

**AP - 41**

**ANNUAL  
MONITORING REPORT**

**YEAR(S):  
2005**



*Report on  
L-Drive*

## 2005 ANNUAL MONITORING REPORT

Hugh Gathering 090402  
Ref. # 2002-10235  
(Company #231735)

*AP-41*

UL-P (SE $\frac{1}{4}$  of the SE $\frac{1}{4}$ ) of Section 11, R37E, T21S  
Latitude 32°29'11.007"N and Longitude 103°07'33.864"W  
Elevation ~3,425'amsl

3 miles northeast of Eunice, Lea County, New Mexico

February 2006

Prepared by

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## Distribution List

2005 Annual Monitoring Report  
Plains Pipeline, L.P., Hugh Gathering Ref. # 2002-10235  
(Company #231735)

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## STANDARD OF CARE

2005 Annual Monitoring Report  
Plains Pipeline, L.P.  
Hugh Gathering  
Ref. # 2002-10235  
(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.

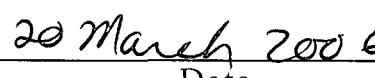
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Date

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Iain A. Olness, P.G.  
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Date

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## 1.0 BACKGROUND AND PREVIOUS REMEDIAL ACTIVITIES

This site is located in Unit Letter P (the SE $\frac{1}{4}$  of the SE $\frac{1}{4}$ ) of Section 11, Range 37 East, Township 21 South at a latitude of 32°29'11.007"N and a longitude of 103°07'33.864"W approximately 3 miles northeast of Eunice, Lea County, New Mexico on property owned by James A. Bryant (reference *Figure 1* through *Figure 3*). The release occurred from the 6" steel pipeline on September 4, 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 initial crude oil release volume was estimated to be approximately 50 barrel (bbls) with no crude oil recovered. The cause was attributed to either internal or external corrosion of the steel pipeline and initially impacted approximately 100 square feet ( $ft^2$ ) (10' x 10') of surface area associated with the raised vent connected to the under highway conduit on the west side of New Mexico State Road 18 (reference *Figure 2* and *Appendix II* and *Appendix III*). The line was subsequently replaced, tested and placed back in service. Impacted soils down to a depth of approximately 4- feet below ground surface (bgs) were disposed of in an NMOCD approved landfarm and the site soil and groundwater impacts delineated. There are no surface water bodies or domestic or agricultural water wells within 1,000 horizontal feet of the site. During site soil delineation in September 2002, phase separated hydrocarbons (PSH) were found to have impacted groundwater measured at approximately 60 feet below ground surface (bgs). In September 2002, a single 2" PVC cased monitor well (MW-1) was installed during soil delineation activities to evaluate PSH thickness and to initiate PSH recovery.

In June and July 2003, with NMOCD approval, groundwater monitoring wells MW-2, MW-3, MW-4 and MW-5 were installed. Recovery of PSH from groundwater monitoring wells MW-1, MW-2 and MW-4 ensued on a weekly basis. In August 2003, daily recovery began with deployment of a gasoline powered eductor type PSH recovery system. Site surveillance was conducted daily to monitor water and PSH levels, deploy the trailer mounted product recovery system, and manage produced fluids.

In 2004, with NMOCD approval, groundwater monitoring wells MW-6, MW-7, MW-8, MW-9, MW-10, MW-11 and MW-12 were installed to further delineate and bound the horizontal extents of PSH and dissolved phase impacts. PSH was observed in groundwater monitoring wells MW-8, MW-9 and MW-10. The 2004 analytical results indicated dissolved phase hydrocarbons (BTEX) and polynuclear aromatic hydrocarbons (PAH) were detected in samples collected from groundwater monitoring well MW-5. BTEX and PAH were not detected at or above the respective method detection limits in 2004 samples from groundwater monitoring wells MW-6, MW-7, MW-11 and MW-12 located around the periphery of the site. PSH was present in groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-8, MW-9 and MW-10 with thicknesses ranging from 11.13-feet to 0.25-feet.

## 2.0 2005 ADMINISTRATIVE TECHNICAL ACTIVITIES

In May 2005, to formalize the soil and groundwater remediation strategies consistent with NMOCD Rule 19, Plains submitted a Stage 1 and Stage 2 Abatement Plan (Abatement Plan) to the NMOCD for approval. In a letter dated June 16, 2005, the NMOCD notified Plains that the Abatement Plan was determined to be "administratively complete" and that public notice needed to be issued in accordance with the Rule 19 protocols. After the public comment period, the NMOCD subsequently approved implementation of the Abatement Plan in its letter to Plains dated November 5, 2005 (reference Appendix II).

## 3.0 2005 FIELD ACTIVITIES

Site surveillance continued in 2005 with bi-weekly inspections, monthly monitoring of groundwater and PSH levels and quarterly sampling of groundwater monitoring wells not impacted with PSH. In August 2005, because of declining PSH thicknesses and production rates, the PSH recovery method was changed from daily deployment of the trailer mounted eductor type PSH recovery system to weekly hand bailing of PSH impacted wells and installation of absorbent socks.

## 4.0 GROUNDWATER GRADIENT AND PSH THICKNESS

Groundwater levels increased slightly during the first three quarters of 2005 and receded slightly during the last quarter. The groundwater gradient continues to trend to the southeast, consistent with the area gradient as determined using measurements from the groundwater monitoring wells not impacted with PSH, (i.e., MW-5, MW-6, MW-7, MW-11 and MW-12) (reference *Table 1*, *Figure 18*, *Figure 20*, *Figure 22* and *Figure 24*). Stabilized PSH thicknesses declined in 2005 with a maximum of up to 6.26-feet in groundwater monitoring well MW-4. Cumulative PSH thickness declines, (i.e., declines recorded since inception of the PSH recovery program in 2002) ranged from 6.32-feet in monitoring well MW-1 to 0.045-feet in monitoring well MW-8 (reference *Table 4*, *Figure 18*, *Figure 20*, *Figure 22* and *Figure 24*).

## 5.0 PSH RECOVERY

In 2005, approximately 550 gallons of crude oil were recovered and reintroduced into the Plains pipeline system. Recovery was accomplished by manual bailing and absorbent socks. The total recovery volume as of December 31, 2005, including the 600 gallons recovered from 2002 through 2004, is approximately 1,150 gallons.

## 6.0 GROUNDWATER SAMPLING AND ANALYTICAL RESULTS

Groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-8, MW-9 and MW-10 were not sampled during 2005 due to the presence of PSH. Groundwater monitoring wells MW-5, MW-6, MW-7, MW-11 and MW-12 were sampled on March 31, May 11, August 17 and November 15, 2005. Prior to sampling, each well was purged a minimum of 3 well volumes or dry. Groundwater samples were collected and submitted under standard chain of custody protocols to a qualified, independent laboratory for quantification of benzene, toluene, ethylbenzene, and total xylenes (BTEX) (reference *Table 2* and *Appendix I*). Samples collected during the May 11, 2005 sampling event were also submitted for analysis of the polynuclear aromatic hydrocarbons (PAHs) (reference *Table 3* and *Appendix I*).

The New Mexico Water Quality Control Commission (WQCC) groundwater standards are as follows: benzene-10.0 microgram per liter ( $\mu\text{g}/\text{L}$ ), toluene-750  $\mu\text{g}/\text{L}$ , ethylbenzene-750  $\mu\text{g}/\text{L}$  and total xylene-620  $\mu\text{g}/\text{L}$ .

## **6.1 GROUNDWATER MONITORING WELLS MW-1 THROUGH MW-4 AND MW-8 THROUGH MW-10**

Groundwater Monitoring Wells MW-1 through MW-4 and MW-8 through MW-10 were not sampled in 2005 due to the presence of PSH.

## **6.2 GROUNDWATER MONITORING WELL MW-5**

The benzene concentrations ranged from 331  $\mu\text{g}/\text{L}$  to 1,450  $\mu\text{g}/\text{L}$  and were in excess of the 10.0  $\mu\text{g}/\text{L}$  WQCC groundwater standard. Toluene concentrations ranged from 4.70  $\mu\text{g}/\text{L}$  to 60.3  $\mu\text{g}/\text{L}$  and were below the 750  $\mu\text{g}/\text{L}$  WQCC groundwater standard. Ethylbenzene ranged from 107  $\mu\text{g}/\text{L}$  to 266  $\mu\text{g}/\text{L}$  and were below the 750  $\mu\text{g}/\text{L}$  WQCC groundwater standard. The total xylenes concentrations ranged from 18.5  $\mu\text{g}/\text{L}$  to 98.8  $\mu\text{g}/\text{L}$  and were below the 620  $\mu\text{g}/\text{L}$  WQCC groundwater standard. The PAH compounds were not detected at or above the 0.05  $\mu\text{g}/\text{L}$  method detection limit (MDL).

## **6.3 GROUNDWATER MONITORING WELL MW-6**

The BTEX and PAH compounds were not detected at or above the respective MDLs during 2005.

## **6.4 GROUNDWATER MONITORING WELL MW-7**

The BTEX and PAH compounds were not detected at or above the respective MDLs during 2005.

## **6.5 GROUNDWATER MONITORING WELL MW-11**

Benzene, ethylbenzene, total xylenes and the PAH compounds were not detected at or above the respective MDLs. Toluene concentrations ranged from not detected at or above the 1.0  $\mu\text{g}/\text{L}$  MDL to 1.66  $\mu\text{g}/\text{L}$ , below the 750  $\mu\text{g}/\text{L}$  WQCC groundwater standard.

## **6.6 GROUNDWATER MONITORING WELL MW-12**

Benzene, ethylbenzene, total xylenes and the PAH compounds were not detected above the respective MDLs. Toluene concentrations ranged from not detected at or above the 1.0  $\mu\text{g}/\text{L}$  MDL to 1.32  $\mu\text{g}/\text{L}$ , below the 750  $\mu\text{g}/\text{L}$  WQCC groundwater standard.

## **7.0 RECOMMENDATIONS**

Based on the field monitoring and analytical results collected during the past year, the following recommendations are made (reference *Table 5*):

- Continue quarterly groundwater sampling;
- Analyze PAH at least annually;
- Measure groundwater and PSH levels semi-monthly;
- Continue manual PSH recovery; and
- Implement the Abatement Plan as approved by the NMOCD.

## FIGURES

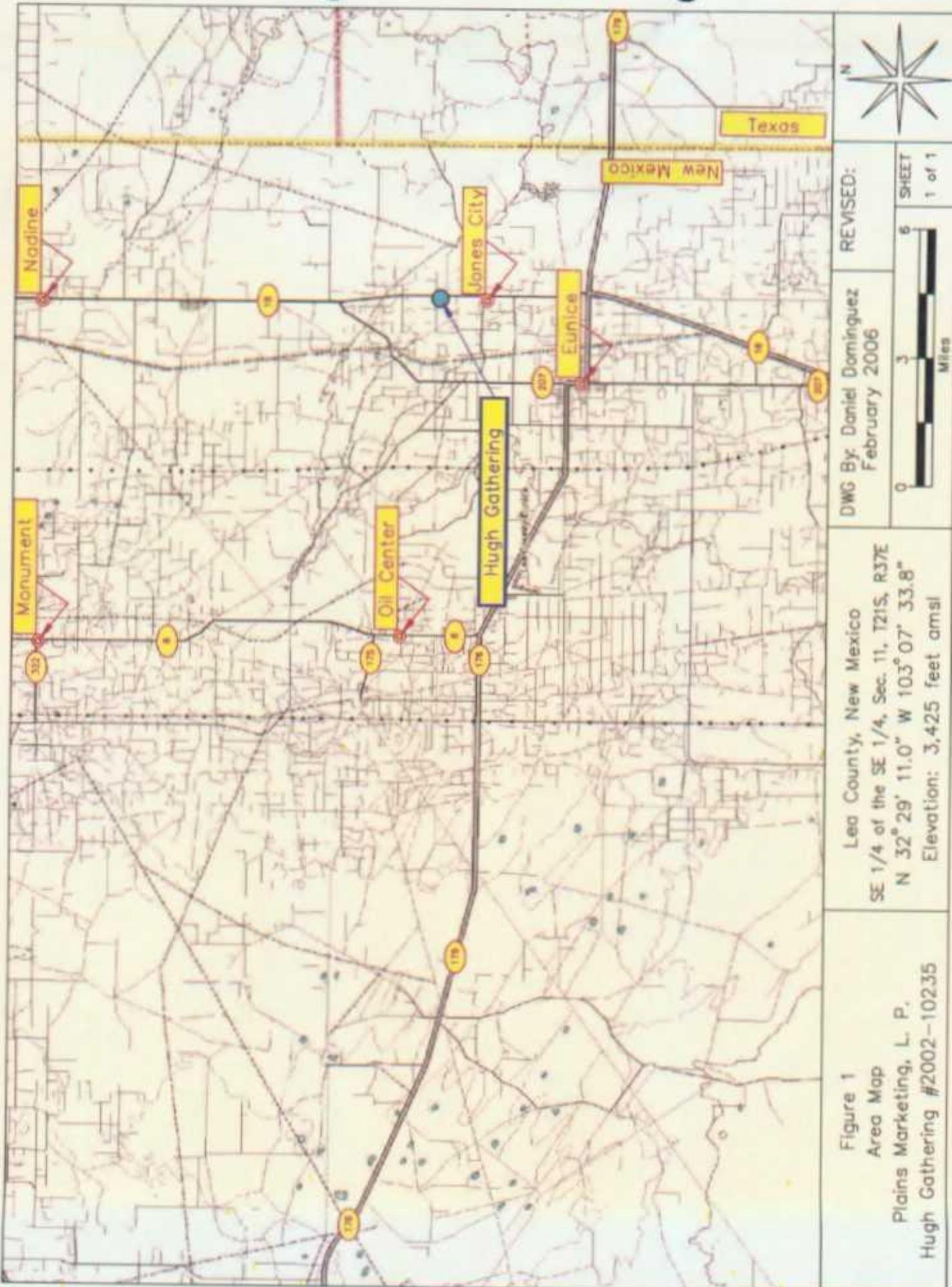


Figure 1  
 Area Map  
 Plains Marketing, L. P.  
 Hugh Gathering #2002-10235

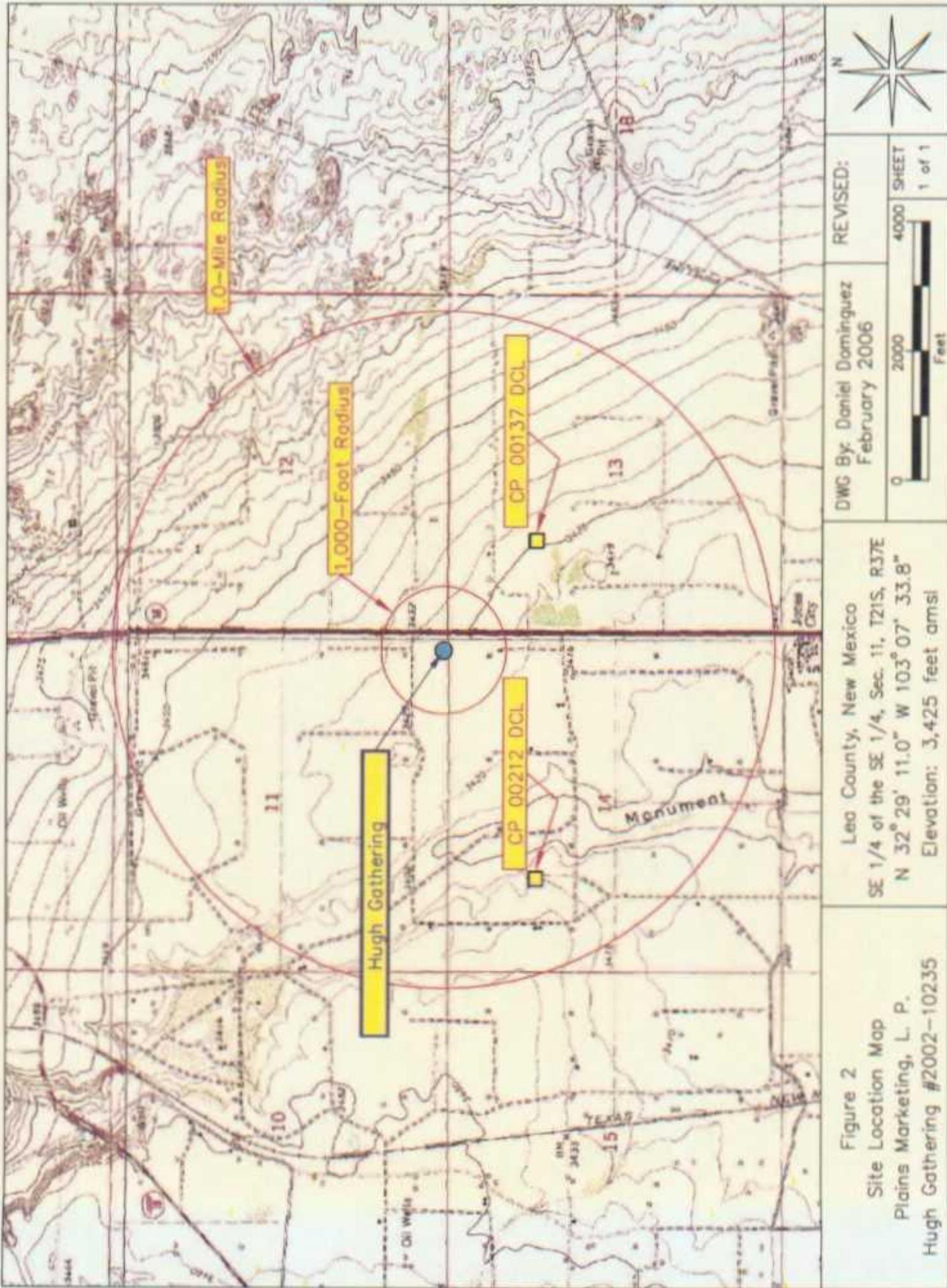


Figure 2  
Site Location Map  
Plains Marketing, L. P.  
Hugh Gathering #2002-1023

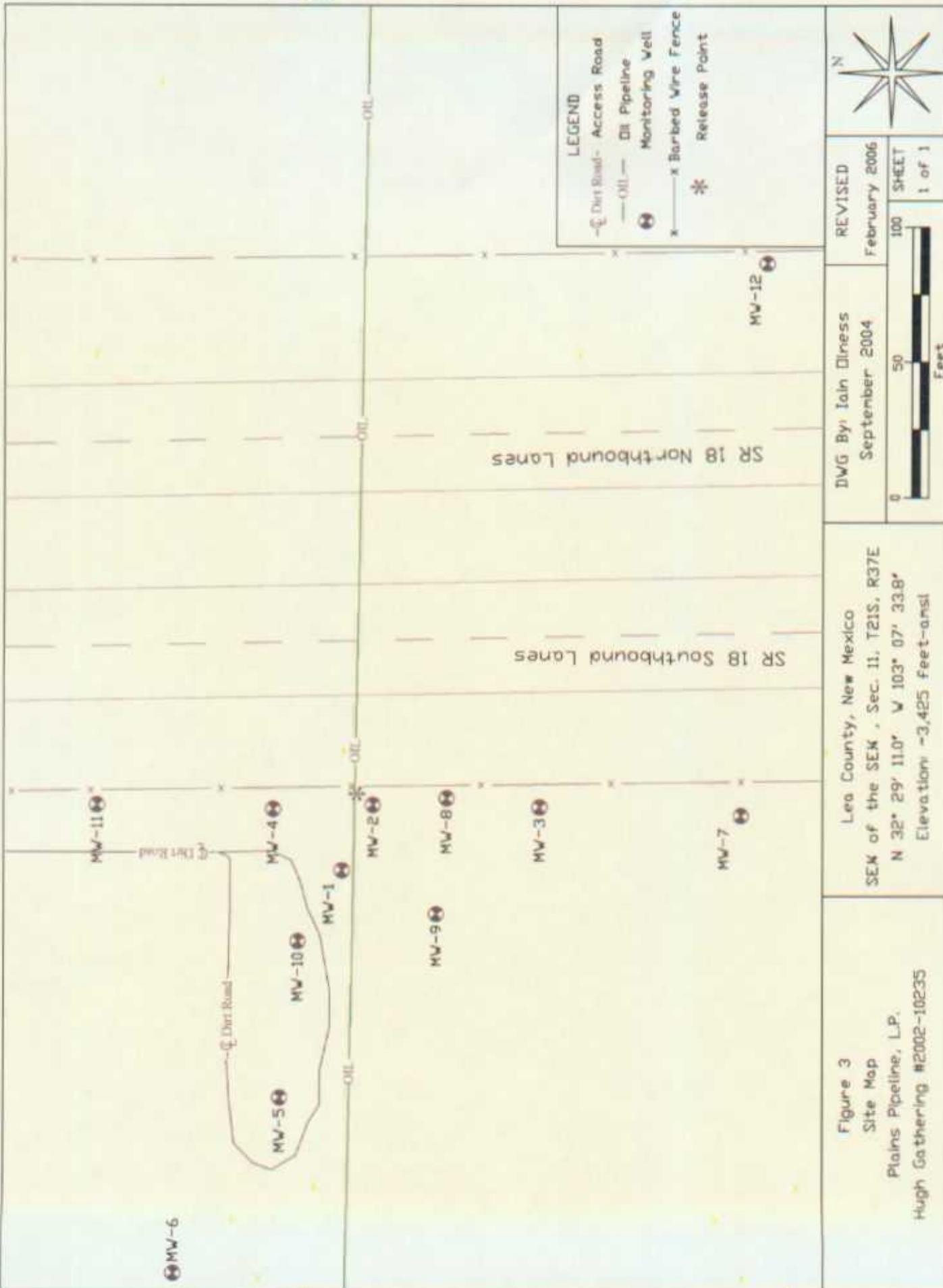


Figure 3  
Site Map  
Plains Pipeline, L.P.  
Hugh Gathering #2002-10235

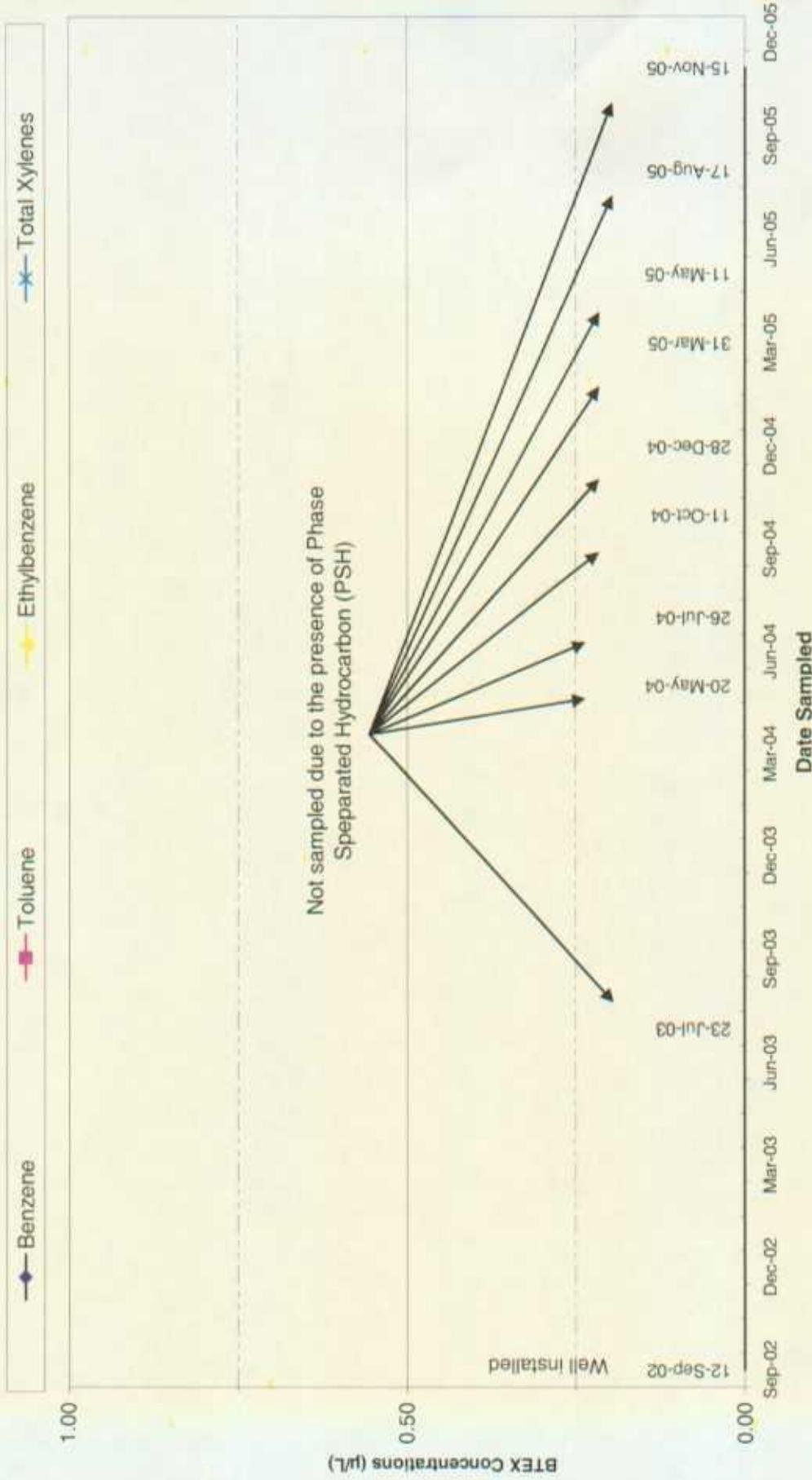
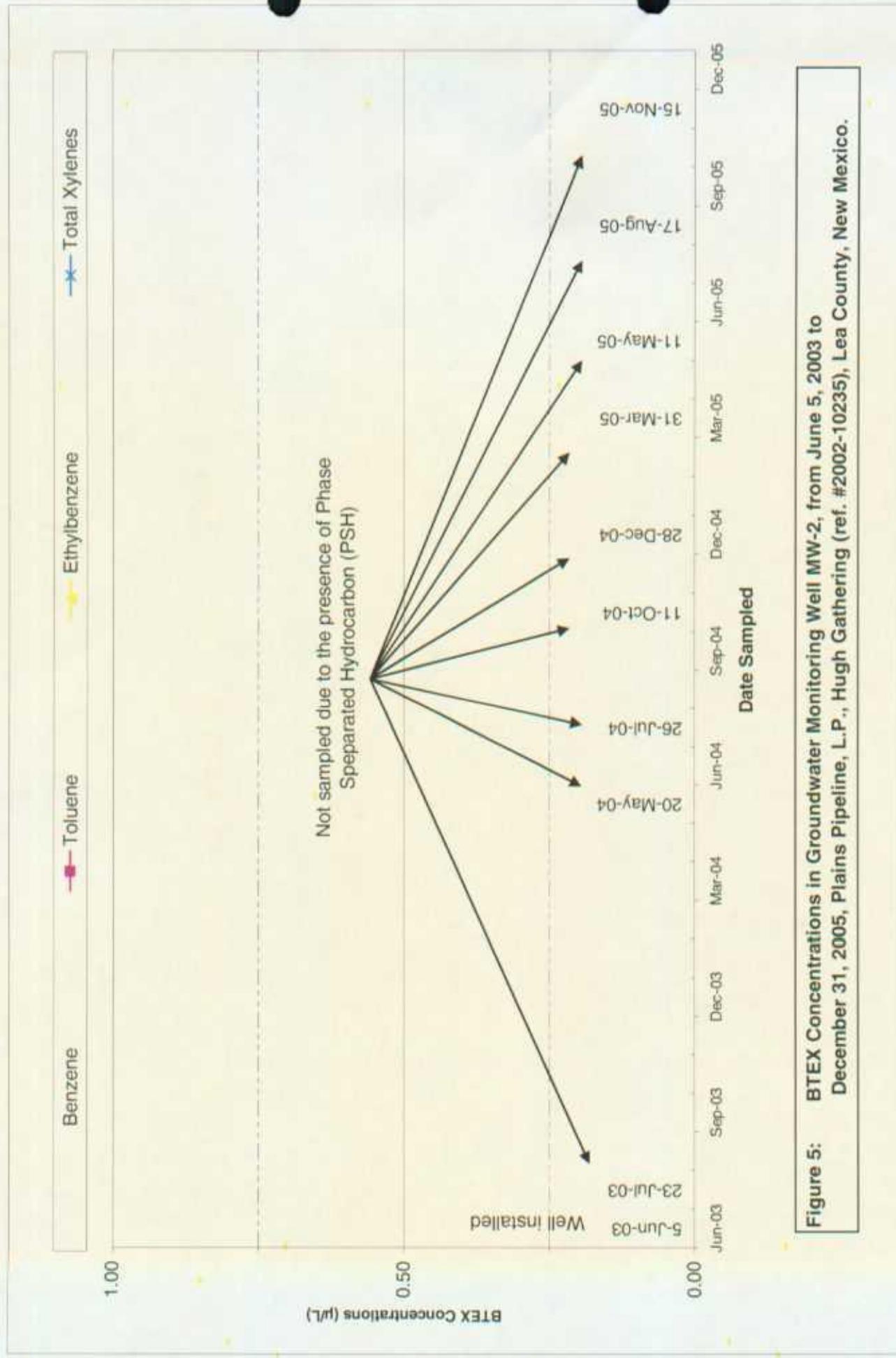
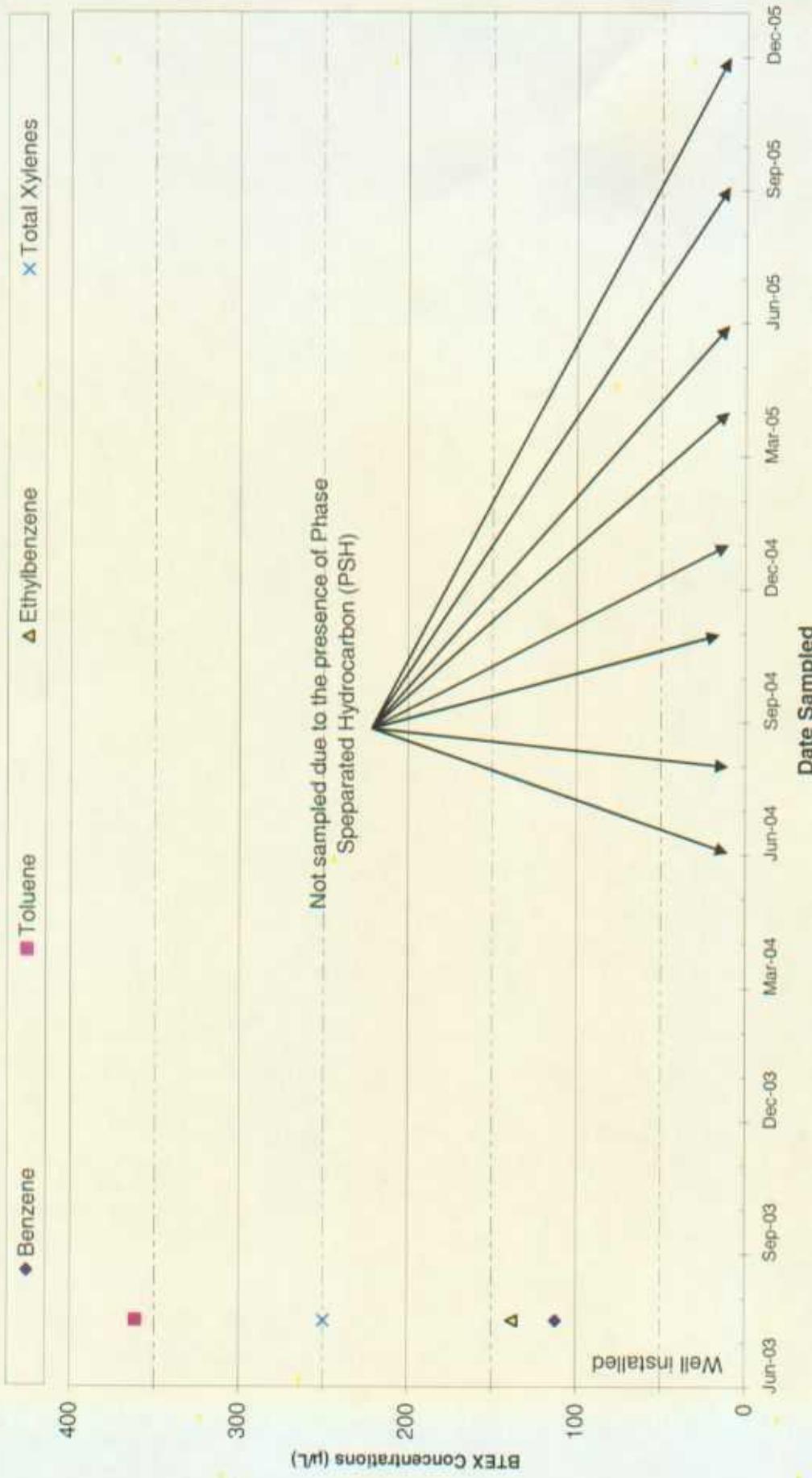


Figure 4: BTEX Concentrations in Groundwater Monitoring Well MW-1, from September 12, 2002 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.



**Figure 5:** BTEX Concentrations in Groundwater Monitoring Well MW-2, from June 5, 2003 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.



**Figure 6:** BTEX Concentrations in Groundwater Monitoring Well MW-3, from June 9, 2003 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.

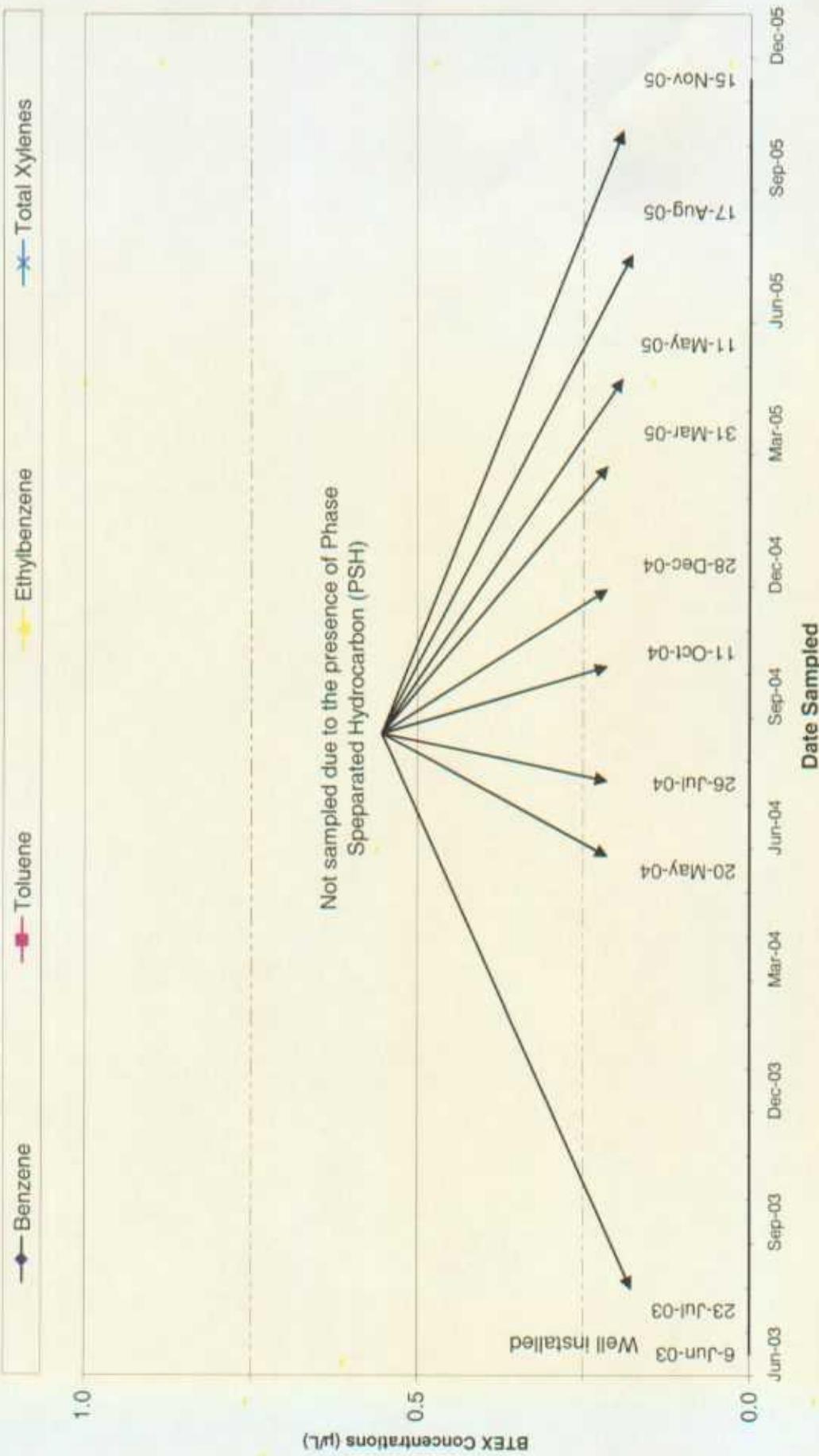
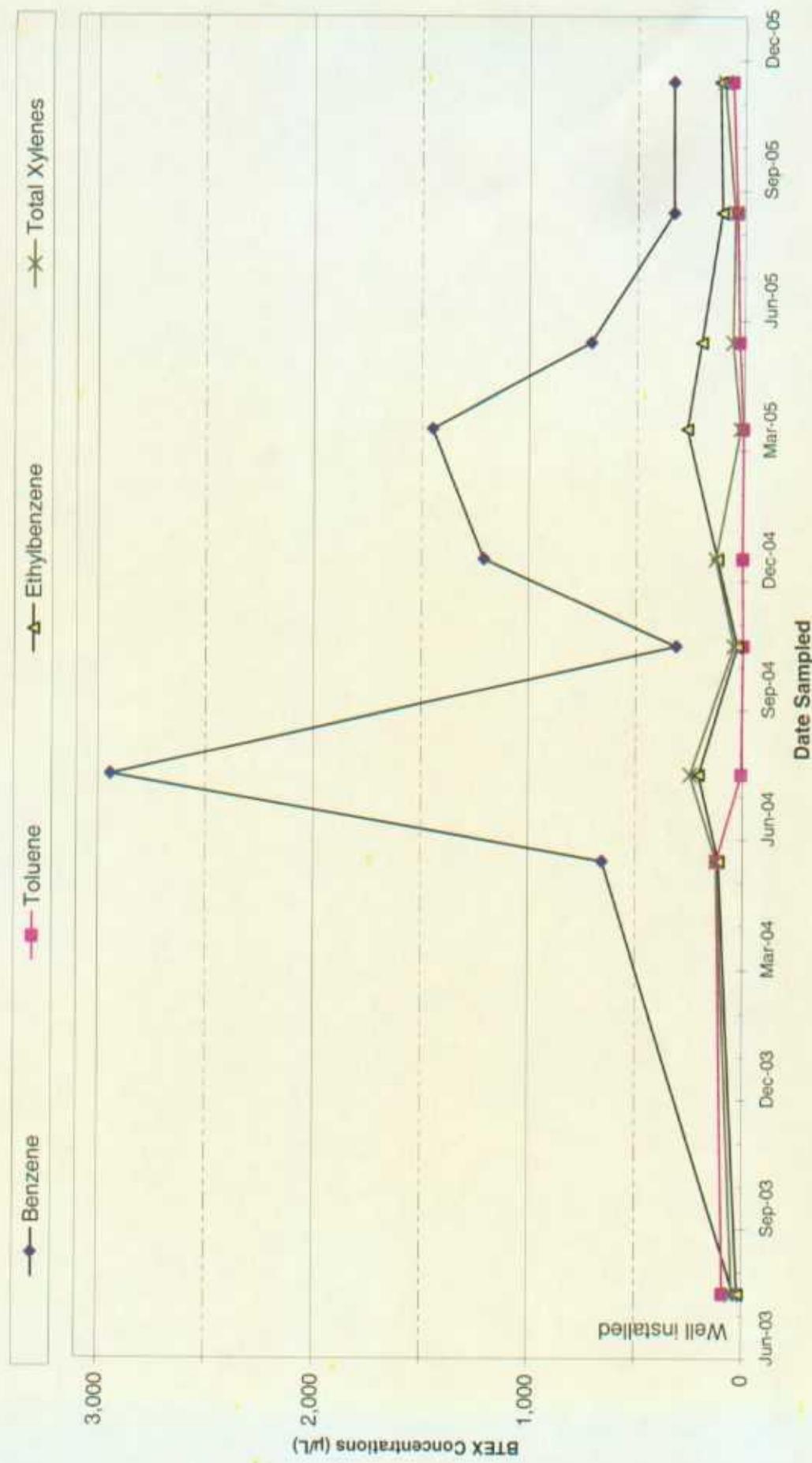
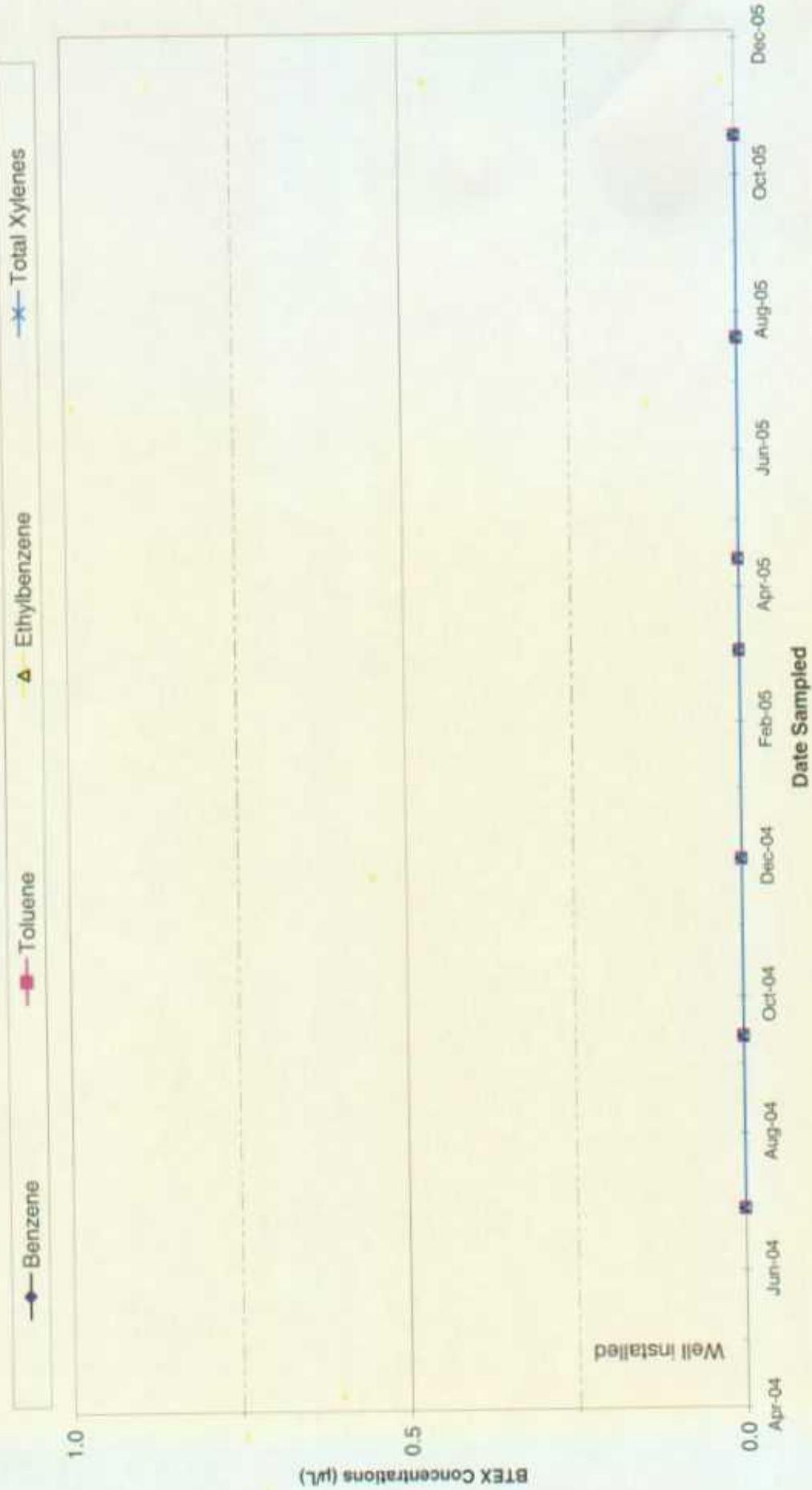


Figure 7: BTEX Concentrations in Groundwater Monitoring Well MW-4, from June 6, 2003 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.



**Figure 8:** BTEX Concentrations in Groundwater Monitoring Well MW-5, from June 12, 2003 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.



**Figure 9:** BTEX Concentrations in Groundwater Monitoring Well MW-6, from April 29, 2004 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.

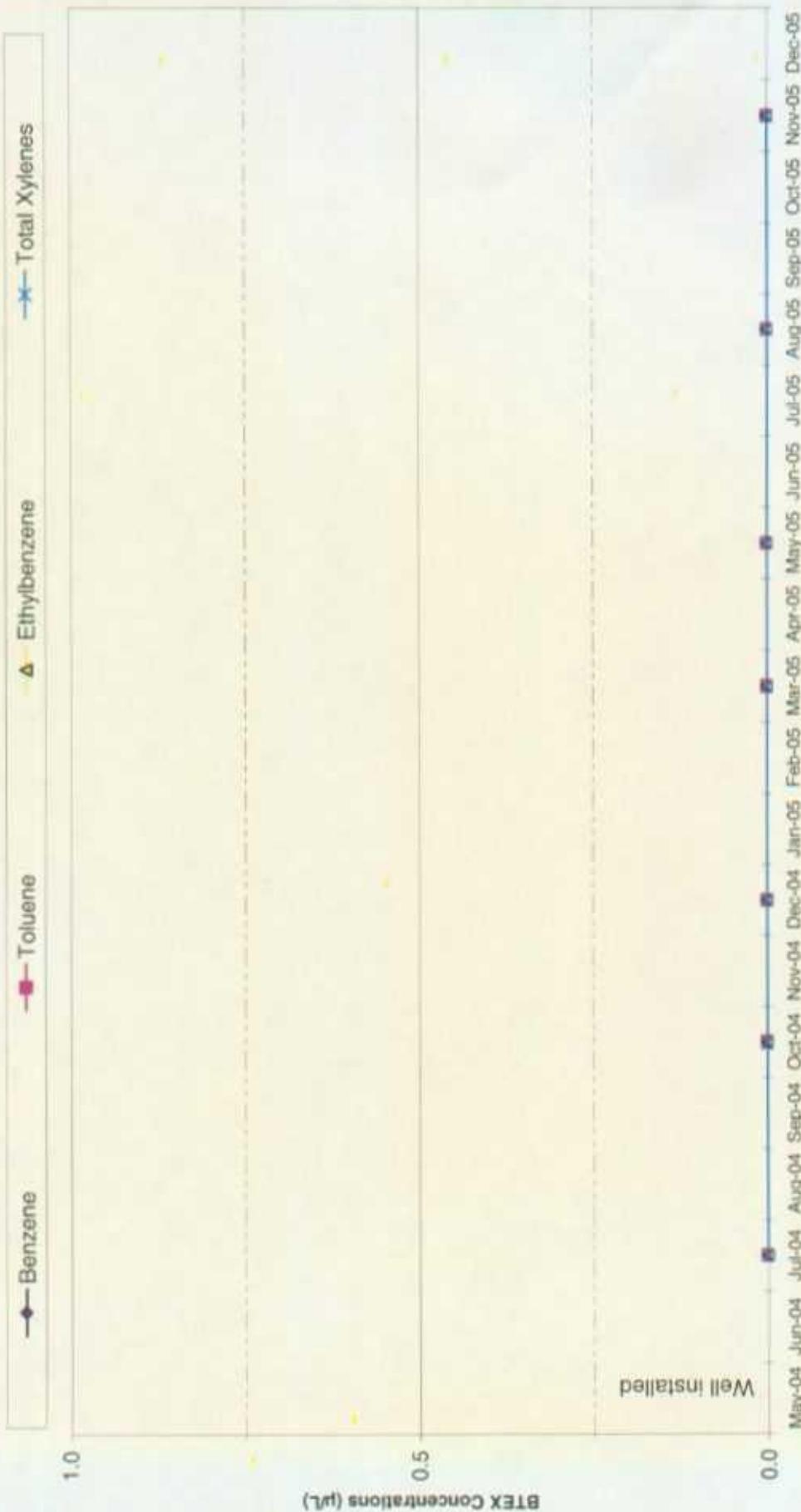
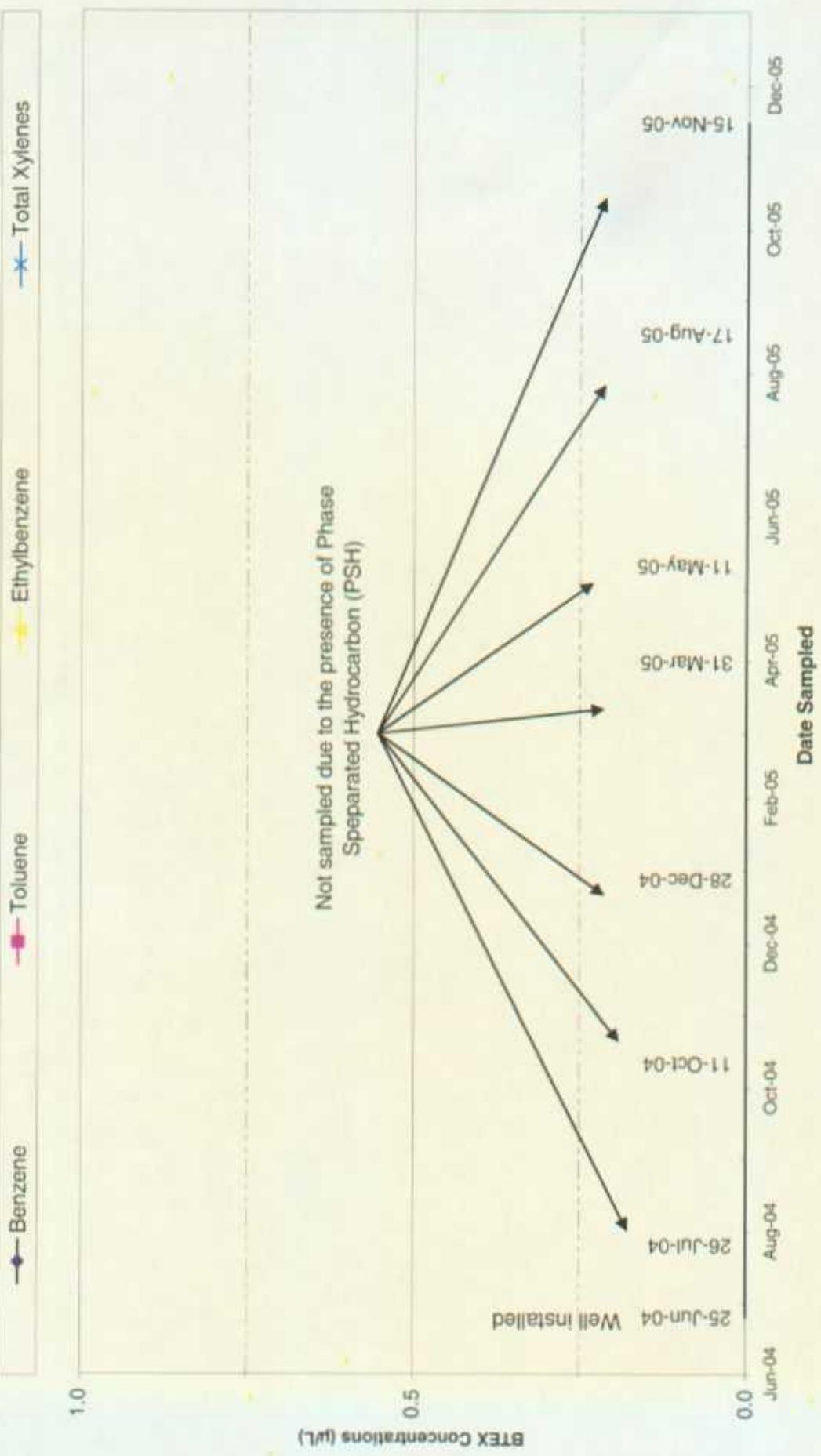
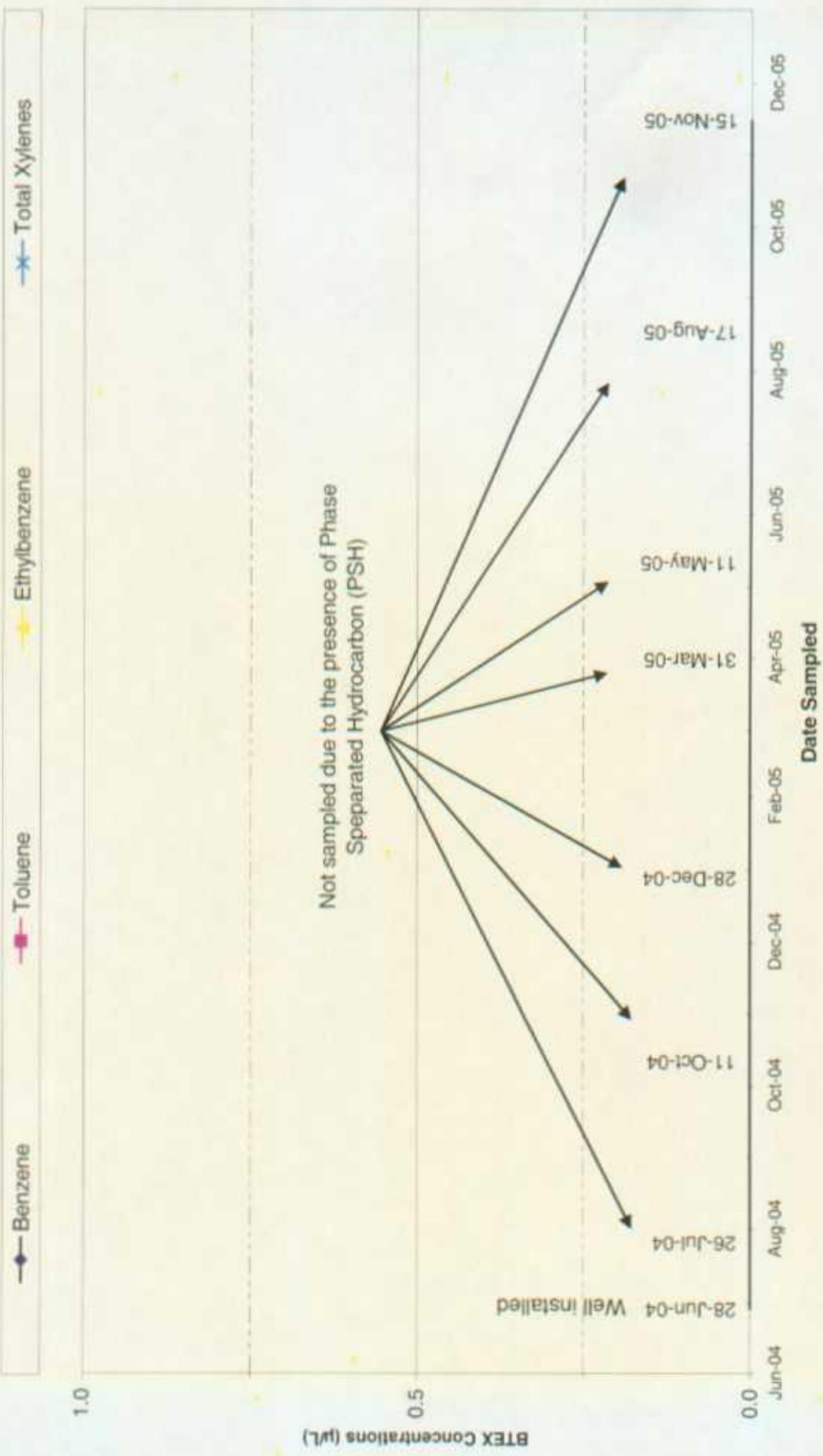


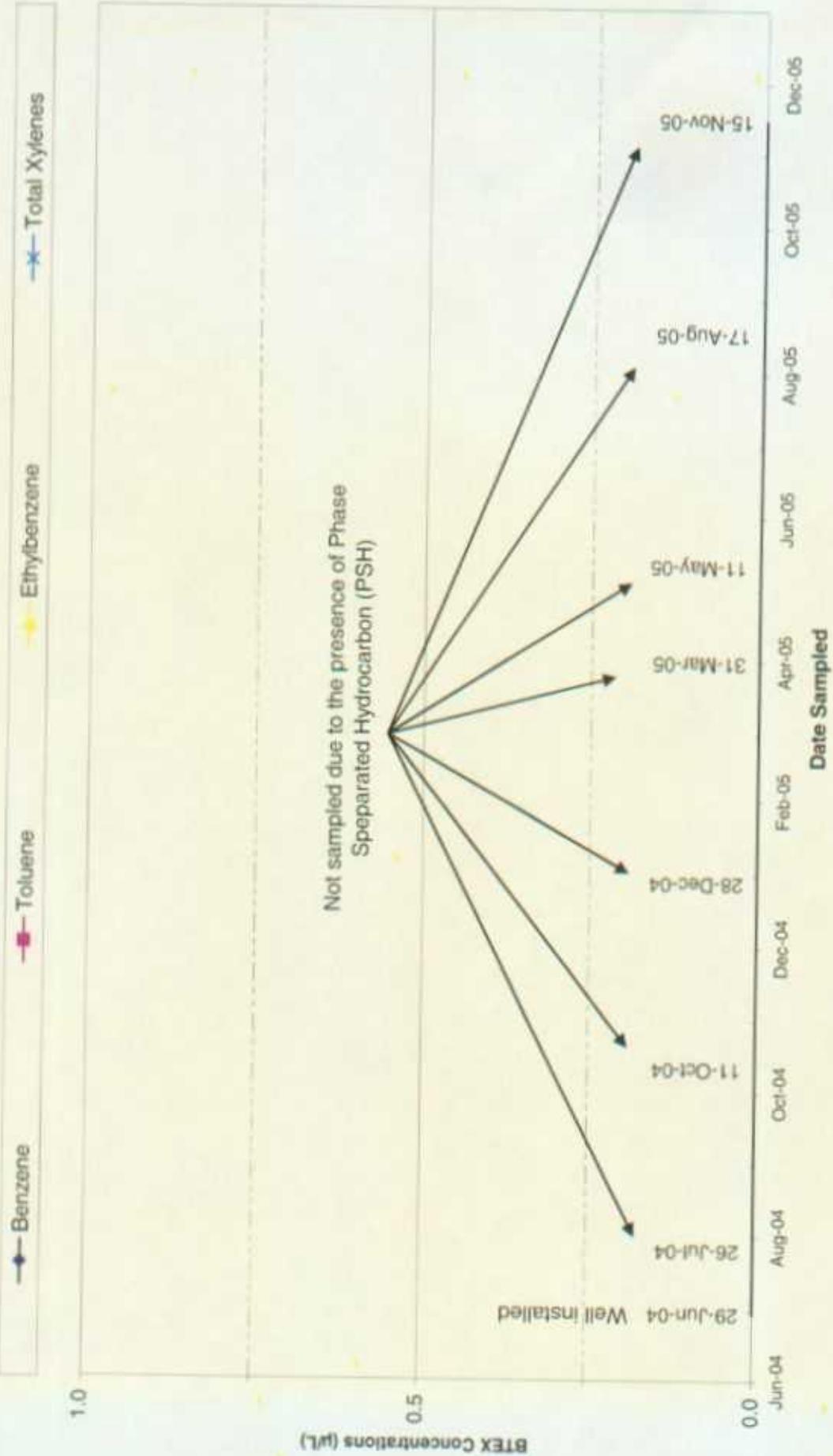
Figure 10: BTEX Concentrations in Groundwater Monitoring Well MW-7, from May 20, 2004 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.



**Figure 11:** BTEX Concentrations in Groundwater Monitoring Well MW-8, from June 25, 2004 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.



**Figure 12:** BTEX Concentrations in Groundwater Monitoring Well MW-9, from June 28, 2004 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.



**Figure 13:** BTEX Concentrations in Groundwater Monitoring Well MW-10, from June 29, 2004 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.

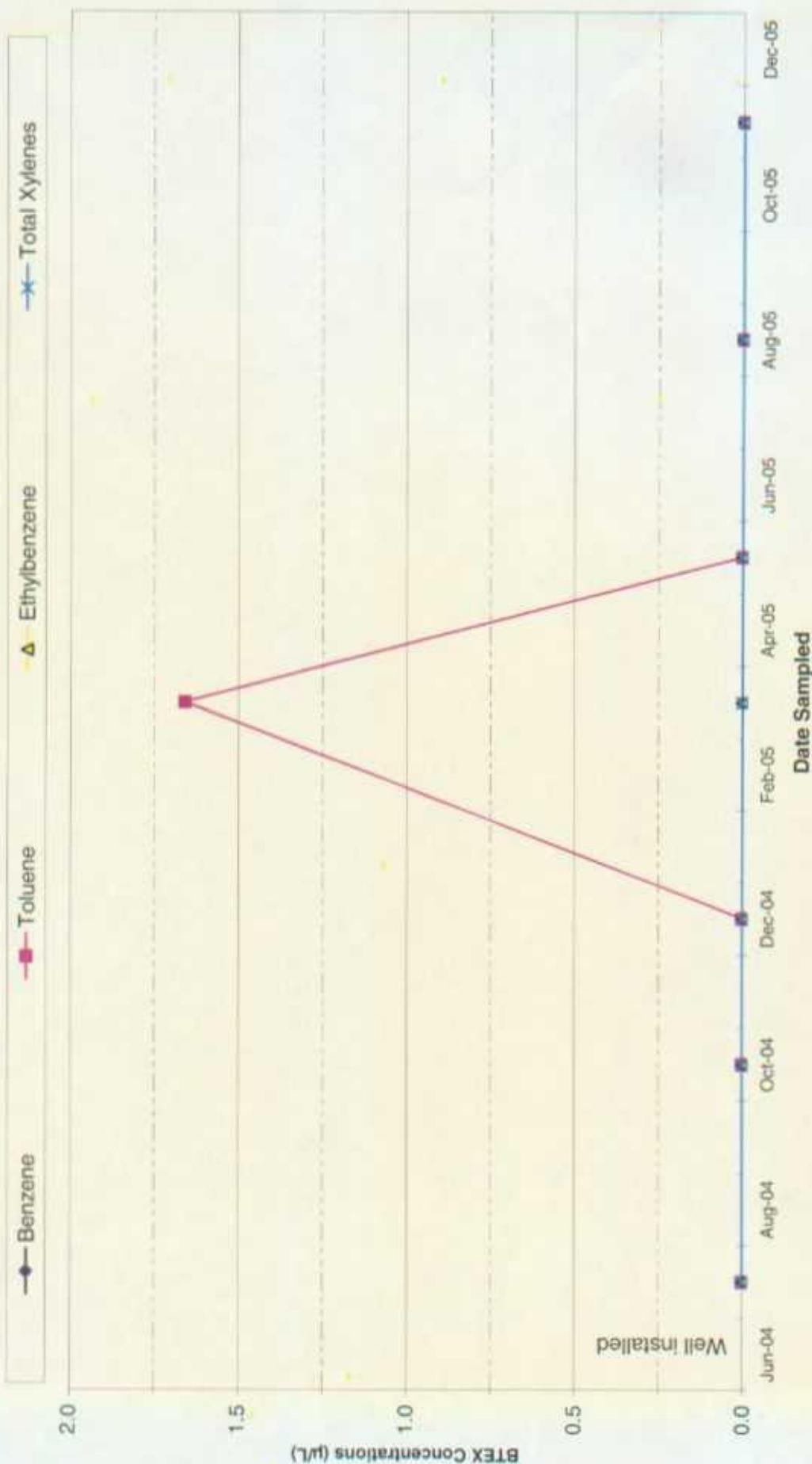


Figure 14: BTEX Concentrations in Groundwater Monitoring Well MW-11, from June 24, 2004 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.



Figure 15: BTEX Concentrations in Groundwater Monitoring Well MW-12, from December 1, 2004 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.

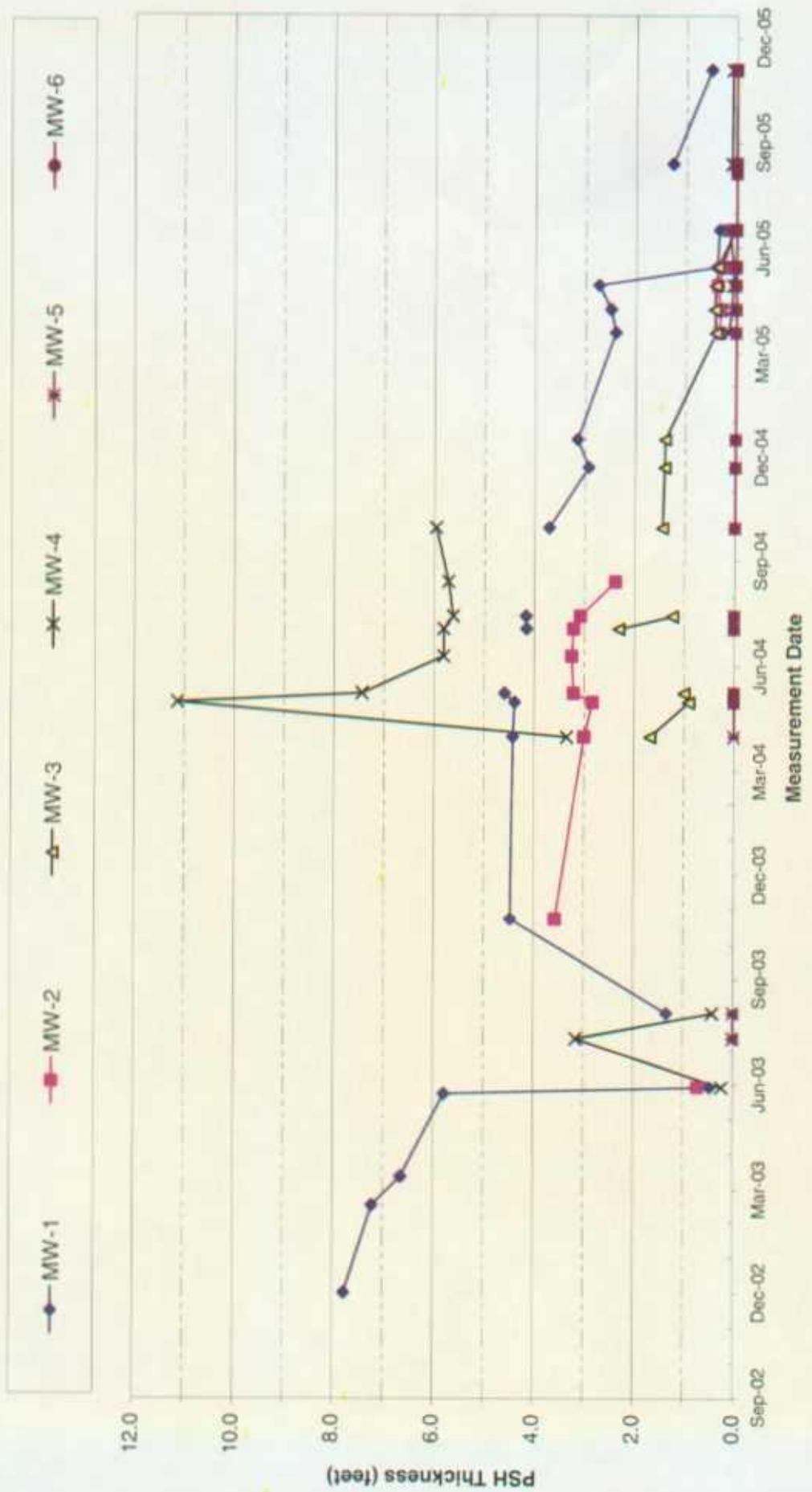


Figure 16: PSH Thickness in Groundwater Monitoring Wells MW-1 through MW-6, from September 12, 2002 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.

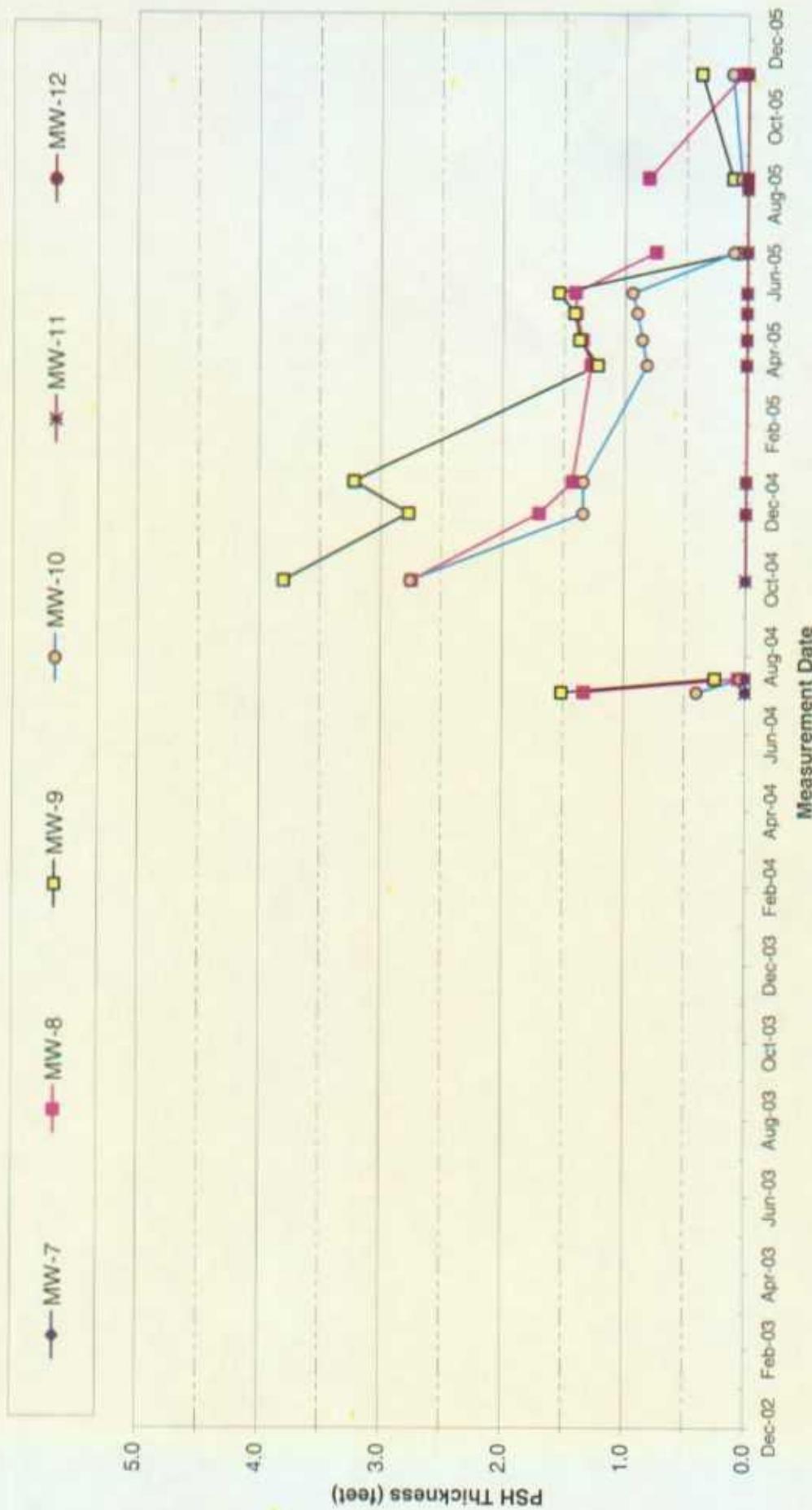


Figure 17: PSH Thickness in Groundwater Monitoring Wells MW-7 through MW-12, from September 12, 2002 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.

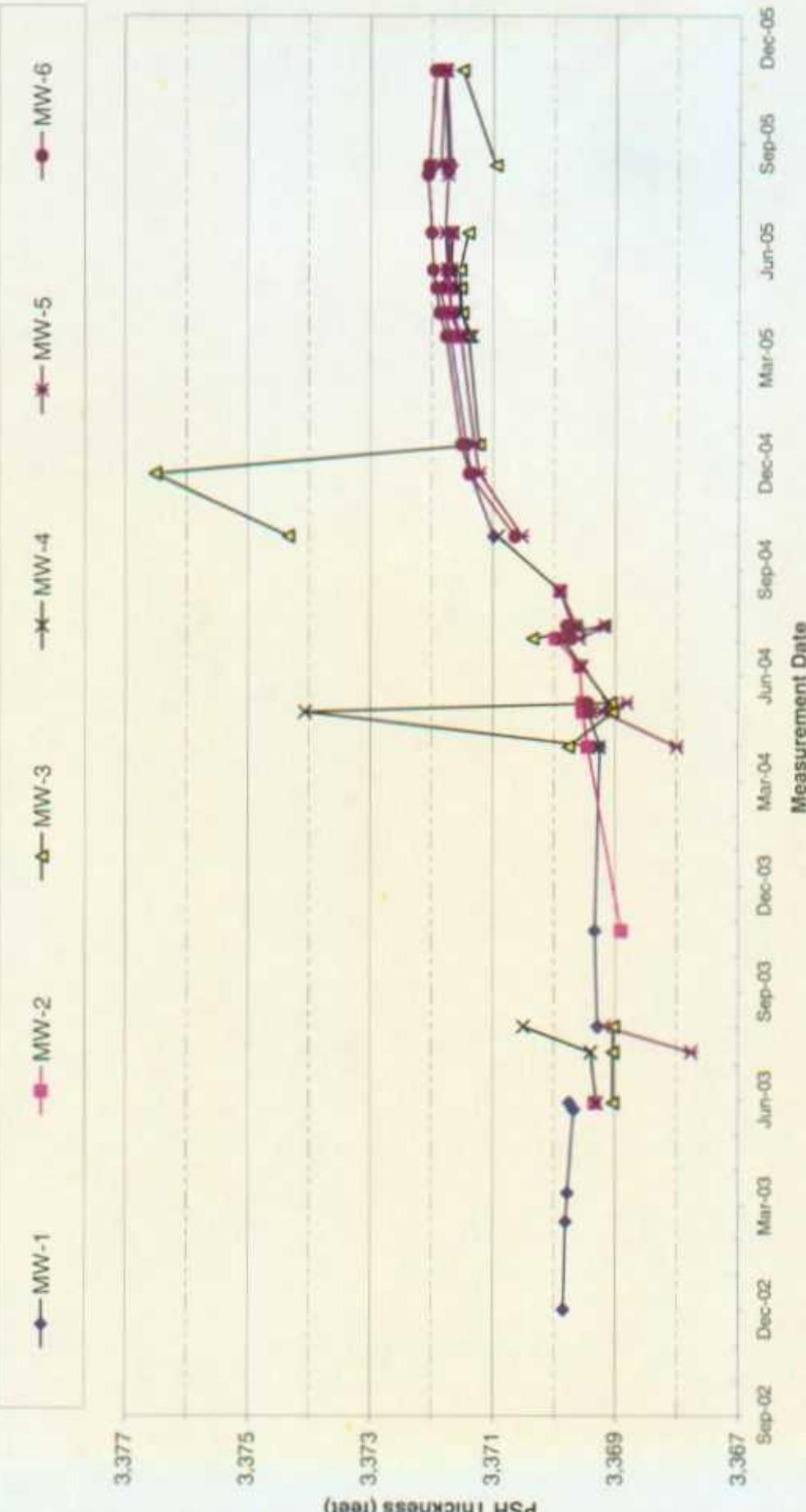
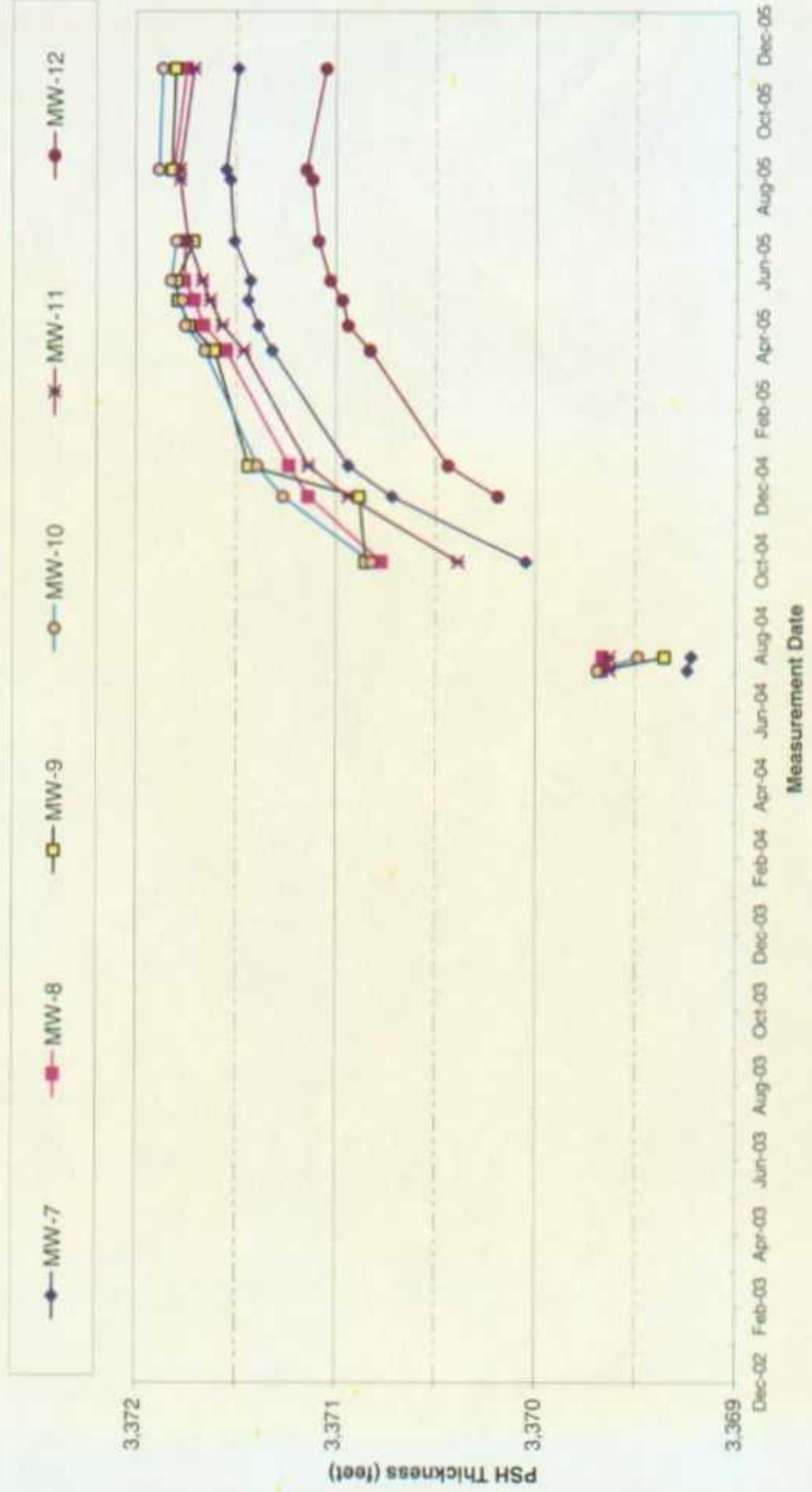
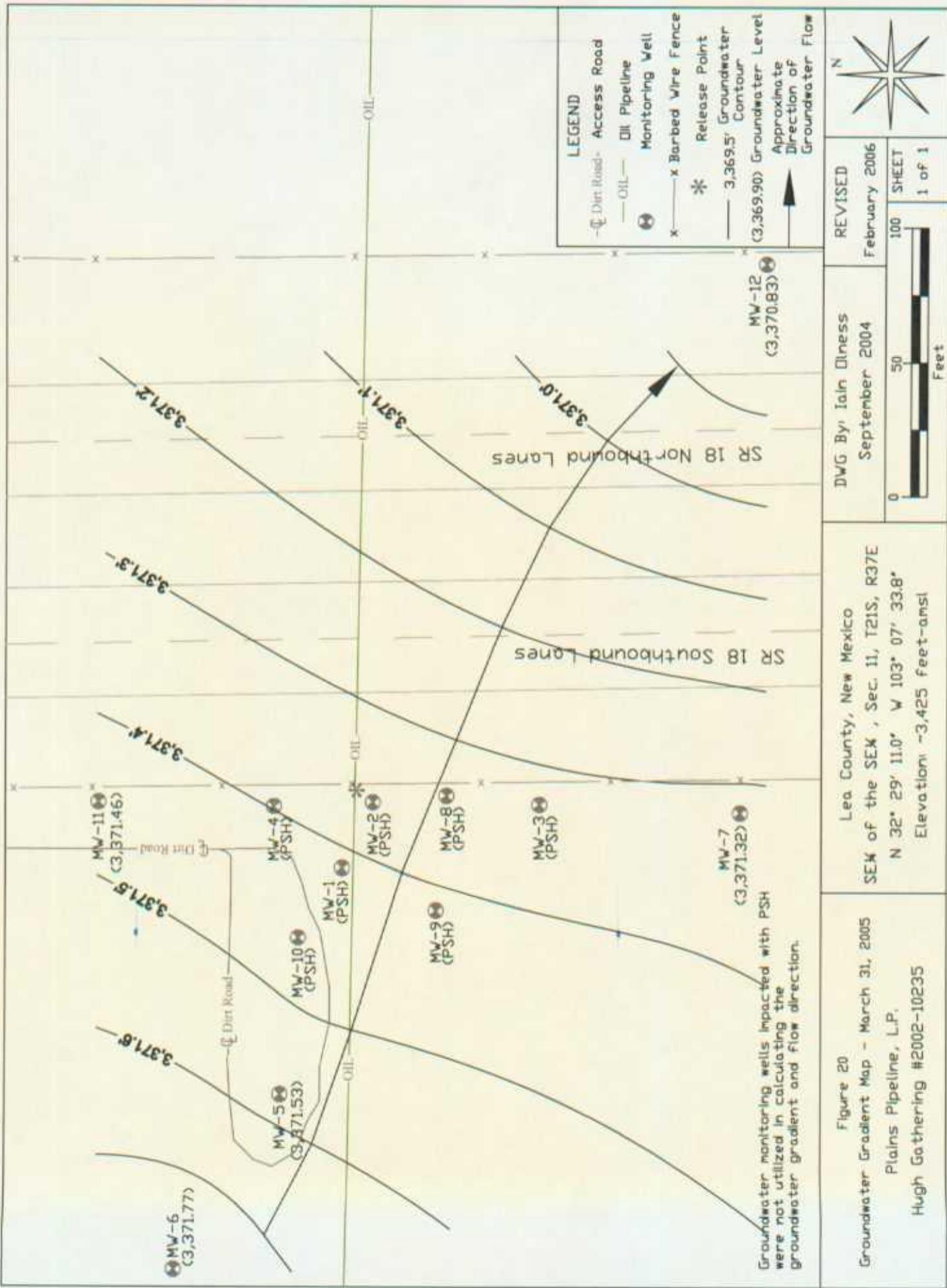


Figure 18: Hydrograph for Groundwater Monitoring Wells MW-1 through MW-6, from September 12, 2002 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.



**Figure 19:** Hydrograph for Groundwater Monitoring Wells MW-7 through MW-12, from September 12, 2002 to December 31, 2005, Plains Pipeline, L.P., Hugh Gathering (ref. #2002-10235), Lea County, New Mexico.



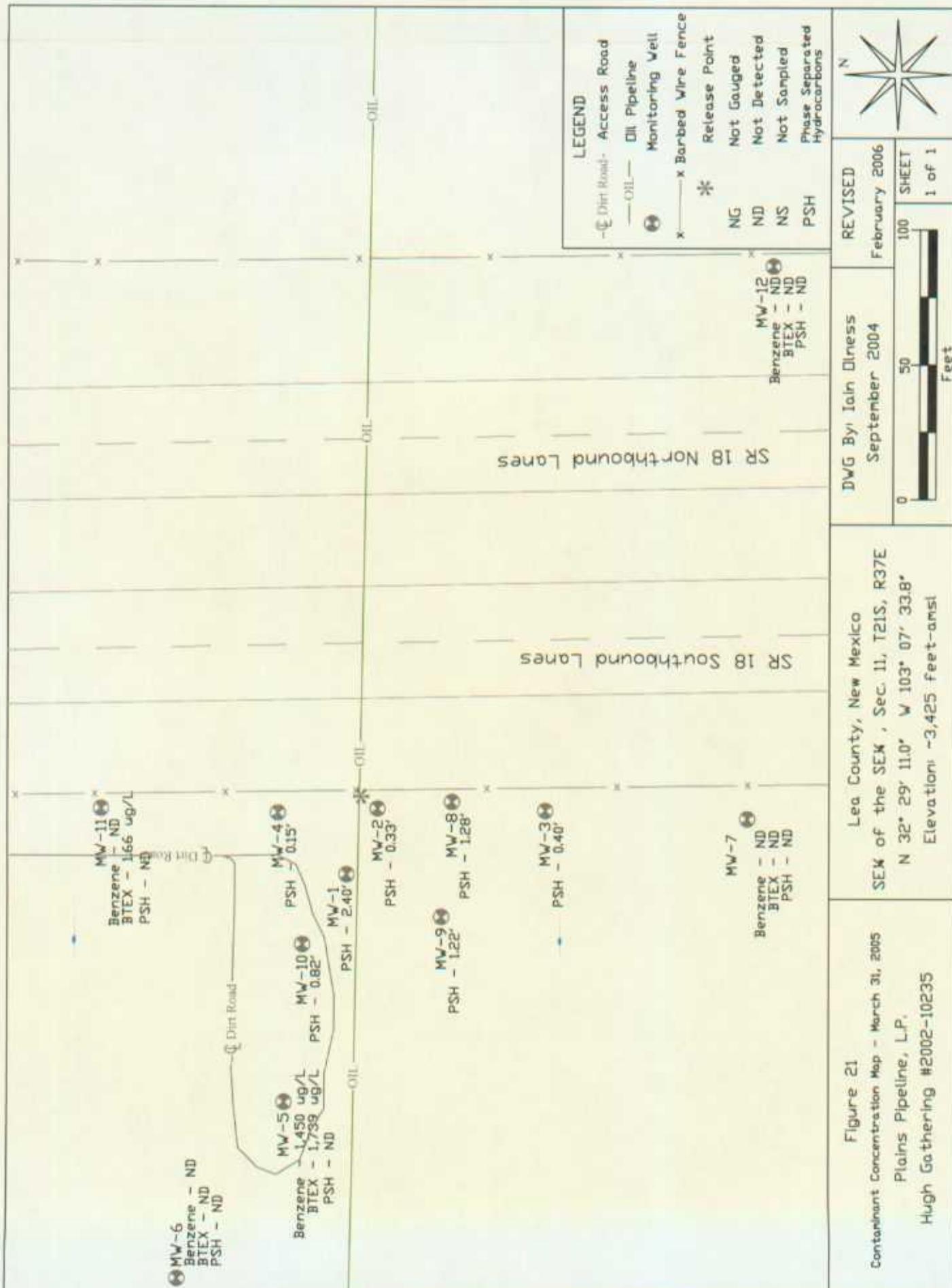
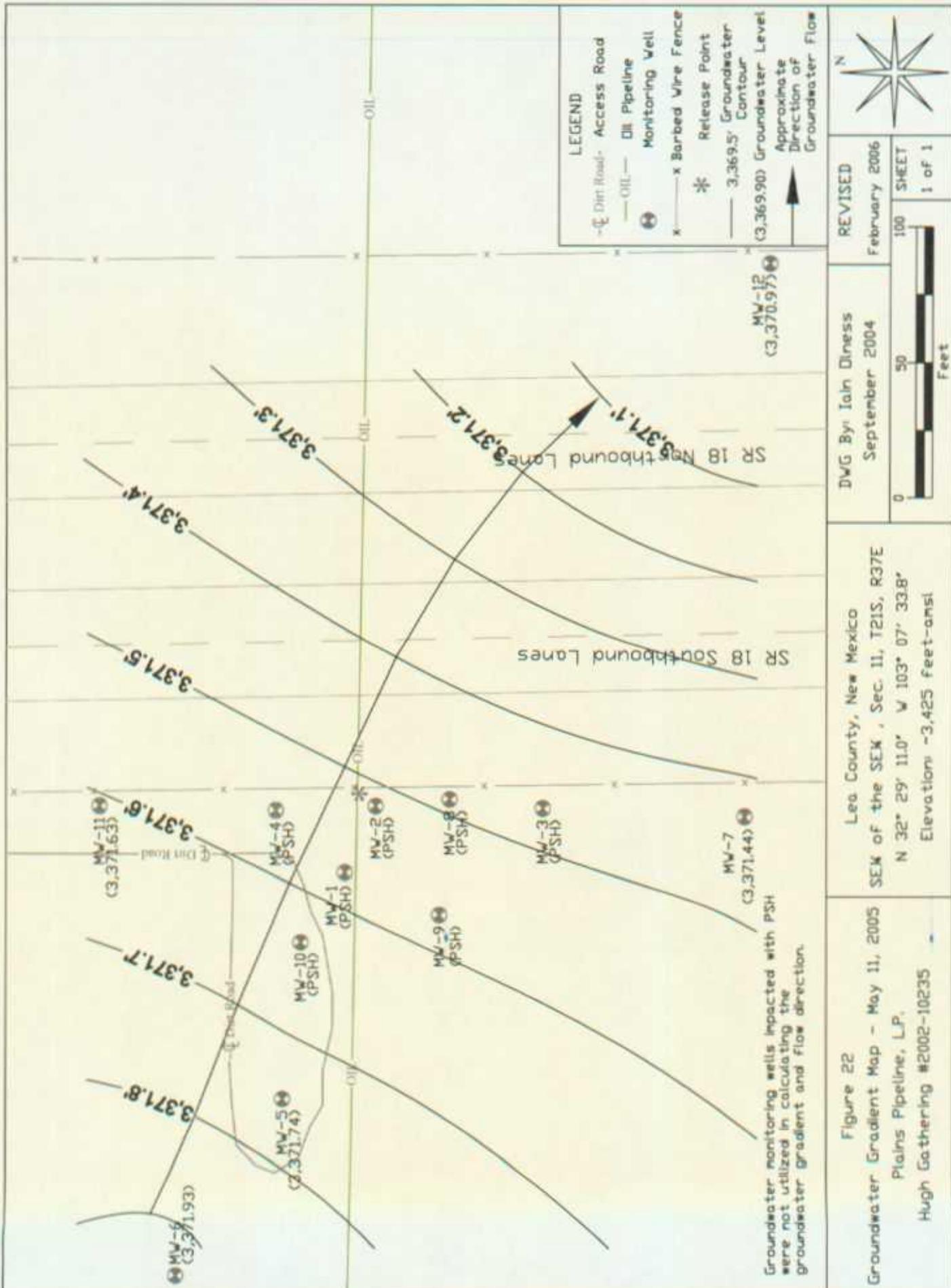


Figure 21  
Containment Concentration Map -  
Plains Pipeline,  
Hugh Gathering #200



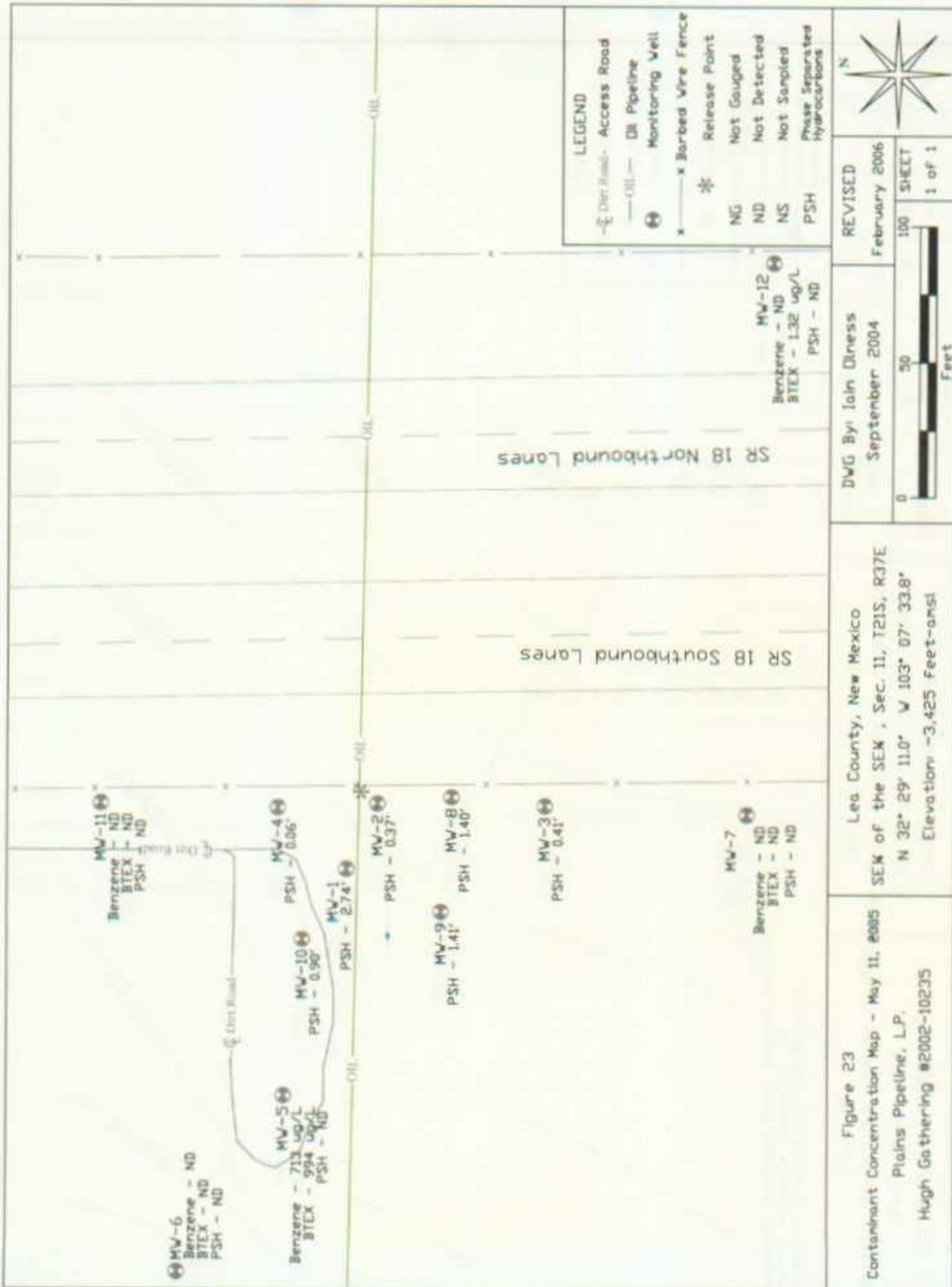
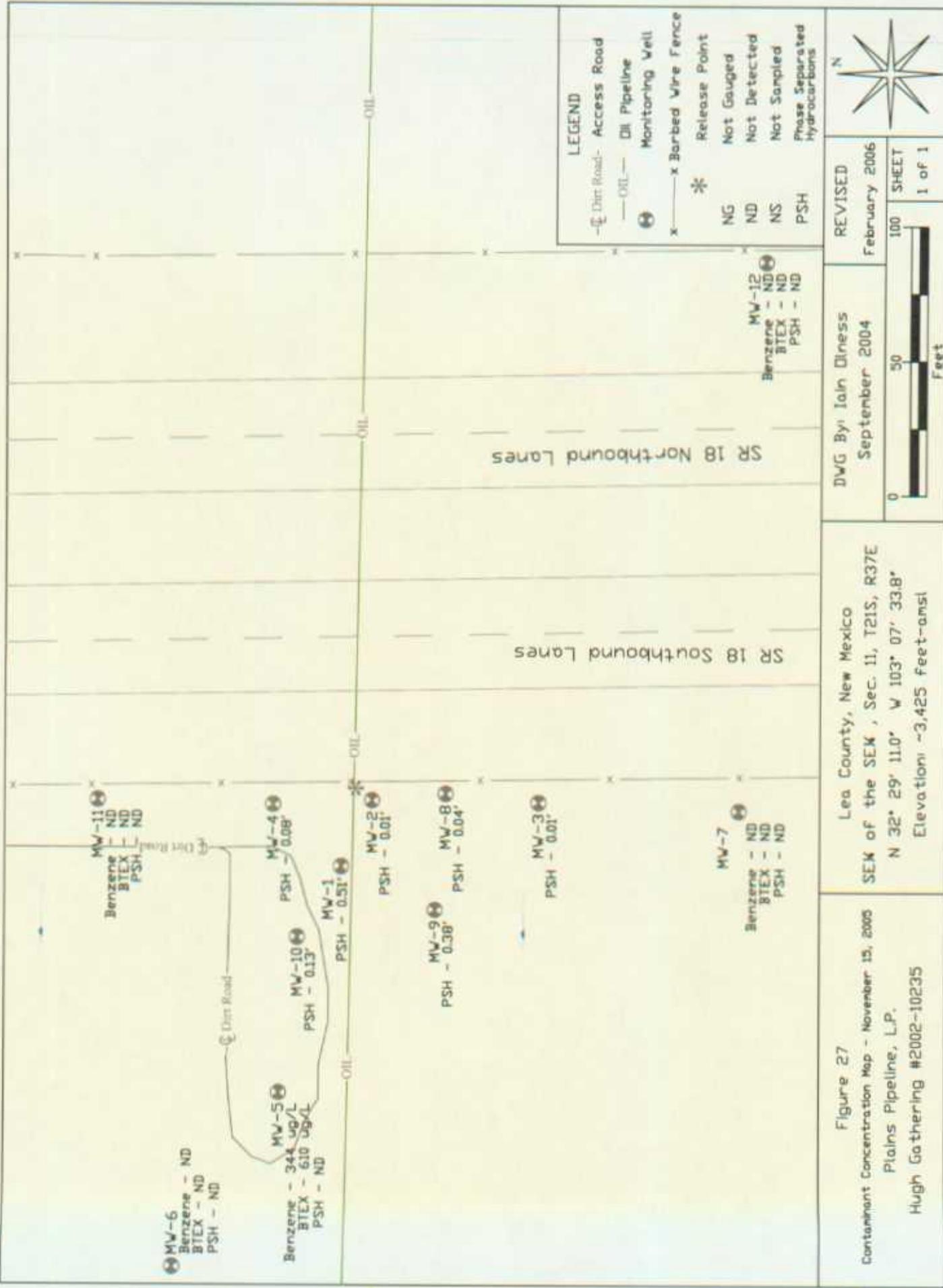


Figure 23  
Contaminant Concentration vs.  
Plains Pipeline.



## TABLES

**TABLE 1**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Relative Groundwater Elevations and**  
**Phase Separated Hydrocarbon Thicknesses**

Monitoring Well #	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)
MW-1	13-Dec-02	3,429.95	59.33	67.10	3,369.84	1.77
	27-Feb-03		59.42	66.63	3,369.81	1.21
	24-Mar-03		59.51	66.15	3,369.78	6.64
	04-Jun-03		59.70	65.48	3,369.67	5.78
	10-Jun-03		60.16	60.62	3,369.74	0.46
	23-Jul-03					
	14-Aug-03		60.53	61.86	3,369.29	1.33
	04-Nov-03		60.17	64.64	3,369.33	4.47
	12-Apr-04		60.25	64.68	3,369.26	4.43
	12-May-04		60.07	64.46	3,369.44	4.39
	20-May-04		60.03	64.63	3,369.46	4.60
	21-Jun-04					
	15-Jul-04		59.67	63.83	3,369.86	4.16
	26-Jul-04		59.91	64.08	3,369.62	4.17
	25-Aug-04					
	11-Oct-04		58.59	62.30	3,370.99	3.71
	03-Dec-04		58.29	61.22	3,371.37	2.93
	28-Dec-04		58.19	61.35	3,371.44	3.16
	31-Mar-05		58.01	60.41	3,371.70	2.40
MW-2	20-Apr-05		57.90	60.40	3,371.80	2.50
	11-May-05		57.81	60.55	3,371.87	2.74
	27-May-05		58.18	58.57	3,371.73	0.39
	28-Jun-05		58.17	58.51	3,371.75	0.34
	17-Aug-05					
	25-Aug-05		58.19	59.40	3,371.69	1.27
	15-Nov-05		58.13	58.64	3,371.77	0.51
	13-Dec-02	3,429.97				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	16-Jun-03	3,429.97	60.57	61.27	3,369.33	0.70
	23-Jul-03					
	14-Aug-03					
	04-Nov-03		60.71	64.28	3,369.90	3.57
	12-Apr-04		60.22	63.22	3,369.45	3.00
	12-May-04		60.15	62.98	3,369.54	2.83
	20-May-04		60.11	63.32	3,369.54	3.21
	21-Jun-04		60.06	63.31	3,369.59	3.25
	15-Jul-04		59.68	62.89	3,369.97	3.21
	26-Jul-04		59.96	63.04	3,369.70	3.08
	25-Aug-04		59.83	62.21	3,369.90	2.38
	11-Oct-04					
	03-Dec-04					
	28-Dec-04					
	31-Mar-05		58.39	58.72	3,371.55	0.35
	20-Apr-05		58.22	58.54	3,371.72	0.32
	11-May-05		58.24	58.61	3,371.69	0.37
	27-May-05		58.20	58.47	3,371.74	0.27
	28-Jun-05		58.29	58.56	3,371.67	0.07
	17-Aug-05					
	25-Aug-05		58.23	58.24	3,371.74	0.01
	15-Nov-05		--	58.18	3,371.79	--

**TABLE 1**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Relative Groundwater Elevations and**  
**Phase Separated Hydrocarbon Thicknesses**

Monitoring Well #	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)
MW-3	13-Dec-02	3,429.89				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	10-Jun-03	3,429.89		60.85	3,369.04	
	23-Jul-03	3,429.89	--	60.85	3,369.04	Oil Sheen --
	14-Aug-03		--	60.86	3,369.03	
	04-Nov-03					
	12-Apr-04		59.96	61.64	3,369.76	1.68
	12-May-04		60.75	61.66	3,369.05	0.91
	20-May-04		60.72	61.72	3,369.07	1.00
	21-Jun-04					
	15-Jul-04		59.31	61.62	3,370.35	2.31
	26-Jul-04		60.58	61.82	3,369.19	1.24
	25-Aug-04					
	11-Oct-04		55.41	56.86	3,374.34	1.45
	03-Dec-04		53.24	54.65	3,376.51	1.41
	28-Dec-04		58.52	59.92	3,371.23	1.40
	31-Mar-05		58.49	58.85	3,371.40	0.40
	20-Apr-05		58.34	58.77	3,371.51	0.43
	11-May-05		58.32	58.73	3,371.53	0.41
	27-May-05		58.31	58.68	3,371.54	0.37
MW-4	28-Jun-05		58.48	58.50	3,371.41	0.02
	17-Aug-05					
	25-Aug-05		58.93	58.94	3,370.96	0.01
	15-Nov-05		--	58.39	3,371.50	--
	13-Dec-02	3,430.36				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	10-Jun-03	3,430.36	61.03	61.26	3,369.31	0.23
	23-Jul-03		60.65	63.80	3,369.40	3.15
	14-Aug-03		59.82	60.24	3,370.50	0.42
	04-Nov-03					
	12-Apr-04		60.76	64.11	3,369.27	3.35
	12-May-04		55.18	66.31	3,374.07	11.13
	20-May-04		60.51	67.95	3,369.11	7.44
	21-Jun-04		60.24	66.05	3,369.54	5.81
	15-Jul-04		59.91	65.72	3,369.87	5.81
	26-Jul-04		60.16	65.78	3,369.64	5.62
	25-Aug-04		59.89	65.61	3,369.90	5.72
	11-Oct-04		58.85	64.82	3,370.91	5.97
	03-Dec-04					
	28-Dec-04					
	31-Mar-05		59.00	59.15	3,371.35	0.15
	20-Apr-05		58.82	58.91	3,371.53	0.09
	11-May-05		58.80	58.86	3,371.55	0.06
	27-May-05		58.67	58.72	3,371.69	0.05
	28-Jun-05		58.68	58.82	3,371.67	0.14
	17-Aug-05					
	25-Aug-05		58.61	58.71	3,371.74	0.10
	15-Nov-05		58.59	58.67	3,371.76	0.08

**TABLE 1**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Relative Groundwater Elevations and**  
**Phase Separated Hydrocarbon Thicknesses**

Monitoring Well #	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)
MW-5	13-Dec-02	3,428.93				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	10-Jun-03					
	23-Jul-03	3,428.93	--	61.17	3,367.76	--
	14-Aug-03		--	59.75	3,369.18	--
	04-Nov-03					
	12-Apr-04		--	60.93	3,368.00	--
	12-May-04		--	59.72	3,369.21	--
	20-May-04		--	60.12	3,368.81	--
	21-Jun-04					
	15-Jul-04		--	59.34	3,369.59	--
	26-Jul-04		--	59.76	3,369.17	--
	25-Aug-04					
	11-Oct-04		--	58.40	3,370.53	--
	03-Dec-04		--	57.71	3,371.22	--
	28-Dec-04		--	57.62	3,371.31	--
	31-Mar-05		--	57.40	3,371.53	--
	20-Apr-05		--	57.25	3,371.68	--
	11-May-05		--	57.19	3,371.74	--
	27-May-05		--	57.18	3,371.75	--
	28-Jun-05		--	57.14	3,371.79	--
	17-Aug-05		--	57.19	3,371.74	--
	25-Aug-05		--	57.07	3,371.86	--
	15-Nov-05		--	57.14	3,371.79	--
MW-6	13-Dec-02	3,429.24				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	10-Jun-03					
	23-Jul-03					
	14-Aug-03					
	04-Nov-03					
	12-Apr-04					
	12-May-04	3,429.24	--	59.83	3,369.41	--
	20-May-04		--	59.79	3,369.45	--
	21-Jun-04					
	15-Jul-04		--	59.49	3,369.75	--
	26-Jul-04		--	59.44	3,369.80	--
	25-Aug-04					
	11-Oct-04		--	58.60	3,370.64	--
	03-Dec-04		--	57.85	3,371.39	--
	28-Dec-04		--	57.72	3,371.52	--
	31-Mar-05		--	57.47	3,371.77	--
	20-Apr-05		--	57.36	3,371.88	--
	11-May-05		--	57.31	3,371.93	--
	27-May-05		--	57.26	3,371.98	--
	28-Jun-05		--	57.23	3,372.01	--
	17-Aug-05		--	57.17	3,372.07	--
	25-Aug-05		--	57.19	3,372.05	--
	15-Nov-05		--	57.30	3,371.94	--

**TABLE 1**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Relative Groundwater Elevations and**  
**Phase Separated Hydrocarbon Thicknesses**

Monitoring Well #	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)
MW-7	13-Dec-02	3,429.80				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	10-Jun-03					
	23-Jul-03					
	14-Aug-03					
	04-Nov-03					
	12-Apr-04					
	12-May-04					
	20-May-04					
	21-Jun-04					
	15-Jul-04	3,429.80	--	60.56	3,369.24	--
	26-Jul-04		--	60.58	3,369.22	--
	25-Aug-04					
	11-Oct-04		--	59.75	3,370.05	--
	03-Dec-04		--	59.08	3,370.72	--
	28-Dec-04		--	58.86	3,370.94	--
	31-Mar-05		--	58.48	3,371.32	--
	20-Apr-05		--	58.41	3,371.39	--
	11-May-05		--	58.36	3,371.44	--
	27-May-05		--	58.37	3,371.43	--
	28-Jun-05		--	58.29	3,371.51	--
	17-Aug-05		--	58.27	3,371.53	--
	25-Aug-05		--	58.25	3,371.55	--
	15-Nov-05		--	58.31	3,371.49	--
MW-8	13-Dec-02	3,430.21				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	10-Jun-03					
	23-Jul-03					
	14-Aug-03					
	04-Nov-03					
	12-Apr-04					
	12-May-04					
	20-May-04					
	21-Jun-04					
	15-Jul-04	3,430.21	60.41	61.74	3,369.67	1.33
	26-Jul-04		60.54	60.60	3,369.66	0.06
	25-Aug-04					
	11-Oct-04		59.16	61.91	3,370.78	2.75
	03-Dec-04		58.90	60.60	3,371.14	1.70
	28-Dec-04		58.83	60.26	3,371.24	1.43
	31-Mar-05		58.53	59.81	3,371.55	1.28
	20-Apr-05		58.41	59.76	3,371.67	1.35
	11-May-05		58.36	59.76	3,371.71	1.40
	27-May-05		58.31	59.72	3,371.76	1.41
	28-Jun-05		58.38	59.13	3,371.76	0.75
	17-Aug-05		58.32	59.13	3,371.81	0.81
	25-Aug-05		58.46	58.50	3,371.75	0.04
	15-Nov-05					

**TABLE 1**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Relative Groundwater Elevations and**  
**Phase Separated Hydrocarbon Thicknesses**

Monitoring Well #	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)
MW-9	13-Dec-02	3,429.88				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	10-Jun-03					
	23-Jul-03					
	14-Aug-03					
	04-Nov-03					
	12-Apr-04					
	12-May-04					
	20-May-04					
	21-Jun-04					
	15-Jul-04	3,429.88	60.05	61.56	3,369.68	1.51
	26-Jul-04		60.50	60.75	3,369.36	0.25
	25-Aug-04					
	11-Oct-04		58.65	62.45	3,370.85	3.80
	03-Dec-04		58.72	61.49	3,370.88	2.77
	28-Dec-04		58.12	61.34	3,371.44	3.22
MW-10	31-Mar-05		58.15	59.37	3,371.61	1.22
	20-Apr-05		58.01	59.38	3,371.73	1.37
	11-May-05		57.95	59.36	3,371.79	1.41
	27-May-05		57.93	59.47	3,371.80	1.54
	28-Jun-05		58.16	58.24	3,371.71	0.08
	17-Aug-05					
	25-Aug-05		58.05	58.17	3,371.82	0.12
	15-Nov-05		58.04	58.42	3,371.80	0.38
	13-Dec-02	3,430.65				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	10-Jun-03					
	23-Jul-03					
	14-Aug-03					
	04-Nov-03					
	12-Apr-04					
	12-May-04					
	20-May-04					
	21-Jun-04					
	15-Jul-04	3,430.65	60.92	61.32	3,369.69	0.40
	26-Jul-04		61.16	61.20	3,369.49	0.04
	25-Aug-04					
	11-Oct-04		59.55	62.31	3,370.82	2.76
	03-Dec-04		59.25	60.59	3,371.27	1.34
	28-Dec-04		59.12	60.46	3,371.40	1.34
MW-10	31-Mar-05		58.91	59.73	3,371.66	0.82
	20-Apr-05		58.81	59.67	3,371.75	0.86
	11-May-05		58.79	59.69	3,371.77	0.90
	27-May-05		58.73	59.67	3,371.83	0.94
	28-Jun-05		58.84	58.95	3,371.80	0.11
	17-Aug-05					
	25-Aug-05		58.76	58.81	3,371.89	0.05
	15-Nov-05		58.77	58.90	3,371.87	0.13

**TABLE 1**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Relative Groundwater Elevations and**  
**Phase Separated Hydrocarbon Thicknesses**

Monitoring Well #	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)
MW-11	13-Dec-02	3,430.94				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	10-Jun-03					
	23-Jul-03					
	14-Aug-03					
	04-Nov-03					
	12-Apr-04					
	12-May-04					
	20-May-04					
	21-Jun-04					
	15-Jul-04	3,430.94	--	61.31	3,369.63	--
	26-Jul-04		--	61.31	3,369.63	--
	25-Aug-04					
	11-Oct-04		--	60.55	3,370.39	--
	03-Dec-04		--	60.00	3,370.94	--
	28-Dec-04		--	59.80	3,371.14	--
	31-Mar-05		--	59.48	3,371.46	--
	20-Apr-05		--	59.37	3,371.57	--
	11-May-05		--	59.31	3,371.63	--
	27-May-05		--	59.27	3,371.67	--
	28-Jun-05		--	59.20	3,371.74	--
	17-Aug-05		--	59.16	3,371.78	--
	25-Aug-05		--	59.16	3,371.78	--
	15-Nov-05		--	59.23	3,371.71	--
MW-12	13-Dec-02	3,426.30				
	27-Feb-03					
	24-Mar-03					
	04-Jun-03					
	10-Jun-03					
	23-Jul-03					
	14-Aug-03					
	04-Nov-03					
	12-Apr-04					
	12-May-04					
	20-May-04					
	21-Jun-04					
	15-Jul-04					
	26-Jul-04					
	25-Aug-04					
	11-Oct-04					
	03-Dec-04	3,426.47	--	56.11	3,370.19	--
	28-Dec-04		--	55.86	3,370.44	--
	31-Mar-05		--	55.47	3,370.83	--
	20-Apr-05		--	55.36	3,370.93	--
	11-May-05		--	55.33	3,370.97	--
	27-May-05		--	55.27	3,371.03	--
	28-Jun-05		--	55.21	3,371.09	--
	17-Aug-05		--	55.18	3,371.12	--
	25-Aug-05		--	55.15	3,371.13	--
	15-Nov-05		--	55.25	3,371.05	--

\* = Wells are referenced to the TOC of groundwater monitoring well MW-2, which was set to an elevation of 3,428.87 feet msl.

Yellow highlight indicates a 2005 sampling event.

-- = Not Detected

**TABLE 2**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Summary of Groundwater Analytical Results**

Monitoring Well #	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	m,p-Xylenes (mg/L)	o-Xylene (mg/L)	Total Xylenes (mg/L)	TPH as Diesel (mg/L)	TPH as Gasoline (mg/L)	Total TPH (mg/L)
MW-1	12-Sep-02	WELL INSTALLED 12 SEPTEMBER 2002								
	23-Jul-03	NOT SAMPLED DUE TO PSH								
	20-May-04	NOT SAMPLED DUE TO PSH								
	26-Jul-04	NOT SAMPLED DUE TO PSH								
	11-Oct-04	NOT SAMPLED DUE TO PSH								
	28-Dec-04	NOT SAMPLED DUE TO PSH								
	31-Mar-05	NOT SAMPLED DUE TO PSH								
	11-May-05	NOT SAMPLED DUE TO PSH								
	17-Aug-05	NOT SAMPLED DUE TO PSH								
	15-Nov-05	NOT SAMPLED DUE TO PSH								
MW-2	5-Jun-03	WELL INSTALLED 5 JUNE 2003								
	23-Jul-03	NOT SAMPLED DUE TO PSH								
	20-May-04	NOT SAMPLED DUE TO PSH								
	26-Jul-04	NOT SAMPLED DUE TO PSH								
	11-Oct-04	NOT SAMPLED DUE TO PSH								
	28-Dec-04	NOT SAMPLED DUE TO PSH								
	31-Mar-05	NOT SAMPLED DUE TO PSH								
	11-May-05	NOT SAMPLED DUE TO PSH								
	17-Aug-05	NOT SAMPLED DUE TO PSH								
	15-Nov-05	NOT SAMPLED DUE TO PSH								
MW-3	9-Jun-03	WELL INSTALLED 9 JUNE 2003								
	23-Jul-03	112	361	138	158	91.9	250	3.95	2.29	6.24
	20-May-04	NOT SAMPLED DUE TO PSH								
	26-Jul-04	NOT SAMPLED DUE TO PSH								
	11-Oct-04	NOT SAMPLED DUE TO PSH								
	28-Dec-04	NOT SAMPLED DUE TO PSH								
	31-Mar-05	NOT SAMPLED DUE TO PSH								
	11-May-05	NOT SAMPLED DUE TO PSH								
	17-Aug-05	NOT SAMPLED DUE TO PSH								
	15-Nov-05	NOT SAMPLED DUE TO PSH								
MW-4	6-Jun-03	WELL INSTALLED 6 JUNE 2003								
	23-Jul-03	NOT SAMPLED DUE TO PSH								
	20-May-04	NOT SAMPLED DUE TO PSH								
	26-Jul-04	NOT SAMPLED DUE TO PSH								
	11-Oct-04	NOT SAMPLED DUE TO PSH								
	28-Dec-04	NOT SAMPLED DUE TO PSH								
	31-Mar-05	NOT SAMPLED DUE TO PSH								
	11-May-05	NOT SAMPLED DUE TO PSH								
	17-Aug-05	NOT SAMPLED DUE TO PSH								
	15-Nov-05	NOT SAMPLED DUE TO PSH								
MW-5	12-Jun-03	WELL INSTALLED 12 JUNE 2003								
	23-Jul-03	35.9	87.9	20.9	24.1	20.3	44.4	1.97	3.02	4.99
	20-May-04	685	122	113	57.8	65	123	1.41	1.03	2.44
	26-Jul-04	2,940	7.15	206	20.1	226	246			
	11-Oct-04	312	<1.0	26.4	<2.0	42.7	42.7			
	28-Dec-04	1,210	4.84	121	10.3	119	129			
	31-Mar-05	1,450	4.70	266	50.4	13.5	18.5			
	11-May-05	713	25.1	209	11.4	44.6	56.0			
	17-Aug-05	331	37.7	107	24.2	23.9	48.1			
	15-Nov-05	334	60.3	117	42.1	56.7	98.8			
MW-6	29-Apr-04	WELL INSTALLED 29 APRIL 2004								
	20-May-04	WAITING TO INSTALL MONITORING WELLS MW-7 THROUGH MW-11 TO SAMPLE								
	26-Jul-04	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	11-Oct-04	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	28-Dec-04	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	31-Mar-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	11-May-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	17-Aug-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	15-Nov-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			

**TABLE 2**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Summary of Groundwater Analytical Results**

Monitoring Well #	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m,p-Xylenes (ug/L)	o-Xylenes (ug/L)	Total Xylenes (ug/L)	TPH as Diesel (mg/L)	TPH as Gasoline (mg/L)	Total TPH (mg/L)
MW-7	20-May-04				WELL INSTALLED 23 JUNE 2004					
	26-Jul-04	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	11-Oct-04	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	28-Dec-04	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	31-Mar-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	11-May-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	17-Aug-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	15-Nov-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
MW-8	25-Jun-04				WELL INSTALLED 25 JUNE 2004					
	26-Jul-04				NOT SAMPLED DUE TO PSH					
	11-Oct-04				NOT SAMPLED DUE TO PSH					
	28-Dec-04				NOT SAMPLED DUE TO PSH					
	31-Mar-05				NOT SAMPLED DUE TO PSH					
	11-May-05				NOT SAMPLED DUE TO PSH					
	17-Aug-05				NOT SAMPLED DUE TO PSH					
	15-Nov-05				NOT SAMPLED DUE TO PSH					
MW-9	28-Jun-04				WELL INSTALLED 28 JUNE 2004					
	26-Jul-04				NOT SAMPLED DUE TO PSH					
	11-Oct-04				NOT SAMPLED DUE TO PSH					
	28-Dec-04				NOT SAMPLED DUE TO PSH					
	31-Mar-05				NOT SAMPLED DUE TO PSH					
	11-May-05				NOT SAMPLED DUE TO PSH					
	17-Aug-05				NOT SAMPLED DUE TO PSH					
	15-Nov-05				NOT SAMPLED DUE TO PSH					
MW-10	29-Jun-04				WELL INSTALLED 29 JUNE 2004					
	26-Jul-04				NOT SAMPLED DUE TO PSH					
	11-Oct-04				NOT SAMPLED DUE TO PSH					
	28-Dec-04				NOT SAMPLED DUE TO PSH					
	31-Mar-05				NOT SAMPLED DUE TO PSH					
	11-May-05				NOT SAMPLED DUE TO PSH					
	17-Aug-05				NOT SAMPLED DUE TO PSH					
	15-Nov-05				NOT SAMPLED DUE TO PSH					
MW-11	24-Jun-04				WELL INSTALLED 24 JUNE 2004					
	26-Jul-04	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	11-Oct-04	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	28-Dec-04	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	31-Mar-05	<1.0	1.66	<1.0	<2.0	<1.0	<3.0			
	11-May-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	17-Aug-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	15-Nov-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
MW-12	1-Dec-04				WELL INSTALLED 01 DECEMBER 2004					
	3-Dec-04	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	31-Mar-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	11-May-05	<1.0	1.32	<1.0	<2.0	<1.0	<3.0			
	17-Aug-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
	15-Nov-05	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0			
NMWQCC Standard	10.0	750	750				620			

***Bolded*** values highlighted in red are in excess of the NMWQCC groundwater standard per NMAC 20.6.2.3(6).

PSH = Phase Separated Hydrocarbon

Blank cell indicates the analysis was not performed.

NMWQCC - New Mexico Water Quality Control Commission

-- Parameter was not analyzed

**TABLE 3**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**

**TABLE 3**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**

**TABLE 3**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Summary of Groundwater Polynuclear-Aromatic Hydrocarbons (PAH) Analytical Results**

Monitoring Well	Sample Date	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz[a]anthracene	Chrysene	Benz[b]fluoranthene	Benz[j,k]fluoranthene	Benz[a]pyrene	Indeno[1,2,3-cd]pyrene	Dibenz[a,h]anthracene	Benz[g,h]perylene	
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	
		WELL INSTALLED 29 JUNE 2004																
		NOT SAMPLED DUE TO PSH																
MW-10	29-Jun-04	NOT SAMPLED DUE TO PSH																
	26-Jul-04	NOT SAMPLED DUE TO PSH																
	11-Oct-04	NOT SAMPLED DUE TO PSH																
	28-Dec-04	NOT SAMPLED DUE TO PSH																
	31-Mar-05	NOT SAMPLED DUE TO PSH																
	11-May-05	NOT SAMPLED DUE TO PSH																
	17-Aug-05	NOT SAMPLED DUE TO PSH																
	15-Nov-05	NOT SAMPLED DUE TO PSH																
MW-11	24-Jun-04	WELL INSTALLED 24 JUNE 2004																
	26-Jul-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	-0.05	
	11-Oct-04	NOT ANALYZED																
	28-Dec-04	NOT ANALYZED																
	31-Mar-05	NOT ANALYZED																
	11-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	
	17-Aug-05	NOT ANALYZED																
	15-Nov-05	NOT ANALYZED																
MW-12	1-Dec-04	WELL INSTALLED 1 December 2004																
	28-Dec-04	NOT ANALYZED																
	31-Mar-05	NOT ANALYZED																
	11-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	
	17-Aug-05	NOT ANALYZED																
	15-Nov-05	NOT ANALYZED																
NMWQCC Standard		30														0.70		

**Bolded** values highlighted in red are in excess of the NMWQCC groundwater standards per NMAC 20.5.2.5(3).

PSH = Phase Separated Hydrocarbon

Blank cell indicates the analysis was not performed.

NMWQCC = New Mexico Water Quality Control Commission

**TABLE 4**  
**Plains Pipeline, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Phase Separated Hydrocarbon Thickness Declination Table**

Monitoring Well #	Year	Average Phase Separated Hydrocarbon Thickness	Yearly Change	Cumulative Decline
MW-1	2002	7.77	na	-6.32
	2003	4.32	-3.46	
	2004	3.94	-0.37	
	2005	1.45	-2.49	
MW-2	2003	2.14	na	-1.91
	2004	2.99	0.86	
	2005	0.23	-2.77	
MW-3	2003	Sheen	na	-1.15
	2004	1.43	1.43	
	2005	0.27	-1.15	
MW-4	2003	1.27	na	-1.17
	2004	6.36	5.09	
	2005	0.10	-6.26	
MW-5		Not Impacted		
MW-6		Not Impacted		
MW-7		Not Impacted		
MW-8	2004	1.45	na	-0.45
	2005	1.01	-0.45	
MW-9	2004	2.31	na	-1.44
	2005	0.87	-1.44	
MW-10	2004	1.18	na	-0.63
	2005	0.54	-0.63	
MW-11		Not Impacted		
MW-12		Not Impacted		

na - not applicable

**Table 5**  
**Plains Marketing, L.P.**  
**Hugh Gathering - Ref. #2002-10235**  
**Recommendations and Sampling Schedule for 2006**

Monitoring Well#	Eight Quarters Below NMWQCC 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	X	X	X	X	Recommend Annual PAH analysis
MW-8	No	--	--	--	--	Continue PSH recovery
MW-9	No	--	--	--	--	Continue PSH recovery
MW-10	No	--	--	--	--	Continue PSH recovery
MW-11	No	X	X	X	X	Recommend Annual PAH analysis
MW-12	No	X	X	X	X	Recommend Annual PAH analysis

NMWQCC - New Mexico Water Quality Control Commission

PAH - Polynuclear Aromatic Hydrocarbons

PSH - Phase Separated Hydrocarbons

## APPENDICES

## APPENDIX I: LABORATORY REPORTS

**ANALYST**

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5386 • FAX (512) 385-7411

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

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---		04/12/05	8260b(5030/5035)	---	---	---	---	---
Benzene	1450	µg/L	100	<100	04/12/05	8260b	---	0.4	93.3	103	94.8
Ethylbenzene	266	µg/L	100	<100	04/12/05	8260b	---	0.3	99.2	107.5	96.8
m,p-Xylenes	5.04	µg/L	2	>	04/12/05	8260b	---	0.8	98.6	106.3	97.4
o-Xylene	13.5	µg/L	1	<1	04/12/05	8260b	---	0.5	102.4	112	100.3
Toluene	4.7	µg/L	1	<1	04/12/05	8260b	---	0.4	104.5	117.5	98.8

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Respectfully Submitted,

Dale Wagner

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*CityS*  
/7C

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.	Project ID:	2002-10235
Attn:	Iain Olness	Sample Name:	PAAHG33105MW-5

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	96.9	74-124	---
Toluene-d8	8260b	102	89-115	---

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

Report#Lab ID#: 165650  
Sample Matrix: water

*Dale Wagner*  
Dale Wagner

3512 Montopolis Drive, Austin, TX 78744 &  
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Client: Environmental Plus, Inc.  
Attn: Iain Olness  
Address: 2100 Ave. O  
Eunice,  
Phone: (505) 394-3481    FAX: (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	04/12/05	8260b(5030/5035)	---	---	---	---	---	---
Benzene	<1	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	<2	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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*Dale Wagner*  
Dale Wagner

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**777777-75**

Client: Environmental Plus, Inc.  
Attn: Iain Olness

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	91.3	74-124	---
Toluene-d8	8260b	102	89-115	---

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

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

Report#Lab ID#: 165651  
Sample Matrix: water

## Exceptions Report:

Report #/Lab ID#: 165651 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2002-10235  
Sample Name: PAAHG33105MW-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 (e.g. 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:

**Analytical Services**  
3512 Montopolis Drive, Austin, TX 78744 &  
2299 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

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

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	<1	04/12/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	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	<2	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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Dale Wagner

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**Q77L-Y5<sup>Y5</sup>**  
*J7C*

Client: Environmental Plus, Inc.  
Attn: Iain Olness

Project ID: 2002-10235  
Sample Name: PAAHG33105MW-7

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 365-5886 • FAX (512) 385-7411

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	86.8	74-124	---
Toluene-d8	8260b	106	89-115	---

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

Report#/Lab ID#: 163652  
Sample Matrix: water

## Exceptions Report:

Report #/Lab ID#: 165652 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2002-10235

Sample Name: PAAHG33105MW-7

### 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 (e.g. 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:

**AnalySys** Inc.

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
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Client: Environmental Plus, Inc.  
Attn: Ian Olness  
Address: 2100 Ave. O  
Eunice,  
NM 88231  
Phone: (505) 394-3481 FAX: (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	...	...	...	...	04/12/05	8260b/5030/5035	...	...	...	...	...
Benzene	<1	µg/L	1	<1	04/12/05	8260b	J	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	<2	µg/L	2	<2	04/12/05	8260b	J	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	1.66	µg/L	1	<1	04/12/05	8260b	---	0.4	104.5	117.5	98.8

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**Q77L-Y595**

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

**REPORT OF SURROGATE RECOVERY**

**Surrogate Compound**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	92.2	74-124	---
Toluene-d8	8260b	106	89-115	---

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

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

Report# /Lab ID#: 165653  
Sample Matrix: water

Project ID: 2002-10235  
Sample Name: PAAHG33105MW-11

## Exceptions Report:

Report #/Lab ID#:	165653	Matrix:	water
Client:	Environmental Plus, Inc.	Attn:	Iain Ohness
Project ID#:	2002-10325		
Sample Name:	PAAHG33105MW-11		

### 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
Benzene	J	See J-flag discussion above.
Ethylbenzene	J	See J-flag discussion above.
m,p-Xylenes	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

Environmental Plus, Inc.  
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 <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. 2 <sup>1</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		04/12/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	04/12/05	8260b	J	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	<2	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

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  


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.

Report# /Lab ID#:	16554	Report Date:	04/18/05
Project ID:	2002-10235		
Sample Name:	PAAHG33105MW-12		
Sample Matrix:	water		
Date Received:	04/06/2005	Time:	10:00
Date Sampled:	03/31/2005	Time:	14:00

#### QUALITY ASSURANCE DATA 1

*Environmental Plus, Inc.*  
Iain Ohness

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	93.4	74-124	---
Toluene-d8	8260b	105	89-115	---

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

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

Report# /Lab ID#: 165654  
Sample Matrix: water

## Exceptions Report:

Report #/Lab ID#:	165654	Matrix:	water
Client:	Environmental Plus, Inc.	Attn:	Iain Olness
Project ID:	2002-10235		
Sample Name:	PAAHG33105MW-12		

**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 (e.g. 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	J	See J-flag discussion above.
Toluene	J	See J-flag discussion above.

**Notes:**

AnalySys Inc.

**1221 Friedrich 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*

1221 Freidrich Lane, Suite 190, Austin, TX 78744  
512-444-5806 FAX: 512-447-4766

2200 N Padre Island Dr Corpus Christi TX 78108

## Sample Analysis Case Narrative

Client: Environmental Plus, Inc. Project ID: 2002-10235

Attn: Iain Olness

for Sample #'s: 167142 thru 167146

Analyzed by AnalySys, Inc.

Final Review Date: 5/31/2005 By: D. Wagner (D. Wagner)

### Case Narrative:

The spike recoveries and/or precisions of several PAH compounds for the analytical batch that contained samples 167142 thru 167146 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.

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

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

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>8</sup>
A/B/N Extraction-PAH	---	---	---	---	05/18/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	05/26/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	---	05/19/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/19/05	8260b	---	0.9	84.3	85.1	81.4
Ethylbenzene	<1	µg/L	1	<1	05/19/05	8260b	---	2.5	110.9	113.3	107.6
m,p-Xylenes	<2	µg/L	2	<2	05/19/05	8260b	---	3.5	112.5	113.4	106.3
o-Xylene	<1	µg/L	1	<1	05/19/05	8260b	---	2.2	110.5	110	103.6
Toluene	<1	µg/L	1	<1	05/19/05	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
Benzof[a]anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	5.2	28.6	86.7	56.8
Benzof[a]pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.7	15.1	89.8	53.6
Benzof[b]fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.2	17.1	86.3	59.2
Benzof[g,h]perylene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	S,M,P	30.6	13.9	105	68.1
Benzof[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

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 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

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Dale Wagner

# QnolyS<sup>ys</sup> INC.

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

## REPORT OF ANALYSIS-cont.

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Data Qual. <sup>6</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	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	

## QUALITY ASSURANCE DATA 1

Project ID:	2002-10235
Sample Name:	MW-11

Report#/Lab ID#: 167142  
Sample Matrix: water

**QnolyS**  
nTC.

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. Project ID: 2002-10235 Report# /Lab ID#: 167142  
Attn: Iain Olness Sample Name: MW-11  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	52.4	30-110	---
Nitrobenzene-d5	610 & 8270c	63.3	12-110	---
Terphenyl-d14	610 & 8270c	47.2	25-110	---
1,2-Dichloroethane-d4	8260b	97.5	74-124	---
Toluene-d8	8260b	104	89-115	---

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

**Exceptions Report:**

Report #/Lab ID#: 167142 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2002-10235  
Sample Name: MW-11

**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 inappropriate container(s) and/or with unknown state of preservation.

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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	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.
Acenaphthylcne	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.
Benzof[g,h]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.
Benzog[h]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.
Benzof[g,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,i]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	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.

**Notes:**

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

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
A/B/N Extraction-PAH	---	---	---	---	05/18/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	05/26/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	05/19/05	8260b(5030/5035)	---	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/19/05	8260b	---	0.9	84.3	85.1	81.4
Ethylbenzene	<1	µg/L	1	<1	05/19/05	8260b	---	2.5	110.9	113.3	107.6
m,p-Xylenes	<2	µg/L	2	<2	05/19/05	8260b	---	3.5	112.5	113.4	106.3
o-Xylene	<1	µg/L	1	<1	05/19/05	8260b	---	2.2	110.5	110	103.6
Toluene	1.32	µg/L	1	<1	05/19/05	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
Benz[a]anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	5.2	28.6	86.7	56.8
Benz[a]pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.7	15.1	89.8	53.6
Benz[b]fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.2	17.1	86.3	59.2
Benz[ghi]perylene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	S,M,P	30.6	13.9	105	68.1
Benz[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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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 = analytic potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & SI =MS and/or MSD recoveries 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.

**Montgomery**  
MC.

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: Alan Olness

Project ID: 2002-10235  
Sample Name: MW-12

Report# /Lab ID#: 167143  
Sample Matrix: water

**REPORT OF ANALYSIS-cont**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Data Qual. <sup>7</sup>	Prec. 2	Recov. 3	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	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	

**QUALITY ASSURANCE DATA 1**

# CHROMAS INC.

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 Ohness

Project ID: 2002-10235  
Sample Name: MW-12

Report# /Lab ID#: 167143  
Sample Matrix: water

## REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	42.7	30-110	---
Nitrobenzene-d5	610 & 8270c	52.5	12-110	---
Terphenyl-d14	610 & 8270c	36.1	25-110	---
1,2-Dichloroethane-d4	8260b	99.1	74-124	---
Toluene-d8	8260b	103	89-115	---

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

**Exceptions Report:**

Report #/Lab ID#: 167143 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Olness  
Project ID: 2002-10235  
Sample Name: MW-12

**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 preceding 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	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.
Benzol[g,h]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]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.
Benzol[g,h]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.
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	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	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.
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		
Naphthalene		

**Notes:**

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

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

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS
A/B/N Extraction-PAH	---	---	---	---	05/18/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	05/26/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	---	05/19/05	8260b(5030/5035)	---	---	---	---	---
Benzene	713	$\mu\text{g/L}$	10	<10	05/20/05	8260b	---	0.9	84.3	85.1	81.4
Ethylbenzene	200	$\mu\text{g/L}$	1	<1	05/19/05	8260b	---	2.5	110.9	113.3	107.6
m,p-Xylenes	11.4	$\mu\text{g/L}$	2	<2	05/19/05	8260b	---	3.5	112.5	113.4	106.3
o-Xylene	44.6	$\mu\text{g/L}$	1	<1	05/19/05	8260b	---	2.2	110.5	110	103.6
Toluene	25.1	$\mu\text{g/L}$	1	<1	05/19/05	8260b	---	0.8	94.4	90.6	90.8
Acenaphthene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	P	30.8	38.4	95.9	42.7
Acenaphthylene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	P	34	38.2	99.7	43.6
Anthracene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	---	11.7	41.8	96.9	47.7
Benzol[a]anthracene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	---	5.2	28.6	86.7	56.8
Benzol[a]pyrene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	---	14.7	15.1	89.8	53.6
Benzol[b]fluoranthene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	---	14.2	17.1	86.3	59.2
Benzol[g,h,i]perylene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	S.M.P	30.6	13.9	105	68.1
Benzol[j,k]fluoranthene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	---	18	20	106.6	70
Chrysene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	---	14.8	43.5	107.8	85.8
Dibenz[a,h]anthracene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	P	21.2	13.6	96.6	79.3
Fluoranthene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	---	5.7	50.1	107.7	57.5
Fluorene	<0.05	$\mu\text{g/L}$	0.05	<0.05	05/26/05	610 & 8270c	---	29.4	39.1	100.4	42.7
Indeno[1,2,3-ed]pyrene	<0.05	$\mu\text{g/L}$	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

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 spiking 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.

Report#Lab ID#: 167144 Report Date: 05/27/05  
 Project ID: 2002-10235  
 Sample Name: MW-5  
 Sample Matrix: water  
 Date Received: 05/13/2005 Time: 10:30  
 Date Sampled: 05/11/2005 Time: 09:50

**QUALITY ASSURANCE DATA 1**

**CHROMYS INC.**

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 Oliness

**REPORT OF ANALYSIS-cont.**

Parameter*	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	0.66	µg/L	0.05	<0.05	05/26/05	610 & 8270C	P	40.1	33.7	106.7	40.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270C	--	1.1	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

Project ID:	2002-10235
Sample Name:	MW-5

**QUALITY ASSURANCE DATA 1**

Report#/Lab ID#:	167144
Sample Matrix:	water

# CHROMSYS

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 Ohness

Project ID: 2002-10235  
Sample Name: MW\_5

Report#/Lab ID#: 167144  
Sample Matrix: water

## REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	46.2	30-110	---
Nitrobenzene-d5	610 & 8270c	53.6	12-110	---
Terphenyl-d14	610 & 8270c	30.9	25-110	---
1,2-Dichloroethane-d4	8260b	96.2	74-124	---
Toluene-d8	8260b	103	89-115	---

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

**Exceptions Report:**

Report #/Lab ID#: 167144 Matrix: water  
Client: Environmental Plus, Inc. Attn: Ian Ohness  
Project ID: 2002-10235  
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 (e.g. 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	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.
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	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	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	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	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.

**Notes:**

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

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
A/B/N Extraction-PAH	---	---	---	---	05/18/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	05/26/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	---	05/19/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/19/05	8260b	J	0.9	84.3	85.1	81.4
Ethylbenzene	<1	µg/L	1	<1	05/19/05	8260b	---	2.5	110.9	113.3	107.6
m,p-Xylenes	<2	µg/L	2	<2	05/19/05	8260b	---	3.5	112.5	113.4	106.3
o-Xylene	<1	µg/L	1	<1	05/19/05	8260b	---	2.2	110.5	110	103.6
Toluene	<1	µg/L	1	<1	05/19/05	8260b	J	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
Benzof[a]anthracene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	5.2	28.6	86.7	56.8
Benzof[a]pyrene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.7	15.1	89.8	53.6
Benzof[b]fluoranthene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	---	14.2	17.1	86.3	59.2
Benzof[g,h]perylene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	S,M,P	30.6	13.9	105	68.1
Benzof[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

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 spited 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.

# QnolyS<sup>ys</sup> mC

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.	Project ID: 2002-10235	Report#/Lab ID#: 167145									
Attn: Iain Olness	Sample Name: MW-6	Sample Matrix: water									
<b>REPORT OF ANALYSIS- cont.</b>											
<b>QUALITY ASSURANCE DATA 1</b>											
Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	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

# ONLINE SURVEYS

Client: Environmental Plus, Inc.  
Attn: Iain Olness

## REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	56.4	30-110	---
Nitrobenzene-d5	610 & 8270c	71.5	12-110	---
Terphenyl-d14	610 & 8270c	64.2	25-110	---
1,2-Dichloroethane-d4	8260b	96.5	74-124	---
Toluene-d8	8260b	102	89-115	---

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

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5986 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	Project ID: 2002-10235
Attn: Iain Olness	Sample Name: MW-6
	Report#/Lab ID#: 167145
	Sample Matrix: water

**Exceptions Report:**

Report #/Lab ID#:	167145	Matrix:	water
Client:	Environmental Plus, Inc.	Attn:	Iain Olness
Project ID:	2002-10235		

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/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	J	See J-flag discussion above.
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.
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.
Benzol[g,h]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]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
Benzol[g,h]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.
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	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-c]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-c]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-c]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		
Naphthalene		

Notes:

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

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
A/BN Extraction-PAH	---	---	---	---	05/18/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	05/26/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	---	05/19/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/19/05	8260b	---	0.9	84.3	85.1	81.4
Ethylbenzene	<1	µg/L	1	<1	05/19/05	8260b	---	2.5	110.9	113.3	107.6
m,p-Xylenes	<2	µg/L	2	<2	05/19/05	8260b	---	3.5	112.5	113.4	106.3
o-Xylene	<1	µg/L	1	<1	05/19/05	8260b	---	2.2	110.5	110	103.6
Toluene	<1	µg/L	1	<1	05/19/05	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
Benz[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[ghi]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

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Dale Wagner

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**ONTOLOGY**

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 Ohness

**REPORT OF ANALYSIS-cont.**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	05/26/05	610 & 8270c	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

**QUALITY ASSURANCE DATA 1**

Project ID:	2002-10235
Sample Name:	MW-7

Report#/Lab ID#: 167146  
Sample Matrix: water

# CHROMASYS INC.

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2002-10235  
Sample Name: MW-7

Report#/Lab ID#: 167146  
Sample Matrix: water

## REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	54.4	30-110	---
Nitrobenzene-d5	610 & 8270c	55.6	12-110	---
Terphenyl-d14	610 & 8270c	44.4	25-110	---
1,2-Dichloroethane-d4	8260b	1.08	74-124	---
Toluene-d8	8260b	102	89-115	---

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

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## Exceptions Report:

Report #/Lab ID#: 167146 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Olness  
Project ID: 2002-10235  
Sample Name: MW-7

### 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 (e.g. 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]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]perylene	P	
Benzol[g,h]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-c]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-c]pyrene	P	
Indeno[1,2,3-c]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	

Notes:

2472  
e2012

AnalySys Inc.

44221 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

**2209 N Padre Island Dr Corpus Christi TX 78408**

Company Name		Environmental Plus, Inc.		Bill To:		ANALYSIS REQUEST							
EPI Project Manager	Iain Olness	P.O. BOX 1558	Eunice New Mexico 88231	ATTN: ENV Accounts Payable	PO Box 4648	PH	PAH						
Mailing Address				Houston, TX 77210-4648		OTHER VY	TCLP						
City, State, Zip		505-394-3481 / 505-394-2601				SULFATES (SO <sub>4</sub> <sup>2-</sup> )							
EPI Phone#/Fax#						CHLORIDES (Cl <sup>-</sup> )							
Client Company	Plains All American					TPH 8015M							
Facility Name	Hugh Gathering					BTEX 8021B							
Project Reference	2002-10235												
EPI Sampler Name	John Robinson												
LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	SAMPLING
167142 1	MW-11	G	X						X	X	5/11/05	7:45	X
167143 2	MW-12	G	X						X	X	5/11/05	7:00	X
	3												
4													
5													
6													
7													
8													
9													
10													

Sample Relinquished by: *Iain Olness* Received By: *John Reynolds* Date: *5/11/05* Time: *16:00* Remarks: *Deliver to 315 Bldg 3rd fl*

Relinquished by: *John Reynolds* Received By: *Lab staff* Date: *5/11/05* Time: *16:00* Remarks: *Deliver to 315 Bldg 3rd fl*

Delivered by: *John Reynolds* Sample Good & Intact Yes No Checked By: *John Reynolds*

E-mail results to: [iolness@hotmail.com](mailto:iolness@hotmail.com) and [cjreynolds@paalp.com](mailto:cjreynolds@paalp.com)

# AnalySys Inc.

4221 Friedrich 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

12472  
Page 1 of 2

LAB I.D.		SAMPLE I.D.		# CONTAINERS	WASTEWATER	GROUND WATER	SOIL	CRUDE OIL	SLUDGE	ACID/BASE	OTHER:	ICE/COOL	OTHER:	DATE	TIME	BTEX 8021B	TPH 8015M	SULFATES (SO <sub>4</sub> )	CHLORIDES (Cl <sup>-</sup> )	PH	TCLP	OTHER ???	PAH	ANALYSIS REQUESTED					
Company Name	Environmental Plus, Inc.	Client Company	Plains All American Pipeline, L.P.																					ATTN: ENV Accounts Payable	PO Box 4648	Houston, TX 77210-4648	BILL TO:	TEST:	TEST:
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																												
Facility Name	Hugh Gathering																												
Project Reference	2002-10235																												
EPI Sampler Name	John Robinson																												
								MATRIX																					
									PRESERV.																				
										SAMPLING																			
167144	1 MW-5	G	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
167145	2 MW-6	G	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
167146	3 MW-7	G	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	4																												
	5																												
	6																												
	7																												
	8																												
	9																												
	10																												
Sampler Requested: <i>Karen Jones</i>		Date 5/17/05 Time 6:00	Received By: <i>J. Bell</i> Date 5/13/05 Time 10:30	REMARKS: <i>Reinforced by (lab staff)</i>																									
Delivered by:		Sample Cool & intact Yes No		Checked By:																									

T: 3.9 °C

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Ohness  
**Address:** 2100 Ave. O  
**Unice,**  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. 2	Recov. 3	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	<10	08/29/05	8260b(5030/5035)	---	---	---	---	---
Benzene	331	µg/L	10	08/29/05	8260b	---	1.4	90.6	97.6	91.5	
Ethylbenzene	107	µg/L	10	08/29/05	8260b	---	1.7	101	104.4	101.4	
m,p-Xylenes	24.2	µg/L	20	>20	08/29/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	23.9	µg/L	10	<10	08/29/05	8260b	---	0.8	93	109	105.8
Toluene	37.7	µg/L	10	<10	08/29/05	8260b	---	2	97.7	104.8	98

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Respectfully Submitted,

Dale Wagner

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Report#/ <b>Lab ID#:</b> 170102	Report Date: 08/29/05
Project ID: 2002-10235	
Sample Name: MW-5	
Sample Matrix: water	
Date Received: 08/23/2005	Time: 11:20
Date Sampled: 08/17/2005	Time: 11:30

#### QUALITY ASSURANCE DATA 1

**LJ'ILY'S Y2**  
INC.

Client: Environmental Plus, Inc.  
Attn: Iain Oiness

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

Report#/Lab ID#: 170102  
Sample Matrix: water

### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	92.7	70-130	---
Toluene-d8	8260b	104	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  
**Eunice,**  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		08/29/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	08/29/05	8260b	---	1.4	90.6	97.6	91.5
Ethylbenzene	<1	µg/L	1	<1	08/29/05	8260b	---	1.7	101	104.4	101.4
m,p-Xylenes	<2	µg/L	2	<2	08/29/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	<1	µg/L	1	<1	08/29/05	8260b	---	0.8	93	109	105.8
Toluene	<1	µg/L	1	<1	08/29/05	8260b	---	2	97.7	104.8	98

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Dale Wagner

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Report#Lab ID#: 170103      Report Date: 08/29/05

Project ID: 2002-10235      Report Date: 08/29/05

Sample Name: MW-6

Sample Matrix: water

Date Received: 08/23/2005

Time: 11:20

Date Sampled: 08/17/2005

Time: 10:00

**Q'NULY5Y'S**  
*mc*

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	99.2	70-130	---
Toluene-d8	8260b	106	80-127	---

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

Project ID:	2002-10235
Sample Name:	MW-6
Report#/ <u>Lab ID#:</u>	170103
Sample Matrix:	water

3512 Monopolous 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 Ohness  
**Address:** 2100 Ave. O  
 Eunice,  
**Phone:** (505) 394-3481      **FAX:** (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	<1	08/29/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	$\mu\text{g/L}$	1	<1	08/29/05	8260b	---	1.4	90.6	97.6	91.5
Ethylbenzene	<1	$\mu\text{g/L}$	1	<1	08/29/05	8260b	---	1.7	101	104.4	101.4
m,p-Xylenes	<2	$\mu\text{g/L}$	2	<2	08/29/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	<1	$\mu\text{g/L}$	1	<1	08/29/05	8260b	---	0.8	93	109	105.8
Toluene	<1	$\mu\text{g/L}$	1	<1	08/29/05	8260b	---	2	97.7	104.8	98

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Respectfully Submitted,

  
 Dale Wagner

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Report Date: 08/29/05

Report#Lab ID#: 170104

Project ID: 2002-10235

Sample Name: MW-7

Sample Matrix: water

Date Received: 08/23/2005

Date Sampled: 08/17/2005

Time: 11:20

Time: 09:00

**LJ'LLT'LZ**  
**JNC**

Client: Environmental Plus, Inc.  
Attn: Iain Ohnes

Project ID: 2002-10235  
Sample Name: MW-7

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

Report#/Lab ID#: 170104  
Sample Matrix: water

### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	102	70-130	---
Toluene-d8	8260b	104	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  
 Eunice,  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	08/26/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	08/26/05	8260b	J	1.4	90.6	97.6	91.5
Ethylbenzene	<1	µg/L	1	<1	08/26/05	8260b	---	1.7	101	104.4	101.4
m,p-Xylenes	<2	µg/L	2	<2	08/26/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	<1	µg/L	1	<1	08/26/05	8260b	---	0.8	93	109	105.8
Toluene	<1	µg/L	1	<1	08/26/05	8260b	---	2	97.7	104.8	98

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Respectfully Submitted,

Dale Wagner

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Report#/Lab ID#: 170105	Report Date: 08/29/05
Project ID#: 2002-10235	
Sample Name: MW-11	
Sample Matrix: water	
Date Received: 08/23/2005	Time: 11:20
Date Sampled: 08/17/2005	Time: 08:00

**Utility Services Inc.**

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2002-10235  
Sample Name: MW-11

Report#/Lab ID#: 170105  
Sample Matrix: water

### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	97.1	70-130	---
Toluene-d8	8260b	103	80-127	---

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

Report #/Lab ID#: 170105 Matrix: water  
Client: Environmental Plus, Inc. Attn: Jain Olness  
Project ID: 2002-10235  
Sample Name: MW-11

**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	J	See J-flag discussion above.

Notes: -----

**ANALYSYS INC.**

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

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

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. 2	Recov. 3	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	08/26/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	08/26/05	8260b	J	1.4	90.6	97.6	91.5
Ethylbenzene	<1	µg/L	1	<1	08/26/05	8260b	---	1.7	101	104.4	101.4
m,p-Xylenes	>2	µg/L	2	>2	08/26/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	<1	µg/L	1	<1	08/26/05	8260b	---	0.8	93	109	105.8
Toluene	<1	µg/L	1	<1	08/26/05	8260b	---	2	97.7	104.8	98

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Respectfully Submitted,



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 recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

Report#Lab ID#: 170106	Report Date: 08/29/05
Project ID: 2002-10235	
Sample Name: MW-12	
Sample Matrix: water	
Date Received: 08/23/2005	Time: 11:20
Date Sampled: 08/17/2005	Time: 07:00

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2002-10235  
Sample Name: MW-12

209 [REDACTED] Austin, TX  
[REDACTED] Dr., [REDACTED] TX  
(512) 385-5886 • FAX (512) 385-7411

Report#/Lab ID#: 170106  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	91.2	70-130	---
Toluene-d8	8260b	104	80-127	---

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

**Report #/Lab ID#:** 170106 **Matrix:** water  
**Client:** Environmental Plus, Inc.  
**Project ID:** 2002-10235  
**Sample Name:** MW-12

**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:**

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- 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 (e.g. 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	J	See J-flag discussion above.

**Notes:**

AnalySys Inc.

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**512-444-5896 FAX: 512-447-4766**

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Chain of Custody Form

**ANALYSIS INC.**

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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 Ohness  
**Address:** 2100 Ave. O  
 Eunice,  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	---	11/28/05	8260b(5030/5035)	---	---	---	---	---
Benzene	334	µg/L	2	<2	11/28/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	117	µg/L	2	<2	11/28/05	8260b	---	4.6	110.5	110.7	112.5
m,p-Xylenes	42.1	µg/L	4	<4	11/28/05	8260b	---	2.9	111.8	110.3	112.3
o-Xylene	56.7	µg/L	2	<2	11/28/05	8260b	---	3.5	121.8	116.1	120.4
Toluene	60.3	µg/L	2	<2	11/28/05	8260b	---	9.1	108.1	98.3	106.2

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Richard Elton

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**ONLYS INC.**

Client: Environmental Plus, Inc.  
Attn: Iain Olness

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	111	70-130	---
Toluene-d8	8260b	109	80-127	---

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

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Project ID: 2002-10235 Hugh Gathering  
Sample Name: MW-5

Report#Lab ID#: 173902  
Sample Matrix: water

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

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	11/23/05	8260b(5030/5035)	---	---	---	---	---	---
Benzene	<1	µg/L	1	<1	11/23/05	8260b	J	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	---	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	---	9.1	108.1	98.3	106.2

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Richard Elton

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**CHROMASYS**  
INC.

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

**REPORT OF SURROGATE RECOVERY**

**Surrogate Compound**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	97.2	70-130	---
Toluene-d8	8260b	109	80-127	---

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

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Report# /Lab ID#: 173903  
Sample Matrix: water

Project ID: 2002-10235 Hugh Gathering  
Sample Name: MW-6

## Exceptions Report:

Report #/Lab ID#:	173903	Matrix:	water
Client:	Environmental Plus, Inc.	Attn:	Iain Ohness
Project ID:	2002-10235	Hugh Gathering	
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).

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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 (e.g. 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	J	See J-flag discussion above.
Ethylbenzene	J	See J-flag discussion above.
o-Xylene	J	See J-flag discussion above.

Notes:

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

**REPORT OF ANALYSIS**

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

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Richard Elton

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**CHROMASYS**  
INC.

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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2002-10235 Hugh Gathering  
Sample Name: MW-7

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	99.5	70-130	---
Toluene-d8	8260b	105	80-127	---

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

Report# /Lab ID#: 173904  
Sample Matrix: water

# AnalySys

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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 Ohness  
Address: 2100 Ave. O  
Eunice,  
Phone: (505) 394-3481 FAX: (505) 394-2601

## REPORT OF ANALYSIS

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

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Richard Elton

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**ONOLY5 INC.**

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Client: Environmental Plus, Inc.  
Attn: Iain Olness

Project ID: 2002-10235 Hugh Gathering  
Sample Name: MW-11

Report# / Lab ID#: 173905  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	104	70-130	---
Toluene-d8	8260b	118	80-127	---

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

## Exceptions Report

Report #/Lab ID#:	173905	Matrix:	water
Client:	Environmental Plus, Inc.	Attn:	Iain Olness
Project ID:	2002-10235	Hugh Gathering	
Sample Name:	MW-1.1		

**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
m,p-Xylenes	J	See J-flag discussion above.

Notes:

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

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	11/23/05	8260b(5030/5035)	---	---	---	---	---
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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
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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.

**ONLYS<sup>Y5</sup>**  
INC.

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Client: Environmental Plus, Inc. Attn: Iain Ohnes	Project ID: 2002-10235 Hugh Gathering Sample Name: MW-12	Report# /Lab ID#: 173906 Sample Matrix: water
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**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	106	70-130	---
Toluene-d8	8260b	116	80-127	---

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

## Exceptions Report:

Report #/Lab ID#:	173906	Matrix:	water
Client:	Environmental Plus, Inc.	Attn:	Iain Olness
Project ID#:	2002-10235 Hugh Gathering		
Sample Name:	MW-12		

**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 (e.g. 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	J	See J-flag discussion above.
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:

# AnalySys Inc.

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Houston, TX 77210-4648

## Chain of Custody Form

Company Name		Environmental Plus, Inc.		BOTTLED		ANALYSIS REQUEST	
EPI Project Manager	Iain Oiness	Mailing Address	P.O. BOX 1558	PLAINS ALL AMERICAN PIPELINE, L.P.	ATTN: ENV Accounts Payable PO Box 4648 Houston, TX 77210-4648	OTHER ???	PAH
City, State, Zip	Eunice New Mexico 88231	EPI Phone#/Fax#	505-394-3481 / 505-394-2601	SULFATES (SO <sub>4</sub> <sup>2-</sup> )	TPH 8015M	CHLORIDES (Cl <sup>-</sup> )	pH
Client Company	Plains All American	Facility Name	Hugh Gathering	TCLP	BTEX 8021B	CHLORIDES (Cl <sup>-</sup> )	OTHER ???
Project Reference	2002-10235	EPI Sampler Name	George Blackburn	DATE	TIME	PAH	OTHER ???
		SAMPLE I.D.		MATRIX	PRESERV.	SAMPLING	
LAB I.D.		# CONTAINERS	(G)RAB OR (C)OMP.	SOIL	CRUDE OIL	SLUDGE	ACID/BASE
		WASTEWATER	GROUNDFLOOR	X	X	X	ICE/COOL
173902 1	MW-5	G	X	X	X	X	OTHER:
173903 2	MW-6	G	X	X	X	X	OTHER:
173904 3	MW-7	G	X	X	X	X	OTHER:
173905 4	MW-11	G	X	X	X	X	OTHER:
173906 5	MW-12	G	X	X	X	X	OTHER:
6							
7							
8							
9							
10							
Sampler Relinquished:		Received By:	<i>CJ Reynolds</i>	Time:	Date:	REMARKS:	
Relinquished by:		Received By:	<i>CJ Reynolds</i>	Date:	Time:	E-mail results to: iolness@envplus.net and cjreynolds@paalp.com	
Delivered by:		Sample Cool & Intact	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ASL		Checked By:	
						<i>Temp: 2.1</i>	

APPENDIX II: ABATEMENT PLAN APPROVAL LETTER