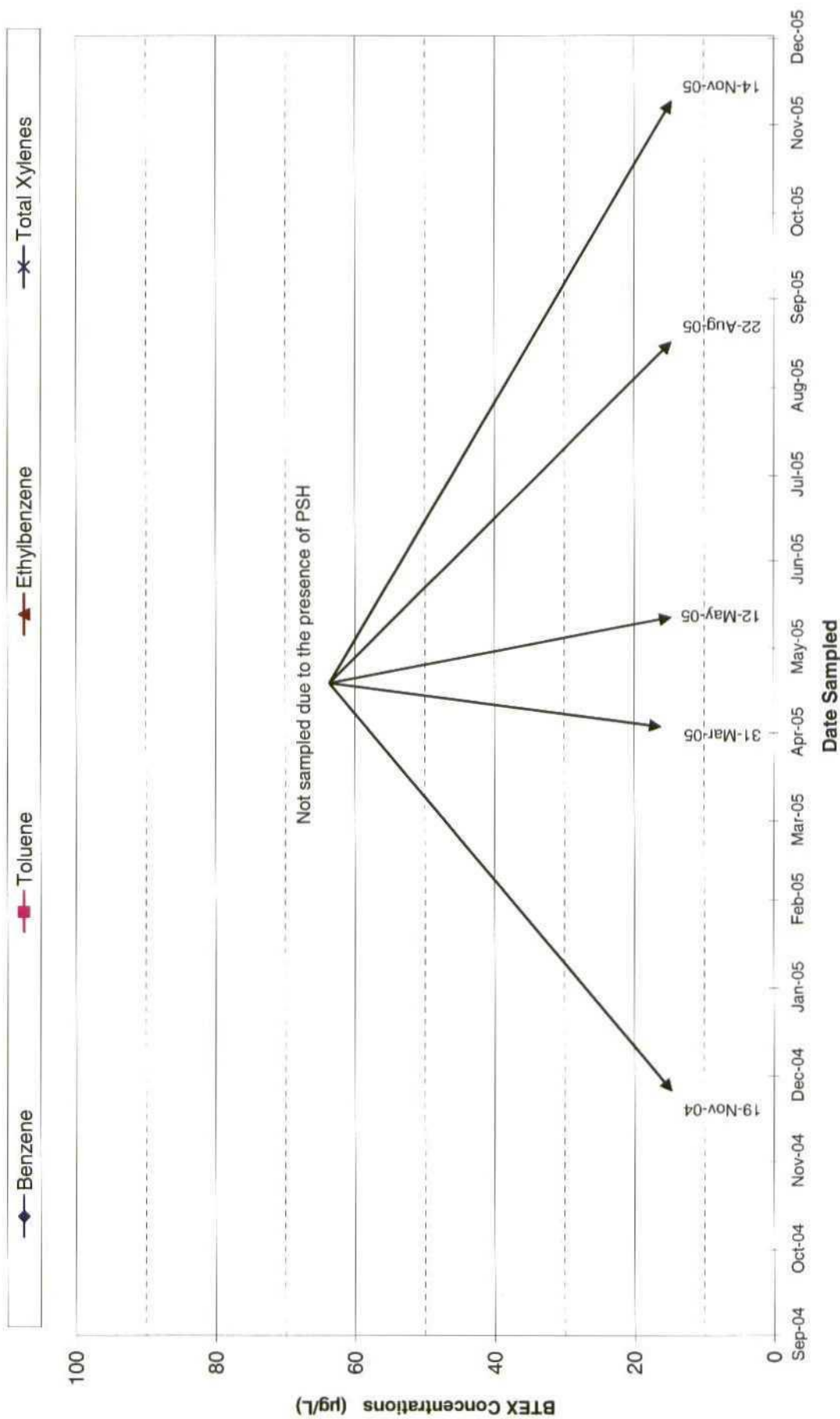


Figure 6: BTEX Concentrations in Groundwater Monitoring Well MW-3, from 9-22-04 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

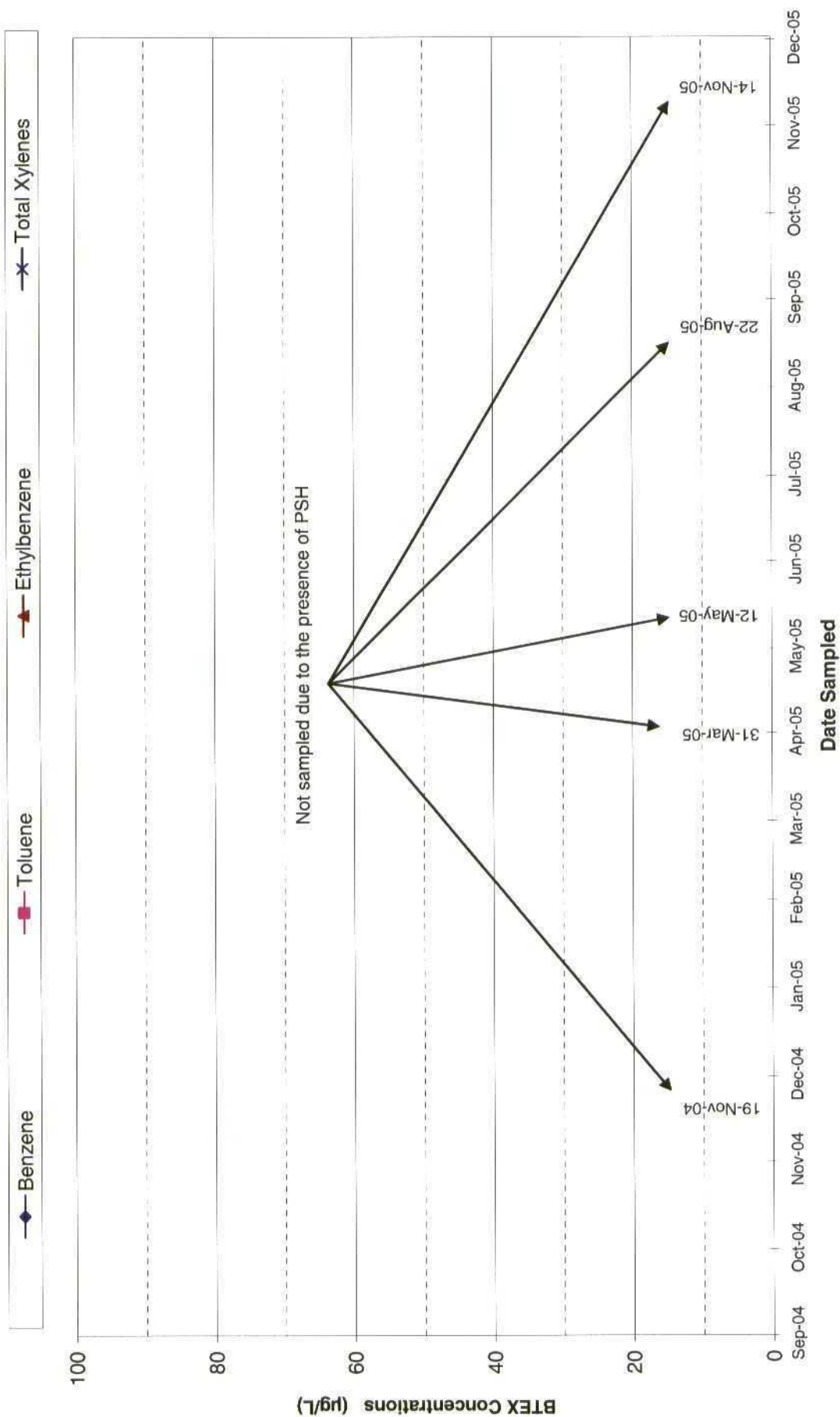


Figure 7: BTEX Concentrations in Groundwater Monitoring Well MW-4, from 9-22-04 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

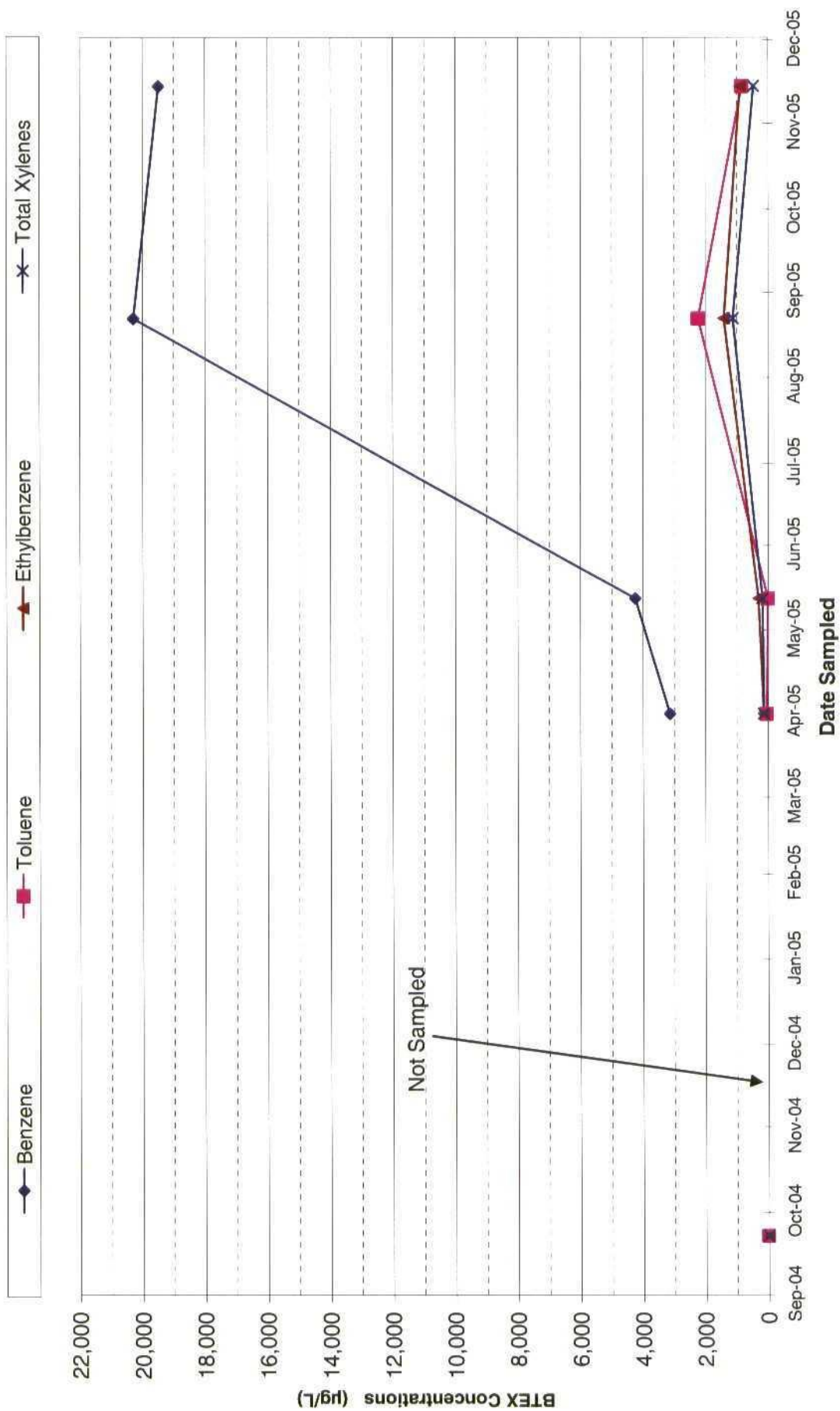


Figure 8: BTEX Concentrations in Groundwater Monitoring Well MW-5, from 9-22-04 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

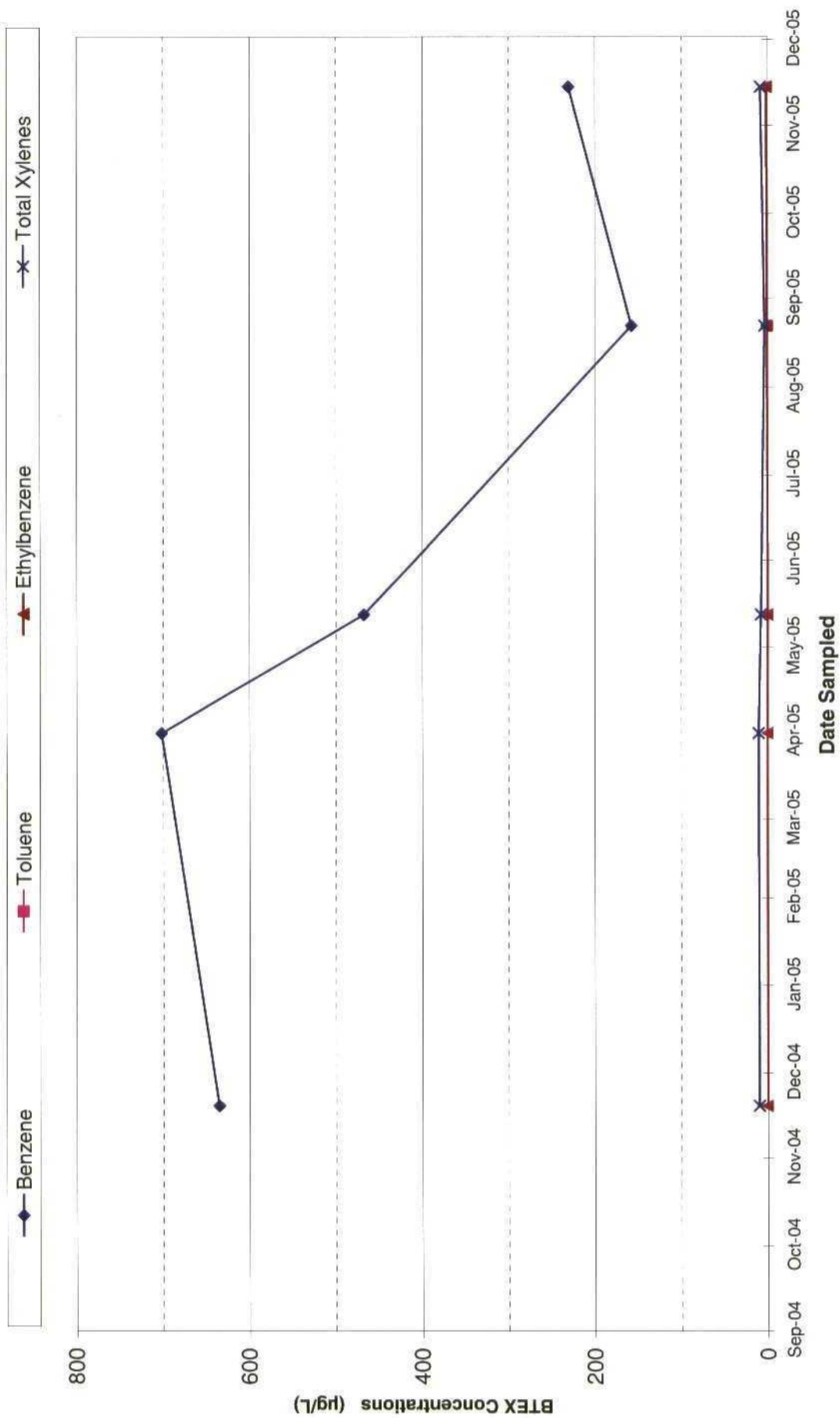


Figure 9: BTEX Concentrations in Groundwater Monitoring Well MW-6, from 9-22-04 to 12-31-05, Plains Marketing, L.P., C.S. Caylor (ref. #2002-10250), Lea County, New Mexico.

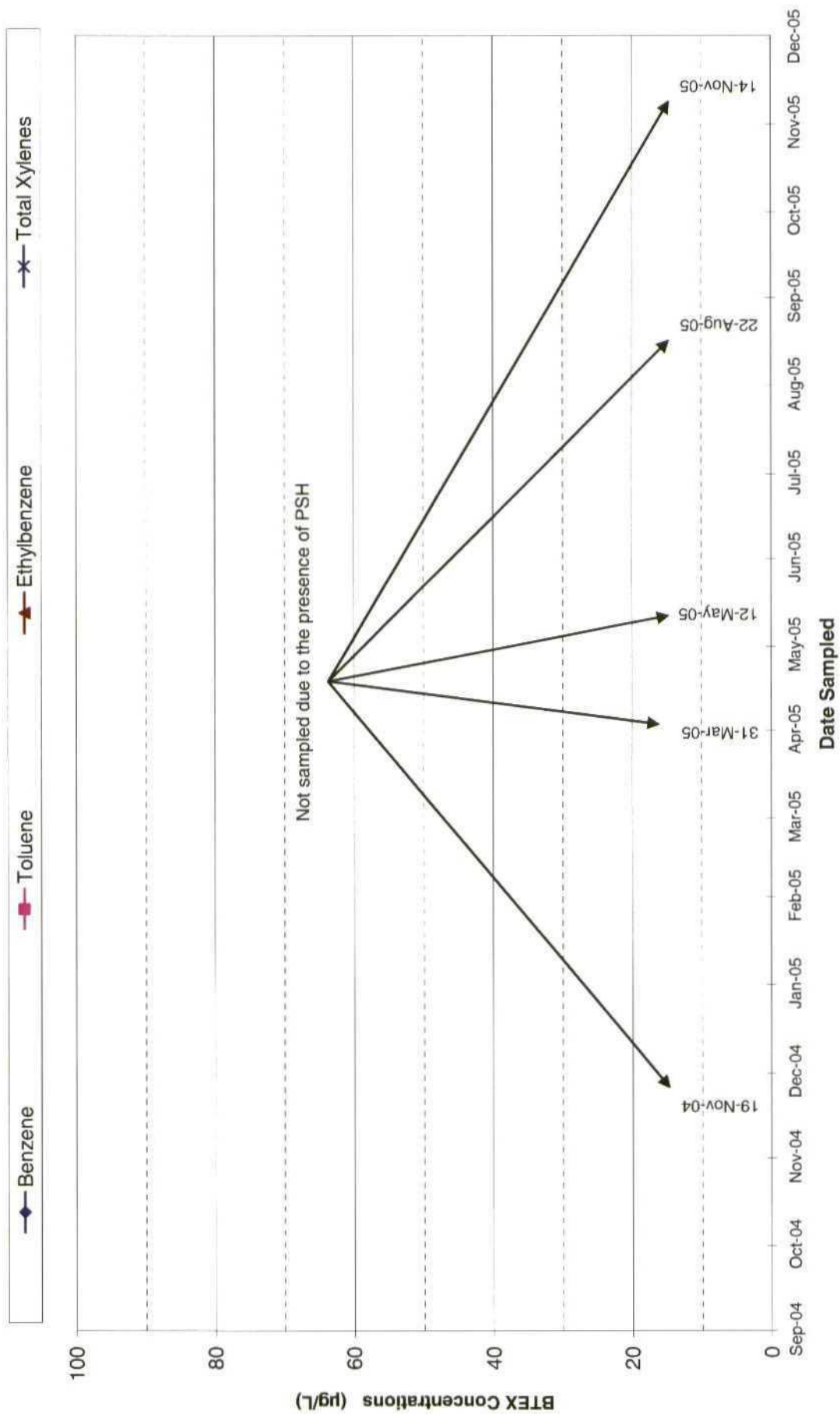


Figure 10: BTEX Concentrations in Groundwater Monitoring Well MW-7, from 9-22-04 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

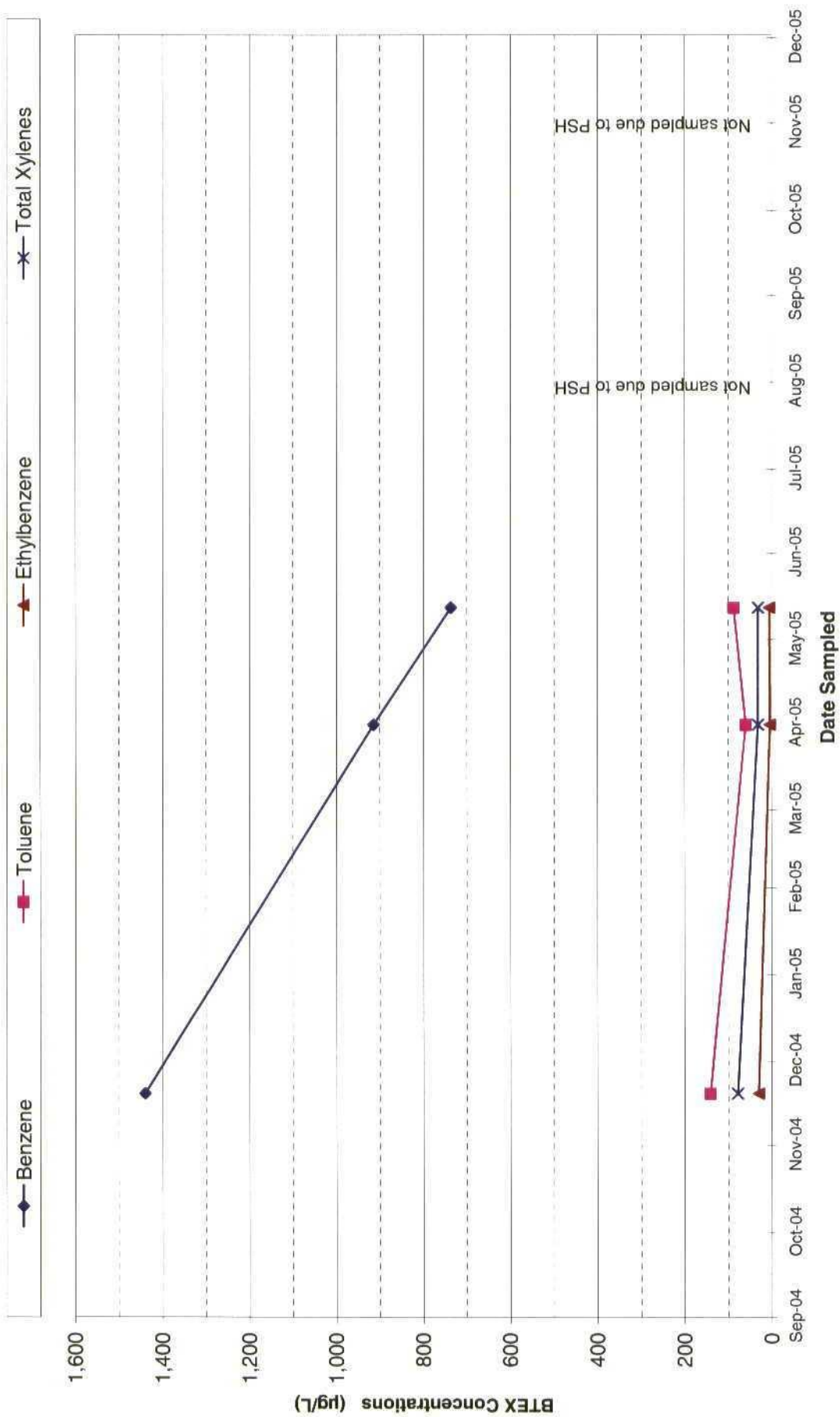


Figure 11: BTEX Concentrations in Groundwater Monitoring Well MW-8, from 9-22-04 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

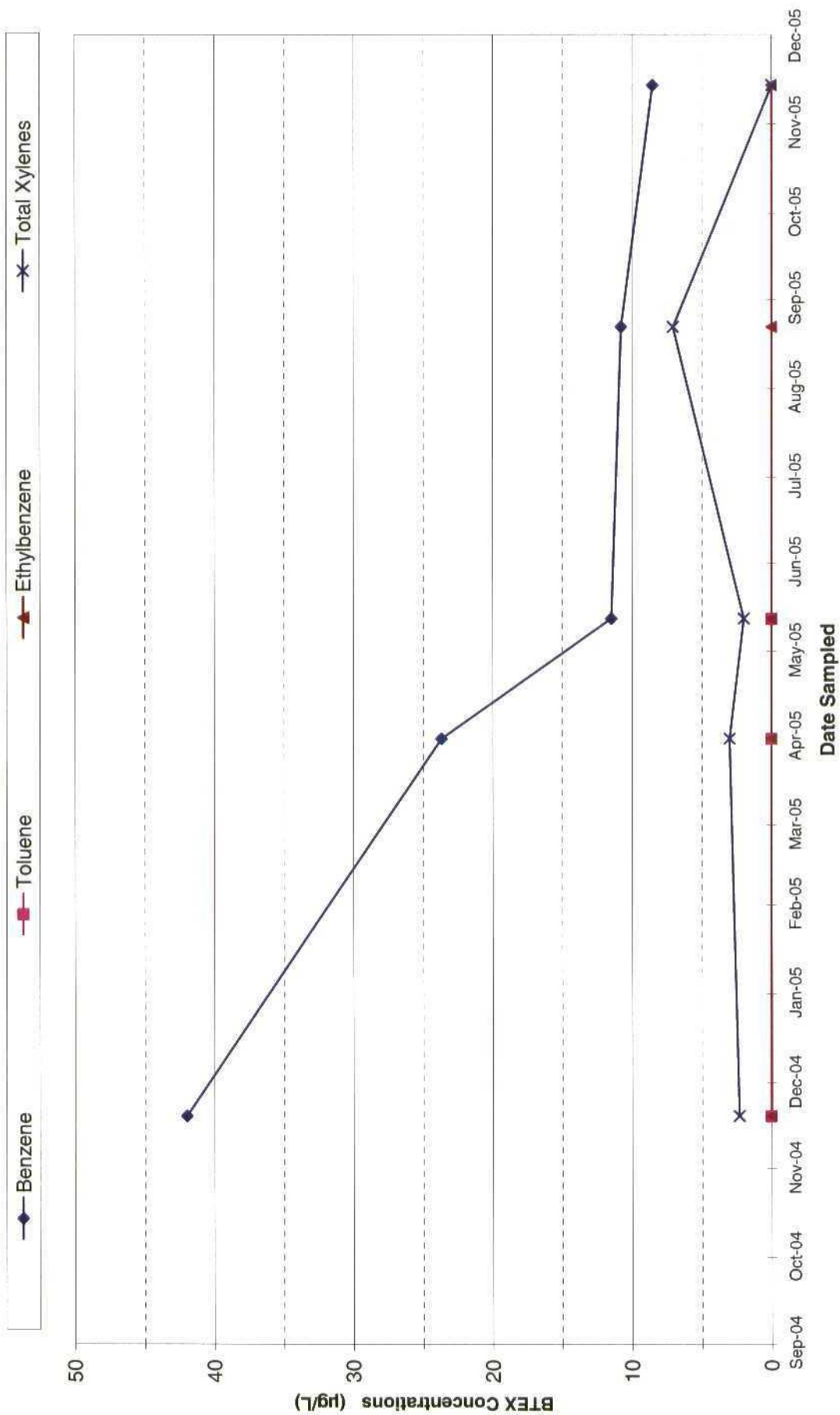


Figure 12: BTEX Concentrations in Groundwater Monitoring Well MW-9, from 9-22-04 to 12-31-05, Plains Marketing, L.P., C.S. Caylor (ref. #2002-10250), Lea County, New Mexico.

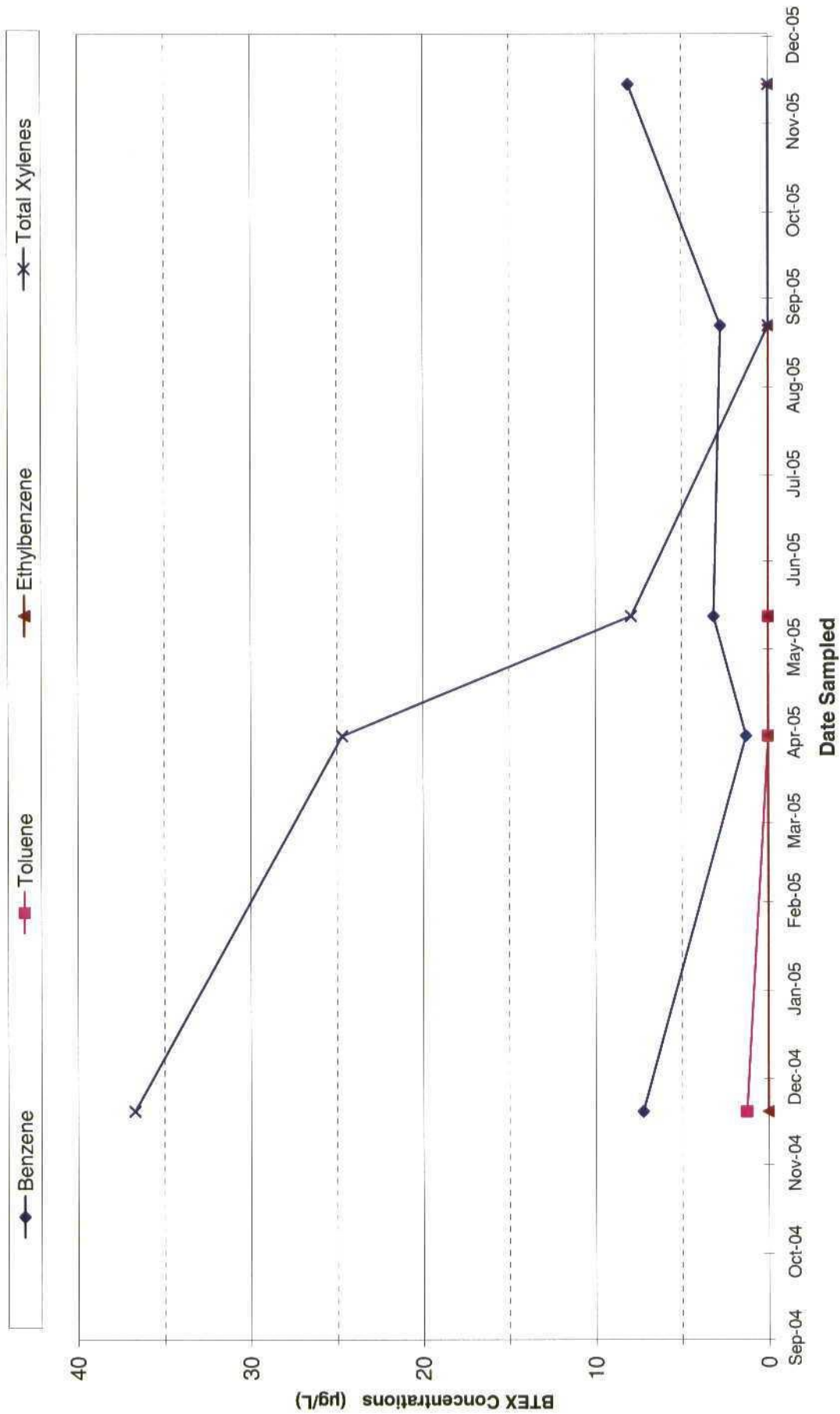


Figure 13: BTEX Concentrations in Groundwater Monitoring Well MW-10, from 9-22-04 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

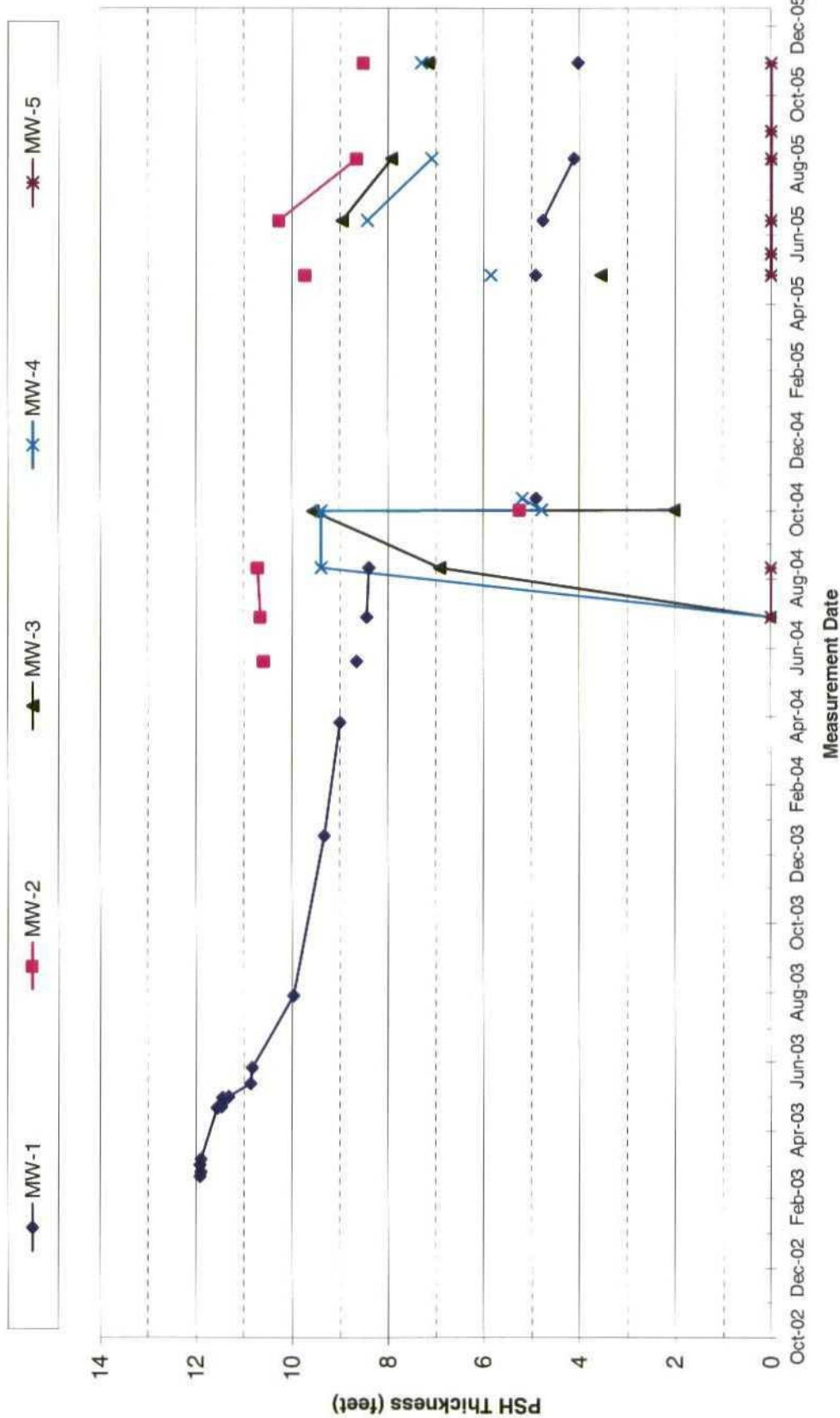


Figure 14: PSH Thickness in Groundwater Monitoring Wells MW-1 through MW-5, from 10-17-02 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

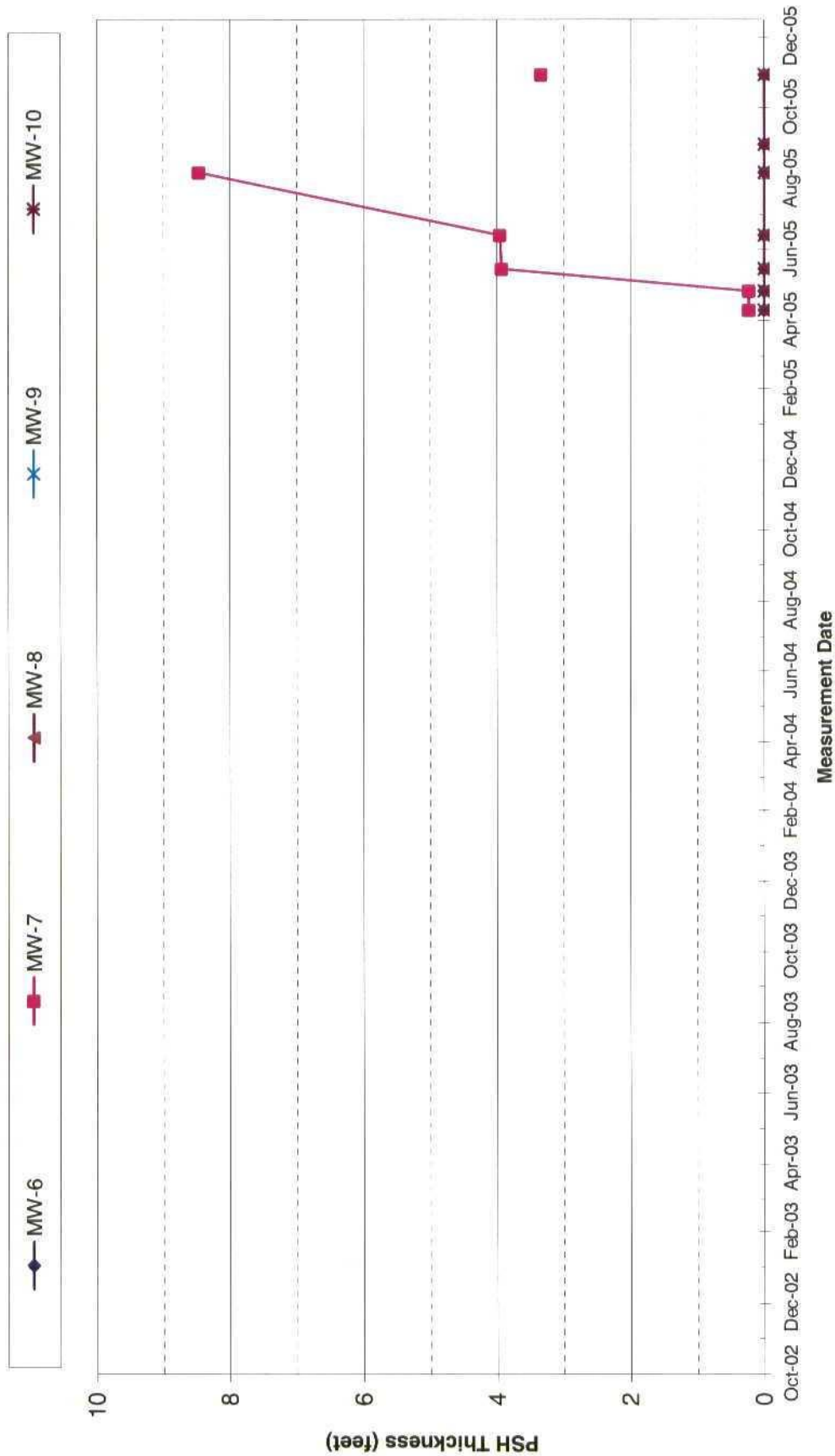


Figure 15: PSH Thickness in Groundwater Monitoring Wells MW-6 through MW-10, from 10-17-02 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

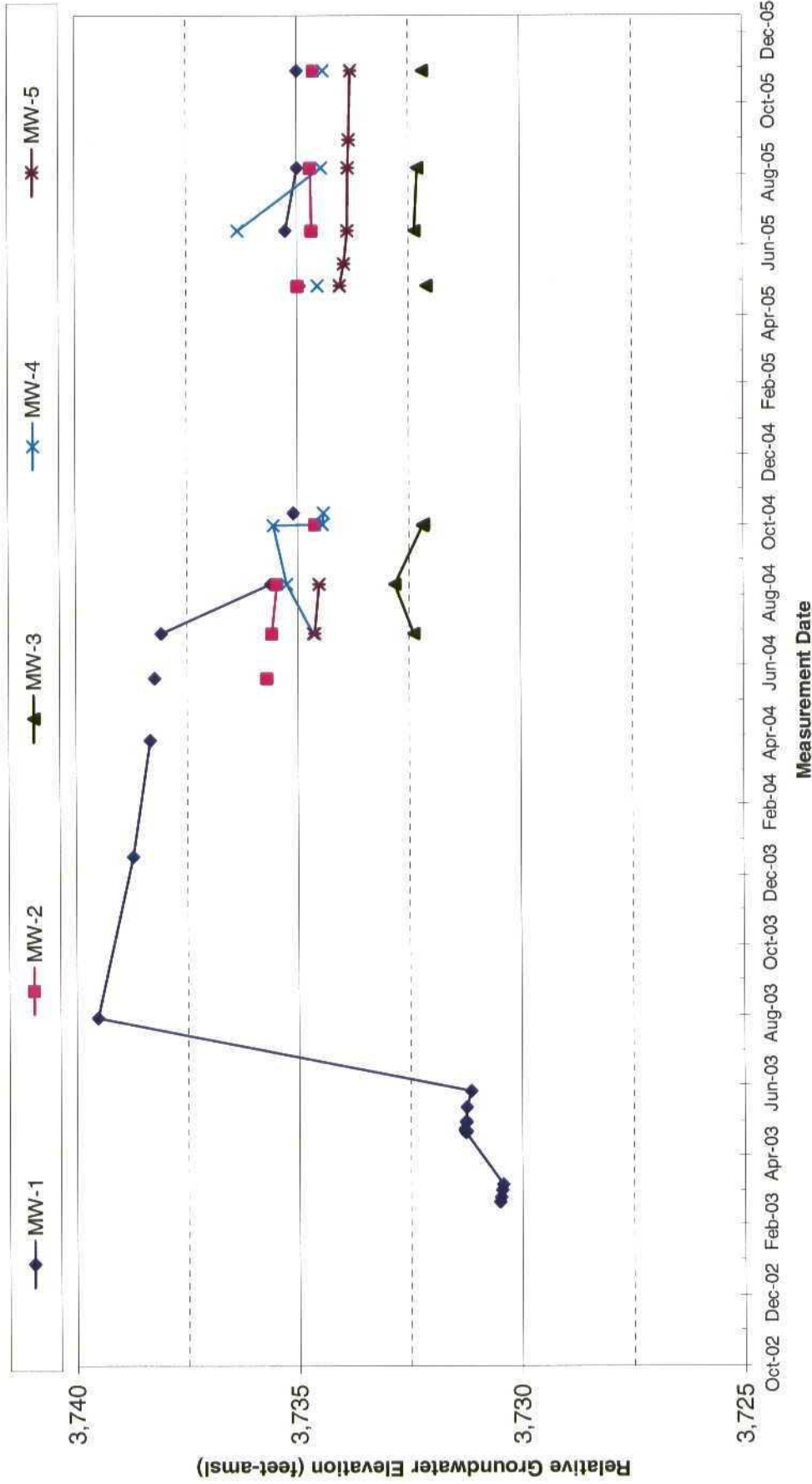


Figure 16: Hydrograph for Groundwater Monitoring Wells MW-1 through MW-5, from 10-17-02 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

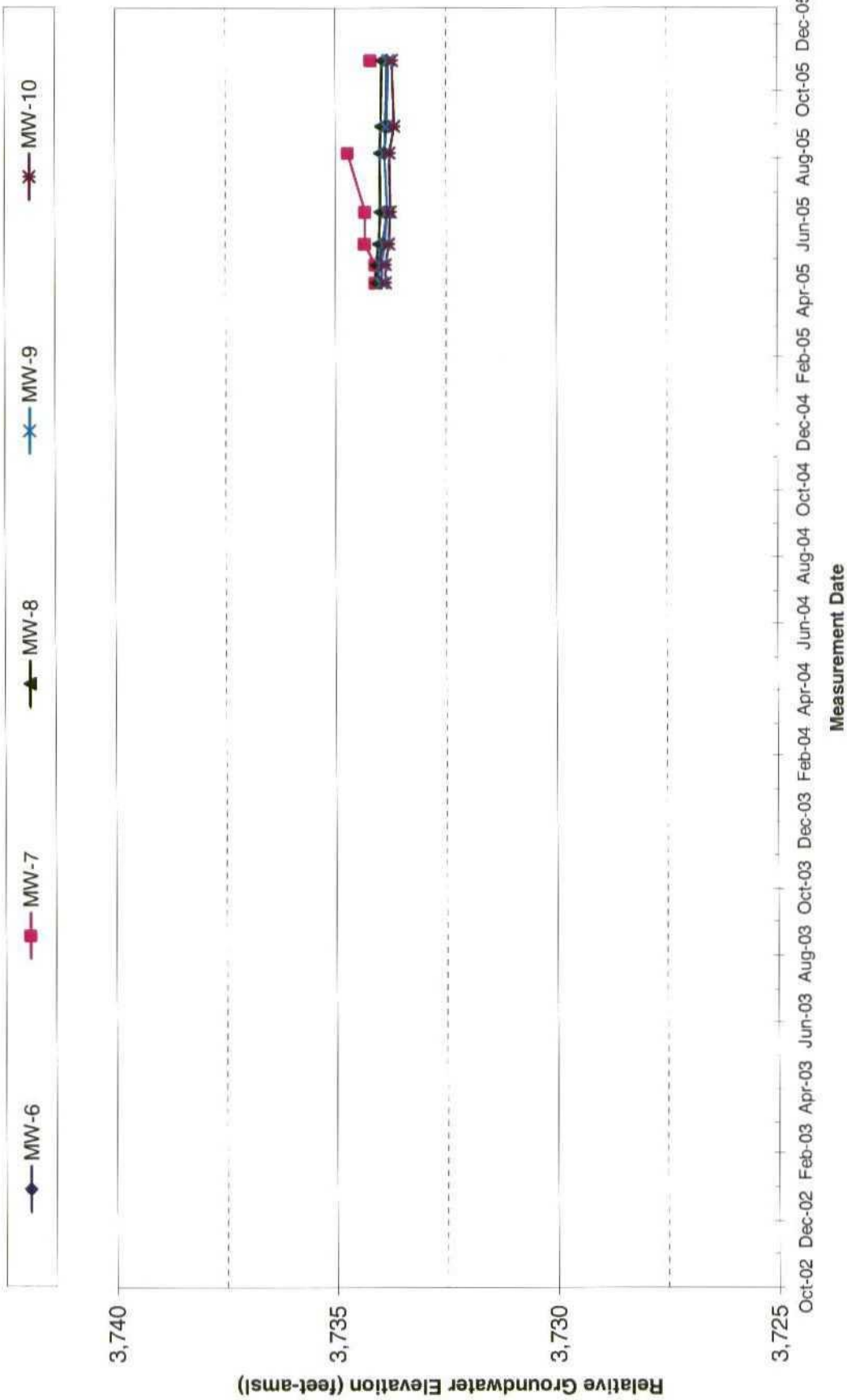
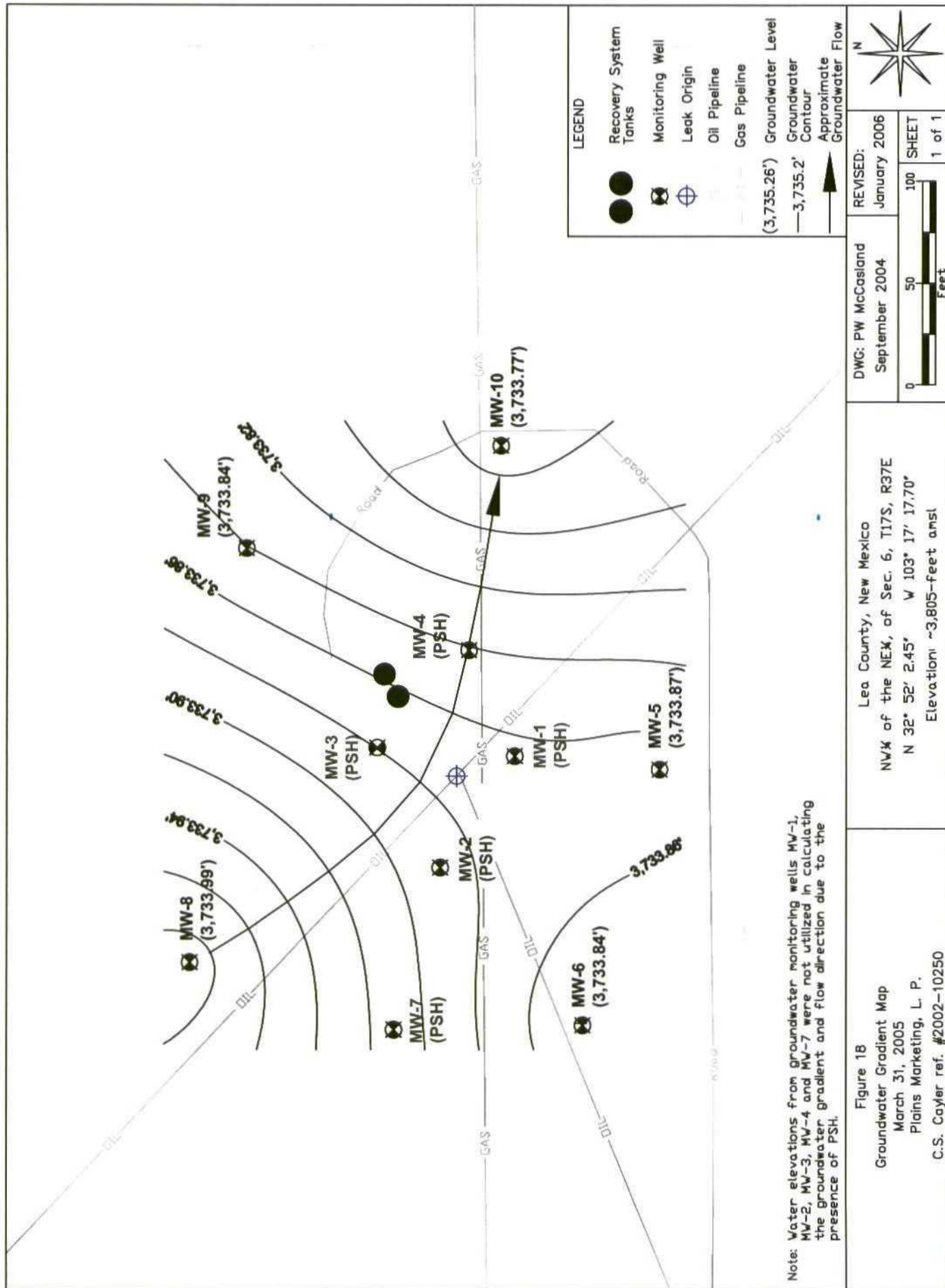
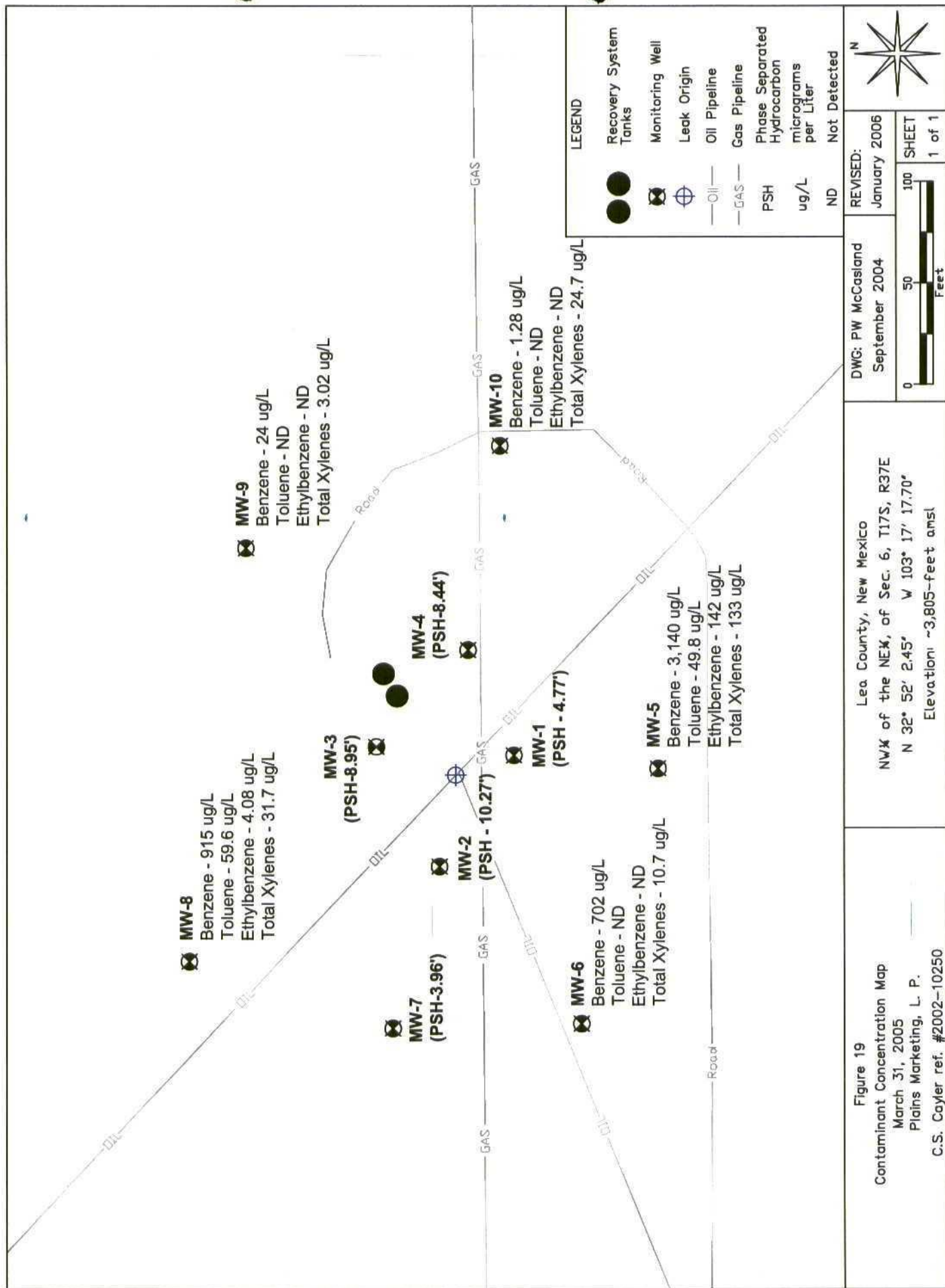
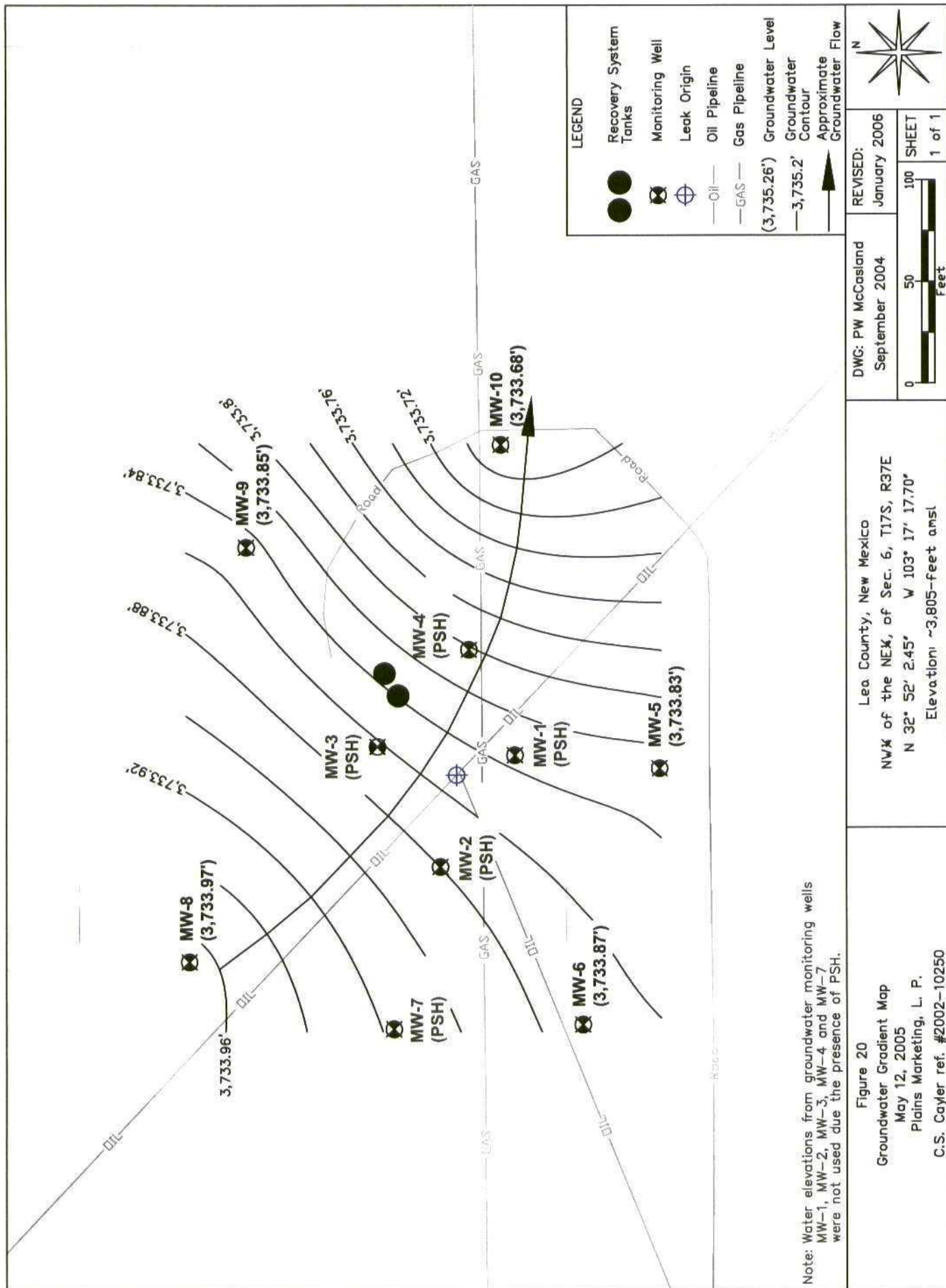
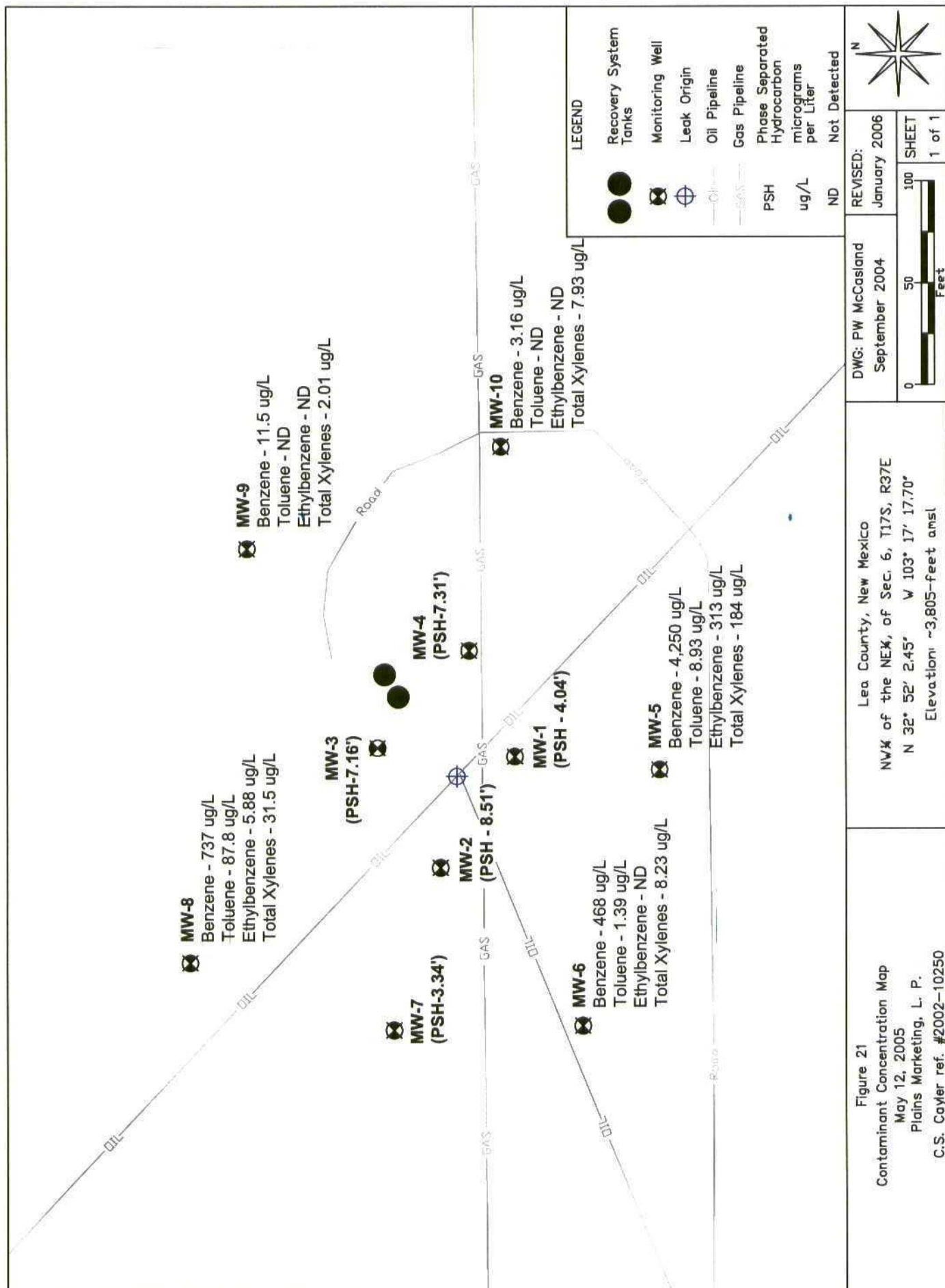


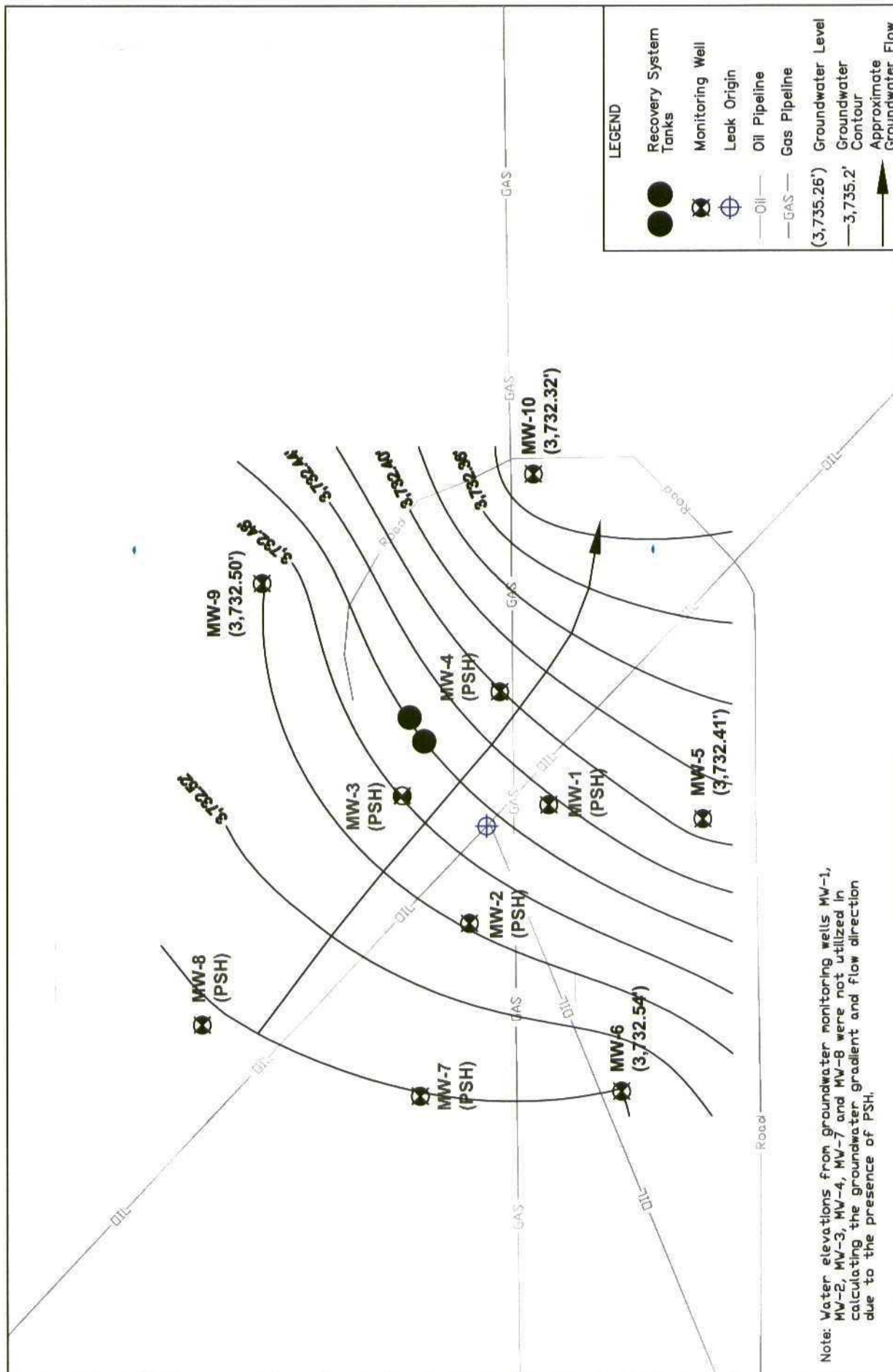
Figure 17: Hydrograph for Groundwater Monitoring Wells MW-6 through MW-10, from 10-17-02 to 12-31-05, Plains Marketing, L.P., C.S. Cayler (ref. #2002-10250), Lea County, New Mexico.

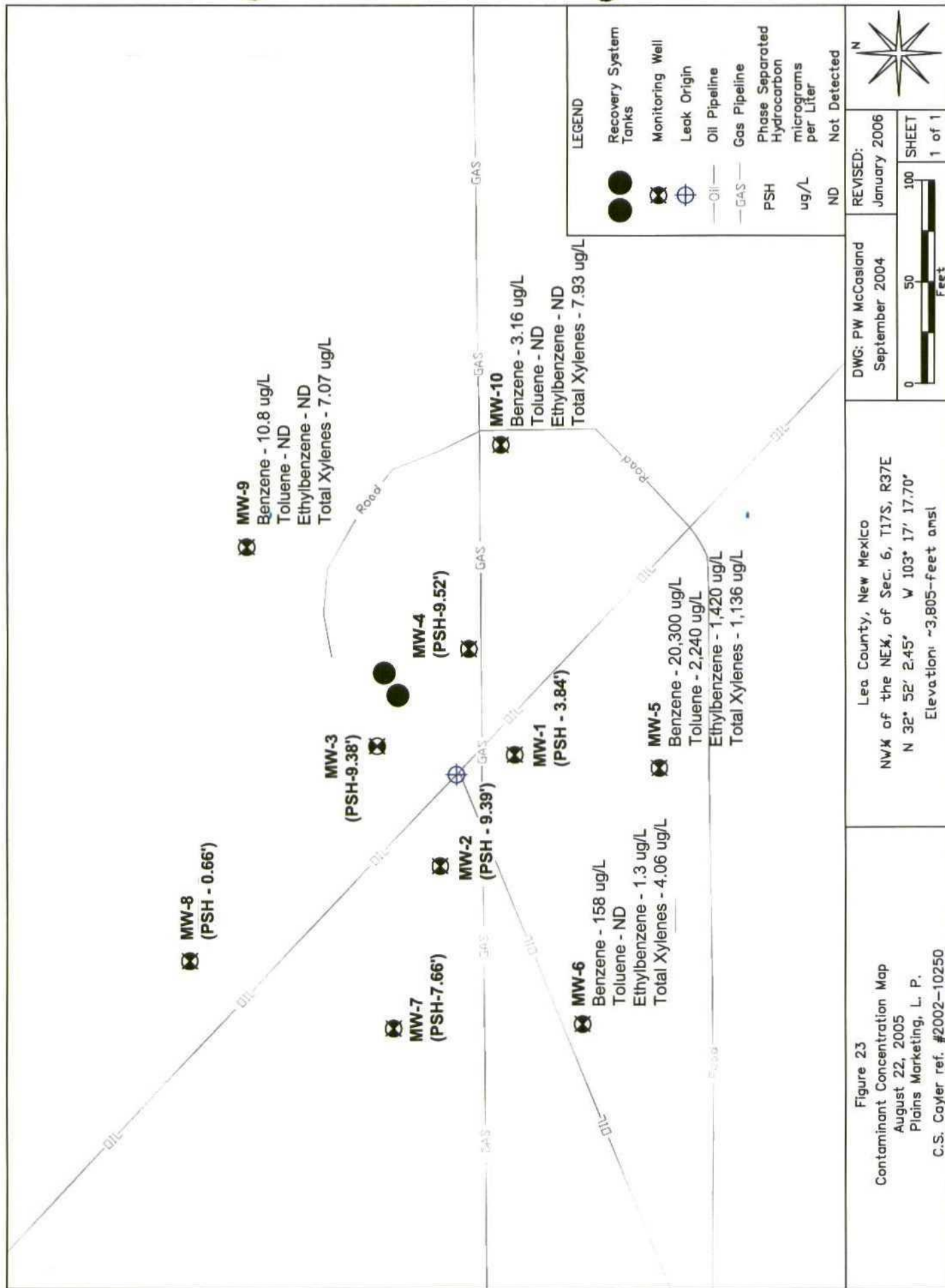


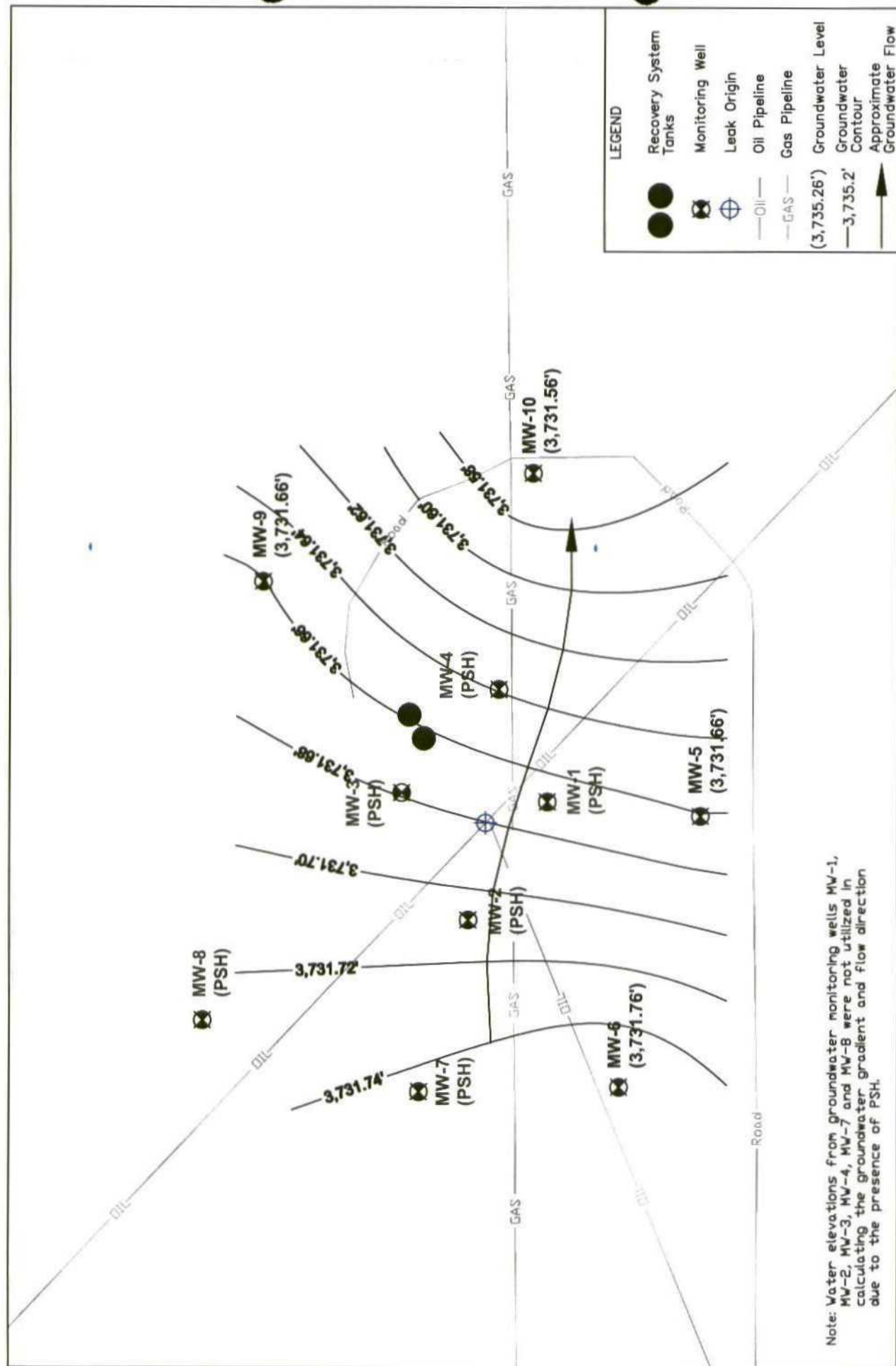


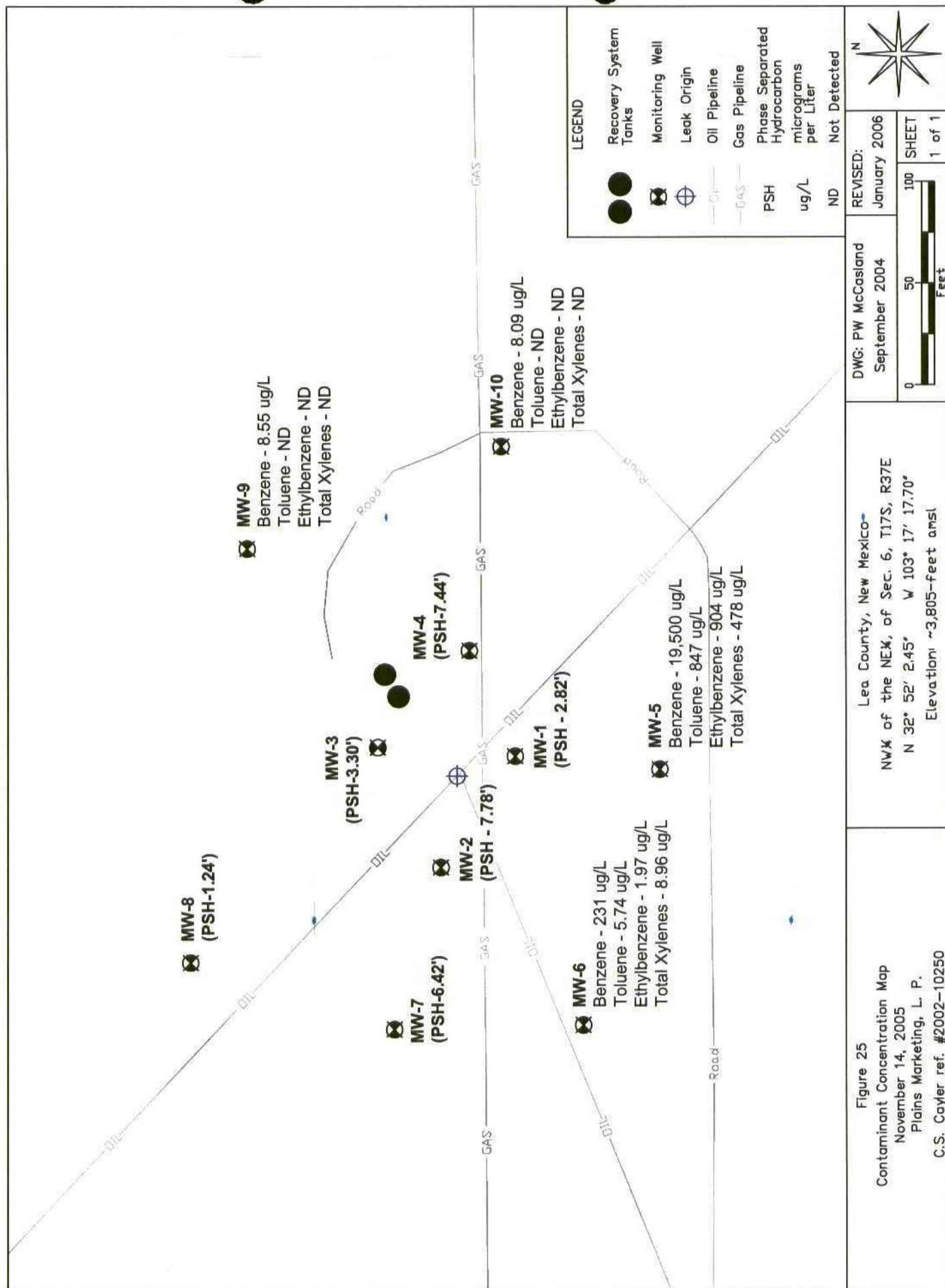












TABLES

Table 1
Plains Marketing, L.P.
C. S. Cayler - Ref. #2002-10250
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses

Monitoring Well#	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-1	17-Oct-02	WELL INSTALLED 17-Oct-02				
	07-Mar-03	3,803.97	72.28	84.20	3,730.50	11.92
	11-Mar-03		72.30	84.19	3,730.48	11.89
	17-Mar-03		72.33	84.25	3,730.45	11.92
	22-Mar-03		72.35	84.24	3,730.43	11.89
	06-May-03		71.55	83.11	3,731.26	11.56
	07-May-03		71.58	83.05	3,731.24	11.47
	08-May-03		71.55	83.03	3,731.27	11.48
	09-May-03		71.53	83.00	3,731.29	11.47
	15-May-03		71.57	83.01	3,731.26	11.44
	16-May-03		71.59	82.90	3,731.25	11.31
	28-May-03		71.65	82.50	3,731.24	10.85
	11-Jun-03		71.75	82.57	3,731.14	10.82
	14-Aug-03		63.45	73.41	3,739.52	9.96
	02-Jan-04		64.31	73.63	3,738.73	9.32
	12-Apr-04		64.74	73.74	3,738.33	9.00
	28-May-04					
	31-May-04					
	01-Jun-04		64.87	73.52	3,738.24	8.65
	05-Jun-04					
	21-Jun-04		65.04	73.49	3,738.09	8.45
	14-Jul-04		67.52	75.92	3,735.61	8.40
	26-Aug-04					
	16-Oct-04					
	17-Oct-04		68.38	73.28	3,735.10	4.90
	19-Oct-04					
	20-Oct-04					
	21-Oct-04					
	27-Oct-04					
	29-Oct-04		68.53	73.45	3,734.95	4.92
	19-Nov-04					
	31-Mar-05		68.23	73.00	3,735.26	4.77
	25-Apr-05		68.56	72.68	3,735.00	4.12
	12-May-05					
	31-May-05		68.57	72.61	3,735.00	4.04
	29-Jun-05		68.88	73.72	3,734.61	4.84
	22-Aug-05					
	15-Sep-05		69.79	73.63	3,733.80	3.84
	14-Nov-05		70.44	73.26	3,733.25	2.82
MW-2	17-Oct-02					
	07-Mar-03					
	11-Mar-03					
	17-Mar-03					
	22-Mar-03					
	06-May-03					
	07-May-03					
	08-May-03					
	09-May-03					
	15-May-03					
	16-May-03					
	28-May-03					
	11-Jun-03					
	14-Aug-03					
	02-Jan-04					
	12-Apr-04					
	28-May-04	WELL INSTALLED 28-May-04				
	31-May-04					
	01-Jun-04	3,803.93	67.17	77.76	3,735.70	10.59
	05-Jun-04					

Table 1
Plains Marketing, L.P.
C. S. Cayler - Ref. #2002-10250
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses

Monitoring Well#	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-2 (cont.)	21-Jun-04		67.27	77.93	3,735.59	10.66
	14-Jul-04		67.38	78.09	3,735.48	10.71
	26-Aug-04					
	16-Oct-04		68.79	74.04	3,734.62	5.25
	17-Oct-04					
	19-Oct-04					
	20-Oct-04					
	21-Oct-04					
	27-Oct-04					
	29-Oct-04		67.97	77.70	3,734.99	9.73
	19-Nov-04					
	31-Mar-05		68.23	78.50	3,734.67	10.27
	25-Apr-05		68.37	77.03	3,734.69	8.66
	12-May-05					
	31-May-05		68.46	76.97	3,734.62	8.51
	29-Jun-05		69.09	76.12	3,734.14	7.03
	22-Aug-05					
	15-Sep-05		69.75	79.14	3,733.24	9.39
	14-Nov-05		70.66	78.44	3,732.49	7.78
MW-3	17-Oct-02					
	07-Mar-03					
	11-Mar-03					
	17-Mar-03					
	22-Mar-03					
	06-May-03					
	07-May-03					
	08-May-03					
	09-May-03					
	15-May-03					
	16-May-03					
	28-May-03					
	11-Jun-03					
	14-Aug-03					
	02-Jan-04					
	12-Apr-04					
	28-May-04					
	31-May-04	WELL INSTALLED 31-May-04				
	01-Jun-04					
	05-Jun-04					
	21-Jun-04	3,807.90	75.51	75.51	3,732.39	ND
	14-Jul-04		74.39	81.31	3,732.82	6.92
	26-Aug-04		74.75	84.31	3,732.19	9.56
	16-Oct-04		75.53	77.55	3,732.17	2.02
	17-Oct-04					
	19-Oct-04					
	20-Oct-04					
	21-Oct-04					
	27-Oct-04					
	29-Oct-04		75.45	79.00	3,732.10	3.55
	19-Nov-04					
	31-Mar-05		74.65	83.60	3,732.36	8.95
	25-Apr-05		74.81	82.74	3,732.30	7.93
	12-May-05					
	31-May-05		75.00	82.16	3,732.18	7.16
	29-Jun-05		75.83	80.44	3,731.61	4.61
	22-Aug-05					
	15-Sep-05		76.09	85.47	3,730.87	9.38
	14-Nov-05		77.81	81.11	3,729.76	3.30

Table 1
Plains Marketing, L.P.
C. S. Cayler - Ref. #2002-10250
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses

Monitoring Well#	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-4	17-Oct-02					
	07-Mar-03					
	11-Mar-03					
	17-Mar-03					
	22-Mar-03					
	06-May-03					
	07-May-03					
	08-May-03					
	09-May-03					
	15-May-03					
	16-May-03					
	28-May-03					
	11-Jun-03					
	14-Aug-03					
	02-Jan-04					
	12-Apr-04					
	28-May-04					
	31-May-04					
	01-Jun-04	WELL INSTALLED 01-Jun-04				
	05-Jun-04					
	21-Jun-04	3,810.70	76.04	76.04	3,734.66	ND
	14-Jul-04		74.51	83.91	3,735.25	9.40
	26-Aug-04		74.21	83.61	3,735.55	9.40
	16-Oct-04		75.77	80.56	3,734.45	4.79
	17-Oct-04		75.76	80.96	3,734.42	5.20
	19-Oct-04					
	20-Oct-04					
	21-Oct-04					
	27-Oct-04					
	29-Oct-04		75.56	81.42	3,734.55	5.86
	19-Nov-04					
	31-Mar-05		73.51	81.95	3,736.35	8.44
	25-Apr-05		75.53	82.62	3,734.46	7.09
	12-May-05					
	31-May-05		75.55	82.86	3,734.42	7.31
	29-Jun-05		75.96	83.51	3,733.99	7.55
	22-Aug-05					
	15-Sep-05		76.71	86.23	3,733.04	9.52
	14-Nov-05		77.64	85.38	3,732.29	7.74
MW-5	17-Oct-02					
	07-Mar-03					
	11-Mar-03					
	17-Mar-03					
	22-Mar-03					
	06-May-03					
	07-May-03					
	08-May-03					
	09-May-03					
	15-May-03					
	16-May-03					
	28-May-03					
	11-Jun-03					
	14-Aug-03					
	02-Jan-04					
	12-Apr-04					
	28-May-04					
	31-May-04					
	01-Jun-04					
	05-Jun-04	WELL INSTALLED 05-Jun-04				

Table 1
Plains Marketing, L.P.
C. S. Cayler - Ref. #2002-10250
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses

Monitoring Well#	Date Gauged	Surveyed Top of Casing Elevation (feet)	Depth to PSH BTOC (feet)*	Depth to Water BTOC (feet)*	Corrected Groundwater Elevation (feet)*	PSH Thickness (feet)
MW-5 (cont.)	21-Jun-04	3,809.05	--	74.42	3,734.63	ND
	14-Jul-04		--	74.53	3,734.52	ND
	26-Aug-04					
	16-Oct-04					
	17-Oct-04					
	19-Oct-04					
	20-Oct-04					
	21-Oct-04					
	27-Oct-04					
	29-Oct-04		--	75.00	3,734.05	ND
	19-Nov-04		--	75.10	3,733.95	ND
	31-Mar-05		--	75.18	3,733.87	ND
	25-Apr-05		--	75.19	3,733.86	ND
	12-May-05		--	75.22	3,733.83	ND
	31-May-05		--	75.25	3,733.80	ND
	29-Jun-05		--	75.67	3,733.38	ND
	22-Aug-05		--	76.64	3,732.41	ND
	15-Sep-05		--	76.75	3,732.30	ND
	14-Nov-05		--	77.39	3,731.66	ND
MW-6	17-Oct-02					
	07-Mar-03					
	11-Mar-03					
	17-Mar-03					
	22-Mar-03					
	06-May-03					
	07-May-03					
	08-May-03					
	09-May-03					
	15-May-03					
	16-May-03					
	28-May-03					
	11-Jun-03					
	14-Aug-03					
	02-Jan-04					
	12-Apr-04					
	28-May-04					
	31-May-04					
	01-Jun-04					
	05-Jun-04					
	21-Jun-04					
	14-Jul-04					
	26-Aug-04					
	16-Oct-04					
	17-Oct-04					
	19-Oct-04					
	20-Oct-04					
	21-Oct-04	WELL INSTALLED 21-Oct-04				
	27-Oct-04	3,809.17	--	75.13	3,734.04	ND
	29-Oct-04		--	75.13	3,734.04	ND
	19-Nov-04		--	75.23	3,733.94	ND
	31-Mar-05		--	75.33	3,733.84	ND
	25-Apr-05		--	75.27	3,733.90	ND
	12-May-05		--	75.30	3,733.87	ND
	31-May-05		--	75.33	3,733.84	ND
	29-Jun-05		--	75.68	3,733.49	ND
	22-Aug-05		--	76.63	3,732.54	ND
	15-Sep-05		--	76.80	3,732.37	ND
	14-Nov-05		--	77.41	3,731.76	ND

Table 1
 Plains Marketing, L.P.
 C. S. Cayler - Ref. #2002-10250
 Groundwater Elevations and
 Phase Separated Hydrocarbon (PSH) Thicknesses

Monitoring Well#	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-7	17-Oct-02					
	07-Mar-03					
	11-Mar-03					
	17-Mar-03					
	22-Mar-03					
	06-May-03					
	07-May-03					
	08-May-03					
	09-May-03					
	15-May-03					
	16-May-03					
	28-May-03					
	11-Jun-03					
	14-Aug-03					
	02-Jan-04					
	12-Apr-04					
	28-May-04					
	31-May-04					
	01-Jun-04					
	05-Jun-04					
	21-Jun-04					
	14-Jul-04					
	26-Aug-04					
	16-Oct-04					
	17-Oct-04					
	19-Oct-04					
	20-Oct-04					
	21-Oct-04	WELL INSTALLED 21-Oct-04				
	27-Oct-04	3,809.95	75.82	76.05	3,734.11	0.23
	29-Oct-04		75.82	76.05	3,734.11	0.23
	19-Nov-04		75.21	79.14	3,734.35	3.93
	31-Mar-05		75.22	79.18	3,734.33	3.96
	25-Apr-05		74.37	82.84	3,734.73	8.47
	12-May-05					
	31-May-05		75.41	78.75	3,734.21	3.34
	29-Jun-05		74.86	83.31	3,734.25	8.45
	22-Aug-05					
	15-Sep-05		75.92	83.58	3,733.26	7.66
	14-Nov-05		76.75	83.17	3,732.56	6.42
MW-8	17-Oct-02					
	07-Mar-03					
	11-Mar-03					
	17-Mar-03					
	22-Mar-03					
	06-May-03					
	07-May-03					
	08-May-03					
	09-May-03					
	15-May-03					
	16-May-03					
	28-May-03					
	11-Jun-03					
	14-Aug-03					
	02-Jan-04					
	12-Apr-04					
	28-May-04					
	31-May-04					
	01-Jun-04					
	05-Jun-04					

Table 1
Plains Marketing, L.P.
C. S. Cayler - Ref. #2002-10250
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses

Monitoring Well#	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-8 (cont.)	21-Jun-04					
	14-Jul-04					
	26-Aug-04					
	16-Oct-04					
	17-Oct-04					
	19-Oct-04					
	20-Oct-04	WELL INSTALLED 20-Oct-04				
	21-Oct-04					
	27-Oct-04	3,810.29	--	76.20	3,734.09	ND
	29-Oct-04		--	76.20	3,734.09	ND
	19-Nov-04		--	76.26	3,734.03	ND
	31-Mar-05		--	76.30	3,733.99	ND
	25-Apr-05		--	76.29	3,734.00	ND
	12-May-05		--	76.32	3,733.97	ND
	31-May-05		--	76.34	3,733.95	ND
	29-Jun-05		--	76.62	3,733.67	ND
	22-Aug-05		77.42	78.08	3,732.21	0.66
	15-Sep-05			77.51	3,732.78	ND
	14-Nov-05		78.16	79.40	3,730.89	1.24
MW-9	17-Oct-02					
	07-Mar-03					
	11-Mar-03					
	17-Mar-03					
	22-Mar-03					
	06-May-03					
	07-May-03					
	08-May-03					
	09-May-03					
	15-May-03					
	16-May-03					
	28-May-03					
	11-Jun-03					
	14-Aug-03					
	02-Jan-04					
	12-Apr-04					
	28-May-04					
	31-May-04					
	01-Jun-04					
	05-Jun-04					
	21-Jun-04					
	14-Jul-04					
	26-Aug-04					
	16-Oct-04					
	17-Oct-04					
	19-Oct-04	WELL INSTALLED 19-Oct-04				
	20-Oct-04					
	21-Oct-04					
	27-Oct-04	3,809.81	--	75.85	3,733.96	ND
	29-Oct-04		--	75.85	3,733.96	ND
	19-Nov-04		--	75.91	3,733.90	ND
	31-Mar-05		--	76.97	3,733.84	ND
	25-Apr-05		--	75.91	3,733.90	ND
	12-May-05		--	75.96	3,733.85	ND
	31-May-05		--	75.99	3,733.82	ND
	29-Jun-05		--	76.34	3,733.47	ND
	22-Aug-05		--	77.31	3,732.50	ND
	15-Sep-05		--	77.48	3,732.33	ND
	14-Nov-05		--	78.15	3,731.66	ND

Table 1
Plains Marketing, L.P.
C. S. Cayler - Ref. #2002-10250
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses

Monitoring Well#	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-10	17-Oct-02					
	07-Mar-03					
	11-Mar-03					
	17-Mar-03					
	22-Mar-03					
	06-May-03					
	07-May-03					
	08-May-03					
	09-May-03					
	15-May-03					
	16-May-03					
	28-May-03					
	11-Jun-03					
	14-Aug-03					
	02-Jan-04					
	12-Apr-04					
	28-May-04					
	31-May-04					
	01-Jun-04					
	05-Jun-04					
	21-Jun-04					
	14-Jul-04					
	26-Aug-04					
	16-Oct-04					
	17-Oct-04					
	19-Oct-04					
	20-Oct-04	WELL INSTALLED 20-Oct-04				
	21-Oct-04					
	27-Oct-04	3,809.64	--	75.76	3,733.88	ND
	29-Oct-04		--	75.76	3,733.88	ND
	19-Nov-04		--	75.84	3,733.80	ND
	31-Mar-05		--	75.87	3,733.77	ND
	25-Apr-05		--	75.85	3,733.79	ND
	12-May-05		--	75.96	3,733.68	ND
	31-May-05		--	75.91	3,733.73	ND
	29-Jun-05		--	76.30	3,733.34	ND
	22-Aug-05		--	77.32	3,732.32	ND
	15-Sep-05		--	77.46	3,732.18	ND
	14-Nov-05		--	78.08	3,731.56	ND

Top of casing elevations referenced to groundwater monitoring well MW-3, which was assigned an elevation of 3,760 feet amsl.

* Corrected Groundwater Elevation = Top of Casing Elevation - (Depth to Water Below Top of Casing - (SG)(PSH Thickness)).

Yellow highlight indicates 2005 groundwater sampling event.

-- = Not Detected

If the cell is blank, the well was not gauged.

BTOC = Below Top of Casing

Table 2
 Plains Marketing, L.P.
 C.S. Cayler #2002-10250
 Phase Separated Hydrocarbon (PSH) Declination Table

Monitoring Well#	Period	PSH Thickness	Change
		(feet)	(feet)
MW-1	2003	11.38	
	2004	8.12	-3.26
	2005	4.07	-4.05
MW-2	Jun-04	10.59	
	Oct-04	9.73	-0.86
	2005	8.61	-1.12
MW-3	Jun-04	6.92	
	Oct-04	3.55	-3.37
	2005	6.89	3.34
MW-4	Jun-04	9.4	
	Oct-04	5.86	-3.54
	2005	7.94	2.08
MW-5	2004	no PSH	--
	2005	no PSH	--
MW-6	2004	no PSH	--
	2005	no PSH	--
MW-7	Oct-04	0.23	
	2005	6.38	6.15
MW-8	2004	no PSH	--
	2005	1.24	1.24
MW-9	2004	no PSH	--
	2005	no PSH	--
MW-10	2004	no PSH	--
	2005	no PSH	--

Table 3
Plains Marketing, L.P.
C. S. Cayler - Ref. #2002-10250
Summary of Groundwater Analytical Results

Monitoring Well #	Date	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	Total Xylenes	TPH	
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	GRO (mg/L)	DRO (mg/L)
MW-1	22-Sep-04	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	19-Nov-04	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	31-Mar-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	12-May-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
MW-2	22-Sep-04	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	19-Nov-04	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	31-Mar-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	12-May-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
MW-3	22-Sep-04	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	19-Nov-04	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	31-Mar-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	12-May-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
MW-4	22-Sep-04	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	19-Nov-04	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	31-Mar-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	12-May-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons							
MW-5	22-Sep-04	<1	<1	<1	<2	<1	<2	<0.5	<0.5
	19-Nov-04	Not Sampled							
	31-Mar-05	3,140	49.8	142	7.63	125	133		
	12-May-05	4,250	8.93	313	<2	184	184		
	22-Aug-05	20,300	2,240	1,420	377	759	1,140		
	14-Nov-05	19,500	847	904	165	313	478		

Table 3
Plains Marketing, L.P.
C. S. Cayler - Ref. #2002-10250
Summary of Groundwater Analytical Results

Monitoring Well #	Date	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	Total Xylenes	TPH	
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	GRO (mg/L)	DRO (mg/L)
MW-6	19-Nov-04	635	1.05	<1	9.81	<1	9.81		
	31-Mar-05	702	<1	<1	10.7	<1	10.7		
	12-May-05	468	1.39	<1	8.23	<1	8.23		
	22-Aug-05	158	<1	1.3	4.06	<1	4.06		
	14-Nov-05	231	5.74	1.97	7.89	1.07	8.96		
MW-7	19-Nov-04	Not Sampled Due to the Presence of Phase Separated Hydrocarbons							
	31-Mar-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons							
	12-May-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons							
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons							
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons							
MW-8	19-Nov-04	1,440	141	29.8	62.6	15.6	78.2		
	31-Mar-05	915	59.6	4.08	25.9	5.78	31.7		
	12-May-05	737	87.8	5.88	23.1	8.37	31.5		
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons							
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons							
MW-9	19-Nov-04	42	<1	<1	2.33	<1	2.33		
	31-Mar-05	24	<1	<1	3.02	<1	3.02		
	12-May-05	11.5	<1	<1	2.01	<1	2.01		
	22-Aug-05	10.8	<1	<1	7.07	<1	7.07		
	14-Nov-05	8.55	<1	<1	<1	<1	<1		
MW-10	19-Nov-04	7.25	1.26	<1	36.7	<1	36.7		
	31-Mar-05	1.28	<1	<1	24.7	<1	24.7		
	12-May-05	3.16	<1	<1	7.93	<1	7.93		
	22-Aug-05	2.76	<1	<1	<2	<1	<3		
	14-Nov-05	8.09	<1	<1	<1	<1	<1		
NMWQCC Limits		10	750	750			620		

µg/L - micrograms per liter

mg/L - milligrams per liter

TPH - Total Petroleum Hydrocarbons EPA method 8015M

GRO - Gasoline Range Organics

DRO - Diesel Range Organics

Blank cells indicate that analyses was not performed.

NMWQCC - New Mexico Water Quality Control Commission

Concentrations of PAH (Semi-Volatile Organics) in Groundwater

MONITORING WELL#	SAMPLE DATE	EPA SW846-8270C, 3510															
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[j,k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	22-Sep-04	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	19-Nov-04	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	31-Mar-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	12-May-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
MW-2	22-Sep-04	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	19-Nov-04	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	31-Mar-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	12-May-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
MW-3	22-Sep-04	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	19-Nov-04	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	31-Mar-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	12-May-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
MW-4	22-Sep-04	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	19-Nov-04	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	31-Mar-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	12-May-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocarbons															
MW-5	22-Sep-04	Not Analyzed															
	19-Nov-04	Not Analyzed															
	24-Sep-04	<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	
	31-Mar-05	Not Analyzed															
	12-May-05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.439	<0.05	17.5	0.245	<0.05	
	22-Aug-05	Not Analyzed															
	14-Nov-05	Not Analyzed															

Table 4
Plains Marketing, L.P.
C. S. Cayler - Ref. #2002-10250
Concentrations of PAH (Semi-Volatile Organics) in Groundwater

MONITORING WELL#	SAMPLE DATE	EPA SW846-8270C, 3510															
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[j,k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indenol[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-6	19-Nov-04	Not Analyzed															
	31-Mar-05	Not Analyzed															
	12-May-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	<0.05
	22-Aug-05	Not Analyzed															
	14-Nov-05	Not Analyzed															
MW-7	19-Nov-04	Not Sampled Due to the Presence of Phase Separated Hydrocabons															
	31-Mar-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons															
	12-May-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons															
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons															
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons															
MW-8	19-Nov-04	Not Analyzed															
	31-Mar-05	Not Analyzed															
	12-May-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	<0.05
	22-Aug-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons															
	14-Nov-05	Not Sampled Due to the Presence of Phase Separated Hydrocabons															
MW-9	19-Nov-04	Not Analyzed															
	31-Mar-05	Not Analyzed															
	12-May-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	<0.05
	22-Aug-05	Not Analyzed															
	14-Nov-05	Not Analyzed															
MW-10	19-Nov-04	Not Analyzed															
	31-Mar-05	Not Analyzed															
	12-May-05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.056	<0.05	<0.05	0.068	<0.05	<0.05
	22-Aug-05	Not Analyzed															
	14-Nov-05	Not Analyzed															
NMWQCC Limits						0.70								30.0			

µg/L - micrograms per liter

PAH - Polynuclear Aromatic Hydrocarbons

NMWQCC - New Mexico Water Quality Control Commission

Table 5
 Plains Marketing, L.P.
 C.S. Cayler #2002-10250
 Recommendations and Sampling Schedule for 2006

Monitoring Well#	Eight Quarters Below Standards	2006 Sampling Schedule				Notes
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
MW-1	No	--	--	--	--	Continue PSH recovery
MW-2	No	--	--	--	--	Continue PSH recovery
MW-3	No	--	--	--	--	Continue PSH recovery
MW-4	No	--	--	--	--	Continue PSH recovery
MW-5	No	X	X	X	X	Recommend Annual PAH analysis
MW-6	No	X	X	X	X	Recommend Annual PAH analysis
MW-7	No	--	--	--	--	Continue PSH recovery
MW-8	No	--	--	--	--	Continue PSH recovery
MW-9	No	X	X	X	X	Recommend Annual PAH analysis
MW-10	No	X	X	X	X	Recommend Annual PAH analysis
MW-11	No	--	X (install/survey)	X	X	Recommend Annual PAH analysis
MW-12	No	--	X (install/survey)	X	X	Recommend Annual PAH analysis
MW-13	No	--	X (install/survey)	X	X	Recommend Annual PAH analysis
MW-14	No	--	X (install/survey)	X	X	Recommend Annual PAH analysis
MW-15	No	--	X (install/survey)	X	X	Recommend Annual PAH analysis
MW-16	No	--	X (install/survey)	X	X	Recommend Annual PAH analysis

NMOCD - New Mexico Oil Conservation Division

PAH - Polynuclear Aromatic Hydrocarbons

PSH - Phase Separated Hydrocarbons

APPENDICES

Appendix I: Laboratory Analytical Reports

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eumice, NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 165668 **Report Date:** 04/18/05
Project ID: 2002-10250
Sample Name: CSC3-31-05MW5
Sample Matrix: water
Date Received: 04/06/2005 **Time:** 10:00
Date Sampled: 03/31/2005 **Time:** 15:30

REPORT OF ANALYSIS

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	---		---		04/13/05	8260b(5030/5035)	---	---	---	---	---
Benzene	3140	µg/L	100	<100	04/13/05	8260b	---	2.6	94.2	98.9	100.7
Ethylbenzene	142	µg/L	1	<1	04/13/05	8260b	---	4.2	103.6	103.4	97
m,p-Xylenes	7.63	µg/L	2	<2	04/13/05	8260b	---	5	103.4	103.2	96.5
o-Xylene	125	µg/L	1	<1	04/13/05	8260b	---	11.1	110.3	108.6	99.9
Toluene	49.8	µg/L	1	<1	04/13/05	8260b	---	3.5	106.5	102.9	106.1

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

DW

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than (" $<$ ") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 = MS and/or MSD recovery exceed advisory limits. S2 = Post digestion spike (PDS) recovery exceeds advisory limit. S3 = MS and/or MSD and PDS recoveries exceed advisory limits. P = Precision higher than advisory limit. M = Matrix interference.



3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 FAX (512) 385-7411

Client: Environmental Plus, Inc. Attn: Iain Olness	Project ID: 2002-10250 Sample Name: CSC3-31-05MW5	Report#/Lab ID#: 165668 Sample Matrix: water
---	--	---

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	99.4	74-124	---
Toluene-d8	8260b	107	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Emicee, NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#Lab ID#: 165669 **Report Date:** 04/18/05
Project ID: 2002-10250
Sample Name: CSC3-31-05MW6
Sample Matrix: water
Date Received: 04/06/2005 **Time:** 10:00
Date Sampled: 03/31/2005 **Time:** 16:00

REPORT OF ANALYSIS

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatiles organics-8260b/BTEX	---		---		04/12/05	8260b(5030/5035)	---	---	---	---	---
Benzene	702	µg/L	10	<10	04/12/05	8260b	---	0.4	93.3	103	94.8
Ethylbenzene	<1	µg/L	1	<1	04/12/05	8260b	---	0.3	99.2	107.5	96.8
m,p-Xylenes	10.7	µg/L	2	<2	04/12/05	8260b	---	0.8	98.6	106.3	97.4
o-Xylene	<1	µg/L	1	<1	04/12/05	8260b	---	0.5	102.4	112	100.3
Toluene	<1	µg/L	1	<1	04/12/05	8260b	J	0.4	104.5	117.5	98.8

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Respectfully Submitted,

DW

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than (" $<$ ") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 = MS and/or MSD recovery exceed advisory limits. S2 = Post digestion spike (PDS) recovery exceeds advisory limit. S3 = MS and/or MSD and PDS recoveries exceed advisory limits. P = Precision higher than advisory limit. M = Matrix interference.



3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: CSC3-31-05MW6

Report#/Lab ID#: 165669
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	102	74-124	---
Toluene-d8	8260b	110	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 165669	Matrix: water	Attn: Iain Olness
Client: Environmental Plus, Inc.		
Project ID: 2002-10250		
Sample Name: CSC3-31-05MW6		

Sample Temperature/Condition: $\leq 6^{\circ}\text{C}$

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is $\leq 6^{\circ}\text{C}$. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

- ☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
- ☐ Sample received in appropriate container(s). State of sample preservation unknown.
- ☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Toluene	J	See J-flag discussion above.

Notes:



3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Emice, NM 88231
Phone: (505) 394-3481 FAX: (505) 394-2601

Report#Lab ID#: 165670 Report Date: 04/18/05
Project ID: 2002-10250
Sample Name: CSC3-31-05MW8
Sample Matrix: water
Date Received: 04/06/2005 Time: 10:00
Date Sampled: 03/31/2005 Time: 16:30

REPORT OF ANALYSIS

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatiles organics-8260b/BTEX	---		---		04/12/05	8260b(5030/5035)	---	---	---	---	---
Benzene	915	µg/L	10	<10	04/12/05	8260b	---	0.4	93.3	103	94.8
Ethylbenzene	4.08	µg/L	1	<1	04/12/05	8260b	---	0.3	99.2	107.5	96.8
m,p-Xylenes	25.9	µg/L	2	<2	04/12/05	8260b	---	0.8	98.6	106.3	97.4
o-Xylene	5.78	µg/L	1	<1	04/12/05	8260b	---	0.5	102.4	112	100.3
Toluene	59.6	µg/L	1	<1	04/12/05	8260b	---	0.4	104.5	117.5	98.8

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Respectfully Submitted,

DW

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than (" $<$ ") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.



3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: CSC3-31-05MW8

Report#/Lab ID#: 165670
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	108	74-124	---
Toluene-d8	8260b	102	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 165671 **Report Date:** 04/18/05
Project ID: 2002-10250
Sample Name: CSC3-31-05MW9
Sample Matrix: water
Date Received: 04/06/2005 **Time:** 10:00
Date Sampled: 03/31/2005 **Time:** 17:00

REPORT OF ANALYSIS

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	---		---		04/12/05	8260b/5030/5035	---	---	---	---	---
Benzene	23.7	µg/L	1	<1	04/12/05	8260b	---	0.4	93.3	103	94.8
Ethylbenzene	<1	µg/L	1	<1	04/12/05	8260b	J	0.3	99.2	107.5	96.8
m,p-Xylenes	3.02	µg/L	2	<2	04/12/05	8260b	---	0.8	98.6	106.3	97.4
o-Xylene	<1	µg/L	1	<1	04/12/05	8260b	---	0.5	102.4	112	100.3
Toluene	<1	µg/L	1	<1	04/12/05	8260b	---	0.4	104.5	117.5	98.8

QUALITY ASSURANCE DATA 1

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

DW

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than (" $<$ ") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.



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(512) 385-5886 FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: CSC3-31-05MW9

Report#/Lab ID#: 165671
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	93.9	74-124	---
Toluene-d8	8260b	109	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 165671	Matrix: water	Attn: Iain Olness
Client: Environmental Plus, Inc.		
Project ID: 2002-10250		
Sample Name: CSC3-31-05MW9		

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

- ☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
- ☐ Sample received in appropriate container(s). State of sample preservation unknown.
- ☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (ROL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Ethylbenzene	J	See J-flag discussion above.

Notes:

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#Lab ID#: 165672 **Report Date:** 04/18/05
Project ID: 2002-10250
Sample Name: CSC3-31-05MW10
Sample Matrix: water
Date Received: 04/06/2005 **Time:** 10:00
Date Sampled: 03/31/2005 **Time:** 17:30

REPORT OF ANALYSIS

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	---		---		04/12/05	8260b(5030/5035)	---	---	---	---	---
Benzene	1.28	µg/L	1	<1	04/12/05	8260b	---	0.4	93.3	103	94.8
Ethylbenzene	<1	µg/L	1	<1	04/12/05	8260b	---	0.3	99.2	107.5	96.8
m,p-Xylenes	24.7	µg/L	2	<2	04/12/05	8260b	---	0.8	98.6	106.3	97.4
o-Xylene	<1	µg/L	1	<1	04/12/05	8260b	---	0.5	102.4	112	100.3
Toluene	<1	µg/L	1	<1	04/12/05	8260b	---	0.4	104.5	117.5	98.8

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

DW

Dale Wagner

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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	Project ID: 2002-10250	Report#/Lab ID#: 165672
Attn: Iain Olness	Sample Name: CSC3-31-05MW10	Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	98.7	74-124	---
Toluene-d8	8260b	108	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

AnalySys Inc.

4221 Freidrich Lane, Suite 190, Austin, TX 78744
512-444-5896 FAX: 512-447-4766

Chain of Custody Form

2209 N. Padre Island Dr., Corpus Christi, TX 78408

Company Name		Environmental Plus, Inc.	
EPI Project Manager		Iain Olness	
Mailing Address		P.O. BOX 1558	
City, State, Zip		Eunice New Mexico 88231	
EPI Phone#/Fax#		505-394-3481 / 505-394-2601	
Client Company		Plains All American	
Facility Name		C. S. Cayler	
Project Reference		2002-10250	
EPI Sampler Name		Cody Fisher	



PLAINS
ALL AMERICAN
PIPELINE, L.P.

Attn: ENV Accounts Payable
PO Box 4648,
Houston TX 77210-4648

ANALYSIS REQUEST

TPH 8015M

CHLORIDES (Cl)

SULFATES (SO₄)

pH

TCLP

OTHER >>

PAH

LAB I.D.	SAMPLE I.D.	MATRIX				PRESERV.		SAMPLING		DATE	TIME
		GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL		
1656681	CSC3-31-05MW5	G	3	X				X	X	3/31/05	3:30
1656692	CSC3-31-05MW6	G	3	X				X	X	3/31/05	4:00
1656703	CSC3-31-05MW8	G	3	X				X	X	3/31/05	4:30
1656714	CSC3-31-05MW9	G	3	X				X	X	3/31/05	5:00
1656725	CSC3-31-05MW10	G	4	X				X	X	3/31/05	5:30
6											
7											
8											
9											
10											

Sampler Relinquished:	Date	3/25/05	Received By:	E-mail results to: iolness@hotmail.com
	Time	3:00		
Relinquished by:	Date	4/15/05	Received By: (lab staff)	REMARKS: CoC Requested
	Time	10:00		
Delivered by:	Sample Cool & Intact		Checked By:	T.S.2.C
	Yes	No		



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2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eminec, NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report# / Lab ID#: 167324 **Report Date:** 06/02/05
Project ID: 2002-10250
Sample Name: MW-5
Sample Matrix: water
Date Received: 05/19/2005 **Time:** 07:30
Date Sampled: 05/12/2005 **Time:** 15:35

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
A/BN Extraction-PAH	---	---	---	---	05/19/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	05/26/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	---	05/20/05	8260b(5030/5035)	---	---	---	---	---
Benzene	4240	µg/L	1	<1	05/20/05	8260b	---	0.9	84.3	85.1	81.4
Ethylbenzene	313	µg/L	1	<1	05/20/05	8260b	---	2.5	110.9	113.3	107.6
m,p-Xylenes	<2	µg/L	2	<2	05/20/05	8260b	---	3.5	112.5	113.4	106.3
MTBE	<5	µg/L	5	<5	05/20/05	8260b	---	7.3	100.9	95.5	129.7
o-Xylene	184	µg/L	1	<1	05/20/05	8260b	---	2.2	110.5	110	103.6
Toluene	8.93	µg/L	1	<1	05/20/05	8260b	---	0.8	94.4	90.6	90.8
Acenaphthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	P	30.8	38.4	95.9	42.7
Acenaphthylene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	P	34	38.2	99.7	43.6
Anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	11.7	41.8	96.9	47.7
Benzo[a]anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	5.2	28.6	86.7	56.8
Benzo[a]pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.7	15.1	89.8	53.6
Benzo[b]fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.2	17.1	86.3	59.2
Benzo[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	S,M,P	30.6	13.9	105	68.1
Benzo[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	18	20	106.6	70
Chrysene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.8	43.5	107.8	85.8
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	P	21.2	13.6	96.6	79.3
Fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	5.7	50.1	107.7	57.5
Fluorene	0.439	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	29.4	39.1	100.4	42.7

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Respectfully Submitted,

Dale Wagner

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Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-5

Report#/Lab ID#: 167324
Sample Matrix: water

REPORT OF ANALYSIS-cont.

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	S,M,P	34	13	103.3	66.5
Naphthalene	17.5	µg/L	0.5	0.63	05/26/05	610 & 8270c	B,P	40.1	33.7	106.7	40.3
Phenanthrene	0.245	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	11	42.8	88.7	48
Pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	4.6	53.2	103.7	65.9



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Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-5

Report#/Lab ID#: 167324
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl Nitrobenzene-d5 Terphenyl-d14	610 & 8270c	59	30-110	---
	610 & 8270c	49.1	12-110	---
	610 & 8270c	46	25-110	---
1,2-Dichloroethane-d4 Toluene-d8	8260b	106	74-124	---
	8260b	106	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 167324 **Matrix:** water
Client: Environmental Plus, Inc. **Attn:** Iain Olness
Project ID: 2002-10250
Sample Name: MW-5

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GEAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

- ☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
☐ Sample received in appropriate container(s). State of sample preservation unknown.
☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	
Benzol[g,h,i]perylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Benzol[g,h,i]perylene	P	
Benzol[g,h,i]perylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Dibenz[a,h]anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Dibenz[a,h]anthracene	P	
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	
Naphthalene	B	One or more method/calib. or Prep. blanks associated with the analysis were found to have analyte above the RQL. However, the sample result is more than five times the conc. of the blank and impact on sample quantitation is negligible.
Naphthalene	B	

Notes:



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Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 167325 **Report Date:** 06/02/05
Project ID: 2002-10250
Sample Name: MW-6
Sample Matrix: water
Date Received: 05/19/2005 **Time:** 07:30
Date Sampled: 05/12/2005 **Time:** 13:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
A/BN Extraction-PAH	---	---	---	---	05/19/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	05/26/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	---	05/20/05	8260b(5030/5035)	---	---	---	---	---
Benzene	468	µg/L	10	<10	05/23/05	8260b	---	0.9	84.3	85.1	81.4
Ethylbenzene	<1	µg/L	1	<1	05/20/05	8260b	---	2.5	110.9	113.3	107.6
m,p-Xylenes	8.23	µg/L	2	<2	05/20/05	8260b	---	3.5	112.5	113.4	106.3
o-Xylene	<1	µg/L	1	<1	05/20/05	8260b	---	2.2	110.5	110	103.6
Toluene	1.39	µg/L	1	<1	05/20/05	8260b	---	0.8	94.4	90.6	90.8
Acenaphthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	P	30.8	38.4	95.9	42.7
Acenaphthylene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	P	34	38.2	99.7	43.6
Anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	11.7	41.8	96.9	47.7
Benzo[a]anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	5.2	28.6	86.7	56.8
Benzo[a]pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.7	15.1	89.8	53.6
Benzo[b]fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.2	17.1	86.3	59.2
Benzo[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	S.M.P	30.6	13.9	105	68.1
Benzo[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	18	20	106.6	70
Chrysene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.8	43.5	107.8	85.8
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	P	21.2	13.6	96.6	79.3
Fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	5.7	50.1	107.7	57.5
Fluorene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	29.4	39.1	100.4	42.7
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	S.M.P	34	13	103.3	66.5

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

Dale Wagner
Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL, B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.



3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-6

Report#/Lab ID#: 167325
Sample Matrix: water

REPORT OF ANALYSIS-cont.

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Naphthalene	<0.05	µg/L	0.05	0.063	05/26/05	610 & 8270c	B,P	40.1	33.7	106.7	40.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	11	42.8	88.7	48
Pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	4.6	53.2	103.7	65.9



3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 FAX (512) 385-7411

Client: Environmental Plus, Inc. Attn: Iain Olness	Project ID: 2002-10250 Sample Name: MW-6	Report#/Lab ID#: 167325 Sample Matrix: water
---	---	---

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	42.5	30-110	---
Nitrobenzene-d5	610 & 8270c	49.2	12-110	---
Terphenyl-d14	610 & 8270c	40.6	25-110	---
1,2-Dichloroethane-d4	8260b	111	74-124	---
Toluene-d8	8260b	107	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 167325	Matrix: water	Attn: Iain Olness
Client: Environmental Plus, Inc.		
Project ID: 2002-10250		
Sample Name: MW-6		

Sample Temperature/Condition: $\leq 6^{\circ}\text{C}$

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is $\leq 6^{\circ}\text{C}$. Possible exceptions include samples submitted to Laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

- ☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
- ☐ Sample received in appropriate container(s). State of sample preservation unknown.
- ☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	
Benzol[g,h,i]perylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzol[g,h,i]perylene	P	
Benzol[g,h,i]perylene	S,M	MS and/or MSD recovers outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Dibenz[a,h]anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Dibenz[a,h]anthracene	P	
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recovers outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	
Naphthalene	B	One or more method/calib. blanks associated with the analysis were found to have analyte at a level that could impact sample results near the RQL.

Notes:



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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 167326 **Report Date:** 06/02/05
Project ID: 2002-10250
Sample Name: MW-8
Sample Matrix: water
Date Received: 05/19/2005 **Time:** 07:30
Date Sampled: 05/12/2005 **Time:** 11:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
A/BN Extraction-PAH	---	---	---	---	05/19/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	05/26/05	610 & 8270c	---	---	---	---	---
Volatiles organics-8260b/BTEX	---	---	---	---	05/20/05	8260b(5030/5035)	---	---	---	---	---
Benzene	737	µg/L	10	<10	05/23/05	8260b	---	0.9	84.3	85.1	81.4
Ethylbenzene	5.88	µg/L	1	<1	05/20/05	8260b	---	2.5	110.9	113.3	107.6
m,p-Xylenes	23.1	µg/L	2	<2	05/20/05	8260b	---	3.5	112.5	113.4	106.3
o-Xylene	8.37	µg/L	1	<1	05/20/05	8260b	---	2.2	110.5	110	103.6
Toluene	87.8	µg/L	10	<10	05/23/05	8260b	---	0.8	94.4	90.6	90.8
Acenaphthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	P	30.8	38.4	95.9	42.7
Acenaphthylene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	P	34	38.2	99.7	43.6
Anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	11.7	41.8	96.9	47.7
Benzo[a]anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	5.2	28.6	86.7	56.8
Benzo[a]pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.7	15.1	89.8	53.6
Benzo[b]fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	S,M,P	14.2	17.1	86.3	59.2
Benzo[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	30.6	13.9	105	68.1
Benzo[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	18	20	106.6	70
Chrysene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.8	43.5	107.8	85.8
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	P	21.2	13.6	96.6	79.3
Fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	5.7	50.1	107.7	57.5
Fluorene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	29.4	39.1	100.4	42.7
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	S,M,P	34	13	103.3	66.5

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Respectfully Submitted,

D. Wagner
Dale Wagner

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Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-8

Report#/Lab ID#: 167326
Sample Matrix: water

REPORT OF ANALYSIS-cont.

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Naphthalene	<0.05	µg/L	0.05	0.063	05/26/05	610 & 8270c	B,P	40.1	33.7	106.7	40.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	11	42.8	88.7	48
Pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	4.6	53.2	103.7	65.9



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Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-8

Report#/Lab ID#: 167326
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	40.9	30-110	---
Nitrobenzene-d5	610 & 8270c	43	12-110	---
Terphenyl-d14	610 & 8270c	52.1	25-110	---
1,2-Dichloroethane-d4	8260b	109	74-124	---
Toluene-d8	8260b	106	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 167326 Matrix: water
Client: Environmental Plus, Inc. Attn: Iain Olness
Project ID: 2002-10250
Sample Name: MW-8

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

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☐ Sample received in appropriate container(s). State of sample preservation unknown.
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J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	
Benzo[g,h,i]perylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzo[g,h,i]perylene	P	
Benzo[k]fluoranthene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Dibenz[a,h]anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Dibenz[a,h]anthracene	P	
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	
Naphthalene	P	
Naphthalene	B	One or more method/calib. blanks associated with the analysis were found to have analyte at a level that could impact sample results near the RQL.

Notes:



3512 Montopolis Drive, Austin, TX 78744 &
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(512) 385-5886 FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report# Lab ID# 167327 **Report Date:** 06/02/05
Project ID: 2002-10250
Sample Name: MW-9
Sample Matrix: water
Date Received: 05/19/2005 **Time:** 07:30
Date Sampled: 05/12/2005 **Time:** 13:50

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
A/BN Extraction-PAH	---	---	---	---	05/19/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	06/02/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	---	05/23/05	8260b(5030/5035)	---	---	---	---	---
Benzene	11.5	µg/L	1	<1	05/23/05	8260b	---	0.9	84.3	85.1	81.4
Ethylbenzene	<1	µg/L	1	<1	05/23/05	8260b	---	2.5	110.9	113.3	107.6
m,p-Xylenes	2.01	µg/L	2	<2	05/23/05	8260b	---	3.5	112.5	113.4	106.3
o-Xylene	<1	µg/L	1	<1	05/23/05	8260b	---	2.2	110.5	110	103.6
Toluene	<1	µg/L	1	<1	05/23/05	8260b	---	0.8	94.4	90.6	90.8
Acenaphthene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	P	30.8	38.4	95.9	42.7
Acenaphthylene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	P	34	38.2	99.7	43.6
Anthracene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	11.7	41.8	96.9	47.7
Benzo[a]anthracene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	5.2	28.6	86.7	56.8
Benzo[a]pyrene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	14.7	15.1	89.8	53.6
Benzo[b]fluoranthene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	14.2	17.1	86.3	59.2
Benzo[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	S,M,P	30.6	13.9	105	68.1
Benzo[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	18	20	106.6	70
Chrysene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	14.8	43.5	107.8	85.8
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	P	21.2	13.6	96.6	79.3
Fluoranthene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	5.7	50.1	107.7	57.5
Fluorene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	29.4	39.1	100.4	42.7
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	S,M,P	34	13	103.3	66.5

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Respectfully Submitted,

Dale Wagner

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Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-9

Report#/Lab ID#: 167327
Sample Matrix: water

REPORT OF ANALYSIS-contin.

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Naphthalene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	J,P	40.1	33.7	106.7	40.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	J	11	42.8	88.7	48
Pyrene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	4.6	53.2	103.7	65.9



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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc. Attn: Iain Olness	Project ID: 2002-10250 Sample Name: MW-9	Report#/Lab ID#: 167327 Sample Matrix: water
---	---	---

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	46.4	30-110	---
Nitrobenzene-d5	610 & 8270c	44.3	12-110	---
Terphenyl-d14	610 & 8270c	37.5	25-110	---
1,2-Dichloroethane-d4	8260b	103	74-124	---
Toluene-d8	8260b	112	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 167327 Matrix: water
Client: Environmental Plus, Inc. Attn: Iain Olness
Project ID: 2002-10250
Sample Name: MW-9

Sample Temperature/Condition: $\leq 6^{\circ}\text{C}$

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is $\leq 6^{\circ}\text{C}$. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

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Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	
Benzo[g,h,i]perylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzo[g,h,i]perylene	P	
Benzo[g,h,i]perylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Dibenz[a,h]anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Dibenz[a,h]anthracene	P	
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	
Naphthalene	J	See J-flag discussion above.
Phenanthrene	J	See J-flag discussion above.

Notes:



3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 167328 **Report Date:** 06/02/05
Project ID: 2002-10250
Sample Name: MW-10
Sample Matrix: water
Date Received: 05/19/2005 **Time:** 07:30
Date Sampled: 05/12/2005 **Time:** 14:45

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
A/BN Extraction-PAH	---	---	---	---	05/19/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	06/02/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	---	05/23/05	8260b(5030/5035)	---	---	---	---	---
Benzene	3.16	µg/L	1	<1	05/23/05	8260b	---	0.9	84.3	85.1	81.4
Ethylbenzene	<1	µg/L	1	<1	05/23/05	8260b	---	2.5	110.9	113.3	107.6
m,p-Xylenes	7.93	µg/L	2	<2	05/23/05	8260b	---	3.5	112.5	113.4	106.3
o-Xylene	<1	µg/L	1	<1	05/23/05	8260b	---	2.2	110.5	110	103.6
Toluene	<1	µg/L	1	<1	05/23/05	8260b	J	0.8	94.4	90.6	90.8
Acenaphthene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	P	30.8	38.4	95.9	42.7
Acenaphthylene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	P	34	38.2	99.7	43.6
Anthracene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	11.7	41.8	96.9	47.7
Benzo[a]anthracene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	5.2	28.6	86.7	56.8
Benzo[a]pyrene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	14.7	15.1	89.8	53.6
Benzo[b]fluoranthene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	14.2	17.1	86.3	59.2
Benzo[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	S,M,P	30.6	13.9	105	68.1
Benzo[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	18	20	106.6	70
Chrysene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	14.8	43.5	107.8	85.8
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	P	21.2	13.6	96.6	79.3
Fluoranthene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	5.7	50.1	107.7	57.5
Fluorene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	29.4	39.1	100.4	42.7
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	S,M,P	34	13	103.3	66.5

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

Dale Wagner

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than (<) values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 = MS and/or MSD recovery exceed advisory limits. S2 = Post digestion spike (PDS) recovery exceeds advisory limit. S3 = MS and/or MSD and PDS recoveries exceed advisory limits. P = Precision higher than advisory limit. M = Matrix interference.

Client: Environmental Plus, Inc.
Attn: Iain Olness

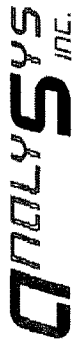
Project ID: 2002-10250
Sample Name: MW-10

Report#/Lab ID#: 167328
Sample Matrix: water

REPORT OF ANALYSIS-cont.

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Naphthalene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	J.P	40.1	33.7	106.7	40.3
Phenanthrene	0.068	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	11	42.8	88.7	48
Pyrene	<0.05	µg/L	0.05	<0.05	06/02/05	610 & 8270c	---	4.6	53.2	103.7	65.9



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(512) 385-5886 FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-10

Report#/Lab ID#: 167328
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	54.9	30-110	---
Nitrobenzene-d5	610 & 8270c	45.8	12-110	---
Terphenyl-d14	610 & 8270c	57.8	25-110	---
1,2-Dichloroethane-d4	8260b	109	74-124	---
Toluene-d8	8260b	110	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 167328 Matrix: water
Client: Environmental Plus, Inc. Attn: Iain Olness
Project ID: 2002-10250
Sample Name: MW-10

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to Laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

- ☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
- ☐ Sample received in appropriate container(s). State of sample preservation unknown.
- ☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Toluene	J	See J-flag discussion above.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzo[g,h,i]perylene	P	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Benzo[g,h,i]perylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzo[a,h]anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Dibenz[a,h]anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	J	See J-flag discussion above.

Notes:

AnalySys Inc.

4221 Freidrich Lane, Suite 190, Austin, TX 78744
512-444-5896 FAX: 512-447-4766

2209 N. Padre Island Dr., Corpus Christi, TX 78408

Chain of Custody Form

Company Name Environmental Plus, Inc.		Bill To		ANALYSIS REQUEST											
EPI Project Manager Iain Olness		PLAINS ALL-AMERICAN PIPELINE, L.P.													
Mailing Address P.O. BOX 1558		Attn: ENV Accounts Payable PO Box 4648, Houston TX 77210-4648													
City, State, Zip Eunice New Mexico 88231															
EPI Phone#/Fax# 505-394-3481 / 505-394-2601															
Client Company Plains All American															
Facility Name C. S. Cayler															
Project Reference 2002-10250															
EPI Sampler Name John Robinson															

LAB I.D.	SAMPLE I.D.	# CONTAINERS	MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST											
			GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO ₄)	PH	TCLP	OTHER >>>	PAH					
167324	1 MW-5	6	X							X	X										X					
167325	2 MW-6	6	X							X	X										X					
167326	3 MW-8	6	X							X	X										X					
4																										
5																										
6																										
7																										
8																										
9																										
10																										

Date 5-18-05		Received By: John Robinson		Date 5/19/05		Received By: John Robinson		E-mail results to: iolness@hotmail.com	
Time 4:00				Time 5:19				REMARKS:	
Delivered by:				Sample Cool & Intact Yes No		Checked By:			

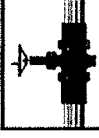
7380

AnalySys Inc.

4221 Freidrich Lane, Suite 190, Austin, TX 78744
512-444-5896 FAX: 512-447-4766

2209 N. Padre Island Dr., Corpus Christi, TX 78408

Chain of Custody Form

Company Name Environmental Plus, Inc.		Bill To		ANALYSIS REQUEST											
EPI Project Manager Iain Olness		PRESERV.		 PLAINS ALL-AMERICAN PIPELINE L.P. Attn: ENV Accounts Payable PO Box 4648, Houston TX 77210-4648											
Mailing Address P.O. BOX 1558		MATRIX		GROUND WATER WASTEWATER SOIL CRUDE OIL SLUDGE OTHER: ACID/BASE ICE/COOL OTHER											
City, State, Zip Eunice New Mexico 88231		# CONTAINERS		DATE TIME TPF 8015M BTX 8021B CHLORIDES (Cl) SULFATES (SO ₄) PH TCLP OTHER >> PAH											
EPI Phone#/Fax# 505-394-3481 / 505-394-2601		(G)RAB OR (C)OMP.													
Client Company Plains All American		G 6 X													
Facility Name C. S. Cayler		G 6 X													
Project Reference 2002-10250															
EPI Sampler Name John Robinson															
LAB I.D.	SAMPLE I.D.														
167327	1 MW-9														
167328	2 MW-10														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
Sampler Relinquished:		Received By:		E-mail results to: iolness@hotmail.com											
Date: 5-18-05		Time: 4:00		REMARKS:											
Relinquished by:		Received By: (lab staff)													
Delivered by:		Sample Cool & Intact		Checked By:											
		Yes No													

7-2-8-05

Sample Analysis Case Narrative

Client: Environmental Plus, Inc. Project ID: 2002-10250

Attn: Iain Olness

for Sample #'s: 167324 thru 167328

Analyzed by AnalySys, Inc.

Final Review Date: 6/8/2005 By:  (D. Wagner)

Case Narrative:

The spike recoveries and/or precisions of several PAH compounds for the analytical batch that contained samples 167324 thru 167328 were outside normal laboratory acceptance criteria due to matrix effects in the randomly selected spiked sample. The Laboratory Control Sample (LCS) run with this batch met recovery criteria for each compound indicating the analytical method was operating correctly and in control.

A Continuing Calibration Blank (CCB1) was above the Reporting Quantitation Limit (RQL) for Naphthalene in the analytical batch that contained samples 167325 and 167326. However, there was no Naphthalene detected in either of the above referenced samples indicating this potential for "high" bias had no impact on data usability.

Client: Environmental Plus, Inc.

Attn: Iain Olness

Address: 2100 Ave. O

Euinee,

NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 170206 **Report Date:** 09/01/05

Project ID: 2002-10250

Sample Name: MW-5

Sample Matrix: water

Date Received: 08/25/2005 **Time:** 10:00

Date Sampled: 08/22/2005 **Time:** 07:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatiles organics-8260b/BTEX	---		---		08/31/05	8260b(5030/5035)	---	---	---	---	---
Benzene	20300	µg/L	500	<500	08/31/05	8260b	S,M	8.6	108	106.6	107.7
Ethylbenzene	1420	µg/L	50	<50	08/31/05	8260b	---	2.2	117.5	115.7	115.9
m,p-Xylenes	377	µg/L	100	<100	08/31/05	8260b	---	2.9	116.9	113.6	115.1
o-Xylene	759	µg/L	50	<50	08/31/05	8260b	---	1.5	115.4	111.9	113
Toluene	2240	µg/L	50	<50	08/31/05	8260b	---	7.1	110.1	105.6	110.6

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

Dale Wagner

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than (" $<$ ") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL, B = Analyte detected in associated method blank(s). S & S1 = MS and/or MSD recovery exceed advisory limits, S2 = Post digestion spike (PDS) recovery exceeds advisory limit. S3 = MS and/or MSD and PDS recoveries exceed advisory limits. P = Precision higher than advisory limit. M = Matrix interference.



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2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-5

Report#/Lab ID#: 170206
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	112	70-130	---
Toluene-d8	8260b	111	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 170206 Matrix: water

Client: Environmental Plus, Inc. Attn: Iain Olness

Project ID: 2002-10250

Sample Name: MW-5

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

- ☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
- ☐ Sample received in appropriate container(s). State of sample preservation unknown.
- ☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Benzene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.

Notes:

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Euinee, NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 170207 **Report Date:** 09/01/05
Project ID: 2002-10250
Sample Name: MW-6
Sample Matrix: water
Date Received: 08/25/2005 **Time:** 10:00
Date Sampled: 08/22/2005 **Time:** 08:00

REPORT OF ANALYSIS

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	---		---		08/30/05	8260b(5030/5035)	---	---	---	---	---
Benzene	158	µg/L	1	<1	08/30/05	8260b	S.M	8.6	108	106.6	107.7
Ethylbenzene	1.3	µg/L	1	<1	08/30/05	8260b	---	2.2	117.5	115.7	115.9
m,p-Xylenes	4.06	µg/L	2	<2	08/30/05	8260b	---	2.9	116.9	113.6	115.1
o-Xylene	<1	µg/L	1	<1	08/30/05	8260b	J	1.5	115.4	111.9	113
Toluene	<1	µg/L	1	<1	08/30/05	8260b	J	7.1	110.1	105.6	110.6

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

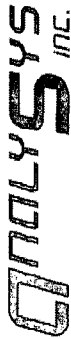
Respectfully Submitted,



Dale Wagner

QUALITY ASSURANCE DATA 1

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than (" $<$ ") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 = MS and/or MSD recovery exceed advisory limits. S2 = Post digestion spike (PDS) recovery exceeds advisory limit. S3 = MS and/or MSD and PDS recoveries exceed advisory limits. P = Precision higher than advisory limit. M = Matrix interference.



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2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-6

Report#/Lab ID#: 170207
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	114	70-130	---
Toluene-d8	8260b	110	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 170207	Matrix: water	Attn: Iain Olness
Client: Environmental Plus, Inc.		
Project ID: 2002-10250		
Sample Name: MW-6		

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

- ☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
- ☐ Sample received in appropriate container(s). State of sample preservation unknown.
- ☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Benzene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
o-Xylene	J	See J-flag discussion above.
Toluene	J	See J-flag discussion above.

Notes:



3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.

Attn: Iain Olness

Address: 2100 Ave. O

Eunice,

NM 88231

Phone: (505) 394-3481 FAX: (505) 394-2601

Report#/Lab ID#: 170208 Report Date: 09/01/05

Project ID: 2002-10250

Sample Name: MW-9

Sample Matrix: water

Date Received: 08/25/2005 Time: 10:00

Date Sampled: 08/22/2005 Time: 10:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA 1

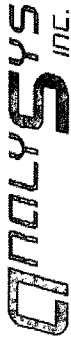
Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatiles organics-8260b/BTEX	---		---		08/31/05	8260b(5030/5035)	---	---	---	---	---
Benzene	10.8	µg/L	1	<1	08/31/05	8260b	S,M	8.6	108	106.6	107.7
Ethylbenzene	<1	µg/L	1	<1	08/31/05	8260b	J	2.2	117.5	115.7	115.9
m,p-Xylenes	7.07	µg/L	2	<2	08/31/05	8260b	---	2.9	116.9	113.6	115.1
o-Xylene	<1	µg/L	1	<1	08/31/05	8260b	---	1.5	115.4	111.9	113
Toluene	<1	µg/L	1	<1	08/31/05	8260b	---	7.1	110.1	105.6	110.6

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Respectfully Submitted,

Dale Wagner

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Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-9

Report#/Lab ID#: 170208
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	119	70-130	---
Toluene-d8	8260b	109	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 170208 Matrix: water
Client: Environmental Plus, Inc. Attn: Iain Olness
Project ID: 2002-10250
Sample Name: MW-9

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

- ☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
- ☐ Sample received in appropriate container(s). State of sample preservation unknown.
- ☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Benzene	S, M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Ethylbenzene	J	See J-flag discussion above.

Notes:



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Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 170209

Report Date: 09/01/05

Project ID: 2002-10250

Sample Name: MW-10

Sample Matrix: water

Date Received: 08/25/2005 **Time:** 10:00

Date Sampled: 08/22/2005 **Time:** 11:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	---		---		08/30/05	8260b(5030/5035)	---	---	---	---	---
Benzene	2.76	µg/L	1	<1	08/30/05	8260b	S.M	8.6	108	106.6	107.7
Ethylbenzene	<1	µg/L	1	<1	08/30/05	8260b	---	2.2	117.5	115.7	115.9
m,p-Xylenes	<2	µg/L	2	<2	08/30/05	8260b	J	2.9	116.9	113.6	115.1
o-Xylene	<1	µg/L	1	<1	08/30/05	8260b	---	1.5	115.4	111.9	113
Toluene	<1	µg/L	1	<1	08/30/05	8260b	---	7.1	110.1	105.6	110.6

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Respectfully Submitted,

Dale Wagner

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Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250
Sample Name: MW-10

Report#/Lab ID#: 170209
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	120	70-130	---
Toluene-d8	8260b	109	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 170209	Matrix: water	Attn: Iain Olness
Client: Environmental Plus, Inc.		
Project ID: 2002-10250		
Sample Name: MW-10		

Sample Temperature/Condition: $\leq 6^{\circ}\text{C}$

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is $\leq 6^{\circ}\text{C}$. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

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Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Benzene	S, M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
m,p-Xylenes	J	See J-flag discussion above.

Notes:

AnalySys Inc.

4221 Freidrich Lane, Suite 190, Austin, TX 78744
 512-444-5896 FAX: 512-447-4766

Chain of Custody Form

2209 N. Padre Island Dr., Corpus Christi, TX 78408

Company Name Environmental Plus, Inc.		Bill To		ANALYSIS REQUEST									
EPI Project Manager Iain Olness		PLAINS ALL-AMERICAN PIPELINE, L.P.											
Mailing Address P.O. BOX 1558		Attn: ENV Accounts Payable											
City, State, Zip Eunice New Mexico 88231		PO Box 4648,											
EPI Phone#/Fax# 505-394-3481 / 505-394-2601		Houston TX 77210-4648											
Client Company Plains All American													
Facility Name C. S. Cayler													
Project Reference 2002-10250													
EPI Sampler Name George Blackburn													

LAB I.D.	SAMPLE I.D.	MATRIX				PRESERV.			SAMPLING		ANALYSIS REQUEST											
		WASTEWATER	GROUND WATER	# CONTAINERS	(G)RAB OR (C)OMP.	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO ₄)	pH	TCLP	OTHER >>	PAH	
1	MW-5 170206		X	4	G					X			22-Aug-05	7:00	X							
2	MW-6 170207		X	4	G					X			22-Aug-05	8:00	X							
3	MW-9 170208		X	4	G					X			22-Aug-05	10:00	X							
4	MW-10 170209		X	4	G					X			22-Aug-05	11:00	X							
5																						
6																						
7																						
8																						
9																						
10																						

Supplier Relinquished:	Received By:	E-mail results to: iolness@envplus.com & cijreynolds@paalp.com	
Relinquished by:	Received By: (lab staff)	REMARKS:	
Delivered by:	Sample Cool & Intact		
	Yes	No	Checked By:



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Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 173898 **Report Date:** 11/29/05

Project ID: 2002-10250 C. S. Cayler

Sample Name: MW-5

Sample Matrix: water

Date Received: 11/22/2005 **Time:** 10:30

Date Sampled: 11/14/2005 **Time:** 13:30

REPORT OF ANALYSIS

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatiles organics-8260b/BTEX	---		---		11/28/05	8260b(5030/5035)	---	---	---	---	---
Benzene	195(0)	µg/L	100	<100	11/28/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	904	µg/L	100	<100	11/28/05	8260b	---	4.6	110.5	110.7	112.5
m,p-Xylenes	165	µg/L	20	<20	11/24/05	8260b	---	2.9	111.8	110.3	112.3
o-Xylene	313	µg/L	100	<100	11/28/05	8260b	---	3.5	121.8	116.1	120.4
Toluene	847	µg/L	100	<100	11/28/05	8260b	---	9.1	108.1	98.3	106.2

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Richard Elton

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Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250 C. S. Cayler
Sample Name: MW-5

Report#/Lab ID#: 173898
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	114	70-130	---
Toluene-d8	8260b	115	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.



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Attn: Iain Olness

Address: 2100 Ave. O

Eunice,

NM 88231

Phone: (505) 394-3481 FAX: (505) 394-2601

REPORT OF ANALYSIS

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	---		---		11/28/05	8260b(5030/5035)	---	---	---	---	---
Benzene	231	µg/L	1	<1	11/28/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	1.97	µg/L	1	<1	11/28/05	8260b	---	4.6	110.5	110.7	112.5
m,p-Xylenes	7.89	µg/L	2	<2	11/28/05	8260b	---	2.9	111.8	110.3	112.3
o-Xylene	1.07	µg/L	1	<1	11/28/05	8260b	---	3.5	121.8	116.1	120.4
Toluene	5.74	µg/L	1	<1	11/28/05	8260b	---	9.1	108.1	98.3	106.2

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Richard Elton

QUALITY ASSURANCE DATA¹

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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250 C. S. Cayler
Sample Name: MW-6

Report#/Lab ID#: 173899
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	121	70-130	---
Toluene-d8	8260b	112	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Client: Environmental Plus, Inc.

Attn: Iain Olness

Address: 2100 Ave. O

Eumice,

NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 173900

Report Date: 11/29/05

Project ID: 2002-10250 C. S. Cayler

Sample Name: MW-9

Sample Matrix: water

Date Received: 11/22/2005 **Time:** 10:30

Date Sampled: 11/14/2005 **Time:** 14:30

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual. ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	---		---		11/23/05	8260b(5030/5035)	---	---	---	---	---
Benzene	8.55	µg/L	1	<1	11/23/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	<1	µg/L	1	<1	11/23/05	8260b	J	4.6	110.5	110.7	112.5
m,p-Xylenes	<2	µg/L	2	<2	11/23/05	8260b	J	2.9	111.8	110.3	112.3
o-Xylene	<1	µg/L	1	<1	11/23/05	8260b	J	3.5	121.8	116.1	120.4
Toluene	<1	µg/L	1	<1	11/23/05	8260b	J	9.1	108.1	98.3	106.2

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Richard Elton
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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250 C. S. Cayler
Sample Name: MW-9

Report#/Lab ID#: 173900
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	106	70-130	---
Toluene-d8	8260b	114	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 173900	Matrix: water	Attn: Iain Olness
Client: Environmental Plus, Inc.		
Project ID: 2002-10250	C. S. Cayler	
Sample Name: MW-9		

Sample Temperature/Condition: $\leq 6^{\circ}\text{C}$

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is $\leq 6^{\circ}\text{C}$. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

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J flag Discussion:

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Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Ethylbenzene	J	See J-flag discussion above.
m,p-Xylenes	J	See J-flag discussion above.
o-Xylene	J	See J-flag discussion above.
Toluene	J	See J-flag discussion above.

Notes:

Client: Environmental Plus, Inc.

Attn: Iain Olness

Address: 2100 Ave. O

Eunice,

NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 173901 **Report Date:** 11/29/05

Project ID: 2002-10250 C. S. Cayler

Sample Name: MW-10

Sample Matrix: water

Date Received: 11/22/2005 **Time:** 10:30

Date Sampled: 11/14/2005 **Time:** 14:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual ⁷	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	---		---		11/23/05	8260b(5030/5035)	---	---	---	---	---
Benzene	8.09	µg/L	1	<1	11/23/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	<1	µg/L	1	<1	11/23/05	8260b	J	4.6	110.5	110.7	112.5
m,p-Xylenes	<2	µg/L	2	<2	11/23/05	8260b	J	2.9	111.8	110.3	112.3
o-Xylene	<1	µg/L	1	<1	11/23/05	8260b	J	3.5	121.8	116.1	120.4
Toluene	<1	µg/L	1	<1	11/23/05	8260b	J	9.1	108.1	98.3	106.2

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,


Richard Elton

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 = MS and/or MSD recovery exceed advisory limits. S2 = Post digestion spike (PDS) recovery exceeds advisory limit. S3 = MS and/or MSD and PDS recoveries exceed advisory limits. P = Precision higher than advisory limit. M = Matrix interference.



3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10250 C. S. Cayler
Sample Name: MW-10

Report#/Lab ID#: 173901
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	109	70-130	---
Toluene-d8	8260b	114	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Exceptions Report:

Report #/Lab ID#: 173901	Matrix: water	Attn: Iain Olness
Client: Environmental Plus, Inc.		
Project ID: 2002-10250 C. S. Cayler		
Sample Name: MW-10		

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

- ☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
- ☐ Sample received in appropriate container(s). State of sample preservation unknown.
- ☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Ethylbenzene	J	See J-flag discussion above.
m,p-Xylenes	J	See J-flag discussion above.
o-Xylene	J	See J-flag discussion above.
Toluene	J	See J-flag discussion above.

Notes:

Temp. 12.

Appendix II: Site Information and Metrics Form and NMOCD Form C-141



PLAINS
ALL AMERICAN

Site Information and Metrics

Incident Date:
9-19-02 @ 8:00 AM

NMOCD Notified: 9-19-02 @ 3:15 PM Paul
Sheeley by Pat McCasland, EPI

SITE: C.S. Cayler		Assigned Site Reference #: 2002-10250	
Company: Plains Pipeline, L.P.			
Street Address: PO Box 3119		Notified Date/Time:	
Mailing Address: 3705 East Highway 158		Notified by: Pat McCasland, EPI	
City, State, Zip: Midland, Texas 79702		Person Notified:	
Representative: Camille Reynolds		NRC Report# :	
Representative Telephone: 505.396.3341 (email CJReynolds@paalp.com)			
Telephone:			
Fluid volume released (bbls): 70 bbls		Recovered (bbls): 0 bbls	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name: C.S. Cayler			
Source of contamination: 8" Steel Pipeline			
Land Owner, i.e., BLM, ST, Fee, Other: Robert C. Rice			
LSP Dimensions 70' x 30'			
LSP Area: 2,199 sqft			
Location of Reference Point (RP)			
Location distance and direction from RP			
Latitude: 32 52' 2.45"N			
Longitude: 103 17' 17.73"W			
Elevation above mean sea level: 3,810'amsl			
Feet from South Section Line			
Feet from West Section Line			
Location- Unit or ¼: NW¼ of the NE¼		Unit Letter: B	
Location- Section: 6			
Location- Township: T17S			
Location- Range: R37E			
Surface water body within 1000' radius of site: none			
Domestic water wells within 1000' radius of site: none			
Agricultural water wells within 1000' radius of site: none			
Public water supply wells within 1000' radius of site: none			
Depth from land surface to groundwater (DG) ~78' bgs			
Depth of contamination (DC) - 78' bgs			
Depth to groundwater (DG - DC = DtGW) - 0			
1. Groundwater		2. Wellhead Protection Area	
If Depth to GW <50 feet: 20 points		If <1000' from water source, or; <200' from private domestic water source: 20 points	
If Depth to GW 50 to 99 feet: 10 points		If >1000' from water source, or; >200' from private domestic water source: 0 points	
If Depth to GW >100 feet: 0 points		Wellhead Protection Area Score=0	
Groundwater Score = 20		Surface Water Score= 0	
Site Rank (1+2+3) = 20			
Total Site Ranking Score and Acceptable Concentrations			
Parameter	>19	10-19	0-9
Benzene ¹	10 ppm	10 ppm	10 ppm
BTEX ¹	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm
¹ 100 ppm field VOC headspace measurement may be substituted for lab analysis			

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2004

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☐ Final Report

Name of Company: Plains All American Pipeline	Contact: Camille Reynolds	
Address: PO Box 3119, Midland, Texas 79702	Telephone No. 505.396.3341	
Facility Name C.S. Cayler #2002-10250	Facility Type 8" Steel Pipeline	
Surface Owner: Robert C. Rice	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter B	Section 6	Township T17S	Range R37E	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea
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Latitude: **32° 52' 2.45"N** Longitude: **103° 17' 17.73"W**

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 70 bbls barrels	Volume Recovered 0 bbls barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 9-19-02 @ 8:00 AM	Date and Hour of Discovery 9-19-02 @ 12:00 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Pat McCasland, EPI	Date and Hour 9-19-02 @ 3:15 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*

Groundwater impacted and is being delineated and monitored. Product being recovered.

Describe Cause of Problem and Remedial Action Taken.* **8" Steel Pipeline: The cause was either internal or external corrosion. Contaminated soil placed on a plastic barrier.**

Describe Area Affected and Cleanup Action Taken.*

2,199 sqft 70' x 30': Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be disposed of.

Remedial Goals: TPH 8015m = 100 mg/Kg, Benzene = 10 mg/Kg, and

BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
E-mail Address: CJReynolds@PAALP.com	Approval Date:	Expiration Date:
Title: District Environmental Supervisor	Conditions of Approval:	Attached ☐
Date:	Phone: 505.396.3341	

Attach Additional Sheets If Necessary